SHAPING THE FUTURE

DEUTZ AG Annual Report 2019

DEUTZ GROUP: OVERVIEW

€ million

	2019	2018	Change (%)
New orders	1,654.3	1,952.6	–15.3
Unit sales (units)	211,667	214,776	–1.4
Revenue	1,840.8	1,778.8	3.5
EBITDA	175.5	161.4	8.7
EBITDA (before exceptional items)	166.2	161.4	3.0
EBIT	88.1	82.0	7.4
EBIT (before exceptional items)	78.8	82.0	–3.9
EBIT margin (%)	4.8	4.6	–
EBIT margin (before exceptional items, %)	4.3	4.6	–
Net income	52.3	69.9	–25.2
Net income (before exceptional items)	44.2	69.9	–36.8
Earnings per share (€)	0.43	0.58	–25.9
Earnings per share (before exceptional items, €)	0.37	0.58	–36.2
Total assets	1,301.2	1,249.3	4.2
Non-current assets	619.5	506.2	22.4
Equity	652.4	619.1	5.4
Equity ratio (%)	50.1	49.6	–
Cash flow from operating activities	115.6	97.5	18.6
Free cash flow[1]	–36.6	14.5	–
Net financial position[2]	–15.2	93.7	–
Working capital[3]	293.2	276.2	6.2
Working capital ratio (average, %)[4]	17.4	15.8	–
Capital expenditure[5] (after deducting grants)	86.5	59.1	46.4
Depreciation and amortization	87.4	79.4	10.1
Research and development (after deducting grants)	95.8	85.0	12.7
thereof capitalized	21.7	21.0	3.3
Employees[6] (number as at Dec. 31)	4,906	4,631	5.9

[1] Cash flow from operating and investing activities less interest expense.
[2] Cash and cash equivalents less current and non-current interest-bearing financial debt.
[3] Inventories plus trade receivables less trade payables.
[4] Average working capital at the four quarterly reporting dates divided by revenue for the previous twelve months.
[5] Capital expenditure on property, plant and equipment (including right-of-use assets in connection with leases) and intangible assets, excluding capitalization of R&D.
[6] From 2019 onward, the number of employees is expressed in FTEs (full-time equivalents). The figures for the prior-year period have been restated accordingly.

DEUTZ COMPACT ENGINES

€ million

	2019	2018	Change (%)
New orders	1,268.4	1,638.2	–22.6
Unit sales (units)	164,677	195,259	–15.7
Revenue	1,446.4	1,484.0	–2.5
EBIT	57.7	63.2	–8.7
EBIT margin (%)	4.0	4.3	–

DEUTZ CUSTOMIZED SOLUTIONS

€ million

	2019	2018	Change (%)
New orders	341.7	286.0	19.5
Unit sales (units)	26,048	9,259	181.3
Revenue	362.5	271.2	33.7
EBIT	42.8	32.9	30.1
EBIT margin (%)	11.8	12.1	–

About this report

The 2019 annual report takes an in-depth look at the business performance of the DEUTZ Group and DEUTZ AG from a financial, environmental, and social perspective. It also gives an overview of the strategic and operational highlights of the reporting year. The report covers both financial and non-financial aspects.

Reporting structure

The reporting period covers the 2019 financial year, which began on January 1 and ended on December 31, 2019. To ensure that it is as up to date as possible, this report contains all relevant information that was available by the time that the responsibility statement was issued on March 2, 2020. The consolidated financial statements and group management report have been prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the European Union (EU), and the additional requirements pursuant to the German Commercial Code (HGB).

Further information

In this report, references to further information are shown in gray font and the relevant page number is given. Glossary terms are only shown in gray font; the list of terms can be found in this report. →more information: Glossary, p. 188 References to further information that is available online are also shown in gray font.

Independent audit

The consolidated financial statements prepared by DEUTZ AG – comprising the balance sheet, income statement, statement of comprehensive income, statement of changes in equity, cash flow statement, and notes to the consolidated financial statements – and the group management report were audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft (PwC). →more information: Independent auditor's report, p. 173

This report also contains a combined non-financial statement for DEUTZ AG and the Group that was subjected to a separate review with limited assurance by PwC. →more information: Non-financial report p. 78

The review was conducted in accordance with the International Standard on Assurance Engagements, ISAE 3000 (Revised). →more information: Independent practitioner's report, p. 96

The remit of PwC's audit engagement did not include auditing the online version of the report (apart from the linked PDF documents) or references to external sources, such as the Company's website.

Forward-looking statements

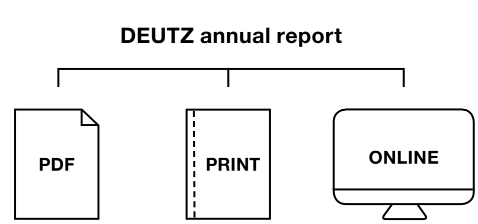
This report includes certain statements about future events and developments, together with disclosures and estimates provided by the Company. Such forward-looking statements include known and unknown risks, uncertainties, and other factors. →more information: Risk report, p. 69

These may mean that the actual future performance, development, and results of the Company, and of sectors important to the Company, are significantly different – in particular, may differ negatively – from those expressly or implicitly assumed in these statements. The Board of Management cannot therefore make any guarantees with regard to the forward-looking statements made in this annual report. →more information: Outlook, p. 74 as well as Outlook for 2022, p.77

Miscellaneous

To improve readability, we do not indicate rounding differences in this report.

The annual report is available in English and German and is published as both a digital and a printed report. The online version contains the complete report. In the printed version, the notes to the consolidated financial statements have been omitted for environmental reasons.



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Highlights of 2019

INNOVATIVE DRIVE SYSTEMS THAT ARE COMPATIBLE WITH DIFFERENT TECHNOLOGIES

DEUTZ prepares the way for a **zero-carbon future** with hydrogen drive systems

E-DEUTZ strategy enhanced with a high-voltage battery management system thanks to the acquisition of Futavis

REVOLUTIONIZING POWER: Innovative portfolio of electric, hybrid, gas, and ultra-modern diesel drives presented at bauma 2019

Torqeedo makes waves with clean drive systems for commercial boats

GROWTH STRATEGY

DEUTZ and SANY sign joint venture agreement and lay foundation stone for a high-performance-engine assembly plant in Changsha

We care. We support. We deliver.
DEUTZ SERVICE.

Expansion and digitalization of service activities

Acquisition of sales and service partner DPS Power Group

SUSTAINABILITY

Opening of DEUTZ Business School at the Zafra site

DEUTZ adopts sustainability strategy called 'Taking Responsibility'

NICOLAUS AUGUST OTTO AWARD

DEUTZ presents the Nicolaus August Otto Award

“Embracing new technologies will be key to the development of the drive solutions of tomorrow. Our objective is to keep moving forward – through innovation, on a global scale, and with a focus on sustainability.”

Dr. Ing. Frank Hiller,
Chairman of the Board of Management

Foreword by the Chairman of the Board of Management

Dear Shareholders,

The world in which we live is changing faster than it has ever changed before. In 2019, we were once again provided with abundant evidence of this. Shareholders, employees, customers, and society in general all rightly expect that a global company such as DEUTZ not only recognizes and accepts this change but is also willing to act accordingly.

We want to shape the future – bringing transport closer to the goal of a zero-carbon future. We see this transition as an opportunity and as a challenge to capitalize on everything that has made DEUTZ great.

A pioneering spirit, strength in innovation, and passion for new technologies are what define DEUTZ. They give us confidence that we can play a part in shaping the future. We took some important steps along this path in 2019, reaching milestones and meeting the first objectives.

For the DEUTZ Group, the focus in 2019 was very much on the implementation of key strategic milestones. Our new China strategy, for example, has completely realigned our presence in the country. Last year, we showed that DEUTZ is 'ready for China' by entering into strategic alliances with local partners and laying the groundwork for a joint venture with the country's biggest engine manufacturer, SANY. We also made good progress with the second element of our growth strategy, in which we are forging ahead with the electrification of drive systems, by acquiring a provider of development services. A further focus in 2019 was on the expansion of our profitable service business, which we strengthened through various acquisitions.

We can also offer a positive report in terms of our financial results. In 2019, we generated revenue in excess of €1.8 billion and achieved an EBIT margin before exceptional items of more than 4 percent – in both cases meeting our targets for the year.

In order to reach targets, however, you need vision above all else. Strength in innovation is the key capability here.

2019 showed once again that the innovative spirit of our Company is what drives us forward. We continue to embrace new technologies as that is what enables us to create the zero-carbon drive solutions of the future.

We see the development of innovative drive systems as our core expertise. Powering machines is what we do and we offer our customers individual solutions that are tailored to their requirements. So it is vitally important that we take up the challenge anew each and every day to demonstrate the innovative strength of our Company. Our objective is to keep moving forward – through innovation, on a global scale, and with a focus on sustainability.

This is why our Company is undergoing a transformation – from a traditional manufacturer of combustion engines to an innovative and modern business that embraces the technologies of the future. Of course, this process will not be completed overnight. But rest assured that the DEUTZ Group is already well on the way. We want to play an active part in shaping and driving forward the future of mobility.

At the heart of this is our E-DEUTZ electrification strategy, which has been a key focus for us since 2018. The acquisition of Futavis, a development services provider for battery management hardware and software, has built on our inhouse capabilities in the key field of battery technology and means we are now able to offer our customers complete battery packs. For us, this means a significant gain in expertise that will benefit our customers and provide another opportunity to demonstrate the capabilities and dynamism of our Company.

In addition to the technological offering, DEUTZ is also growing its international presence. We are showing that we are a global player. Our international growth strategy is currently focused on the Chinese market, which is already the biggest in the world for off-highway applications and is continually expanding. The joint venture with SANY, which we announced had come into effect at the beginning of this year, will significantly expand our presence in the Chinese market. Last year, we quite literally laid the foundation for success there at the new assembly plant for high-performance engines in Changsha. In the initial stage, our plan is to be building around 75,000 new engines at this factory by 2022. We are also in the process of localizing our purchasing activities in China – not only for China itself but also for our European production. The strategy is rounded off by our manufacturing alliance with BEINEI and the expansion of the service business with FAR EAST HORIZON.

When we look back at 2019, it is clear to see that the global expansion of our high-margin service business was an important driver of growth. At the beginning of the year, we further expanded our dealer and service network in the Middle East. The acquisition of our partner in Belgium and the Netherlands, DPS Power Group, meanwhile, strengthened our sales and service network in the Benelux countries and puts us in closer proximity to our customers in western Europe. True to our service slogan ‘We care. We support. We deliver.’, our focus is always on the customer. We want to provide fast and efficient solutions to individual problems. In the reporting year, we therefore particularly focused on digitalization in the form of data transfer and data analysis so that we can offer new services to our customers in the future. Digital services in the field of predictive maintenance are now going through the final tests. The services are aimed at reducing unplanned downtime and thereby lowering operating costs. These innovative concepts are paying off. The volume of revenue generated by the service business rose by 6.8 percent last year.

Our outlook for 2022 originally forecast that revenue in our service business would rise to around €400 million, but we have stepped up our activities in this sector and now hope to reach this revenue target a year earlier, in 2021. The primary drivers here have been the accelerated expansion of our Xchange business, the scaling up of the on-site repair and maintenance service for DEUTZ and third-party engines, and our success in securing new customers such as fleet operators. We also plan to open up new distribution channels for parts and, at the same time, integrate external platforms into our service concept. The expansion of our service activities is therefore an important factor in our growth strategy.

With everything that is going on in the world, the issue of sustainability is becoming increasingly important. An ever-growing global population and the steady march of climate change present society with fundamental challenges. The responsibility for addressing these challenges does not lie exclusively with politicians; business also has a key role to play. It is therefore essential that corporate policy takes greater account of the various aspects of sustainability. We adopted a Group-wide sustainability strategy last year for precisely this reason.

Our objective is to strive for commercial success while fulfilling our corporate, social, and environmental responsibilities.

This ambition is reflected in the name of our new sustainability strategy, ‘Taking Responsibility’. We have set ourselves various targets for 2023 as part of the strategy. They relate to aspects such as the reduction of emissions from our plants and employee engagement and enablement. All these targets are brought together in DEUTZ’s Sustainability Vision for 2023. As an innovative and agile business, we want to play our part in halting climate change. For us, this means promoting the use of alternative or synthetic fuels and thus reducing carbon and nitrogen oxide emissions. Last year, we signed a letter of intent with Munich-based start-up KEYOU regarding collaboration on developing commercially viable, carbon-neutral hydrogen engines for off-highway and on-highway applications and bringing them to production readiness. This represents a further step forward in the advancement of alternative drive technologies and fuels. We believe that this drive solution will complement our electrification strategy and play an integral role in the zero-emission vehicles of the future.

The world of tomorrow needs innovation today. The Nicolaus August Otto Award for innovation, which we presented for the first time in 2019, and our DEUTZ Business School in Zafra, Spain, are two shining examples of how innovative projects and people can be developed and acknowledged. Our efforts in this area have not gone unnoticed on the international stage. Last year, the German-Spanish Chamber of Commerce presented its Excellence Award for 2019 to the DEUTZ Business School. It was a particular honor for us and our Spanish colleagues and a fitting reward for their work.

We can and will achieve further technological progress in 2020. For example, we expect the first products from our E-DEUTZ portfolio to go into volume production by the end of 2020/start of 2021. Nevertheless, we are aware that 2020 will be a year of transition in which we will need to face up to various challenges. These include meeting the start-up costs for our engine production plant in China and our electrification projects. At the same time, however, we will be also be initiating new activities there. After all, the world of transport never stops moving!

Our Company stands for dynamism, strength in innovation, and a pioneering spirit. Every day, we work to put these values into practice in the interests of our customers, business partners, and employees.

In view of the strategic milestones that we have already reached, we believe that we are on track to achieve our medium-term targets, which for 2022 remain as follows: revenue in excess of €2 billion and an EBIT margin before exceptional items of between 7 percent and 8 percent.

Our corporate values, our willingness to embrace new technologies, and our leading position as a provider of efficient, versatile, and compact drive systems mean that DEUTZ is well equipped for the future and for a broad range of challenges, and is a strong partner when it comes to shaping the drive solutions of tomorrow!

Cologne, March 2020

Dr. Ing. Frank Hiller
Chairman of the Board of Management

The Board of Management

Dr. Andreas Strecker
Board of Management member, responsible for finance, human resources, purchasing, and information services

- Born on August 16, 1961 in Rastatt, Germany
- Member of the Board of Management since March 1, 2018; appointed until February 28, 2021

Dr. Ing. Frank Hiller
Chairman of the Board of Management, responsible for technical and head-office functions

- Born on May 23, 1966 in Stuttgart, Germany
- Chairman of the Board of Management since January 1, 2017; appointed until December 31, 2021

Michael Wellenzohn
Board of Management member, responsible for sales, marketing, and service

- Born on November 22, 1966 in Chur, Switzerland
- Member of the Board of Management since March 1, 2013; appointed until December 31, 2023

Dr. Ing. Frank Hiller

Chairman of the Board of Management,
responsible for technical and head-office functions

“Our goal is to become the world’s leading manufacturer of innovative drive systems and a trailblazer of off-highway and marine technology for a zero-carbon future. Day after day, we demonstrate passion and a pioneering spirit as we strive to achieve this.”

“We have set a course that will enable us to be successful over the long term and are thus on track to achieve our medium-term targets by 2022.”

Dr. Andreas Strecker

Board of Management member,
responsible for finance, human resources,
purchasing, and information services

Michael Wellenzohn

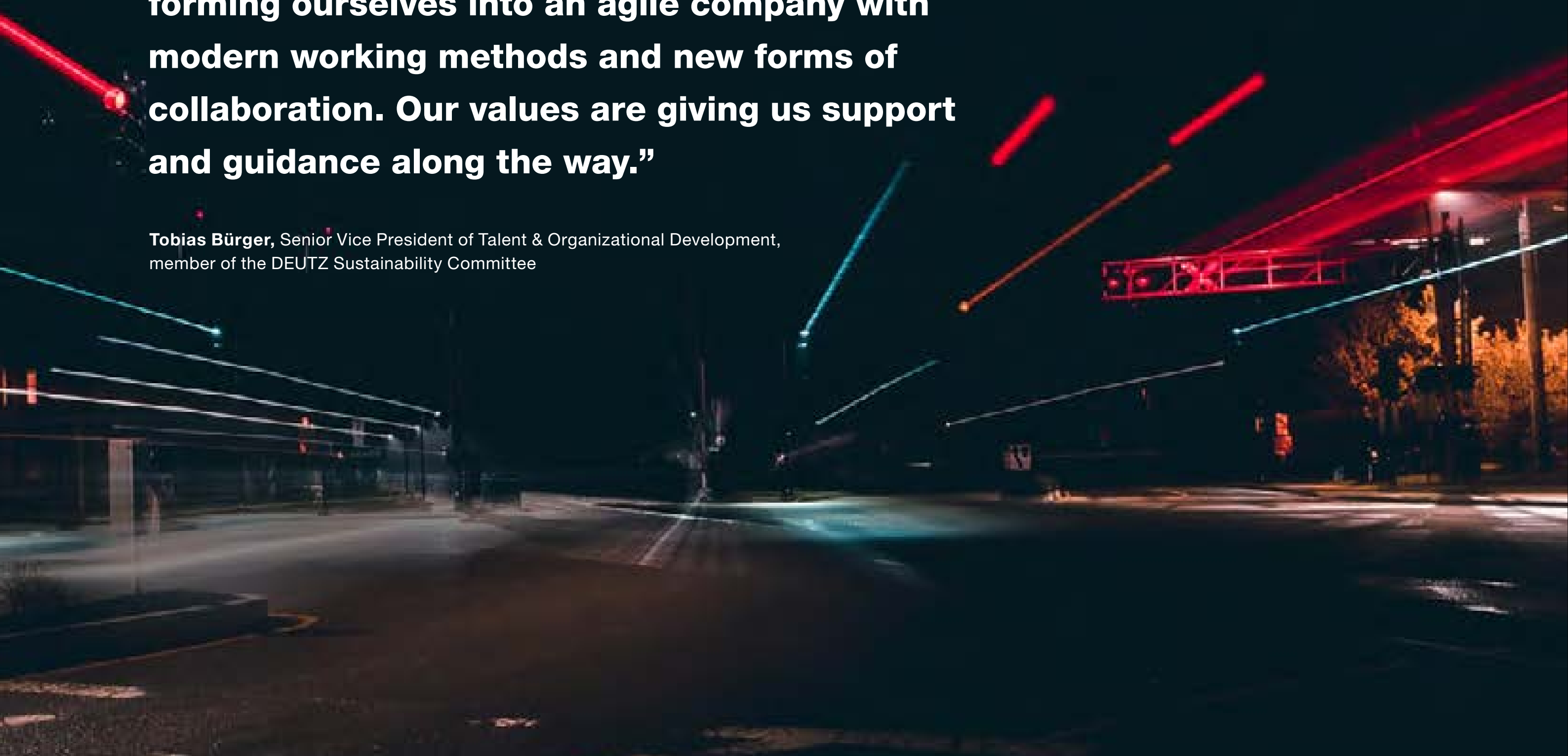
Board of Management member,
responsible for sales, marketing, and service

“We offer our customers customized solutions that are both powerful and affordable. After all, DEUTZ’s utmost priority is to create the maximum benefits for its customers.”

Time for change

"DEUTZ's operating environment is changing, so it is vital that we keep moving. We are transforming ourselves into an agile company with modern working methods and new forms of collaboration. Our values are giving us support and guidance along the way."

Tobias Bürger, Senior Vice President of Talent & Organizational Development, member of the DEUTZ Sustainability Committee



Our five new corporate values

The world is becoming more and more complex, creating new challenges for us day after day. To be able to overcome these, it is vital to have a solid foundation of workable corporate values that will keep us on track in a changing environment. At the end of 2018, we initiated a process to enhance aspects of our tried-and-tested mission statement and to adjust our inner compass for today, in part with the aim of clarifying key questions about how we perceive ourselves: What makes DEUTZ special, what drives us, what is the deeper meaning of our work, and how do we engage with our customers? The answers to these questions are provided by our new corporate values, which we defined in collaboration with our employees and are now putting into practice. After all, employees who identify with their company are a key factor in its success.

We are driven by passion

Our mission is to inspire and think beyond our daily operations. We share, we create, we try ever new ways to achieve our common goals. And we are persistent: We learn from our mistakes and work to succeed.

STAGE V certified ®

Back in 2017, DEUTZ was awarded the world's first EU Stage V certificate for its TTCD 6.1 engine.

DEUTZ was the world's first engine manufacturer to hold an EU Stage V certificate

With its focus on the future, DEUTZ has always been a step ahead with its engines and passionately sought out new ways of effecting change. This is as true today as it was more than a century ago, when the birth of the internal combustion engine laid the foundations for the motorization of the world. And this is demonstrated by the fact that, in 2017, DEUTZ was the world's first engine manufacturer to be awarded a certificate for the **EU Stage V** emissions standard, which came into effect at the start of 2019.

We maintain our pioneering spirit

We act with passion and courage, looking for new ideas and bringing them to life. We shape our industry by thinking ahead and setting trends in global markets. Our customers want innovative and outstanding solutions. And we deliver technologies for a sustainable future. Therefore, we create an environment for entrepreneurs: to embrace digitalization and to constantly enhance our products and procedures.

DEUTZ designs customized drive solutions on the basis of defined parameters, such as application segment, power output, emissions characteristics, and technical basis.

We take ownership

As empowered, responsible individuals, we stand up for our decisions. And as soon as we have made decisions, we move with speed and take smart risks. We want to be held accountable: for our actions, our decisions, and our agreements. We continuously strive to improve ourselves and our Company.

DEUTZ ideas management

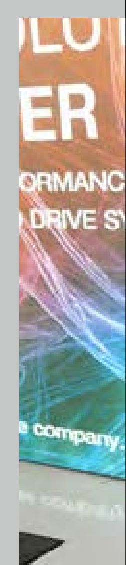
Our ideas management platform enables every employee to make suggestions on how the Company can work more efficiently. The scheme is open to employees in all departments, and their ideas do not have to relate to their own area. Our innovation center illustrates how an employee’s idea has been brought to life and shows that everyone can help our Company to move forward.

We are one team

We join forces – as employees, customers, suppliers, and partners. Everyone is involved, everyone participates. We cooperate with trust, respect, integrity, and transparency. Team members support each other, and we argue in a constructive way.

DEUTZ system days

We use agile methods of product development for our electric and hybrid drives. This involves dividing the overall system into smaller subsystems – such as the drive, battery, and systems control – and then assigning them to different teams. During the system days, which take place every four weeks, the development teams meet to make sure that the results of their work are aligned. Relevant stakeholders from outside these teams also take part. The individual teams hold their own coordination meetings every two weeks. These short intervals enable the teams to respond rapidly to changing parameters, whether they relate to market conditions or customer needs.



1,063

ideas submitted
in 2019

DEUTZ IDEA MANAGEMENT

We value our knowledge

Success is driven by expertise, which is why we undertake lifelong learning to ensure our growth. We always put our knowledge to the test.

DEUTZ pitch event

We launched the DEUTZ pitch event in mid-2019. This involves employees from different departments forming interdisciplinary teams and, during a series of workshops, developing innovative approaches such as for service solutions that incorporate artificial intelligence. Selected innovation teams go through to the second round, the DEUTZ accelerator program, in which the initial idea is developed into a prototype over ten weeks. Its market potential is then evaluated, applying methods used by start-ups and consulting closely with customers.

DEUTZ uses agile working methods.

The team ‘One-Stop Service’ presents its innovative ideas for digitalizing the service business to the judging panel.

Time for responsibility

"A corporate strategy in which sustainability aspects are firmly embedded is not a luxury; it is something that we can benefit from in a myriad of ways."

Leslie Iltgen, Senior Vice President of Communications & Investor Relations, member of the DEUTZ Sustainability Committee

The cornerstones of our sustainability strategy

An ever-growing global population and the steady march of climate change present society with fundamental challenges. The responsibility for addressing these challenges does not lie exclusively with politicians; business also has an important role to play. In 2019, we developed a groupwide sustainability strategy with the aim of linking sustainability matters more closely with the corporate strategy. The name of the strategy, Taking Responsibility, reflects our objective of striving for commercial success while fulfilling our corporate, social, and environmental responsibilities. After all, that is what managing a company responsibly is all about. The targets that we have set ourselves for 2023 are brought together in DEUTZ's Sustainability Vision for 2023. → further information can be found in the non-financial report, p. 78

Social responsibility

As a leading manufacturer of innovative drive solutions, we believe we have a responsibility to society to make products that move us toward a future of locally carbon-neutral off-highway vehicles and marine vessels, thereby helping to stem climate change.

The E-DEUTZ program, initiated in 2017, is one of the main ways in which we are contributing to a future of locally carbon-neutral mobility. To this end, we are developing a scalable range of products with which we can give customers the optimum combination of conventional and electric drives for off-highway and marine applications. These customized solutions reduce carbon emissions, fuel consumption, and overall costs.

Target:

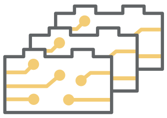
5–10%

of revenue to be generated from electric drives by 2022

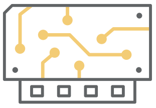
We are making a lasting contribution to a zero-carbon future with our innovative drive solutions.

E-DEUTZ strategy enhanced with high-voltage battery management system

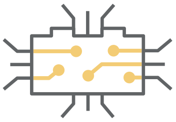
We reached another milestone in our E-DEUTZ strategy in October 2019 when we acquired Futavis, a development services provider for battery management hardware and software solutions. Founded in 2013, the company specializes in high-voltage battery management systems and thus adds to the systems knowledge of our development teams. As a result, DEUTZ now has expertise in all relevant technologies, including electric motors, power electronics, low- and high-voltage batteries, and systems integration. This takes us an important step further toward zero-carbon off-highway drive systems.



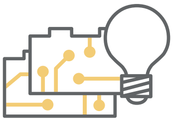
Battery development



Electronics development



Testing services



Functional safety

Sustainability: new life for old engines with DEUTZ XCHANGE®

Another way in which we shoulder our responsibility to society is through our **Xchange** program. Under this program, old engines are professionally remanufactured and wearing parts are replaced with genuine DEUTZ components. At the end of the process, the engines are as good as new and identical to the original ones in every respect. However, they benefit from technological progress because the latest expertise from the manufacturing of new engine parts is incorporated during reconditioning. We thus extend the lifecycle of our products and provide a cost-effective and, above all, environmentally friendly alternative to purchasing a brand-new engine.

DEUTZ offers its customers reconditioned engines and spare parts.

Corporate responsibility

For us, good corporate governance is about much more than just obeying the law. It is also, for example, about ensuring the health and safety of our employees and supporting women in the Company. And it puts the responsibility for these matters on the shoulders of every one of us. This is reflected not only in our corporate values but also in our revised code of conduct, which we brought into line with our new sustainability strategy in 2019. At the same time, we believe that part of our corporate responsibility is to progressively apply our understanding of good corporate governance to our supply chain as well. We therefore developed our first code of conduct for suppliers in the year under review.

Members of the DEUTZ Sustainability Committee discussing the DEUTZ Group's new sustainability strategy.

Target:

20%

reduction in CO_2 emissions at our production sites by 2023

Environmental responsibility

We do not merely strive to make a contribution to protecting the environment and preventing climate change at global level by developing innovative drive solutions. We also see it as our responsibility in this area to continuously optimize the activities associated with our business operations, particularly our production processes, with regard to their impact on the environment and society.

As a manufacturing company in the industrial sector, we focus our efforts around environmental and climate protection on reducing emissions at our production sites. We do this by making greater use of renewable energies, optimizing our existing machinery, and taking other steps to increase efficiency.

Time for innovation

“The engine of innovation at DEUTZ never stands still. As a trailblazer of off-highway and marine drive systems for a zero-carbon future, we are demonstrating our pioneering spirit as we forge ahead with the further development of our innovative products while working to ensure that they are compatible with different technologies.”

Dr. Markus Müller, Senior Vice President of Product Development & Technical Customer Support

Tackling global challenges by ensuring compatibility with different technologies

Our customers want products that are always reliable and powerful, comply with statutory emissions standards and noise limits, and yet are still affordable. And our challenge is to ensure these requirements are met. We have to keep moving if we are to strike the right balance between technical, environmental, and financial objectives. Because different solutions are required for different applications, we develop our portfolio in such a way that our products are compatible with different technologies. This means that we will focus on offering a combination of diesel, gas, hydrogen, petroleum, hybrid, and electric drives.

Revolutionizing power

DEUTZ presents innovative drive systems that are compatible with different technologies at bauma 2019

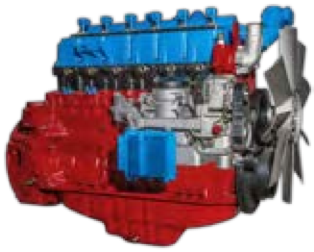
Our industry faces huge challenges. How can future drive systems be both sustainable and powerful and still meet ever tighter regulatory requirements? Our answer is REVOLUTIONIZING POWER. This was the slogan with which we exhibited a broad portfolio of innovative drive systems for the off-highway and marine sectors ranging from diesel and gas to hydrogen, hybrid, and electric solutions for a zero-carbon future. As well as the countless new engine models on display, delegates were able to see our successful E-DEUTZ customer applications in action outside in the grounds of the world's largest trade fair for construction equipment.

Diesel

DEUTZ's **EU Stage V** diesel engines are a standalone power source with compact dimensions. The robust and sophisticated **exhaust aftertreatment** minimizes emissions, thereby helping to protect the environment.

Gas

DEUTZ's gas engines are robust industrial drive systems that offer an environmentally friendly alternative without the need for extensive **exhaust aftertreatment**. They are particularly suitable for forklift trucks and compact construction equipment.



Hydrogen

DEUTZ's hydrogen internal combustion engine enables carbon emissions to be eliminated and represents a cost-efficient alternative to electric drives, fuel-cell drives and other emission-free technology.

Hybrid/ all-electric

The E-DEUTZ product range includes hybrid and all-electric drive systems for **off-highway** applications that reduce both CO_2 emissions and operating costs.

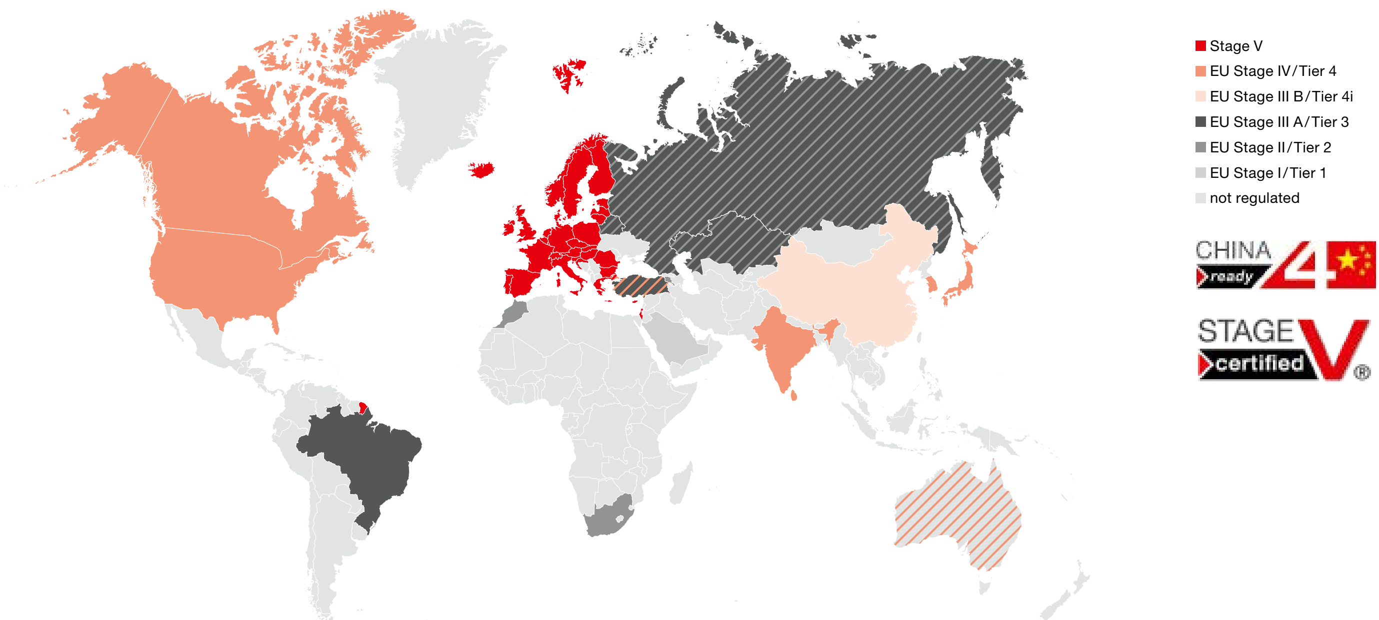
Alternative fuels

In the future, it will be possible to operate DEUTZ's internal combustion engines on a carbon-neutral basis by using synthetic fuels. DEUTZ has already approved its entire TCD engine range up to **EU Stage IV** for operation with these types of alternative fuel.

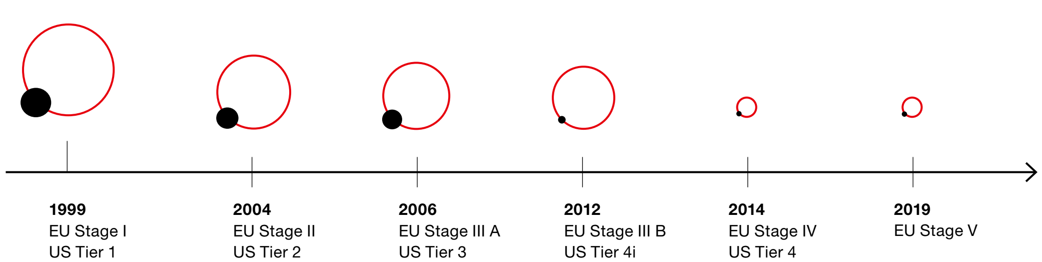
DEUTZ is prepared for the global challenges of tomorrow

To some extent, the impetus for engine development comes from emissions directives and the introduction of new exhaust emissions standards that impose limits on harmful emissions, such as soot particles and nitrogen oxides. Because of this, our development activities are focused on bringing our engines into line with current and future emissions standards, such as **EU Stage V** and China IV, and at the same time developing innovative drive systems that are compatible with a variety of technologies. This enables us to make a lasting contribution to the fight against climate change.

Emissions legislation for mobile machinery in 2020



Reduction of NO_2 and particulate emissions in the off-highway sector



EU Stage V limits the number of particulates for the first time. Reduction between 1999 and 2019:

[1] NO_2 95.7%

[2] Particulate emissions 97.9%

Customer benefits at a glance – innovative customized products from DEUTZ

DEUTZ Board of Management member Michael Wellenzohn demonstrates DEUTZ's modular product system to delegates at the world's largest trade fair for construction equipment.

DEUTZ Advanced Configurator: customized drive solutions

One of the highlights of our appearance at the bauma trade fair was a 3D presentation of our modular product system, in which various engines were configured in real time and then depicted as a 360-degree virtual model. We use the product modules to design drive systems for our customers that are tailored to their requirements regarding application segment, power output, emissions characteristics, and technical basis – whether diesel, gas, hydrogen, hybrid, or electric – and are suited to the operating conditions. This allows our customers to respond quickly and flexibly to technological advances and changing market requirements. At the same time, we can help to protect the environment.

DEUTZ is deploying digital service processes.

DEUTZ Advanced Repair: digitalizing the service business

'We care. We support. We deliver.' was the slogan with which we presented our comprehensive range of services at bauma. Our DEUTZ Advanced Repair service concept helps our customers to react much more quickly, reduce downtime, and lower their costs. For example, mechanics can perform remote engine diagnostics via a tablet. And it takes just a few more taps on the screen to connect to a local service partner via a centralized online platform or to order spare parts at any time of day or night. As well as end customers, this ultimately benefits all parties in the value chain, whether the equipment manufacturer, the service partner, the workshop, or the fleet operator.

DEUTZ is ready for China, the world's largest engine market

China, the world's largest individual market for construction equipment, is growing steadily but also undergoing a fundamental shift. Emissions standards are being tightened, and the government is persistent in its efforts to push ahead with the further development of diesel engines and alternative drives, such as those powered by electricity, sustainable fuels, or hydrogen.

SANY, China's biggest construction equipment group, relies on drive technology from DEUTZ

Our joint venture with SANY, China's largest construction equipment group, is proof positive that we are on course to position ourselves as the ideal technology partner in the Chinese market. We hold a majority stake of 51 percent in the joint venture, which forms part of SANY's intelligent heavy truck project. As well as various **off-highway applications**, we are also taking over the manufacture of heavy-truck engines for SANY. In September 2019, the foundation stone was laid for a high-performance-engine assembly plant in the Chinese city of Changsha. In the first phase, we will manufacture around 75,000 new engines for SANY for off- and on-highway applications in 2022. These engines will comply with the China IV and China 6 emissions standards respectively. There is potential for a larger production volume. To put this into context, we currently supply around 10,000 engines a year in total to China. The province of Hunan supports the setting up of the joint venture and is contributing several tens of millions of US dollars in additional funding to the project.

DEUTZ presents its innovative drive portfolio during the ceremony to lay the foundation stone for the new high-performance-engine assembly plant in Changsha, China.

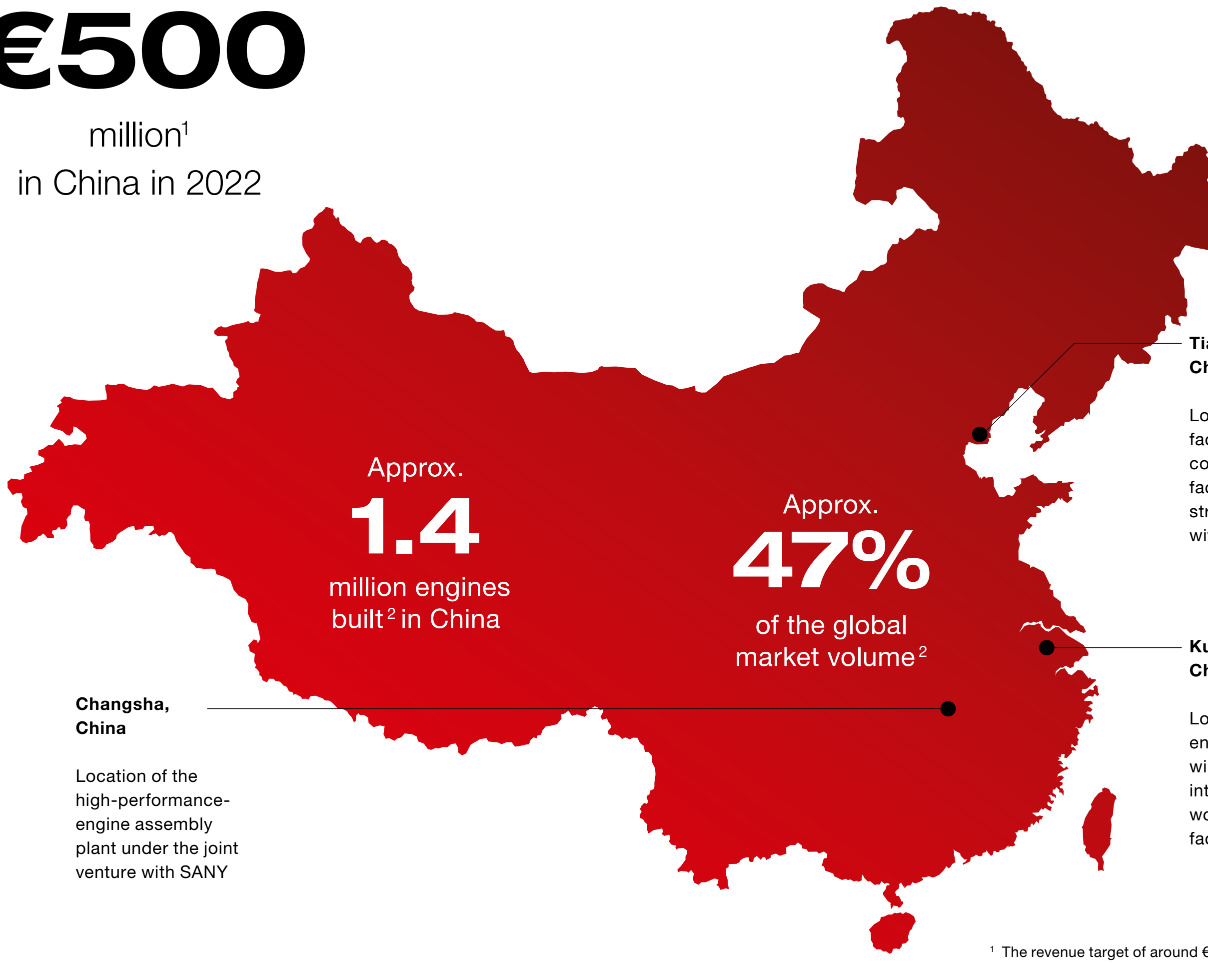
Strengthening expertise through strategic alliances

In addition to our joint venture with SANY, we have also entered into strategic alliances. For example, we plan to start jointly producing engines with engine manufacturer BEINEI in 2020; the DEUTZ management team is to oversee the manufacturing of 20,000 engines at a new factory in Tianjin in 2022. We also want to significantly expand our service business under an alliance with FAR EAST HORIZON, China's largest construction equipment leasing company. Going forward, more than 80 HORIZON sites will also serve DEUTZ customers.

Target:
revenue of approx.

€500

million[1]
in China in 2022



Tianjin, China

Location of the new factory for local contract manufacturing under strategic alliance with BEINEI

Kunshan, China

Location of a SANY engine factory that will be integrated into DEUTZ's network of production facilities in 2020

Changsha, China

Location of the high-performance-engine assembly plant under the joint venture with SANY

[1] The revenue target of around €500 million includes the revenue generated from the joint venture with SANY, which is accounted for using the equity method.

[2] Source: PSR download, January, 2020. Based on the OEM production volume (units) in 2019; power output from 19 to 620 kW, non-captive.

Our partners in China

China's biggest construction equipment group.

China's largest construction equipment leasing company.

China's oldest diesel engine manufacturer.

Report of the Supervisory Board

CLOSE COOPERATION BETWEEN SUPERVISORY BOARD AND BOARD OF MANAGEMENT

In 2019, the Supervisory Board of DEUTZ AG continued its ongoing monitoring of the management of the business in accordance with the requirements of the German Stock Corporation Act (AktG) and the German Corporate Governance Code and provided advice to the Board of Management on key decisions. The Supervisory Board was directly involved in all material decisions made by the Board of Management. In particular, the Board of Management coordinated closely with the Supervisory Board on the Company's corporate strategy.

Dr. Ing. Bernd Bohr
Chairman of the Supervisory Board

A total of four ordinary and two extraordinary meetings of the Supervisory Board were held in 2019. Apologies for absence were received for the meeting on June 7, 2019 (Dr. Ing. Dohle) and for the meeting on September 26, 2019 (Ms. Albrecht); all members of the Supervisory Board participated in all the other meetings in 2019. Furthermore, all members took part in all the meetings of the Supervisory Board committees to which they belonged.

The attendance rates of the individual Supervisory Board members were as follows:

Supervisory Board member	Number of meetings of the Supervisory Board and its committees	Number of meetings attended	Attendance rate (%)
Dr. Ing. Bernd Bohr Chairman of the Supervisory Board	13	13	100
Corinna Töpfer-Hartung Deputy chairwoman of the Supervisory Board	12	12	100
Sophie Albrecht	6	5	83
Sabine Beutert	10	10	100
Yavuz Büyükdag	6	6	100
Dr. Fabian Dietrich	6	6	100
Dr. Ing. Ulrich Dohle	6	5	83
Hans-Peter Finken	6	6	100
Dr. Ing. Hermann Garbers[1]	3	3	100
Patricia Geibel-Conrad	10	10	100
Alois Ludwig	9	9	100
Dr. Dietmar Voggenreiter[2]	4	4	100
Ali Yener	6	6	100

[1] Member of the Supervisory Board until the end of the Annual General Meeting on April 30, 2019.
[2] Member of the Supervisory Board from the end of the Annual General Meeting on April 30, 2019.

At each of the ordinary meetings of the Supervisory Board, the Board of Management reported on the general economic, market, and competitive environment for the DEUTZ Group, presented a business update and sales report that included detailed information on the actual performance of the business over the immediately preceding period, submitted an up-to-date risk report, provided information on key operational issues, and offered an overview of the results forecast for the year as a whole. These reports were made on the basis of the key performance indicators that were already familiar to the Supervisory Board members from the Company's written monthly reports. These key performance indicators included new orders, orders on hand, revenue, unit sales, **EBIT**, research and development expenditure, capital expenditure, **working capital**, quality data, and headcount data, in each case compared against the prior-year figures and budget. Reports from the Human Resources and Audit Committees presented by their chairperson were also a regular item on the agenda of the Supervisory Board meetings.

FOCUS OF SUPERVISORY BOARD DELIBERATIONS

The deliberations and discussions of the Supervisory Board in the year under review focused on the current business position and risk situation of the DEUTZ Group as well as on the operational and strategic development of the business. The latter was the subject of a full-day extraordinary meeting of the Supervisory Board. Particular attention was paid to the China strategy, continued expansion of the E-DEUTZ strategy with the acquisition of Futavis GmbH, expansion of the service business with the acquisition of dealer DPS Power Group in the Netherlands and Belgium, the alliance with Liebherr, the development of new business, and the steps to bring about lasting quality improvements.

Other key decisions concerned the 2020 budget, the medium-term planning up to 2024, and the approval of capital expenditure and development projects. As is the case every year, the Supervisory Board also adopted resolutions concerning the achievement of targets by the Board of Management – and consequently its variable remuneration for the previous year – as well as the setting of its targets and medium-term targets for the current year. The Board of Management ensured that it provided the Supervisory Board with comprehensive, regular, and timely information at all times. Between meetings, the Board of Management informed the members of the Supervisory Board in writing about all important events. In addition, the chairman of the Supervisory Board and the chairman of the Board of Management remained in close and regular contact to discuss all important transactions, imminent decisions, and optimization measures. All the decisions that the Supervisory Board was required to make in accordance with the law and Statutes were made on the basis of the reports and draft resolutions submitted by the Board of Management and, where necessary, following preparation by the relevant committees of the Supervisory Board.

COMPOSITION OF THE BOARD OF MANAGEMENT

The Company's Board of Management consists of three people: Dr. Ing. Frank Hiller (Chairman, responsible for technical and head-office functions), Dr. Andreas Strecker (responsible for finance, human resources, purchasing, and information services), and Mr. Michael Wellenzohn (responsible for sales, service, and marketing).

CORPORATE GOVERNANCE: DECLARATION OF CONFORMITY WITH ONE EXCEPTION

At its meeting on December 12, 2019, the Supervisory Board again held in-depth discussions on the German Corporate Governance Code (DCGK) (version dated February 7, 2017) and, together with the Board of Management, issued a declaration of conformity pursuant to section 161 AktG. This declaration includes only one variance from the Code. Since December 13, 2019, it has been available in the **'Investors/Corporate Governance'** section of the Company's website at **www.deutz.com**, where it can be downloaded.

MATTERS HANDLED EFFICIENTLY BY FOUR COMMITTEES

The Supervisory Board has created four committees to enable it to perform its duties effectively. These committees prepare various topics and resolutions for the full Supervisory Board. Details of all members of the Supervisory Board and its committees, as well as other directorships held by its members, are shown separately on pages 168 to 169 of this annual report. In the reporting year, the Supervisory Board initiated an efficiency audit (article 5.6 DCGK, version dated February 7, 2017) that is being conducted and evaluated by an external consultancy. The results should be available in the first half of 2020.

The members of the Human Resources Committee are Dr. Ing. Bernd Bohr (chairperson), Ms. Corinna Töpfer-Hartung, and Mr. Alois Ludwig. The Human Resources Committee makes preparations for all Supervisory Board decisions concerning the appointment of members of the Board of Management and their contracts of employment, including the remuneration specified therein, and all issues arising in this connection. It particularly focuses on long-term succession planning, which involves identifying suitable candidates at an early stage. In this task, it is supported by external consultants. The committee held two meetings in 2019, both of which were attended by all members of the committee. Among the main matters addressed were the achievement of the Board of Management's targets for 2018 and the setting of Board of Management targets, including medium-term targets, for 2019.

The Audit Committee's members are Ms. Patricia Geibel-Conrad (chairperson), Ms. Sabine Beutert (deputy chairperson), Ms. Corinna Töpfer-Hartung, and Dr. Ing. Bernd Bohr. The committee's main tasks were monitoring the financial accounting process, conducting the preparatory review of the annual and consolidated financial statements and of the combined management report of DEUTZ AG, and discussing the condensed consolidated financial statements and interim management report for the first half of the year and the interim management statements for the first and third quarters with the Board of Management before their publication. The committee held four meetings in 2019, all of which were attended by all the members of the committee and Board of Management and, except on one occasion, by the auditor.

In its meeting on February 25, 2020, which was attended by the Board of Management and the auditor, the Audit Committee examined in detail the annual and consolidated financial statements on the basis of those statements and the combined management report of DEUTZ AG, the proposal for the appropriation of profit, the separate combined non-financial report, the Board of Management report, and the corresponding auditor's reports for 2019. During the meeting, the auditor gave a detailed report on the process and key findings of the audits. The internal control system relating to the accounting system, the early-warning system for risk, the key audit matters, and the defined focus of the audit were discussed in detail; according to the findings of the audits, they did not give rise to any issues. The auditor provided in-depth answers to all further questions. The committee's preparatory review also encompassed DEUTZ AG's separate combined non-financial report. In preparation for the review, the Supervisory Board had engaged PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft to also conduct a review with limited assurance of the non-financial report and to produce a related assurance report. The auditor reported in detail on this review as well. This was followed by an intensive discussion of the main results and findings.

Another of the Audit Committee's tasks was to review the independence and qualification of the auditor and to review the additional non-audit services that it performed. The agreed fees were discussed and preparations for engaging the auditor on December 31, 2019 were made. The focus of the audit was agreed with the auditor.

In 2019, the Audit Committee held in-depth discussions on the situation at suppliers Gusswerke Saarbrücken GmbH and Gusswerke Leipzig GmbH, the course of business at the subsidiaries, and the measurement of investments, goodwill, and intangible assets. Throughout the year, it scrutinized the planned changes to the German Act Implementing the Shareholder Rights' Directive (ARUG II), the revised DCGK, and the resulting legal considerations for DEUTZ AG.

The effectiveness of the risk management system, accounting-related internal control system, and internal audit were also discussed in detail, as were matters related to compliance. In the meeting on April 30, 2019, the Chief Compliance Officer gave a report and answered the Audit Committee's questions. The head of Corporate Audit did the same on July 29, 2019.

The members of the Arbitration Committee are Dr. Ing. Bernd Bohr (chairperson), Ms. Corinna Töpfer-Hartung, Ms. Sophie Albrecht, and Mr. Ali Yener. The Arbitration Committee set up pursuant to section 27 (3) of the German Codetermination Act (MitbestG) is responsible for the activities described in section 31 (3) MitbestG. It did not need to be convened during the year under review.

The members of the Nominations Committee are Dr. Ing. Bernd Bohr (chairperson), Dr. Ing. Hermann Garbers (until April 30, 2019), Ms. Sophie Albrecht (from September 26, 2019), and Mr. Alois Ludwig. The Nominations Committee is tasked with proposing to the Supervisory Board suitable candidates as shareholder representatives on the Supervisory Board. The Nominations Committee met once in 2019. At this meeting, it primarily discussed the election of a successor to Dr. Dr. Ing. Garbers during the 2019 Annual General Meeting.

The entire Supervisory Board was informed of the outcome of all discussions in the committees and gave its approval to the recommendations for board resolutions submitted by the committees.

ANNUAL AND CONSOLIDATED FINANCIAL STATEMENTS AUDITED IN DETAIL AND APPROVED

The annual financial statements of DEUTZ AG prepared by the Board of Management in accordance with the German Commercial Code (HGB), the consolidated financial statements prepared in accordance with International Financial Reporting Standards (IFRS), and the combined management report for DEUTZ AG and the DEUTZ Group, in each case for the year ended December 31, 2019, were audited by PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft, Cologne, Germany, the auditor appointed by the Annual General Meeting on April 30, 2019. The auditor issued unqualified opinions. The annual financial statements of DEUTZ AG, the consolidated financial statements, the combined management report, the Board of Management's proposal for the appropriation of profit, and the auditor's reports were made available to all members of the Supervisory Board and were examined by the Supervisory Board. The auditor explained its audit findings in detail to the Audit Committee meeting held on February 25, 2020 and to the Supervisory Board meeting held on March 5, 2020 and answered any supplementary questions raised. The Supervisory Board approved the findings of the auditor's reports on DEUTZ AG and the DEUTZ Group. The conclusive findings of the Supervisory Board's own review have not led to any reservations about either the annual financial statements or the consolidated financial statements, and the Supervisory Board has therefore approved them. The annual financial statements have thus been adopted. Finally, the Supervisory Board reviewed the separate combined non-financial report in accordance with its obligation pursuant to section 171 (1) sentence 4 AktG. It did not identify any issues. The Supervisory Board also approved the Board of Management's proposal to use the accumulated income reported as at December 31, 2019 to pay a dividend of €0.15 per dividend-bearing share.

COMPOSITION OF THE SUPERVISORY BOARD AND ITS COMMITTEES

In 2019, the following changes were made to the composition of the Supervisory Board: Firstly, the Annual General Meeting on April 30, 2019 elected Dr.Ing. Ulrich Dohle to the Supervisory Board for the remaining term of the other Supervisory Board members, i.e. until the Annual General Meeting in 2023. On December 20, 2018, at the request of the Board of Management and as recommended by the Nominations Committee, the Cologne local court had appointed Dr.Ing. Ulrich Dohle as a shareholder representative on the DEUTZ AG Supervisory Board for the period from January 1, 2019 until the 2019 Annual General Meeting. He succeeded Mr. Hans-Georg Härter, who had stepped down from his post with effect from December 31, 2018. Secondly, the Annual General Meeting on April 30, 2019 elected Dr. Dietmar Voggenreiter as a shareholder representative on the Supervisory Board for the remaining term of the other Supervisory Board members. He succeeded Dr. Ing. Hermann Garbers, who stepped down as a member of the Supervisory Board with effect from the end of the 2019 Annual General Meeting.

Dr. Ing. Bernd Bohr took over from Mr. Härter as chairman of the Supervisory Board on January 1, 2019.

The composition of the Supervisory Board committees changed as follows in 2019: At its meeting on September 26, 2019, the shareholder representatives elected Ms. Sophie Albrecht to succeed Dr. Garbers as a member of the Nominations Committee.

DEUTZ AG supports members when they first join the Supervisory Board and subsequently offers them training and continuing professional development (CPD). Suitable training and CPD measures are regularly discussed by the Supervisory Board members among themselves and also with the Board of Management and the chairman of the Supervisory Board. New members receive comprehensive information on the Company's **corporate governance**. As is customary at DEUTZ AG, Supervisory Board members are given the chance to get to know the Company and the individual departments for themselves. In 2019, for example, Dr. Voggenreiter held in-depth discussions with employees and managers that focused primarily on China-related projects. There were also site visits in Cologne and Ulm.

CONFLICTS OF INTEREST / INDEPENDENCE OF SUPERVISORY BOARD MEMBERS / THANKS

No conflicts of interest between members of the Supervisory Board and DEUTZ AG arose in the year under review. The current members of the Supervisory Board of DEUTZ AG are all considered independent within the meaning of article 5.4.2 sentence 2 of the German Corporate Governance Code.

The Supervisory Board would like to express its thanks and appreciation to all employees of DEUTZ AG in Germany and abroad, to the elected employee representatives, and to the Board of Management for their valuable efforts and the considerable dedication they showed in 2019.

Cologne, March 2020

Dr. Ing. Bernd Bohr
The Supervisory Board

DEUTZ shares

Political disputes, the USA's confrontational trade policy, and the ongoing Brexit process resulted in global stock market volatility in 2019 that, at times, reached considerable levels. However, shares were able to bounce back from a loss-heavy 2018, recording significant price gains compared with the previous year. One of the factors contributing to this recovery is likely to have been the expansionary monetary policy adopted by the US Federal Reserve in response to weaker signals emanating from the economy.

Germany's key DAX index closed at 13,249 points on December 30, 2019, a gain of 25 percent compared with the figure for the end of 2018 of 10,559 points. The SDAX, to which DEUTZ shares belong, rose by 31 percent over the same period and closed at 12,511 points at the end of 2019 (end of 2018: 9,509 points). The DAXsector Industrial, which comprises German industrial companies, climbed by 33 percent, from 5,621 points to 7,501 points.

Volatile but ultimately positive trajectory for the DEUTZ share price Although DEUTZ shares made substantial gains in the early part of 2019, reaching their high for the year of €8.84 on May 3, 2019, they fell sharply as the year progressed and hit their low for the year of €4.86 on August 15, 2019. However, the share price picked up slightly at the end of the year to reach €5.57. As a result, DEUTZ shares went up by 8 percent overall, despite marked price volatility during the year that was predominantly attributable to the slowdown in market growth and associated uncertainties.

Market capitalization stood at €673.2 million at the end of the reporting period.

Key figures for DEUTZ shares

€

	2019	2018
Number of shares as at Dec. 31	120,861,783	120,861,783
Average number of shares	120,861,783	120,861,783
Share price as at Dec. 31	5.57	5.15
Share price high	8.84	8.68
Share price low	4.86	5.02
Market capitalization as at Dec. 31 (€ million)	673.2	622.4
Earnings per share	0.43	0.58

EARNINGS PER SHARE

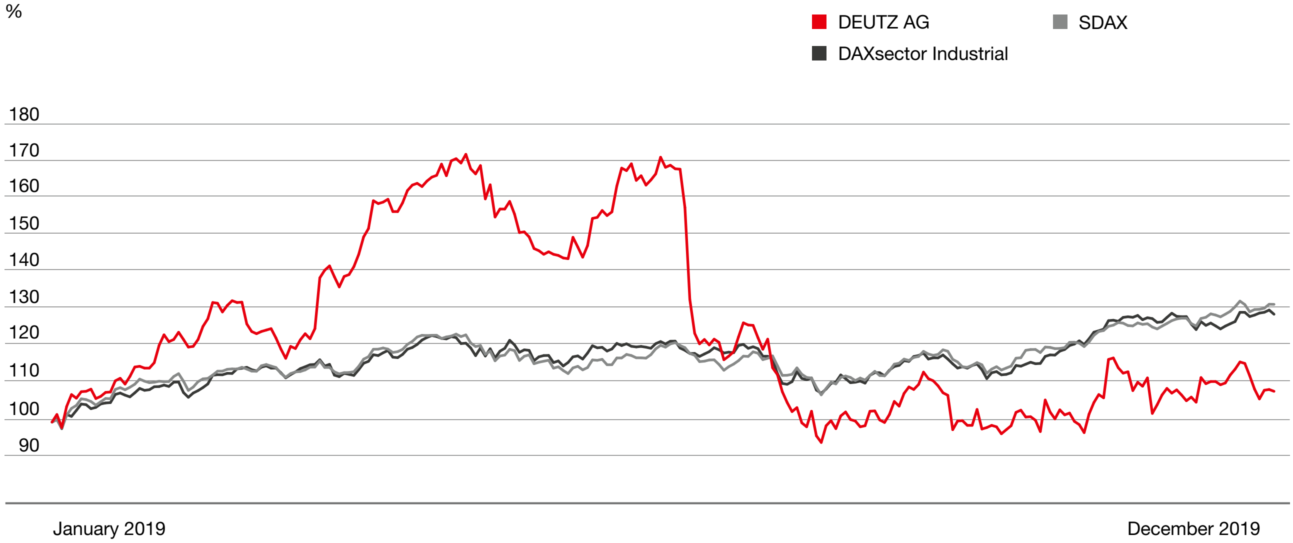
Earnings per share is calculated by dividing the net income for the year attributable to the shareholders of DEUTZ AG by the weighted average number of shares in issue.

Based on the number of shares in issue during the reporting year and net income of €52.3 million, basic earnings per share amounted to €0.43, compared with €0.58 in 2018.

Key data on stock market listing

ISIN	DE0006305006
WKN	630500
Reuters	DEZG.DE
Bloomberg	DEZ:GR
Market segment	Regulated Market/Prime Standard
Index	SDAX
Trading platforms	Xetra, Frankfurt/Main and all other German stock exchanges
Designated sponsor	HSBC Trinkaus & Burkhardt

DEUTZ share price performance in 2019



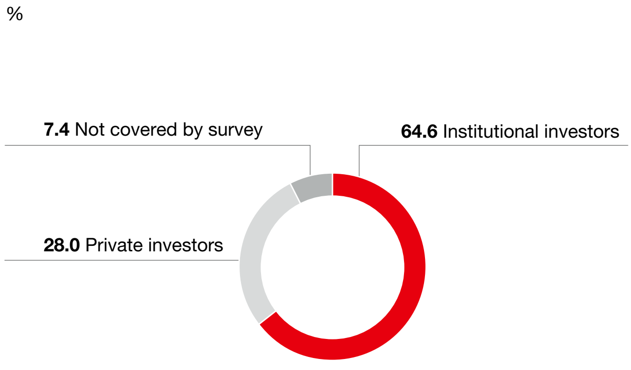
ALL DEUTZ SHARES IN FREE FLOAT

DEUTZ AG has a broadly diversified range of private and institutional shareholders both in Germany and abroad. The majority of the private investors are in Germany. Among the institutional investors, US fund management companies hold the most shares.

At the end of 2019, Union Investment (Germany) held 5.1 percent of DEUTZ shares, while Dimensional Holdings Inc. (USA) held 5.0 percent and Norges Bank (Norway) 4.9 percent.

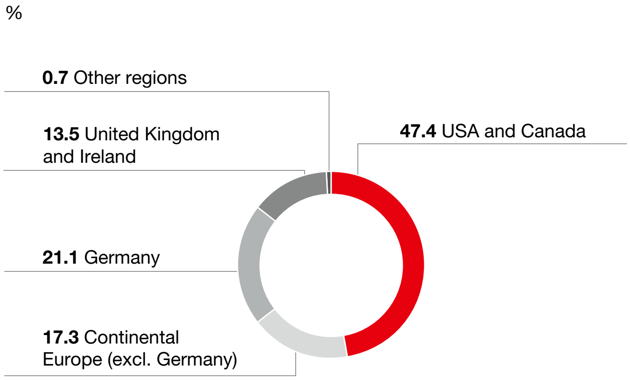
Voting right notifications pursuant to section 40 (1) of the German Securities Trading Act (WpHG) and notifiable managers' transactions in securities pursuant to article 19 of the Market Abuse Regulation (MAR) are published on our website at **www.deutz.com** under Investor Relations.

Shareholder structure as at December 31, 2019[1]



[1] IHS Markit December 2019.

Shareholder structure by country (institutional investors)[1]



[1] IHS Markit December 2019.

DIVIDEND

We strive to fund a significant proportion of our ongoing growth strategy ourselves, that is to say from our own capital. At the same time, we want our shareholders to participate in the success of our Company in the form of an adequate and regular dividend. Under our dividend policy, we aim to distribute 30 percent of net income over a multi-year period to our shareholders.

The Board of Management and Supervisory Board will propose to the Annual General Meeting on May 14, 2020 that accumulated income be used to pay a dividend of €0.15 per share. This would give a dividend ratio of 34.9 percent.

TRANSPARENT CAPITAL MARKETS COMMUNICATIONS

The objective of our investor relations work is to provide all stakeholders with transparent information about current and future developments in the DEUTZ Group and thereby to build long-term trust in our Company and thus its shares. To this end, we undertake to comply with the transparency guidelines in the German Corporate Governance Code, always communicating with shareholders, financial analysts, and all other interested capital market players comprehensively, promptly, and openly.

As in previous years, DEUTZ engaged in intensive dialog with the capital markets in 2019. In addition to producing regular financial reports, we provided details of current business performance and other key developments during conference calls and in periodic investor news publications. The Board of Management and the IR management team were also available for discussions with capital market players in key financial centers in Europe, the USA, and Canada. We were represented at a total of 27 investor conferences and roadshows, which constitutes a significant increase in such activities. The main subjects discussed were the Company's strategic direction, the related prospects for growth arising from the strategy now being pursued in China, implementation of the E-DEUTZ program, and expansion of the high-margin service business.

ANALYSTS' RECOMMENDATIONS

The assessments and recommendations of financial analysts provide a basis for equity investments by private and institutional investors. In 2019, a total of ten banks and securities houses produced regular reports on DEUTZ shares.

Analysts' recommendations[1]

Institution	Date	Target price (€)	Recommendation
Baader Bank	11.11.2019	8.00	Buy
Bankhaus Lampe	26.2.2020	4.80	Hold
Berenberg	6.3.2020	4.50	Hold
Commerzbank	3.3.2020	5.00	Hold
DZ Bank	7.2.2020	4.40	Sell
Hauck & Aufhäuser	4.3.2020	7.30	Buy
HSBC Trinkaus & Burkhardt	11.2.2020	8.50	Buy
Kepler Cheuvreux	4.3.2020	4.00	Hold
Metzler	20.3.2019	9.10	Buy
M. M. Warburg	15.11.2019	7.20	Buy

[1] As at March 6, 2020; references to such recommendations and evaluations are made solely to provide readers with information on a non-binding basis. They do not mean that DEUTZ AG endorses, supports, or confirms the recommendations, opinions, or conclusions of the equity research analysts in any way. DEUTZ AG accepts no liability for the selection of analyst recommendations and assessments reproduced here, nor does it accept any liability for whether they are up to date, complete, or accurate. None of the information provided here should be construed as an offer to buy DEUTZ shares, nor does it constitute marketing for DEUTZ shares. DEUTZ AG's liability for loss or damage suffered by third parties as a result of information provided here is excluded.

Further information and publications on the DEUTZ Group and DEUTZ shares can be found on our website at www.deutz.com.

INDEX FOR MANAGEMENT REPORT

FUNDAMENTAL FEATURES OF THE GROUP

BUSINESS MODEL AND SEGMENTS

DEUTZ is one of the world's leading manufacturers of innovative drive systems. The Company was founded in 1864 and has around 4,900 employees worldwide. Its core competencies are the development, production, and distribution of drive solutions with a power output of up to 620 kW for **off-highway applications**. The current portfolio extends from diesel and gas engines to hybrid and all-electric drives that are used in various 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. The engine specialist also offers a comprehensive range of services through more than 800 sales and service partners in over 130 countries.

The Company's operating activities are divided into three segments: DEUTZ Compact Engines (DCE), DEUTZ Customized Solutions (DCS), and Other.

The DCE segment, which generated around 79 percent of consolidated revenue in 2019, comprises liquid-cooled engines with capacities of up to 8 liters. The DCS segment specializes in liquid-cooled engines with capacities of over 8 liters and in air-cooled drives. It also includes reconditioned exchange engines and parts produced under the name DEUTZ **Xchange**, along with engine series that are soon to be discontinued. The DCS segment's share of revenue in 2019 was around 20 percent. The Torqeedo subsidiary, which focuses on electric-powered watercraft, is included in the Other segment. Also in the Other segment is Futavis, a development service provider that specializes in high-voltage battery management systems and safety engineering. Futavis was acquired in 2019.

MARKET AND COMPETITIVE ENVIRONMENT

Sales of engines based on efficient diesel technology, which is the 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.

We face competition from rival engine suppliers, mainly in western Europe, North America and Asia.

DEUTZ's main competitors by application

Application segments	Applications	Main competitors (in alphabetical order)
Construction Equipment	Excavators Wheel loaders Pavers Mining equipment	Cummins, USA Isuzu, Japan Kubota, Japan Yanmar, Japan
Material Handling	Forklift trucks Telehandlers Lifting platforms Ground support equipment	Cummins, USA Kubota, Japan Perkins, UK VW, Germany
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 Trucks Buses	Cummins, USA Fiat Powertrain, Italy MAN, Germany Mercedes, Germany

STRATEGY AND OBJECTIVES

Our primary objective is to become the world's leading manufacturer of innovative drive systems and a trailblazer of off-highway and marine technology for a zero-carbon future. At the same time, we want to achieve profitable growth and have set ourselves clear medium-term targets with this in mind. We aim to generate revenue in excess of €2 billion by 2022 and increase our EBIT margin before exceptional items to between 7 percent and 8 percent.

Expansion and digitalization of the service business

The expansion of the high-margin service business is a mainstay of our growth strategy. We focus in particular on the digitalization of our service concepts, for example in the diagnosis and interpretation of faults and on the expansion of our Xchange business, where we offer reconditioned engines and spare parts.

Our outlook for 2022 originally forecast that revenue in the high-margin service business would rise to around €400 million, but we have stepped up our activities in this sector and now hope to reach this revenue target a year earlier, in 2021. The primary drivers here have been the accelerated expansion of our Xchange business, the scaling up of the on-site repair and maintenance service for DEUTZ and third-party engines, and our success in securing new customers such as fleet operators. We also intend to open up new distribution channels for parts and, at the same time, integrate external platforms into our service concept.

In addition to investment in our own service centers, we aim to expand our service network by acquiring selected dealers and thereby achieve global coverage.

Further development of the product portfolio

We have a broad product portfolio that is geared to our customers' different needs and is thus being continually refined as requirements and the environment in which we operate change.

Statutory requirements have a significant bearing on the development of our portfolio of drive solutions. Because of this, our development activities are focused on bringing our engines into line with current and future emissions standards. Keeping in mind our primary objective of becoming a trailblazer for a zero-carbon future, we are particularly proactive in promoting the use of drive solutions that offer a more climate-friendly alternative to the classic internal combustion engine.

Halting climate change requires sustainable drive solutions, not only for the on-highway sector but equally for off-highway and marine applications. We strongly believe that electric drive solutions will play a key role in this, This is why we initiated our E-DEUTZ strategy in 2017. Its aim is to develop a scalable portfolio of hybrid and all-electric drives to meet specific customer requirements. Our role is to act as both systems engineering partner and systems integrator. In other words, we supply a harmonized system consisting of an electric motor, battery, power electronics, reduction gear for traction, and work units, along with control software for battery management, functional safety, and actuator logic.

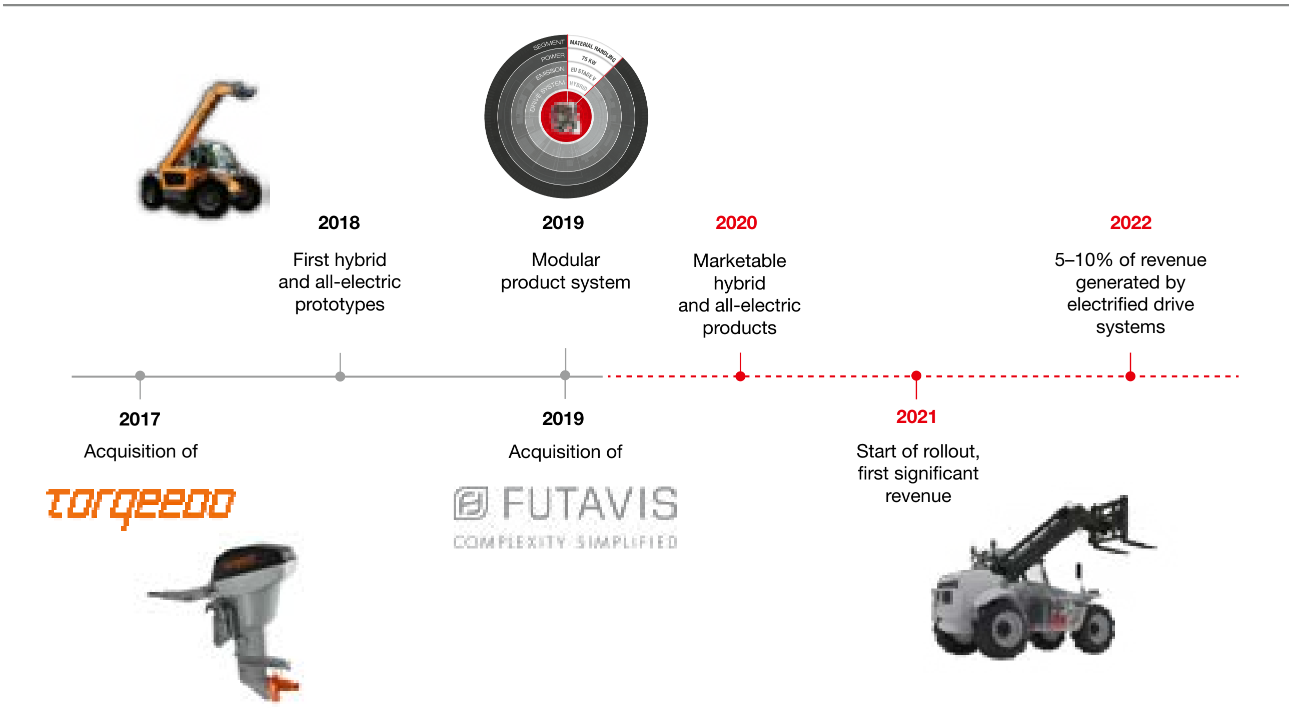
The objective is that electric drive systems should make up between 5 percent and 10 percent of our consolidated revenue by 2022.

In view of the fact that different applications require different drive solutions, we will take a technology-neutral approach as we move forward in the development of our portfolio. This means that we will focus on offering a combination of diesel, gas, petroleum, hydrogen, hybrid, and electric drives.

Regional growth initiatives

The strategic focus of our regional growth initiatives lies in realizing growth potential in Asia, primarily in China, strengthening our market position in the USA, and expanding our network of dealers and service outlets.

E-DEUTZ-Roadmap



China is the world's largest individual market for construction equipment, with a share of around 47 percent[1] of the global engine market. As well as growing steadily, this market is also undergoing a fundamental shift. The Chinese government is introducing increasingly stringent emissions regulations and, at the same time, pressing ahead with advancements in diesel engines as well as alternative drive technologies such as electrification, sustainable fuels, and hydrogen drives. In order to leverage maximum growth potential from these developments, we realigned our business in this region in 2018. Our aim is to generate revenue of around €500 million in China by 2022. This revenue target includes the revenue generated from the joint venture with SANY, which is not included in the consolidated financial statements because the joint venture is accounted for using the equity method. However, the share of profit (loss) is included.

Under our new China strategy, we have established a joint venture with SANY, China's largest engine manufacturer. In this joint venture, we are taking over the manufacture of both construction equipment engines and heavy truck engines for SANY, which means we are expanding into the on-highway segment. We have also entered into strategic alliances in the Chinese market. One of these is with engine manufacturer BEINEI and another is with FAR EAST HORIZON, China's largest construction equipment leasing company. In cooperation with our local partners, we are increasing local production capacity to ensure that we are best placed to meet demand from local customers. We can also tap into an extensive service network that we will systematically enhance with digital solutions.

Process optimization

In addition to the growth initiatives referred to above, we also aim to progressively improve processes in all areas of the Company and thereby boost efficiency. The main focus of our current measures is on optimizing distribution and the global production and procurement network, and on improving quality.

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.

In 2019, DEUTZ set up a joint venture, Hunan DEUTZ Power Co. Ltd., with Chinese construction equipment manufacturer SANY. It also acquired battery specialist Futavis and DPS Power Group, a long-standing sales and service partner with a network of customers in Belgium and the Netherlands. In addition to DEUTZ AG, nine German companies (December 31, 2018: seven) and 20 foreign companies (December 31, 2018: 16) were included in the consolidated financial statements as at December 31, 2019. A complete list of DEUTZ AG's shareholdings as at December 31, 2019 can be found in the annex to the notes to the consolidated financial statements. →more information: Shareholdings of DEUTZ AG, p. 166

JOINT VENTURE

In 2019, DEUTZ and SANY, China's largest construction equipment group, established a joint venture headquartered in Changsha (province of Hunan, China). The joint venture is a manufacturing company named Hunan DEUTZ Power Co., Ltd. and DEUTZ holds the majority (51 percent) of its shares. Hunan DEUTZ Power Co., Ltd. itself holds 100 percent of the shares in an existing SANY engine factory in Kunshan (province of Jiangsu, China) that will be integrated into our network of production sites in the first half of 2020.

Our investment in the joint venture is included in the consolidated financial statements and accounted for using the equity method.

[1] PSR download in January 2020. Based on the OEM production volume (units) in 2019; power output from 19 to 620 kW, non-captive.

INTERNAL CONTROL SYSTEM

The DEUTZ Group defines its budget targets and medium-term corporate targets using selected key performance indicators (KPIs). In order to increase profitability and achieve sustained growth, we manage the Group on the basis of the following financial performance indicators:

		2019	2018
Revenue growth[1]	%	3.5	20.3
EBIT margin (before exceptional items)[1]	%	4.3	4.6
Working capital ratio (average)[1]	%	17.4	15.8
ROCE (before exceptional items)[1]	%	9.0	10.3
R&D ratio[1]	%	5.2	4.8
Free cash flow[1]	€ million	–36.6	14.5

[1] 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.

Revenue growth DEUTZ strives to steadily increase revenue as the basis for the profitable growth of the Company. The level and growth of revenue is determined 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 we use 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. We define exceptional items as significant income generated or expenses incurred outside the scope of the Company's ordinary business activities that are unlikely to recur. Adjusting for exceptional items enables a more accurate comparison of the Company's operating performance over time. The EBIT margin before exceptional items is, like revenue growth, calculated monthly and presented to senior management as part of internal reporting. DEUTZ recognized exceptional items totaling €9.3 million in 2019. This comprised the proceeds from the sale of a small part of the land at the former Cologne-Deutz site, which were recognized in the second quarter of 2019 in accordance with the agreement from 2017 regarding the sale of this land.

Working capital ratio (average) We manage the Company's tied-up capital 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 presented to senior management.

ROCE (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

	2019	2018
Total assets	1,301.2	1,249.3
Cash and cash equivalents	–55.3	–132.8
Trade payables	–180.6	–214.6
Other current and non-current liabilities	–132.0	–90.7
Capital employed	**933.3**	**811.2**
Capital employed (average for the year)[2]	**872.3**	**793.4**
EBIT (before exceptional items)	**78.8**	**82.0**
ROCE (before exceptional items)	9.0%	10.3%

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

R&D ratio As a technology-focused company, we consider the R&D ratio to be one of the most significant performance indicators in our 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 at least once a quarter and is 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. We can thus show 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 at least once a quarter.

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, we operate a sound system of causal analysis to ensure that we minimize risks and make the most of opportunities. Three times a year, we produce an annual forecast for all key performance indicators, which ensures transparency with regard to our business performance.

In addition to the financial performance indicators that form part of the management system described above, we also employ other metrics to measure our 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). Moreover, the Group net income and the DEUTZ AG statutory income in accordance with the German Commercial Code are significant factors for us 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. This annual planning takes 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 operational management.

We specify working capital targets for the individual companies in the DEUTZ Group in order to optimize the capital tied up in the business. These overall figures are then broken down and specific targets for inventories, trade receivables, and trade payables are allocated to the relevant individual employees.

We are pursuing long-term growth objectives. In order to secure the financial basis for this, we have made the management of capital expenditure a central element in the management of tied-up capital: Clearly 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, we use standard investment appraisal methods such as the internal rate of return, the amortization period, the net present value, the impact on the income statement, and cost comparisons. A project with an appropriate budget is only approved if there is a clear positive outcome from this investment appraisal.

RESEARCH AND DEVELOPMENT

The continual development of our drive portfolio is heavily influenced by laws and legislation in the form of emissions restrictions, exhaust emissions standards, and noise regulations. Because of this, our development activities are focused on bringing our engines into line with current and future emissions standards, such as Stage V and China IV. We are also striving to develop innovative drive systems that are compatible with a variety of technologies. As well as expanding our portfolio through our own development activities, we also enter into strategic alliances and acquire other companies.

Stage V certified Since the start of 2019, all engines with outputs up to 56 kW and greater than 130 kW have had to meet the European emissions standard **EU Stage V**. Having been the first engine manufacturer worldwide to obtain an **EU Stage V** certificate in 2017, we went into full production with these engines in 2019. The focus of our activities has thus shifted to upgrading the engines in the 56 to 130 kW output range. **EU Stage V** legislation came into force for these engines on January 1, 2020. We have also developed the TCD 12.0/16.0 series of V engines for **EU Stage V**. It is not currently known whether a further emissions standard will be introduced in the USA.

Ongoing expansion of the product portfolio In 2019, we formed an alliance with Korean firm KUKJE in order to expand our range of engines under 19 kW. This particularly strengthens our position in North America. Furthermore, we are working on expanding our range of gas engines to include 'bi-fuel' engines, i.e. engines that can run on either liquefied petroleum gas or petroleum.

We are also adding a powerful four-cylinder engine to our diesel portfolio. The DEUTZ TCD 5.2, which has a 5.2 liter capacity, is a new derivative of the DEUTZ TCD 7.8 and closes a performance gap in our 4 to 8 liter portfolio. Because of the high level of synergy with our existing 7.8 liter six-cylinder engine, we will be able keep our expenditure on this new development very low.

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As part of our activities relating to larger engines, we plan to add a number of industrial engines at the upper end of the power output range, i.e. 200 to 620 kW. In this context, we will introduce a four-cylinder engine with a capacity of 9 liters and six-cylinder engines with capacities of 12.0, 13.5, and 18.0 liters in collaboration with Liebherr Machines Bulle SA. We produced the first customer prototypes and trialed them in test vehicles in the year under review.

China IV legislation In preparation for the China IV emissions legislation that is due to come into force, we are currently optimizing all engine series with a power output of less than 130 kW. Changes are being made to the technological basis of these engines so that they comply with the emissions limits without requiring an SCR system to reduce nitrogen oxide emissions. We are also planning to develop engines with a power output of more than 130 kW without exhaust gas recirculation specifically for the Chinese market. We currently expect the China IV emissions legislation to be introduced at the end of 2021.

Electric drive solutions The steady march of climate change and the accompanying debate about the traditional, diesel-powered internal combustion engine are accelerating the development of new, alternative technologies. As part of our E-DEUTZ strategy, we are expanding our portfolio to include hybrid and all-electric drive solutions for off-highway and marine applications. The advantages of electric drives include the substantial reduction of fuel consumption and the lowering of operating costs. Moreover, fully electric drives could also pave the way for new applications, for example in enclosed spaces or low-emission zones.

The acquisition of development service provider Futavis, which has technical capabilities in electronics, software, battery technology, battery testing, and functional safety, enabled us to add another key component – high-voltage battery management systems – to our expertise in the development of electric drives in 2019. Preproduction of high-voltage batteries at the Gilching site of our subsidiary Torqeedo commenced in November 2019 in line with the industrialization of the E-DEUTZ products and the expansion of the battery business. Developed and certified by Futavis, the batteries are assembled by Torqeedo and undergo a functional and safety test as part of end-of-line testing. The high-voltage batteries are retrofitted in the electric buses of a major German customer. Full production is set to rise to more than 250 batteries in 2020.

In 2019, we integrated both all-electric drives and hybrid systems into customer vehicles. A modular system for the electrification of our drive systems is being implemented in consultation with our customers. During the reporting period, we identified key customers and began developing the systems for full production. An all-electric drive 360V is the first to be industrialized. Customers have begun to deploy the drive systems, and preproduction is scheduled for late 2020.

Digital services In the reporting year, we particularly focused on digitalization in the form of data transfer and data analysis so that we can offer new services to our customers in the future. Digital services that diagnose and interpret errors and recommend specific courses of action are going through the final tests, as are new digital tools used at the 'point of service'. These are intended to reduce our engines' downtime in the event of a servicing or repair job.

Preliminary development work intensified Exhaustive research and development activities continue to form the basis for our products and digital services. We have recently expanded our activity in the field of alternative fuels in order to reduce reliance on oil. As well as looking at natural gas, we are focusing on hydrogen and on fuels generated from renewable sources, such as biomass. We have made progress on improving the performance and efficiency of hydrogen and methane engines, which can be operated on a carbon-neutral basis with gases produced using renewable energy sources. In 2019, we signed a letter of intent with Munich-based start-up KEYOU regarding expansion of our existing activities. Pilot projects with vehicle manufacturers and end users are currently in the planning stage, with the appearance of the first prototype vehicles scheduled for 2020. →more information: Non-financial report, p. 78

Research and development expenditure (after deducting grants)[1]

€ million (R&D ratio in %)

[1] Research and development expenditure after deducting grants from development partners and subsidies.

R&D spending stepped up significantly Expenditure on research and development (R&D) in 2019 amounted to €98.9 million, compared with €88.7 million in the prior year. After deducting grants received from development partners and subsidies, expenditure rose from €85.0 million in 2018 to €95.8 million. The proportion of capitalized development expenditure after deducting grants amounted to 22.7 percent, or €21.7 million. Due to the expansion of our product range and the stepping up of activities in China, both figures were higher than the forecast of €85 million to €90 million and €15 million to €20 million respectively. The R&D ratio after deducting grants[1] rose from 4.8 percent in the prior year to 5.2 percent in 2019.

R&D spending by the DEUTZ Compact Engines segment after deducting grants came to €76.9 million and that of the DEUTZ Customized Solutions segment came to €11.5 million. The Other segment's spending after deducting grants amounted to €7.4 million.

PRODUCTION AND LOGISTICS

The DEUTZ Group benefits from a global production network with plants in Germany, Spain, Morocco, and the USA.

The realignment of our commercial activities in the world's biggest market for engines will see two new production facilities being constructed in China. An existing plant owned by SANY, our joint venture partner, will also be integrated into the DEUTZ network of production sites during 2020.

In 2019, the main focus of our production and logistics activities across all our sites was concentrated on three areas: establishing measures to enhance quality and increase output, planning the implementation of our China strategy, and setting up a global 'Operations' area of responsibility. This involved the reorganization of our network of production sites with the aim of optimizing the key performance indicators for this area such as product quality, efficiency, production costs, and delivery reliability by taking a fully integrated approach across all value streams. A new dashboard for the Operations area was created in 2019 as part of this approach. This new dashboard is an online platform for automatically recording key performance indicators and making them available in real time. The achievement of specific targets, or our failure to meet them, will become transparent, thus optimizing the management of our plants.

Production sites in Germany

The Cologne and Herschbach plants The DEUTZ Group headquarters in Cologne-Porz, co-located with the assembly plant for series production of engines with capacities of less than 4 liters and between 4 and 8 liters, is the largest site in the Company's production network. The main focus of our activities at the Cologne-Porz site in 2019 was directed toward implementing quality enhancement measures; as a consequence, we saw further improvements to our delivery quality and significant reductions to internal quality costs due to proactive **PDCA**[2] management.

A further milestone was passed at the Cologne-Porz site in September 2019 when quality release was issued for a new **cold test** for engines with capacities of less than 4 liters. Following a lengthy and detailed validation period, selected engine variants can now be tested as regards important quality characteristics such as valve timing and exhaust gas recirculation; diesel fuel savings can also be made and CO_2 emissions reduced.

While 2011 engine series assembly was being relocated from Cologne to Ulm in the first quarter of 2019, preparations were also being made to establish our new assembly system for engines with capacities of less than 4 liters. The aim is for this new system to be taken into use in the first half of 2020.

As regards our mechanical centers of excellence, including the shaft center, which manufactures camshafts and crankshafts in Cologne-Porz, the crankcase manufacturing site in Cologne-Kalk for engines with capacities of between 4 and 7 liters and the facilities for the manufacture and pre-assembly of complex add-on components in Herschbach, we are continuing to work on introducing new methods based on general **lean manufacturing** concepts. Our aim is to progressively optimize our value chain throughput times and thus to permanently improve aspects such as quality, productivity, and costs. By adopting this approach, the average throughput times for orders processed at the shaft center have been shortened by 48 percent over the course of the year.

The Ulm plant The Ulm plant plays a leading role within the DEUTZ AG network of production sites when it comes to small production runs of engines and their components. This plant also processes exchange engines for our DEUTZ Xchange business, which provides our customers with reconditioned engines and spare parts.

The relocation of the 2011 engine series from Cologne to the Ulm plant as part of our site optimization plan took place as scheduled, as did the subsequent ramp-up. Also implemented were the processes for customer-specific applications, an element of our strategic alliance with Liebherr. The Ulm site is thus being systematically developed as our small production run and service site.

[1] The ratio of net development expenditure to consolidated revenue.

[2] Plan Do Check Act.

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Production site in Spain

The Zafra plant This components plant, run by our Spanish subsidiary DEUTZ Spain at its Zafra site, is a center of excellence within our network of production sites; it specializes in the processing and pre-assembly of cylinder heads, crankcases for engines with capacities of less than 4 liters, conrods, and gearwheels. Following the insolvency of a supplier, DEUTZ Spain also took on the processing of the 3.6 liter crankcase in mid-2019 to help meet the high level of demand during the year. In order to increase profitability and, at the same time, to avoid the risk of delivery bottlenecks should external suppliers become insolvent, all 3.6 liter crankcase processing is to be relocated to Zafra in mid-2020.

Another main element of our work in 2019 was the implementation of new pilot projects as part of Industry 4.0, aiming, in particular, at optimizing the quality and efficiency of production processes.

Production sites in the USA

The Atlanta plants As part of the planned expansion of our DEUTZ **Xchange** business and of our value-added production in the USA, a just-in-sequence center was established in 2019 in the immediate vicinity of the Pendergrass production site. As a result, logistics pathways have been shortened, the number of storage sites has been reduced, and additional space for increasing capacity has been created. The assembly infrastructure for ready-to-install drive units, i.e. **powerpacks**, with capacities of up to 18 liters has also been integrated at this site. The next step will be to expand the Xchange engine removal facility; the spare parts logistics facility will also be modified and restructured. At the same time, we will be creating space to start production of 2.9 and 3.6 series Xchange engines.

Production site in Morocco

The Serapino (Casablanca) plant A main feature of the activity at our Moroccan production site during 2019 was the establishment of a new centralized production site for power generation units, otherwise known as **gensets**. Our Magideutz subsidiary's production facilities were moved in mid-2019 from the center of Casablanca to a new plant in Serapino, located in an industrial zone close to the international airport. During the move, the production equipment was thoroughly modernized and the manufacturing processes reorganized, so that the plant now meets the higher quality and workplace safety standards. We have also increased the plant's capacity from an annual figure of around 1,000 to a target capacity of approximately 3,000 **gensets**. The production system now mirrors the DEUTZ **one-piece flow procedure**.

Production sites in China

The Kunshan and Changsha plants Following the signing of a joint venture agreement with SANY in December 2019, we intend to integrate an existing SANY engine plant in Kunshan into our network of production sites in the first half of 2020. At the same time, as part of the joint venture, a new assembly plant for high-performance engines is being constructed not far from SANY's headquarters in Changsha. This plant will supply SANY with around 75,000 new engines in 2022; these engines will comply with the China IV emissions standard for off-highway applications and China 6 for on-highway applications. Construction is scheduled to begin this year and the aim is for the plant to commence operations in the second half of 2021.

The Tianjin plant Under the terms of our strategic alliance with BEINEI for local contract manufacturing, an assembly plant for DEUTZ engines is currently under construction in Tianjin; it should start operating in the second half of 2020. The DEUTZ management team at this new factory in Tianjin will oversee the manufacture of approximately 20,000 new engines for the Asian market in 2022.

PURCHASING AND PROCUREMENT

DEUTZ maintains business relationships with nearly 900 suppliers in around 50 countries. The procurement of production parts is one of our key functions, as our purchasing volume is around €1 billion. We have detailed strategies for the product groups that we buy in the highest volumes, such as injection systems, cast and forged parts, exhaust aftertreatment systems, turbochargers, and controllers. These product group strategies are aligned with our overarching corporate strategy.

Supplier management As the Company's subsidiaries are mainly sales companies, overall responsibility for supplier management lies predominantly with DEUTZ AG as the executive parent company. DEUTZ AG systematically manages its suppliers using a 'supplier cockpit', which assists in monitoring the performance of key suppliers in terms of purchasing, logistics, quality, and other aspects. We also rely on standardized IT-based quality processes, for example APQP and supplier escalation. If we need to take steps such as supplier qualification projects or phase-out projects because a supplier is performing poorly or there are ongoing quality issues, a dedicated steering group discusses and decides on the action to be taken. →more information: Non-financial report, p. 78

Updated purchasing strategy In 2019, we revised the purchasing strategy, which was then signed off by the Board of Management and presented to the Supervisory Board. This will ensure that the strategic projects and objectives for purchasing are firmly aligned with DEUTZ's overarching corporate strategy. A core pillar of this strategy is the expansion of our activities in China. To this end, we have set up a purchasing organization in China, put the necessary purchasing processes in place, and commenced localization activities. Digitalization projects have also been defined and are to take place in the next few years.

Restructuring of non-production purchasing Non-production purchasing, which is responsible for the procurement of goods and services, was restructured and a dedicated team was created within the purchasing organization in 2019 in order to capitalize on synergies in this area. As part of this, the product group structure was reorganized and the procurement principles were revised and extended.

Insolvencies in the supply chain The upheaval in the automotive industry and the resulting increase in the number of insolvencies among component suppliers affected our supply situation in the reporting year. As a result of insolvency proceedings being initiated at Gusswerke Saarbrücken GmbH and Gusswerke Leipzig GmbH in 2019, various measures were needed to maintain the supply of crankcases and cylinder heads. We therefore decided to set up reserve suppliers for these components. This process is scheduled to be completed by mid-2020.

The aforementioned casting suppliers were not the only DEUTZ suppliers to go into insolvency.

In 2019, in order to avoid disruptions to supply, we set up a project team responsible for minimizing and managing risks and supply shortages caused by supplier insolvencies.

Establishment of a purchasing organization in China To support our strategy for China →more information: Strategy and objectives, p. 36 another key activity in 2019 was the setting up of a new purchasing organization for the Chinese market. As part of this, the first localization projects for main and functional components were launched.

Procurement market performance Prices for the commodities cast-iron scrap, iron and steel presented a disparate picture in 2019. Whereas the first quarter of the year saw a modest rise, prices fell again in subsequent months before increasing moderately again toward the end of the year.

Sustainability-oriented supplier development Supplier management has, until now, primarily been focused on the quality of the supplied components, lead times, and commercial conditions. Going forward, it will also increasingly take account of sustainability aspects as part of the implementation of our new sustainability strategy. To this end, we brought in a code of conduct for suppliers and began preparations for, among other things, the introduction of an online assessment platform for global procurement chains that we will use to review the sustainability practices of our suppliers. →more information: Non-financial report, page 78

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EMPLOYEES

Overview of the DEUTZ Group's workforce[1]

Headcount

	Dec. 31, 2019	Dec. 31, 2018
DEUTZ Group	**4,906**	**4,631**
In Germany	3,674	3,432
Outside Germany	1,232	1,199
Thereof		
Non-salaried employees	2,830	2,731
Salaried employees	1,977	1,812
Trainees	99	88
Thereof		
DEUTZ Compact Engines	3,953	3,739
DEUTZ Customized Solutions	761	740
Other[2]	192	152

[1] From 2019 onward, the number of employees is expressed in FTEs (full-time equivalents). The figures for the prior-year period have been restated accordingly.
[2] Including Torqeedo and Futavis.

Further increase in headcount As at December 31, 2019, the DEUTZ Group employed a total of 4,906 people. This year-on-year increase of 275 people, or 5.9 percent, was largely due to the significant expansion of business in the first half of the reporting period. At around 75 percent, the bulk of the Group's workforce is based in Germany. Of the 3,674 employees in Germany, 2,767 work at the Company's headquarters in Cologne.

DEUTZ hires temporary workers and people on fixed-term employment contracts so that it can respond flexibly to any fluctuations in demand. These employees made up almost 5 percent of the Group's workforce as at December 31, 2019. A total of 227 temporary workers were employed at DEUTZ at the end of the year. →more information: Personnel development, p. 86

MACROECONOMIC AND INDUSTRY-SPECIFIC ENVIRONMENT

ECONOMIC ENVIRONMENT

Global growth continues to slow; weakest expansion rate since the financial crisis The growth of the global economy slowed markedly in 2019. At 2.9 percent, world output expanded at its lowest rate since 2009, i.e. since the financial crisis. This is according to the latest estimates of the International Monetary Fund (IMF)[1]. One of the reasons for this continued slowdown was the softening of the industrial sector worldwide. Moreover, the USA's confrontational trade policy fueled global uncertainties, making many companies reluctant to invest. China, whose economic growth had already been losing momentum since 2017, was further impacted by the US-Chinese trade dispute. These adversities particularly weakened global trade, which expanded by just 1.0 percent in 2019 compared with the previous year. Countries that are especially dependent on the global economy, which include many of the emerging markets, saw the greatest decreases in their growth rates.

At 2.3 percent, US economic growth was strong again. The rise in gross domestic product (GDP) was thus 0.6 percentage points lower than in the previous year, but this was because the tax reforms and increase in military spending in 2018 had provided a one-off boost to growth. The effects of the tax reforms steadily declined in 2019. Economic growth was buoyed by consumer spending, because conditions in the labor market remained favorable. The US Federal Reserve lowered interest rates, thereby providing further stimulus for the domestic economy. However, US companies' propensity to invest continued to weaken in 2019.

In the eurozone, growth softened to a rate of 1.2 percent, having reached 1.9 percent in 2018. The individual markets presented an increasingly mixed picture. Whereas heavily export-oriented countries such as Germany suffered sharp falls in growth, countries with a greater focus on their domestic economy (e.g. France) saw their growth decline only slightly. In southern European countries, the significance of delayed catch-up effects in the wake of the eurozone crisis after 2011 continued to diminish.

[1] IMF, 'World Economic Outlook Update', January 2020.

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The Brexit agreement negotiated between the EU and the United Kingdom was approved in the House of Commons in December, which reduced uncertainties about the future relationship. However, a trade agreement still has to be reached.

Industry accounts for a high proportion of Germany's economy and, moreover, the weakness of industry was particularly pronounced in the automotive sector. Consequently, the German economy only narrowly escaped a recession and it continued on the downward trajectory that had begun in mid-2018. Whereas growth stood at 1.5 percent in 2018, it decreased to 0.5 percent in 2019. In the second quarter of 2019, the German economy shrank for the first time since 2013 (by 0.2 percent). The stable growth of the service sector and a labor market that remained robust despite the weak economy helped to prevent a greater degree of contraction.

In 2019, Italy generated very modest growth of 0.2 percent, having grown by only 0.8 percent in the previous year due to its failure to implement reforms and the frailty of its banking sector. By contrast, the Spanish economy expanded by 2.0 percent, although this also represented a slowdown compared with the previous year's growth rate of 2.4 percent.

Overall, growth was more buoyant in emerging markets. At 3.7 percent, they expanded at a faster rate than industrialized countries in 2019. However, their growth rate was still lower than the 4.5 percent achieved in the previous year.

Both China and India again generated strong growth – of 6.1 percent and 4.8 percent respectively – but they too lost some of their momentum. China had expanded by 6.6 percent in 2018, India by 6.8 percent. The trade dispute and punitive tariffs imposed on exports to the USA had a particularly adverse impact on the Chinese economy.

GDP growth[1]

YoY change (%)

	2019	2018
Global	2.9	3.6
Industrialized countries	1.7	2.2
Eurozone	1.2	1.9
Germany	0.5	1.5
Spain	2.0	2.4
Italy	0.2	0.8
USA	2.3	2.9
Emerging markets	3.7	4.5
China	6.1	6.6
India	4.8	6.8

[1] IMF, 'World Economic Outlook Update', January 2020.

INDUSTRY-SPECIFIC ENVIRONMENT

Mixed trend in DEUTZ's customer industries Our assessment, based on the market data currently available to us, is that the individual markets relevant to DEUTZ presented a mixed picture in 2019.

Demand for construction equipment in North America and China rose sharply compared with 2018. The European market, however, having expanded in the preceding years, registered a modest contraction that had been expected due to the cyclical nature of the industry.

Demand for material handling applications across all regions either declined or was weak as a result of the economic conditions.

In Europe and China, demand for agricultural machinery also fell, in part due to persistently low prices for agricultural produce. By contrast, the agricultural machinery market in North America saw modest growth.

DEUTZ customer industries in 2019

Growth (%)

	Europe	North America	China
Construction equipment	–2[1]	+8[1]	+11[2]
Material handling	–4[3]	+1[4]	–3[2]
Agricultural machinery	–2[5]	+1[5]	–5[5]

[1] Off Highway Research Database, September 2019.
[2] CCMA Chinese Construction Equipment Data (January–November 2019).
[3] FEM, 'World Industrial Truck Statistics – Information Sheet Q4 2019'.
[4] PSR, 'OE Link Update Bulletin Q4 2019'.
[5] VDMA, 'Business and Market Development for Agricultural Machinery Worldwide', February 2020.

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BUSINESS PERFORMANCE IN THE DEUTZ GROUP

NEW ORDERS

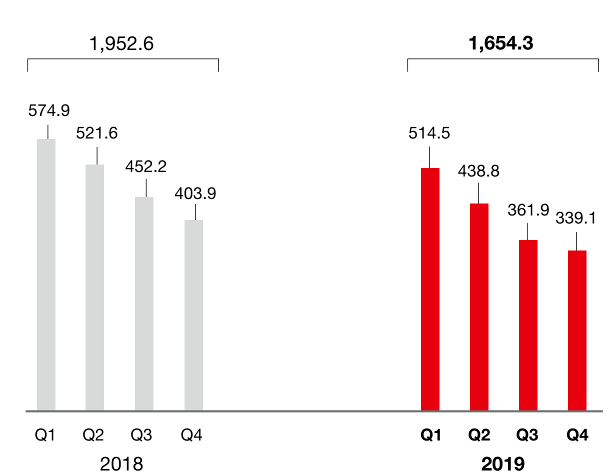
DEUTZ Group: New orders

€ million

New orders reflect a weakening of demand as a result of the economic climate As expected, the level of new orders in 2019 was significantly influenced by a weakening of demand that set in from the end of the second quarter. However, it should be noted that, in 2018, DEUTZ had benefited from the effects – in the order of around 20,000 engines – of spending being brought forward due to the introduction of the **EU Stage V** emissions standard. These effects diminished in 2019, impacting on the year-on-year comparison. At €1,654.3 million, the total volume of new orders was 15.3 percent lower than in the prior year. Demand declined in all the main application segments: by 30.5 percent in Construction Equipment, by 23.0 percent in Stationary Equipment, by 12.1 percent in Material Handling, and by 4.9 percent in Agricultural Machinery. Only the service business maintained its growth trajectory, expanding by 2.6 percent. This was due in particular to sharp increases in the volume of revenue generated by our own service centers and by the **Xchange** business, which offers reconditioned engines and spare parts.

DEUTZ Group: New orders by quarter

€ million



Looking at the fourth quarter of 2019 in isolation, the value of new orders received by DEUTZ fell by 16.0 percent year on year to €339.1 million. This deterioration is primarily attributable to the decrease in new orders in the EMEA and Americas regions, mainly in the Construction Equipment and **Material Handling** application segments.

The level of orders on hand was much lower than at the end of the prior year due to a change in our customers' ordering patterns as a result of negative market assessments, which were caused in part by uncertainty regarding macroeconomic trends and by the reduction in inventories. As at December 31, 2019, orders on hand stood at €253.3 million (December 31, 2018: €438.9 million). In this instance too, a high figure had been reported at the end of 2018 because of a change in our customers' ordering patterns resulting from the aforementioned advance ordering of engines.

UNIT SALES

DEUTZ Group: Unit sales

units

Unit sales slightly lower than in prior year The DEUTZ Group sold a total of 211,667 engines in 2019, which was 1.4 percent fewer than in the prior year. Unit sales increased by a significant 23.7 percent in Agricultural Machinery, but fell sharply in the other main application segments: by 8.1 percent in **Material Handling**, by 10.4 percent in Construction Equipment, and by 15.1 percent in Stationary Equipment.

The breakdown by region presented a mixed picture. In the EMEA region, DEUTZ's biggest sales market, we sold a total of 118,676 engines, 6.6 percent fewer than in the prior year. By contrast, unit sales in the Asia-Pacific region rose by 6.4 percent to 37,742 engines because of an increase in unit sales in Japan. In the Americas, unit sales were up by 5.8 percent to 55,249 engines. The business with electrified boat drives made a particularly important contribution here.

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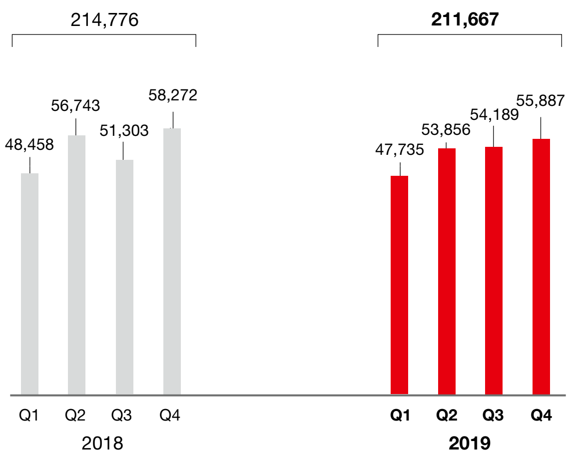
DEUTZ Group: Consolidated unit sales by quarter

units



DEUTZ sold 55,887 engines in the fourth quarter of 2019, which was 4.1 percent fewer than in the equivalent quarter of the prior year. This was mainly due to the decline in unit sales in the EMEA region.

RESULTS OF OPERATIONS

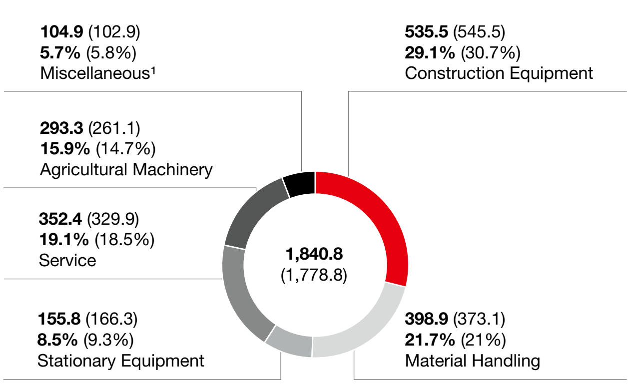
DEUTZ Group: Revenue

€ million

Revenue guidance achieved DEUTZ's revenue rose by 3.5 percent to €1,840.8 million in the reporting period. It therefore achieved its revenue guidance for 2019, which forecast that revenue would increase to more than €1.8 billion.

DEUTZ Group: Revenue and proportion of revenue by application segment

€ million (2018 figures)

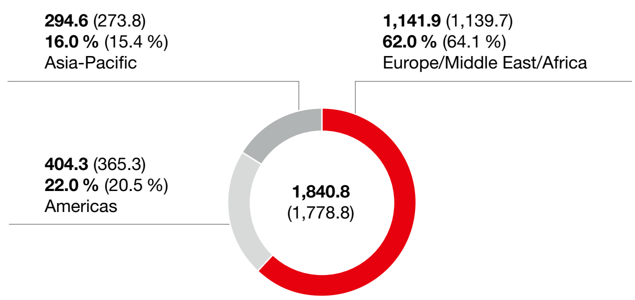


[1] From 2019 onward, the revenue from automotive business is included in the Miscellaneous application segment. Up to and including 2018, it was shown separately. The figures for the prior year have been restated accordingly.

Agricultural Machinery delivered the strongest performance in the breakdown by application segment, registering a double-digit revenue increase of 12.3 percent. Revenue in the **Material Handling** application segment and the high-margin service business was up by 6.9 percent and 6.8 percent respectively. In the Construction Equipment and Stationary Equipment application segments, revenue was down by 1.8 percent and 6.3 percent respectively year on year.

DEUTZ Group: Revenue and proportion of revenue by region

€ million (2018 figures[1])

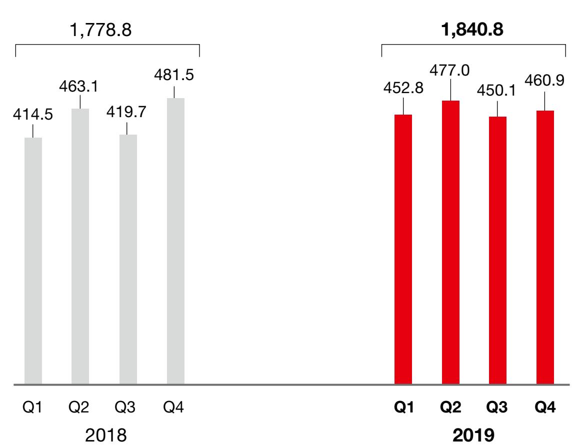


[1] Adjusted due to a change in the regional allocation of the revenue of one big-ticket customer.

All regions contributed to the increase in revenue, with the Americas and Asia-Pacific delivering the strongest growth. In the Americas, DEUTZ grew its revenue by 10.7 percent to €404.3 million. Factors here included the ramp-up of new engine series and the service business with Xchange products. DEUTZ's revenue in the Asia-Pacific region rose by 7.6 percent to €294.6 million, mainly because of revenue growth in China and the expansion of new customer business. In the EMEA region (Europe, Middle East, and Africa), revenue was up by 0.2 percent to €1,141.9 million, which was close to the level achieved in the prior year.

DEUTZ Group: Consolidated revenue by quarter

€ million



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The amount of revenue generated in the first three quarters of the reporting year was higher than in the corresponding period of 2018. However, the general economic slowdown had a significant impact in the final quarter of 2019, when revenue fell by 4.3 percent year on year to €460.9 million.

EARNINGS

Overview of the DEUTZ Group's results of operations

€ million

	2019	2018	Change (%)
Revenue	**1,840.8**	**1,778.8**	**3.5**
Cost of sales	–1,510.5	–1,468.3	2.9
Research and development costs	–95.3	–92.0	3.6
Selling and administrative expenses	–151.8	–145.7	4.2
Other operating income	29.0	40.6	–28.6
Other operating expenses	–24.3	–17.7	37.3
Write-down of financial assets	–1.7	–0.7	142.9
Profit/loss on equity-accounted investments	0.7	–2.2	–131.8
Write-down of equity-accounted investments	0.0	–11.3	–100.0
Other net investment income	1.2	0.5	140.0
EBIT	**88.1**	**82.0**	**7.4**
thereof exceptional items	9.3	0.0	–
EBIT (before exceptional items)	**78.8**	**82.0**	**–3.9**
Interest income	1.0	0.5	100.0
Interest expense	–2.9	–2.4	20.8
Other finance costs	–11.1	0.0	–
Financial income, net	**–13.0**	**–1.9**	**584.2**
Income taxes	–22.8	–10.2	123.5
Net income	**52.3**	**69.9**	**–25.2**

Year-on-year fall in operating profit In 2019, operating profit (**EBIT before exceptional items**) fell by 3.9 percent year on year to €78.8 million. This is because revenue growth was outweighed by negative effects, particularly in connection with the opening of insolvency proceedings at various suppliers and with impairment losses recognized on the capitalized development expenditure on two engine series for reasons related to demand. Effects related to the deconsolidation of joint venture DEUTZ AGCO Motores S.A., Haedo, Argentina, also depressed earnings, as did the recognition of provisions due to a product recall involving Torqeedo companies. Consequently, the EBIT margin before exceptional items fell from 4.6 percent to 4.3 percent in the reporting period and was therefore within the adjusted forecast range of 4 percent to 5 percent, which we published in September 2019. The initial application of IFRS 16 in 2019 did not have any material impact on operating profit.

Because of the decline in operating profit, our internal KPI **return on capital employed** (**ROCE** before exceptional items)[1] fell from 10.3 percent in 2018 to 9.0 percent in the reporting year, which meant we failed to achieve the guidance that we had communicated at the beginning of the year. Based on the original assumption that the EBIT margin before exceptional items would rise to more than 5 percent, we had expected to see another year-on-year increase in **ROCE**.

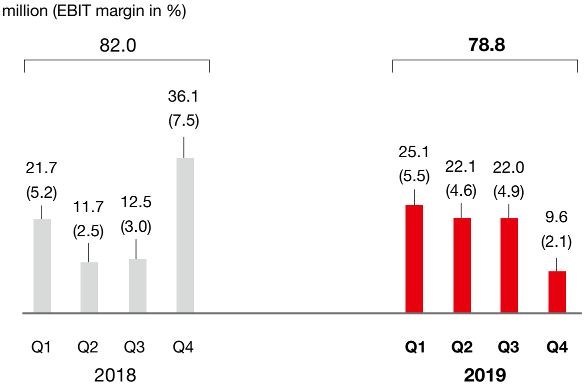
In accordance with the agreement from 2017 regarding the sale of the land at the former Cologne-Deutz site, the proceeds of €9.3 million from the sale of a small part of this land were recognized as an exceptional item in the second quarter of 2019. After taking this exceptional item into account, **EBIT** amounted to €88.1 million for the reporting year, which was 7.4 percent higher than in 2018. The corresponding EBIT margin thus increased from 4.6 percent in the prior year to 4.8 percent.

DEUTZ Group: Operating profit and EBIT margin (before exeptional items)

€ million (EBIT margin in %)

DEUTZ Group: Operating profit (EBIT before exceptional items) by quarter

€ million (EBIT margin in %)



[1] 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.

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Cost of sales The cost of sales rose to €1,510.5 million in 2019 as a result of the growth in the volume of business. This year-on-year increase of 2.9 percent was mainly attributable to the rise in the cost of materials and in staff costs. Despite the aforementioned adverse effects relating to the opening of insolvency proceedings at some of our suppliers, the gross margin[1] improved from 17.5 percent in 2018 to 17.9 percent in the reporting year due to economies of scale and the implementation of cost-saving measures.

Research and development costs In the year under review, research and development costs amounted to €95.3 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. This year-on-year increase of €3.3 million is mainly attributable to impairment losses on capitalized development expenditure totaling €4.5 million. These impairment losses relate to two development projects and were partly offset by the reversal of an impairment loss of €1.4 million on another development project. Both the reversal of the impairment loss and the new impairment losses were the result of changes in market forecasts and cost estimates.

Other operating income Other operating income totaled €29.0 million in 2019, which was €11.6 million lower than in the prior year. This was mainly because the figure for 2018 had been boosted by €15.8 million due to the reclassification of cumulative positive currency translation differences related to the foreign currency reserve. The reclassification had been prompted by the disposal of our shares in the joint venture DEUTZ (Dalian) Engine Co., Ltd., Dalian, China.

Other operating expenses Other operating expenses amounted to €24.3 million in 2019. This year-on-year increase of €6.6 million mainly resulted from the deconsolidation of the joint venture DEUTZ AGCO Motores S.A., Haedo, Argentina, and additions to provisions.

Other finance costs The other finance costs of €11.1 million relate to the write-down of a loan that was granted in 2018 in connection with the change of ownership at our supplier Neue Halberg-Guss GmbH.

Income taxes The income tax expense increased from €10.2 million in 2018 to €22.8 million in the reporting year. This can be broken down into current tax expenses of €13.4 million and deferred tax expenses of €9.4 million. This sharp rise in deferred taxes was mainly due to the reduction in deferred tax assets recognized on loss carryforwards. The reduction resulted from a downgraded earnings expectation for 2020 in view of the economic situation.

Earnings per share Net income decreased by €17.6 million to €52.3 million in the reporting year. **Earnings per share** stood at €0.43 as a result (2018: €0.58). Adjusted for exceptional items, net income fell to €44.2 million. Adjusted earnings per share thus declined from €0.58 in the prior year to €0.37 in 2019.

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

BUSINESS PERFORMANCE IN THE SEGMENTS

DEUTZ Group: Segments

€ million

	2019	2018
New orders		
DEUTZ Compact Engines	1,268.4	1,638.2
DEUTZ Customized Solutions	341.7	286.0
Other	47.8	31.6
Consolidation	–3.6	–3.2
Total	**1,654.3**	**1,952.6**
Unit sales (units)		
DEUTZ Compact Engines	164,677	195,259
DEUTZ Customized Solutions	26,048	9,259
Other	20,942	10,258
Consolidation	0	0
Total	**211,667**	**214,776**
Revenue		
DEUTZ Compact Engines	1,446.4	1,484.0
DEUTZ Customized Solutions	362.5	271.2
Other	35.5	26.8
Consolidation	–3.6	–3.2
Total	**1,840.8**	**1,778.8**
EBIT		
DEUTZ Compact Engines	57.7	63.2
DEUTZ Customized Solutions	42.8	32.9
Other	–21.7	–14.1
Consolidation	0	0
Total	**78.8**	**82.0**

Due to the relocation of production of the 2011 engine series from Cologne-Porz to Ulm, this engine series was reassigned from the DEUTZ Compact Engines (DCE) segment to the DEUTZ Customized Solutions (DCS) segment with effect from January 1, 2019. This explains why the key figures below show a year-on-year deterioration for the DCE segment and a year-on-year improvement for the DCS segment.

In 2019, a total of 18,932 engines in the 2011 series were sold; the contribution to revenue amounted to €87.5 million.

BUSINESS PERFORMANCE IN THE DEUTZ COMPACT ENGINES (DCE) SEGMENT

DEUTZ Compact Engines

	2019	2018	Change (%)
New orders (€ million)	1,268.4	1,638.2	–22.6
Unit sales (units)	164,677	195,259	–15.7
Revenue (€ million)	1,446.4	1,484.0	–2.5
EBIT (€ million)	57.7	63.2	–8.7
EBIT margin (%)	4.0	4.3	–

New orders depressed by general weakness in the market The DEUTZ Compact Engines segment received new orders worth €1,268.4 million in 2019, which was 22.6 percent lower than in the prior year. This was due mainly to the aforementioned reassignment of the 2011 engine series but also to a fall in demand as a result of the overall economic situation. Demand was down significantly in all regions.

Orders on hand amounted to €176.2 million at the end of the year, compared with €360.4 million at the end of 2018.

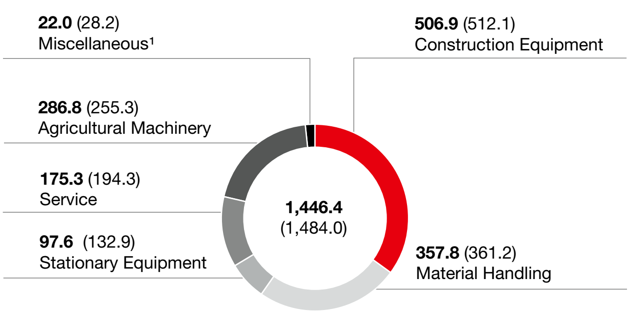
Sharp year-on-year fall in unit sales The DCE segment's unit sales dropped by 15.7 percent to 164,677 engines. Unit sales in all regions fell by a double-digit percentage amount. Unit sales increased by a significant 22.9 percent year on year in Agricultural Machinery, mainly due to the advance ordering of engines that would meet the EU Stage V emissions standard. However, unit sales fell sharply in the other main application segments: by 48.4 percent in Stationary Equipment, by 20.4 percent in Material Handling, and by 11.5 percent in Construction Equipment.

Slight year-on-year fall in revenue The DCE segment generated revenue of €1,446.4 million, which was 2.5 percent less than in the prior year. In the regional breakdown, revenue fell by 3.7 percent to €920.4 million in the EMEA region and by 4.5 percent to €211.4 million in Asia-Pacific region. The Americas region, meanwhile, saw its revenue increase by 2.6 percent to €314.6 million. The breakdown by application segment presents a mixed picture: Revenue in Construction Equipment and Material Handling came to €506.9 million and €357.8 million respectively and was thus close to the level of the prior year. As a result of the reassignment of an engine series, there was a fall in revenue in the service business by 9.8 percent to €175.3 million and in Stationary Equipment by 26.6 percent to €97.6 million. Only Agricultural Machinery saw its revenue increase, by 12.3 percent to €286.8 million, which was attributable to the advance ordering of engines that would meet the EU Stage V emissions standard.

The general decline in demand continued into the final quarter of 2019. Compared with the fourth quarter of 2018, new orders were down by 23.7 percent to €248.9 million, unit sales fell by 22.5 percent to 42,039 engines, and revenue contracted by 8.0 percent to €366.7 million.

DEUTZ Compact Engines: Revenue by application segment

€ million (2018 figures)



[1] From 2019 onward, the revenue from automotive business is included in the Miscellaneous application segment. Up to and including 2018, it was shown separately. The figures for the prior year have been restated accordingly.

DCE's operating profit squeezed by supplier insolvencies and other factors Operating profit for the DCE segment fell by 8.7 percent to €57.7 million in the year under review. In addition to the reassignment of an engine series, this decline is mainly attributable to negative effects in connection with the opening of insolvency proceedings at various suppliers and with impairment losses recognized on the capitalized development expenditure on two engine series for reasons related to demand. The EBIT margin decreased from 4.3 percent in the prior year to 4.0 percent.

BUSINESS PERFORMANCE IN THE DEUTZ CUSTOMIZED SOLUTIONS (DCS) SEGMENT

DEUTZ Customized Solutions

	2019	2018	Change (%)
New orders (€ million)	341.7	286.0	19.5
Unit sales (units)	26,048	9,259	181.3
Revenue (€ million)	362.5	271.2	33.7
EBIT (€ million)	42.8	32.9	30.1
EBIT margin (%)	11.8	12.1	–

Significant year-on-year increase in new orders due to reassignment of 2011 engine series The DEUTZ Customized Solutions (DCS) segment received new orders worth €341.7 million in 2019. This year-on-year increase of 19.5 percent was attributable solely to the reassignment of the 2011 engine series.

Orders on hand amounted to €62.2 million as at December 31, 2019, which was 17.3 percent lower than at the end of 2018.

Exceptional increase in unit sales Unit sales in the DCS segment rose by 181.3 percent to 26,048 engines in the reporting period. This was solely due to the reassignment of the 2011 engine series. which in all regions led to a triple-digit percentage increase in unit sales.

Revenue The DCS segment's revenue rose by 33.7 percent to €362.5 million in 2019. Revenue growth was strongest in the Americas, where it climbed by 58.2 percent to €80.7 million, and in the Asia-Pacific region, where it was up by 57.7 percent to €80.1 million. The EMEA region's revenue increased by 19.1 percent to €201.7 million.

Revenue rose sharply in all our main application segments with the exception of Construction Equipment: by 254.4 percent to €41.1 million in **Material Handling**, by 74.3 percent to €58.2 million in Stationary Equipment, by 30.6 percent to €177.1 million in the service business, and by 12.1 percent to €6.5 million in Agricultural Machinery. Revenue in the Construction Equipment application segment fell by 14.4 percent year on year to €28.6 million.

Positive trend in the fourth quarter due to reassignment of 2011 engine series In the fourth quarter of 2019, new orders in the DCS segment amounted to €74.5 million, which was 5.4 percent higher than in the corresponding period of 2018. In the final quarter of 2019, unit sales rose by 113.2 percent to 5,896 engines and segment revenue rose by 8.3 percent to €86.0 million.

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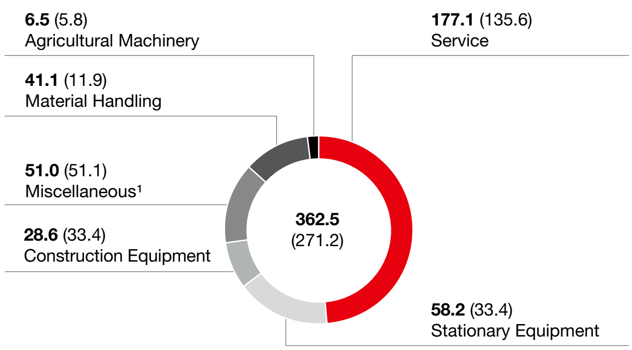
DEUTZ Customized Solutions: Revenue by application segment

€ million (2018 figures)



[1] From 2019 onward, the revenue from automotive business is included in the Miscellaneous application segment. Up to and including 2018, it was shown separately. The figures for the prior year have been restated accordingly.

Operating profit for the segment was significantly higher than in the prior year, jumping by 30.1 percent to €42.8 million. This was primarily attributable to the change in the assignment of the engine series. A factor on the negative side were the impairment losses recognized on capitalized development expenditure that were necessitated by changes in market forecasts and cost estimates. The EBIT margin fell from 12.1 percent in 2018 to 11.8 percent in the reporting year, mainly because of the engine series reassignment.

BUSINESS PERFORMANCE IN THE OTHER SEGMENT

Other

	2019	2018	Change (%)
New orders (€ million)	47.8	31.6	51.3
Unit sales (units)	20,942	10,258	104.2
Revenue (€ million)	35.5	26.8	32.5
EBIT (€ million)	–21.7	–14.1	–53.9
EBIT margin (%)	–61.1	–52.6	–

The Other segment reported an operating loss of €21.7 million in the period under review (2018: operating loss of €14.1 million). One of the reasons for this deterioration was the operating loss reported by Torqeedo, which rose from €13.2 million in 2018 to €17.3 million in 2019 because of a product recall that began in June 2019, and the associated recognition of provisions. Another reason was the deconsolidation of the joint venture DEUTZ AGCO Motores S.A., Haedo, Argentina, for reasons of materiality, as a result of which cumulative negative exchange differences of €2.9 million were reclassified from equity to the income statement.

FINANCIAL POSITION

BASIC PRINCIPLES AND OBJECTIVES OF FINANCIAL MANAGEMENT

Centralized 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

Sufficient liquidity ensured In order to ensure sufficient liquidity, DEUTZ has at its disposal a syndicated, revolving credit facility of €160 million provided by a consortium of banks. This is an unsecured, floating-rate credit line and runs until June 2024. In addition, DEUTZ has an amortizing loan from the European Investment Bank that had a remaining balance of €10.8 million on December 31, 2019. This loan is also unsecured, although the interest-rate risk has been hedged, and is repayable in installments until July 2020.

As part of the contractual agreements for both loans, we have undertaken to comply with certain financial covenants. However, these do not place any restrictions on our ability to pursue growth projects.

We also have further short-term credit lines and make use of loans with subsidized interest rates.

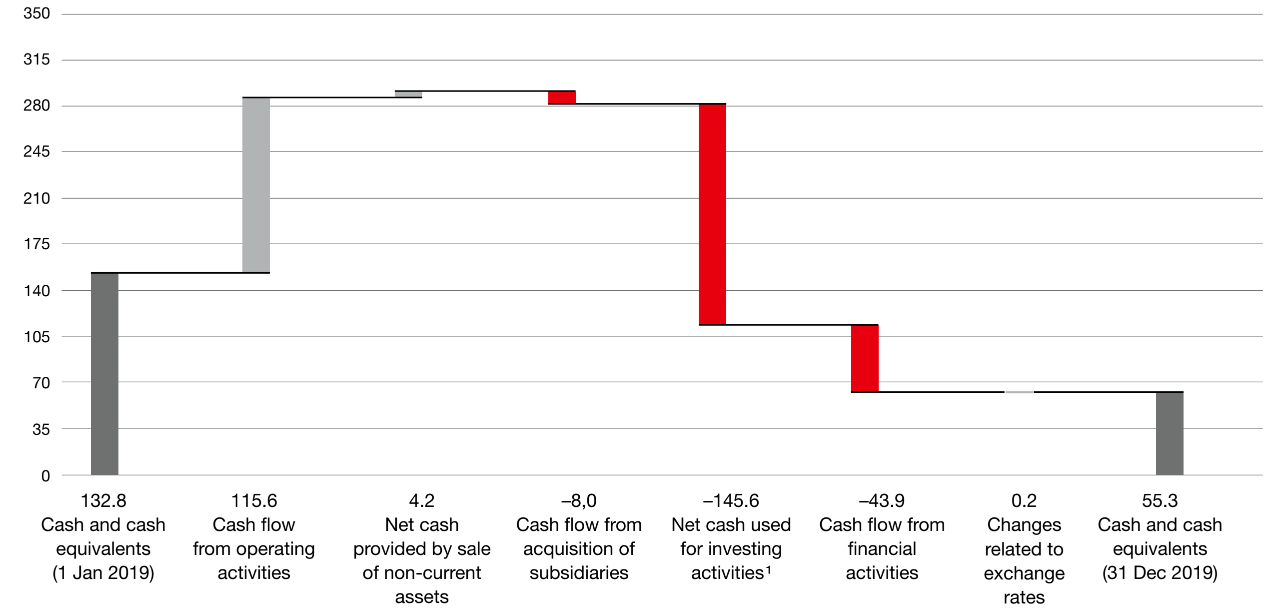
The aforementioned funding instruments ensure that DEUTZ has sufficient funds for its operations and for ongoing and planned projects in the context of its growth strategy.

Receivables management optimized by means of factoring The sale of receivables, known as factoring, is an important way of optimizing receivables management. It enables us to not only ensure sufficient liquidity but also improve our **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 we have granted.

The volume of sales of receivables totaled €136 million as at the balance sheet date, which was similar to the level a year earlier (December 31, 2018: €142 million).

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

	2019	2018	Change (%)
Cash flow from operating activities	115.6	97.5	18.6
Cash flow from investing activities	–149.4	–80.3	86.1
Cash flow from financing activities	–43.9	–28.2	55.7
Change in cash and cash equivalents	**–77.7**	**–11.0**	**606.4**
Free cash flow[1] from continuing operations	**–36.6**	**14.5**	**–352.4**
Cash and cash equivalents at Dec. 31	55.3	132.8	–58.4
Current and non-current interest-bearing financial debt at Dec. 31	70.5	39.1	80.3
Net financial position[2] at Dec. 31	–15.2	93.7	–116.2

[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 €115.6 million in 2019. This year-on-year increase is mainly due to the fact that the rise in working capital was much smaller in 2019 than in 2018.

Net cash used for investing activities stood at €149.4 million in the reporting year. This increase compared with 2018 is primarily attributable to the transfer of the purchase price for the shares in the joint venture with SANY into a trust account and to the acquisition of Futavis and DPS Power Group, but also to an increase in capital spending on property, plant and equipment and on intangible assets.

Cash flow from financing activities amounted to minus €43.9 million in the reporting period. Included in this figure were the payments of interest and principal in connection with leases, which totaled €1.0 million and €13.5 million respectively. Leases have been accounted for in accordance with IFRS 16 'Leases' since January 1, 2019. As a result of this change in accounting treatment, lease payments are now shown as payments of interest and principal under cash flow from financing activities instead of under cash flow from operating activities.

Due to the increase in net cash used for investing activities, free cash flow amounted to minus €36.6 million. This was in line with the most recent forecast, in which it was assumed that free cash flow would be well into negative territory if there was a delay in the payment of the final installment for the sale of the former

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Cologne-Deutz site and, at the same time, the outstanding payments for the purchase of the shares in the joint venture with SANY were made before the end of 2019. The change of accounting treatment to comply with IFRS 16 boosted free cash flow by €13.5 million.

These changes in cash flow during the reporting period caused a decrease in cash and cash equivalents and a deterioration in the net financial position. The net financial position was also heavily influenced by the initial application of the new IFRS 16 'Leases' on January 1, 2019, as a result of which lease liabilities totaling €41.9 million were included in current and non-current financial debt as at December 31, 2019.

CAPITAL EXPENDITURE

After deducting investment grants, overall capital expenditure on property, plant and equipment and on intangible assets rose by €28.1 million to €108.2 million in 2019. This was broken down into €78.6 million (2018: €54.8 million) on property, plant and equipment and €29.6 million (2018: €25.3 million) on intangible assets.

Additions to property, plant and equipment were mainly in connection with replacement investment in tools, equipment and machinery and with the set-up of the new assembly line in Cologne-Porz for engine series with a capacity of less than 4 liters. DEUTZ also invested in new and more efficient testing equipment.

Capital expenditure on intangible assets mainly related to the adaptation of our engines to meet **EU Stage V**, which came into effect at the start of 2019, and the development of the new 2.2 engine series.

Before the capitalization of development expenditure, capital investment rose from €59.1 million in 2018 to €86.5 million in 2019, which was in the range that we had anticipated (€85 million to €95 million). Capitalized development expenditure came to €21.7 million (2018: €21.0 million). This was slightly above the forecast range of €15 million to €20 million because of the increase in activity related to the strategic realignment of our business in China.

The bulk of the total capital expenditure after deducting investment grants – €93.8 million – was invested in the DEUTZ Compact Engines segment (2018: €69.5 million). Capital expenditure in DEUTZ Customized Solutions stood at €12.3 million (2018: €8.4 million). Capital expenditure in the Other segment amounted to €2.1 million (2018: €2.2 million). As in the prior year, this relates to capital expenditure by Torqeedo companies.

In addition to the capital expenditure on property, plant and equipment and on intangible assets, we purchased a 51 percent stake in the joint venture Hunan DEUTZ Power Co., Ltd. and acquired battery specialist Futavis and DPS Power Group. The €48.7 million cost of the investment in Hunan DEUTZ Power Co., Ltd. was accounted for using the equity method. Futavis and DPS Power Group were acquired for a sum of €7.8 million and €8.1 million respectively. Both companies are fully included in the consolidated financial statements of DEUTZ AG. For details of the individual assets and liabilities acquired in connection with these acquisitions, please refer to the notes to the consolidated financial statements. →more information: Notes to the consolidated financial statements, page 104

NET ASSETS

Overview of the DEUTZ Group's net assets

€ million

	Dec. 31, 2019	Dec. 31, 2018	Change (%)
Non-current assets	688.1	582.1	18.2
Current assets	613.1	666.8	–8.1
Assets classified as held for sale	0.0	0.4	–100.0
Total assets	**1,301.2**	**1,249.3**	**4.2**
Equity	652.4	619.1	5.4
Non-current liabilities	225.2	212.3	6.1
Current liabilities	423.6	417.9	1.4
Total equity and liabilities	**1,301.2**	**1,249.3**	**4.2**
Working capital[1] (€ million)	293.2	276.2	6.2
Working capital ratio[2] (Dec. 31, %)	15.9	15.5	–
Working capital ratio[3] (average, %)	17.4	15.8	–
Equity ratio[4] (%)	50.1	49.6	–

[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 The increase in non-current assets was primarily due to the establishment of a joint venture with SANY. DEUTZ AG holds 51 percent of the shares in this manufacturing company, which is called Hunan DEUTZ Power Co., Ltd. The investment is included in the consolidated financial statements and accounted for using the equity method. The acquisition cost for the investment was €48.7 million. Due to initial application of IFRS 16 with effect from January 1, 2019, non-current assets also included right-of-use assets of €41.4 million in connection with leases as at December 31, 2019.

The change in current assets was primarily the result of a decrease in cash and cash equivalents, which was attributable mainly to the acquisitions but also, to a significant extent, to the transfer of the purchase price for the shares in the joint venture with SANY into a trust account. As the trust account does not meet the criteria for the definition of cash, it has been categorized as other current assets.

Working capital Working capital as at December 31, 2019 had increased to €293.2 million. This can be explained by the decrease in trade payables. The working capital ratio as at December 31, 2019 therefore rose to 15.9 percent in spite of the increase in revenue (December 31, 2018: 15.5 percent). The average working capital ratio also went up. It stood at 17.4 percent in 2019, compared with 15.8 percent in the prior year. The average working capital ratio was therefore slightly above the original forecast range of around 16 percent to 17 percent. One of the main reasons for this was that we built up a buffer in our inventories during the year in response to the possibility of supply shortages following insolvencies at suppliers.

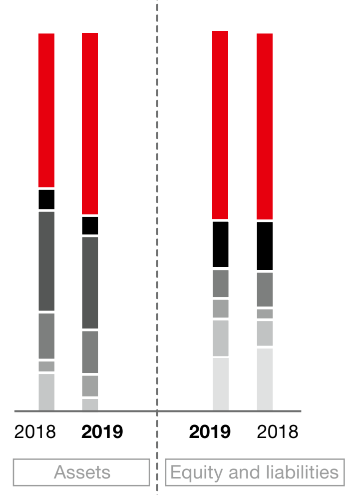
Equity As at December 31, 2019, equity had risen to €652.4 million because of the net income generated in the reporting year. The equity ratio therefore increased to 50.1 percent (December 31, 2018: 49.6 percent) and thus remains well above our target of more than 40 percent.

DEUTZ Group: Balance sheet structure

% (2018 figures)

Assets

47.6	(40.0)	Non-current assets
5.3	(6.1)	Deferred tax assets
24.7	(26.7)	Inventories
11.7	(12.6)	Trade receivables
6.5	(3.5)	Other receivables and assets
4.2	(10.6)	Cash and cash equivalents
0.0	(0.0)	Non-current assets classified as held for sale



Equity and liabilities

50.1	(49.6)	Equity
12.6	(13.3)	Pension provisions
0.1	(0.0)	Deferred tax liabilities
7.8	(9.6)	Other provisions
5.4	(3.1)	Financial liabilities
10.1	(7.2)	Other liabilities
13.9	(17.2)	Trade payables

Liabilities The change in current and non-current liabilities compared with December 31, 2018 was predominantly due to two significant effects. Firstly, the recognition of lease liabilities in connection with initial application of IFRS 16 in 2019 caused current and non-current liabilities to increase by a total of €41.9 million. Secondly, current liabilities include a capital contribution of €48.6 million that is still to be paid into Hunan DEUTZ Power Co., Ltd., our joint venture with SANY. There were countervailing decreases in trade payables and provisions for income taxes.

OVERALL ASSESSMENT FOR 2019

Consolidated revenue rose by 3.5 percent to €1,840.8 million in the reporting period. We therefore achieved our revenue guidance for 2019, which forecast that revenue would increase to more than €1.8 billion.

On September 20, 2019, we announced that the insolvency of a major supplier would have an adverse financial impact, the overall effect of which would be that DEUTZ would no longer be able to achieve its forecast, made in March 2019 with the publication of the 2019 annual report, of at least 5.0 percent for the EBIT margin before exceptional items in 2019. At the same time, we adjusted the forecast for the EBIT margin before exceptional items to a range of between 4 percent and 5 percent. The EBIT margin before exceptional items of 4.3 percent achieved in the reporting year thus puts us in the target range of the adjusted guidance from September.

After deducting grants, R&D expenditure amounted to €95.8 million in 2019, of which €21.7 million was capitalized. Because of the expansion of the portfolio and the increase in activities in China, both figures were higher than the respective forecasts of €85 million to €90 million and €15 million to €20 million.

Capital expenditure on property, plant and equipment and on intangible assets (excluding capitalization of research and development expenditure) increased, in line with expectations, to €86.5 million, which was at the lower end of our forecast range of €85 million to €95 million. The average working capital ratio of 17.4 percent for 2019 was slightly above the original forecast range of around 16 percent to 17 percent. This was mainly because we built up a buffer in our inventories during the year in response to the possibility of supply shortages following insolvencies at suppliers.

Free cash flow amounted to minus €36.6 million in 2019. This was in line with the most recent forecast, in which it was assumed that free cash flow would be well into negative territory if there was a delay in the payment of the final installment for the sale of the former Cologne-Deutz site and, at the same time, we made the outstanding payments for the purchase of the shares in the joint venture with SANY before the end of 2019.

The increase in net income led to a corresponding increase in equity and in the equity ratio. The equity ratio of 50.1 percent was well above our target of a figure significantly higher than 40 percent.

Target/actual comparison for 2019

	Actual 2018	Guidance in March 2019	Guidance in September 2019	November 2019	**Actual 2019**
Revenue	€1,778.8 million	More than €1.8 billion	More than €1.8 billion	More than €1.8 billion	€1,840.8 million
EBIT margin before exceptional items	4.6%	At least 5.0%	4% to 5%	4% to 5%	4.3%
R&D expenditure (after deducting grants)	€85.0 million	€85 million to €90 million			€95.8 million
thereof capitalized	€21.0 million	€15 million to €20 million			€21.7 million
Capital expenditure[1](after deducting grants)	59.1 million	€85 million to €95 million			€86.5 million
Free cash flow[2]	€14.5 million	Negative mid double-digit million euro amount		Significantly into negative territory	–€36.6 million
Average working capital ratio[3]	15.8%	16% to 17%			17.4%
Equity ratio[4]	49.6%	Significantly more than 40%			50.1%

[1] 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.
[2] Cash flow from operating and investing activities less interest expense.
[3] Average working capital at the four quarterly reporting dates divided by revenue for the previous twelve months.
[4] Equity / total equity and 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. At home and abroad, DEUTZ AG has a direct or indirect stake in 36 companies (2018: 31 companies). DEUTZ AG is also by far the largest production company of the DEUTZ Group and provides the head-office functions for the Group. For details of DEUTZ AG's equity investments, please see the section of the annual report containing the list of shareholdings. →more information: Shareholdings of DEUTZ AG, p. 166

Because the business performance of DEUTZ AG and the economic environment in which it operates are essentially the same as for the DEUTZ Group, we make reference here to the combined management report. →more information: Business performance in the DEUTZ Group, p. 47

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, as the relevant variable in the payment of dividends, is also an element of the management system of the Company. The internal management system for the DEUTZ Group is described in the combined management report. →more information: Internal control system, p. 39

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)	**52.3**
Consolidation of equity investments	6.0
DEUTZ AG income (IFRS)	**58.3**
Material differences due to different financial reporting standards	
Recognition of development expenditure	16.6
Measurement of provisions for pensions and other post-retirement benefits	–6.6
Recognition of deferred taxes	–3.4
Other differences relating to the financial reporting standards	0.9
DEUTZ AG net income (HGB)	**65.8**

Overview of DEUTZ AG's results of operations

€ million

	2019	2018	Change
Revenue	**1,632.3**	**1,601.5**	**30.8**
Cost of sales	–1,394.1	–1,371.6	–22.5
Research and development costs	–72.7	–59.9	–12.8
Selling and administrative expenses	–83.3	–82.7	–0.6
Other operating income	35.6	28.3	7.3
Other operating expenses	–31.4	–58.6	27.2
Net investment income	4.4	–5.1	9.5
Write-downs of investments	0.0	–2.5	2.5
Operating profit (EBIT)	**90.8**	**49.4**	**41.4**
Interest expenses, net	–2.5	–5.0	2.5
Income taxes	–21.7	–11.9	–9.8
Other taxes	–0.8	–0.7	–0.1
Net income	**65.8**	**31.8**	**34.0**

Revenue DEUTZ AG's revenue amounted to €1,632.3 million. This year-on-year rise of 1.9 percent was primarily due to increased demand in the Agricultural Machinery and **Material Handling** application segments. Revenue rose by 10.7 percent to €291.4 million in the Agricultural Machinery application segment (2018: €263.2 million) and by 6.6 percent to €350.5 million in the **Material Handling** application segment (2018: €328.7 million).

The Americas delivered the strongest performance among the regions, growing its revenue by 17.6 percent to €309.3 million (2018: €263.1 million[1]). Revenue in the Asia-Pacific region was up by 0.3 percent to €258.2 million (2018: €257.5 million[1]).

Earnings performance In 2019, DEUTZ AG generated an operating profit (EBIT) of €90.8 million, which was more than double the amount generated in 2018. In addition to the higher volume of business, this was mainly because EBIT in the prior year had been depressed by the loss of €40.5 million recognized on the disposal of our stake in DEUTZ (Dalian) Engine Co., Ltd., Dalian, China. Furthermore, proceeds of €9.3 million received from the sale of a small part of the land at the former Cologne-Deutz site were recognized in the reporting year in accordance with the agreement from 2017 regarding the sale of this land.

Cost of sales DEUTZ AG's cost of sales came to €1,394.1 million in 2019. This year-on-year increase of €22.5 million was mainly attributable to the volume-related rise in the cost of materials and staff costs. The gross margin[2] edged up from 14.4 percent to 14.6 percent.

Other operating income Other operating income rose by €7.3 million year on year to €35.6 million. Most of this increase was attributable to the proceeds of €9.3 million received from the sale of a small part of land at the former Cologne-Deutz site that were recognized in the reporting year in accordance with the agreement from 2017 regarding the sale of this land.

Other operating expenses Other operating expenses declined by €27.2 million year on year to €31.4 million. The loss of €40.5 million recognized on the disposal of our stake in DEUTZ (Dalian) Engine Co., Ltd., Dalian, China, was the main factor elevating this figure in the prior year, while the expenses in 2019 included the recognition of provisions resulting from a contractual obligation to the subsidiary DEUTZ Spain. At the end of 2018, DEUTZ Spain had granted a bullet loan of €13.8 million to a supplier. DEUTZ AG had made a commitment to DEUTZ Spain at the same time to compensate for any defaults in connection with the repayment of this loan. Following the opening of insolvency proceedings at the supplier, it is now very likely that this guarantee will be utilized.

Net investment income Net investment income was up on the previous year, rising by €9.5 million to €4.4 million. This was primarily attributable to the much higher earnings of DEUTZ Amerika Holding GmbH. In addition, net investment income in 2018 had been depressed by the losses at DEUTZ Asien Verwaltung GmbH.

Net interest expense Net interest expense amounted to €2.5 million. This year-on-year improvement of €2.5 million resulted mainly from the lower level of interest expense for provisions for pensions and other post-retirement benefits due to a fall in the discount rate. The lower utilization of credit lines meant that interest expense paid to banks also decreased.

Income taxes Income taxes rose by €9.8 million year on year, primarily because of the sharp rise in deferred tax expenses from €1.3 million in 2018 to €13.9 million in 2019. This increase in deferred tax expenses was mainly due to the reduction in deferred tax assets recognized on loss carryforwards. The reduction resulted from a downgraded earnings expectation for 2020 in view of the economic situation.

Net income Net income more than doubled compared with the previous year, rising by €34.0 million to €65.8 million. This was mainly because the figure for 2018 had been depressed by a loss of €40.5 million recognized on the disposal of our stake in DEUTZ (Dalian) Engine Co., Ltd., Dalian, China. Moreover, net income in 2019 was boosted by the proceeds of €9.3 million received from the sale of a small part of the land at our former Cologne-Deutz site. In our guidance published at the beginning of 2019, we predicted a significant increase in net income. We have therefore fully achieved our forecast.

In view of the positive level of net income, the Board of Management and Supervisory Board propose using €18.1 million of the accumulated income to pay a dividend of €0.15 per share.

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.

→ more information: Financial position of the DEUTZ Group, p. 53

[1] The figures for the prior year have been adjusted due to a change in the regional allocation of the revenue of one big-ticket customer.

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

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Overview of DEUTZ AG's financial position

€ million

	2019	2018	Change
Cash flow from operating activities	67.0	96.9	–29.9
Cash flow from investing activities	–142.2	–75.5	–66.7
Cash flow from financing activities	–23.3	–33.7	10.4
Change in cash and cash equivalents	–98.5	–12.3	–86.2
Free cash flow[1]	–74.4	20.2	–94.6
Cash and cash equivalents at Dec. 31	17.2	115.7	–98.5

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

Liquidity Cash flow from operating activities decreased, mainly because of an increase in payments for income taxes, but also because the cash component of operating profit had been higher in 2018. The significant adverse impact on operating profit in 2018 from the loss of €40.5 million recognized on the disposal of our stake in DEUTZ (Dalian) Engine Co., Ltd., Dalian, China, for example, did not affect cash. Net cash used for investing activities was much higher in 2019 than in 2018. This was primarily due to the capital contribution made to DEUTZ China Verwaltungs GmbH for the purchase of shares in the joint venture with SANY and to the acquisitions of DPS Power Group and battery specialist Futavis. Net cash used for financing activities in 2019 was dominated by the dividend payment to shareholders of €18.1 million and the repayment of loans. The decline in net cash used for financing activities relative to 2018 was primarily due to a year-on-year decrease in the repayment of debt. There was a substantial decline in free cash flow, which was mainly the result of the sharp increase in net cash used for investing activities.

Capital expenditure After deducting investment grants, DEUTZ AG's capital expenditure in 2019 amounted to a total of €155.5 million (2018: €86.0 million). This was broken down into €49.3 million (2018: €49.3 million) on property, plant and equipment, €28.9 million (2018: €22.8 million) on intangible assets and €77.3 million (2018: €13.9 million) on investments. Additions to property, plant and equipment were mainly in connection with replacement investment in tools, equipment, and machinery and with the set-up of the new assembly line in Cologne-Porz for engine series with a capacity of less than 4 liters. DEUTZ also invested in new and more efficient testing equipment. Capital expenditure on intangible assets mainly related to the adaptation of our engines to meet the new Stage V emissions standard for Europe and to development of the new 2.2 engine series. The additions to investments consisted primarily of the capital contribution made to DEUTZ China Verwaltungs GmbH for the purchase of shares in the joint venture with SANY and the acquisitions of DPS Power Group and battery specialist Futavis. In addition, the capital of the DEUTZ Shanghai subsidiary was increased.

NET ASSETS

Overview of DEUTZ AG's net assets

€ million

	Dec. 31, 2019	Dec. 31, 2018	Change
Non-current assets	669.9	565.5	104.4
Current assets	419.8	523.3	–103.5
Prepaid expenses	1.8	1.7	0.1
Deferred tax assets	70.0	83.8	–13.8
Total assets	**1,161.5**	**1,174.3**	**–12.8**
Equity	690.4	642.7	47.7
Provisions	257.1	266.7	–9.6
Liabilities	213.1	264.3	–51.2
Deferred income	0.9	0.6	0.3
Total equity and liabilities	**1,161.5**	**1,174.3**	**–12.8**
Working capital[1] (€ million)	86.8	92.8	–6.0
Working capital ratio[2] (Dec. 31, %)	5.3	5.8	–0.5
Equity ratio[3] (%)	59.4	54.7	4.7

[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] Equity/total equity and liabilities.

Non-current assets Compared with the end of 2018, non-current assets had risen by €104.4 million. This change was primarily due to the increase in investments (resulting from the capital contribution made to DEUTZ China Verwaltungs GmbH for the purchase of shares in the joint venture with SANY and from the acquisitions of DPS Power Group and battery specialist Futavis) as well as to intangible assets related to capital expenditure on the development of new engines and the refinement of existing ones.

Working capital Working capital stood at €86.8 million as at December 31, 2019, which was €6.0 million lower than the level reported a year earlier. Lower inventories of finished engines was the main factor in this decline in **working capital**. The working capital ratio as at the balance sheet date fell to 5.3 percent accordingly (December 31, 2018: 5.8 percent).

Equity ratio Owing to the net income generated in the reporting year, equity advanced again to reach €690.4 million, an increase of €47.7 million. The rise was partly offset by the distribution of a dividend to the shareholders of DEUTZ AG of €18.1 million for 2018. At 59.4 percent, the equity ratio was up significantly at the end of the year.

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Provisions As at December 31, 2019, provisions had fallen by €9.6 million. A decrease in provisions for income taxes was the main reason for this.

Liabilities As at December 31, 2019, liabilities had declined by €51.2 million to €213.1 million. This change was mainly attributable to the fall in trade payables in connection with the volume of business and to a decrease in liabilities to banks.

EMPLOYEES

As at December 31, 2019, a total of 3,511 people were employed by DEUTZ AG. This meant that the number of employees had gone up by 181 year on year. We also had a further 149 people on temporary employment contracts as at December 31, 2019 (December 31, 2018: 331 temporary workers). Employing temporary workers enables us to respond flexibly to any fluctuations in demand.

From a segment perspective, DEUTZ Compact Engines employed 2,974 people as at December 31, 2019, 142 more than it had employed a year earlier. The number of employees at DEUTZ Customized Solutions was 537, which was up by 39 compared with the end of 2018.

DEUTZ AG: Employees[1]

Headcount

	Dec. 31, 2019	Dec. 31, 2018
Cologne	2,767	2,648
Ulm	548	497
Other	196	185
Total	**3,511**	**3,330**

[1] From 2019 onward, the number of employees is expressed in FTEs (full-time equivalents). The figures for the prior year have been restated accordingly.

OPPORTUNITY AND RISK 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 our notes. →more information: Risk report of the DEUTZ Group, p. 69

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 associated with the DEUTZ Group are described in this combined management report. →more information: Risk report of the DEUTZ Group, p. 69

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 this combined management report. →more information: Internal control system, p. 73

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 2019 are essentially the same as those for DEUTZ AG. We therefore anticipate that the revenue of DEUTZ AG will develop largely in line with the statements made for the DEUTZ Group. We predict that net income will rise sharply in 2020 because payment of the final instalment of the purchase consideration for the disposal of our former Cologne-Deutz site is expected to result in a positive one-off item. Further information can be found in the outlook for the DEUTZ Group. →more information: Outlook for the DEUTZ Group, p.74

For information about events after the reporting period, please see note 30 on page 158 of the notes to the consolidated financial statements.

NON-FINANCIAL REPORT PURSUANT TO SECTIONS 289b, 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 78 onward of the annual report and to our website **www.deutz.com/nfr2019**.

CORPORATE GOVERNANCE DECLARATION PURSUANT TO SECTION 289f HGB

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 page 62 of the annual report and to our website **www.deutz.com/cgd2019**.

DISCLOSURES PURSUANT TO SECTIONS 289a, 315a HGB

Composition of the issued capital There were no changes to the issued capital (share capital) of DEUTZ AG in 2019. As at December 31, 2019, 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 2019, 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.”

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 a shareholder 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, revolving cash credit line of €160 million. DEUTZ AG has also taken out a loan with the European Investment Bank that has a remaining balance of €10.8 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.

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. 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.

The service contracts of the Board of Management members stipulate, subject to certain requirements, the following provision in the event of a change of control: If, within nine months of the change of control, their appointment (1) is revoked or (2), subject to certain other requirements, ends as a result of a change to the legal form of DEUTZ AG, they will receive 150 percent of the severance cap pursuant to article 4.2.3 of the current German Corporate Governance Code (version dated February 7, 2017). As set out in the service contracts, a change of control is deemed to occur when one or more other people or other companies acting jointly within the meaning of section 30 of the German Securities Acquisition and Takeover Act (WpÜG) acquire more than 30 percent of the voting rights and therefore control of the Company. In the case of Dr. Hiller, no change of control will be deemed to have occurred if the former major shareholder, AB Volvo, acting on its own or with others acquires more than 30 percent of the voting rights in the Company. Clause G.13 of the new version of the German Corporate Governance Code suggests that no termination benefits be agreed if a Board of Management member's employment contract is ended prematurely in the event of a change of control. DEUTZ AG will therefore review the existing provision and amend it for the future if necessary.

The **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 →more information: Notes to the consolidated financial statements, p. 158, 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.

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, 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.

Combined management report
Non-financial report
Notes to the consolidated financial statements

REMUNERATION REPORT

REMUNERATION OF THE BOARD OF MANAGEMENT

The annual remuneration paid to the members of DEUTZ AG's Board of Management consists of fixed and variable components as well as a pension benefit contribution. The fixed component is paid monthly as basic salary. The variable component is performance-related and consists of two parts: the first is a bonus that is based on attainment of specific targets; the other comes in the form of virtual performance shares that offer a long-term incentive. For the pension contribution, an amount is paid into a benevolent fund; there is no other entitlement to a pension or surviving dependants' pension.

The calculation of the annual bonus is based on the degree of attainment of annual performance targets (short-term targets). The number, content, and weighting of the short-term targets are set annually by the Supervisory Board at its due discretion after consulting with the respective Board of Management member. The minimum level of target attainment for the payment of a bonus is 75 percent; the maximum level of target attainment relevant to the payment of the bonus is 150 percent. The highest amount that can be paid as a bonus in the case of maximum target attainment is determined by the respective service contract. Only 60 percent of the annual bonus is paid out at the end of the year. The rest of the bonus is paid out in two equal installments of 20 percent, subject to the attainment of further medium-term financial targets (medium-term targets), at the end of a further one year and two years, whereby the amount that is paid out is based on the level of attainment of these medium-term targets (to a maximum of 150 percent). The highest permissible amounts for these further payments are also contractually agreed. The targets for all payments are set at the beginning of the year for which the bonus is to be paid.

Details regarding the virtual performance shares are set forth in a **long-term incentive plan** for the Board of Management (LTI plan BoM), which forms part of the contractual agreements with the Board of Management members. The number of virtual performance shares allocated to a Board of Management member is calculated each year on the basis of the contractually specified euro amount divided by a reference price. The reference price is the average closing price of DEUTZ AG shares in Xetra trading (or a comparable successor system) on the Frankfurt Stock Exchange during the 60 trading days preceding the grant date. Virtual performance shares represent an entitlement to payment of a cash amount in accordance with the provisions of the LTI plan BoM. The cash amount per virtual performance share corresponds to the average closing price of DEUTZ shares in Xetra trading (or a comparable successor system) on the Frankfurt Stock Exchange during the last 60 trading days prior to the expiry of a vesting period of four years after the grant date, and is limited to a maximum of 1.5 times the reference price. Entitlement to the cash payment only arises, however, if either the market price of DEUTZ shares has increased by at least 30 percent relative to the reference price, or the market price of DEUTZ shares has outperformed the MDAX (or a future index replacing the MDAX) by at least 10 percentage points during the vesting period. A further requirement is that the Board of Management member makes a personal investment by holding one DEUTZ share for every 20 virtual performance shares received.

The variable remuneration is designed in a way that the majority of it is measured against performance over several years. The overall remuneration structure is designed to support the sustainable growth of the Company. Additional benefits received by the members of the Board of Management include, in particular, a company car and allowances toward insurance policies. If the employment contract of a member of the Board of Management is terminated prematurely without good cause, the member of the Board of Management receives a severance payment equivalent to the total remuneration for the period until the original termination date of his or her contract of employment up to a maximum of two years. For the purpose of this severance payment, the amount of total remuneration is determined by the total remuneration paid for the last full financial year, or the anticipated total remuneration for the then current financial year, if appropriate (cap on severance pay in accordance with article 4.2.3 of the German Corporate Governance Code (version dated February 7, 2017)).

In view of the new version of the German Corporate Governance Code, DEUTZ AG will review the existing provisions governing Board of Management remuneration and amend them for the future if necessary. The service contracts of the Board of Management members stipulate a special provision in the event of a change of control. →more information: Disclosures pursuant to sections 289a and 315a HGB, p. 64

The table below presents the total remuneration of the Board of Management in accordance with the recommendation in the current German Corporate Governance Code (version dated February 7, 2017). In line with this recommendation, the benefits granted in 2019 and those actually paid are reported separately.

The following table shows the breakdown of benefits granted to members of the Board of Management:

Benefits granted

€ thousand

	Dr. Ing Frank Hiller Chairman of the Board of Management				Dr. Andreas Strecker Took office on March 1, 2018			
	2018	**2019**	2019 (min)	2019 (max)	2018	**2019**	2019 (min)	2019 (max)
Fixed remuneration	750	750	750	750	483	580	580	580
Additional benefits[1]	179	176	176	176	142	143	143	143
Total	**929**	**926**	**926**	**926**	**625**	**723**	**723**	**723**
One-year variable remuneration[2]	450	450	0	675	225	270	0	405
Multi-year variable remuneration								
2019–2020 deferral (2018 bonus)	300	0	0	0	150	0	0	0
2020–2021 deferral (2019 bonus)	0	300	0	450	0	180	0	270
LTI 2018–2022[3]	200	0	0	0	150	0	0	0
LTI 2019–2023[3]	0	200	0	300	0	125	0	225
Total	**950**	**950**	**0**	**1,425**	**525**	**575**	**0**	**900**
Total remuneration	**1,879**	**1,876**	**926**	**2,351**	**1,150**	**1,298**	**723**	**1,623**

Instead of the target values for one-year variable remuneration and for deferrals from one-year variable remuneration required under the German Corporate Governance Code (DCGK), the figures in the table below for total remuneration indicate the remuneration figures that are required to be disclosed under the applicable accounting standards. For the one-year variable remuneration, these represent the provisions for the annual bonus for 2019, adjusted for any over- or under-allocation in the previous year. With regard to the deferrals from the one-year variable remuneration, the figures represent the amounts vested and recognized in provisions in 2019 and the adjustments of the amounts recognized in provisions in previous years.

One-year variable remuneration	537	320			269	192		
Multi-year variable remuneration								
2018–2019 deferral (2017 bonus)	0	–15			0	0		
2019–2020 deferral (2018 bonus)	372	–66			186	–33		
2020–2021 deferral (2019 bonus)	0	167			0	100		
Total remuneration	**2,038**	**1,532**			**1,230**	**1,107**		

[1] Includes payment into a life insurance policy.
[2] The figures given for one-year variable remuneration and for deferrals from one-year variable remuneration represent the amount granted for full achievement of targets.
[3] Share-based remuneration represents the fair value of the options on the date of grant. Please refer to Note 31 for a description of the structure of the share-based remuneration agreements. General contractual conditions are identical for all members of the Board of Management.

The following table shows the breakdown of benefits actually paid to members of the Board of Management:

Benefits paid

€ thousand

	Dr. Ing Frank Hiller Chairman of the Board of Management		Dr. Andreas Strecker Took office on March 1, 2018		Michael Wellenzohn	
	2019	2018	**2019**	2018	**2019**	2018
Fixed remuneration	750	750	580	483	580	520
Additional benefits	176	179	143	142	131	108
Total	**926**	**929**	**723**	**625**	**711**	**628**
One-year variable remuneration	537	629	269	0	304	356
Multi-year variable remuneration						
2017–2018 deferral (2016 bonus)	0	0	0	0	56	51
2018–2019 deferral (2017 bonus)	233	0	0	0	132	0
LTI 2015–2019	0	0	0	0	195	0
Total	**770**	**629**	**269**	**0**	**687**	**407**
Total remuneration	**1,696**	**1,558**	**992**	**625**	**1,398**	**1,035**

	Michael WellenzoÚ			
	2018	**2019**	2019 (min)	2019 (max)
	520	580	580	580
	108	131	131	131
	628	**711**	**711**	**711**
	255	279	0	419
	170	0	0	0
	0	170	0	255
	133	0	0	0
	0	165	0	248
	558	**614**	**0**	**921**
	1,186	**1,325**	**711**	**1,632**

	304	199		
	0	–9		
	211	–37		
	0	104		
	1,276	**1,133**		

The total expense for share-based payments recognized in the reporting year amounted to €152 thousand for Dr. Ing. Hiller (2018: €67 thousand) and €54 thousand for Dr. Strecker (2018: €21 thousand). In connection with the share-based payments for Mr. Wellenzohn, income recognized from the reversal of provisions amounted to €2 thousand in the reporting year (2018: €14 thousand).

REMUNERATION OF THE SUPERVISORY BOARD

The rules on remuneration that currently apply to the Supervisory Board were approved by the Annual General Meeting on April 26, 2018. They are set out in section 15 of the Company's Statutes and stipulate that the members of the Supervisory Board of DEUTZ AG receive fixed annual remuneration of €40 thousand. The chairperson of the Supervisory Board receives twice this amount and the deputy one-and-a-half times the amount. The members of the Supervisory Board are also reimbursed for their out-of-pocket expenses and receive a fee of €1.5 thousand for each Supervisory Board meeting they attend. Members of the Human Resources Committee and members of the Audit Committee receive additional fixed annual remuneration of €12 thousand. Members of other committees, in particular members of the Nominations Committee and Arbitration Committee, receive additional fixed annual remuneration of €8 thousand. The committee chairpersons receive double this amount, and their deputies one-and-a-half times the amount. Each member of a committee also receives an attendance fee of €1.5 thousand for each committee meeting attended.

In addition, DEUTZ reimburses the members of the Supervisory Board for any VAT they incur in connection with the performance of their mandate.

The following table shows the breakdown of total remuneration paid to members of the Supervisory Board for their work as Supervisory Board members:

€ thousand	Fixed remuneration	Attendance fees	**Total**
Dr. Ing. Bernd Bohr Chairman	148	20	168
Corinna Töpfer-Hartung Deputy chairwoman	98	18	116
Sophie Albrecht	50	7	57
Sabine Beutert	58	15	73
Yavuz Büyükdag	40	9	49
Dr. Fabian Dietrich	40	9	49
Dr. Ing. Ulrich Dohle	40	7	47
Hans-Peter Finken	40	9	49
Dr. Ing. Hermann Garbers (until April 30, 2019)	16	4	20
Patricia Geibel-Conrad	64	15	79
Alois Ludwig	60	14	74
Dr. Dietmar Voggenreiter (from April 30, 2019)	27	6	33
Ali Yener	48	9	57
Total	**729**	**142**	**871**

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. Against the background 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: the operating segments of the Group's parent company, subsidiaries, sales offices, and authorized dealers. This organizational structure presents the Company with opportunities, but also gives rise to business-specific risks.

Our 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. It is therefore critically important to identify and assess business risks at an early stage and take corrective action where required. DEUTZ has an appropriate risk management system to ensure it can meet this requirement.

Such a system heightens employees' sense of responsibility and raises their awareness of potential or existing risks. It also helps 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 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 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 have arisen compared with the Company's short-term and medium-term planning. The 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 the known risks or whether there is still a need for further action. The Risk Management Committee then analyzes the risks and the progress of the action that is being taken and reports to the Board of Management on the results of the risk inventory. To enable the Company to respond promptly at all times to any possible risks that may arise, risk officers and their employees are under an obligation to submit immediate reports on any new material risks or if there is an increase in the threat from known risks. These reports are to be separate from the regular reporting requirements. The risk management system does not identify opportunities, only risks.

The DEUTZ Group's system for the early identification of risks pursuant to section 91 (2) AktG is audited annually by the independent auditor and at regular intervals by Corporate Audit to assess whether the system is functioning efficiently.

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 overarching risk management strategy used is designed to mitigate potentially negative effects on the DEUTZ Group's financial position. The management and early identification of financial risks is based on annual financial planning, together with updates and regular analyses of variances during the course of 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 relevant member of the Board of Management plus the Head of Finance & Controlling and a representative of the Treasury department.

The objective of risk management is to mitigate fluctuations in profits and cash flows caused by volatility in commodity, interest-rate, and foreign-exchange markets. 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.

We manage the financial risk as follows:

Risk from bad debts We protect ourselves against the risk of bad debts by constantly monitoring our 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.

Currency risk arising from operating activities Currency risk, primarily in 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. We hedged the interest-rate risk arising from the funding arranged with the European Investment Bank.

Liquidity risk The funding agreements concluded provide the Company with adequate liquidity for its further development. During the term of the agreement, DEUTZ AG must ensure that the DEUTZ Group complies with certain financial covenants (ratio of financial debt to equity and to EBITDA). The financial covenants allow sufficient leeway in line with our medium-term balance sheet and profit planning. If, however, there is a dramatic deterioration in the general economic situation, there is a risk of the covenants being breached. →more information: Financial risk management, Note 26, p. 145

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. 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 (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 (%)					
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	**minor**	**moderate**	**significant**	**critical**	**very critical**

RISK

As with the internal risk report, the following presentation of the current risk situation is focused on the risk factors that are important for the DEUTZ Group. Consequently, risks that are referred to were categorized at least as 'low' before measures to counter the risk were taken into account. In contrast to the internal risk management, the risks in the following description are more strongly aggregated and are listed by risk category. Unless otherwise stated, the risks refer to 2020 and relate to the DCE, DCS, and Other segments.

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

MARKET RISK

We operate in sales markets that are characterized by particular sensitivity to cyclical influences. This can have a negative impact on the financial position and financial performance of the DEUTZ Group. As well as having a direct effect on unit sales and revenue, this may also impact negatively on the value of the assets on our balance sheet. We operate in very cyclical markets in our main application segments, Construction Equipment and Material Handling, and in our principal sales regions of Germany, western Europe, and North America. Our objective is to continue to reduce this cyclicality from a regional and application segment perspective.

In the medium and long term, we seek to mitigate regional and application-related sales risks by aligning our development activities with our product strategy and by entering into alliances. We therefore pursue a strategy of signing up new customers and progressively expanding our business with them. These business development activities are focused on Asia and elsewhere.

We are very well diversified and well positioned for the future in terms of the geographical and sectoral distribution of our customers. We supply the market-leading manufacturers in the various application segments. Despite the countermeasures that are in place, we cannot completely control the external risks. Factoring in these measures, we categorize the level of market risk as ‘moderate’ (previous year: ‘low’).

The United Kingdom’s upcoming departure from the European Union does not constitute a material market risk because our volume of business in the country is comparatively low.

The coronavirus outbreak may give rise to macroeconomic risks that impact on our business. The potential risks to revenue and earnings cannot be predicted at present.

STRATEGIC RISK

Based on our objective of broadening our customer and product base, our new strategy focuses on continued globalization and the electrification of our existing product range. We are strengthening our engine and service business in China through our alliances with SANY, BEINEI, and HORIZON. These alliances will create fresh opportunities and potential for growth through new customer relationships, new production facilities, and new service partners. However, any investment always entails risks. The target market might not grow as anticipated, the introduction of new emissions standards could be postponed, and there could be delays and additional costs when projects are implemented. Under our E-DEUTZ strategy, we are adding electric and hybrid drive systems to the existing technology portfolio. This strategy presents the DEUTZ Group with numerous opportunities but is, of course, also associated with risks. Changes affecting markets and prices may not be as anticipated either, while new product developments may not be as well received by customers as predicted or may not be able to compete with rival products.

We attempt to mitigate these risks by precisely analyzing trends in our markets and by taking into account external market research. We also enter into close alliances with our major customers in the target markets. Our partners under the new strategy for China are market leaders. To expand our E-DEUTZ strategy, we acquired battery specialist Futavis in October 2019. Finally, we closely monitor our strategic projects so that we are able to respond immediately to changes.

In view of the measures in place, we categorize the level of strategic risk with regard to the attainment of our financial targets as ‘low’ in 2020.

OPERATIONAL RISK

Procurement risk Supply shortages at our suppliers may lead to production downtime and delays in our own deliveries if there are no alternative sources of supply. This would adversely affect our earnings. We currently see risks relating to a number of factors, including changes in the automotive industry, macroeconomic conditions, and political developments.

Furthermore, DEUTZ can no longer exclude the possibility of the supply chain being affected by the outbreak of the coronavirus. Please see our comments on this subject in the outlook on page 74.

We seek to mitigate these risks by carrying out intensive supplier management and ongoing monitoring of the market.

Besides these global activities, there are three cornerstones to our procurement strategy for strategic and production-critical components: firstly, long-term supplier relationships and supply agreements; secondly, increased dual sourcing; and, thirdly, where appropriate, inhouse production and/or allocation of production to subcontractors. These approaches together minimize the procurement risks and secure the required capacity to the greatest possible extent.

In view of the measures in place, we categorize the level of procurement risk with regard to the attainment of our financial targets as 'low' in 2020.

Production risk Fluctuations in capacity utilization in production that result from our level of dependency on the general economic situation can, just like breakdown-related production delays, have a negative impact on profitability.

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. Production program meetings and capacity planning meetings are held monthly to ensure that our capacity is adjusted in line with orders on hand. We are also increasingly making use of temporary employment contracts in order to ensure greater flexibility.

In view of the measures in place to avoid or minimize these risks, we continue to categorize the level of production risk with regard to our financial targets as 'low'.

Quality risks The DEUTZ Group is exposed to liability and warranty risks, for example as a result of delays to production start-up. Potential warranty claims and claims for compensation could have a negative impact on our financial position and financial performance.

We have set up local Quality departments to ensure quality in all plants and relevant areas of the Group. These departments systematically analyze sources of errors and defects, optimize production processes, take action to minimize the risk in production start-ups, and reduce 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 us to handle the significant technical complexity of engines and to satisfy the steadily increasing quality requirements of our customers.

Sufficient provisions are recognized on the balance sheet to account for warranty risks. In view of the precautionary measures that have been taken, we categorize any further quality risks that could negatively impact on our financial targets as 'low' for 2020.

OTHER RISKS

Cyber risk We are a technology-driven company that is heavily focused on research and development. Being an innovation leader gives us a competitive advantage that forms the basis of our 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 our 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. Cyber risks such as these could have a negative impact on our market position and on our financial position and financial performance. This might ultimately harm our reputation.

We have put a series of measures in place to protect against cyber risks. As well as regular security training for employees, these include security measures for computer hardware and IT security guidelines that have been laid down by management. In view of the precautions that have been taken, we continue to categorize these risks as 'low'.

Legal and compliance risks As a Group with multinational operations, DEUTZ is subject to a variety of regulations under tax, competition, and patent law as well as to other legal and statutory requirements. Existing and potential legal disputes, along with possible infringements of the law, are recorded and analyzed on an ongoing basis at DEUTZ; they are assessed in terms of their legal and financial impact and an appropriate amount is recognized in the risk provisions in the accounts. The outcome of legal disputes and proceedings is uncertain, however. This means that there are further risks, not accounted for through provisions on the balance sheet, that could negatively impact on our 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 risks at DEUTZ. The Legal Affairs department and external lawyers are also regularly consulted about projects and the finalization 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 either to avoid or minimize risk, we categorize the level of legal risk as 'moderate'.

OVERALL ASSESSMENT OF THE RISK SITUATION

We identify and evaluate material risks on an ongoing basis using our risk management system. 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. Other risk factors changed only marginally year on year.

Because of the precautions that have been taken and our position in the market, we are confident in our ability to successfully manage the existing risks and overcome the resulting challenges.

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) brings together activities aimed at avoiding or limiting risk.

The Board of Management is responsible for setting up, monitoring, refining, and ensuring the effectiveness of the ICS. Even a properly structured ICS is unable to provide absolute security; it can only provide a relative amount of security in helping to achieve targets and/or avoid material misstatements.

The aim of the internal accounting-related control system is to ensure that accounting is carried out consistently and in accordance with statutory requirements, generally accepted accounting principles, and internal guidelines. The accounting process itself includes those parts of the operating processes that contain the financial reporting value flows, the process for preparing the consolidated financial statements, and all information sources and processes from which the significant disclosures in the consolidated financial statements are derived.

In order to ensure that the consolidated financial statements are properly and consistently prepared, the Group adheres to the fundamental principles of separation of functions, having work checked by a second member of staff, and IT access restrictions to prevent unauthorized access to relevant data. There are written procedural instructions, in particular the Group accounting manual, that are regularly updated at head office and communicated throughout the Group. Each reporting entity is responsible for compliance with the manual, and the data reported to DEUTZ's Group Accounting department is validated on an ongoing basis during the preparation of monthly financial statements. Data is reported to the Group head office using a standard reporting tool that has been implemented throughout the Group. Additional control mechanisms covering the risks in the main processes, thereby guaranteeing a reliable accounting and reporting system, are normally set up locally at departmental level. Where necessary, we also use external service providers, such as independent assessors of pension liabilities. The Group Accounting department ensures that these requirements are adhered to across the Group.

Information relevant to accounting is shared on an ongoing basis with the Head of Finance & Controlling and the Chief Compliance Officer and passed on to the Chief Financial Officer in regular meetings.

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

Corporate Audit prepares a risk-based audit plan and verifies whether the statutory regulations and the DEUTZ Group's internal guidelines for its control and risk management system are being complied with. As part of its monitoring function, it also reviews whether the internal controls are functioning effectively. The findings of these reviews are reported directly to the Board of Management and allow us to eliminate any deficiencies that have been identified and ensure that the ICS is continually refined.

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OPPORTUNITIES REPORT

In the fast-paced, dynamic markets in which the DEUTZ Group operates, there are, in addition to the aforementioned risk factors that can negatively impact on the attainment of the business objectives, also opportunities that can have a positive effect on the objectives of the Group for 2020 and beyond. Identifying and harnessing these opportunities is the responsibility of the individual operating segments of the Group. Unlike risks, opportunities are not collated and assessed centrally.

Unless otherwise stated, the opportunities described below refer to 2020 and relate to the DCE and DCS segments.

Growth strategy We are focusing on three core elements in order to maintain our growth: a new strategy for China, expansion of our E-DEUTZ business (including launching the first products), and expansion of the service business. By realigning our business in China, we can benefit more from the growth of this very promising market and thus capture new market share, enabling us to increase our unit sales and revenue. The joint venture with SANY and alliances with HORIZON and BEINEI will give us a local production and service network in China. Our plans for the service business include acquiring sales and service partners, such as DPS Power Group in the Benelux countries in December 2019, and expanding our product portfolio in order to strengthen our market position and generate further growth in the market.

Market opportunities We have anticipated challenging economic conditions in our budget for 2020. If the market environment brightens during the year, opportunities will open up in the market.

Research and development Increasingly stringent emissions standards and general technological progress are placing huge demands on our entire industry. We are one of the innovation leaders thanks to our many years of experience and our efficient processes in the research and development of innovative drive systems. By further developing our internal combustion engines to produce hybrid and all-electric drives, we will become even more competitive. We aim to go into volume production and to launch the first products on the market in about a year's time. In October 2019, we acquired Futavis, a provider of development services for high-voltage battery management systems, to broaden our inhouse expertise in the key area of battery technology. Through strategic alliances, we are also involved in the development of alternative drive systems that run on hydrogen or e-fuels.

New trends Calls for alternative drive solutions are becoming louder in view of the ongoing debate about climate change. We firmly believe that diesel technology will continue to be the dominant type of drive in off-highway applications for a long while yet. However, as a result of this debate and our expertise in electrified drive solutions, potential customers who, until now, have invested in their own diesel development work are more willing to collaborate with us instead. This creates a tremendous opportunity for us. In general, the discussion about the transport of the future is opening up good opportunities to pursue new and innovative approaches, particularly as part of our E-DEUTZ strategy. Our modular product system combines conventional drives with various fuel types and electric drives, enabling our customers to reduce their CO_2 emissions and operating costs. This creates the possibility of offering innovative solutions in order to open up new markets and customer groups on a bigger scale than currently expected in the medium-term outlook.

Services and digitalization We intend to significantly expand our high-margin service business. Potential for growth may stem from offering new service products, broadening our global service network, and acquiring dealers. Opportunities are also presented by new sales channels, such as our online shop, and by digitalization. Enhanced digital solutions can be used to speed up service processes, for example. This creates greater customer loyalty and satisfaction and has the potential to further increase efficiency.

OUTLOOK

ECONOMIC OUTLOOK

In its most recent forecast, the International Monetary Fund (IMF)[1] once again moderately downgraded its expectations for the coming two years. Its overall assessment, however, is that the global economy will continue to expand. The modest reduction in the IMF forecast is attributable mainly to cyclical phases of weakness in several emerging markets, including India, and to increasing levels of uncertainty in connection with factors such as the US's confrontational trade policy.

According to the IMF, the economy in the eurozone is likely to pick up again slightly over the next two years because of stronger demand from outside the region. Germany's rate of expansion is also predicted to rise. By contrast, growth in the US economy looks set to tail off over the same period. There is also expected to be a further slowdown in economic growth in China.

[1] IMF, World Economic Outlook Update, January 2020.

GDP growth[1]

YoY change (%)

	2019	2020	2021
Global	2.9	3.3	3.4
Eurozone	1.2	1.3	1.4
Germany	0.5	1.1	1.4
Spain	2.0	1.6	1.6
France	1.3	1.3	1.3
Italy	0.2	0.5	0.7
USA	2.3	2.0	1.7
China	6.1	6.0	5.8

[1] IMF, World Economic Outlook Update, January 2020.

We believe that the market situation in agricultural machinery will remain tense and that the market will continue to weaken with the exception of North America.

DEUTZ customer industries: forecast change in size of market in 2020

YoY change (%)

	Europe	North America	China
Construction equipment[1]	–5 to 0	–10 to –5	–15 to –5
Material handling[1]	–5 to +5	0 to +5	0 to +5
Agricultural machinery[2]	–5 to 0	0 to +5	–10 to –5

[1] Power Systems Research OELink Database, January 2020.
[2] VDMA, 'Business and Market Development for Agricultural Machinery Worldwide', February 2020.

DIESEL ENGINES MARKET

We believe that there will be marked differences in the performance of the key industries for sales of DEUTZ diesel engines in 2020. The continued weakening of the market, partly due to ongoing uncertainty resulting from the US-China trade dispute, is a factor here, as is the saturation of the market for compact machinery in Europe, and the fact that end customers in this region now hold high inventories of engines that were purchased in advance before new emissions standards into force.

Demand for construction equipment is expected to decline or stagnate overall. In North America, demand is likely to weaken mainly because of the trend in the rental business. Having expanded their fleets in recent years, businesses in China are now at the stage of the cycle in which they are utilizing existing fleets instead of instead purchasing new ones, and this is having the biggest impact on the market here.

Demand for material handling applications is set to hold steady in the North America and China regions. In Europe, however, the individual markets are expected to perform quite differently.

BUSINESS OUTLOOK FOR 2020

We are expecting an overall decline in DEUTZ's business performance in 2020. The main reason for this is the downturn in key customer industries as a result of economic conditions. This, along with effects relating to engines built before new emissions standards came into force, led to a low level of orders on hand at the end of 2019. The forecasts for our key customer industries indicate that this situation will continue in 2020. Furthermore, the DEUTZ engine business will be hit this year by customers selling the inventories of engines they had built up before new emissions standards came into force, which is likely to continue into 2021. Growth is expected to drop off particularly noticeably in the first half of 2020 following a weak start. The business is likely to fare better in the second half of the year.

The current market environment means we are unable to estimate how long demand will remain weak. Only once we are further into the year will we be able to provide more detailed guidance for revenue and the EBIT margin before exceptional items.

The outbreak of the coronavirus is taking a significant toll on international transport, travel, industrial logistics chains, and production capacity, both in China and globally. As things stand, we are not aware of any specific issues at our suppliers. Due to the globalized nature of its logistics routes, however, DEUTZ can no longer exclude the possibility of its business and its supply chain being affected. The potential risks to revenue and earnings resulting from the coronavirus outbreak cannot be predicted at present. Here too, a more precise forecast will not be possible until later in the year.

UNIT SALES, REVENUE

Due to the challenging market environment and the currently weak volume of orders on hand, we predict that revenue in 2020 will decline by a low-double-digit percentage amount compared with the prior year. We continue to expect a rise in revenue from the high-margin service business. The percentage increase in its revenue is likely to be in the high single digits as a result of the impetus provided by the growth initiatives. →more information: Strategy and objectives, p. 36

EARNINGS

For the EBIT margin before exceptional items in 2020, we are expecting a decline relative to the prior-year figure in the mid-double-digit percentage range.

The main reason for this is the downturn in key customer industries as a result of economic conditions and the related fall in unit sales. The establishment of second-source suppliers will also be a drag on operating profit, particularly in the first half of the year. Furthermore, implementation of our growth initiatives, which should boost revenue and the EBIT margin in the medium term, will result in set-up costs for engine production facilities in China and for the volume production of electrified drives under our E-DEUTZ strategy.

To offset the expected adverse impact on earnings, the Company plans to expand its service business at a faster rate. →more information: Strategy and objectives, p.36 It has also launched an efficiency program, Transform for Growth. This is a global program to strengthen competitiveness by reducing complexity and increasing efficiency along the whole value chain.

Looking at the segments, we predict that earnings for DEUTZ Compact Engines will decline particularly sharply, whereas operating profit for DEUTZ Customized Solutions is likely to be only slightly below the prior-year level. The Other segment is expected to see a significant year-on-year improvement in operating profit.

Payment of the final installment of the purchase consideration from the disposal of the Cologne-Deutz site is expected to provide a positive exceptional item in 2020. However, the amount and the date of this payment depend on when the development plan for the site is formally approved and so cannot be precisely determined yet. From a current perspective, we assume that a variable payment of approximately €60 million will be made during the course of the year.

Based on our earnings guidance, we believe that the return on capital employed (ROCE) before exceptional items in 2020 will be in the mid-single-digit percentage range.

COMMODITIES

Commodities We assume that commodity prices will continue on their upward trajectory from the end of 2019, particularly in the first quarter of 2020. Commodity prices are expected to be quite volatile overall this year in view of the general level of uncertainty as to how the economic climate will develop.

RESEARCH AND DEVELOPMENT EXPENDITURE[1]

We forecast that capital expenditure will be in the range of €80 million to €90 million in 2020, in particular due to the further development of our product portfolio, which includes optimizing products for the Chinese market, and to the implementation of our E-DEUTZ strategy.

CAPITAL EXPENDITURE

We forecast that our capital expenditure[2] (after deducting grants) will be in the range of €80 million to €90 million in 2020.

WORKING CAPITAL RATIO, FREE CASH FLOW, AND EQUITY RATIO

For 2020, we expect the average working capital ratio to increase to around 20 percent to 21 percent due to the economic decline, higher backup component inventories, and the reconfiguration of an assembly line.

We expect free cash flow to be in the mid double-digit millions of euros, given that working capital is budgeted to increase. Free cash flow will be influenced by the anticipated payment of the final instalment of the purchase consideration from the disposal of the land occupied by our former Cologne-Deutz site.

[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] Capital expenditure on property, plant and equipment (including right-of-use assets in connection with leases) and on intangible assets (excluding capitalization of research and development expenditure).

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We intend to maintain our equity ratio, which is currently 50.1 percent, at well above 40 percent. The good level of equity reduces our dependency on capital markets in a volatile market environment.

EMPLOYEES, COLLECTIVE PAY AGREEMENTS

Lower level of employment Despite the significantly reduced production program, we are aiming to retain our core staff. We will continue to make every effort to manage fluctuations in our demand for labor by offering flexible employment conditions (fixed-term and temporary employment contracts).

Collective pay bargaining in spring 2020 The current collective pay agreement for the metalworking and electrical engineering industry in Germany expires on March 31, 2020.

Events after the reporting period For information about events after the reporting period, please see note 30 on page 158 of the notes to the consolidated financial statements.

OUTLOOK FOR 2022

Despite the currently challenging market environment, with 2020 consequently being seen as a year of transition, we are confirming our outlook for 2022 when we expect to generate revenue in excess of €2.0 billion. Growth is likely to be driven mainly by the continued internationalization and rapid expansion of the service business, but also by the expansion of our core business and the further development of our portfolio. With regard to profitability, we are continuing to aim for an EBIT margin before exceptional items in the range of 7 percent to 8 percent in 2022. We intend to achieve this by optimizing our product mix, for example by increasing the proportion of earnings attributable to the high-margin service business, and by taking steps to raise efficiency and reduce costs. →more information: Strategy and objectives, p. 36

Disclaimer This management report includes certain statements about future events and developments, together with disclosures and estimates provided by the Company. Such forward-looking statements include known and unknown risks, uncertainties and other factors that may mean that the actual performances, developments and results in the Company or those in sectors important to the Company are significantly different (especially from a negative point of view) from those expressly or implicitly assumed in these statements. The Board of Management cannot therefore make any guarantees with regard to the forward-looking statements made in this management report.

SEPARATE COMBINED NON-FINANCIAL REPORT

ABOUT THIS NON-FINANCIAL REPORT

In accordance with section 289b et seq. in conjunction with section 315 et seq. of the German Commercial Code (HGB), DEUTZ has been publishing a separate combined non-financial report ('non-financial report') for each financial year since 2017. The content of this report covers both the parent company DEUTZ AG and the DEUTZ Group. Unless indicated otherwise, all quantitative and qualitative disclosures pertain to the Group as a whole ('DEUTZ'). Disclosures that relate only to DEUTZ AG are labelled accordingly. The companies acquired in the fourth quarter of 2019, Futavis GmbH and DPS Power Group, are not included in the information below.

In accordance with sections 315b and 315c in conjunction with sections 289b to 289e HGB, this non-financial report summarizes the key topics identified as a result of the materiality assessment of environmental matters, treatment of employees, social responsibility, respect for human rights, and measures to combat corruption and bribery. The content of the report is based in part on the underlying aspects of certain criteria of the German Sustainability Code and in particular on criteria 1 (strategy), 2 (materiality), 5 (responsibility), 6 (rules and processes), 7 (control), 13 (climate-relevant emissions) , 14 (employee rights), 18 (corporate citizenship), and 20 (conduct that complies with the law and policy).

Further information on certain topics can be found elsewhere in this annual report. References to disclosures outside the scope of the consolidated financial statements, the annual financial statements of DEUTZ AG, and the combined management report for 2019 do not form part of the non-financial report.

Using the net method, no material risks were found 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 those aspects subject to reporting requirements now or in the future. Fundamental information on risks and opportunities is presented in the opportunity and risk report of the combined management report. →more information: Risk report, p. 69

The non-financial report has been voluntarily submitted for an external review with limited assurance pursuant to ISAE 3000 (Revised). →more information: Independent practitioner's report, p. 96

BUSINESS MODEL AND CORPORATE PHILOSOPHY

DEUTZ is one of the world's leading manufacturers of innovative drive systems. The Company was founded in 1864 and has approximately 4,900 employees worldwide. Its core competencies are the development, production, and distribution of innovative drive solutions with a power output of up to 620 kW for off-highway applications. The current portfolio extends from diesel and gas engines to hybrid and all-electric drives that are used in various 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. The engine specialist also offers a comprehensive range of services through more than 800 sales and service partners in over 130 countries.

Due to the nature of its business model, the Company's activities are heavily influenced by laws and legislation in the form of emissions restrictions and exhaust emissions standards. These are becoming ever stricter due to climate change. →more information: Time for innovation, p. 20

Corporate philosophy

Vision
DEUTZ builds the most advanced drive systems for professionals, providing outstanding performance to shape the world.

Mission
Through pioneering spirit and innovation, DEUTZ shaped the industrial revolution. Now, we are driving the next revolution – delivering efficiency, performance and sustainability for our customers.

MATERIALITY ASSESSMENT

In 2019, DEUTZ conducted a materiality assessment in order to review the non-financial aspects and subjects that had been judged material in 2018, taking account of the Company's business activities and corporate philosophy. Using the results, it then further defined the aspects and topics and set new priorities. A total of six sustainability topics were identified as key to understanding the development, performance, and position of the Group and the impact of its business activity on the non-financial aspects. The six topics are product stewardship, personnel development, occupational health and safety, corporate governance and compliance, supplier management, and environmental and climate protection.

The materiality assessment conducted in 2017 found that compliance with applicable domestic and international laws, and with collectively agreed working conditions, meant that human rights infringements could be ruled out. So the human rights aspect had low relevance for the Company. However, the materiality of this aspect was re-evaluated as part of the review of the materiality assessment in 2019, and DEUTZ came to the conclusion that risks may arise in connection with its business activities and business relationships, because DEUTZ could make itself complicit in human rights abuses as defined in the principles of the UN Global Compact. Consequently, the aspect of human rights – especially with regard to upholding them in the supply chain – has now been defined as a key topic.

The topic of **corporate citizenship** falls under the category of 'social responsibility' in the German Commercial Code. In this report, DEUTZ provides information on this topic and its activities in this area on a voluntary basis.

SUSTAINABILITY STRATEGY

In 2019, DEUTZ developed its first groupwide sustainability strategy, drawing on the results of the materiality assessment. The aim of the strategy is to link sustainability matters more closely with the corporate strategy and thereby present a more holistic picture of the Group's performance through the resulting incorporation of non-financial aspects. The name of the strategy, Taking Responsibility, describes our objective of striving for commercial success while increasing the focus on fulfilling our corporate, social, and environmental responsibilities.

After identifying the sustainability topics of material relevance, DEUTZ defined the corresponding key performance indicators and used them to set qualitative and quantitative targets for 2023. With regard to the targets for the reduction of certain emissions relevant to the environment and climate change, the base year is 2017 unless indicated otherwise. Potential action plans for achieving the targets have also been drawn up. All of the quantitative targets are brought together in DEUTZ's Sustainability Vision for 2023.

DEUTZ's Sustainability Vision for 2023 at a glance

Key topics	Corresponding KPIs	Targets for 2023
Product stewardship	Share of consolidated revenue attributable to E-DEUTZ products	5–10%[1]
Personnel development	Engagement[2]	78%
	Enablement[2]	69%
	Rate of staff turnover[3]	5–10%
	Proportion of women in the workforce[4]	>10%
	Proportion of women in management positions[5]	>20%
	Ratio of trainees to total employees[6]	>3%
Occupational health and safety	Recordable incident rate[7]	7
Corporate governance & compliance	Proportion of workforce to have completed compliance training[8]	>95%
Supplier management	Proportion of new suppliers to have had their compliance with the supplier code of conduct verified	90%[9]
	Number of suppliers that have passed business partner compliance checks	90%[10]
	Proportion of suppliers assessed against sustainability criteria	50%[11]
Environmental and climate protection	CO_2 emissions from production sites (tonnes CO_2e)[12]	–20%[13]
	CO_2 emissions from production sites per manufactured engine (kg CO_2e)[14]	–20%[13]
	Nitrogen oxide emissions from production sites per manufactured engine (kg)[15]	–3%[16]
	Particulate emissions from production sites per manufactured engine (g)[15]	–3%[16]

[1] The target for the share of consolidated revenue attributable to E-DEUTZ products was set in 2018 for 2022 and has not been updated under the new sustainability strategy.
[2] DEUTZ measures the levels of engagement (motivation) and enablement (empowerment) in its workforce (all employees within the Group including staff on fixed-term contracts but excluding temporary workers) using a groupwide employee survey, which it first carried out in 2019 and will repeat every two years going forward.
[3] Relates to all employees within the DEUTZ Group, excluding staff on fixed-term contracts and temporary workers. The calculation includes both resignations and dismissals.
[4] Including staff on fixed-term contracts but excluding temporary workers.
[5] Including staff on fixed-term contracts but excluding temporary workers; the second level below the Board of Management, i.e. all female managers who report directly to a manager in the top level of senior management and have managerial responsibility.
[6] Number of trainees at the sites in Cologne, Ulm, and Herschbach (Germany) in relation to the number of employees in Germany, including staff on fixed-term contracts but excluding temporary workers and Torqeedo.
[7] For the production sites in the DEUTZ Group, excluding joint ventures. The recordable incident rate (RIR) is the number of reportable accidents at work per year per one million hours worked. An accident is deemed reportable if it occurs during working hours on the Company's premises while an insured activity is taking place and results in an absence of more than three calendar days. The day of the accident itself is not counted, but weekends are included if a medical certificate has been issued by an occupational health practitioner. Working hours are defined as the recorded or calculated actual time spent working and/or traveling by the employees. The working hours of permanent employees are counted, as are those of temporary workers, employees with fixed-term contracts, part-time staff, interns, and student workers.
[8] Only includes administrative employees. Here, the term administrative employees includes all individuals who are employed by the DEUTZ Group, including its foreign affiliates, as at December 31 of any given year and who are integrated into the Group's IT infrastructure, have access to a PC, and speak either German or English, as the e-learning modules are available only in these languages. It excludes employees who left the Company during the year, were on parental leave, or were absent for more than 50 percent of the year due to long-term sick leave.
[9] 90 percent of the suppliers brought on board each year.
[10] Relates to existing suppliers with whom DEUTZ's purchasing volume for the prior year exceeded €0.5 million.
[11] 50 percent of the top 150 suppliers as measured by DEUTZ's purchasing volume in the prior year.
[12] CO_2e = carbon dioxide equivalents; CO_2 emissions from the production sites of the DEUTZ Group excluding joint ventures. CO_2 figures are reported in accordance with the Greenhouse Gas Protocol and are determined by multiplying the energy consumed by the relevant emissions factor.
[13] Base year 2017.
[14] Excluding joint ventures. CO_2e = carbon dioxide equivalents; CO_2 figures are reported in accordance with the Greenhouse Gas Protocol. The 'emissions per engine' figure is calculated by dividing total emissions by the number of engines made. CO_2 reporting includes scope 1 (CO_2 emissions from diesel, natural gas, LPG, heating oil, and CNG caused by combustion in our own facilities) and scope 2 (CO_2 emissions relating to purchased energy, for example electricity and district heating). Only internal combustion engines and electric motors are counted, i.e. no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines.
[15] Excluding joint ventures; the figures 'nitrogen oxide emissions per manufactured engine' and 'particulate emissions per manufactured engine' are calculated by dividing the total emissions of each from test bays by the number of engines made. Only internal combustion engines are counted, i.e. no electric motors and no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines. Electric motors do not produce nitrogen oxide emissions or particulate emissions.
16 Base year 2019.

The sustainability strategy was adopted by the DEUTZ Group's Board of Management in the third quarter of 2019 after being approved by the Supervisory Board. Since then, a series of measures designed to achieve the strategy's targets have begun to be implemented. The Company is also laying the foundations for further measures to be developed and adding detail to some of the initiatives planned for the future.

SUSTAINABILITY ORGANIZATION AND MANAGEMENT

Sustainability is anchored at senior management level in the DEUTZ Group. The Board of Management regularly discusses the central issues of corporate sustainability and adopts targets and measures that contribute to the implementation of the defined sustainability strategy. Overall responsibility for this lies with the Chairman of the Board of Management.

The Sustainable Development Committee (SDC), which comprises the heads of the relevant departments and the individuals responsible for the key sustainability topics, provides the information that is used as the basis for making decisions related to corporate sustainability in the DEUTZ Group. Guided by the Group's Quality Management and Investor Relations functions, the SDC sets non-financial targets, creates action plans for achieving them, and endeavors to continuously improve sustainability engagement across the Group.

The Head of Quality Management, Environmental Protection, and Occupational Safety reports to the Board of Management each quarter on the progress of the measures initiated. Responsibility for implementing and monitoring the strategic initiatives lies either with the relevant departmental heads or the individuals nominated by them. In view of the fact that the DEUTZ Group is highly decentralized, they are supported in their work by local representatives at the subsidiaries.

As part of the preventive risk management approach, there has been quarterly internal monitoring and reporting on the implementation status of the sustainability strategy since the end of the third quarter of 2019. The objective is to identify risks that might jeopardize the achievement of the targets at an early stage and to modify the action plan if necessary. Risks pertaining to non-financial topics have previously been examined on an ad hoc basis, but from 2020 they will be reviewed and recorded on a regular and systematic basis as part of DEUTZ's internal risk inventory.

NON-FINANCIAL REPORT

DEUTZ has divided its sustainability activities into three fields of action to which the relevant key topics are assigned: social responsibility, corporate responsibility, and environmental responsibility. This non-financial report has the same structure.

Field of action	Key topics	Aspects under the HGB
Social responsibility	Product stewardship	▪ Social responsibility
	Corporate citizenship[1]	▪ Social responsibility
Corporate responsibility	Personnel development	▪ Treatment of employees
	Occupational health and safety	▪ Treatment of employees
	Corporate governance & compliance	▪ Respect for human rights ▪ Measures to combat corruption and bribery
	Supplier management	▪ Respect for human rights ▪ Measures to combat corruption and bribery ▪ Environmental matters
Environmental responsibility	Environmental and climate protection	▪ Environmental matters

[1] Based on the results of the materiality assessment conducted in 2019, the topic of corporate citizenship has lower relevance for the Company. In this report, DEUTZ reports on its activities in this area on a voluntary basis.

SOCIAL RESPONSIBILITY

PRODUCT STEWARDSHIP

An ever-growing global population, limited natural resources, and the steady march of climate change present fundamental challenges for the future of mobility, not only in the on-highway sector but also in the off-highway and marine sectors.

As a leading manufacturer of innovative drive solutions, DEUTZ believes it has a responsibility to society to make products that move us toward a future of locally carbon-neutral **off-highway** vehicles and marine vessels, thereby contributing to the prevention of climate change. The continual development of the drive portfolio is heavily influenced by laws and legislation in the form of emissions restrictions and noise regulations. Because of this, the DEUTZ Group's development activities are focused, on the one hand, on bringing its engines into line with current and future emissions standards, such as **EU Stage V** and China IV. However, at the same time, DEUTZ is also striving to develop innovative drive systems that are compatible with a variety of technologies. The Company's broad product portfolio ranges from the latest diesel technology and gas, hybrid, electric, petroleum, and hydrogen drives to solutions that use alternative fuels.

New engines are certified by the Federal Motor Transport Authority (KBA) in Germany, the Environmental Protection Agency (EPA) in the USA, and comparable authorities in other countries.

E-DEUTZ program The E-DEUTZ program, initiated in 2017, is aimed at creating a locally carbon-neutral product portfolio that includes a scalable range of hybrid and all-electric drives for customers' specific requirements in the off-highway and marine sectors. Fully electric drive systems are locally climate neutral, whereas hybrid systems reduce total carbon emissions per application by **downsizing** engine capacity while maintaining overall system performance.

DEUTZ reached another milestone in its E-DEUTZ strategy in October 2019 when it acquired Futavis, a development services provider for battery management hardware and software. Founded in 2013, Futavis has extensive technical capabilities in electronics, software, battery technology, and battery testing and in ensuring functional safety. The company specializes in high-voltage battery management systems and thus adds to the systems knowledge that the DEUTZ and Torqeedo development teams have in the field of electric drives. As a result, DEUTZ now has expertise in all relevant technologies, including electric motors, power electronics, low- and high-voltage batteries, and systems integration. This takes it another important step further toward zero-carbon off-highway and marine drive systems.

In the marine sector, our subsidiary Torqeedo offers an innovative portfolio of electric drives for boats. As well as sailboats, motorboats, and kayaks, these electric drives are used in watercraft for professional applications, such as ferries and water taxis, lifeboats, workboats, and coach boats, as well as rental and excursion boats. Some of the main advantages of electric-powered boats over those with internal combustion engines are that no exhaust gases are emitted into the water and fuel does not contaminate the water because there is no need for refueling. Moreover, electric drives do not give off any odors and are much quieter than comparable internal combustion engines.

E-DEUTZ products are expected to account for 5 to 10 percent of revenue by 2022 (2019: 0 percent).

The various departments involved meet regularly to report to the Board of Management on the progress of development in the E-DEUTZ program. Action plans for achieving individual targets are drawn up on an ongoing basis, for example with a view to building prototypes or for the launch of customer projects. One example is a mini excavator from KOBELCO Construction Machinery Europe B.V., which DEUTZ fitted with an all-electric E-DEUTZ drive and unveiled at bauma 2019 in Munich. DEUTZ also developed prototypes for the 360V and 48V systems in 2019. These systems are designed for applications such as electrified mini excavators used in urban areas and airport ground support vehicles, e.g. baggage tractors.

Innovative internal combustion engines In addition to electrified solutions, the DEUTZ Group's innovative drive concepts include advanced internal combustion engines that can run on a carbon-neutral basis by using sustainable energy sources such as hydrogen. Back in 2018, a prototype based on a 7.8 liter DEUTZ engine was developed in partnership with Munich-based start-up KEYOU. In 2019, we signed a letter of intent with regard to expansion of our existing activities and collaboration on jointly developing commercially viable carbon-neutral hydrogen engines for the off-highway and on-highway segments, and for power generation, and bringing them to production readiness. Specific pilot projects with vehicle manufacturers and end users are in the planning stage, with the appearance of the first prototype vehicles scheduled for 2020.

With regard to conventional internal combustion engines, DEUTZ continually assesses older engine series that are coming to the end of their lifecycle, particularly if they cannot be converted to meet future emissions standards.

Modular product system DEUTZ gives its customers the option of individually configuring their ideal drive solution from a set of product modules, based on defined parameters such as application segment, power output, emissions characteristics, and technical basis. The system, called the DEUTZ Advanced Configurator, enables us to offer bespoke solutions that reduce carbon emissions, fuel consumption, and overall costs while still responding quickly and flexibly to technological advances and changing market requirements.

Xchange Another way in which DEUTZ shoulders its responsibility to society is by offering reconditioned engines and spare parts through its **Xchange** program. Under this program, old engines are professionally remanufactured and wearing parts are replaced with genuine DEUTZ components. At the end of the process, the engines are as good as new and identical to the original ones in every respect, except that they benefit from technological progress because the latest expertise from the manufacturing of new engine parts is incorporated during reconditioning. DEUTZ thus extends the lifecycle of its engines and provides a cost-effective and, above all, environmentally friendly alternative to purchasing a brand-new engine. The program is also intended to make a positive contribution to sustainable consumption and production in the spirit of the United Nations' twelfth sustainable development goal.

CORPORATE CITIZENSHIP

In its role as a corporate citizen, DEUTZ wants to make a positive and sustainable contribution to society and to the regions in which it operates. At the end of 2019, DEUTZ drew up a groupwide donation and sponsorship strategy that specifies responsibilities and decision-making processes and defines the focus of its **corporate citizenship** activities. This will enable the Company to better target its activities in this area. The emphasis is on community-based projects and on the promotion of education, innovation, and environmental protection.

To supplement the overarching donation and sponsorship strategy, DEUTZ will issue a related policy in the first quarter of 2020 that sets out the principles for activities in this area and ensures their effectiveness and legal integrity by laying down binding rules.

Of course, DEUTZ was already very active in its local communities before introducing the groupwide donation and sponsorship strategy. In 2017, for example, DEUTZ Spain started work on the DEUTZ Business School (DBS) at the Zafra site in Spain. The mission of the school, which officially opened in 2019, is to equip young people with all the knowledge and skills they need to meet current and future requirements of business and of the labor market. It also provides targeted support for economic development in the Zafra area and the wider autonomous region of Extremadura, where educational institutions like the new business school are rare. In addition to university lecturers, eight managers from DEUTZ Spain are also on hand to share and spread their knowledge for the benefit of the Zafra site and beyond. The broad range of programs on offer are geared toward the needs of companies in all sectors and focus on dual vocational training, university courses in lean management, language courses with official certification, and continuing professional development, including in the form of seminars. The first postgraduate Lean Practitioner diplomas were awarded in October 2019.

In November 2019, DBS won the 2019 excellence award of the German-Spanish Chamber of Commerce. Since 2009, the chamber has presented this to companies, organizations, and individuals that have made an especially valuable contribution to the development of German-Spanish relations. It particularly focuses on initiatives in innovation, sustainability, employment, corporate social responsibility, and vocational education.

In 2019, DEUTZ presented an innovation prize – the Nicolaus August Otto Award – for the first time. It is named for the founder of DEUTZ AG and co-inventor of the four-stroke engine. The award, intended to recognize the visionaries of today, is endowed with prize money of €30,000 for the promotion of innovative ideas in the fields of alternative drives, transport, energy efficiency, cutting-edge technology, and future-focused research. The Nicolaus August Otto Award will be presented once a year.

CORPORATE RESPONSIBILITY

PERSONNEL DEVELOPMENT

The DEUTZ Group's human resources organization is essentially decentralized. The subsidiaries of DEUTZ AG are managed on an individual basis in order to take account of local differences.

All pay-scale employees in Germany, who make up the majority (91 percent) of the Group's workforce, are subject to the collective pay agreement of the metalworking and electrical engineering industry. Their interests are represented by the works council. The works council gets involved in all employee-related matters at DEUTZ AG, for example regarding recruitment, remuneration, reassignment, and dismissal, in accordance with the applicable collective pay agreements and laws. The objective is to agree mutually acceptable rules and arrangements for the matters at hand. An elected Senior Staff Committee represents the interests of senior managers at DEUTZ AG. Both the works council and senior managers also appoint representatives to the Company's Supervisory Board, thereby exercising their right of codetermination. To ensure its employees are fully up to date on all the latest news, DEUTZ AG launched an employee app, 'DEUTZ Mobile', at the end of 2019 to complement the existing communications channels, which include the intranet and regular myDEUTZ staff magazine. The new app gives access to a wide range of information about DEUTZ and can be downloaded by all employees of DEUTZ AG on their personal or work smartphones and/or tablets.

Under its new sustainability strategy, DEUTZ has set various targets for personnel development that – unless indicated otherwise – relate to the entire Group, despite the decentralized organizational structure.

In 2019, implementation of an SAP-based IT environment for HR got under way with the aim of centralizing some aspects of HR management and digitalizing processes. The first stage of the implementation, to be completed by the end of the first quarter of 2020, involves employee master data worldwide being converted to a standardized format.

Employee motivation and empowerment A company's success and capacity for innovation depends to a large extent on its employees' motivation and satisfaction (engagement) and empowerment (enablement), and not just on their ability to do their job. DEUTZ measures the levels of engagement and enablement in its workforce using a groupwide employee survey, which it first carried out in 2019 and will repeat every two years going forward. The insights gained are to be used to define specific initiatives and measures with which employees can be motivated and empowered to put their skills to use for the benefit of the Company and to realize their potential as fully as possible. Workshops and other activities take place so that employees can play an active role in defining the necessary measures.

According to the latest employee survey, 78 percent of all DEUTZ employees[1] are motivated and 69 percent feel empowered to do their work. DEUTZ has set itself the target of maintaining these levels of employee[2] engagement and enablement up to 2023.

Ideas management One of the ways of motivating the workforce to make a proactive contribution to the Company is the bonus-driven ideas management scheme that was introduced at the German sites some years ago. It allows any employee at DEUTZ AG to put forward ideas for discussion, such as how to make the working environment more efficient or how to optimize existing processes. The ideas can relate to the employee's own department or another part of the Company. This can not only improve employees' motivation and satisfaction but also give them a greater sense of empowerment, for example with regard to improving their working conditions. The DEUTZ innovation center, opened in Cologne in 2018, was one of the successful ideas submitted by an employee. A total of 1,063 ideas were submitted in 2019.

Corporate values The world is becoming more and more complex, creating new challenges for everyone day after day. To be able to overcome these, it is vital to have a solid foundation of workable corporate values. At the end of 2018, a process got under way to enhance aspects of our tried-and-tested mission statement, in part with the aim of clarifying key questions about how the Company perceives itself: What makes DEUTZ special, what drives us, what is the deeper meaning of our work, and how do we engage with our customers? The answers to these questions are provided by the five new corporate values, which were defined during a workshop in 2019. The attendees ranged from apprentices to the Chairman of the Board of Management.

→more information: Time for change, p. 12

[1] 61 percent of all Group employees took part in the survey, including staff on fixed-term contracts but excluding temporary workers.
[2] Including staff on fixed-term contracts but excluding temporary workers.

Equality-friendly management culture DEUTZ endeavors to consciously harness diversity for the success of the Company. In the spirit of both the United Nations' fifth sustainable development goal (gender diversity) and the Women's Empowerment Principles, DEUTZ strives to drive forward the representation of women in the workforce as a whole and in management positions and to establish an entirely meritocratic leadership culture based on equal opportunities. This will enable the Company to gain a better understanding of changing markets, access a larger pool of talent, and benefit from additional creativity and innovation. One of the tools being used to increase the proportion of women in leadership roles is the cross-mentoring program for female management trainees, in which a mentee works in tandem with a mentor from a different company. This enables the mentor to give the mentee insights into the structures and processes that are in place in another organization.

DEUTZ has set itself the target of increasing the proportion of women in the workforce as a whole[2] to more than 10 percent and the proportion of female managers[3] to more than 20 percent, in both cases by the end of 2023. In addition, the Supervisory Board specified in 2017 that there should be at least one female member of the Board of Management as at June 30, 2022.

In 2019, women made up 11.4 percent of the total workforce[2], meaning that we were able to exceed our medium-term goal during the reporting period. 12.4 percent of managers[3] were female.

Training DEUTZ attaches great importance to training, and 2019 marked 100 years of vocational apprenticeships at DEUTZ AG. In celebration of this anniversary, the training center at the headquarters in Cologne was renamed the Factory for Talents. It was also recognized by the Cologne Chamber of Industry and Commerce for its outstanding achievements in vocational training for the ninth time in succession. And at the end of the reporting year, the German Chamber of Industry and Commerce named a DEUTZ apprentice best examinee in his profession in Germany.

DEUTZ AG: Ratio of trainees to total employees[1]

%

	2019	2018	2017
Ratio of trainees to total employees	2.6	2.5	2.5

[1] Number of trainees at the sites in Cologne, Ulm, and Herschbach (Germany) in relation to the number of employees in Germany, including staff on fixed-term contracts but excluding temporary workers and Torqeedo. As the calculation for the prior year was based on the number of employees in Germany including Torqeedo (Gilching), the ratio of trainees to total employees has been retrospectively adjusted for 2018 (but not for 2017).

In 2019, a total of 40 apprentices embarked on careers in six different vocations at DEUTZ AG. As a result, the ratio of trainees to total employees[4] was 2.6 percent.

The aim is to increase the ratio of trainees to total employees[4] to above 3 percent by the end of 2023, not least as a means of meeting the Company's own need for skilled workers, which will help to strengthen its competitiveness. The exact number of apprentices to be employed and their distribution across the various vocations is agreed annually with the Board of Management and the DEUTZ AG works council commission, which is made up of equal numbers of employer representatives and workforce representatives. Training management regularly reports to HR about the status of recruitment.

Offering all apprentices who pass their exams permanent employment is one of the ways in which DEUTZ strives to increase its appeal as a training provider.

Staff turnover A growing shortage of skilled workers is a feature of today's labor market. In order to retain skilled employees over the long term, DEUTZ offers them a wide range of training opportunities as well as social and monetary benefits that are adapted to local circumstances. At the main site in Cologne, for example, a comprehensive health scheme is available → more information: Occupational health and safety, p. 88 as is a program of continuing professional development. At the same time, DEUTZ firmly believes that new employees bring with them new perspectives that can help a company to develop and improve its ability to innovate. HR activities are therefore aimed at ensuring the groupwide rate of staff turnover[5] in 2023 is within a range of 5 to 10 percent.

In 2019, the rate of staff turnover[5] for the DEUTZ Group was 6.3 percent.

[2] Including staff on fixed-term contracts but excluding temporary workers.
[3] Including staff on fixed-term contracts but excluding temporary workers. The second level below the Board of Management, i.e. all female managers who report directly to a manager in the top level of senior management and have managerial responsibility.
[4] Number of trainees at the sites in Cologne, Ulm, and Herschbach (Germany) in relation to the number of employees in Germany, including staff on fixed-term contracts but excluding temporary workers and Torqeedo.
[5] Previously, only the rate of staff turnover for DEUTZ AG was reported. Under its new sustainability strategy, however, DEUTZ has set a target for the Group as a whole. Accordingly, the rate of staff turnover now includes all employees in the DEUTZ Group except employees with fixed-term contracts and temporary workers. The calculation includes both resignations and dismissals.

OCCUPATIONAL HEALTH AND SAFETY

Financial considerations must never be allowed to compromise the health and safety of staff, because every individual has the fundamental right to health and physical well-being. DEUTZ recognizes that providing a safe working environment that is conducive to health is part of its responsibility as an employer. Across the Group, it complies with the statutory requirements on occupational health and safety that apply from country to country. This involves implementing measures that are in line with local rules and are designed to ensure that employees are exposed to as few dangers as possible at work and to minimize the risk of accidents.

At present, occupational health and safety is still largely managed at local level, so the following information essentially relates to DEUTZ AG unless indicated otherwise. However, the Company aims to set up a centralized organization and, going forward, to initiate planned health and safety activities on a groupwide basis. These include establishing joint assessments of the processes and dangers in individual workspaces and defining key safety issues that will be communicated to all employees in writing.

Management of occupational health and safety The management of occupational health and safety at DEUTZ AG and its Spanish subsidiary DEUTZ Spain centers on internal inspections. The frequency of these inspections is determined by the extent and type of risk presented by the machinery or workspace. In assembly and production, for example, teams made up of experts from various disciplines carry out these inspections. Any issues identified are documented in action plans that specify a timeframe for remedial measures to be taken.

At the end of the year under review, a sustainability audit took place at the Cologne-Porz site for the first time. The audit had been commissioned by a customer and covered areas such as health, workplace safety, and working conditions. It was conducted by an international audit and certification firm. The audit did not identify any issues at DEUTZ, which achieved the maximum score as defined by the customer.

By the end of 2021, DEUTZ intends to extend the integrated management system (IMS) that it has established in Germany so that it also covers occupational health and safety. To this end, the German production sites are to be certified in accordance with the global ISO 45001 standard in the medium term. ISO 45001 sets out the requirements of an effective system for managing occupational health and safety. In the first phase, the Cologne-Porz and Cologne-Kalk sites will start the certification process in 2020.

The production site in Zafra, Spain, already holds ISO 45001 certification.

DEUTZ Group: Recordable incident rate (RIR)[1]

	2019[2]	2018	2017
RIR	11.2	15.0	13.4

[1] Relates to production sites of the DEUTZ Group, excluding joint ventures. The recordable incident rate (RIR) is the number of reportable accidents at work per year per one million hours worked. An accident is deemed reportable if it occurs during working hours on the Company's premises while an insured activity is taking place and results in an absence of more than three calendar days. The day of the accident itself is not counted, but weekends are included if a medical certificate has been issued by an occupational health practitioner. Working hours are defined as the recorded or calculated actual time spent working and/or traveling by the employees. The working hours of permanent employees are counted, as are those of temporary workers, employees with fixed-term contracts, part-time staff, interns, and student workers.

[2] The figure for 2019 is not directly comparable with the figures for the previous years because temporary workers were not included in the calculation in 2018 and 2017.

The recordable incident rate (RIR)[1] was eleven in the year under review. The Company therefore did not meet its target for 2019, which was for the RIR[1] to be below ten. This is primarily due to an assembly line being relocated to a new production site, resulting in new work processes for our employees. The RIR[1] also continues to be influenced by the sustained high volume of the production program, which involves a large number of consecutive processes.

As part of its Sustainability Vision for 2023, DEUTZ has set itself the target of improving the RIR[1] to seven by the end of 2023.

Health scheme As well as ensuring the safety of its employees at work, DEUTZ also wants to improve their awareness of health issues and encourage them to adopt a health-conscious lifestyle. For example, it has set up a comprehensive health scheme at its main site in Cologne, which is the workplace for the majority (around 75 percent) of the Group's employees. The scheme includes ergonomics training, help with giving up smoking, a partnership with a gym, and other initiatives. The components of the scheme were defined in collaboration with the workforce, enabling them to be tailored to employees' needs.

[1] Relates to production sites of the DEUTZ Group, excluding joint ventures; the recordable incident rate (RIR) is the number of reportable accidents at work per year per one million hours worked. An accident is deemed reportable if it occurs during working hours on the Company's premises while an insured activity is taking place and results in an absence of more than three calendar days. The day of the accident itself is not counted, but weekends are included if a medical certificate has been issued by an occupational health practitioner. Working hours are defined as the recorded or calculated actual time spent working and/or traveling by the employees. The working hours of permanent employees are counted, as are those of temporary workers, employees with fixed-term contracts, part-time staff, interns, and student workers.

CORPORATE GOVERNANCE AND COMPLIANCE

As a company with international operations, DEUTZ is subject to a broad range of laws and regulations with which it needs to comply in order to maintain good corporate governance. Criminal conduct, or the mere perception of breaking the law, can do lasting damage to the reputation of a company and not only result in serious financial losses but also jeopardize its very existence as a going concern.

As well as being explicitly committed to legal compliance, DEUTZ also endeavors to act correctly from an ethical and moral standpoint. The regulatory environment in which the Company operates therefore includes not only legal requirements and standards such as the German Corporate Governance Code but also the DEUTZ code of conduct and other applicable topic-specific organizational policies that either summarize or clarify legal or internal requirements and that are mandatory for every employee.

As measures to combat corruption and bribery form an integral part of the internal compliance management system, these issues and the topics introduced above are explained together in the following section.

The corporate governance report, the declaration of conformity issued by the Board of Management and Supervisory Board, the corporate governance declaration for DEUTZ AG and the Group, and the DEUTZ code of conduct are published on the Company website at **https://www.deutz.com/en/investor-relations/corporate-governance/declaration-of-conformity/** and **https://www.deutz.com/en/about-us/compliance/code-of-conduct/**.

Compliance organization DEUTZ has established a groupwide compliance organization to ensure that the Company and its employees act in accordance with the prescribed rules and regulations. At the heart of the organization is the internal compliance management system (CMS), whose function includes preventing corruption and bribery, tackling money laundering, and ensuring compliance with export regulations and antitrust laws.

In accordance with the schedule of responsibilities, the Supervisory Board of DEUTZ AG has delegated overall responsibility for the groupwide compliance organization to the Chairman of the Board of Management of DEUTZ AG. The Chairman of the Board of Management, for his part, appoints the Compliance Officer as well as individual compliance coordinators who are responsible for compliance in their respective departments. Twice a year, the coordinators submit a written report to the Compliance Officer, who in turn reports to the Board of Management and the Audit Committee of the Supervisory Board. As well as information on changes to the legal situation, the reports also focus on compliance-relevant matters, possible risks associated with these matters, and the countermeasures in place to mitigate or eliminate the risks. The basic principles of the compliance organization are set forth in a groupwide compliance policy.

The Compliance Officer and compliance coordinators hold regular meetings to plan the compliance activities that need to be initiated. The Compliance department also works closely with the Legal Affairs department, Corporate Audit, and the Data Protection Officer.

As and when needed, the Board of Management and the Compliance Officer take legal advice as part of their efforts to continuously improve the compliance organization. Corporate Audit provides support on all activities in this respect.

Risk management system Dealing responsibly with risks is a further cornerstone of successful corporate governance. With the help of DEUTZ's internal risk management system, the Board of Management is able to proactively identify groupwide risks and market trends so that it can respond rapidly to potentially relevant changes in the risk profile. Because all the departments are integrated into the risk management system, the monitoring of risks can be said to be comprehensive and it includes those that may arise in relation to corruption and bribery.

Risks pertaining to non-financial matters have previously been examined on an ad hoc basis, but from 2020 they will be reviewed and evaluated on a regular and systematic basis as part of DEUTZ's internal risk inventory.

Code of conduct Every employee of the DEUTZ Group is required to assume responsibility for ensuring that the Company is able to meet its objective of striving for commercial success while fulfilling its duty to society and the environment and as a corporate citizen. This is reflected both in the corporate values →more information: Personnel development, p. 86 and in the DEUTZ code of conduct, which serves as a guideline for the actions of every employee as well as all external stakeholders. The code contains rules for behavior that are mandatory across the Group and that cover areas such as respect for human rights, working conditions and social responsibility, anti-competitive practices, and data protection, and sets out the Company's zero-tolerance approach to corruption and bribery.

In 2019, DEUTZ comprehensively updated its code of conduct and brought it into line with its new sustainability strategy. In particular, standards covering respect for human rights, working conditions and social responsibility, health and safety, and environmental protection were extended and clarified. The aim is to make all employees take greater account of aspects of sustainability in their day-to-day work. To help achieve this, DEUTZ added a compliance training course focused on the code of conduct to its internal training catalog for the first time in 2019.

The updated code of conduct is available to download from the Company website at **https://www.deutz.com/en/about-us/compliance/code-of-conduct/**.

E-learning courses and classroom-based training on compliance matters To support our employees in their efforts to avoid breaking the law or breaching regulations, we require them to complete annual compliance training in the form of e-learning courses or classroom-based training.

At the start of the year, all of DEUTZ's administrative employees[1] are assigned training modules that they are asked to complete before the end of the year. The modules (occupational health and safety, fair competition, anti-corruption, and information security) are assigned according to the employees' individual areas of responsibility. Employees who work in corporate functions or subsidiaries are generally given additional training on topical compliance matters once a year as part of a classroom-based training course tailored to their areas of activity. Classroom-based training is provided every year for non-administrative employees, most of whom work in the plants. Disciplinary action may be taken if they fail to attend these or to complete the e-learning courses.

DEUTZ Group: Proportion of workforce to have completed compliance training[1]

%

	2019	2018	2017[2]
Proportion of workforce to have completed compliance training	98.1	93.5	–

[1] Only includes administrative employees.
[2] The proportion of the workforce to have completed compliance training was recorded for the first time in 2018.

By the end of 2019, a total of 2,616 employees (98.1 percent of all administrative employees[1] within the Group) had successfully completed the e-learning course. In the reporting year, DEUTZ therefore exceeded the target of increasing the proportion of the workforce to have successfully completed compliance training to more than 95 percent, a target that it was aiming to achieve by 2023.

Business partner compliance tool DEUTZ expects not only its employees to act in compliance with the law but also its business partners, whether they are customers, suppliers, or service providers. In 2019, DEUTZ began to implement a new IT-based business partner compliance tool that will enable it to respond appropriately and at an early stage to matters such as suspected money laundering, anti-competitive practices, corruption, and bribery. DEUTZ will use this to provide its business partners with a web-based self-declaration form and will then check both the company itself and the members of its governance and supervisory bodies against up-to-date sanctions lists. On the basis of the information obtained, the business partners will be classified using an internal DEUTZ risk model and, if required, action will be taken to minimize risks.

The tool will initially be rolled out at German sites, where it will be used to conduct compliance checks on new business partners. →more information: Supplier management p. 91 From 2020, it will be progressively applied to existing business partners and integrated into the SAP systems of DEUTZ companies based outside Germany.

Whistleblowing system for internal and external stakeholders The primary objective of DEUTZ's compliance organization is to identify, at the earliest possible stage, behavior within the Group that violates laws or regulations and to immediately put a stop to any proven misconduct.

A publicly accessible whistleblowing system is available on the Company website to employees and third parties for the purposes of reporting suspected breaches of laws or regulations within the DEUTZ Group at **https://www.deutz.com/en/about-us/compliance/**. Strict secrecy and confidentiality are guaranteed both for whistleblowers and the individuals involved. This is maintained during the course of any investigation that is launched if, following a careful review of the evidence, there are concrete indications that a law or regulation has been violated. The identity of the whistleblower will be revealed only in exceptional circumstances, for example if it is required by law. The individuals involved will be assumed to be innocent until it is proven that a law or regulation has been violated.

[1] Here, the term administrative employees includes all individuals who are employed by the DEUTZ Group, including its foreign affiliates, as at December 31 of any given year and who are integrated into the Group's IT infrastructure, have access to a PC, and speak either German or English, as the e-learning modules are available only in these languages. It excludes employees who left the Company during the year, were on parental leave, or were absent for more than 50 percent of the year due to long-term sick leave.

People can also report actual or suspected compliance violations, anonymously if they so wish, by email, post, or fax. The relevant contact details are published on the Company website at **https://www.deutz.com/en/about-us/compliance/code-of-conduct/**.

SUPPLIER MANAGEMENT

DEUTZ maintains business relationships with nearly 900 suppliers in around 50 countries. With around €1 billion in direct materials purchased annually worldwide, the Company's supply chain makes a significant contribution to its value creation process. As the Company's subsidiaries are mainly sales companies, overall responsibility for supplier management[1], including the approval of production component suppliers, lies predominantly with DEUTZ AG as the executive parent company.

Supplier management has, until now, primarily been focused on the quality of the supplied components, lead times, and commercial conditions. However, DEUTZ is now looking to progressively incorporate aspects of sustainability into the selection and assessment of suppliers, and, in doing so, to fulfill its responsibilities as a corporate citizen. With these aims in mind, DEUTZ has for the first time set targets for its supplier management as part of its new sustainability strategy. The measures that have already been initiated and that are envisaged for the future pertain not just to DEUTZ AG but to the DEUTZ Group as a whole. There are also plans to centralize Group procurement so that, in the medium term, all subsidiaries will be subject to the same principles as apply at DEUTZ AG.

Sustainability in the supply chain In 2019, DEUTZ introduced a groupwide code of conduct for suppliers on matters such as respecting human rights, safeguarding the health and safety of workers, and complying with environmental protection standards. This was the first step and, since January 1, 2020, the code of conduct has formed part of all new supplier contracts as well as the general purchasing conditions. In a second step, the plan is to conduct periodic **audits** of existing and new suppliers to ensure that they are adhering to the code of conduct. DEUTZ has set itself the target of auditing 30 existing suppliers a year from 2020 and auditing 90 percent of all suppliers brought on board each year by the end of 2023.

In the reporting period, DEUTZ also started the process of creating an online assessment platform for global purchasing chains, which is to be used to review the sustainability practices of suppliers starting from the first half of 2020. The aim is to have assessed 50 percent[2] of suppliers by the end of 2023.

DEUTZ also intends to use a new business partner compliance tool →more information: Corporate governance & compliance, p. 89 to make sure that its suppliers are not engaged in money laundering, anti-competitive practices, corruption, bribery, or other forms of misconduct. The aim for 2023 is for 90 percent of all suppliers[3] to have been reviewed using this tool.

Supplier management system DEUTZ AG systematically manages its suppliers using a 'supplier cockpit', which assists in monitoring the performance of key suppliers from a purchasing, logistics, and quality perspective. In the case of development partners, it also looks at their research and development capabilities and their ability to innovate. If necessary, the findings are used to draw up and initiate an action plan to improve the performance of the supplier.

In the medium term, DEUTZ intends to add sustainability criteria to its supplier cockpit. Once the online assessment platform for global purchasing chains and the business partner compliance tool have been introduced, the technical infrastructure will be put in place to enable the results of the assessment or review to be incorporated.

Approval of production component suppliers DEUTZ AG currently approves production component suppliers by means of a self-declaration and a manufacturing feasibility analysis, among other tools. It only uses production component suppliers certified to ISO 9001:2015, which describes the minimum standards required of a quality management system. The current sustainability strategy envisages the inclusion of sustainability criteria in the future approval process for production component suppliers. A site **audit** is usually carried out to verify the information that has been provided.

[1] The information in this section relates to direct suppliers that have a contractual relationship with DEUTZ.
[2] 50 percent of the top 150 suppliers as measured by DEUTZ's purchasing volume in the prior year.
[3] Relates to existing suppliers with whom DEUTZ's purchasing volume for the prior year exceeded €0.5 million.

Compliance with international regulations On account of its business activities, its products, the components of these products, and the processes used to manufacture them, DEUTZ is subject to regulations pertaining to the registration, evaluation, authorization, and restriction of chemicals **(REACH)**, to the restriction of the use of certain hazardous substances in electrical and electronic equipment **(RoHS)**, and to the use of conflict minerals.

DEUTZ created the **Material Compliance** department in 2019 to ensure compliance with these and other regulations. The department's job is to progressively expand the level of collaboration with suppliers of production materials and to optimize processes with regard to the materials and substances that are used. To achieve these aims, it works closely with Component Purchasing for Series Production and the Supplier Quality department, including in an advisory capacity, continually evaluates the laws and regulations that are relevant to DEUTZ, and stipulates the criteria for the selection of production component suppliers with regard to **material compliance**. Work also began on setting up an online database for material declarations with the aim of monitoring supplier compliance with these criteria and improving the management of processes. This will eventually cover all suppliers.

ENVIRONMENTAL RESPONSIBILITY

ENVIRONMENTAL AND CLIMATE PROTECTION

DEUTZ believes that part of its responsibility to society is to help improve the protection of the environment and climate around the world by developing innovative drive solutions for its customers. We also strive to fulfill our responsibility in this area by continuously optimizing the processes and activities associated with our own business operations with regard to their impact on the environment and society.

The production sites[1] of the DEUTZ Group are largely managed at local level due to local differences. The following remarks refer in the main to the DEUTZ AG network of production sites.

Despite the decentralized organizational structure, we have set a number of targets as part of our sustainability strategy that – unless otherwise specified – relate to the production sites[1] of the Group as a whole.

Internal inspections and legal conformity All relevant areas of the business such as the assembly line and the paintshop are examined at least once a year by an internal team of auditors and experts to certify compliance with the Company's own objectives and specifications, and with statutory requirements such as those resulting from the Act on the Prevention of Harmful Effects on the Environment Caused by Air Pollution, Noise, Vibration and Similar Phenomena (Federal Immission Control Act – BImSchG) and the Act to Promote Circular Economy and Safeguard the Environmentally Compatible Management of Waste (Circular Economy Act – KrWG). This enables nonconformities and potential for improvement to be identified at an early stage, the implementation status and the impact of measures already introduced to be monitored, and new measures to be initiated.

An approval procedure ensures that the use in production of substances that could be detrimental to the safety of our staff, our customers, or the environment is minimized as far as is possible. As a downstream user of such products, DEUTZ uses rigorous supplier controls to assess compliance with the **REACH** and **RoHS** standards and set up the **Material Compliance** unit in 2019 to ensure adherence to the relevant requirements. → more information: Supplier management, p. 91

[1] Excluding joint ventures.

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Integrated management system (IMS) DEUTZ AG's **integrated management system**, which currently covers environmental protection, energy, and quality, meets the requirements in the current versions of the international DIN EN ISO 14001, 50001, and 9001:2015 standards. During the reporting period, conformity with regard to the various scopes was reviewed and recertified by the independent auditors from TÜV Rheinland Cert GmbH. No nonconformities with the standards were identified. In 2020, the Company plans to extend the scope of DIN EN ISO 14001 to cover other production facilities in Germany.

In addition to the annual audit by the independent certification company, DEUTZ AG routinely sets its own targets under the integrated management system. The review and assessment are carried out in close collaboration between the departments and the most senior level of management. Together, they draw up measures to correct processes and to achieve targets.

In 2019, the external auditors carried out a monitoring audit and recertified DEUTZ AG's energy management system under DIN EN ISO 50001. As in previous years, no nonconformities were identified at the Cologne and Ulm sites. The system enables the continuous monitoring of consumption and energy flows, which in turn facilitates the effective planning and implementation of improvement measures.

The Spanish production facility of our DEUTZ Spain subsidiary in Zafra is certified under the applicable international ISO 14001 and ISO 9001:2015 standards.

Measures to reduce energy consumption In respect of the Company's head office in Cologne, various measures were implemented in the reporting year to reduce energy consumption. These included increasing the energy efficiency of existing buildings, the introduction of '**cold testing**' for certain diesel engines, during which diagnostics programs are run without any fuel being used, and the phased replacement of conventional lighting with LED lighting. The implementation of these measures will continue in 2020.

Plans have also been drawn up for the use of renewable energies. In 2020, photovoltaic systems will be installed on larger roof areas. In addition, the Company is pressing ahead with an exploratory project to analyze the supply of heating in the industrial and winter networks in order to leverage savings potential in gas consumption and examine the feasibility of installing a combined heat and power unit.

DEUTZ Group: Energy consumption at the production sites[1]

MWh

	2019[6]	2018[6]	2017
Electricity	87,316	94,999	84,605
Natural gas	35,989	38,271	35,277
District heating	10,969	12,349	12,223
Heating oil[2]	2,685	3,359	3,653
Diesel fuel[3]	20,764	18,165	19,218
CNG[4]	72	0	0
LPG[5]	390	633	421
Total	**158,186**	**167,777**	**155,397**

[1] Excluding joint ventures.
[2] At 10.5 kWh/liter (mean).
[3] At 9.85 kWh/liter (mean).
[4] At 10.0 kWh/m³ for CNG (H) (mean) and 8.2 kWh/m³ for CNG (L) (mean).
[5] At 12.8 kWh/kg (mean).
[6] The figures for 2019 and 2018 are not directly comparable with the figure for 2017 because the subsidiary Torqeedo, which was acquired in 2017, is only included from the start of 2018.

The consumption of energy, primarily electricity, declined compared with the prior year in line with the contraction of the production program. The reason why the decline in consumption is not directly proportional to the reduction in the production program is that certain base load consumption also occurs during non-production periods.

Diesel consumption rose sharply compared to the prior year. A reduction in the area of production test rigs was unable to compensate for the large number of endurance tests on the development test rigs in 2019.

The consumption of energy for heating – gas, oil, and district heating – declined across the board compared with the prior year. Here too, the fall in production meant reduced demand for indoor heating.

Reduction of the emissions from our production sites[1] The majority of the scope 1 emissions from our production sites[1] are generated in connection with testing in the area of research and development and with production quality controls. This testing involves using rigs to replicate the real-life operation of our engines, which of course produces emissions.

In addition to our overarching objective of driving forward the use of alternative drive systems, we are focusing on continually optimizing our processes in order to lower emissions over the long term. For example, the amount of time that engines spend in the test bays is being shortened through standardization, which is reducing the volume of emissions generated.

DEUTZ Group: CO_2 emissions from production sites[1]

Tonnes CO_2e

	2019[2]	2018[2]	2017
CO_2 emissions (Scope 1)	13,590	13,530	13,239
CO_2 emissions (Scope 2)	38,828	42,240	38,012
Total CO_2 emissions	**52,418**	**55,770**	**51,251**

Scope 1: CO_2 emissions from diesel, natural gas, LPG, heating oil, and CNG caused by combustion in our own facilities.

Scope 2: CO_2 emissions relating to purchased energy, for example electricity and district heating.

[1] CO_2e = carbon dioxide equivalents; CO_2 emissions from the production sites of the DEUTZ Group excluding joint ventures. CO_2e figures are reported in accordance with the Greenhouse Gas Protocol and are determined by multiplying the energy consumed by the relevant emissions factor.

[2] The figures for 2019 and 2018 are not directly comparable with the figure for 2017 because the subsidiary Torqeedo, which was acquired in 2017, is only included from the start of 2018.

As a result of increased research activities at the Cologne-Porz plant, fuel consumption rose in comparison with the prior year. The measures already introduced to reduce energy consumption were not sufficient to offset the resulting increase in CO_2 emissions from our production sites[2].

[1] Excluding joint ventures.

DEUTZ Group: CO_2 emissions from production sites per manufactured engine[1]

Emissions per engine

	2019[2]	2018[2]	2017
CO_2e (kg)	250	257	299

[1] Excluding joint ventures. CO_2e = carbon dioxide equivalents; CO_2 figures are reported in accordance with the Greenhouse Gas Protocol. The 'emissions per engine' figure is calculated by dividing total emissions by the number of engines made. CO_2 reporting includes scopes 1 and 2. Only internal combustion engines and electric motors are counted, i.e. no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines.

[2] The figures for 2019 and 2018 are not directly comparable with the figure for 2017 because the subsidiary Torqeedo, which was acquired in 2017, is only included from the start of 2018.

The figure CO_2 emissions per manufactured engine[3] is, by definition, dependent on the production program in the relevant year. However, even though the production program contracted by around 6 percent year on year in 2019, the CO_2 emissions per manufactured engine[3] fell by roughly 3 percent due to the impact of the measures introduced to reduce these emissions.

Targets for the reduction of CO_2 emissions Under our new sustainability strategy, we have set ourselves the target for 2023 of reducing CO_2 emissions by 20 percent compared to the base year 2017, both for our production sites[2] and per manufactured engine[3]. In order to achieve these goals, existing systems need to be optimized and methods trialed that could allow DEUTZ to dispense with some of the tests currently run for quality control.

In 2019, the CO_2 emissions of our production sites[2] rose by around 2 percent in comparison with the base year 2017. However, the CO_2 emissions per manufactured engine[3] were reduced by around 16 percent compared to the base year.

[2] CO_2e = carbon dioxide equivalents; CO_2 emissions from the production sites of the DEUTZ Group excluding joint ventures. CO_2 figures are reported in accordance with the Greenhouse Gas Protocol and are determined by multiplying the energy consumed by the relevant emissions factor.

[3] Excluding joint ventures. CO_2e = carbon dioxide equivalents; CO_2 figures are reported in accordance with the Greenhouse Gas Protocol. The 'emissions per engine' figure is calculated by dividing total emissions by the number of engines made. CO_2 reporting includes scope 1 (CO_2 emissions from diesel, natural gas, LPG, heating oil, and CNG caused by combustion in our own facilities) and scope 2 (CO_2 emissions relating to purchased energy, for example electricity and district heating). Only internal combustion engines and electric motors are counted, i.e. no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines.

Nitrogen oxide and particulate emissions fall below the approved thresholds The ongoing development of our engines is heavily influenced by laws and legislation, for example in the form of ever stricter emissions restrictions. →more information: Time for innovation, p. 20 Because of this, our development activities are aimed at continually optimizing the performance of the exhaust aftertreatment systems and the technical configuration of our products. Routine measurements carried out by experts at the DEUTZ AG production sites confirm that we are in line with or well within the approved thresholds.

DEUTZ Group: Nitrogen oxide and particulate emissions from production sites per manufactured engine[1]

	2019[2]	2018	2017
Nitrogen oxide (kg)	0.33	0.19	0.25
Particulate (g)	2.70	1.80	2.21

[1] Excluding joint ventures; the 'nitrogen oxide' and 'particulate' figures are calculated by dividing total emissions from test bays by the number of engines made.
Only internal combustion engines are counted, i.e. no electric motors – as these do not produce nitrogen oxide and particulate emissions – and no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines.

[2] The figures for 2019 are not directly comparable with the figures for the previous years because the nitrogen oxide and particulate emissions in 2018 and 2017 were only collected for the production facilities of DEUTZ AG. In 2019, the scope was extended to the DEUTZ Group.

The rise in nitrogen oxide and particulate emissions of the production sites per manufactured engine[1] compared to the prior year is partly due to higher fuel consumption in research and development, which is in turn a consequence of the specified scope of testing. The content of such testing cannot be reduced nor can the duration be shortened. In addition, the figures for 2019 are not directly comparable with the figures for the previous years because the nitrogen oxide and particulate emissions in 2018 and 2017 were only collected for the production facilities of DEUTZ AG. In 2019, the scope was extended to the DEUTZ Group.

For 2023, we have set ourselves the target of reducing both nitrogen oxide and particulate emissions of the production sites per manufactured engine[4] by 3 percent compared to the base year 2019.

[4] Excluding joint ventures; the 'nitrogen oxide and particulate emissions per manufactured engine' figure is calculated by dividing total emissions from test bays by the number of engines made. Only internal combustion engines are counted, i.e. no electric motors – as these do not produce nitrogen oxide and particulate emissions – and no other components such as batteries, gearwheels, or conrods for non-DEUTZ engines.

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INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON NON-FINANCIAL REPORTING[1]

To DEUTZ AG, Köln

We have performed a limited assurance engagement on the combined separate non-financial report purs uant to §§ (Articles) 289b Abs. (paragraph) 3 and 315b Abs. 3 HGB ('Handelsgesetzbuch': 'German Commercial Code') of DEUTZ AG, Köln (hereinafter the 'Company') for the period from 01 January to 31 December 2019 (hereinafter the 'Non-financial Report').

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS

The executive directors of the Company are responsible for the preparation of the Non-financial Report in accordance with §§ 315c in conjunction with 289c to 289e HGB.

This responsibility of Company's executive directors includes the selection and application of appropriate methods of non-financial reporting as well as making assumptions and estimates related to individual non-financial disclosures which are reasonable in the circumstances. Furthermore, the executive directors are responsible for such internal control as they have considered necessary to enable the preparation of a Non-financial Report that is free from material misstatement whether due to fraud or error.

INDEPENDENCE AND QUALITY CONTROL OF THE AUDIT FIRM

We have complied with the German professional provisions regarding independence as well as other ethical requirements.

Our audit firm applies the national legal requirements and professional standards – in particular the Professional Code for German Public Auditors and German Chartered Auditors ('Berufssatzung für Wirtschaftsprüfer und vereidigte Buchprüfer': 'BS WP/vBP') as well as the Standard on Quality Control 1 published by the Institut der Wirtschaftsprüfer (Institute of Public Auditors in Germany; IDW): Requirements to quality control for audit firms (IDW Qualitätssicherungsstandard 1: Anforderungen an die Qualitätssicherung in der Wirtschaftsprüferpraxis – IDW QS 1) – and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

PRACTITIONER'S RESPONSIBILITY

Our responsibility is to express a limited assurance conclusion on the Non-financial Report based on the assurance engagement we have performed.

Within the scope of our engagement, we did not perform an audit on external sources of in-formation or expert opinions, referred to in the Non-financial Report.

We conducted our assurance engagement in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): Assurance Engagements other than Audits or Reviews of Historical Financial Information, issued by the IAASB. This Standard requires that we plan and perform the assurance engagement to allow us to conclude with limited assurance that nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 1 January to 31 December 2019 has not been prepared, in all material aspects, in accordance with §§ 315c in conjunction with 289c to 289e HGB.

In a limited assurance engagement the assurance procedures are less in extent than for a reasonable assurance engagement, and therefore a substantially lower level of assurance is obtained. The assurance procedures selected depend on the practitioner's judgment.

Within the scope of our assurance engagement, we performed amongst others the following assurance procedures and further activities:

- Obtaining an understanding of the structure of the sustainability organization
- Inquiries of personnel involved in the preparation of the Non-financial Report regarding the preparation process, the internal control system relating to this process and selected disclosures in the Non-financial Report
- Identification of the likely risks of material misstatement of the Non-financial Report
- Analytical evaluation of selected disclosures in the Non-financial Report

[1] PricewaterhouseCoopers GmbH has performed a limited assurance engagement on the German version of the combined separate non-financial report and issued an independent assurance report in German language, which is authoritative. The following text is a translation of the independent assurance report.

- Comparison of selected disclosures with corresponding data in the consolidated financial statements and in the group management report
- Evaluation of the presentation of the non-financial information

ASSURANCE CONCLUSION

Based on the assurance procedures performed and assurance evidence obtained, nothing has come to our attention that causes us to believe that the Company's Non-financial Report for the period from 01 January to 31 December 2019 has not been prepared, in all material aspects, in accordance with §§ 315c in conjunction with 289c to 289e HGB.

INTENDED USE OF THE ASSURANCE REPORT

We issue this report on the basis of the engagement agreed with the Company. The assurance engagement has been performed for purposes of the Company and the report is solely intended to inform the Company about the results of the limited assurance engagement. The report is not intended for any third parties to base any (financial) decision thereon. Our responsibility lies only with the Company. We do not assume any responsibility towards third parties.

Frankfurt, 4 March 2020

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Nicolette Behncke Wirtschaftsprüfer German public auditor	ppa. Juliane v. Clausbruch Wirtschaftsprüfer German public auditor

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INCOME STATEMENT FOR THE DEUTZ GROUP

€ million

	Note	2019	2018
Revenue	1	**1,840.8**	**1,778.8**
Cost of sales	2	–1,510.5	–1,468.3
Research and development costs	3	–95.3	–92.0
Selling expenses	4	–103.4	–96.4
General and administrative expenses	4	–48.4	–49.3
Other operating income	5	29.0	40.6
Other operating expenses	6	–24.3	–17.7
Write-downs of financial assets		–1.7	–0.7
Profit/loss on equity-accounted investments	7	0.7	–2.2
Write-downs of equity-accounted investments	7	0.0	–11.3
Other net investment income	7	1.2	0.5
EBIT		**88.1**	**82.0**
thereof exceptional items		9.3	0.0
thereof operating profit (EBIT before exceptional items)		78.8	82.0
Interest income	8	1.0	0.5
Interest expense	8	–2.9	–2.4
Other finance costs	8	–11.1	0.0
Financial income, net	8	**–13.0**	**–1.9**
Net income before income taxes		**75.1**	**80.1**
Income taxes	9	–22.8	–10.2
Net income		**52.3**	**69.9**
thereof attributable to shareholders of DEUTZ AG		52.3	69.9
thereof attributable to non-controlling interests		0.0	0.0
Earnings per share (basic/diluted, €)	10	**0.43**	**0.58**

STATEMENT OF COMPREHENSIVE INCOME FOR THE DEUTZ GROUP

€ million

	Note	2019	2018
Net income		**52.3**	**69.9**
Amounts that will not be reclassified to the income statement in the future	11	**–5.7**	**–0.1**
Remeasurements of defined benefit plans		–5.7	–0.1
Amounts that will be reclassified to the income statement in the future if specific conditions are met	11	**4.8**	**–16.4**
Currency translation differences		4.2	–15.1
thereof profit/loss on equity-accounted investments		3.0	–15.8
Effective portion of change in fair value from cash flow hedges		0.4	–1.1
Fair value of financial instruments		0.2	–0.2
Other comprehensive income, net of tax	11	**–0.9**	**–16.5**
Comprehensive income		**51.4**	**53.4**
thereof attributable to shareholders of DEUTZ AG		51.4	53.4
thereof attributable to non-controlling interests		0.0	0.0

BALANCE SHEET FOR THE DEUTZ GROUP

€ million

Assets	Note	**Dec. 31, 2019**	Dec. 31, 2018
Property, plant and equipment	12	347.2	283.8
Intangible assets	13	216.2	203.6
Equity-accounted investments	14	51.1	2.1
Other financial assets	15	5.0	16.7
Non-current assets (before deferred tax assets)		**619.5**	**506.2**
Deferred tax assets	16	68.6	75.9
Non-current assets		**688.1**	**582.1**
Inventories	17	321.7	333.5
Trade receivables	18	152.1	157.3
Other receivables and assets	18	84.0	43.2
Cash and cash equivalents	19	55.3	132.8
Current assets		**613.1**	**666.8**
Non-current assets classified as held for sale		0.0	0.4
Total assets		**1,301.2**	**1,249.3**

Equity and liabilities	Note	**Dec. 31, 2019**	Dec. 31, 2018
Issued capital		**309.0**	**309.0**
Additional paid-in capital		28.8	28.8
Other reserves		0.1	–4.7
Retained earnings and accumulated income		314.3	285.8
Equity attributable to shareholders of DEUTZ AG		**652.2**	**618.9**
Non-controlling interests		0.2	0.2
Equity	20	**652.4**	**619.1**
Provisions for pensions and other post-retirement benefits	21	151.2	152.8
Deferred tax liabilities	16	0.8	0.5
Other provisions	22	33.4	36.2
Financial debt	23	34.1	19.3
Other liabilities	24	5.7	3.5
Non-current liabilities		**225.2**	**212.3**
Provisions for pensions and other post-retirement benefits	21	12.4	13.0
Provision for current income taxes		1.3	17.9
Other provisions	22	66.6	65.4
Financial debt	23	36.4	19.8
Trade payables	24	180.6	214.6
Other liabilities	24	126.3	87.2
Current liabilities		**423.6**	**417.9**
Total equity and liabilities		**1,301.2**	**1,249.3**

STATEMENT OF CHANGES IN EQUITY FOR THE DEUTZ GROUP

€ million

	Issued capital[3]	Additional paid-in capital[3]	Retained earnings and accumulated income[3]	Fair value reserve[1,2]	Currency translation reserve[1]	Equity attributable to shareholders of DEUTZ AG	Non-controlling interests[3]	Total[3]
Balance at Dec. 31, 2017	**309.0**	**28.8**	**249.4**	**0.7**	**11.1**	**599.0**	**0.2**	**599.2**
Adjustment due to correction of errors			–15.2		0.3	–14.9		–14.9
Adjusted balance at Dec. 31, 2017	**309.0**	**28.8**	**234.2**	**0.7**	**11.4**	**584.1**	**0.2**	**584.3**
Change in accounting methods[4]			–0.1	–0.4		–0.5		–0.5
Adjusted balance at Jan. 1, 2018	**309.0**	**28.8**	**234.1**	**0.3**	**11.4**	**583.6**	**0.2**	**583.8**
Dividend payments			–18.1			–18.1		–18.1
Net income			69.9			69.9	0.0	69.9
Other comprehensive income			–0.1	–1.3	–15.1	–16.5	0.0	–16.5
Comprehensive income			69.8	–1.3	–15.1	53.4	0.0	53.4
Balance at Dec. 31, 2018	**309.0**	**28.8**	**285.8**	**–1.0**	**–3.7**	**618.9**	**0.2**	**619.1**
Balance at Dec. 31, 2018	**309.0**	**28.8**	**285.8**	**–1.0**	**–3.7**	**618.9**	**0.2**	**619.1**
Dividend payments			–18.1			–18.1		–18.1
Net income			52.3			52.3	0.0	52.3
Other comprehensive income			–5.7	0.6	4.2	–0.9	0.0	–0.9
Comprehensive income			46.6	0.6	4.2	51.4	0.0	51.4
Balance at Dec. 31, 2019	**309.0**	**28.8**	**314.3**	**–0.4**	**0.5**	**652.2**	**0.2**	**652.4**

[1] On the balance sheet these items are aggregated under 'Other reserves'.
[2] Reserves from the measurement of cash flow hedges and reserves from the measurement of financial instruments.
[3] The items of equity are explained in Note 20 of the notes to the consolidated financial statements.
[4] The adjustment of the figures relates to the change in the recognition of financial instruments stipulated by IFRS 9.

CASH FLOW STATEMENT FOR THE DEUTZ GROUP

€ million

	Note	2019	2018
EBIT		**88.1**	**82.0**
Income taxes paid		–32.2	–16.7
Depreciation, amortization and impairment of non-current assets		87.4	79.4
Gains/losses on the sale of non-current assets		–8.7	0.1
Profit/loss and impairment on equity-accounted investments		–0.2	14.1
Other non-cash income and expenses		2.9	–15.8
Change in working capital		–11.5	–50.4
Change in inventories		14.1	–43.8
Change in trade receivables		9.2	–13.4
Change in trade payables		–34.8	6.8
Change in other receivables and other current assets		–35.1	–6.8
Change in provisions and other liabilities (excluding financial liabilities)		24.9	11.6
Cash flow from operating activities		**115.6**	**97.5**
Capital expenditure on intangible assets, property, plant and equipment		–96.5	–78.9
Expenditure on investments		–49.1	–11.2
Acquisition of subsidiaries		–8.0	0.0
Proceeds from the sale of non-current assets		4.2	9.8
Cash flow from investing activities		**–149.4**	**–80.3**
Dividend payments to shareholders	20	–18.1	–18.1
Interest income		0.4	0.3
Interest expense		–3.2	–3.0
Cash receipts from borrowings		11.6	11.2
Repayments of loans	23	–21.1	–18.6
Principal elements of lease payments		–13.5	–
Cash flow from financing activities		**–43.9**	**–28.2**
Cash flow from operating activities		115.6	97.5
Cash flow from investing activities		–149.4	–80.3
Cash flow from financing activities		–43.9	–28.2
Change in cash and cash equivalents		**–77.7**	**–11.0**
Cash and cash equivalents at Jan. 1		**132.8**	**143.8**
Change in cash and cash equivalents		–77.7	–11.0
Change in cash and cash equivalents related to exchange rates		0.2	0.0
Cash and cash equivalents at Dec. 31	19	**55.3**	**132.8**

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

BASIS OF PRESENTATION

PARENT COMPANY

The parent company of the DEUTZ Group is DEUTZ AG. Its registered office is located at Ottostrasse 1, 51149 Cologne, Germany, and the Company is entered under no. HRB 281 in the commercial register at the local court in Cologne. The Board of Management approved these consolidated financial statements for publication by adoption of a resolution dated February 14, 2019.

DEUTZ AG shares are listed in the Deutsche Börse SDAX segment and are publicly traded on the **Xetra** electronic trading platform and on all German stock exchanges.

DEUTZ is one of the world's leading manufacturers of innovative drive systems. The portfolio extends from diesel and gas engines to hybrid and all-electric drives that are used in various 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. The business is broken down into the main application segments of Construction Equipment, **Material Handling**, Agricultural Machinery, and Stationary Equipment. Comprehensive aftersales service rounds off the product range offered. The Group's activities are divided into three operating segments: DEUTZ Compact Engines, DEUTZ Customized Solutions, and Other. The DEUTZ Compact Engines segment comprises liquid-cooled engines with capacities of up to 8 liters. The DCS segment specializes in liquid-cooled engines with capacities of over 8 liters and in air-cooled drives. It also includes reconditioned exchange engines and parts produced under the name DEUTZ **Xchange**, along with engine series that are soon to be discontinued. The Torqeedo subsidiary is included in the Other segment. With a wealth of expertise in the electrification of drive systems, it focuses on electric-powered watercraft. Also in the Other segment is Futavis, a development services provider that specializes in high-voltage battery management systems. Futavis was acquired in 2019. In its operating segments, DEUTZ focuses on value creation processes involving the development, design, production, and sales of liquid-cooled and air-cooled engines, hybrid engines, and electrified drive systems.

BASIS OF PREPARATION OF THE FINANCIAL STATEMENTS

The DEUTZ Group's consolidated financial statements prepared for the parent company DEUTZ AG are based on uniform accounting policies. The consolidated financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS) and their interpretations as adopted by the European Union (EU) and are consistent with the statutory obligations applicable to publicly traded parent companies subject to disclosure requirements pursuant to section 315e (1) of the German Commercial Code (HGB) in conjunction with Article 4 of Regulation (EC) No. 1606/2002 of the European Parliament and of the Council dated July 19, 2002 concerning the application of international accounting standards, as amended (IAS Regulation).

The consolidated financial statements are generally prepared using the cost method. Specific exceptions are derivative financial instruments and other financial instruments that are measured at fair value. The consolidated financial statements are prepared in euros. Unless otherwise stated, all figures are rounded up or down to the nearest million euros.

APPLICATION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (IFRS)

1) Amendments to accounting policies

The accounting policies on which the consolidated financial statements are based are fundamentally the same as the policies applied in 2018 with the exceptions set out below.

'Plan Amendment, Curtailment or Settlement' (Amendments to IAS 19) The amendments to IAS 19 'Employee Benefits' were published in February 2018. If a defined benefit pension plan amendment, curtailment, or settlement occurs, it is mandatory for the current service cost and the net interest for the remainder of the financial year to be newly determined using the actuarial assumptions used for the required remeasurement of the net liability (asset). In addition, amendments have been included to clarify the effect of a plan amendment, curtailment, or settlement on the requirements regarding the asset ceiling. It has not had any material impact on the DEUTZ Group's consolidated financial statements.

'Long-term Interests in Associates and Joint Ventures' (Amendments to IAS 28) Published in October 2017, these amendments aim to clarify that IFRS 9 has to be applied to long-term interests in an associate or joint venture that form part of the net investment in this associate or joint venture but to which the equity method is not applied. Initial application of these

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amendments did not have any impact on the Group's consolidated financial statements because the Group does not have such interests.

'Prepayment Features with Negative Compensation' (Amendments to IFRS 9) In October 2017, the IASB amended IFRS 9 so that financial assets with symmetric termination rights are measured at amortized cost or at fair value through other comprehensive income. The IASB also clarified that, if a financial liability is not derecognized after being modified, the carrying amount of the liability has to be adjusted and recognized in profit or loss after the modification. Initial application of this amendment did not have any material impact on the consolidated financial statements.

IFRS 16 'Leases' The IASB published IFRS 16 in January 2016. This new standard replaces IAS 17 'Leases' and the interpretations relating to them (IFRIC 4, SIC 15, and SIC 27). IFRS 16 governs the recognition, measurement, presentation, and disclosure of leases. As a result of this new accounting model, lessees must recognize assets and liabilities for all leases on the balance sheet, unless the lease term is twelve months or less or the underlying asset has a low value. DEUTZ is making use of the above exemptions and so does not recognize assets and liabilities resulting from these kinds of leasing arrangements on its balance sheet. It is not exercising the option to recognize intangible assets in accordance with IFRS 16 because of the highly complex nature of the software contracts involved and the negligible impact on earnings. Furthermore, the new leasing standard allows the lessee, at the date of initial application, to recognize right-of-use assets in an amount equivalent to the lease liabilities and to dispense with the separation of leasing and non-leasing components. DEUTZ is also making use of these options. It is electing to do so for reasons of practicality and because of the negligible impact on net income. The carrying amount of the lease liability that is being recognized is calculated using the incremental borrowing rate of interest applicable at the transition date. The DEUTZ Group applies incremental borrowing rates of interest specific to the currency and term of the lease; for long-term financing denominated in the domestic currency these are based on swap rates and for long-term financing denominated in a foreign currency they are based on swap curves. Because of how the Group companies are internally financed, the Group interest margin is added to the interest rates specific to the currency and term of the lease so that the discount rate applied covers the interest margin as a minimum. The weighted average of the incremental borrowing rate of interest applicable at the transition date was 2.0 percent.

DEUTZ is applying the new standard for the first time for the 2019 financial year, taking the modified retrospective approach. Under the modified retrospective approach, the prior-year comparative figures are not restated; instead, any adjustments may be recognized in the opening balance of retained earnings for the year of initial application. Initial application of IFRS 16 increased the balance sheet by €41.2 million due to the recognition of the right-of-use assets and corresponding lease liabilities, with the carrying amount of non-current financial debt rising by €29.7 million and of current financial debt by €11.5 million. The transition effect is primarily attributable to the recognition of right-of-use assets attaching to leased property. Applying the practical expedient set out in IFRS 16.C10 (b), an impairment test was not carried out. There were also no onerous leases as at the transition date. Leases with an indefinite term, most of which are property leases, are assumed to have a term of 60 months, which is equivalent to the detailed planning phase of the Group financial planning process. Initial application of IFRS 16 did not have any impact on the recognition of deferred taxes because the right-of-use assets and corresponding lease liabilities were initially recognized in the same amount.

The following table shows the reconciliation of obligations under rental agreements and leases as at December 31, 2018 to the opening balance of lease liabilities as at January 1, 2019:

€ million	
Obligations under rental agreements and leases as at Dec. 31, 2018	**42.4**
Recognition exemptions for short-term leases	–0.1
Recognition exemptions for leases with low-value assets	–1.8
Discount	–2.0
Other	2.7
Lease liabilities as at Jan. 1, 2019	**41.2**

For the period January 1 to December 31, 2019, this had the following effects on the Group's financial position and financial performance:

- **EBIT** +€0.6 million
- Net income –€0.4 million
- Free cash flow +€13.5 million
- **Earnings per share** –€0.01

As at December 31, 2019, right-of-use assets in connection with leases stood at €41.4 million, while lease liabilities amounted to €41.9 million.

IFRIC 23 'Uncertainty over Income Tax Treatments' The publication of IFRIC 23 in June 2017 eliminated uncertainties surrounding the income tax treatment of profits, losses, tax bases, tax credits, and tax rates. An entity has to use its judgment to determine whether each tax treatment should be considered independently or together. It has to decide on a particular tax treatment after considering whether the tax authority will accept such treatment. The entity has to assume that a tax authority will have knowledge of all relevant information when it examines the amounts reported to it. If facts and circumstances change, the entity has to reassess its judgments and estimates. Initial application of this interpretation had no material impact on the consolidated financial statements.

Collective standard amending various IFRSs (2015–2017) The amendments published by the IASB in December 2017 primarily serve to clarify ambiguous provisions in standards. Initial application of these amendments has not had any material impact on the consolidated financial statements.

2) Published standards, interpretations, and amendments that have already become part of EU law but are not yet mandatory

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRS IC) have published the following standards and amendments to standards that have already become part of EU law via the comitology procedure. However, the application of these standards was not yet mandatory in 2019 and DEUTZ has not opted to apply these interpretations or amendments to standards before the mandatory application date.

Conceptual Framework for Financial Reporting (Amendments) In March 2018, the IASB issued the revised Conceptual Framework. The amendments address elements of the financial statements as well as measurement, the reporting entity, recognition, and disclosures. The amendments come into force for financial years commencing on or after January 1, 2020. They are not expected to have any material impact on the DEUTZ Group's consolidated financial statements.

'Definition of Material' (Amendments to IAS 1 and IAS 8) The amendments published by the IASB in October 2018 are intended to give a precise definition of 'material' so that the information that reaches the primary users of the financial statements is complete and unobscured. The amendments come into force for reporting periods commencing on or after January 1, 2020. They are not expected to have any impact on the DEUTZ Group's consolidated financial statements.

'Interest Rate Benchmark Reform' (Amendments to IFRS 9, IAS 39 and IFRS 7) The IASB published these amendments in September 2019 as a result of the reforms to benchmark rates. The amendments will affect rules on hedge accounting and stipulate additional disclosures on the impact on the entity of the reforms to interbank offered rates (IBOR). The changes to the hedge accounting rules cover retention of the benchmark rate on which the cash flows of the hedged item, hedging instrument, or hedged risk are based, exemption from retrospective assessment of hedge effectiveness, and identification of risk components only when the hedge is originally designated. The amendments come into force for financial years commencing on or after January 1, 2020. The initial application of these amendments is not expected to have a material impact on the Group's consolidated financial statements.

3) Published standards, interpretations, and amendments that have not yet been adopted by the EU

The International Accounting Standards Board (IASB) and the IFRS Interpretations Committee (IFRS IC) have published the following standards and interpretations that have not yet been adopted by the EU and have not yet been applied by the DEUTZ Group.

'Classification of Liabilities as Current or Non-Current' (Amendments to IAS 1) In January 2020, the IASB made changes to IAS 1, introducing a comprehensive definition of liabilities in order to ensure a more accurate presentation of an entity's financial position. Essentially, the amendments clarify that the classification of liabilities as current or non-current has to be based on the contractual rights in place as at the balance sheet date. They also provide a more precise definition of the settlement of a liability. The amendments come into force for financial years commencing on or after January 1, 2022. The initial application of these amendments is not expected to have a material impact on the Group's consolidated financial statements.

'Definition of a Business' (Amendments to IFRS 3) The IASB published these amendments in October 2018. They contain definitions, guidance on adoption, and illustrative examples under IFRS 3 and, among other things, clarify the distinction between a business combination and an asset acquisition. The amendments are to be applied to business combinations and asset acquisitions carried out in reporting periods commencing on or after January 1, 2020. They are not expected to have any material impact on the DEUTZ Group's consolidated financial statements.

'Sale or Contribution of Assets between an Investor and its Associate or Joint Venture' (Amendments to IFRS 10 and IAS 28) The IASB issued these amendments in September 2014. They clarify that in a transaction involving an associate or joint venture the extent of gain or loss recognition depends on whether the assets sold or contributed constitute a business as defined by IFRS 3 'Business Combinations'. The amendments have been postponed indefinitely owing to inconsistencies between the standards.

Significant estimates and assumptions

To a certain extent, the preparation of the consolidated financial statements in accordance with IFRS requires estimates and assumptions that have an impact on the recognition, measurement, and reporting of assets and liabilities, the disclosure of contingent liabilities at the balance sheet date, and the reporting of income and expenses. Estimates and assumptions giving rise to a material risk in the form of adjustments to the carrying amounts of assets or liabilities over the next financial year are explained below. Adjustments to estimates are recognized in income when better knowledge becomes available.

Impairment of non-financial assets The DEUTZ Group conducts tests at each balance sheet date to determine whether there are any indications that non-financial assets may be impaired. In order to estimate the value in use, the management must estimate future cash flows expected to be derived from the asset or from the cash-generating unit and select an appropriate discount rate to determine the present value of these cash flows.

Deferred tax assets The DEUTZ Group is obliged to pay income taxes in various countries. It therefore needs to make estimates on the basis of which tax provisions and deferred taxes can be recognized. When determining the amount of deferred tax assets, the management must make judgments – which may involve material uncertainties – regarding the expected timing and amount of future taxable income as well as future tax planning strategies. DEUTZ mainly recognizes deferred tax assets on losses carried forward. They are recognized for all unused tax loss carryforwards to the extent that it is probable that future taxable profit will be available against which the loss carryforwards can actually be set off. Planning forecasts over a period of five years are used to determine the future taxable profit that is likely to be available.

As at December 31, 2019, the carrying amount of deferred tax assets recognized in respect of tax loss carryforwards amounted to €62.2 million (December 31, 2018: €70.4 million). Further details can be found in Note 16 on page 130.

Pension benefits The expense for defined benefit plans is determined using actuarial calculations. These actuarial calculations are based largely on assumptions regarding discount rates, mortality, and future increases in pensions. These estimates are subject to material uncertainty owing to the long-term nature of these plans.

Because of changes in economic and market conditions, the costs and liabilities actually incurred may differ significantly from the estimates made on the basis of actuarial assumptions. The rate of pension increases, the longevity of those entitled to pension benefits, and the discount rate used can have a material impact on the amount of the defined benefit obligation and, consequently, on future pension costs.

Development expenditure is capitalized in accordance with the accounting policies described below. Management makes assumptions about the amount of future cash flows expected to be generated from the development projects, the discount rates to be applied, and the period over which the cash is expected to flow into the Company in order to determine the amounts to be capitalized. As at December 31, 2019, the carrying amount of capitalized development expenditure was €108.8 million (December 31, 2018: €108.4 million).

Pending or potential legal disputes DEUTZ AG and other companies in the DEUTZ Group are subject to a variety of regulations under tax, competition, and patent law as well as to other legal and statutory requirements. Existing and potential legal disputes are recorded and analyzed on an ongoing basis at DEUTZ; they are assessed in terms of their legal and financial impact and an appropriate amount is recognized in the risk provisions in the accounts. At present, it is not possible to predict the outcome of pending cases with any degree of certainty beyond the provisions already recognized. We do not expect them to have a significant adverse impact on the DEUTZ Group's financial position or financial performance. The overall position as regards the legal risks facing the DEUTZ Group is explained in more detail in Note 28 on page 157.

Business combinations When acquirees are consolidated for the first time, the identifiable assets and liabilities (including contingent liabilities) are recognized at their fair value as at the date of acquisition. The measurement of intangible assets is particularly subject to uncertainties. They are measured using accepted valuation methods on the basis of estimates of future cash flows, expected growth rates and exchange rates, discount rates, and useful lives.

Leases The lessee's incremental borrowing rate is used to measure lease liabilities because it is not possible to ascertain the interest rate implicit in the lease. The lessee's incremental borrowing rate is the rate of interest that a lessee would have to pay to borrow – over a similar term and with a similar security – the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment. This incremental borrowing rate is determined using observable inputs: interbank rate, intra-group interest margin for contributions and short-term funding, interest rates for mortgage bonds, and country risk premium.

Leases with an indefinite term are assumed to have a term of five years, which is equivalent to the Group's medium-term planning period. However, this does not apply to leases that have an annual termination option that can be exercised by either the lessee or the lessor, such option giving rise to only an immaterial termination penalty or other immaterial disadvantages for the lessee. These leases are treated as short-term leases.

BASIS OF CONSOLIDATION

All subsidiaries, joint ventures, and associates are included in the consolidated financial statements.

Subsidiaries are all entities directly or indirectly controlled by DEUTZ AG. Subsidiaries are consolidated from the point at which the parent company acquires control. Consolidation ends when the parent company no longer has control. In addition to DEUTZ AG, the consolidated financial statements include nine German subsidiaries (2018: seven) and 18 foreign subsidiaries (2018: 14). Details of the acquisitions during the reporting year and the related impact on the Group's financial position and financial performance can be found in the 'Acquisitions' section on page 109 of these notes to the financial statements.

Joint ventures are companies over which control is exercised jointly by DEUTZ and other entities on the basis of a contractual agreement. Associates are entities over whose business and financial policies DEUTZ AG is able to exert a significant influence but are neither subsidiaries nor joint ventures. Associates and joint ventures are both accounted for in the consolidated financial statements using the equity method. In the year under review, as had also been the case in 2018, the consolidated financial statements included one foreign joint venture and one foreign entity in accordance with the rules governing associates.

The joint venture DEUTZ AGCO Motores S.A., Haedo, Argentina, was deconsolidated in the second quarter of 2019, as a result of which the negative currency translation differences of €2.9 million incurred up to that point were reclassified to profit or loss for the reporting period. The deconsolidation did not have a material impact on net assets or financial position.

In 2019, DEUTZ and Chinese construction equipment manufacturer SANY established a joint venture, Hunan DEUTZ Power Co., Ltd., which is headquartered in Changsha, China. The joint venture agreement was signed in June 2019, and the transaction was completed at the end of December 2019. DEUTZ holds a majority stake of 51 percent in the joint venture, which was included in the consolidated financial statements of DEUTZ AG for the first time as at December 31, 2019. The cost of the investment was accounted for using the equity method at €48.7 million as at December 31, 2019. More information about this joint venture can be found on page 109 of these notes to the financial statements.

Page 166 of the annex to the notes to the financial statements lists the shareholdings of DEUTZ AG as at December 31, 2019.

PRINCIPLES OF CONSOLIDATION

The separate financial statements of the individual entities included in the consolidated financial statements have been prepared using uniform accounting policies in accordance with the regulations on consolidation. The consolidated financial statements comprise the financial statements of DEUTZ AG and of its subsidiaries prepared each year for the twelve months ended December 31.

The acquisition method has been used to account for business combinations since January 1, 2010. The acquisition cost is measured at the fair value of the assets transferred, the liabilities incurred or assumed (including conditional liabilities), and the equity instruments issued at the acquisition date, irrespective of the amount of any non-controlling interests. The determined acquisition cost is then allocated to the identifiable assets and liabilities (including contingent liabilities) that were measured at their fair value as at the date of acquisition in accordance with the rules of IFRS 3. The excess of the cost of acquisition over the value of net assets, after deduction of any non-controlling interests in acquirees, is recognized as goodwill. Negative goodwill is recognized in profit or loss in the period in which the business combination takes place. For each business combination, the Group decides whether to measure the non-controlling interest in the acquiree at fair value (full goodwill method) or at the proportionate fair value of the assets acquired and the liabilities assumed. The option to measure non-controlling interests at fair value is currently not exercised. Non-controlling interests are thus recognized at their proportionate share of the net assets, disregarding the goodwill. Acquisition-related costs arising in connection with business combinations are expensed as incurred.

The acquisition method was used to account for acquisitions between the transition to accounting based on IFRS on January 1, 2005 and December 31, 2009. Under this method, the carrying amount of the investment was offset against the DEUTZ Group's proportionate share of equity in the consolidated subsidiary remeasured at fair value on the acquisition date. Transaction costs directly attributable to the acquisition constituted some of the acquisition-related costs.

Non-controlling interests are the share of net profit/loss and net assets not attributable to the DEUTZ Group. The non-controlling interests reported as at December 31, 2019 relate to Mr. Glavan's holding of 25 percent of the voting shares in DEUTZ Romania S.r.l., of which Mr. Glavan is CEO.

Income and expenses, receivables and payables, and intercompany profits and losses generated between the consolidated entities are eliminated unless they are of no material significance.

JOINT VENTURES AND ASSOCIATES

Investments in joint ventures and associates are accounted for using the equity method. Under the equity method, investments in an associate or joint venture are recognized on the balance sheet at cost plus any changes in the DEUTZ Group's share of the entity's net assets that have occurred since the acquisition. The goodwill related to the associate or joint venture is included in the carrying amount of the investment and is not amortized. The income statement includes the DEUTZ Group's share of the profit or loss generated by the associate or joint venture. Unless they are material, gains and losses on transactions between the Group and its associates or joint ventures are eliminated. Changes recognized directly in the equity of the associate or joint venture are recognized by the DEUTZ Group in the amount of its investment and, as such, are appropriately presented in the statement of changes in equity. With one exception, the financial statements of the associate and joint venture are prepared to the same balance sheet date as the financial statements for the parent. Interim financial statements have not been prepared for reasons of materiality. Where required, figures are restated in line with the uniform accounting policies throughout the DEUTZ Group.

ACQUISITIONS

FUTAVIS

By means of a company sale and purchase agreement dated October 8, 2019, DEUTZ AG acquired 100 percent of the voting shares in Futavis GmbH, Alsdorf, which was included in the consolidated financial statements from this date.

Futavis GmbH is a development services provider for battery management hardware and software. The purchase of Futavis GmbH enables DEUTZ AG to bring expertise in batteries, a crucial core component in its electrification strategy, into the Group. Futavis has extensive technical capabilities in electronics, software, battery technology, and battery testing and in ensuring functional safety. This expertise in high-voltage battery technology adds to the systems knowledge of the subsidiary Torqeedo GmbH in the area of electric drives.

The acquisition of Futavis impacted on the DEUTZ Group's net assets as follows:

€ million	Fair values as at the acquisition date
Technology	1.5
Customer relationships	0.5
Miscellaneous intangible assets and property, plant and equipment	0.1
Non-current assets	**2.1**
Inventories	0.3
Trade receivables	1.0
Cash and cash equivalents	1.8
Current assets	**3.1**
Total assets	**5.2**
Deferred tax liabilities	0.6
Non-current liabilities	**0.6**
Trade payables	0.1
Other current liabilities	1.6
Provisions	0.8
Current liabilities	**2.5**
Total liabilities	**3.1**
Net assets acquired	**2.1**
thereof attributable to DEUTZ AG	2.1
Purchase consideration	**7.8**
thereof consideration transferred	3.5
thereof contingent consideration	4.3
Goodwill of DEUTZ AG	**5.7**

The goodwill acquired represents the company's predicted earnings performance. The acquisition is also expected to result in strategic synergies for development, such as the faster electrification of drive units at DEUTZ AG. This goodwill is currently not tax-deductible. As the purchase price allocation was only carried out on October 8, 2019 and the final purchase consideration has not yet been fixed, the goodwill of €5.7 million is still provisional. The allocation to the relevant cash-generating units has not yet been finalized either.

The purchase consideration amounts to €7.8 million, of which €3.5 million has already been paid in cash. The remaining contingent consideration of €4.3 million will have to be paid by July 1, 2023 (also in cash), depending on the occurrence of certain conditions, for example the achievement of earnings targets. DEUTZ AG's senior management estimates that the contingent consideration will be in a range of €2.4 million to €7.0 million. The transaction costs relating to the business combination, which were immaterial overall, were recognized under other operating expenses in the income statement. The gross amount of the acquired trade receivables equated to €1.1 million. At the date of acquisition, there were assumed to be uncollectible receivables amounting to €0.1 million. The business combination caused consolidated revenue to rise by €1.0 million and net income to fall by €0.1 million. If the acquisition of Futavis had taken place with effect from January 1, 2019, there would have been additional consolidated revenue of €2.6 million and an increase in net income of €0.7 million.

A net cash outflow (after deduction of the cash acquired with Futavis) of €1.7 million has been recognized for the acquisition of Futavis in the 'Acquisition of subsidiaries' line item in the **cash flow statement**.

DPS POWER GROUP

DEUTZ AG acquired 100 percent of the voting shares in Equipco Benelux B. V., Dordrecht, Netherlands, on December 27, 2019. Equipco Benelux B. V., Dordrecht, Netherlands, and its three subsidiaries DPS Power B. V., Dordrecht, Netherlands, DPS Power N. V., Antwerp, Belgium, and PTO Power B. V., Dordrecht, Netherlands, were included in the consolidated financial statements of DEUTZ AG from that date. Equipco Benelux B. V. holds 100 percent of the voting shares in all three companies. DPS Power Group is a long-standing sales and service partner of DEUTZ AG. DPS Power covers demand for DEUTZ engines and spare parts in Belgium and the Netherlands. This acquisition is helping to step up DEUTZ AG's international service business and gives the DEUTZ brand a stronger presence in Belgium and the Netherlands.

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The acquisition of DPS Power impacted on the DEUTZ Group's net assets as follows:

€ million	Fair values as at the acquisition date
Right-of-use assets in connection with leases	2.5
Miscellaneous property, plant and equipment	0.7
Non-current assets	**3.2**
Inventories	0.4
Trade receivables	2.0
Cash and cash equivalents	1.8
Current assets	**4.2**
Total assets	**7.4**
Financial debt in connection with leases	2.4
Non-current liabilities	**2.4**
Financial debt in connection with leases	0.1
Trade payables	0.1
Other current liabilities	1.3
Current liabilities	**1.5**
Total liabilities	**3.9**
Net assets acquired	**3.5**
thereof attributable to DEUTZ AG	3.5
Consideration transferred (cash payment)	**8.1**
Goodwill of DEUTZ AG	4.6

The goodwill resulting from the acquisition is derived from the strengthening of DEUTZ AG's service business and the expected revenue-related synergies. This goodwill is currently not tax-deductible.

As the acquisition only took place on December 27, 2019 and the net assets acquired are still being examined, the **working capital** acquired and the resulting goodwill are still provisional. The allocation of the goodwill to the relevant cash-generating units has therefore not yet been finalized.

The consideration transferred in cash amounted to €8.1 million. The transaction costs relating to the business combination, which were immaterial overall, were expensed in the current period and recognized under other operating expenses. The gross amount of the acquired trade receivables equated to €2.0 million. At the date of acquisition, there were assumed to be no uncollectible receivables. As the business combination did not take place until the end of December 2019, the effect on consolidated revenue and net income was immaterial. If the acquisition of DPS Power had taken place with effect from January 1, 2019, there would have been additional consolidated revenue of €7.0 million and an increase in net income of €1.3 million.

A net cash outflow (after deduction of the cash acquired with DPS Power) of €6.3 million has been recognized for the acquisition of DPS Power in the 'Acquisition of subsidiaries' line item in the **cash flow statement**.

CURRENCY TRANSLATION

The items in the financial statements of each individual entity in the DEUTZ Group are measured in the currency that corresponds to the currency of the primary economic environment in which the entity operates (functional currency). Transactions denominated in foreign currency are translated into the functional currency using the relevant exchange rates on the date of the transaction. Subsequently they are translated on every balance sheet date using the closing rate. All currency translation differences are recognized in profit or loss unless they are in connection with qualified cash flow hedges, in which case they are recognized in other comprehensive income.

With the exception of equity, balance sheet items in separate financial statements denominated in foreign currency are translated into the functional currency of the DEUTZ Group (euros) at closing rates. Income and expense items – including net income or loss – are translated at the average rates for the year. Equity – with the exception of net income or loss – is translated at the prevailing historical closing rates.

Differences arising from the translation of equity at historical rates and the translation of net income or loss at average rates for the year are reported in other comprehensive income in a separate item.

The main exchange rates used for currency translation purposes are shown in the following table (€1 translated into foreign currencies):

		Average rates		Closing rates at Dec. 31	
		2019	2018	**2019**	2018
USA	USD	1.12	1.18	1.12	1.15
China	CNY	7.72	7.82	7.82	7.88
Morocco	MAD	10.77	11.07	10.74	10.96
Australia	AUD	1.61	1.58	1.60	1.62
Russia	RUB	72.22	74.17	69.96	79.72
UK	GBP	0.88	0.89	0.85	0.89

ACCOUNTING POLICIES

Significant accounting policies used to prepare these consolidated financial statements are described below.

REVENUE RECOGNITION

Revenue generated by the sale of engines and services comprises the fair value received excluding VAT, discounts, and price reductions.

Revenue and other income are recognized as follows:

Revenue from the sale of engines Revenue from the sale of engines is recognized once a DEUTZ Group entity has delivered to a customer and control has passed to the customer. Estimates of future price reductions are covered by provisions and deducted from revenue.

Revenue generated by services Revenue generated by services mainly relates to the sale of remanufactured engines (Xchange business) as well as spare parts and is recognized at the time that control passes to the customer. Revenue from maintenance work is recognized over the period of time in which the services are rendered.

Income from the awarding of engine licenses and any related project business This income is either recognized over a period of time in accordance with the substance of the relevant agreements or recognized at a specific point in time once control has been transferred.

Interest income, dividends, and other income Interest income is recognized pro rata using the effective interest method. Dividend income is recognized at the time the right to receive the payment arises. Other income is recognized according to contractual agreements on the transfer of risks and rewards.

BORROWING COSTS

Borrowing costs that can be directly attributed to the construction or manufacture of an asset for which a substantial period is required to bring the asset to its intended usable condition are capitalized as part of the costs of the relevant asset. All the other borrowing costs are expensed as incurred. Borrowing costs are the interest and other costs incurred by a company in connection with borrowing funds.

ADDITIONAL DISCLOSURES

In addition to the information required by IFRS, the DEUTZ Group reports a figure for EBIT adjusted for exceptional items, which it uses for internal purposes to gauge the profitability of its business. Exceptional items are defined as significant income generated or expenses incurred outside the scope of the Company's ordinary business activities that are unlikely to recur. We use this KPI internally so that we can compare the Company's operating performance over time.

PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment is recognized at cost and, if depreciable, less any depreciation on a straight-line basis and any additional impairment losses. Cost comprises the purchase price and any directly attributable costs incurred to bring the asset to the required location and working condition.

The costs of conversion of property, plant and equipment constructed internally comprise directly attributable costs, pro rata material and production overheads, and administrative expenses related to production or delivery of the service.

Subsequent costs are added to the carrying amount of the asset concerned as incurred, provided that the recognition criteria are satisfied. Repair and maintenance costs are expensed as incurred.

The depreciation period is based on the expected useful life of the asset. Land is not depreciated.

Straight-line depreciation is based on the following useful lives for the main asset categories:

	Useful life (years)
Buildings and grounds	15–33
Technical equipment and machines	10–15
Other equipment, furniture and fixtures	3–10

Residual carrying amounts, useful lives, and depreciation methods are reviewed at the end of each year and adjusted where appropriate.

An item of property, plant or equipment is derecognized either on disposal or if no further economic benefit is expected from further use or sale of the asset. Gains or losses arising from the derecognition of the asset are calculated as the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the income statement in the period in which the asset is derecognized.

LEASES

At the inception of a contract, an assessment is made about whether the contract is or contains a lease. This is deemed the case if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. The lessee recognizes a right-of-use asset and a lease liability at the time the underlying asset becomes available for use.

A right-of-use asset is measured at its cost less any accumulated depreciation and any accumulated impairment losses and adjusted for any remeasurement of the lease liability. The cost comprises the amount of the initial measurement of the lease liability, any initial direct costs incurred, any costs for restoring the underlying asset to its original condition or for restoring the site or similar, and any lease payments made when or before the asset was made available, less any lease incentives received. Depreciation is recognized on a straight-line basis over the shorter of the lease term and the useful life of the underlying asset. If ownership of the asset is transferred to the lessee, the right-of-use asset is depreciated until the end of the useful life of the underlying asset. Right-of-use assets are also tested for impairment.

A lease liability is measured at the present value of the lease payments still to be made. These payments are discounted at the lessee's incremental borrowing rate, because the interest rate implicit in the lease cannot be readily determined. The lease payments comprise fixed payments less any lease incentives received, variable lease payments that depend on an index or a rate, amounts expected to be payable under residual value guarantees, the exercise price of a purchase option if the exercising of that option is reasonably certain, and payments of penalties in the event that an option to terminate the lease is exercised. Extension options and purchase options, the exercising of which is reasonably certain, are taken into account when determining lease terms. Upon subsequent measurement, the lease liability's carrying amount is increased by the interest expense and reduced by the lease payments made. The lease liability is remeasured if there is a change in the lease term, a change in the assessment of an option to purchase the underlying asset, or a change in the lease payments.

A practical expedient is applied to short-term leases with a term of no more than twelve months and to low-value leased assets (less than €5,000). The lease payments under these leases are recognized as an expense on a straight-line basis over the term of the lease.

INTANGIBLE ASSETS

Goodwill

Goodwill is the difference between the cost of an acquisition and the fair value of the net assets acquired less any non-controlling interests. As goodwill has an indefinite useful life, it is not amortized. However, it must be tested for impairment at least once a year in accordance with the provisions of IAS 36. It must also be tested for impairment on an ad hoc basis if there are any indications of impairment. Goodwill is tested for impairment at the level of the cash-generating units (CGUs). A CGU is the smallest identifiable group of assets that generate cash inflows that are largely independent of the cash inflows from other assets or other CGUs. Goodwill has to be allocated at the lowest level within the entity that is monitored for goodwill for internal management purposes. The CGUs defined in this way must not be bigger than an operating segment.

In an impairment test, the carrying amount of the goodwill is compared with the recoverable amount (higher of the fair value less costs to sell and the value in use) of the CGU in question. The recoverable amount of a CGU is calculated by determining the value in use according to the discounted cash flow (DCF) method. Value in use is calculated by discounting estimated future cash flows to their present value. The calculation uses a discount rate that reflects current market expectations in respect of the time value of money and the risks inherent in the CGU. The cash flows used in the calculation are derived and extrapolated from operational planning (five-year period).

For information on the allocation of goodwill to the Group's operating segments, see Note 13 'Intangible assets'.

MISCELLANEOUS INTANGIBLE ASSETS

Miscellaneous intangible assets are measured at cost. The cost of purchase or conversion includes directly attributable costs. The cost of conversion also includes a proportion of overheads and borrowing costs for long-term projects provided the recognition criteria are met. In subsequent periods, intangible assets are reported at cost less amortization on a straight-line basis and any additional impairment losses. Investment grants from customers are deducted from cost. The useful lives of both purchased and internally generated intangible assets are limited. The amortization expense and impairment losses are reported in the income statement accordingly.

The following principles are applied:

Internally generated intangible assets The accounting treatment of internally generated intangible assets is based on an implemented development process with defined milestones. During this process, the development costs for the products are capitalized provided that:

- they are technically and commercially feasible,
- a future economic benefit is likely,
- there is the intention to complete their development and sufficient resources are available to do so, and
- the costs of development can be reliably determined.

The review of whether these criteria are met takes place in connection with the achievement of defined milestones in the development process. Development projects at DEUTZ relate almost exclusively to the development of new engine series. The fact that these development projects are technically feasible and will actually be completed is borne out by a multitude of evidence from the past. The development expenditure incurred up to this point, and the research costs, are recognized in the income statement in the period in which they are incurred. As a rule, completed development projects are amortized on a straight-line basis over the expected production cycle of eight to ten years.

As at December 31, 2019, the material, completed development projects had the following remaining useful lives:

Engine series 2.9	9 years
Engine series 3.6	7 years
Engine series 4.1	6 years
Engine series 6.1	6 years
Engine series 7.8	6 years

The useful lives and amortization methods for completed development projects are reviewed at every year-end, if not more frequently. If any changes in their useful lives are required, they are treated as changes in accounting estimates.

Other intangible assets These are measured at amortized cost and amortized on a straight-line basis over their estimated useful life of three to ten years.

Gains or losses arising from the derecognition of intangible assets are the difference between the net disposal proceeds and the carrying amount of the asset and are recognized in the income statement in the period in which the asset is derecognized.

IMPAIRMENT OF NON-FINANCIAL ASSETS

At each balance sheet date, the DEUTZ Group carries out tests to establish whether there are any indications that an asset may be impaired. An impairment test is carried out at least once a year on intangible assets that are not yet available for use.

Impairment is determined by comparing the carrying amount with the recoverable amount. The recoverable amount of an asset or cash-generating unit is the higher of its fair value less costs to sell and its value in use. If future cash inflows cannot be allocated to an individual asset separately from cash flows generated independently by other assets, the impairment test is applied to the cash-generating unit that includes the asset concerned. When impairment tests are conducted, assets are aggregated into cash-generating units at the lowest-possible level at which cash inflows can largely be independently identified.

Value in use is calculated by discounting estimated future cash flows to their present value. The calculation uses a discount rate that reflects current market expectations in respect of the time value of money and the risks inherent in the asset or cash-generating unit. The cash flows used in the calculation are derived and extrapolated from operational planning (five-year period). If the reasons for previously recognized impairment losses no longer exist, these impairment losses are reversed.

In 2019, lower unit sales forecasts gave rise to indications of impairment (‘trigger events’) on some property, plant and equipment and some completed internally generated intangible assets. Subsequent impairment tests identified a need to recognize impairment losses on two development projects that were still at the development stage. For further details, see Note 12 and 13 in these notes to the consolidated financial statements.

The estimates and assumptions used in the impairment tests are based on projections, which by their nature are subject to uncertainty, particularly with regard to future prices and volumes. Adjustments to the estimates made, for example due to unexpectedly poor economic conditions, could result in an impairment loss, especially in the case of individual engine series.

GOVERNMENT GRANTS

Government grants are recognized when there is sufficient certainty that the associated conditions will be fulfilled and the grants will actually be awarded. The DEUTZ Group deducts government grants relating to purchases of non-current assets from the cost of the respective asset. The amount of depreciation and amortization is based on the cost of purchase after deduction of such grants. In the case of an interest-free government loan that has been received, the value of the interest benefit has been quantified in accordance with the provisions in IFRS 9. The loan has been measured at fair value and the interest benefit recognized as deferred income.

INCOME TAXES

Deferred taxes **Deferred taxes** are recognized using the liability method for temporary differences between the carrying amount of an asset or a liability on the consolidated balance sheet and its tax base as at the reporting date as well as for tax loss and interest carryforwards.

Deferred tax assets are recognized to the extent that sufficient future taxable income is likely to be generated over the planning period against which the deductible temporary differences and the as yet unused tax loss carryforwards can be offset.

Deferred tax liabilities that arise from temporary differences in connection with investments in subsidiaries, joint ventures, and associates are always recognized unless the timing of the reversal of the temporary differences can be controlled and it is unlikely that the temporary differences will reverse in the foreseeable future.

Deferred taxes relating to items recognized in other comprehensive income are likewise recognized in other comprehensive income and not in the income statement.

Deferred tax assets and liabilities are netted if the DEUTZ Group is entitled to have the current tax assets offset against tax liabilities and if the deferred taxes relate to income taxes levied by the same tax authority.

Deferred taxes are recognized at the rates anticipated on recognition of the asset or liability. The anticipated tax rate is the rate that has already been enacted or announced at the balance sheet date, provided announcement of the tax rate has the substantive effect of actual enactment.

Current tax expense Current income taxes for the current period and for previous periods are recognized at the amount that is expected to be paid to (or recovered from) the tax authorities or has already been paid. The tax amount is calculated on the basis of tax rates and tax legislation enacted or substantively enacted as at the relevant balance sheet date.

INVENTORIES

Inventories are measured at the lower of cost and net realizable value. Net realizable value is the estimated selling price achievable in the ordinary course of business less estimated costs still to be incurred.

The cost of raw materials and consumables as well as bought-in and spare parts is calculated using weighted average purchase prices.

Work in progress and finished goods are measured at the cost of conversion, which includes production materials and production wages as well as a proportion of material and production overheads.

Additional write-downs are applied to cover risks resulting from inventories' period of storage and impaired usability as well as contract-related losses.

NON-CURRENT ASSETS CLASSIFIED AS HELD FOR SALE

Non-current assets are classified as 'held for sale' and recognized at the lower of their carrying amount and their fair value less costs to sell if their carrying amount essentially derives from their sale rather than from their continued use.

FINANCIAL ASSETS

In the DEUTZ Group, financial assets within the meaning of IFRS 9 can be in any of the following categories and are classified accordingly:

- Financial assets measured at fair value through profit or loss,
- Financial assets measured at fair value through other comprehensive income, or
- Financial assets measured at amortized cost.

On initial recognition, financial assets are measured at fair value. In the case of financial assets other than those measured at fair value through profit or loss, transaction costs directly attributable to the acquisition of the assets are also included.

Financial assets are assigned to one of the measurement categories on initial recognition. Assets may be reclassified if this is permitted and necessary.

Except in the case of held-for-trading financial assets, all regular way purchases and sales of financial assets are recognized on the settlement date, i.e. the date on which the asset is delivered to or by DEUTZ. Held-for-trading financial assets are recognized on the trade date, i.e. the date on which the DEUTZ Group enters into the obligation to buy or sell the asset. Regular way purchases and sales are purchases or sales of financial assets that provide for the delivery of the asset within a period determined by market regulations or conventions.

1. Financial assets measured at fair value through profit or loss In the DEUTZ Group, the group of financial assets measured at fair value through profit or loss includes held-for-trading financial assets. Equity instruments purchased for the purposes of trading and trade receivables earmarked for factoring are also allocated to this category.

Derivatives, including separately recognized embedded derivatives, are classified as held for trading unless they are derivatives designated as hedging instruments and are deemed effective. Gains and losses on financial assets held for trading are recognized in the income statement. At the time the DEUTZ Group first becomes a party to a contract, it determines whether an embedded derivative needs to be accounted for separately from the host contract. This decision is only reassessed if there is a substantial amendment to the terms of the contract and this amendment results in a significant change to the cash flows that would otherwise have been derived from the contract.

2. Financial assets measured at fair value through other comprehensive income Financial assets measured at fair value through other comprehensive income include debt instruments that are held either for sale or in order to collect the contractual cash flows. The contractual cash flows must consist solely of principal repayments and interest payments and accrue at specified intervals. At the time of derecognition, the changes in fair value recognized in other comprehensive income must be reclassified to the income statement. Non-current securities that do not constitute equity instruments are allocated to this category in the DEUTZ Group.

Equity instruments can also be subsumed under this category provided that they have not been purchased for trading purposes. In this instance, however, the changes in fair value recognized in other comprehensive income do not need to be reclassified to the income statement at the time of derecognition. As had been the case in 2018, the DEUTZ Group did not hold any of these financial instruments in the reporting period.

3. Financial assets measured at amortized cost This group includes financial assets that are held for the purposes of collecting contractual cash flows. The contractual cash flows must consist solely of principal repayments and interest payments on outstanding repayment amounts. In the DEUTZ Group, this category covers all receivables and financial assets that are not intended for disposal. The assets are measured using the effective interest method less any impairment losses. A gain or loss is recognized in profit or loss when these financial instruments are derecognized or written down, and through the amortization process.

IMPAIRMENT OF FINANCIAL ASSETS

For all financial debt instruments, with the exception of financial assets measured at fair value through profit or loss, a loss allowance is recognized on the date the asset is initially recognized that is equivalent to the expected loss from default events over the next twelve months. At every subsequent balance sheet date, the financial assets are subjected to an impairment test to establish whether there are any indications of impairment (for example, substantial financial difficulties on the part of the debtor, significant probability of insolvency proceedings against the debtor, the disappearance of an active market for the financial asset, significant changes in the technological, economic, legal, and/or market environment in which the issuer operates, a sustained fall in the fair value of the financial asset below amortized cost). In the event of a significant increase in credit risk, the loss allowance is adjusted to reflect the losses expected over the term to maturity or a write-down is recognized in the event of default of the financial asset if there are objective indications of impairment.

1. Financial assets measured at amortized cost Expected credit losses reflect the difference between the contractually agreed cash flows and those that are actually anticipated. They are recognized in the income statement as an impairment loss in a valuation allowance account. However, the gross carrying amount continues to be used to determine the interest income. If there are objective indications that financial assets measured at amortized cost are permanently impaired, the loss allowance is offset against the gross carrying amount of the financial asset. Following this partial write-down, the amortized cost is used to determine the interest income.

The loss allowance for trade receivables is calculated immediately over the entire term of the financial instrument. The allowance for other receivables and assets that are subject to low credit risk is recognized upon initial recognition of the asset for a period covering the subsequent twelve months.

If the amount of this impairment loss is found to be lower in subsequent reporting periods and this decrease can be attributed objectively to factors occurring after the recognition of the impairment loss, the previously recognized impairment loss is reversed. However, the new carrying amount of the asset must not exceed what the amortized cost would have been at the time the impairment loss is reversed if the impairment loss had not been recognized. The reversal of the impairment loss is recognized in the income statement.

2. Financial assets measured at fair value through other comprehensive income The impairment of debt instruments measured at fair value through other comprehensive income is recognized in profit or loss for the period and reduces the loss resulting from measurement at fair value that would otherwise be recognized in other comprehensive income.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents comprise cash on hand, short-term deposits with an original term of up to three months, and credit balances held with banks.

FINANCIAL LIABILITIES

In the DEUTZ Group, financial liabilities within the meaning of IFRS 9 can be in either of the following categories and are classified accordingly:

- Financial liabilities measured at fair value through profit or loss, or
- Other financial liabilities.

Financial liabilities measured at fair value through profit or loss In the DEUTZ Group, the group of financial liabilities measured at fair value through profit or loss includes held-for-trading financial liabilities. To date, the DEUTZ Group has not made use of the option to designate financial liabilities as at fair value through profit or loss on initial recognition.

Derivatives, including separately recognized embedded derivatives, are classified as held for trading unless they are derivatives designated as hedging instruments and determined to be effective. If the fair value of these derivatives is negative, they are recognized under financial liabilities. Gains and losses on financial liabilities held for trading are recognized in the income statement.

Other financial liabilities in the DEUTZ Group for the most part comprise the following:

- Financial debt (liabilities to banks),
- Trade payables, and
- Other liabilities.

Other financial liabilities are classified as current unless the DEUTZ Group does not have the right to settle the liability until at least twelve months after the balance sheet date.

Other financial liabilities are initially recognized at their fair value including transaction costs. They are subsequently measured at amortized cost using the effective interest method.

DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGES

DEUTZ only uses derivative financial instruments (interest-rate and currency derivatives) for hedging purposes as part of its business operations, in particular to reduce foreign currency risk in forecast transactions involving foreign currencies and to reduce interest-rate risk through the use of interest-rate swaps.

Derivatives are initially recognized at their fair value on the day they are entered into and are subsequently measured at the fair value prevailing at the time. The fair value of derivatives corresponds to the present value of estimated future cash flows. The fair value of currency forwards is based on the forward exchange rate as at the balance sheet date.

Changes in the fair value of non-hedging derivatives are immediately recognized in the income statement.

Cash flow hedges Forecast transactions (cash flows) in foreign currency and interest-rate risk are hedged using cash flow hedges. The effective portion of the changes in the fair value of derivatives designated as cash flow hedges is recognized in other comprehensive income. The ineffective portion of the changes in fair value is reported in the income statement under other income or other expenses.

The changes in fair value reported in the reserve for cash flow hedges are reclassified to the income statement in the period in which the hedged item is recognized in income.

The market values of derivatives designated as cash flow hedges are stated in Note 26. Changes in the cash flow hedge reserve are reported under a separate item in other comprehensive income (fair value reserve).

PROVISIONS FOR PENSIONS AND OTHER POST-RETIREMENT BENEFITS

The occupational pension scheme offered by the DEUTZ Group takes account of the relevant legislation in various countries and the benefits that each company provides for its staff.

Occupational pensions take the form of defined benefit pension plans, which are funded by the recognition of pension provisions. Besides entitlements to an employer-funded pension, employees in Germany can build up an employee-funded pension by participating in a deferred compensation plan. In the UK (branch of DEUTZ AG), there is an employer-funded pension plan and the option of building up an employee-funded pension by participating in a deferred compensation plan. There are also employer-funded pension plans at DEUTZ Corporation, Atlanta (USA), at DEUTZ FRANCE S.A.S., Gennevilliers (France), at DEUTZ Italy S.r.l., and at Service Center Milan S.r.l.

The Group's liabilities arising from employer-funded defined benefit pension plans are calculated separately for each plan using actuarial principles. First, the pension benefits vested in earlier periods and in the current period are estimated. The next step is to discount these benefits using the projected unit credit method. The resulting present value represents the defined benefit obligation. The fair value of the plan asset is then deducted from the defined benefit obligation to determine the net liability to be reported on the balance sheet.

The interest rate used to discount the estimated pension benefits is determined using the yields available in the market on each valuation date for investment-grade, fixed-income corporate paper. The currency and terms to maturity of the underlying corporate paper match the currency and predicted duration of the post-retirement pension liabilities to be met.

The net interest cost is calculated by multiplying the net liability at the beginning of the reporting period by the interest rate used to discount the pension obligations at the beginning of the period.

The effects of the revaluation include the actuarial gains and losses on the valuation of the gross defined benefit obligation and the difference between the actual return on plan assets and the typical return on plan assets assumed at the beginning of the period when calculating the net interest cost.

While the revaluation effects are recognized in other comprehensive income, the net interest cost and the current service cost are reported as gains or losses in the reporting period. Net interest cost is reported in operating profit.

The calculation of the individual cost components in the net liability to be reported on the balance sheet on each reporting date is based on a report by a qualified actuary.

In the case of the employee-funded deferred compensation plan, the Company has taken out a reinsurance policy with a life insurance company based on the amount of salary contribution and undertakes to pay a pension based on the guaranteed capital that has been underwritten. The present value of the benefit obligation corresponds to the fair value of the entitlements to reinsurance cover on the basis of the asset values calculated by the insurer. For the purposes of recognition on the balance sheet, the present value of the benefit obligation is offset against the fair value of the entitlements to reinsurance cover in an equal amount.

As well as defined benefit pension plans, there are also defined contribution pension plans (e.g. direct insurance policies). The mandatory contributions are immediately recognized as staff costs. In this case, the recognition of provisions is not required because the DEUTZ Group has no obligation apart from the obligation to pay premiums.

OTHER PROVISIONS

Other provisions are recognized if there are legal or constructive obligations toward third parties that arise from past events and are likely to result in cash outflows. Furthermore, it must be possible to estimate the obligation reliably. Provisions are recognized at their settlement value calculated at the balance sheet date and take account of projected cost increases. Non-current provisions are discounted. Provisions for warranty obligations are recognized when products are sold or when new warranties are initiated. The measurement of potential warranty liabilities is based primarily on historical experience.

CONTINGENT LIABILITIES

Contingent liabilities are potential obligations that arise from past events and whose existence will only be confirmed by the occurrence of one or more uncertain future events that, however, are beyond the control of the DEUTZ Group. Furthermore, present obligations may constitute contingent liabilities if it is not probable that an outflow of resources will be required to settle the obligation, or a sufficiently reliable estimate of the amount of the obligation cannot be made.

NOTES TO THE INCOME STATEMENT

1. REVENUE

Breakdown of revenue by application segment and by timing of recognition in 2019

€ million

	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	Consolidation	**Total**
Construction Equipment	506.9	28.6			**535.5**
Material Handling	357.8	41.1			**398.9**
Agricultural Machinery	286.8	6.5			**293.3**
Stationary Equipment	97.6	58.2			**155.8**
Service	175.3	177.1			**352.4**
Miscellaneous/Marine	22.0	51.0	35.5	–3.6	**104.9**
Total	**1,446.4**	**362.5**	**35.5**	**–3.6**	**1,840.8**
thereof at a point in time	1,441.5	345.0	35.5	–3.6	**1,818.4**
thereof over a period of time	4.9	17.5	0.0	0.0	**22.4**

Breakdown of revenue by application segment and by timing of recognition in 2018

€ million

	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	Consolidation	**Total**
Construction Equipment	512.1	33.4			**545.5**
Material Handling	361.2	11.9			**373.1**
Agricultural Machinery	255.3	5.8			**261.1**
Stationary Equipment	132.9	33.4			**166.3**
Service	194.3	135.6			**329.9**
Miscellaneous/Marine[1]	28.2	51.1	26.8	–3.2	**102.9**
Total	**1,484.0**	**271.2**	**26.8**	**–3.2**	**1,778.8**
thereof at a point in time	1,479.9	262.6	26.8	–3.2	**1,766.1**
thereof over a period of time	4.1	8.6	0.0	0.0	**12.7**

[1] From 2019 onward, the revenue from automotive business is included in the Miscellaneous application segment. Up to and including 2018, it was shown separately. The figures for the prior year have been restated accordingly.

Breakdown of revenue by region in 2019

€ million

	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	Consolidation	Total
Europe/ Middle East/ Africa	920.4	201.7	23.4	–3.6	**1,141.9**
Americas	314.6	80.7	9.0		**404.3**
Asia-Pacific	211.4	80.1	3.1		**294.6**
Total	**1,446.4**	**362.5**	**35.5**	**–3.6**	**1,840.8**

Breakdown of revenue by region in 2018[1]

€ million

	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	Consolidation	Total
Europe/ Middle East/ Africa	956.0	169.4	17.5	–3.2	**1,139.7**
Americas	306.6	51.0	7.7		**365.3**
Asia-Pacific	221.4	50.8	1.6		**273.8**
Total	**1,484.0**	**271.2**	**26.8**	**–3.2**	**1,778.8**

[1] Adjusted due to a change in the regional allocation of the revenue of one big-ticket customer.

The Group primarily generates revenue from the sale of engines and spare parts (service) to manufacturers of applications and to dealers. The revenue is recognized when control of the products is transferred to the purchaser and no unfulfilled obligations remain. This is usually deemed to have occurred when the products have been delivered or when the shipping documents have passed to the purchaser, whichever is the earlier. At this point in time, the opportunities and risks are transferred to the purchaser and the obligation to pay the purchase price is created.

Retrospective volume discounts that are based on total revenue for the financial year are often agreed with major customers for the sale of engines and spare parts. Revenue from these sales is recognized in the amount specified in the contract less the estimated volume discount. The provision is estimated mainly on the basis of the sales that are expected to be generated from the customer (most likely amount), a figure that is periodically updated. The provision is recognized as a contract liability under other liabilities. No significant financing components are involved as payment terms in line with market practice are usually agreed with the customer. A provision for guarantees is recognized to cover the Group's obligation to repair or replace defective products in accordance with standard guarantee conditions.

When a remanufactured engine is sold (Xchange business), the customer is invoiced for the remanufactured engine and for a deposit for their old reconditionable engine. The revenue for the remanufactured engine is recognized at the point at which control is transferred. This is usually deemed to have occurred when the products have been delivered or when the shipping documents have passed to the purchaser, whichever is the earlier. At this point in time, the opportunities and risks are transferred to the purchaser and the obligation to pay the purchase price is created. The purchase price received for the deposit is recognized as a contract liability until the obligation to take back the reconditionable old engine expires.

In the reporting period, revenue of €4.2 million was recognized that, at the beginning of the period, had been included in the balance of contract liabilities.

As part of its service business, the Group also carries out maintenance work. The revenue generated from this is recognized in the reporting period in which the services are rendered. As the services are usually rendered within a very short period of time, however, any revenue accrued at the end of the reporting period for services that have been rendered but not yet invoiced is not material.

2. COST OF SALES

The cost of sales comprises the following cost items:

€ million	2019	2018
Cost of materials	1,070.1	1,040.8
Staff costs	224.0	208.1
Depreciation and amortization on property, plant and equipment and intangible assets (excl. R&D)	48.6	38.3
Other cost of sales items	167.8	181.1
Total	**1,510.5**	**1,468.3**

3. RESEARCH AND DEVELOPMENT COSTS

The table below gives a breakdown of research and development costs:

€ million	2019	2018
Cost of materials	25.3	21.1
Staff costs	49.9	43.3
Depreciation, amortization and impairment	29.1	35.6
Own work capitalized and reimbursements	–18.3	–18.6
Other research and development costs	9.3	10.6
Total	**95.3**	**92.0**

The figure for depreciation, amortization and impairment in the reporting year includes impairment losses recognized on capitalized development expenditure of €4.5 million and reversals thereof of €1.4 million (2018: impairment losses of €2.3 million). The impairment losses, and the reversals thereof, are attributable to revised sales expectations and cost estimates.

4. SELLING EXPENSES AND GENERAL AND ADMINISTRATIVE EXPENSES

Selling expenses amounted to €103.4 million in the year under review (2018: €96.4 million). General and administrative expenses came to €48.4 million (2018: €49.3 million). Both the selling expenses and the general and administrative expenses predominantly consisted of staff costs. The respective amounts were €70.5 million and €34.6 million (2018: €64.5 million and €35.2 million).

5. OTHER OPERATING INCOME

€ million	2019	2018
Income from recharged costs and services	11.0	9.1
Income from the disposal of non-current assets	9.4	15.6
Foreign currency gains	4.8	9.7
Income from the measurement of derivatives	1.0	0.7
Income from the reversal of provisions	0.5	2.7
Income from the derecognition of liabilities	0.4	0.5
Sundry other income	1.9	2.3
Total	**29.0**	**40.6**

The decrease in other operating income was largely the result of the reduction in income from the disposal of non-current assets. In 2018, this line item had included income from the disposal of the investment in the joint venture DEUTZ (Dalian) Engine Co., Ltd., Dalian, China.

In the reporting year, income from the disposal of non-current assets included proceeds of €9.3 million received from the sale of a small part of the land at the Cologne-Deutz site. These proceeds were recognized as an exceptional item in the second quarter of 2019 in accordance with the agreement from 2017 regarding the sale of this land.

6. OTHER OPERATING EXPENSES

€ million	2019	2018
Foreign currency losses	6.3	5.6
Other expenses from the adjustment of provisions	4.3	2.3
Expenses for pensions and other post-employment benefits	3.8	3.5
Other cost of fees, contributions and advice	3.5	2.1
Expenses in connection with the disposal of non-current assets	3.4	0.0
Expenses in connection with the measurement of derivatives	0.7	0.9
Sundry other expenses	2.3	3.3
Total	**24.3**	**17.7**

The increase in other expenses from the adjustment of provisions was largely attributable to a rise in provisions for onerous contracts. Expenses in connection with the disposal of non-current assets in the reporting period mainly related to the deconsolidation of the joint venture DEUTZ AGCO MOTORES S.A., Haedo, Argentina, and the resulting reclassification of the cumulative negative currency translation differences from other comprehensive income to the income statement.

7. PROFIT/LOSS ON EQUITY-ACCOUNTED INVESTMENTS, WRITE-DOWNS OF EQUITY-ACCOUNTED INVESTMENTS, AND OTHER INVESTMENT INCOME

€ million	2019	2018
Profit/loss on equity-accounted investments		
Income from equity-accounted investments	0.7	0.6
Expenses relating to equity-accounted investments	0.0	–2.8
Total	**0.7**	**–2.2**
Write-downs of equity-accounted investments	**0.0**	**–11.3**
Other net investment income	**1.2**	**0.5**
Total	**1.9**	**–13.0**

Income from equity-accounted investments consisted of DEUTZ AG's share in the profits of its associate D.D. Power Holdings (Pty), South Africa.

As in the previous year, other net investment income related to profits transferred by DEUTZ Sicherheit GmbH, Cologne.

8. FINANCIAL INCOME, NET

€ million	2019	2018
Interest income on credit balances with banks	0.2	0.1
Other interest income	0.8	0.4
Interest income	**1.0**	**0.5**
Interest paid on liabilities to banks	–1.1	–1.4
Interest paid on sales of receivables	–0.9	–0.9
Interest paid on lease liabilities	–1.0	–
Other interest expense and similar charges	0.1	–0.1
Interest expense	**–2.9**	**–2.4**
Other finance costs	**–11.1**	**–**
Financial income, net	**–13.0**	**–1.9**

In 2019, borrowing costs of €0.5 million were capitalized (2018: €0.6 million).

The other finance costs resulted from the write-down of the loan granted to a supplier in 2018. This loan was recognized at a fair value of zero as at December 31, 2019, because insolvency proceedings had been opened for the borrower.

9. TAXES

Income taxes The following table gives a breakdown of income taxes:

€ million	2019	2018
Current tax expense	13.4	16.0
thereof unrelated to the reporting period	0.4	–0.6
Deferred tax expense (+)/ deferred tax income (–)	9.4	–5.8
thereof from temporary differences	0.8	–2.2
thereof from loss carryforwards	8.6	–3.6
Total tax expense	**22.8**	**10.2**

The current income tax expenses of €13.4 million predominantly related to additions to provisions for anticipated tax payments on current income generated by Group companies in 2019.

The deferred tax expense included expenses of €0.8 million arising from temporary differences (2018: tax income of €2.2 million).

There are no income tax implications for DEUTZ AG arising from the distribution of dividends to shareholders by DEUTZ AG.

The tax reconciliation table shows the reconciliation from anticipated income taxes to effective taxes as shown in the income statement. Effective income taxes include current and deferred taxes. The applicable tax rate is 31.51 percent (2018: 31.54 percent) comprising corporation tax at 15 percent, the solidarity surcharge (5.50 percent of the corporation tax), and trade tax at 15.68 percent based on an average assessment rate.

€ million	2019	2018
Net income before income taxes	**75.1**	**80.1**
Anticipated tax expense (+)/ income (–)	23.7	25.2
Effect from trade tax add-backs and deductions	0.1	0.2
Differing tax rates	–0.5	0.2
Changes arising from the recognition of deferred taxes on loss carryforwards and on temporary differences and the utilization of loss carryforwards	1.9	–14.5
Effect of non-deductible expenses	–1.0	1.1
Effect of consolidation adjustments	0.0	–0.4
Share of profit (loss) of equity-accounted investments	0.0	–0.4
Effect of tax-exempt income	–1.5	–0.9
Effect of potential dividend distributions	0.0	0.1
Effects not related to the reporting period		
Prior-year tax payments	0.3	–0.6
Deferred taxes resulting from prior-year adjustments	–0.2	0.3
Other	0.0	–0.1
Effective tax expense (+)/ income (–)	**22.8**	**10.2**
Effective tax rate (%)	**30.4**	**12.7**

The tax effect resulting from the use of loss carryforwards in 2019 was mitigated by the lower level of deferred taxes recognized on loss carryforwards.

10. EARNINGS PER SHARE

Earnings per share is calculated in accordance with IAS 33. The DEUTZ Group calculates basic **earnings per share** by dividing the net income attributable to its shares by the weighted average number of shares outstanding.

There were no dilutive effects in 2019 or 2018 because there are no exercisable options to convert financial instruments with equity components.

	2019	2018
Net income attributable to shareholders of the DEUTZ Group (€ million)	52.3	69.9
Weighted average number of shares outstanding (€ thousand)	120,862	120,862
Earnings per share (€)	**0.43**	**0.58**

NOTES TO THE STATEMENT OF COMPREHENSIVE INCOME

11. OTHER COMPREHENSIVE INCOME

Other comprehensive income comprises the elements of the statement of comprehensive income not reported in the income statement. The taxes resulting from other comprehensive income are shown in the following table:

€ million	**2019**			**2018**		
	Before taxes	Taxes	After taxes	Before taxes	Taxes	After taxes
Amounts that will not be reclassified to the income statement in the future	**–8.3**	**2.6**	**–5.7**	**–0.1**	**0.0**	**–0.1**
Remeasurements of defined benefit plans	–8.3	2.6	–5.7	–0.1	0.0	–0.1
Amounts that will be reclassified to the income statement in the future if specific conditions are met	**5.0**	**–0.2**	**4.8**	**–17.0**	**0.6**	**–16.4**
Currency translation differences	4.2	0.0	4.2	–15.1	0.0	–15.1
thereof profit/loss on equity-accounted investments	3.0	0.0	3.0	–15.8	0.0	–15.8
Effective portion of change in fair value from cash flow hedges	0.6	–0.2	0.4	–1.7	0.6	–1.1
Fair value of financial instruments	0.2	0.0	0.2	–0.2	0.0	–0.2
Other comprehensive income	**–3.3**	**2.4**	**–0.9**	**–17.2**	**0.6**	**–16.5**

In 2019, losses totaling €3.0 million on cash flow hedges (2018: losses of €0.9 million) recognized in other comprehensive income during the year (prior to the inclusion of deferred taxes) were reclassified to other operating expenses or other operating income in the consolidated income statement.

NOTES TO THE BALANCE SHEET

12. PROPERTY, PLANT AND EQUIPMENT

Gross figures Cost of purchase/conversion	Land, leasehold rights and buildings	Technical equipment and machines	Other equipment, furniture and fixtures	Advances paid and construction in progress	Total
€ million					
Balance at Jan. 1, 2019	**218.0**	**520.2**	**285.8**	**22.0**	**1,046.0**
Initial application of IFRS 16	32.9	1.6	6.7	0.0	41.2
Adjusted balance at Jan. 1, 2019	**250.9**	**521.8**	**292.5**	**22.0**	**1,087.2**
Currency translation differences	0.3	0.2	0.1	0.0	0.6
Additions	12.6	14.9	28.7	22.5	78.7
Investment grants	0.0	0.0	–0.1	0.0	–0.1
Disposals	–1.6	–14.5	–8.3	0.0	–24.4
Changes to basis of consolidation	2.9	0.2	0.2	0.0	3.3
Reclassifications	4.6	15.7	3.2	–23.5	0.0
Balance at Dec. 31, 2019	**269.7**	**538.3**	**316.3**	**21.0**	**1,145.3**

Gross figures Depreciation and impairment	Land, leasehold rights and buildings	Technical equipment and machines	Other equipment, furniture and fixtures	Advances paid and construction in progress	Total
€ million					
Balance at Jan. 1, 2019	**102.7**	**435.7**	**223.8**	**0.0**	**762.2**
Currency translation differences	0.1	0.0	0.1	0.0	0.2
Depreciation	16.5	19.6	21.8	0.0	57.9
Reversals of impairment losses	–0.1	–0.1	–0.2	0.0	–0.4
Impairment	0.0	0.0	0.5	0.0	0.5
Disposals	0.0	–14.4	–7.9	0.0	–22.3
Reclassifications	0.0	0.0	0.0	0.0	0.0
Balance at Dec. 31, 2019	**119.2**	**440.8**	**238.1**	**0.0**	**798.1**
Net carrying amount at Dec. 31, 2019	**150.5**	**97.5**	**78.2**	**21.0**	**347.2**

Gross figures Cost of purchase/conversion	Land, leasehold rights and buildings	Technical equipment and machines	Other equipment, furniture and fixtures	Advances paid and construction in progress	Total
€ million					
Balance at Jan. 1, 2018	**215.9**	**511.8**	**256.3**	**13.6**	**997.6**
Currency translation differences	0.1	0.3	0.2	0.0	0.6
Additions	2.5	8.4	27.2	19.5	57.6
Investment grants	0.0	–1.1	–1.7	0.0	–2.8
Disposals	–0.7	–2.2	–3.6	0.0	–6.5
Changes to basis of consolidation	0.0	0.0	0.0	0.0	0.0
Reclassifications	0.2	3.0	7.4	–11.1	–0.5
Balance at Dec. 31, 2018	**218.0**	**520.2**	**285.8**	**22.0**	**1,046.0**

Gross figures Depreciation and impairment	Land, leasehold rights and buildings	Technical equipment and machines	Other equipment, furniture and fixtures	Advances paid and construction in progress	Total
€ million					
Balance at Jan. 1, 2018	**97.7**	**418.6**	**207.9**	**0.0**	**724.2**
Currency translation differences	0.1	0.2	0.1	0.0	0.4
Depreciation	5.6	18.8	19.0	0.0	43.4
Impairment	0.0	0.2	0.4	0.0	0.6
Disposals	–0.7	–2.1	–3.6	0.0	–6.4
Reclassifications	0.0	0.0	0.0	0.0	0.0
Balance at Dec. 31, 2018	**102.7**	**435.7**	**223.8**	**0.0**	**762.2**
Net carrying amount at Dec. 31, 2018	**115.3**	**84.5**	**62.0**	**22.0**	**283.8**

Additions to property, plant and equipment were mainly in connection with replacement investment in tools, equipment, and machinery and with the set-up of the new assembly line in Cologne-Porz for engine series with a capacity of less than 4 liters. DEUTZ also invested in new and more efficient testing equipment.

Additions to land, leasehold rights, and buildings mainly related to new leases and the extension of existing leases. Detailed information about right-of-use assets in connection with leases can be found on page 144.

Government grants at our Spanish subsidiary were deducted from the cost of purchasing the property, plant and equipment. In 2019, no additional subsidies were granted in connection with capital expenditure on property, plant and equipment. Total government grants recognized as at December 31, 2019 amounted to €3.6 million (December 31, 2018: €4.2 million). In 2019, grants of €0.6 million (2018: €0.9 million) were reclassified to the income statement (as a reduction of the depreciation expense).

Purchase commitments for property, plant and equipment are described on page 157.

13. INTANGIBLE ASSETS

Gross figures Cost of purchase/conversion	Goodwill	Internally generated intangible assets Completed	Internally generated intangible assets In development	Other intangible assets	Total
€ million					
Balance at Jan. 1, 2019	**48.0**	**411.7**	**47.2**	**164.1**	**671.0**
Currency translation differences	0.0	0.0	0.0	0.1	0.1
Additions	0.0	1.7	20.0	7.9	29.6
Investment grants	0.0	0.0	0.0	0.0	0.0
Disposals	0.0	0.0	0.0	0.0	0.0
Changes to basis of consolidation	10.3	0.0	0.0	2.0	12.3
Reclassifications	0.0	4.5	–4.5	0.0	0.0
Balance at Dec. 31, 2019	**58.3**	**417.9**	**62.7**	**174.1**	**713.0**

Gross figures Amortization and impairment	Goodwill	Internally generated intangible assets Completed	Internally generated intangible assets In development	Other intangible assets	Total
€ million					
Balance at Jan. 1, 2019	**0.0**	**341.7**	**8.8**	**116.9**	**467.4**
Currency translation differences	0.0	0.0	0.0	0.1	0.1
Amortization	0.0	18.1	0.0	8.1	26.2
Impairment	0.0	0.0	4.5	0.0	4.5
Reversals of impairment losses	0.0	–1.4	0.0	0.0	–1.4
Disposals	0.0	0.0	0.0	0.0	0.0
Reclassifications	0.0	0.0	0.0	0.0	0.0
Balance at Dec. 31, 2019	**0.0**	**358.4**	**13.3**	**125.1**	**496.8**
Net carrying amount at Dec. 31, 2019	**58.3**	**59.5**	**49.4**	**49.0**	**216.2**

Gross figures Cost of purchase/conversion	Goodwill	Internally generated intangible assets Completed	Internally generated intangible assets In development	Other intangible assets	Total
€ million					
Balance at Jan. 1, 2018	**48.0**	**411.7**	**25.7**	**169.6**	**655.0**
Currency translation differences	0.0	0.0	0.0	0.2	0.2
Additions	0.0	0.0	21.0	4.4	25.4
Investment grants	0.0	0.0	0.0	–0.1	–0.1
Disposals	0.0	0.0	0.0	–10.0	–10.0
Changes to basis of consolidation	0.0	0.0	0.0	0.0	0.0
Reclassifications	0.0	0.0	0.5	0.0	0.5
Balance at Dec. 31, 2018	**48.0**	**411.7**	**47.2**	**164.1**	**671.0**

Gross figures Cost of purchase/conversion	Goodwill	Internally generated intangible assets Completed	 In development	Other intangible assets	Total
€ million					
Balance at Jan. 1, 2018	**0.0**	**313.7**	**8.8**	**119.3**	**441.8**
Currency translation differences	0.0	0.0	0.0	0.0	0.0
Amortization	0.0	25.7	0.0	7.3	33.0
Impairment	0.0	2.3	0.0	0.1	2.4
Disposals	0.0	0.0	0.0	–9.8	–9.8
Reclassifications	0.0	0.0	0.0	0.0	0.0
Balance at Dec. 31, 2018	**0.0**	**341.7**	**8.8**	**116.9**	**467.4**
Net carrying amount at Dec. 31, 2018	**48.0**	**70.0**	**38.4**	**47.2**	**203.6**

Other intangible assets mainly comprise grants for tool costs, rights and licenses, purchased development services, and software. The additions to other intangible assets mainly resulted from the purchase of software.

Capital expenditure on intangible assets mainly related to the adaptation of our engines to meet the new Stage V emissions standard for Europe and to development of the new 2.2 engine series.

The impairment of intangible assets in development relates to the capitalized development expenditure on a new engine series and an upgraded engine series and is the result of changes in market forecasts and cost estimates. The impairment testing of these assets was carried out at the level of the cash-generating units that represent the engine series. The recoverable amounts determined on the basis of the values in use of these cash-generating units amounted to €17.3 million and €0.0 million respectively. The impairment loss recognized amounted to €4.5 million in 2019, of which €1.6 million is attributable to the DEUTZ Compact Engines segment and €2.9 million to the DEUTZ Customized Solutions segment. The respective pre-tax discount rates underlying the calculation were 9.2 percent and 7.4 percent.

The impairment loss was partly offset by the reversal of an impairment loss of €1.4 million on a development project in the first half of 2019. The testing to determine whether a reversal of an impairment loss might be necessary was carried out at the level of the cash-generating unit with which the engine series is associated. As at June 30, 2019, the recoverable amount of the engine series (corresponding to the value in use) amounted to €24.6 million. The pre-tax discount rate underlying the calculation was 10.3 percent. The cash-generating unit affected by the reversal of the impairment loss is assigned to the DEUTZ Compact Engines segment.

Goodwill

The table below shows the allocation of goodwill to the Group's business units. Because the acquisitions of Futavis and DPS Power Group did not take place until the fourth quarter of 2019, the allocation of the resulting goodwill of €10.3 million to the relevant cash-generating units has not yet been finalized.

€ million	DEUTZ Compact Engines		DEUTZ Customized Solutions	Other	Not yet allocated	Total
	Product line <4 liters	Product line 4 to 8 liters		Torqeedo		
Balance at Jan. 1, 2019	**39.7**	**0.0**	**0.0**	**8.3**	**0.0**	**48.0**
Additions	0.0	0.0	0.0	0.0	10.3	10.3
Balance at Dec. 31, 2019	**39.7**	**0.0**	**0.0**	**8.3**	**10.3**	**58.3**

Goodwill was tested for impairment at the level of the business units ‘product line <4 liters’ and ‘Torqeedo’, as these are the cash-generating units to which the goodwill has been allocated. The recoverable amounts of these business units were then offset against the carrying amounts of the business units including the allocated goodwill. The recoverable amount of a business unit is calculated by determining the value in use according to the discounted cash flow (DCF) method. Value in use was calculated by discounting estimated future cash flows to their present value. The calculation uses a discount rate that reflects current market expectations in respect of the time value of money and the risks inherent in the cash-generating unit. The cash flows used in the calculation were derived from the financial plan approved by senior management, which covers a five-year period. The cash flows beyond this period of five years were extrapolated based on a growth rate of 1.0 percent. Initial application of IFRS 16 did not have a material impact on the methods and assumptions used, with the exception of a slight increase in the debt levels of the peer group.

‘Product line <4 liters’ business unit:
In the planning period, total revenue in the ‘product line <4 liters’ business unit is generated mainly through the sale of diesel engines with capacities of less than 4 liters, which are the main products, and through spare parts business (service). The planning is based both on market data from the Power System Research Database (PSR) and on a management estimate that is particularly focused on the potential of the E-DEUTZ business. Our revenue planning considered not only the anticipated performance of the market for diesel engines in our key application segments, but also global construction volumes and the trends in the construction industry in which our major customers operate. The construction industry is among those switching from diesel engines to electric motors because of the increasing regulation of emissions.

On the cost side, management is assuming that it will be possible to make additional savings in manufacturing costs per unit. This will be the result of economies of scale and an anticipated shift in the sales mix from more powerful to less powerful engine types. Moreover, the use of a new assembly line from 2020 is expected to significantly reduce material and production overheads. In its planning, management is assuming that the ratio of net working capital to revenue will remain stable.

The pre-tax cost of capital used for discounting was 10.4 percent (December 31, 2018: 10.8 percent). The discount rate was based on a risk-free interest rate of 0.2 percent (December 31, 2018: 1.0 percent) and a market risk premium of 7.5 percent (December 31, 2018: 7.0 percent). In addition, the beta factor, the cost of debt, and the capital structure were determined using a peer group specific to the business unit.

The impairment test carried out for the ‘product line <4 liters’ business unit verified the impairment of the goodwill allocated to this business unit.

‘Torqeedo’ business unit:
The market for electric motors in the automotive industry remains in a phase of expansion characterized by high growth rates. Technological innovations and stricter emissions standards mean that electric motors are increasingly being chosen over traditional internal combustion engines. Because of the possibility of certain electric motor technologies making the leap from the automotive sector to the marine industry, which in some cases has already happened, particularly in the case of batteries, Torqeedo’s management is working on the basis that a similar trend will soon emerge in the marine sector. The assumptions on which the budget figures are based for the ‘Torqeedo’ business unit therefore include fast-rising demand for electric motors and hybrid drives. Torqeedo’s management also expects strong revenue growth from the expansion of the business with ferries and water taxies. Cities in the EMEA and Asia regions that are built close to water are a particular focus here.

On the cost side, management is assuming that manufacturing costs per unit will fall. In particular, this is because the bulk of the capital expenditure on infrastructure has largely been made. Management also expects further economies of scale to be reaped from the optimization and standardization of the production processes and rising learning curves. In its planning, management is assuming that the ratio of net working capital to revenue will fall. This will primarily be achieved by means of improved inventory management.

The pre-tax cost of capital used for discounting was 13.2 percent (December 31, 2018: 13.2 percent). The discount rate was based on a risk-free interest rate of 0.2 percent (December 31, 2018: 1.0 percent) and a market risk premium of 7.5 percent (December 31, 2018: 7.0 percent). In addition, the beta factor, the cost of debt, and the capital structure were determined using a peer group specific to the business unit.

The impairment test carried out for the ‘Torqeedo’ business unit verified the impairment of the goodwill allocated to this business unit. A change in the material assumptions that is possible in the view of management would have the following impact on the recoverable amount of the ‘Torqeedo’ cash-generating unit:

Sensitivity analysis of recoverable amount – 'Torqeedo' CGU

Change in recoverable amount		Change in growth rate Terminal value (percentage points)		
€ million		**–0.5**	**0**	**+0.5**
	+1	–7.5	–6.1	–4.5
WACC change (percentage points)	**0**	–1.8	0	2.1
	–1	5.2	7.6	10.4

Excess/shortfall compared with the carrying amount of the CGU		Change in growth rate Terminal value (percentage points)		
€ million		**–0.5**	**0**	**+0.5**
	+1	1.0	2.4	4.0
WACC change (percentage points)	**0**	6.7	8.5	10.6
	–1	13.7	16.1	18.9

Intangible assets with an indefinite useful life

As had been the case at the end of 2018, other intangible assets included the carrying amount of €7.0 million for the 'Torqeedo' brand purchased as part of the acquisition of the Torqeedo group of companies. Management continues to consider the 'Torqeedo' brand to have an indefinite useful life as there are no indications that the brand will be withdrawn. The intention is for the products made by the Torqeedo group of companies to carry on being marketed under the 'Torqeedo' brand.

14. EQUITY-ACCOUNTED INVESTMENTS

The shares held by the DEUTZ Group in associates and joint ventures, none of which are listed companies, are as follows:

€ million	**2019**	2018
Jan. 1	**2.1**	**25.9**
Additions	48.7	0.0
Pro-rata profit/loss on equity-accounted investments	0.7	–2.2
Disposals	0.0	0.0
Impairment	0.0	–11.3
Other changes arising from measurement using the equity method	–0.4	–10.3
Dec. 31	**51.1**	**2.1**

The additions represent the purchase of the investment in the joint venture Hunan DEUTZ Power Co., Ltd., Changsha, China.

A summary of further financial information about associates and joint ventures is provided in Note 27 'Interests in other entities'.

15. OTHER FINANCIAL ASSETS (NON-CURRENT)

€ million	**Dec. 31, 2019**	Dec. 31, 2018
Equity investments	0.3	1.3
Non-current securities	3.7	2.8
Cost of borrowing	0.7	1.0
Other	0.3	11.6
Total	**5.0**	**16.7**

Equity investments

This item mainly related to the carrying amount of the investment in DEUTZ Engines (India) Private Limited, Pune, India. For reasons of materiality, this company is not consolidated.

Non-current securities

This line item on the balance sheet includes securities in the form of equities and bonds. The securities are used to hedge the pension obligations of the Group company DEUTZ Corporation, Atlanta, USA.

Cost of borrowing

The cost of borrowing directly associated with the working capital facility is accounted for as a non-current asset and is recognized in the income statement in installments over the capital commitment period. The financial debt (including the pro rata cost of borrowing) is recognized when the working capital facility is drawn down as a loan and is subsequently measured using the effective interest method.

16. DEFERRED TAXES, CURRENT TAX ASSETS AND LIABILITIES

At the balance sheet date, DEUTZ AG had unutilized tax losses carried forward of €753.9 million for corporation tax (2018: €785.8 million) and €866.3 million for trade tax (2018: €898.8 million). The figures disclosed in 2018 for tax loss carryforwards (corporation tax: €786.7 million; trade tax: €901.5 million) were restated as a result of updates for previous years.

Further tax loss carryforwards were also available to international companies in the Group.

The following table gives a breakdown of the deferred tax assets and liabilities and the current tax assets and liabilities reported on the balance sheet:

Combined management report
Non-financial report
Notes to the consolidated financial statements

€ million	Dec. 31, 2019	Dec. 31, 2018
Non-current		
Deferred tax assets	68.6	75.9
Deferred tax liabilities	0.8	0.5
Current		
Current tax assets	4.2	2.0
Provision for income taxes	1.3	17.9
Income tax liabilities	**1.4**	**0.8**

In 2019, the deferred tax assets net of deferred tax liabilities amounted to €68.6 million. They were largely the result of capitalizing deferred tax assets on tax losses carried forward and of temporary differences, particularly those between the carrying amount of provisions for pensions and other post-retirement benefits on the consolidated balance sheet and their tax base in the financial statements at DEUTZ AG. Deferred tax assets from items recognized in other comprehensive income amounted to €23.5 million (December 31, 2018: €21.2 million) for provisions for pensions and other post-retirement benefits and €0.1 million (December 31, 2018: €0.3 million) for measurement of cash flow hedges and interest rate derivatives.

The following table shows the breakdown of deferred tax assets and liabilities:

€ million	Dec. 31, 2019		Dec. 31, 2018	
	Assets	Liabilities	Assets	Liabilities
Intangible assets	0.0	41.4	0.0	41.5
Property, plant and equipment	1.5	11.5	1.7	1.2
Inventories	9.3	0.0	7.8	0.0
Receivables and other assets	3.2	0.8	6.7	0.0
Pensions	22.8	0.0	21.5	0.0
Other liabilities	25.2	2.7	12.7	2.7
Tax loss carryforwards	62.2	0.0	70.4	0.0
Deferred taxes (gross)	**124.2**	**56.4**	**120.8**	**45.4**
Netting	55.6	55.6	44.9	44.9
Deferred taxes (net)	**68.6**	**0.8**	**75.9**	**0.5**

The tax asset in excess of deferred tax liabilities – for which tax planning indicates sufficient taxable profit will be available in the future – amounted to €68.6 million (December 31, 2018: €75.9 million).

The increase in deferred taxes in respect of temporary differences, which was recognized in other comprehensive income, was €1.8 million at December 31, 2019 (December 31, 2018: €0.6 million) and largely resulted from changes in provisions for pensions.

As at December 31, 2019, the DEUTZ Group had not recognized any deferred tax liabilities on temporary differences of €15.0 million (December 31, 2018: €12.8 million) in respect of taxes on untransferred profits from subsidiaries, associates, or joint ventures because the timing of the reversal of the differences can be controlled or the sums are mostly tax exempt and no material impact on taxes is expected in the near future.

Deferred tax assets are only recognized to the extent that sufficient future taxable income is likely to be generated over a certain planning period against which the as yet unused tax loss carryforwards can be offset. Consequently, as well as tax loss carryforwards on which deferred taxes have been recognized, there are loss carryforwards for which deferred taxes have not been recognized because the losses cannot be utilized. The following table shows the amounts and expiry dates of the tax loss carryforwards on which deferred taxes have not been recognized:

Loss carryforwards on which deferred taxes have not been recognized

€ million	Dec. 31, 2019	Dec. 31, 2018
Corporation tax/solidarity surcharge	633.0	636.4
Trade tax	724.1	730.7

Thereof: expiry periods for German and international loss carryforwards

€ million	Dec. 31, 2019	Dec. 31, 2018
Up to 5 years	0.0	0.0
6 to 9 years	0.0	0.0
Indefinite		
Corporation tax/ solidarity surcharge	633.0	636.4
Trade tax	724.1	730.7

The figures disclosed in 2018 for loss carryforwards on which deferred taxes had not been recognized in full (corporation tax: €637.4 million, trade tax: €733.4 million) were restated following the submission of tax returns.

17. INVENTORIES

€ million	Dec. 31, 2019	Dec. 31, 2018
Raw materials, consumables, bought-in parts and spare parts	179.2	182.0
Work in progress	41.7	46.0
Finished goods	100.8	105.5
Total	**321.7**	**333.5**

Write-downs on raw materials, bought-in parts and spare parts totaled €5.1 million in the reporting year (2018: €2.3 million). As at December 31, 2019, the carrying amount of inventories written down to net realizable value was €90.0 million (December 31, 2018: €72.5 million).

The following table shows the change in the valuation allowance account for inventories:

€ million	2019	2018
Jan. 1	**43.1**	**39.4**
Changes	–1.9	3.7
Dec. 31	**41.2**	**43.1**

18. RECEIVABLES AND OTHER ASSETS

€ million	Dec. 31, 2019	Dec. 31, 2018
Trade receivables	155.9	161.0
Less write-downs	–3.8	–3.7
Trade receivables (net)	**152.1**	**157.3**
Other receivables and assets		
Trust account balance	48.3	0.0
Receivables arising from other taxes	5.9	15.5
Receivables remaining after sale of receivables	3.9	3.9
Receivables arising from investment grants	3.9	2.7
Receivables due from investments	0.3	0.1
thereof trade receivables	0.3	0.1
thereof other receivables	0.0	0.0
Receivables arising from income tax assets	4.2	2.0
Derivative financial instruments	0.4	0.0
Advances paid	1.9	5.2
Sundry other receivables	15.2	13.8
Total	**84.0**	**43.2**

As at December 31, 2019, the volume of receivables sold under factoring agreements was €136.2 million (December 31, 2018: €142.4 million). Essentially, all the opportunities and risks connected with title to the receivables that were sold were transferred to the factor. While the entire credit risk was transferred, a risk of late payment remains, but it is not material so the receivables were not reported in the consolidated financial statements of DEUTZ AG. The remaining exposure in respect of the receivables that have been assigned is largely limited to the administration and collection of these receivables. As at December 31, 2019, the Group had access to factoring lines totaling €225.0 million (December 31, 2018: €225.0 million). They are revolving lines. In 2019, interest expense of €0.9 million (2018: €0.9 million) was recognized in connection with the sale of receivables.

As at December 31, 2019, there were receivables amounting to €3.9 million due from one factor (December 31, 2018: €3.9 million) in connection with the sale of receivables. The fair value of these receivables was also €3.9 million (December 31, 2018: €3.9 million). The risk arising from the factoring transaction was the credit risk of the factor, which was lower than the credit risk of the original debtors. The maximum downside risk as at December 31, 2019 was limited to the amount receivable of €3.9 million (December 31, 2018: €3.9 million).

The trust account balance of €48.3 million resulted from the contractual obligation to transfer the purchase price for the shares in the joint venture Hunan DEUTZ Power into a trust account. The trust account is a bank account denominated in US dollars.

Trade receivables had been written down by an amount of €3.8 million as at December 31, 2019 (December 31, 2018: €3.7 million). The table showing the change in the valuation account can be found in Note 26 on page 147.

If other receivables or assets are found to be impaired, a direct write-down is applied to the relevant carrying amounts. Total impairment losses of €9.9 million were recognized on other receivables and assets as at December 31, 2019 (December 31, 2018: €14.7 million). The table showing the change in the valuation account can be found in Note 26 on page 148.

There were no contract assets arising from contracts with customers as at December 31, 2019 or as at December 31, 2018.

19. CASH AND CASH EQUIVALENTS

As at December 31, 2019, cash and cash equivalents including cash on hand, short-term deposits, and credit balances with banks amounted to €55.3 million (December 31, 2018: €132.8 million). There were no access restrictions, as had also been the case in the previous year.

20. EQUITY

€ million	Dec. 31, 2019	Dec. 31, 2018
Issued capital	309.0	309.0
Additional paid-in capital	28.8	28.8
Other reserves	0.1	–4.7
Retained earnings and accumulated income	314.3	285.8
Equity attributable to the shareholders of the parent	652.2	618.9
Non-controlling interests	0.2	0.2
Total	**652.4**	**619.1**

Issued capital

At the end of 2019, the issued capital (share capital) of DEUTZ AG amounted to €308,978,241.98 (unchanged on the end of 2018) and was divided into 120,861,783 no-par-value bearer shares (also unchanged).

Additional paid-in capital

The additional paid-in capital contains premiums and contributions from shareholders as well as the equity component of compound financial instruments such as non-interest-bearing convertible profit-sharing rights and low-interest-bearing convertible bonds. The value of the conversion right linked to previous profit-sharing rights and bonds was recognized in equity on the issue date at fair value less pro rata transaction costs, taking account of deferred taxes.

No such compound financial instruments were in issue, either in 2019 or in 2018.

Other reserves

Currency translation Translation differences allocated to the shareholders of DEUTZ AG arising from the translation of equity at historical rates and the translation of the net income or loss at average rates for the year are reported under accumulated other comprehensive income/loss. In the year under review, this item increased other comprehensive income by €4.2 million, primarily due to the deconsolidation of DEUTZ AGCO Motores S.A., Haedo, Argentina (2018: other comprehensive income reduced by €15.1 million). The cumulative gain on translation differences recognized in other reserves amounted to €0.5 million at the end of 2019 (December 31, 2018: loss of €3.7 million recognized).

Fair value reserve This reserve is used for the recognition of changes in the fair value of available-for-sale financial instruments. That portion of the gain or loss on a cash flow hedging instrument determined to be an effective hedge is also recognized in the fair value reserve.

Retained earnings and accumulated income

This item includes DEUTZ AG's legal reserve of €4.5 million (December 31, 2018: €4.5 million).

Non-controlling interests

The non-controlling interests relate to Mr. Glavan's 25 percent stake in the subsidiary DEUTZ Romania S.r.l., Galati, Romania. DEUTZ AG has an indirect interest in this company through DEUTZ Italy S.r.l.

Dividend

According to the German Stock Corporation Act (AktG), the dividend is paid from the accumulated income reported in the annual financial statements of DEUTZ AG prepared in accordance with the German Commercial Code (HGB). In 2019, DEUTZ AG distributed a dividend of €18.1 million to its shareholders (€0.15 per share) from the accumulated income reported as at December 31, 2018.

The Board of Management proposes using €18.1 million of the accumulated income reported by DEUTZ AG as at December 31, 2019 to pay a dividend of €0.15 per no-par-value share.

Authorized capital

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) 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.

21. PROVISIONS FOR PENSIONS AND OTHER POST-RETIREMENT BENEFITS

DEUTZ AG has both defined contribution plans and defined benefit plans for its employees.

Defined contribution plans

Employees in Germany receive statutory social insurance benefits for which contributions are paid as part of income. At DEUTZ, there are also further direct insurance policies that are financed by employees. These plans are treated as defined contribution plans because the Company has no obligation beyond the payment of contributions to private insurers. Ongoing contribution payments are reported as an expense for the period concerned.

The employer's contribution to the German statutory pension insurance scheme in 2019 came to €20.1 million (2018: €18.1 million). In addition, a further €2.0 million (2018: €2.1 million) was paid for pension and direct insurance policies in connection with deferred compensation.

Defined benefit plans

The DEUTZ Group maintains several defined benefit pension plans in Germany and abroad. The largest pension plans are in Germany and the UK. Together, they accounted for more than 95 percent of defined benefit obligations and 100 percent of plan assets, as had also been the case in 2018.

In all, there are four defined benefit pension plans in Germany. While three of the plans are employer funded, the fourth is a deferred compensation plan. As a rule, the employer-funded pension plans comprise a general employee retirement pension for life, a disability pension, and a surviving dependants' pension. The level of the monthly pension paid under the employer-funded pension plans is based on earned income and years of service in the DEUTZ Group. Since the pension plans were frozen in 1995, employees can no longer acquire any further employer-funded pension entitlements. In the case of the deferred compensation plan, the Company has taken out a reinsurance policy with a life insurance company based on the amount of salary contribution and undertakes to pay a pension based on the guaranteed capital that has been underwritten. In Germany, occupational pension schemes are governed by the Occupational Pensions Act (BetrAVG), according to which the DEUTZ Group has sole responsibility for meeting the requirements of defined benefit pension plans. The normal retirement age is 67.

The existing defined benefit plan in the UK entitles pension beneficiaries to a pension that depends on the level of their basic salary and the number of eligible years of service. However, since the pension plans were frozen in 2016, no employees can now acquire any further employer-funded pension entitlements. The retirement age is between 62 and 65. The annual pension paid is between 1/55 and 1/60 of the highest basic salary received in the final five years of service for each eligible year of service. The pension plan is primarily funded by converting pension beneficiaries' basic salary and employer contributions into plan assets. The DEUTZ Group undertakes to compensate for any shortfall in the scheme. Every year, the amount for which the Company is liable is determined with reference to a report by an independent pensions actuary.

According to legislation in the UK, the pension plan, including the plan assets, must be administered by independent trustees. The investment policy for the pension plan specifies that 50 percent of the accumulated plan assets must be invested in equity instruments and 50 percent in debt instruments. This investment strategy is specifically intended to counteract capital market risk and the associated risk of mismatches between the Company's payment obligations arising from the pension plan on the one hand and the plan assets on the other.

In connection with the defined benefit pension plans, the Group is exposed to capital market risk arising from its investment of the plan's assets in addition to general actuarial risks such as interest-rate risk, the risk of rising annuity rates, and longevity risk.

Funded status of pension plans

€ million	2019	2018
Pension plans in Germany		
Present value of defined benefit obligation	159.0	160.5
Fair value of plan assets	6.2	5.9
Deficit (net liability)	**152.8**	**154.6**
Pension plans in the UK		
Present value of defined benefit obligation	28.8	25.9
Fair value of plan assets	25.5	21.4
Deficit (net liability)	**3.3**	**4.5**
Other pension plans		
Present value of defined benefit obligation	7.5	6.7
Fair value of plan assets	0.0	0.0
Deficit (net liability)	**7.5**	**6.7**
Total		
Present value of defined benefit obligation	195.3	193.1
Fair value of plan assets	31.7	27.3
Deficit (net liability)	**163.6**	**165.8**

The following table shows the breakdown of separate groups to which the pension plans in Germany and the UK have obligations to pay benefits:

Breakdown of defined benefit obligation by beneficiary

€ million	2019	2018
Pension plans in Germany		
Active members	10.7	10.7
Deferred members	5.6	6.9
Pensioners	142.7	142.9
Present value of defined benefit obligation	**159.0**	**160.5**
Pension plans in the UK		
Active members	0.0	0.0
Deferred members	14.5	12.7
Pensioners	14.3	13.2
Present value of defined benefit obligation	**28.8**	**25.9**

The change in the net liability for defined benefit pension plans is shown in the table below:

Change in the net liability for defined benefit pension plans

€ million	2019	2018
Net liability as at Jan. 1	**165.8**	**176.4**
Amounts recognized in the income statement	2.3	2.6
Amounts recognized in other comprehensive income	8.3	0.1
Employer contributions	–0.4	–0.4
Pension benefits paid	–12.5	–13.2
Effects of changes in foreign exchange rates	0.1	0.1
Other	0.0	0.2
Net liability as at Dec. 31	**163.6**	**165.8**

The following table shows the change in the present value of the defined benefit obligation:

Change in present value of defined benefit obligation

€ million	2019	2018
Defined benefit obligation as at Jan. 1	**193.1**	**205.6**
Service cost	0.1	0.0
Employee contributions	0.4	0.1
Interest expense	2.9	2.9
Unrecognized past service cost	0.0	0.3
Remeasurements	10.7	–1.4
thereof: experience adjustments	–1.9	–1.3
thereof: actuarial (gains)/losses arising from changes in biometric assumptions	–0.6	1.8
thereof: actuarial (gains)/losses arising from changes in financial assumptions	13.2	–1.9
Effects of changes in foreign exchange rates	1.3	–0.1
Pension benefits paid	–13.2	–14.9
Other	0.0	0.6
Defined benefit obligation as at Dec. 31	**195.3**	**193.1**

At December 31, 2019, the weighted average life of the bulk of the defined benefit obligation was 9.5 years (December 31, 2018: 9.3 years).

The following two tables show the change in the fair value of the plan assets and the breakdown of the plan assets:

Change in fair value of plan assets

€ million	**2019**	2018
Fair value of plan assets at Jan. 1	**27.3**	**29.2**
Employer contributions	0.4	0.4
Employee contributions	0.4	0.1
Interest income	0.6	0.6
Return on (+)/expenses (–) from plan assets (excl. interest income)	2.5	–1.5
Pensions paid from plan assets	–0.7	–1.7
Currency translation differences	1.2	–0.2
Other	0.0	0.4
Fair value of plan assets at Dec. 31	**31.7**	**27.3**

Breakdown of plan assets

€ million	**2019**	2018
Cash and cash equivalents	0.4	0.0
Equity instruments (by region)		
UK	3.7	3.1
Europe (excl. UK)	2.3	1.8
North America	2.8	2.3
Japan	1.1	0.9
Asia-Pacific	1.1	0.9
Other	1.6	1.3
	12.6	**10.4**
Debt instruments		
Government bonds	4.2	3.7
Corporate bonds	8.3	7.3
	12.5	**11.0**
Reinsurance policies	6.2	5.9
Total	**31.7**	**27.3**

Market prices were available for all the equity and debt instruments because they are traded in active markets.

The breakdown of the portions of the net pension cost recognized in current income and expense for 2019 and 2018 is as follows:

Net pension cost

€ million	**2019**	2018
Unrecognized past service cost	0.0	0.3
Net interest cost	2.3	2.3
Total	**2.3**	**2.6**

The actual return on plan assets in 2019 amounted to €3.1 million (2018: expenses from plan assets of €0.9 million).

The measurement of pension obligations is based on actuaries' reports. The tables below show the main actuarial assumptions underlying the calculations for the defined benefit obligation as at the balance sheet date. The discount rates and pension increases are reported in the form of weighted averages.

Actuarial assumptions

%	**2019**	2018
Discount rate		
Germany	0.60	1.30
UK	2.10	2.90
Rate of pension increase		
Germany	1.75	1.75
UK	2.00	2.00

Mortality tables

Germany	Heubeck 2018G mortality tables
UK	S1 YoB (standard mortality tables for self-administered plans taking into account future changes in mortality)

The following sensitivity analysis for each material actuarial assumption as at the balance sheet date shows the impact that potential changes in the assumptions at the relevant balance sheet date would have on the defined benefit obligations in Germany and the UK.

Sensitivity analysis

2019	**Impact on defined benefit obligation of**	
€ million		
	0.5% rise	0.5% fall
in discount rate		
Germany	–6.8	7.6
UK	–2.4	2.6
in rate of pension increase		
Germany	7.4	–6.8
UK	2.1	–1.9

Sensitivity analysis

2018	**Impact on defined benefit obligation of:**	
€ million		
	0.5% rise	0.5% fall
in discount rate		
Germany	–6.8	7.5
UK	–2.5	2.5
in rate of pension increase		
Germany	7.4	–7.3
UK	2.0	–1.8

Furthermore, we also believe it is possible that the life expectancy of eligible DEUTZ employees will change. If the life expectancy of eligible DEUTZ employees had risen by one year, the increases in the defined benefit obligation arising from the pension plans in Germany and the UK as at December 31, 2019 would have been €16.3 million and €0.9 million respectively (December 31, 2018: €15.4 million and €0.8 million respectively).

The sensitivity calculations are based on the average duration of the pension obligations calculated as at November 30, 2019. In order to highlight the impact on the present value of the defined benefit obligations calculated as at December 31, 2019 separately, the calculations were carried out for each of the actuarial parameters deemed to be material and capable of changing.

Future cash flows

For 2020, the DEUTZ Group forecasts that its payments into pension plans will amount to €0.5 million (2019: €0.4 million). The following table shows the expected future benefit payments arising from defined benefit obligations:

Expected benefit payments

€ million	**Dec. 31, 2019**
2020	13.1
2021	12.7
2022	12.1
2023	11.5
2024	10.9
2025–2029	46.2

Expected benefit payments

€ million	**Dec. 31, 2018**
2019	14.7
2020	14.2
2021	13.8
2022	13.2
2023	12.7
2024–2028	55.9

22. OTHER PROVISIONS

The following table gives a breakdown of other provisions:

€ million	2019			2018		
	Total	**Residual term of up to 1 year**	**Residual term of more than 1 year**	Total	Residual term of up to 1 year	Residual term of more than 1 year
Warranties	57.6	37.9	19.7	59.3	37.6	21.7
Obligations to employees	24.7	16.3	8.4	27.3	17.8	9.5
Restructuring	3.1	0.1	3.0	3.1	0.2	2.9
Onerous contracts	4.4	4.4	0.0	1.6	1.6	0.0
Other	10.2	7.9	2.3	10.3	8.2	2.1
Total	**100.0**	**66.6**	**33.4**	**101.6**	**65.4**	**36.2**

Other provisions are recognized at their settlement value calculated as at the balance sheet date and take account of projected cost increases. Non-current provisions are discounted at a rate of 2.1 percent (December 31, 2018: 2.5 percent).

Other provisions cover all identifiable risks and other contingent liabilities. The main items are the cost of warranties and potential risks, provisions for restructuring, and provisions for obligations to employees and onerous contracts. The provisions for restructuring relate to our decision to optimize our network of sites.

The following table shows the changes to other provisions in 2019:

€ million	Warranties	Obligations to employees	Restructuring	Onerous contracts	Other	**Total**
Jan. 1, 2019	**59.3**	**27.3**	**3.1**	**1.6**	**10.3**	**101.6**
Additions	5.3	21.2	0.0	2.8	3.1	32.4
Currency translation differences	0.0	0.0	0.0	0.0	0.0	0.0
Amounts utilized	–2.1	–22.4	0.0	0.0	–3.0	–27.5
Reversals	–5.0	–1.4	-0.1	0.0	–0.4	–6.9
First-time consolidation/ deconsolidation	0.1	0.0	0.0	0.0	0.2	0.3
Accrued interest/ effect of changes in interest rates	0.0	0.0	0.1	0.0	0.0	0.1
Dec. 31, 2019	**57.6**	**24.7**	**3.1**	**4.4**	**10.2**	**100.0**

23. FINANCIAL DEBT

€ million	**Dec. 31, 2019**				Dec. 31, 2018			
	Total	**Residual term of up to 1 year**	**Residual term of 1–5 years**	**Residual term of more than 5 years**	Total	Residual term of up to 1 year	Residual term of 1–5 years	Residual term of more than 5 years
Liabilities to banks	27.5	23.1	4.4	0.0	37.8	19.6	17.4	0.8
Lease liabilities	41.9	13.1	24.0	4.8	0.0	0.0	0.0	0.0
Other financial debt	1.1	0.2	0.9	0.0	1.3	0.2	0.9	0.2
Total	**70.5**	**36.4**	**29.3**	**4.8**	**39.1**	**19.8**	**18.3**	**1.0**

Liabilities to banks

Liabilities to banks include a loan from the European Investment Bank with a remaining balance of €10.8 million. This unsecured loan is repayable in installments until July 2020.

The syndicated working capital facility had been drawn down in an amount of €7.3 million as at December 31, 2019. This revolving line of credit for a total of €160 million provided by a consortium of banks is a floating-rate facility and is also unsecured. In 2019, its term was extended to June 2024.

As part of the contractual terms for both loans, DEUTZ is obliged to comply with certain financial covenants (ratio of financial debt to equity and ratio of financial debt to EBITDA).

Banco Bilbao Vizcaya Argentaria has also granted loans via our Spanish subsidiary; they have a total remaining balance of €9.5 million. The interest rates on the loans are 1.33 percent and 0.65 percent respectively. Because the loans have been used for capital expenditure in Spain, finance costs up to an interest rate of 3.0 percent and 1.0 percent respectively are reimbursed by the Spanish government as part of a subsidy program.

Lease liabilities

The recognition of lease liabilities in connection with initial application of IFRS 16 in 2019 caused current and non-current financial debt to increase by a total of €41.9 million. Further details about the right-of-use assets and lease liabilities recognized can be found on page 105 of these notes to the financial statements.

Other financial debt

Other financial debt comprises an interest-free government loan.

The fair value of financial debt is described in Note 26 on page 153.

The weighted average interest rates (after hedging) of the financial debt are:

%	**Dec. 31, 2019**	Dec. 31, 2018
Liabilities to banks	1.31	2.22
Lease liabilities	2.31	0.00
Other financial debt	**0.00**	**0.00**

All of the liabilities to banks and all of the other financial debt were denominated in euros. Most of the current and non-current lease liabilities were denominated in euros or US dollars.

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The level of financial debt changed as follows over the course of 2019:

€ million	Dec. 31, 2018	Initial application of IFRS 16	**Jan. 1, 2019**	Cash changes	Non-cash changes: Acquisition of companies	Non-cash changes: Exchange rate effects	Non-cash changes: Fair value changes	Non-cash changes: Other changes	**Dec. 31, 2019**
Non-current financial debt									
Liabilities to banks	18.2		18.2	2.3				–16.1	4.4
Lease liabilities		29.7	29.7		2.4	0.3		–3.6	28.8
Other financial debt	1.1		1.1					–0.2	0.9
Total non-current financial debt	**19.3**	**29.7**	**49.0**	**2.3**	**2.4**	**0.3**	**0.0**	**–19.9**	**34.1**
Current financial debt									
Liabilities to banks	19.6		19.6	–11.9				15.4	23.1
Lease liabilities		11.5	11.5	–14.5	0.1	0.1		15.9	13.1
Other financial debt	0.2		0.2	–0.2				0.2	0.2
Total current financial debt	**19.8**	**11.5**	**31.3**	**–26.6**	**0.1**	**0.1**	**0.0**	**31.5**	**36.4**
Total financial debt	**39.1**	**41.2**	**80.3**	**–24.3**	**2.5**	**0.4**	**0.0**	**11.6**	**70.5**

€ million	Jan. 1, 2018	Cash changes	Non-cash changes: Acquisition of companies	Non-cash changes: Exchange rate effects	Non-cash changes: Fair value changes	Non-cash changes: Other changes	Dec. 31, 2018
Non-current financial debt							
Liabilities to banks	**26.8**	6.0				–14.6	18.2
Other financial debt	1.3					–0.2	1.1
Total non-current financial debt	**28.1**	**6.0**	**0.0**	**0.0**	**0.0**	**–14.8**	**19.3**
Current financial debt							
Liabilities to banks	17.3	–13.5				15.8	19.6
Other financial debt	0.2	–0.2				0.2	0.2
Total current financial debt	**17.5**	**–13.7**	**0.0**	**0.0**	**0.0**	**16.0**	**19.8**
Total financial debt	**45.6**	**–7.7**	**0.0**	**0.0**	**0.0**	**1.2**	**39.1**

24. TRADE PAYABLES AND OTHER LIABILITIES

€ million	Dec. 31, 2019	Dec. 31, 2018
Trade payables	**180.6**	**214.6**
Other liabilities		
Personnel-related liabilities	15.2	16.3
Price reduction liabilities	11.1	11.2
Advances received	5.6	12.3
Liabilities to investments	51.7	3.2
Liabilities arising from other taxes	2.6	3.6
Liabilities arising from income taxes	1.4	0.8
Derivative financial instruments	0.6	0.9
Sundry other liabilities	43.8	42.4
Total	**132.0**	**90.7**

The liabilities from derivative financial instruments resulted from the marking to market of derivatives used to hedge currency and interest-rate risks.

The increase in liabilities to investments was mainly attributable to the outstanding payment of the purchase consideration for the shares in the joint venture Hunan DEUTZ Power Co., Ltd.

The sundry other liabilities include interest benefits of €0.1 million derived from a loan from the European Investment Bank (December 31, 2018: €0.6 million). The loan was initially recognized at fair value and is reported under non-current and current financial debt.

The other liabilities include current contract liabilities arising from contracts with customers:

€ million	Dec. 31, 2019	Dec. 31, 2018
Liabilities from discounts granted	11.1	11.2
Advances received	5.6	6.5
Total	**16.7**	**17.7**

In the reporting period, revenue of €4.2 million was recognized that, at the beginning of the reporting period, had been included as advances received in the balance of contract liabilities (2018: €1.9 million).

The Company had no significant unfulfilled performance obligations as at the reporting date.

NOTES TO THE CASH FLOW STATEMENT

For the purposes of the consolidated cash flow statement, cash and cash equivalents comprise cash on hand, short-term deposits, and credit balances held with banks.

Dividend income of €0.5 million was included in cash flow from operating activities (2018: €0.6 million).

The cash flow from financing activities included the dividend paid to the shareholders of DEUTZ AG for 2018, amounting to €18.1 million.

Cash and cash equivalents had fallen by €77.5 million to €55.3 million at the end of 2019 (December 31, 2018: €132.8 million).

SEGMENT REPORTING

The following table provides an overview of the segments in the DEUTZ Group for 2019 and 2018.

2019	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	**Total segments**	Consolidation	**DEUTZ Group**
€ million						
External revenue	1,446.4	362.5	31.9	**1,840.8**	0.0	**1,840.8**
Intersegment revenue	0.0	0.0	3.6	**3.6**	–3.6	**0.0**
Total revenue	**1,446.4**	**362.5**	**35.5**	**1,844.4**	**–3.6**	**1,840.8**
Depreciation and amortization	70.2	9.5	4.5	**84.2**	0.0	**84.2**
Impairment of property, plant and equipment and intangible assets	1.5	3.5	0.0	**5.0**	0.0	**5.0**
Reversals of impairment losses on property, plant and equipment and intangible assets	–1.8	0.0	0.0	**–1.8**	0.0	**–1.8**
Profit/loss on equity-accounted investments	0.7	0.0	0.0	**0.7**	0.0	**0.7**
Write-downs of equity-accounted investments	0.0	0.0	0.0	**0.0**	0.0	**0.0**
Income from the reversal of provisions	0.1	0.0	0.4	**0.5**	0.0	**0.5**
Operating profit/loss (EBIT before exceptional items)	57.7	42.8	–21.7	**78.8**	0.0	**78.8**

2018	DEUTZ Compact Engines	DEUTZ Customized Solutions	Other	**Total segments**	Consolidation	**DEUTZ Group**
€ million						
External revenue	1,484.0	270.7	24.1	**1,778.8**	0.0	**1,778.8**
Intersegment revenue	0.0	0.5	2.7	**3.2**	–3.2	**0.0**
Total revenue	**1,484.0**	**271.2**	**26.8**	**1,782.0**	**–3.2**	**1,778.8**
Depreciation and amortization	64.3	8.8	3.3	**76.4**	0.0	**76.4**
Impairment of property, plant and equipment and intangible assets	2.4	0.6	0.0	**3.0**	0.0	**3.0**
Profit/loss on equity-accounted investments	–2.2	0.0	0.0	**–2.2**	0.0	**–2.2**
Write-downs of equity-accounted investments	–11.0	0.0	0.0	**–11.0**	0.0	**–11.0**
Income from the reversal of provisions	2.3	0.2	0.2	**2.7**	0.0	**2.7**
Operating profit/loss (EBIT before exceptional items)	63.2	32.9	–14.1	**82.0**	0.0	**82.0**

Reconciliation from overall profit of the segments to net income

€ million	2019	2018
Overall profit of the segments	**78.8**	**82.0**
Consolidation	0.0	0.0
Operating profit (EBIT before exceptional items)	**78.8**	**82.0**
Exceptional items	9.3	0.0
EBIT	**88.1**	**82.0**
Financial income, net	–13.0	–1.9
Net income before income taxes	**75.1**	**80.1**
Income taxes	–22.8	–10.2
Net income	**52.3**	**69.9**

External segment reporting is based on intragroup corporate management and internal financial reporting and, in line with the nature of the products and services offered, covers the following reportable operating segments:

DEUTZ Compact Engines This segment comprises new business and the servicing of liquid-cooled engines with capacities of up to 8 liters.

DEUTZ Customized Solutions This segment focuses on liquid-cooled engines with capacities exceeding 8 liters and on air-cooled drives. It also includes reconditioned exchange engines and parts produced under the name DEUTZ Xchange, along with engine series that are soon to be discontinued.

Other This segment includes the business with electric and hybrid drive systems for marine applications, which are distributed under the Torqeedo brand, and the business activities of the newly acquired subsidiary Futavis, which develops battery management hardware and software. It also contains operations that do not belong in any other segment.

Consolidation Where relevant, the consolidation table also shows the elimination of intercompany relationships between the segments. Intercompany revenue of €3.6 million was eliminated in the reporting year (2018: €3.2 million).

Due to the relocation of production of the 2011 engine series from Cologne-Porz to Ulm, this engine series, which is being phased out, was reassigned from the DEUTZ Compact Engines (DCE) segment to the DEUTZ Customized Solutions (DCS) segment with effect from January 1, 2019. In 2019, 18,932 engines from the 2011 series were sold (2018: 33,577 engines). The series generated revenue of €87.5 million in 2019 (2018: €120.9 million).

The designation of a business area as an operating segment is based on internal reporting by segment regularly used by the Board of Management to monitor performance and allocate resources. When the DEUTZ Compact Engines reporting segment was defined, the operating segments 'product line <4 liters' and 'product line 4 to 8 liters' were grouped together to form the 'DEUTZ Compact Engines' reportable segment due to their similar economic characteristics and the aggregation criteria in IFRS 8.12. The product program of the 'product line <4 liters' comprises new business and the servicing of liquid-cooled engines with capacities of up to 4 liters. The 'product line 4 to 8 liters' also consists of new business plus the servicing of liquid-cooled engines with capacities of 4 to 8 liters. The economic characteristics of the two product lines were deemed to be similar on the basis of their future levels of return on revenue.

The measurement principles applied to the DEUTZ Group's segment reporting are based on the IFRS principles applied in the consolidated financial statements. The Board of Management, in its capacity as the senior decision-making body, assesses the performance of the segments in terms of their operating profit (EBIT before exceptional items). If entities included in the consolidated financial statements using the equity method are directly attributable to a particular segment, the relevant share of the net income or loss for the period is reported under that segment. Finance costs, financial income, and income taxes are reported for the DEUTZ Group as a whole and are not allocated to individual operating segments. External revenue constitutes the revenue that the segments generate from their customers. Revenue generated between segments – where relevant – is reported as intersegment revenue. Transfers between segments are reported at fair value.

Information about products and services

€ million	2019	2018
Engines	1,271.1	1,289.7
Service	175.3	194.3
DEUTZ Compact Engines	**1,446.4**	**1,484.0**
Engines	185.4	135.6
Service	177.1	135.6
DEUTZ Customized Solutions	**362.5**	**271.2**
Engines	34.5	26.8
Miscellaneous	1.0	–
Other	**35.5**	**26.8**
Consolidation	–3.6	–3.2
Total	**1,840.8**	**1,778.8**

Geographical information about external revenue

€ million	**2019**	2018[1]
Germany	**310.7**	**340.5**
Outside Germany	**1,530.1**	**1,438.3**
Rest of Europe	776.8	746.7
Middle East	13.8	20.5
Africa	40.6	32.0
Americas	404.3	365.3
Asia-Pacific	294.6	273.8
Total	**1,840.8**	**1,778.8**

[1] Adjusted due to a change in the regional allocation of the revenue of one big-ticket customer.

Of the European countries outside Germany, Switzerland accounted for €196.9 million in the reporting year (2018: €199.6 million), Sweden for €101.5 million (2018: €125.0 million), and France for €134.9 million (2018: €126.7 million).

The above information is presented according to customer location. In 2019, DEUTZ changed the regional assignment of one of its big-ticket customers in order to standardize how the regional breakdown of revenue is disclosed. Business with this customer is no longer allocated exclusively to the EMEA region (Europe, Middle East, and Africa). Instead, it can now also be allocated to the Americas and Asia-Pacific regions, depending on the location of the local subsidiary's registered office. The figures for the prior year have been restated accordingly. As had been the case in 2018, only one customer accounted for at least 10 percent of our total revenue in 2019. The revenue from this customer amounted to €265.7 million (2018: €304.6 million) and was reported predominantly in the DEUTZ Compact Engines segment.

Geographical information about non-current assets

€ million	**Dec. 31, 2019**	Dec. 31, 2018
Germany	497.6	451.3
Outside Germany	116.9	38.2
Total	**614.5**	**489.5**

The non-current assets comprise property, plant and equipment, goodwill, miscellaneous intangible assets, and equity-accounted investments. They are presented by location of the consolidated entity. The increase in non-current assets in the reporting period was due to initial application of IFRS 16 and the related recognition of right-of-use assets in connection with leases and, in particular, the purchase of the investment in the joint venture Hunan DEUTZ Power Co., Ltd. and the acquisitions of DPS Power Group and Futavis.

OTHER INFORMATION

25. LEASES

The DEUTZ Group only has leases in which it acts as lessee for land and buildings (used for office space, warehousing, and manufacturing), technical equipment and machines, office furniture and equipment, and vehicles. It has also entered into short-term leases with a total term of no more than twelve months and leases where the value of the underlying assets does not exceed €5,000. A practical expedient has been applied to these leases, as a result of which the lease payments under these leases are recognized as an expense on a straight-line basis over the term of the lease.

The following table shows the carrying amounts of the right-of-use assets and changes over the reporting period:

Right-of-use assets

€ million	Land, leasehold rights and buildings	Technical equipment and machines	Other equipment, furniture and fixtures	Advances paid and construction in progress	**Total**
Balance at Jan. 1, 2019	**32.9**	**1.6**	**6.7**	**–**	**41.2**
Currency translation differences	0.3	0.0	0.0	–	0.3
Additions	8.2	0.1	2.1	–	10.4
Disposals	–0.6	0.0	–0.2	–	–0.8
Changes to basis of consolidation	2.5	0.0	0.0	–	2.5
Reclassifications	1.7	0.0	0.0	–	1.7
Depreciation and impairment	–10.9	–0.8	–2.2	–	–13.9
Balance at Dec. 31, 2019	**34.1**	**0.9**	**6.4**	**–**	**41.4**

There were no finance leases in 2018.

In the reporting period, the total cash outflow for leases (including payments for short-term leases and low-value leased assets) was €16.4 million.

The following amounts were recognized in profit or loss in 2019:

€ million	2019
Depreciation of right-of-use assets	13.9
Interest paid on lease liabilities	1.0
Expense for short-term leases	0.8
Expense for leases with low-value assets	1.1
Total amount recognized in profit or loss	**16.8**

A number of leases contain extension and/or termination options. These options provide the flexibility to adjust the leasing portfolio in the event of changed business requirements. Assessing the probability of the options being exercised requires significant judgments to be made. If, taking all facts and circumstances into account, the exercising of the options is regarded as highly probable, the options are deemed exercisable. In the event that facts or circumstances change, the probability of the options being exercised has to be reassessed. Until then, the liability recognized is deemed the best indicator of the future cash outflows. Details of future cash outflows in connection with leasing are presented in Note 26.

As at December 31, 2019, there were no unrecognized residual value guarantees that may give rise to possible cash payments in the future and no material leases that had been signed but would not be recognized until after the balance sheet date. The leases entered into do not contain any clauses that restrict DEUTZ or require it to comply with certain key financial performance indicators. There were no variable lease payments in the reporting period. Furthermore, no right-of-use assets were subleased and no sale and leaseback transactions were entered into. The balance of short-term leases was zero as at December 31, 2019. The expense for short-term leases amounted to €0.8 million in the reporting period.

The following table shows the maturity analysis for lease liabilities:

€ million	Dec. 31, 2019			
	Total	Residual term of up to 1 year	Residual term of 1–5 years	Residual term of more than 5 years
Lease liabilities	41.9	13.1	23.9	4.9

Extension options that were not factored into the measurement of lease liabilities because it is not reasonably certain that they will be exercised could result in future cash outflows of €14.8 million. Most of these options relate to property leases with extension options of up to ten years. Termination options that were not factored into the measurement of lease liabilities because it is not reasonably certain that they will be exercised could, if exercised, result in termination penalties of between €0.5 million and €0.6 million.

26. FINANCIAL RISK MANAGEMENT AND ADDITIONAL INFORMATION ON CAPITAL MANAGEMENT

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. Information about the principles of risk management with regard to financial instruments can be found in the risk report on pages 69 to 74 of the DEUTZ Group's combined management report.

a) Liquidity risk

Prudent liquidity management includes the holding of a sufficient reserve of cash and cash equivalents, the option of obtaining funding through bank loans, and the ability to issue short-term and long-term capital market instruments. Because the business environment is constantly changing, the Treasury department aims to ensure that it has sufficient unused credit lines at its disposal at all times.

The management of liquidity risk in the DEUTZ Group has a number of components: annual planning with interim updates, rolling four-week planning updated weekly, and monthly planning updated monthly up to the end of the financial year. Liquidity risk is also assessed in the regular meetings of the Finance Committee.

In order to ensure sufficient liquidity, DEUTZ has at its disposal a syndicated, revolving cash credit line amounting to €160 million that runs until June 2024 and two long-term amortizing loans with a total remaining balance of €10.8 million. These are being repaid in equal installments between July 2014 and July 2020. As part of the loan agreements, the Company is required to comply with certain covenants.

The liquidity analysis also provides information about contractually agreed interest payments and capital repayments in connection with financial liabilities as at the balance sheet date. As far as the utilization of revolving credit facilities was concerned, it was assumed that the amounts already drawn down by the balance sheet date would continue to apply until the facilities expire.

Dec. 31, 2019	2020 cash payments	2021–2024 cash payments	>2024 cash payments	Total
€ million				
Lease liabilities	**–14.0**	**–25.5**	**–5.2**	**–44.7**
Primary financial instruments	**–315.7**	**–6.2**	**0.0**	**–321.9**
Derivative financial instruments	**–0.6**	**0.0**	**0.0**	**–0.6**
Currency derivatives				
thereof settled gross: cash payments	–32.5	0.0	0.0	–32.5
thereof settled gross: cash receipts	31.7	0.0	0.0	31.7
thereof settled net	0.2	0.0	0.0	0.2
Interest rate derivatives				
Presentation of net cash flow	0.0	0.0	0.0	0.0

Dec. 31, 2018	2019 cash payments	2020–2023 cash payments	> 2023 cash payments	Total
€ million				
Primary financial instruments	**–303.4**	**–19.9**	**0.0**	**–323.3**
Derivative financial instruments	**–1.6**	**0.0**	**0.0**	**–1.6**
Currency derivatives				
thereof settled gross: cash payments	–39.1	0.0	0.0	–39.1
thereof settled gross: cash receipts	37.6	0.0	0.0	37.6
Interest rate derivatives				
Presentation of net cash flow	–0.1	0.0	0.0	–0.1

b) Credit risk

The credit risk arises in relation to cash and cash equivalents, to the contractual cash flows from debt instruments measured at amortized cost, at fair value through other comprehensive income, and at fair value through profit or loss, and to derivatives with a positive market value.

There are no significant concentrations of potential credit risk in the DEUTZ Group. With regard to cash and cash equivalents, DEUTZ works only with selected banks with at least an investment-grade rating. The risk from bad debts is restricted by constant monitoring and regular analysis of receivables and their breakdown. Receivables are to a large extent covered by credit insurance. Further measures, such as guarantees and creditworthiness checks, are used to protect against credit risk. The Group has also put in place procedures and guidelines to ensure that products and services are only sold to customers who have a satisfactory payment record. The maximum credit risk exposure is limited to the carrying amount in the case of trade receivables and other financial assets such as cash and cash equivalents, available-for-sale financial assets, and derivative financial instruments. Credit risk in connection with financial instruments is limited by careful selection of counterparties.

The bulk of the DEUTZ Group's trade receivables are insured with the EULER HERMES Group. There is usually an obligation to the trade credit insurance association (WKV) or, where applicable, the German government's export credit guarantee scheme (APG) to meet defaults on the receivables unless they are secured by letters of credit confirmed by a bank or similar instruments. DEUTZ does not produce any standardized credit rating for its customers itself but usually sets the maximum customer exposure in accordance with the level of cover provided by the credit insurance agency. In addition, we have received collateral in the form of payment guarantees amounting to €1.1 million (December 31, 2018: €0.2 million) for foreign trade receivables.

Impairment of financial assets

The model of expected credit losses is applied to the following types of financial assets in the Group:

- Trade receivables
- Debt instruments measured at amortized cost
- Debt instruments measured at fair value through other comprehensive income.

Although cash and cash equivalents are also subject to the impairment rules of IFRS 9, the identified impairment loss was negligible.

1. Trade receivables

The Group applies the simplified approach in line with IFRS 9 to calculate the expected credit losses. Under this approach, the lifetime expected credit losses are calculated for all unsold trade receivables measured at amortized cost. Expected losses on receivables not sold under factoring agreements and not insured are calculated using the current external credit ratings of the relevant debtors, taking into account the Group's own experience. The individual receivables are initially assigned to one of two categories on the basis of defined criteria such as credit rating or age structure. For category 1 receivables, which according to the defined criteria have a lower credit risk, the default rates assigned to the credit ratings are used to calculate the expected losses. Category 2 receivables have a higher level of risk according to the criteria and a specific value adjustment is recognized.

Impairment losses on trade receivables that were identified using this method were as follows:

Dec. 31, 2019	Category 1	Category 2	**Total**
€ million			
Gross carrying amount of trade receivables	141.5	4.4	**145.9**
Impairment	0.8	3.0	**3.8**

Dec. 31, 2018	Category 1	Category 2	**Total**
€ million			
Gross carrying amount of trade receivables	137.8	7.5	**145.3**
Impairment	0.8	2.9	**3.7**

The following tables show the changes in impairment losses on trade receivables in 2019 and 2018:

€ million	
Jan. 1, 2019	**3.7**
Changes to basis of consolidation	0.1
Additions	0.5
Utilized	–0.4
Reversals	–0.1
Dec. 31, 2019	**3.8**

€ million	
Jan. 1, 2018	**4.2**
Changes to basis of consolidation	0.0
Additions	1.3
Utilized	–0.8
Reversals	–1.0
Dec. 31, 2018	**3.7**

Trade receivables are derecognized when it is reasonable to assume that they are no longer realizable. A debtor refusing to agree on a repayment plan with the Group or a debtor filing for insolvency are among the indicators that a receivable is unlikely to be realized.

Impairment losses on trade receivables are recognized in operating profit for the current period under 'write-downs of financial assets'. The same line item is used to recognize amounts received in subsequent periods that had previously been written down.

2. Debt instruments measured at amortized cost

Debt instruments measured at amortized cost comprise current individual items such as the cash held in a trust account, receivables due from factoring companies for receivables remaining after the sale of receivables, or receivables due from suppliers as a result of discounts or bonuses. The receivables are tested for impairment on an individual basis. A debtor refusing to agree on a repayment plan with the Group or a debtor filing for insolvency are among the indicators that a receivable is unlikely to be realized. The risk of non-performance was very low, because the issuer is always able to meet its contractual payment obligations at short notice. The impairment loss identified in the reporting period was therefore insignificant. The existing impairment losses relate to receivables of €10.2 million due from investments as a result of older items (December 31, 2018: €14.8 million).

The following tables show the changes in impairment losses on debt instruments measured at amortized cost in 2019 and 2018:

€ million	Level 1	Level 3
Jan. 1, 2019	**0.0**	**14.7**
Additions	0.0	0.0
Utilized	0.0	–4.8
Reversals	0.0	0.0
Dec. 31, 2019	**0.0**	**9.9**

€ million	Level 1	Level 3
Jan. 1, 2018	**0.0**	**18.0**
Additions	0.0	0.0
Utilized	0.0	–3.3
Reversals	0.0	0.0
Dec. 31, 2019	**0.0**	**14.7**

The gross carrying amounts of debt instruments assigned to Level 1 amounted to €62.1 million as at December 31, 2019 (December 31, 2018: €14.3 million) and showed no signs of increased credit risk. The gross carrying amounts of debt instruments assigned to Level 3 amounted to €10.2 million as at December 31, 2019 (December 31, 2018: €14.8 million), almost all of which (€9.9 million) was written down (December 31, 2018: €14.7 million).

3. Debt instruments measured at fair value through other comprehensive income

The assets referred to here are units in a fund that is invested in exchange-traded debt instruments. Because their credit risk is classified as low, the calculation of the impairment loss is limited to the expected twelve-month credit losses. Management considers the criterion of 'low credit risk' to be met in the case of direct or indirect investments in exchange-traded debt instruments that, as a minimum, have an investment-grade credit rating. The volume of such debt instruments was very small as at December 31, 2019 and the credit risk was low. The impairment loss identified was therefore insignificant.

Financial assets measured at fair value through profit or loss

The DEUTZ Group is also exposed to credit risk arising from debt instruments and equity instruments measured at fair value through profit or loss. The debt instruments relate, on the one hand, to a loan granted to a supplier and, on the other, to trade receivables that have been earmarked for factoring. This loan was recognized at a fair value of zero as at December 31, 2019, because insolvency proceedings had been opened for the borrower. The resulting expense amounted to €11.1 million in 2019 and was recognized under net finance costs. At the end of the reporting period, the maximum credit risk was limited to the carrying amounts of the debt instruments, which was zero in the case of the loan and €10.0 million in the case of the trade receivables. The equity instruments are units in a fund that is invested in publicly listed shares in order to hedge pension obligations. Here too, the maximum credit risk was limited to the carrying amount of the units (€2.2 million).

Currency risk

The DEUTZ Group operates internationally and, consequently, is exposed to currency risk arising from fluctuating exchange rates, principally US dollar exchange rates. Exchange-rate risks are monitored under a centralized currency management system and mitigated by the use of hedging transactions. The Treasury department uses hedges, primarily currency forwards, to hedge currency risk emanating from the net position of estimated future cash flows in foreign currency. Between 50 percent and 80 percent of the net positions anticipated in the budget for the year are usually hedged.

As at December 31, 2019, DEUTZ was also exposed to currency risk in connection with the joint venture agreement with SANY. This exposure will continue until the purchase consideration for the shares in the joint venture Hunan DEUTZ Power has been paid in full. This risk has also been hedged. The purchase consideration is expected to be paid in the first quarter of 2020.

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DEUTZ also takes specific action to increase the volume of purchasing in US dollars; this enables the Company to counteract currency risk arising from sales invoiced in US dollars by creating a natural **hedge**. Risks arising from the translation of financial statements of subsidiaries prepared in currencies other than the euro are not hedged.

Currency sensitivity analysis

The following tables illustrate the sensitivity – from a Group perspective – to a 10 percent rise or fall in the euro against the different currencies. The sensitivity analysis only takes into account outstanding monetary positions denominated in foreign currency and adjusts the period-end translation of those amounts to reflect a 10 percent change in the exchange rate. The positions involved include currency forward contracts that form part of an effective cash flow hedge, the purpose of which is to hedge fluctuations in foreign-currency payments and receipts caused by changes in exchange rates. Because hedging transactions are measured at fair value, changes in the exchange rates for the currencies underlying these transactions have an impact on the hedging reserve in other comprehensive income. Other positions involved are currency forward contracts that are no longer used as hedges. Changes in the exchange rates for the currencies underlying these financial instruments result in gains or losses due to restating these instruments at their fair value. Primary instruments (trade receivables and trade payables) denominated in foreign currency and outstanding as at the balance sheet date are also included in the sensitivity analysis. Changes in the exchange rates for the currencies underlying these items result in gains or losses when they are marked to market.

The following tables show the impact on net income and on equity if the euro rises or falls by 10 percent against relevant foreign currencies.

Cash payments and receipts are shown as net amounts under 'notional amounts'.

Euro rises by 10 percent

€ million

2019	Notional amounts	Impact on net income	Notional amounts	Impact on equity
USD	125.2	–10.6	57.8	4.9
CNY	19.1	–1.7	0.0	0.0
MAD	7.0	–0.6	0.0	0.0

€ million

2018	Notional amounts	Impact on net income	Notional amounts	Impact on equity
USD	96.8	–8.0	52.7	5.0
CNY	15.9	–1.4	0.0	0.0
MAD	9.2	–0.8	0.0	0.0

Euro falls by 10 percent

€ million

2019	Notional amounts	Impact on net income	Notional amounts	Impact on equity
USD	125.2	13.0	57.8	–6.2
CNY	19.1	2.1	0.0	0.0
MAD	7.0	0.8	0.0	0.0

€ million

2018	Notional amounts	Impact on net income	Notional amounts	Impact on equity
USD	96.8	9.7	52.7	–5.1
CNY	15.9	1.8	0.0	0.0
MAD	9.2	1.0	0.0	0.0

Interest-rate risk and sensitivity analysis

The DEUTZ Group is exposed to risk from interest rate changes, primarily in relation to floating-rate loans and other debt. As at December 31, 2019, there were no material loans or other debt exposed to interest-rate risk. The floating-rate loan from the European Investment Bank outstanding on the balance sheet date, which had a remaining balance of €5.4 million, was hedged using interest-rate swaps that form part of an effective cash flow hedge. Because hedging transactions are measured at fair value, changes in interest rates have an impact on the hedging reserve in other comprehensive income. The following tables show the impact of the interest-rate swaps on other comprehensive income if market interest rates rise or fall by 100 basis points.

Interest rates rise by 100 basis points

€ million		
2019	Notional amounts	Impact on equity
	5.4	less than 0.1

€ million		
2018	Notional amounts	Impact on equity
	12.6	0.1

Interest rates fall by 100 basis points

€ million		
2019	Notional amounts	Impact on equity
	5.4	less than –0.1

€ million		
2018	Notional amounts	Impact on equity
	12.6	–0.1

Capital management

The DEUTZ Group manages its capital with the primary objective of supporting business operations and ensuring the continued existence of the Company as a going concern over the long term. A healthy financial structure is necessary to assure the required flexibility in the provision of financial resources. At present, no credit rating has been set for DEUTZ. However, the DEUTZ Group is endeavoring to achieve a balance-sheet structure that meets the requirements for an investment-grade rating. Capital management therefore extends to both equity and debt.

DEUTZ is not subject to capital requirements under its Statutes. However, it is under an obligation toward the banks from which it has obtained loans to ensure that its ratio of net financial debt to equity does not exceed a certain level. This external requirement has been integrated into capital management and was met at all times.

As at the balance sheet date, the net financial position (cash and cash equivalents less interest-bearing financial debt) was minus €15.2 million, which equated to a year-on-year fall of €108.9 million (December 31, 2018: €93.7 million). In addition to the net financial position, free cash flow (defined as cash flow from operating activities and investing activities less interest payments) is an essential part of active capital management and is used as a key figure to show changes in the liquidity situation. The free cash flow from continuing operations was minus €36.6 million in 2019 (2018: €14.5 million).

The equity ratio is another indicator used by the DEUTZ Group to monitor its capital. This indicator reflects the ratio of total assets to Group equity as reported on the consolidated balance sheet. As at December 31, 2019, the equity ratio for the DEUTZ Group was 50.1 percent (December 31, 2018: 49.6 percent) and therefore remained at a high level and met all internal targets in full.

Financial instruments

The following tables show the carrying amounts of the individual financial assets and liabilities for each separate category of financial instrument, reconciled to the corresponding balance sheet item.

Financial instruments (assets)

Dec. 31, 2019	**Measured at amortized cost**	**Measured at fair value**		**Assets not within the scope of IFRS 9**	
€ million					
		Through other comprehensive income	Through profit or loss	Carrying amount	**Carrying amount on the balance sheet**
Non-current financial assets	**0.0**	**1.5**	**2.2**	**1.3**	**5.0**
Current financial assets	**259.8**	**0.2**	**10.2**	**21.2**	**291.4**
Trade receivables	142.1	0.0	10.0	0.0	152.1
Other receivables and assets	62.4	0.2	0.2	21.2	84.0
Cash and cash equivalents	55.3	0.0	0.0	0.0	55.3

Financial instruments (assets)

Dec. 31, 2018	**Measured at amortized cost**	**Measured at fair value**		**Assets not within the scope of IFRS 9**	
€ million					
		Through other comprehensive income	Through profit or loss	Carrying amount	**Carrying amount on the balance sheet**
Non-current financial assets	**0.0**	**1.2**	**12.8**	**2.7**	**16.7**
Current financial assets	**288.8**	**0.0**	**15.7**	**28.8**	**333.3**
Trade receivables	141.6	0.0	15.7	0.0	157.3
Other receivables and assets	14.4	0.0	0.0	28.8	43.2
Cash and cash equivalents	132.8	0.0	0.0	0.0	132.8

Financial instruments (liabilities)

Dec. 31, 2019	**Measured at amortized cost**	**Measured at fair value**		**Liabilities not within the scope of IFRS 9**	
€ million					
	Financial liabilities	Derivatives designated as hedging instruments (recognized in other comprehensive income/loss)	Held-for-trading financial liabilities	Carrying amount	**Carrying amount on the balance sheet**
Non-current financial liabilities	**7.0**	**0.0**	**3.1**	**29.7**	**39.8**
Financial debt	5.3	0.0	0.0	28.8	34.1
Lease liabilities	0.0	0.0	0.0	28.8	28.8
Miscellaneous financial debt	5.3	0.0	0.0	0.0	5.3
Other liabilities	1.7	0.0	3.1	0.9	5.7
Current financial liabilities	**317.0**	**0.5**	**1.3**	**24.5**	**343.3**
Financial debt	23.3	0.0	0.0	13.1	36.4
Lease liabilities	0.0	0.0	0.0	13.1	13.1
Miscellaneous financial debt	23.3	0.0	0.0	0.0	23.3
Trade payables	180.6	0.0	0.0	0.0	180.6
Other liabilities	113.1	0.5	1.3	11.4	126.3

Financial instruments (liabilities)

Dec. 31, 2018	**Measured at amortized cost**	**Measured at fair value**		**Liabilities not within the scope of IFRS 9**	
€ million					
	Financial liabilities	Derivatives designated as hedging instruments (recognized in other comprehensive income/loss)	Held-for-trading financial liabilities	Carrying amount	**Carrying amount on the balance sheet**
Non-current financial liabilities	**20.4**	**0.1**	**0.0**	**2.3**	**22.8**
Financial debt	17.7	0.0	0.0	1.6	19.3
Other liabilities	2.7	0.1	0.0	0.7	3.5
Current financial liabilities	**302.3**	**0.7**	**0.1**	**18.5**	**321.6**
Financial debt	19.8	0.0	0.0	0.0	19.8
Trade payables	214.6	0.0	0.0	0.0	214.6
Other liabilities	67.9	0.7	0.1	18.5	87.2

The following table shows the carrying amounts and fair values of all financial instruments included in the consolidated financial statements that fall within the scope of IFRS 7 'Financial Instruments: Disclosures' and that are not reported at fair value.

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€ million	Dec. 31, 2019		Dec. 31, 2018	
	Carrying amount	**Fair value**	Carrying amount	Fair value
Financial assets				
Trade receivables	142.1	142.1	141.6	141.6
Other receivables and assets	62.4	62.4	14.4	14.4
Cash and cash equivalents	55.3	55.3	132.8	132.8
Financial liabilities				
Financial debt – liabilities to banks	28.6	28.8	37.5	38.3
Trade payables	180.6	180.6	214.6	214.6
Other liabilities	114.8	114.8	70.6	70.6

In the case of cash and cash equivalents, trade receivables, trade payables, and other current financial assets and liabilities (due within one year), the carrying amounts are virtually the same as the fair values owing to the short residual maturity.

The fair value of non-current financial assets and liabilities is computed by discounting estimated future cash flows using arm's length discount rates and taking into account our own credit risk and that of our counterparties based on credit ratings and exchange rates on the balance sheet date.

The following table shows the classification in the IFRS 13 measurement hierarchy of the fair values as at the balance sheet date of financial assets and liabilities that were measured at fair value in the consolidated financial statements, or for which a fair value was disclosed in the notes to the financial statements:

Dec. 31, 2019

€ million	**Carrying amount**	**Fair value**	Level 1	Level 2	Level 3
Financial assets					
Loan granted	0.0	0.0	0.0	0.0	0.0
Securities – recognized through other comprehensive income	1.5	1.5	1.5	0.0	0.0
Securities – recognized through profit or loss	2.2	2.2	2.2	0.0	0.0
Currency forwards – recognized through other comprehensive income	0.2	0.2	0.0	0.2	0.0
Currency forwards – recognized through profit or loss	0.2	0.2	0.0	0.2	0.0
Trade receivables	10.0	10.0	0.0	0.0	10.0
Financial liabilities					
Interest-rate swaps	0.0	0.0	0.0	0.0	0.0
Currency forwards – designated as hedging instruments	0.5	0.5	0.0	0.5	0.0
Currency forwards – held for trading	0.1	0.1	0.0	0.1	0.0
Other liabilities – held for trading	4.3	4.3	0.0	0.0	4.3
Financial debt	28.6	28.8	0.0	0.0	28.8

Level 1: Measurement is based on the price of identical assets or liabilities in active markets.
Level 2: Measurement is based on the price of a similar instrument in active markets/measurement using a method in which all the critical input factors are based on observable market data.
Level 3: Measurement using a method in which critical input factors are not based on observable market data.

Dec. 31, 2018

€ million	Carrying amount	Fair value	Level 1	Level 2	Level 3
Financial assets					
Loan granted	11.2	11.2	0.0	0.0	11.2
Securities – recognized through other comprehensive income	1.2	1.2	1.2	0.0	0.0
Securities – recognized through profit or loss	1.6	1.6	1.2	0.0	0.0
Trade receivables	15.7	15.7	0.0	0.0	15.7
Financial liabilities					
Interest-rate swaps	0.1	0.1	0.0	0.1	0.0
Currency forwards – designated as hedging instruments	0.7	0.7	0.0	0.7	0.0
Currency forwards – held for trading	0.1	0.1	0.0	0.1	0.0
Financial debt	37.5	38.3	0.0	0.0	38.3

Level 1: Measurement is based on the price of identical assets or liabilities in active markets.
Level 2: Measurement is based on the price of a similar instrument in active markets/measurement using a method in which all the critical input factors are based on observable market data.
Level 3: Measurement using a method in which critical input factors are not based on observable market data.

The loan granted, which is recognized at fair value and has a nominal value of €13.8 million, is measured at fair value through profit or loss on the basis of the contractual agreement and was carried at zero as at December 31, 2019 (December 31, 2018: €11.2 million). DEUTZ's senior management no longer anticipates any inflows of cash from repayment of the loan because insolvency proceedings have been opened in respect of the borrower.

The fair value of securities is derived from prices in active markets.

The trade receivables recognized at fair value relate to receivables that are sold as part of the existing factoring agreements. The receivables are transferred to the factoring companies at their nominal value. The fair value of the receivables corresponds to the sale price and therefore the nominal value of the receivables. The main influencing factor on the fair value of the receivables is credit risk. However, this is deemed to be negligible given that they are being sold to the factoring company.

The fair value of derivative financial instruments (currency forwards and interest-rate swaps) is calculated over the remaining term of the instrument using current exchange rates, market interest rates, and yield curves and taking into account our own credit risk and that of our counterparties. The disclosures are based on valuations by banks.

The other liabilities recognized at fair value, which amounted to €4.3 million, relate to the remaining contingent consideration for the purchase of the shares in Futavis. Fair value was determined using a method based on present value. The measurement particularly drew on management assessments regarding the occurrence of certain conditions, for example the achievement of earnings targets. DEUTZ AG's senior management estimates that the contingent consideration will be in a range of €2.4 million to €7.0 million.

Net gains and losses on financial instruments

Net gains or losses recognized in the income statement are broken down by measurement category in IFRS 9 as follows:

	Measured at fair value		Measured at amortized cost	
2019	Financial assets	**Financial liabilities**	Financial assets	**Financial liabilities**
€ million				
Net gains/losses	–11.1	0.1	–2.0	–2.1

	Measured at fair value		Measured at amortized cost	
2018	Financial assets	**Financial liabilities**	Financial assets	**Financial liabilities**
€ million				
Net gains/losses	0.0	–0.5	3.7	–1.2

The net gains or losses for each measurement category primarily comprise gains and losses recognized in profit or loss resulting from the measurement of financial instruments at fair value, currency translation of financial instrument carrying amounts, impairment losses and/or reversal of impairment losses on financial instruments, and interest income and expense.

In the reporting period, unrealized gains of €0.2 million on financial investments measured at fair value through other comprehensive income were reported in other comprehensive income (2018: losses of €0.2 million). As had been the case in 2018, no material realized gains or losses were reclassified from other comprehensive income to the income statement in 2019.

Total interest income and interest expense

In 2019, interest income of €1.0 million (2018: €0.5 million) and interest expense of €2.1 million (2018: €1.4 million) were attributable to financial assets and financial liabilities that were not measured at fair value through profit or loss. Assets measured at amortized cost accounted for €1.0 million of the interest income (2018: €0.5 million).

Hedging

Cash flow hedging As at December 31, 2019, there were currency futures and interest-rate swaps that were classified as hedging instruments. Interest-rate swaps are used to hedge the interest-rate risk associated with floating-rate loans. Currency futures are used to hedge the currency risk arising from forecast transactions in foreign currencies.

Unrealized gains of €0.6 million on cash flow hedges were recognized in other comprehensive income in 2019 (2018: losses of €1.7 million), taking into account deferred tax liabilities of €0.2 million (2018: deferred tax assets of €0.6 million). These changes in fair value represent the effective portion of the hedge. In 2019, prior to the inclusion of deferred taxes, losses of €3.0 million (2018: €0.9 million) recognized in other comprehensive income during the year were reclassified to other operating income or expenses in the consolidated income statement. There was no hedging ineffectiveness requiring reclassification from the reserve for cash flow hedges to the income statement in the year under review. Hedges relating to foreign-currency transactions in the operating business are expected to be unwound within the next twelve months and those relating to future interest-rate risks are expected to be unwound in a period of six months. The associated gains that have been recognized in other comprehensive income will be reclassified to the income statement.

Derivative financial instruments

The following derivative financial instruments were reported as at the balance sheet date:

€ million	**Notional amounts 2019**	Notional amounts 2018	**Fair value 2019**	Fair value 2018
Currency forwards				
not used as hedges	4.2	4.6	0.0	–0.1
used as cash flow hedges	106.4	52.7	–0.1	–0.7
Interest-rate swaps				
used as cash flow hedges	5.4	12.6	0.0	–0.2

Currency forwards used as cash flow hedges

€ million	**2019**	2018
Carrying amount (other liabilities/ other receivables and assets)	–0.1	–0.7
Notional amount	106.4	52.7
Date of maturity	Jan. 15, 2020– Jan. 15, 2021	Jan. 15, 2019– Jan. 15, 2020
Hedge ratio	1:1	1:1
Change in fair value in the reporting period	–0.1	–0.7
Change in value of the hedged item used to determine hedge effectiveness	0.1	0.7
Average hedged rate for 2019	US$ 1.1411: €1 CNY 6.9934: US$ 1	US$ 1.1809: €1

Interest-rate swaps used as cash flow hedges

€ million	**2019**	2018
Carrying amount (other liabilities)	0.0	–0.1
Notional amount	5.4	12.6
Date of maturity	Jul. 5, 2020	Jul. 5, 2020
Hedge ratio	1:1	1:1
Change in fair value of outstanding hedging instruments in the reporting year	0.1	0.2
Change in value of the hedged item used to determine hedge effectiveness	–0.1	–0.2
Weighted average hedged rate for 2019	1.11%	1.11%

Netting

As at December 31, 2019, there were no material financial assets and liabilities subject to netting agreements in the DEUTZ Group.

27. INTERESTS IN OTHER ENTITIES

In addition to the parent company DEUTZ AG, the consolidated financial statements for 2019 included 27 subsidiaries, one joint venture, and one associate.

Subsidiaries and non-controlling interests

Due to the indirect investment in DEUTZ Romania S.r.l, Galati, Romania, (formerly IML Motoare S.r.l.), the 25 percent of the voting shares in DEUTZ Romania S.r.l. attributable to Mr. Glavan (CEO of DEUTZ Romania S.r.l.) are shown as non-controlling interests. These amounted to €0.2 million as at December 31, 2019 (December 31, 2018: €0.2 million) and are therefore regarded as not material.

Joint ventures

The joint venture is Hunan DEUTZ Power Co., Ltd., headquartered in Changsha, China, which DEUTZ established with SANY. The joint venture agreement was signed in June 2019. On December 23, 2019, the shares were transferred (completion of the transaction) and the joint venture was included in DEUTZ AG's consolidated financial statements for the first time. Hunan DEUTZ Power, which is structured as a separate vehicle, is an unlisted joint arrangement in which the Group shares joint control and has an ownership interest of 51 percent. Hunan DEUTZ Power Co., Ltd., Changsha, China, itself holds 100 percent of the shares in the operational production company Kunshan SANY Power Co., Ltd., Kunshan, China. The acquisition cost for the investment was €48.7 million. As at December 31, 2019, a current liability of €48.6 million was recognized in respect of the obligation to pay the purchase consideration of CNY 380.0 million as a capital contribution for the joint venture. The primary objective of the strategic partnership is the manufacture of new engines for the Chinese market that comply with the China IV emissions standard for off-highway applications and China 6 for on-highway applications. The shares are classified as a joint venture and accounted for in the consolidated financial statements using the equity method.

A summary of financial information for Hunan DEUTZ Power Co., Ltd., based on its consolidated financial statements prepared in accordance with IFRS, is shown in the following table. Given that the shares were only acquired on December 23, 2019, income statement information has not been disclosed for reasons of materiality.

€ million	**Dec. 31, 2019**
Current assets	59.9
thereof cash and cash equivalents	0.0
Non-current assets	21.2
Current liabilities	16.8
thereof current financial liabilities	0.0
Non-current liabilities	0.0
thereof non-current financial liabilities	0.0
Net assets	**64.3**
Group's share of net assets at Jan. 1	0.0
Share of net income	0.0
Dividends received in 2019	0.0
Effect of currency translation	0.0
Group's share of net assets at Dec. 31	32.8
Goodwill of DEUTZ AG	15.9
Impairment	0.0
Carrying amount using the equity method at Dec. 31	**48.7**

The goodwill that arose upon acquisition of the shares represents the joint venture's predicted earnings performance. Efficiencies in respect of the Group's overarching growth strategy for China are also expected. This goodwill is currently not tax-deductible. The allocation of the goodwill that arose, which currently stands at €15.9 million, to the relevant cash-generating units has not yet been finalized because the shares were only acquired on December 23, 2019.

The joint venture DEUTZ AGCO Motores S.A., Haedo, Argentina, was deconsolidated in the second quarter of 2019, as a result of which the negative currency translation differences of €2.9 million incurred up to that point were reclassified to profit or loss for the reporting period. The deconsolidation did not have a material impact on net assets or financial position.

Non-material associates

A summary of financial information is shown below for the Group's interest in D. D. Power Holdings (Pty) Ltd., Elandsfontein, South Africa, which is classified as a non-material associate. The company has a different financial year (ending on November 30). Annual financial statements for the year ended December 31 have not been prepared for reasons of materiality.

€ million	**2019**	2018
Carrying amount of interests	**2.4**	**2.1**
Group's share of:		
Profit from continuing operations	0.7	0.6
Other comprehensive income	0.0	0.0
Net income	**0.7**	**0.6**

28. CONTINGENT LIABILITIES

Contingent liabilities

The DEUTZ Group's contingent liabilities as at the balance sheet date were as follows:

€ million	**Dec. 31, 2019**	Dec. 31, 2018
Guarantee liabilities	0.0	0.1
Warranty liabilities	2.0	1.7
Total	**2.0**	**1.8**

Other financial obligations

The following table shows the notional amounts and due dates of other financial obligations:

€ million	**Dec. 31, 2019**	Dec. 31, 2018
due in less than 1 year	8.1	15.7
due in 1 to 5 years	13.3	26.5
due in more than 5 years	0.0	0.2
Total	**21.4**	**42.4**

The above obligations largely relate to rental agreements and leases for low-value assets and to financial obligations in connection with IT services.

Commitments to purchase property, plant and equipment and intangible assets amounted to €35.9 million as at December 31, 2019 (December 31, 2018: €48.1 million) and commitments to purchase inventories amounted to €94.9 million (December 31, 2018: €130.2 million).

Legal disputes

DEUTZ AG and other companies in the DEUTZ Group are involved in a number of legal disputes, claims for damages, and arbitration proceedings that could have an impact on the Group's financial position.

Financial provision has been made to cover litigation risks facing the respective Group companies if the event in question occurred before the balance sheet date, an obligation is probable, and the amount of the obligation can be determined with a sufficient degree of reliability.

We do not expect the above risks to have a significantly adverse long-term impact on the DEUTZ Group's financial position or financial performance beyond the financial provision already made.

29. RELATED-PARTY DISCLOSURES

In addition to its consolidated subsidiaries, the DEUTZ Group maintains relationships with related parties.

These include the business relationships between the DEUTZ Group and entities in which it holds significant investments.

Related parties also include the Supervisory Board and the Board of Management.

The following table shows the volume of material goods and services either provided for or received from entities in which the DEUTZ Group holds significant investments:

€ million	Goods and services provided		Other expenses for services received		Receivables Dec. 31		Payables Dec. 31	
	2019	2018	**2019**	2018	**2019**	2018	**2019**	2018
Associates	9.0	0.0	0.0	0.0	0.9	0.0	0.0	0.0
Joint ventures	0.0	4.7	0.0	0.0	0.0	0.0	0.0	0.0
Other investments	1.1	0.7	4.9	4.7	0.3	0.1	3.1	3.2
Total	**10.1**	**5.4**	**4.9**	**4.7**	**1.2**	**0.1**	**3.1**	**3.2**

The decrease in goods supplied and services rendered to joint ventures compared with 2018 is mainly attributable to the disposal of the investment in DEUTZ (Dalian) Engine Co., Ltd. in November 2018.

As at December 31, 2019, impairment losses of €9.9 million (December 31, 2018: €10.7 million) had been recognized on €10.2 million (December 31, 2018: €10.8 million) of the Company's receivables due from other investments. This resulted in income of €0.3 million in the reporting year (December 31, 2018: no income or expense).

Of these receivables, €5.2 million related to loans granted by DEUTZ (December 31, 2018: €6.8 million) on which impairment losses of €5.2 million had been recognized (December 31, 2018: €6.8 million). Taken together, neither the interest and similar income nor the interest expense and similar charges arising from the interest paid on these loans are material.

The following payments were made to the Supervisory Board and the Board of Management as related parties of the DEUTZ Group:

€ million	Supervisory Board		Board of Management	
	2019	2018	**2019**	2018
Short-term remuneration[1]	1.5	1.5	3.1	3.6
Other long-term benefits	0.0	0.0	0.2	0.8
Share-based remuneration[2]	0.0	–0.4	0.2	0.0

[1] The current remuneration for members of the Supervisory Board includes both remuneration for their work as Supervisory Board members and the regular salaries of the salaried employee representatives.
[2] The disclosure of share-based remuneration corresponds with the expense (+) or income (–) recognized in the operating profit in 2019 from the changes in provisions made for distributed virtual share options.

30. EVENTS AFTER THE REPORTING PERIOD

The outbreak of the coronavirus is taking a significant toll on international transport, travel, industrial logistics chains, and production capacity, both in China and globally. As things stand, we are not aware of any specific issues at our suppliers. Due to the globalized nature of its logistics routes, however, DEUTZ can no longer exclude the possibility of its supply chain being affected. The potential risks to revenue and earnings resulting from the coronavirus outbreak cannot be predicted at present.

In February, the Company also launched an efficiency program, Transform for Growth. This is a global program to strengthen competitiveness by reducing complexity and increasing efficiency along the whole value chain. The impact on results of operations cannot be predicted at present.

31. SHARE-BASED REMUNERATION PROGRAMS

Between 2007 and 2019, DEUTZ AG launched long-term incentive plans as long-term components of remuneration. Under these long-term incentive plans, virtual stock options are issued to reward management for its sustained contribution to the Company's success.

General description of the incentive plans of DEUTZ AG

Under DEUTZ AG's incentive plans, virtual options are issued on shares in DEUTZ AG. The Company decides at its discretion who is eligible to participate in the plans. However, only members of the DEUTZ Group's senior management and members of the Supervisory Board of DEUTZ AG may be considered for inclusion. It is at the discretion of the Company to decide how many options are granted.

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By the balance sheet date, the following **long-term incentive plans (LTI)** that were still in existence, with the number of **options** shown, had been granted free of charge:

Incentive plan	Date of grant	Number of options
LTI no. VIII	September 1, 2014	320,000
LTI no. IX	June 1, 2015	320,000
LTI BoM 2016	January 1, 2016	147,577
LTI no. X	September 1, 2016	340,000
LTI BoM 2017	January 1, 2017	102,926
LTI no. XI	September 1, 2017	320,000
LTI BoM 2018	January 1 and March 1, 2018	54,530 and 19,789
LTI no. XII	September 1, 2018	322,501
LTI BoM 2019	January 1 and March 1, 2019	57,698 and 21,009
LTI no. XIII	October 1, 2019	280,000

A total of 403,529 of these options had been granted to current and former members of the DEUTZ AG Board of Management.

Information on the exercise of options

One of the fundamental requirements for exercising options is that the option holders themselves invest in the Company at a ratio of one share per ten **options**, or one share per 20 options in the case of the **LTI** BoM 2016 to 2019. The absolute earliest that options can be exercised is four years after the date of grant (vesting period) and then only within four years from the end of the vesting period and only within ten days from the date of publication of quarterly financial statements. However, options under the **LTI** BoM 2016 to 2019 are exercised automatically four years after the date of grant. The Company may delay the start of the exercise window for the options or accelerate the exercise and vesting periods, but cannot change the exercise or vesting periods of the options relating to the **LTI** BoM 2016 to 2019.

Furthermore, options may only be exercised:

- if the market price of DEUTZ AG shares has risen by at least 30 percent relative to the reference price (dividend distributions by DEUTZ AG must be taken into consideration, i.e. for the purposes of calculating the performance target, the total gross dividend distribution up to the exercise date must be added to the DEUTZ AG share price), or
- if, in the period starting from the grant date of the option and ending on the date of exercise, DEUTZ AG shares outperform the Prime Industrial Performance Index – or any future index that replaces the Prime Industrial Performance Index – by at least 30 percent, or
- in the case of the **LTI** BoM 2016 to 2019, if, in the period starting from the grant date of the option and ending on the date of exercise, DEUTZ AG shares outperform the MDAX – or any future index that replaces the MDAX – by at least 10 percentage points.

A request to exercise options must be submitted to the Company in writing.

The following specific terms and conditions apply to the incentive plans still in existence:

Incentive plan	Earliest or automatic exercise date	Reference price
LTI no. VIII	September 1, 2018	€5.37
LTI no. IX	June 1, 2019	€4.40
LTI BoM 2016	January 1, 2020	€3.42
LTI no. X	September 1, 2020	€3.94
LTI BoM 2017	January 1, 2021	€4.91
LTI no. XI	September 1, 2021	€6.66
LTI BoM 2018	January 1, 2022 and March 1, 2022	€7.03 and €7.58
LTI no. XII	September 1, 2022	€7.15
LTI BoM 2019	January 1, 2023 and March 1, 2023	€6.33 and €5.95
LTI no. XIII	September 1, 2023	€5.80

When an option is exercised, the beneficiary receives a cash payment in the amount of the difference between the DEUTZ AG share price on the exercise date and the reference price at the time the option was granted. Under the **LTI** BoM 2016 to 2019, however, beneficiaries receive a cash payment equivalent to the average closing price of DEUTZ AG shares on the 60 trading days prior to the end of the vesting period up to a maximum of 1.5 times the reference price. No beneficiary receives shares in the Company.

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The following table shows the changes to the number of outstanding **options** in 2019:

Incentive plan	Outstanding options at Jan. 1	Options granted	Options exercised	Options expired	Outstanding options at Dec. 31
LTI no. V	30,000	0	0	–30,000	0
LTI no. VI	50,000	0	0	–50,000	0
LTI no. VII	50,000	0	0	–50,000	0
LTI no. VIII	131,000	0	–51,000	–20,000	60,000
LTI BoM 2015	125,657	0	–125,657	0	0
LTI no. IX	220,000	0	–133,000	0	87,000
LTI BoM 2016	147,577	0	0	0	147,577
LTI no. X	250,000	0	0	–40,000	210,000
LTI BoM 2017	102,926	0	0	0	102,926
LTI no. XI	260,000	0	0	–40,000	220,000
LTI BoM 2018	74,319	0	0	0	74,319
LTI no. XII	322,501	0	0	–50,000	272,501
LTI BoM 2019	0	78,707	0	0	78,707
LTI no. XIII	0	280,000	0	0	280,000
Total	**1,763,980**	**358,707**	**–309,657**	**–280,000**	**1,533,030**

Notes on the fair value of options

Because the virtual options are cash-based instruments rather than equity-based instruments, the Company is obliged to recognize a provision, the amount of which is derived from the fair value of the virtual options at the grant date and apportioned pro rata over the vesting period.

An option pricing model using the Black-Scholes formula was used to ascertain the fair value. The model factors in the aforementioned exercise prices, the term, and the value of the underlying asset (DEUTZ AG shares).

LTI no. VIII

The risk-free interest rate (0.63 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2014. The assumed volatility (57.72 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €4.52 on September 1, 2014. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

LTI no. IX

The risk-free interest rate (0.63 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2015. The assumed volatility (58.58 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €5.24 on June 1, 2015. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

LTI BoM 2016

The risk-free interest rate (0.1 percent) used in the calculation is based on German Federal notes and German Federal Treasury notes issued at the start of 2016. The assumed volatility (49.71 percent) is based on the average value for call options on DEUTZ AG shares available on the market as at January 1, 2016. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €3.535 on January 1, 2016. As the options are automatically exercised at the end of the vesting period, the provision for the options that are not yet vested was calculated on the basis of the vesting period.

LTI no. X

The risk-free interest rate (0.0 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2016. The assumed volatility (44.30 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €4.00 on September 1, 2016. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

LTI BoM 2017

The risk-free interest rate (0.1 percent) used in the calculation is based on German Federal notes and German Federal Treasury notes issued at the start of 2017. The assumed volatility (41.39 percent) is based on the average value for call options on DEUTZ AG shares available on the market as at January 1, 2017. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €5.473 on January 1, 2017. As the options are automatically exercised at the end of the vesting period, the provision for the options that are not yet vested was calculated on the basis of the vesting period.

LTI no. XI

The risk-free interest rate (0.0 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2017. The assumed volatility (39.50 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €6.51 on September 1, 2017. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

LTI BoM 2018

The risk-free interest rate (0.1 percent) used in the calculation is based on German Federal notes and German Federal Treasury notes issued in mid-2018. The assumed volatility (43.92 percent) is based on the average value for call options on DEUTZ AG shares available on the market as at June 30, 2018. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €7.57 on January 1, 2018 and €7.35 on March 1, 2018. As the options are automatically exercised at the end of the vesting period, the provision for the options that are not yet vested was calculated on the basis of the vesting period.

LTI no. XII

The risk-free interest rate (0.0 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2018. The assumed volatility (47.90 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €7.59 on September 1, 2018. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

LTI BoM 2019

The risk-free interest rate (0.1 percent) used in the calculation is based on German Federal notes and German Federal Treasury notes issued in mid-2019. The assumed volatility (33.08 percent) is based on the average value for call options on DEUTZ AG shares available on the market as at June 30, 2019. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €5.25 on January 1, 2019 and €6.40 on March 1, 2019. As the options are automatically exercised at the end of the vesting period, the provision for the options that are not yet vested was calculated on the basis of the vesting period.

LTI no. XIII

The risk-free interest rate (0.0 percent) used in the calculation is based on German government bonds with terms of up to ten years issued in the second half of 2019. The assumed volatility (49.70 percent) is based on the average value for call options on DEUTZ AG shares available on the market at the end of the year. It is assumed that no option holders leave the Company.

The calculation on the grant date was based on the DEUTZ AG share price of €5.05 on October 1, 2019. It was also assumed that employees would tend to exercise options at the earliest possible date. Consequently, the provisions were calculated on the basis of the vesting period.

In accordance with the requirement for the fair value of options to be recalculated on each balance sheet date, a calculation was carried out on the basis of the DEUTZ AG share price of €5.57 on December 31, 2019 (December 31, 2018: €5.15), which resulted in an expense of €1,407 thousand in 2019 (2018: income of €472 thousand). A total provision of €2,415 thousand was recognized at the end of 2019 (December 31, 2018: €2,728 thousand). The amount is broken down as follows:

Incentive plan	Dec. 31, 2019 € thousand	Dec. 31, 2018 € thousand
LTI no. V	0	11
LTI no. VI	0	102
LTI no. VII	0	102
LTI no. VIII	127	279
LTI BoM 2015	0	720
LTI no. IX	236	228
LTI BoM 2016	757	568
LTI no. X	312	253
LTI BoM 2017	430	265
LTI no. XI	98	74
LTI BoM 2018	202	91
LTI no. XII	113	35
LTI BoM 2019	105	0
LTI no. XIII	35	0
Total	**2,415**	**2,728**

Of the total expenses in 2019 and the total provisions as at December 31, 2019, the sum attributable to members of the Board of Management and Supervisory Board of DEUTZ AG was €216 thousand (2018: income of €379 thousand) and €842 thousand (December 31, 2018: income of €1,326 thousand) respectively.

The options granted had the following intrinsic values, provided the vesting conditions were met:

Incentive plan	Intrinsic value per option, provided the vesting conditions are met (€)	
	Dec. 31, 2019	Dec. 31, 2018
LTI no. VIII	0.00	0.00
LTI no. IX	0.00	0.00
LTI BoM 2016	5.13	5.13
LTI no. X	1.63	1.20
LTI BoM 2017	0.00	0.00
LTI no. XI	0.00	0.00
LTI BoM 2018	0.00 and 0.00	0.00 and 0.00
LTI no. XII	0.00	0.00
LTI BoM 2019	0.00 and 0.00	0.00 and 0.00
LTI no. XIII	**0.00**	**0.00**

32. STAFF COSTS

€ million	2019	2018
Wages	146.0	138.8
Salaries	169.9	156.4
Social security contributions	60.3	54.0
Net interest cost for provisions for pensions and other post-retirement benefits	2.2	2.3
Cost of post-employment benefits and other long-term benefits	2.1	2.0
Cost of severance payments/ personnel restructuring	2.3	1.1
Total	**382.8**	**354.6**

The following table shows the breakdown of staff costs by functional area:

€ million	2019	2018
Cost of sales	224.0	208.1
Research and development costs	49.9	43.3
Selling expenses	70.5	64.5
Administrative expenses	34.6	35.2
Other operating expenses	3.8	3.5
Total	**382.8**	**354.6**

The average number of employees during the year is stated in the disclosures under German accounting standards in Note 33.

DISCLOSURES UNDER GERMAN ACCOUNTING STANDARDS

33. AVERAGE NUMBER OF EMPLOYEES DURING THE YEAR (PURSUANT TO SECTION 314 (1) NO. 4 HGB)

	2019	2018
Non-salaried employees	2,831	2,625
Salaried employees	1,904	1,738
	4,735	**4,363**
Trainees	88	79
Total	**4,823**	**4,442**

From 2019 onward, the number of employees is expressed in full-time equivalents (FTEs). Part-time employees are included pro rata according to their contractual working hours. The figures for the prior year have been restated accordingly.

34. CORPORATE GOVERNANCE

In December 2019, the Board of Management and the Supervisory Board of DEUTZ AG issued a declaration of conformity with the recommendations of the German Corporate Governance Code government commission pursuant to section 161 AktG and made this declaration permanently and publicly available on the Company's website (**https://www.deutz.com/en/investor-relations/corporate-governance/declaration-of-conformity/**).

35. AUDITOR'S FEES

The total fees reported for auditing the consolidated financial statements for 2018 and 2019 are broken down as follows:

€ thousand	2019	2018
Auditing	592	662
Other attestation services	70	67
Total	**662**	**729**

The fees for auditing services essentially consisted of the fees for the audit of the consolidated financial statements, the review of the interim financial statements for the six months to June 30, the audit of DEUTZ AG's annual financial statements, and, in the prior year, the services rendered in relation to an enforcement procedure in 2018. The fees for auditing services also included fees for the audit of the annual financial statements of Torqeedo GmbH. The fees for other attestation services primarily related to the audit of the declaration of completeness in respect of sales packaging pursuant to the German Packaging Ordinance (VerpackV), the audit of the non-financial report, and the audit of compliance with key financials.

The auditor responsible for the audit, Bernd Boritzki, has overseen the audit of the single-entity and consolidated annual financial statements of DEUTZ AG since 2014.

36. TOTAL REMUNERATION FOR THE BOARD OF MANAGEMENT, FORMER BOARD OF MANAGEMENT MEMBERS, AND THE SUPERVISORY BOARD

Board of Management

The total remuneration for the Board of Management of DEUTZ AG in 2019 was €3,772 thousand (2018: €4,979 thousand). This consisted of short-term employee benefits of €3,071 housand (2018: €3,603 thousand), other long-term benefits of €211 thousand (2018: €843 thousand), and share-based long-term benefits as part of the long-term incentive plans amounting to €490 thousand (2018: €533 thousand).

Further details about the remuneration system for members of the Board of Management and details of individual remuneration can be found in the 'Remuneration report' section of the 2019 combined management report.

Remuneration for former members of the Board of Management or their surviving dependants amounted to €1,262 thousand (2018: €1,379 thousand) for DEUTZ AG and the Group. Provisions of €12,944 thousand (December 31, 2018: €13,374 thousand) have been recognized to cover pension obligations to former members of the Board of Management.

Supervisory Board

The total remuneration for the Supervisory Board of DEUTZ AG in 2019 was €871 thousand (2018: €859 thousand). In addition, the employee representatives on the Supervisory Board who are also employees of the DEUTZ Group received normal salaries in line with their employment contracts. The level of their salaries represented appropriate remuneration for corresponding functions and tasks in the Group.

Further details about the Supervisory Board remuneration system and details of individual remuneration can be found in the 'Remuneration report' section of the 2019 combined management report.

Advances and loans to members of the Board of Management and the Supervisory Board

As at December 31, 2019, there were no outstanding advances or loans to any members of the Board of Management or the Supervisory Board, nor had any guarantees or other warranties been issued in favor of any such persons.

37. DISCLOSURES UNDER THE GERMAN SECURITIES TRADING ACT (WPHG)

The German Securities Trading Act (WpHG) obliges investors whose share of voting rights in listed companies reaches certain thresholds to notify the company accordingly. DEUTZ AG had received the following voting right notifications as at December 31, 2019:

On April 26, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had fallen below the 5 percent threshold on April 24, 2019 and amounted to 4.69 percent (5,671,539 voting rights) on that date. Pursuant to section 34 WpHG, 4.69 percent (5,671,539 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On May 10, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had exceeded the 5 percent threshold on May 9, 2019 and amounted to 5.04 percent (6,088,981 voting rights) on that date. Pursuant to section 34 WpHG, 5.04 percent (6,088,981 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On May 15, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had fallen below the 5 percent threshold on May 14, 2019 and amounted to 4.999 percent (6,042,465 voting rights) on that date. Pursuant to section 34 WpHG, 4.999 percent (6,042,465 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On May 16, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had exceeded the 5 percent threshold on May 15, 2019 and amounted to 5.01 percent (6,049,689 voting rights) on that date. Pursuant to section 34 WpHG, 5.01 percent (6,049,689 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On May 17, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had fallen below the 5 percent threshold on May 16, 2019 and amounted to 4.86 percent (5,879,689 voting rights) on that date. Pursuant to section 34 WpHG, 4.86 percent (5,879,689 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On June 4, 2019, pursuant to section 33 (1) WpHG, the Ministry of Finance on behalf of the State of Norway, Oslo, Norway, notified us that its voting share in our Company had not exceeded the 5 percent threshold on June 3, 2019 and amounted to 4.84 percent (5,845,743 voting rights) on that date. Pursuant to section 34 WpHG, 4.84 percent (5,845,743 voting rights) are attributable to it. The voting rights attributable to it are held by the following company under its control, whose voting share in DEUTZ AG is 3 percent or more: Norges Bank (the Central Bank of Norway).

On August 7, 2019, pursuant to section 33 (1) WpHG, DWS Investment GmbH, Frankfurt am Main, Germany, notified us that its voting share in our Company had exceeded the 3 percent threshold on July 19, 2019 and amounted to 3.26 percent (3,937,908 voting rights) on that date. Pursuant to section 34 WpHG, 3.26 percent (3,937,908 voting rights) are attributable to it.

On August 7, 2019 , pursuant to section 33 (1) WpHG, DWS Investment GmbH, Frankfurt am Main, Germany, notified us that its voting share in our Company had fallen below the 3 percent threshold on July 25, 2019 and amounted to 2.68 percent (3,237,527 voting rights) on that date. Pursuant to section 34 WpHG, 2.68 percent (3,237,527 voting rights) are attributable to it.

On August 7, 2019, pursuant to section 33 (1) WpHG, DWS Investment GmbH, Frankfurt am Main, Germany, notified us that its voting share in our Company had exceeded the 3 percent threshold on August 1, 2019 and amounted to 3.82 percent (4,616,923 voting rights) on that date. Pursuant to section 34 WpHG, 3.82 percent (4,616,923 voting rights) are attributable to it.

38. EXEMPTION OPTIONS PURSUANT TO 264 (3) AND 291 HGB

The subsidiary Torqeedo GmbH is exercising the exemption rules pursuant to sections 264 (3) and 291 HGB and will therefore neither publish its annual and consolidated financial statements for 2019 nor prepare a management report or group management report and notes to the financial statements.

39. SUPERVISORY BOARD AND BOARD OF MANAGEMENT

Information on the members of the Supervisory Board and the Board of Management, including non-executive directorships held at other companies, is given in a separate list on pages 168 to 169.

Cologne, March 2, 2020

DEUTZ Aktiengesellschaft

The Board of Management

Dr. Ing. Frank Hiller
Chairman

Dr. Andreas Strecker

Michael Wellenzohn

SHAREHOLDINGS OF DEUTZ AG

As at December 31, 2019

Ref. no.	Name and registered office of the company	Held via	Holding (%)	Equity (€ thousand)	Net income (€ thousand)
1	DEUTZ AG, Cologne			690,381	65,780
Consolidated companies in Germany					
2	Ad. Strüver KG (GmbH & Co.), Hamburg[1]	5	94.0	8,289	1
3	DEUTZ Amerika Holding GmbH[1, 2]	1	100.0	92,275	0
4	DEUTZ Asien Verwaltungs GmbH, Cologne[1, 2]	1	100.0	16,125	0
5	DEUTZ Beteiligung GmbH, Cologne[1]	1	100.0	19	–5
6	Deutz China Verwaltungs GmbH, Cologne[8]	1	100.0	47,747	–1,278
7	Deutz-Mülheim Grundstücksgesellschaft mbH, Cologne[1]	4	100.0	72	30
8	Futavis GmbH, Alsdorf[6]	1	100.0	1,981	–127
9	Torqeedo GmbH, Gilching[1, 2]	1	100.0	24,579	–7,260
10	Unterstützungsgesellschaft mbH der DEUTZ Aktiengesellschaft, Cologne[1]	1	100.0	–1,761	101
Consolidated companies outside Germany					
11	DEUTZ Asia-Pacific (Pte.) Ltd., Singapore (Singapore)[1]	1	100.0	10,201	2,666
12	Deutz Australia (Pty) Ltd., Braeside (Australia)[1]	1	100.0	6,623	652
13	DEUTZ (Beijing) Engine Co., Ltd., Beijing (China)[1]	1	100.0	5,724	737
14	Deutz Corporation, Atlanta (USA)[1]	3	100.0	34,561	5,155
15	DEUTZ FRANCE S.A.S., Gennevilliers (France)[1]	1	100.0	10,906	1,761
16	DEUTZ Italy S.r.l., Milan (Italy)[1]	1	100.0	12,475	3,436
17	DEUTZ Spain S.A., Zafra (Spain)[1]	1	100.0	36,316	5,463
18	DEUTZ (SHANGHAI) INTERNATIONAL TRADE Co., Ltd., Shanghai (China)[1]	1	100.0	10,620	–1,704
19	DEUTZ Romania S.r.l., Galati, (Romania)[1]	16	75.0	767	112
20	DPS Power B. V., Dordrecht (Netherlands)[7]	22	100.0	1,850	0
21	DPS Power N. V., Antwerp (Belgium)[7]	22	100.0	1,663	0
22	Equipco Benelux B.V., Dordrecht (Netherlands)[7]	1	100.0	3,526	0
23	Nlle Ste MAGIDEUTZ S.A., Casablanca (Morocco)[1]	15	100.0	4,072	–11
24	OOO DEUTZ Vostok, Moscow (Russia)[1]	1	100.0	2,315	1,119
25	PTO Power B.V. Dordrecht (Netherlands)[9]	22	100,0	–55	0
26	Service Center Milan S.r.l., Milan (Italy)[1]	16	100.0	514	9
27	Torqeedo Inc. Illinois (USA)[1]	9	100.0	1,279	–2,192
28	Torqeedo Asia-Pacific Ltd., Bangkok (Thailand)[1]	9	100.0	–772	–302
29	D. D. Power Holdings (Pty) Ltd., Elandsfontein (South Africa)[3, 4]	1	30.0	9,767	2,469
30	Hunan DEUTZ Power Co., Ltd., Changsha (China)[3, 9]	6	51.0	64,305	0

SHAREHOLDINGS OF DEUTZ AG

As at December 31, 2019

Ref. no.	Name and registered office of the company	Held via	Holding (%)	Equity (€ thousand)	Net income (€ thousand)
Unconsolidated companies in Germany					
31	DEUTZ Sicherheit Gesellschaft für Industrieservice mbH, Cologne[2]	1	100.0	26	0
32	Feld & Hahn GmbH i. L., Cologne[2]	1	100.0	455	0
Unconsolidated companies outside Germany					
33	AROTRIOS S.A., Nea Filadelfia (Greece)	1	100.0	–	–
34	DEUTZ DO BRASIL LTDA., São Paulo (Brazil)	1	100.0	702	293
35	DEUTZ ENGINEERING druzba za projektiraje, proizvodnjo in trgovino d.o.o., Maribor (Slovenia)	1	100.0	287	106
36	DEUTZ Engines (India) Private Limited, Pune (India)[5]	1	100.0	461	54
37	DEUTZ UK LTD, Cannock (UK)	1	100.0	164	–8

[1] Equity and net income in accordance with the annual financial statements prepared for consolidation purposes.
[2] Profit-and-loss transfer agreement with DEUTZ AG.
[3] Consolidated using the equity method.
[4] Figures as at November 30, 2019.
[5] Figures as at March 31, 2019 measured using exchange rate as at December 31, 2019.
[6] Proportion of net income for the year since the acquisition on October 8, 2019.
[7] No net income as acquired at the end of December 2019.
[8] Forms a tax group with DEUTZ AG for VAT purposes.
[9] Proportion of net income for the year since the acquisition on December 23, 2019.

SUPERVISORY BOARD

Dr. Ing. Bernd Bohr
Chairman
Freelance management consultant
a) Ottobock SE & Co. KGaA, Duderstadt, Germany
b) Ottobock Management SE, Duderstadt, Germany

Corinna Töpfer-Hartung[1]
Deputy Chairwoman
Chairwoman of the Works Council
of the Cologne joint operation of DEUTZ AG, Cologne
Chairwoman of the General Works Council of DEUTZ AG, Cologne, Germany

Sophie Albrecht
Businesswoman
b) Liebherr-International AG, Bulle, Switzerland
Mariso Bulle S.A., Bulle, Switzerland
Liebherr-Intertrading S.A., Bulle, Switzerland
Eglesia AG, Bulle, Switzerland

Sabine Beutert[1]
Trade Union Secretary, IG Metall Cologne-Leverkusen Administrative Office, Cologne, Germany

Yavuz Büyükdag[1]
Member of DEUTZ AG Works Council

Dr. Fabian Dietrich[1]
Senior manager representative, DEUTZ AG, Cologne, Germany
Head of Legal at DEUTZ AG, Cologne, Germany

Dr. Ing. Ulrich Dohle
(since January 1, 2019)
Freelance management consultant
b) Benteler International AG, Salzburg, Austria (Chairman) – stepping down from post in April 2020
Administrative Board of Index-Werke, Esslingen, Germany (Chairman)

Hans-Peter Finken[1]
Member of DEUTZ AG Works Council

Dr. Ing. Hermann Garbers
(until April 30, 2019)
Management consultant

Patricia Geibel-Conrad
Director of her own audit/tax advice business
Management consultant
a) HOCHTIEF Aktiengesellschaft, Essen, Germany
CEWE Stiftung & Co. KGaA, Oldenburg, Germany

Alois Ludwig
Management consultant
b) CARAT Systementwicklungs- und Marketing GmbH & Co. KG, Mannheim, Germany – stepped down from post on June 30, 2019

Dr. Dietmar Voggenreiter
(since April 30, 2019)
Management consultant

Ali Yener[1]
Chief Representative and Managing Director of IG Metall Koblenz, Germany
a) ZF Active Safety GmbH, Koblenz, Germany
(since July 12, 2019)

[1] Employee representative on the Supervisory Board.
[a] Membership of statutory German supervisory boards within the meaning of section 125 AktG.
[b] Membership of comparable German or international supervisory bodies within the meaning of section 125 AktG.

SUPERVISORY BOARD COMMITTEES

Human Resources Committee
Dr. Ing. Bernd Bohr, Chairman (since January 1, 2019)
Corinna Töpfer-Hartung, Deputy Chairwoman
Alois Ludwig

Audit Committee
Patricia Geibel-Conrad, Chairwoman
Sabine Beutert, Deputy Chairwoman
Dr. Ing. Bernd Bohr (since January 1, 2019)
Corinna Töpfer-Hartung

Arbitration Committee
(Section 27 (3) German Codetermination Act (MitbestG))
Dr. Ing. Bernd Bohr, Chairman (since January 1, 2019)
Sophie Albrecht
Corinna Töpfer-Hartung
Ali Yener

Nominations Committee
Dr. Ing. Bernd Bohr, Chairman (since January 1, 2019)
Sophie Albrecht (since September 26, 2019)
Dr. Ing. Hermann Garbers (until April 30, 2019)
Alois Ludwig

BOARD OF MANAGEMENT

Dr. Ing. Frank Hiller (53)
Chairman
Technical and head-office functions
a) STRATEC SE, Birkenfeld, Germany, Chairman
b) DEUTZ Corporation, Atlanta, USA, Chairman

Dr. Andreas Strecker (58)
Finance, human resources, purchasing,
and information services

Michael Wellenzohn (53)
Sales, marketing, and service
b) DEUTZ Asia-Pacific (Pte) Ltd., Singapore, Singapore
DEUTZ Corporation, Atlanta, USA

[a] Membership of statutory German supervisory boards within the meaning of section 125 AktG.
[b] Membership of comparable German or international supervisory bodies within the meaning of section 125 AktG.

ANNUAL FINANCIAL STATEMENTS IN ACCORDANCE WITH THE GERMAN COMMERCIAL CODE (HGB)

BALANCE SHEET OF DEUTZ AG

€ million

Assets	Dec. 31. 2019	Dec. 31. 2018
Intangible assets	80.6	60.9
Property, plant and equipment	259.8	248.4
Investments	329.5	256.2
Non-current assets	**669.9**	**565.5**
Inventories	180.0	204.8
Receivables and other assets	222.6	202.8
Cash and cash equivalents	17.2	115.7
Current assets	**419.8**	**523.3**
Prepaid expenses	1.8	1.7
Deferred tax assets	70.0	83.8
Total assets	**1,161.5**	**1,174.3**

Equity and liabilities	Dec. 31, 2019	Dec. 31, 2018
Issued capital	309.0	309.0
Additional paid-in capital	26.8	26.8
Retained earnings		
Legal reserve	4.5	4.5
Other retained earnings	265.6	232.8
Accumulated income/loss	84.5	69.6
Equity	**690.4**	**642.7**
Provisions	257.1	266.7
Other liabilities	213.1	264.3
Deferred income	0.9	0.6
Total equity and liabilities	**1,161.5**	**1,174.3**

INCOME STATEMENT OF DEUTZ AG

€ million

	2019	2018
Revenue	1,632.3	1,601.5
Cost of sales	–1,394.1	–1,371.6
Gross profit	**238.2**	**229.9**
Research and development costs	–72.7	–59.9
Selling expenses	–55.4	–51.8
General and administrative expenses	–27.9	–30.9
Other operating income	35.6	28.3
Other operating expenses	–31.4	–58.6
thereof expenses pursuant to art. 67 (1) and (2) of the Introductory Act to the HGB (EGHGB)	–2.3	–2.3
Net investment income	4.4	–5.1
Interest expenses, net	–2.5	–5.0
Write-downs of investments	0.0	–2.5
Income taxes	–21.7	–11.9
Profit after income taxes	**66.6**	**32.5**
Other taxes	–0.8	–0.7
Net income	**65.8**	**31.8**
Profit carried forward	69.6	71.8
Dividend payments to shareholders	–18.1	–18.1
Additions to other retained earnings	–32.8	–15.9
Accumulated income/loss	**84.5**	**69.6**

RESPONSIBILITY STATEMENT

“To the best of our knowledge, and in accordance with the applicable accounting principles, the consolidated financial statements give a true and fair view of the net assets, financial position, and results of operation of the Group, and the group management report presents a true and fair view of the development and performance of the business and the position of the Group, together with a description of the principal opportunities and risks associated with the expected development of the Group.”

Cologne, March 2, 2020

DEUTZ Aktiengesellschaft

The Board of Management

Dr. Ing. Frank Hiller
Chairman

Dr. Andreas Strecker

Michael Wellenzohn

Combined management report
Non-financial report
Notes to the consolidated financial statements

INDEPENDENT AUDITOR'S REPORT

To DEUTZ Aktiengesellschaft, Cologne

REPORT ON THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

AUDIT OPINIONS

We have audited the consolidated financial statements of DEUTZ Aktiengesellschaft, Cologne, and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2019, and the consolidated statement of comprehensive income, consolidated statement of profit or loss, consolidated statement of changes in equity and consolidated statement of cash flows for the financial year from 1 January to 31 December 2019, and notes to the consolidated financial statements, including a summary of significant accounting policies. In addition, we have audited the group management report of DEUTZ Aktiengesellschaft, Cologne, which is combined with the Company's management report, for the financial year from 1 January to 31 December 2019. In accordance with the German legal requirements, we have not audited the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

In our opinion, on the basis of the knowledge obtained in the audit,

- the accompanying consolidated financial statements comply, in all material respects, with the IFRSs as adopted by the EU, and the additional requirements of German commercial law pursuant to § [Article] 315e Abs. [paragraph] 1 HGB [Handelsgesetzbuch: German Commercial Code] and, in compliance with these requirements, give a true and fair view of the assets, liabilities, and financial position of the Group as at 31 December 2019, and of its financial performance for the financial year from 1 January to 31 December 2019, and
- the accompanying group management report as a whole provides an appropriate view of the Group's position. In all material respects, this group management report is consistent with the consolidated financial statements, complies with German legal requirements and appropriately presents the opportunities and risks of future development. Our audit opinion on the group management report does not cover the content of those parts of the group management report listed in the "Other Information" section of our auditor's report.

Pursuant to § 322 Abs. 3 Satz [sentence] 1 HGB, we declare that our audit has not led to any reservations relating to the legal compliance of the consolidated financial statements and of the group management report.

BASIS FOR THE AUDIT OPINIONS

We conducted our audit of the consolidated financial statements and of the group management report in accordance with § 317 HGB and the EU Audit Regulation (No. 537/2014, referred to subsequently as "EU Audit Regulation") in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW). Our responsibilities under those requirements and principles are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements and of the Group Management Report" section of our auditor's report. We are independent of the group entities in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. In addition, in accordance with Article 10 (2) point (f) of the EU Audit Regulation, we declare that we have not provided non-audit services prohibited under Article 5 (1) of the EU Audit Regulation. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions on the consolidated financial statements and on the group management report.

KEY AUDIT MATTERS IN THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the financial year from 1 January to 31 December 2019. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our audit opinion thereon; we do not provide a separate audit opinion on these matters.

In our view, the matters of most significance in our audit were as follows:

- **1.** Accounting treatment of internally generated intangible assets
- **2.** Recoverability of goodwill

Our presentation of these key audit matters has been structured in each case as follows:

1) Matter and issue

2) Audit approach and findings

3) Reference to further information

Hereinafter we present the key audit matters:

1) ACCOUNTING TREATMENT OF INTERNALLY GENERATED INTANGIBLE ASSETS

1) In the consolidated financial statements of the Company expenses for the development of new technologies – in particular the development of new engine series – amounting to EUR 108.8 million (8.4% of consolidated total assets) are reported under the "Intangible assets" balance sheet item. Development costs are capitalized based on milestones within the development process that are defined by the Company. The assets are generally subject to amortization on a straight-line basis over the expected production cycle of eight to ten years.

At each balance sheet date, a test is performed to determine whether there are indications that an asset may be impaired. An impairment test is carried out at least once a year for intangible assets that are not yet available for use. Impairments are calculated by comparing the carrying amount against the recoverable amount. The recoverable amount of an asset is either the fair value of an asset or a cash-generating unit, less costs to sell, and the value in use, whichever is higher. For the purposes of the impairment test, assets are grouped, at the lowest level that makes sense, into cash-generating units for which cash inflows can be identified largely independently. In order to calculate the value in use, the expected future cash flows are discounted to their present values using a discount rate that reflects the current market expectations regarding the interest rate effect and the specific risks associated with the asset or cash-generating unit.

The valuations are based on model calculations that take into account the projections, with a finite planning period, and the corresponding carrying amounts as of 31 December 2019. These projections were also used to prepare the Group’s medium-term plan prepared by the executive directors and adopted by the supervisory board. The financial surpluses are discounted using the weighted cost of capital of the respective asset or the respective cash-generating unit.

The impairment test identified impairment losses that had to be recognized on two series in the amount of EUR 4.5 million in total. For one series, write-ups in the amount of € 1.4 million were made.

The outcome of this valuation is dependent to a large extent on the estimates made by the executive directors with respect to the future cash inflows from the respective assets or cash-generating units, the discount rate used, and other assumptions, and is therefore subject to considerable uncertainty. Against this background and due to the complexity of the valuation, this matter was of particular significance in the context of our audit.

2) As part of our audit, we first of all asked for the development process to be explained to us and assessed adherence to the requirements for capitalizing development costs based on milestones that had been reached.

We also evaluated the procedures for identifying and assessing issues and developments, which could result in an impairment of the intangible assets, including the controls established. In a further step, we assessed, among other things, the method used for performing impairment tests and assessed the assumptions and parameters used to determine whether they form an appropriate basis for impairment testing on internally generated intangible assets performed by the Company's executive directors on the whole. After matching the future cash inflows used for the calculation against the model calculations and the adopted medium-term business plan of the Group, we assessed the appropriateness of the calculation, in particular by reconciling it with general and sector-specific market expectations.

In the knowledge that even relatively small changes in the discount rate applied can have a material impact on the value calculated using this method, we focused our testing in particular on the parameters used to determine the discount rate applied and assessed the calculation model. We performed sensitivity analyses on an ad hoc basis in order to reflect the uncertainty inherent in the projections. Overall, the valuation parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

3) The Company's disclosures on the internally generated intangible assets are contained in sections "Accounting policies" and "Notes to the balance sheet" in the notes to the consolidated financial statements.

2) RECOVERABILITY OF GOODWILL

1) In the Company's consolidated financial statements goodwill amounting in total to EUR 58.3 million (4.5% of total assets) is reported under the ["Intangible assets"] balance sheet item. Goodwill is tested for impairment by the Company once a year or when there are indications of impairment to determine any possible need for write-downs. The impairment test is carried out at the level of the groups of cash-generating units to which the relevant goodwill is allocated. The carrying amount of the relevant cash-generating units, including goodwill, is compared with the corresponding recoverable amount in the context of the impairment test. The recoverable amount is generally determined using the value in use. The present value of the future cash flows from the respective group of cash-generating units normally serves as the basis of valuation. Present values are calculated using discounted cash flow models. For this purpose, the adopted medium-term business plan of the Group forms the starting point which is extrapolated based on assumptions about long-term rates of growth. Expectations relating to future market developments and assumptions about the development of macroeconomic factors are also taken into account. The discount rate used is the weighted average cost of capital for the respective group of cash-generating units. The impairment test determined that no write-downs were necessary.

The outcome of this valuation is dependent to a large extent on the estimates made by the executive directors with respect to the future cash inflows from the respective group of cash-generating units, the discount rate used, the rate of growth and other assumptions, and is therefore subject to considerable uncertainty. Against this background and due to the complex nature of the valuation, this matter was of particular significance in the context of our audit.

2) As part of our audit, we assessed the methodology used for the purposes of performing the impairment test, among other things. After matching the future cash inflows used for the calculation against the adopted medium-term business plan of the Group, we assessed the appropriateness of the calculation, in particular by reconciling it with general and sector-specific market expectations. In addition, we assessed the appropriate consideration of the costs of Group functions. In the knowledge that even relatively small changes in the discount rate applied can have a material impact on the value of the entity calculated in this way, we focused our testing in particular on the parameters used to determine the discount rate applied, and assessed the calculation model. In order to reflect the uncertainty inherent in the projections, we evaluated the sensitivity analyses performed by the Company. We verified that the necessary disclosures were made in the notes to the consolidated financial statements relating to groups of cash-generating units for which a reasonably possible change in an assumption would result in the recoverable amount falling below the carrying amount of the cash-generating units including the allocated goodwill.

Overall, the valuation parameters and assumptions used by the executive directors are in line with our expectations and are also within the ranges considered by us to be reasonable.

3) The Company's disclosures on goodwill are contained in sections "Accounting policies" and "Notes to the balance sheet" in the notes to the consolidated financial statements.

OTHER INFORMATION

The executive directors are responsible for the other information. The other information comprises the following non-audited parts of the group management report:

- the statement on corporate governance pursuant to § 289f HGB and § 315d HGB included in the group management report
- the corporate governance report pursuant to No. 3.10 of the German Corporate Governance Code
- the separate non-financial report pursuant to § 289b Abs. 3 HGB and § 315b Abs. 3 HGB

The other information comprises further the remaining parts of the annual report – excluding cross-references to external information – with the exception of the audited consolidated financial statements, the audited group management report and our auditor's report.

Our audit opinions on the consolidated financial statements and on the group management report do not cover the other information, and consequently we do not express an audit opinion or any other form of assurance conclusion thereon.

In connection with our audit, our responsibility is to read the other information and, in so doing, to consider whether the other information:

- is materially inconsistent with the consolidated financial statements, with the group management report or our knowledge obtained in the audit, or
- otherwise appears to be materially misstated.

RESPONSIBILITIES OF THE EXECUTIVE DIRECTORS AND THE SUPERVISORY BOARD FOR THE CONSOLIDATED FINANCIAL STATEMENTS AND THE GROUP MANAGEMENT REPORT

The executive directors are responsible for the preparation of the consolidated financial statements that comply, in all material respects, with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB and that the consolidated financial statements, in compliance with these requirements, give a true and fair view of the assets, liabilities, financial position, and financial performance of the Group. In addition, the executive directors are responsible for such internal control as they have determined necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the executive directors are responsible for assessing the Group's ability to continue as a going concern. They also have the responsibility for disclosing, as applicable, matters related to going concern. In addition, they are responsible for financial reporting based on the going concern basis of accounting unless there is an intention to liquidate the Group or to cease operations, or there is no realistic alternative but to do so.

Furthermore, the executive directors are responsible for the preparation of the group management report that, as a whole, provides an appropriate view of the Group's position and is, in all material respects, consistent with the consolidated financial statements, complies with German legal requirements, and appropriately presents the opportunities and risks of future development. In addition, the executive directors are responsible for such arrangements and measures (systems) as they have considered necessary to enable the preparation of a group management report that is in accordance with the applicable German legal requirements, and to be able to provide sufficient appropriate evidence for the assertions in the group management report.

The supervisory board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements and of the group management report.

AUDITOR'S RESPONSIBILITIES FOR THE AUDIT OF THE CONSOLIDATED FINANCIAL STATEMENTS AND OF THE GROUP MANAGEMENT REPORT

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and whether the group management report as a whole provides an appropriate view of the Group's position and, in all material respects, is consistent with the consolidated financial statements and the knowledge obtained in the audit, complies with the German legal requirements and appropriately presents the opportunities and risks of future development, as well as to issue an auditor's report that includes our audit opinions on the consolidated financial statements and on the group management report.

Reasonable assurance is a high level of assurance but is not a guarantee that an audit conducted in accordance with § 317 HGB and the EU Audit Regulation and in compliance with German Generally Accepted Standards for Financial Statement Audits promulgated by the Institut der Wirtschaftsprüfer (IDW) will always detect a material misstatement. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements and this group management report.

We exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements and of the group management report, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our audit opinions. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit of the consolidated financial statements and of arrangements and measures (systems) relevant to the audit of the group management report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an audit opinion on the effectiveness of these systems.

- Evaluate the appropriateness of accounting policies used by the executive directors and the reasonableness of estimates made by the executive directors and related disclosures.

- Conclude on the appropriateness of the executive directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in the auditor's report to the related disclosures in the consolidated financial statements and in the group management report or, if such disclosures are inadequate, to modify our respective audit opinions. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to be able to continue as a going concern.

- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements present the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the assets, liabilities, financial position and financial performance of the Group in compliance with IFRSs as adopted by the EU and the additional requirements of German commercial law pursuant to § 315e Abs. 1 HGB.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express audit opinions on the consolidated financial statements and on the group management report. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinions.

- Evaluate the consistency of the group management report with the consolidated financial statements, its conformity with German law, and the view of the Group's position it provides.

- Perform audit procedures on the prospective information presented by the executive directors in the group management report. On the basis of sufficient appropriate audit evidence, we evaluate, in particular, the significant assumptions used by the executive directors as a basis for the prospective information and evaluate the proper derivation of the prospective information from these assumptions. We do not express a separate audit opinion on the prospective information and on the assumptions used as a basis. There is a substantial unavoidable risk that future events will differ materially from the prospective information.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with the relevant independence requirements and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, the related safeguards.

From the matters communicated with those charged with governance, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter.

OTHER LEGAL AND REGULATORY REQUIREMENTS

Further Information pursuant to Article 10 of the EU Audit Regulation

We were elected as group auditor by the annual general meeting on 30 April 2019. We were engaged by the supervisory board on 31 October 2019. We have been the group auditor of the DEUTZ Aktiengesellschaft, Cologne, without interruption since the financial year 2014.

We declare that the audit opinions expressed in this auditor's report are consistent with the additional report to the audit committee pursuant to Article 11 of the EU Audit Regulation (long-form audit report).

GERMAN PUBLIC AUDITOR RESPONSIBLE FOR THE ENGAGEMENT

The German Public Auditor responsible for the engagement is Bernd Boritzki.

Cologne, 4 March 2020

PricewaterhouseCoopers GmbH
Wirtschaftsprüfungsgesellschaft

Bernd Boritzki	ppa. Gerd Tolls
Wirtschaftsprüfer	Wirtschaftsprüfer
(German public auditor)	(German public auditor)

CORPORATE GOVERNANCE DECLARATION AND CORPORATE GOVERNANCE REPORT

For DEUTZ, a responsible approach to management that meets the standards of good **corporate governance** forms the basis for enhancing shareholder value over the long term. This is one of the main reasons why we attach great importance to the implementation of the German Corporate Governance Code (DCGK) and ensure quality and transparency in all key decisions and processes in our Company.

CORPORATE GOVERNANCE DECLARATION PURSUANT TO SECTION 289f AND SECTION 315d HGB

Declaration of conformity with only one exception

In 2019, the Board of Management and the Supervisory Board once again carefully considered to what extent it was proper and consistent with the Company's objectives for DEUTZ to apply all the guidelines and recommendations of the DCGK. As a result, DEUTZ AG complies with the recommendations of the Code, as amended on February 7, 2017, with the following exception:

The D&O insurance taken out by DEUTZ AG for the members of the Supervisory Board does not provide for any deductible, contrary to article 3.8 (2) and (3) DCGK. In the case of Supervisory Board members, an excess of this type is, as before, not considered an appropriate means of control.

The current declaration of conformity in accordance with section 161 AktG, which the Board of Management and Supervisory Board submitted on December 12, 2019, can be accessed in the '**Investor Relations / Corporate Governance**' section of the Company's website at **www.deutz.com**. The previous declarations of conformity can also be viewed and downloaded there.

Composition of the Board of Management and Supervisory Board; composition and operating procedures of Supervisory Board committees

The Company's Board of Management consists of three people: Dr. Ing. Frank Hiller (Chairman, responsible for technical and head-office functions), Dr. Andreas Strecker (responsible for finance, human resources, purchasing, and information services), and Mr. Michael Wellenzohn (responsible for sales, service, and marketing).

In accordance with the provisions of the German Codetermination Act (MitbestG), the Supervisory Board of DEUTZ AG comprises twelve members, six members being the representatives of the shareholders and six members being the representatives of the employees.

The changes in the composition of the Supervisory Board in 2019 are as follows:

Firstly, the Annual General Meeting on April 30, 2019 elected Dr. Ulrich Dohle to the Supervisory Board for the remaining term of the other Supervisory Board members, i.e. until the Annual General Meeting in 2023. On December 20, 2018, at the request of the Board of Management and as recommended by the Nominations Committee, the Cologne local court had appointed Dr. Dohle as a shareholder representative on the DEUTZ AG Supervisory Board for the period from January 1, 2019 until the 2019 Annual General Meeting. He succeeded Mr. Hans-Georg Härter, who had stepped down from his post with effect from December 31, 2018. Secondly, the Annual General Meeting on April 30, 2019 elected Dr. Dietmar Voggenreiter as a shareholder representative on the Supervisory Board for the remaining term of the other Supervisory Board members. He succeeded Dr. Ing. Hermann Garbers, who stepped down as a member of the Supervisory Board with effect from the end of the 2019 Annual General Meeting.

Dr. Ing. Bernd Bohr took over from Mr. Härter as chairman of the Supervisory Board on January 1, 2019.

The Supervisory Board has created four committees to enable it to perform its duties effectively. They are the Human Resources Committee, the Audit Committee, the Arbitration Committee, and the Nominations Committee. The Human Resources Committee consists of two representatives of the shareholders and one employee representative; the Audit and Arbitration Committees both consist of two shareholder representatives and two employee representatives; and the Nominations Committee has three members, all of whom represent the shareholders. The Audit Committee follows its own rules of procedure, which can be viewed on the DEUTZ AG website, while the other committees work according to the rules of procedure that apply to the (full) Supervisory Board. In the reporting year, the Supervisory

Board initiated an efficiency audit (article 5.6 DCGK, version dated February 7, 2017) that is being conducted and evaluated by an external consultancy. The results should be available in the first half of 2020.

The members of the Human Resources Committee are Dr. Ing. Bernd Bohr (chairperson), Ms. Corinna Töpfer-Hartung, and Mr. Alois Ludwig. The Human Resources Committee makes preparations for all Supervisory Board decisions concerning the appointment of members of the Board of Management and their contracts of employment, including the remuneration specified therein, and all issues arising in this connection. It particularly focuses on long-term succession planning, which involves identifying suitable candidates at an early stage. In this task, it is supported by consultants with relevant expertise. The committee held two meetings in 2019, both of which were attended by all the members of the committee. Among the main matters addressed were the achievement of the Board of Management's targets for 2018 and the setting of Board of Management targets, including medium-term targets, for 2019.

The members of the Audit Committee are Ms. Patricia Geibel-Conrad (chairperson), Ms. Sabine Beutert (deputy chairperson), Ms. Corinna Töpfer-Hartung, and Dr. Ing. Bernd Bohr. The committee's main tasks were monitoring the financial accounting process, conducting the preparatory review of the annual and consolidated financial statements and of the combined management report of DEUTZ AG, and discussing the condensed consolidated financial statements and interim management report for the first half of the year and the interim management statements for the first and third quarters with the Board of Management before their publication. The committee held four meetings in 2019, all of which were attended by all the members of the committee and Board of Management and, except on one occasion, by the auditor.

In its meeting on February 25, 2020, which was attended by the Board of Management and the auditor, the Audit Committee examined in detail the annual and consolidated financial statements on the basis of those statements and the combined management report of DEUTZ AG, the proposal for the appropriation of profit, the separate combined non-financial report, the Board of Management report, and the corresponding auditor's reports for 2019. During the meeting, the auditor gave a detailed report on the process and key findings of the audits. The internal control system relating to the accounting system, the early-warning system for risk, the key audit matters, and the defined focus of the audit were discussed in detail; according to the findings of the audits, they did not give rise to any issues. The auditor provided in-depth answers to all further questions. The committee's preparatory review also encompassed DEUTZ AG's separate combined non-financial report. In preparation for the review, the Supervisory Board had engaged PricewaterhouseCoopers GmbH Wirtschaftsprüfungsgesellschaft to also conduct a review with limited assurance of the non-financial report and to produce a related assurance report.The auditor reported in detail on this review as well. This was followed by an intensive discussion of the main results and findings.

Another of the Audit Committee's tasks was to review the independence and qualification of the auditor and to review the additional non-audit services that it performed. The agreed fees were discussed and preparations for engaging the auditor on December 31, 2019 were made. The focus of the audit was agreed with the auditor.

In 2019, the Audit Committee held in-depth discussions on the situation at suppliers Gusswerke Saarbrücken GmbH and Gusswerke Leipzig GmbH, the course of business at the subsidiaries, and the measurement of investments, goodwill, and intangible assets. Throughout the year, it scrutinized the planned changes to the German Act Implementing the Second Shareholder Rights' Directive (ARUG II), the revised DCGK, and the resulting legal considerations for DEUTZ AG.

The effectiveness of the risk management system, accounting-related internal control system and internal audit, were also discussed in detail, as were matters related to **compliance**. In the meeting on April 30, 2019, the Chief Compliance Officer gave a report and answered the Audit Committee's questions. The head of Corporate Audit did the same on July 29, 2019.

The members of the Arbitration Committee are Dr. Ing. Bernd Bohr (chairperson), Ms. Corinna Töpfer-Hartung, Ms. Sophie Albrecht, and Mr. Ali Yener. The Arbitration Committee set up pursuant to section 27 (3) of the German Codetermination Act (MitbestG) is responsible for the activities described in section 31 (3) MitbestG. It did not need to be convened during the year under review.

The members of the Nominations Committee are Dr. Ing. Bernd Bohr (chairperson), Dr. Ing. Hermann Garbers (until April 30, 2019), Ms. Sophie Albrecht (from September 26, 2019), and Mr. Alois Ludwig. The Nominations Committee is tasked with proposing to the Supervisory Board suitable candidates as shareholder representatives on the Supervisory Board. The Nominations Committee met once in 2019. At this meeting, which was attended by all members of the committee, it primarily discussed the election of a successor to Dr. Garbers during the 2019 Annual General Meeting.

The entire Supervisory Board was informed of the outcome of all discussions in the committees and gave its approval to the recommendations for board resolutions submitted by the committees.

The composition of the Supervisory Board committees changed as follows in 2019: At its meeting on September 26, 2019, the shareholder representatives elected Ms. Albrecht to succeed Dr. Ing. Hermann Garbers as a member of the Nominations Committee.

The current members of the Supervisory Board are all considered independent within the meaning of article 5.4.2 sentence 2 DCGK (version dated February 7, 2017). The names of the independent members are Dr. Ing. Bernd Bohr, Ms. Corinna Töpfer-Hartung, Ms. Sophie Albrecht, Ms. Sabine Beutert, Mr. Yavuz Büyükdag, Dr. Fabian Dietrich, Dr. Ing. Ulrich Dohle, Mr. Hans-Peter Finken, Ms. Patricia Geibel-Conrad, Mr. Alois Ludwig, Dr. Dietmar Voggenreiter, and Mr. Ali Yener.

Details of all members of the Supervisory Board and its committees, as well as other directorships held by its members, are shown separately on pages 168 to 169.

Targets and timeframes in accordance with sections 76 (4), 111 (5) AktG

On August 21, 2017, the Board of Management of DEUTZ AG set certain targets and timeframes in accordance with section 76 (4) AktG. The proportion of women employed by DEUTZ AG at the top level of senior management below the Board of Management is to be increased to 13 percent by June 30, 2022. The proportion of women at the second level of senior management below the Board of Management is to be increased to 7 percent over the same period. The top level of senior management below the Board of Management encompasses all managers in Germany who report directly to a member of the Board of Management. The second level of senior management below the Board of Management comprises all managers in Germany who report directly to a manager in the top level of senior management.

To ensure that women are taken into consideration for vacant managerial positions, DEUTZ AG has adopted a staff development program. When positions in the top and second levels of senior management below the Board of Management become available, the Board of Management and the HR department are striving to ensure that at least one woman is always shortlisted for the post (article 4.1.5 DCGK, version dated February 7, 2017). This means that external recruitment must focus on female managers.

At the time of publication of this annual report, the proportion of women in the top level of senior management below the Board of Management is 11.7 percent and in the second level of senior management below the Board of Management 14.6 percent. DEUTZ AG thus attained the aforementioned target for the second level of senior management. The target for the top level of senior management was just missed. The Company remains unable to achieve the target for the first level of senior management because only a few management positions have had to be filled since the Board of Management set the targets on August 21, 2017. Furthermore, it remains the case that women continue to be under-represented in the scientific and technical degree courses that are of particular relevance to DEUTZ AG.

At its meeting on September 21, 2017, the Supervisory Board of DEUTZ AG set the following target in accordance with section 111 (5) AktG: On June 30, 2022, the Board of Management of DEUTZ AG should have at least one female member.

Disclosures regarding compliance with the statutory quotas for women and men on the Supervisory Board

In accordance with the Law for the equal participation of women and men in managerial positions in the private and public sectors (law on the quota for women), the Supervisory Board of DEUTZ AG had to have at least four female members and four male members following the election of the Supervisory Board at the Annual General Meeting on April 26, 2018, if not before.

The Supervisory Board of DEUTZ AG has been in compliance with these statutory quotas since the Supervisory Board election held in 2018.

Description of the diversity plan for the composition of the Board of Management

The Supervisory Board, with the support of the Human Resources Committee and the involvement of the Board of Management, carries out long-term planning for appointments to the Board of Management. In its meeting on September 27, 2018, the Supervisory Board agreed the following diversity plan for the composition of the Board of Management, incorporating the recommendations of the German Corporate Governance Code (version dated February 7, 2017):

1. Description of the diversity plan

The Supervisory Board has developed the following diversity plan for the composition of the Board of Management in accordance with section 289f (2) no. 6 HGB:

In addition to basic suitability criteria such as good character, integrity, outstanding leadership qualities, professional expertise needed for the member's specific remit, proven track record, knowledge of the Company, and the ability to adapt business models and processes to the needs of a changing world, the Supervisory Board also considers **diversity** when selecting candidates for a position on the Board of Management. The Supervisory Board regards diversity as meaning, in particular:

appropriate gender representation

- an adequate mix of ages among the members of the Board of Management
- a range of educational backgrounds and occupations.

2. Objectives of the diversity plan

The objective of the diversity plan for the Board of Management is to consciously harness diversity as a means of driving the Company forward. After all, taking account of different perspectives, skills, backgrounds, and experience will be key to maintaining our competitiveness and success over the long term. Diversity within the Board of Management will, in particular, help us to better understand new business models and the wide-ranging expectations of our customers from around the world.

3. Manner of implementation

The Supervisory Board takes particular account of the following aspects with regard to the composition of the Board of Management:

- Members of the Board of Management should have several years of managerial experience.
- Members of the Board of Management should bring experience from a wide range of occupations and professional backgrounds.
- The Board of Management collectively should have technical expertise, particularly knowledge and experience of manufacturing and sales of all types of engines and of other technical products, as well as international experience.
- The Board of Management collectively should have many years' experience in the areas of research and development, production, sales, finance, and human resources.
- The Board of Management collectively should have international experience.
- The Supervisory Board has formally agreed a target quota in accordance with the Law for the equal participation of women and men in managerial positions in the private and public sectors. The resolution stipulates that there should be at least one woman on the Board of Management of DEUTZ AG on June 30, 2022.
- An age limit of 65 (standard retirement age) applies in principle to the members of the Board of Management.

The Supervisory Board determines which candidate should be offered a specific position on the Board of Management. Its decision is based on the best interests of the Company, taking all the circumstances of the individual case into account.

4. Current composition

As well as many years of experience within the Group, the members of the Board of Management also have extensive knowledge and experience – some international – from various activities outside DEUTZ AG. In its current composition, the three-person Board of Management meets all the specified targets apart from that regarding the proportion of women. The current age range on the Board of Management is 53 to 58 years. The average age of the Board of Management members is 55.

OBJECTIVES FOR THE COMPOSITION OF THE SUPERVISORY BOARD, PROFILE OF THE SKILLS AND EXPERTISE REQUIRED OF ITS MEMBERS, AND DESCRIPTION OF THE DIVERSITY PLAN

The diversity plan for the Supervisory Board was adopted by the Supervisory Board at its meeting on September 27, 2018 together with the objectives for the Supervisory Board's composition and profile of skills and expertise:

The Supervisory Board of DEUTZ AG has defined specific targets for its composition and has drawn up a profile of skills and expertise for the Supervisory Board as a whole in accordance with article 5.4.1 of the German Corporate Governance Code (version dated February 7, 2017).

The composition of the Supervisory Board has to ensure that its members have the knowledge, skills, and professional experience required to properly perform all duties within an international group of companies. This does not mean that each individual member of the Supervisory Board must have all the knowledge and experience required, but that for each key area of the Supervisory Board's activities, at least one member has competence in that area so that collectively – including the employee representatives and taking account of the special features of the right of codetermination – the Supervisory Board covers the required knowledge and experience.

1. Description of the areas of expertise required for the Supervisory Board

The Supervisory Board of DEUTZ AG should be composed of individuals who collectively provide a range of skills and expertise that ensures the Supervisory Board can comprehensively and effectively advise and supervise the Board of Management on every aspect of DEUTZ's business activity. The Supervisory Board regards the following as key elements of this skill set:

- Experience in managing and supervising international companies
- Familiarity of the members collectively with the Company's key areas of activity and of the associated markets and value chains
- Understanding of the Company's strategy and its future strategic development, including against the background of any changing market requirements
- Knowledge of codetermination law
- Adequate knowledge of finance, financial reporting, accounting, **compliance**, and risk management
- In-depth experience in the area of technological research and development, industrial manufacturing, or service
- In-depth experience in the area of sales, service, or marketing in the industrial sector for engines, drive systems, or associated machinery
- Expertise in corporate social responsibility (CSR)
- Expertise in digital strategy and Industry 4.0
- Communications expertise
- Fundamental knowledge of stock market law, stock corporation law, and the financial markets

In addition, in accordance with the requirements of section 100 (5) AktG, at least one member of the Supervisory Board and the Audit Committee must have expertise in the areas of accounting or auditing (financial expert) and the members of the Supervisory Board must, collectively, be familiar with the engine manufacturing, drive systems, or associated machinery sectors.

2. Minimum requirements for professional expertise and personal capabilities

The individual members of the Supervisory Board should have certain minimum competencies that are necessary for the proper performance of their role:

- The ability to understand and critically scrutinize the business model
- Fundamental knowledge of the relevant legal provisions
- Fundamental knowledge of **compliance**
- Fundamental financial expertise, particularly in accounting and annual financial statements
- Ability to examine the annual financial statements, if necessary with the assistance of the independent auditor
- The ability to understand, critically scrutinize, and draw conclusions from the reports of the Board of Management and of the Supervisory Board committees
- The ability to assess the propriety, commercial viability, appropriateness, and legality of business decisions and to check their plausibility
- Willingness and ability to devote the time and effort required
- Willingness to undertake ongoing professional development in the form of both inhouse and external training activities
- Personal independence and integrity

3. Objectives for the composition of the Supervisory Board as a whole

- **Diversity**
  In terms of the **diversity** of its composition, the Supervisory Board strives to ensure the appropriate participation of both genders, a range of professional and international experience, and the inclusion of members with many years of relevant experience. As DEUTZ AG is a publicly listed company that is subject to the German Codetermination Act, the Supervisory Board must include at least 30 percent women and at least 30 percent men in accordance with the principles laid down in section 96 (2) AktG.

- **International expertise**
  As DEUTZ is an international group of companies, care must be taken to ensure that the Supervisory Board has a sufficient number of members with many years of international experience. Supervisory Board members can satisfy this requirement in a variety of ways, e.g. by currently or previously holding a senior management role in an international company or by currently or previously living and working in another country.

- **Independence and potential conflicts of interest**
  More than half of the Supervisory Board members should be independent within the meaning of article 5.4.2 of the German Corporate Governance Code. The Supervisory Board does not believe that fulfilment of the Code's independence criteria can be called into question solely because a member exercises their Supervisory Board mandate as an employee representative. Supervisory Board members must not hold directorships or similar positions or advisory

functions for major competitors of the DEUTZ Group. Conflicts of interest that are substantial and not merely temporary relating to the personal circumstances of a Supervisory Board member shall result in the termination of the mandate.

- **Time required to perform Supervisory Board duties**
  The Supervisory Board believes it is important that both its current members and future candidates for Supervisory Board seats are able to devote sufficient time to preparing for and following up the regular Supervisory Board meetings, taking part in such meetings, and reading the regular reports. Additional time is required if members are elected to committees, particularly if they chair such committees. Based on these criteria, the time demanded of Supervisory Board members and candidates in respect of seats on other supervisory or advisory bodies, their active professional activity, or other duties must be taken into account.

- **Regular review/evaluation**
  (1) In the process for selecting shareholder representatives, the Nominations Committee proposes candidates to the Supervisory Board, taking account of the above criteria, and the Supervisory Board then proposes these candidates for election by the Annual General Meeting. The representatives to be elected to the Supervisory Board by the employees must also fulfil the key criteria of this profile of skills and expertise.

  (2) In addition, evaluations must be carried out at regular intervals to establish the extent to which the members of the Supervisory Board and the composition of the Supervisory Board remain compliant with the objectives specified in point (1) and the Supervisory Board in its existing composition is able to carry out its duties effectively.

4. Diversity plan

- **Description of the diversity plan**
  The Supervisory Board has also resolved to strive for a diverse composition, particularly with regard to age, gender, educational background, and occupation.

- **Objective of the diversity plan**
  The objective of the diversity plan for the Supervisory Board is to ensure that it has a broad understanding of the social and business requirements placed upon DEUTZ AG. In particular, diversity should help the Supervisory Board to judge the business decisions taken by the Board of Management from different perspectives and on the basis of a wide range of experience.

- **Manner in which the diversity plan is to be implemented**
  The Supervisory Board must be able to draw on as wide a range of expertise, capabilities, and experience as possible. It is therefore important to take due account of diversity in its composition and, when preparing election nominations, to make sure that the profiles of the candidates complement those of the existing members.

In accordance with statutory provisions, the Supervisory Board includes at least 30 percent women and at least 30 percent men.

A further target for the composition of the Supervisory Board is that members do not remain in post beyond the end of the Annual General Meeting following the member's 75th birthday (standard retirement age), unless special circumstances apply. Nor should members of the Supervisory Board serve any more than three full terms, unless special circumstances apply.

Results of the diversity plan achieved in the past year The current composition of the Supervisory Board reflects the stated objectives and matches the agreed profile of skills and expertise.

Disclosures relevant to corporate management practices: compliance management system, environmental and quality management, energy management

DEUTZ AG has a compliance management system that is firmly anchored in the Company's organizational structure. The system is continually enhanced in order to meet changing requirements. Dr. Ing. Hiller is the member of the Board of Management responsible for compliance.

The prime objective of the compliance management system is to prevent violations of applicable laws, rules, regulations, and internal policies. To this end, employees are given help in familiarizing themselves with the relevant laws, regulations, and policies as well as guidance on how to apply them correctly. This is primarily achieved through a structured policy management system in which existing policies are reviewed on an ongoing basis to see if they need updating and new policies are published. The policy management system is based on the code of conduct, which provides a framework for ensuring that behavior toward business partners and employees is fair and in compliance with the law. The code of conduct was revised in 2019. Employees can access it via the internal communications platform. Third parties can view the code of conduct on the DEUTZ AG website. The guidelines set out in the code of conduct are formalized in specific policies, including a compliance policy, a policy on gifts and entertainment, an information security policy, a policy on engaging external sales service providers, an anti-money laundering policy, a policy on export controls, a privacy policy, and an insider trading policy. These policies help to ensure that employees are aware of the relevant laws and regulations and are able to apply them correctly.

The Board of Management supports and promotes ethical conduct. It is unreservedly committed to corporate compliance and declines to be involved in any transactions that are inconsistent with these values. The Board of Management does not tolerate any form of corruption and is fully committed to compliance with competition law and to incorporating the notion of sustainability into the Company's activities.

Training is intended to ensure that employees are aware of the relevant laws and corporate policies, and that they comply with them at all times in their day-to-day work. Salaried staff in the head-office sales, procurement, research and development, and administration units, as well as in the subsidiaries, generally receive annual training sessions that are specifically tailored to their areas of activity. In the production plants, **compliance** training takes place in conjunction with the regular safety training.

A Compliance Officer appointed by the Board of Management coordinates compliance activities at DEUTZ AG. The individual business units and subsidiaries have their own compliance coordinators, who are responsible for **compliance** in their organizations and submit regular structured reports in writing to the Compliance Officer, who in turn reports to the Board of Management and Audit Committee. The basic principles of the compliance organization are described in the **compliance** organizational policy. The duties of the relevant employees are set out in job descriptions.

Employees can supply information or direct questions to line managers, compliance coordinators, the Compliance Officer, or the managers responsible for the legal affairs or internal audit units. Furthermore, the DEUTZ AG website incorporates a whistleblowing system that can also be accessed by non-employees. Any information supplied is rigorously followed up. Any necessary investigations are carried out by the Compliance Officer, with external support if required.

Regular meetings are held to develop, discuss, and coordinate compliance initiatives. The compliance activities focus on preventing corruption, tackling money laundering, and complying with export regulations (including export controls). They also ensure safety in the workplace, IT and data security, corporate security, and product safety. A further aim is to prevent breaches of environmental, antitrust, and insider trading laws.

As and when needed, the Board of Management and the Compliance Officer take legal advice on establishing and continuously improving the compliance management system. The internal audit department reviews the activities, and the Audit Committee monitors them on behalf of the Supervisory Board.

Compliance activities during the year under review again centered on the continuation and stepping up of regular classroom-based training for staff (including for staff at affiliated companies abroad), focusing on the code of conduct, data protection, gifts and entertainment, export controls, competition law, and contract law. A further focus was the delivery of training courses via an online e-learning program that featured modules on antitrust law, information security, and prevention of corruption.

In 2019, a total of 2,615 employees successfully completed individual modules or all modules of the e-learning program.

Another essential element of corporate management at DEUTZ AG is rigorous environmental, quality, and energy management. In the year under review, DEUTZ AG continued to satisfy the quality management requirements in accordance with ISO 9001, the environmental management requirements in accordance with ISO 14001, and the energy management requirements in accordance with ISO 50001. The relevant certificates from TÜV Rheinland can be found on the DEUTZ AG website.

All standards set by the Deutsches Institut für Normung e.V., Berlin (DIN) can be inspected free of charge at DIN standards repositories.

CORPORATE GOVERNANCE REPORT

Basic principles and objectives of the composition of the Supervisory Board; particularly, conflicts of interest/independence of Supervisory Board members and the consideration of women

At its meeting held on September 27, 2018, the Supervisory Board adopted the profile of skills and expertise required for its members together with the objectives regarding its composition in accordance with articles 5.4.1 (1) and (2), 5.4.2 DCGK (version dated February 7, 2017). We refer here to our detailed remarks on pages 26 to 30.

Except for the target relating to female representation, which was achieved on the shareholder representative side only after the Supervisory Board election in 2018, the Supervisory Board has continuously met these objectives since 2012. It has even exceeded them in cases such as the international experience available on the Supervisory Board and the number of independent members. The current members of the Supervisory Board are all considered independent within the meaning of article 5.4.2 sentence 2 DCGK (version dated February 7, 2017). No conflicts of interest between members of the Supervisory Board and DEUTZ AG arose in the year under review.

Consideration of women when making appointments to the Board of Management

At the time of publication, the Board of Management of DEUTZ AG consisted of three members, none of whom were female. This equates to a ratio of 0 percent.

Responsible risk management

A forward-looking, prudent, and responsible approach to corporate risk is a core aspect of good corporate governance and forms the basis for the risk management system at DEUTZ. The Board of Management regularly notifies the Supervisory Board of any existing or anticipated risks. Details of the DEUTZ Group's risk management systems can be found in the risk report on pages 69 to 74.

Comprehensive transparency and active investor relations

The transparent presentation of developments and decisions in a company forms the core of any model system of corporate governance. Continuous, open dialog with all stakeholders ensures trust in a company and its value creation process. DEUTZ therefore attaches the greatest importance to ensuring that all relevant target groups are given the same information at the same time and in a timely manner.

We achieve this objective by using various media. DEUTZ AG reports on the performance and development of its business and on significant changes and events four times a year in its interim management statements, half-year report, and annual report. The interim management statements and half-year reports are published within 45 days of the end of a reporting period; the annual report is published within 90 days of the end of the financial year. The Company maintains constant contact with investors and analysts through its regular investor relations activities. In addition to the annual analysts' meeting held when the Company's consolidated financial statements are published, conference calls for analysts and institutional investors also take place when the interim management statements and half-year report are published. The Annual General Meeting is usually held in the first five months of the year; shareholders who do not attend the AGM in person can instruct proxies to vote on their behalf.

Our website also offers comprehensive information on the Company: DEUTZ AG annual reports, half-year reports, and interim management statements, press releases and ad hoc announcements, analyst recommendations, and investor relations presentations as well as key dates in the financial calendar can all be found at www.deutz.com. The Company's Statutes are also available online. Almost all the pages on our website are provided in both German and English to ensure that important company news and information is as accessible as possible, including to an international audience. Apart from the regularly published information, DEUTZ AG also provides details of circumstances that are not in the public domain but that could have a significant impact on DEUTZ's share price were they to become known. The Company's reporting policy therefore complies both with legal requirements and the guidelines in the DCGK (version dated February 7, 2017).

Accounting and auditing

DEUTZ AG's consolidated financial statements are prepared in accordance with the International Financial Reporting Standards (IFRS) as adopted by the European Union (EU). The consolidated financial statements are prepared by the Board of Management and reviewed by the auditor.

The auditor has agreed to inform the chairperson of the Supervisory Board or the chairperson of the Audit Committee without delay if grounds for disqualification or release of the auditor, or any misrepresentations in the declaration of conformity, come to light during the audit. The auditor informs the chairperson of the Supervisory Board without delay of any issues or incidents relevant to the role of the Supervisory Board that arise during the audit of financial statements.

Conflicts of interest and consultancy agreements

Information about conflicts of interests in relation to Supervisory Board members can be found under 'Basic principles and objectives of the composition of the Supervisory Board' at the start of this corporate governance report.

The Company does not have any consultancy agreements with members of the Supervisory Board.

The members of the Board of Management must disclose any conflicts of interest to the Supervisory Board. The Supervisory Board then reports these cases, along with any conflicts of interest relating to its own members, to the Annual General Meeting.

Remuneration report

The remuneration of the Board of Management complies with the German Act on the Appropriateness of Management Board Remuneration (VorstAG) and the recommendations in the DCGK (version dated February 7, 2017).

A description of the main features of the remuneration systems for the Board of Management and Supervisory Board, along with details of the remuneration for each member, can be found in the remuneration report on pages 65 to 68 of the combined management report.

Dealings subject to reporting requirements

Article 19 of the Market Abuse Regulation (MAR) state that persons with executive functions or persons with whom they are closely associated must notify both the company and the German Federal Financial Supervisory Authority (BaFin) of their own dealings in shares of the company or in financial instruments of the company based on such shares.

In 2019, Dr. Ing. Hiller, Dr. Strecker, Mr. Wellenzohn, and Supervisory Board members Dr. Ing. Bohr, Dr. Dietrich, Dr. Dohle, Mr. Ludwig, and Dr. Voggenreiter disclosed the purchase of DEUTZ shares in accordance with article 19 MAR. No other persons required to make such a disclosure did so before the adoption of the 2019 annual financial statements. Transactions disclosed in previous years are published on the DEUTZ AG website.

GLOSSARY

APQP (Advanced Product Quality Planning) In commercial quality management, this conceptual part of the quality planning process anticipates the characteristics that will be required of a product or a service in the future.

Audit An analysis examining whether processes, specifications, and policies meet the required standards. This method of investigation is a common feature of a quality management system. The audits are carried out by a specially trained auditor.

Cash flow statement Shows the Group's inflows and outflows of cash over the financial year. It distinguishes between cash flow from operating activities, cash flow from investing activities, and cash flow from financing activities. It also shows the change in cash and cash equivalents.

CNG (compressed natural gas) A natural gas, the main component of which is methane. Its major advantage from an environmental perspective is its potential for the future. This is because biogas can be added to CNG, as can synthetic natural gas produced with electricity from renewable sources (PtG: power-to-gas), thereby significantly improving the environmental footprint of CNG-powered vehicles.

Compliance Denotes the entirety of measures taken by a company to comply with laws, regulations and directives and also to comply with contractual obligations and self-imposed obligations. Compliance is a key element of corporate governance.

Cold testing An inspection method in the assembly process for internal combustion engines. It checks whether the preceding stages of assembly were carried out correctly and whether the assembled engine components function properly. The engine is filled with oil and fuel but is driven by an external electric motor at various speeds.

Corporate citizenship Denotes a company's corporate social responsibility activities.

Corporate governance Responsible management and control of a company with a view to long-term value creation and increasing shareholder value.

Counterparty risk Describes the general default risk relating to a contract between at least two parties. It is the risk that one of the counterparties no longer fulfills its obligations, or is no longer able to fulfill them.

Diversity Acceptance of the differences between individual employees, which – when embedded in a tolerant corporate culture – can be utilized to boost the success of a company. Employees should not suffer discrimination due to ethnic origin, gender, age, religion, sexual orientation, disability, etc. They should all have equal opportunities.

Downsizing Reduction of technical dimensions (such as weight and capacity) but delivering the same or similar power output.

EBIT (earnings before interest and tax) Income from operating activities (before interest and tax).

EBIT before exceptional items Earnings before interest and tax (EBIT) less significant income generated or expenses that are incurred outside the scope of the Company's ordinary business activities and are unlikely to recur.

End-of-line testing In battery assembly, this is the final mechanical and, more importantly, electrical inspection of a battery before delivery. The automated testing process involves checking the electrical characteristics of the battery and conducting a final quality check. To ensure the traceability of the individual batteries, the EOL testing system captures technical data and measurements for each completed serial number and stores them in a database.

Earnings per share A key figure calculated by dividing the net income attributable to the shareholders of DEUTZ AG by the average number of shares in issue.

EU Stage I, II, III A, III B, IV, V Exhaust emissions standard laid down by the European Union for off-road applications. Sets limits for pollutants such as nitrogen oxide, hydrocarbons, and soot particulates in exhaust gas.

Exhaust aftertreatment Ensures compliance with statutory emissions limits for pollutants such as nitrogen oxides (NOx) and soot particles through the cleansing of combustion exhaust gases. In vehicles, exhaust aftertreatment is achieved by the use of catalytic converters and diesel particulate filters.

Forward Individually structured, non-exchange-traded forward transaction.

Genset A generator unit that generates electrical energy from available resources, specifically so that the equipment being powered is not dependent on the electricity grid.

Hedging Countering interest-rate, currency, price, or similar risks through the use of derivative financial instruments that limit the risk associated with the underlying transactions.

IMS (integrated management system) Standardized structure bringing together methods and tools for ensuring compliance with requirements in various areas (e.g. quality, environment, health and safety), thereby contributing to corporate governance (i.e. the management and monitoring of a company).

Deferred taxes Differences between the calculation of profit under tax law and under IAS result in differing tax calculations. These differences in the amount of tax are recognized on the balance sheet as deferred tax assets or liabilities.

Long-term incentive plan (LTI) A form of incentive-based remuneration offered to members of the Board of Management and selected senior managers; its purpose is to enable these executives to benefit from the company's long-term success, thereby encouraging them to stay with the company.

Lean manufacturing A way of organizing production processes. The aim is to improve productivity, production factors, product quality, and production flexibility. Ideally, it avoids resources being wasted, whether it be time, human resources, money, material, or space. This leads to faster and more flexible processes.

Liquefied petroleum gas (LPG) In general usage, LPG is understood to mean short-chained hydrocarbons such as propane and butane, as well as mixtures thereof, which remain in liquid form at room temperature and under low compression (< 10 bar).

Material compliance Adherence to material-specific laws and regulations for the protection of people and the environment that aim to restrict or prohibit the use of various substances and materials in products.

Material handling Equipment for moving goods within contained areas, such as airports or factories. Examples include forklift trucks, telehandlers, lifting platforms, and ground support equipment.

Non-captive Market segment in which original equipment and commercial vehicle manufacturers purchase engines from third-party manufacturers to meet their engine needs. The non-captive market is accessible to independent engine manufacturers.

Off-highway Engine-powered applications whose use on roads is subject to restrictions, e.g. trains, ships, agricultural vehicles and construction vehicles.

One-piece flow Unlike on an assembly line, where employees remain in one place and always carry out the same task, employees accompany the engines to the different workstations. This helps to avoid loss of concentration resulting from monotony and improves motivation because the work is more varied.

Option Contract that, until the expiry date, gives the holder the right to buy – and the writer the obligation to sell – an underlying instrument (a security or a product/commodity) at an exercise price that has been fixed in advance.

PDCA (Plan–Do–Check–Act) Plan: A process has to be planned before it is implemented. Planning involves recognizing potential for improvement, analyzing the current situation, and developing a new concept. Do: This is the testing and practical optimization of the concept using quickly achievable, simple means at a single workstation. Check: The process is implemented on a small scale and the results are carefully analyzed. If successful, the process is approved for general use. Act: The approved process is implemented and defined as the standard, and compliance with it is reviewed regularly. This large-scale action may, in some cases, involve significant organizational activities and high levels of capital expenditure. The plan phase starts again in order to improve this standard.

PowerPack DEUTZ powerpacks contain an engine frame, exhaust aftertreatment system, and cooling system. The dimensions of the pack are tailored to the specific engine, allowing flexible installation even in tight spaces. The water cooler and charge air cooler form an engine-mounted cooling unit that is protected against vibration. All of the necessary hoses and connecting elements are pre-assembled, which significantly reduces the installation and application work to be carried out by the customer.

Predictive Maintenance Describes a maintenance method based on evaluation of process data and machine data. The predictions resulting from real-time processing of the data form the basis for needs-based maintenance, which in turn reduces downtime.

Rating Used to assess the creditworthiness of a company. It gauges the extent to which the company will be able to repay the principal and interest on its outstanding liabilities at the agreed date.

REACH European Union regulation concerning the registration, evaluation, authorization, and restriction of chemicals.

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.

RoHS Directive 2011/65/EU; restricts the use of certain hazardous substances in electrical and electronic equipment.

Free float The proportion of shares in a public limited company (Aktiengesellschaft) not held by a major shareholder. According to the Deutsche Börse definition, shareholdings of less than 5 percent are classified as free float.

Xchange Professionally reconditioned engines and parts that represent a quick, economic, and eco-friendly alternative to purchasing a new product. Xchange engines and parts have to meet the same quality standards as apply to the manufacturing of new ones.

Working capital Inventories and trade receivables less trade payables.

Xetra (Exchange Electronic Trading) Stands for 'Exchange Electronic Trading' and is the name given to the electronic dealing system run by Deutsche Börse (also known as screen-based trading).

DEUTZ GROUP: MULTI-YEAR OVERVIEW

	Continuing operations 2015	Continuing operations 2016	Continuing operations 2017	Continuing operations 2018	**Continuing operations 2019**
New orders	1,225.9	1,261.4	1,556.5	1,952.6	1,654.3
Unit sales (units)	137,781	132,539	161,646	214,776	211,667
DEUTZ Compact Engines	125,214	123,179	151,671	195,259	164,677
DEUTZ Customized Solutions	12,567	9,360	8,740	9,259	26,048
Other	–	–	1,235	10,258	20,942
Revenue	1,247.4	1,260.2	1,479.1	1,778.8	1,840.8
DEUTZ Compact Engines	967.2	1,000.8	1,227.5	1,484.0	1,446.4
DEUTZ Customized Solutions	280.2	259.4	247.9	271.2	362.5
Other	–	–	3.7	26.8	35.5
Consolidation	–	–	–	–3.2	–3.6
EBITDA	112.2	114.2	237.3	161.4	175.5
EBITDA (before exceptional items)	112.2	114.2	133.2	161.4	166.2
EBIT	4.9	23.4	143.8	82.0	88.1
EBIT (before exceptional items)	4.9	23.4	39.7	82.0	78.8
EBIT margin (%)	0.4	1.9	9.7	4.6	4.8
EBIT margin (before exceptional items, %)	0.4	1.9	2.7	4.6	4.3
Net income	3.5	16.0	118.5	69.9	52.3
Net income (before exceptional items)	3.5	16.0	33.0	69.9	44.2
Earnings per share (€)	0.04	0.14	0.98	0.58	0.43
Earnings per share (before exceptional items, €)	0.04	0.14	0.27	0.58	0.37
Dividend per share (€)	0.07	0.07	0.15	0.15	0.15
Total assets	1,088.1	1,059.7	1,198.2	1,249.3	1,301.2
Non-current assets	520.5	483.7	519.3	506.2	619.5
Equity	495.6	491.1	584.3	619.1	652.4
Equity ratio (%)	45.5	46.3	48.8	49.6	50.1
Cash flow from operating activities	103.3	63.8	112.7	97.5	115.6
Free cash flow	35.0	4.7	82.5	14.5	–36.6
Net financial position[1]	39.0	31.6	98.2	93.7	–15.2
Working capital[2]	183.6	204.3	222.2	276.2	293.2
Working capital ratio (average, %)[3]	17.6	17.9	13.4	15.8	17.4
Capital expenditure (after deducting grants)[4]	56.2	52.9	54.7	59.1	86.5
Depreciation and amortization	107.3	90.8	93.5	79.4	87.4
Research and development (after deducting grants)	40.8	50.4	67.0	85.0	95.8
thereof capitalized	13.0	9.1	17.5	21.0	21.7
Employees (Dec. 31)[5]	3,730	3,665	4,154	4,631	4,906

[1] Cash and cash equivalents less current and non-current interest-bearing financial debt.
[2] Inventories plus trade receivables less trade payables.
[3] Average working capital at the last four quarterly reporting dates divided by revenue for the previous twelve months.
[4] Capital expenditure on property, plant and equipment (including right-of-use assets in connection with leases since 2019) and intangible assets, excluding capitalization of R&D.
[5] From 2019 onward, the number of employees is expressed in FTEs (full-time equivalents). The figures for 2018 have been restated accordingly.

DEUTZ GROUP: MULTI-YEAR OVERVIEW

	Continuing operations 2015	Continuing operations 2016	Continuing operations 2017	Continuing operations 2018	**Continuing operations 2019**
Revenue by region € million	**1,247.4**	**1,260.2**	**1,479.1**	**1,778.8**	**1,840.8**
Europe/Middle East/Africa	844.5	872.7	1,063.5	1,139.7[1]	1,141.9
Americas	275.3	239.6	268.1	365.3[1]	404.3
Asia-Pacific	127.6	147.9	147.5	273.8[1]	294.6
Revenue by application segment € million	**1,247.4**	**1,260.2**	**1,479.1**	**1,778.8**	**1,840.8**
Construction Equipment	334.7	350.0	437.4	545.5	535.5
Material Handling	188.5	189.0	265.6	373.1	398.9
Stationary Equipment	178.1	147.3	152.0	166.3	155.8
Agricultural Machinery	159.3	176.5	230.5	261.1	293.3
Service	278.4	287.3	309.2	329.9	352.4
Miscellaneous[2]	108.4	110.1	84.4	102.9	104.9
Key figures for DEUTZ shares					
Number of shares (Dec. 31)	120,861,783	120,861,783	120,861,783	120,861,783	120,861,783
Number of shares (average)	120,861,783	120,861,783	120,861,783	120,861,783	120,861,783
Share price (Dec. 31, €)	3.69	5.35	7.58	5.15	5.57
Share price high (€)	5.59	5.58	7.78	8.68	8.84
Share price low (€)	2.86	2.65	5.31	5.02	4.86
Market capitalization (€ million)	446.0	646.6	916.1	622.4	673.2
Earnings per share (€)	0.04	0.14	0.98	0.58	0.43
thereof from continuing operations	0.04	0.14	0.98	0.58	0.43
thereof from discontinued operations	0.00	0.00	0.00	0.00	0.00
Earnings per share (before exceptional items, €)	0.04	0.14	0.27	0.58	0.37

[1] Adjusted due to a change in the regional allocation of the revenue of one big-ticket customer.
[2] From 2019 onward, the revenue from automotive business is included in the Miscellaneous application segment. Up to and including 2018, it was shown separately. The figure for 2018 has been restated accordingly.

FINANCIAL CALENDAR

2020	
May 7	Interim management statement for the first quarter of 2020 Conference call with analysts and investors
May 14	Annual General Meeting in Cologne
August 11	Interim report for the first half of 2020 Conference call with analysts and investors
November 10	Interim management statement for the first to third quarter of 2020 Conference call with analysts and investors
2021	
March	2020 annual report Annual results press conference with analysts and investors
April 29	Annual General Meeting

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