EXEMPLARY: SEPARATE COMBINED NON-FINANCIAL REPORT
SEPARATE COMBINED
NON-FINANCIAL REPORT

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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.

The non-financial report has been voluntarily submitted for an external review with limited assurance pursuant to ISAE 3000 (Revised).

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.

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

<table>
<thead>
<tr>
<th>Key topics</th>
<th>Corresponding KPIs</th>
<th>Targets for 2023</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product stewardship</strong></td>
<td>Share of consolidated revenue attributable to E-DEUTZ products</td>
<td>5–10%¹</td>
</tr>
<tr>
<td><strong>Personnel development</strong></td>
<td>Engagement²</td>
<td>78%</td>
</tr>
<tr>
<td></td>
<td>Enablement²</td>
<td>69%</td>
</tr>
<tr>
<td></td>
<td>Rate of staff turnover²</td>
<td>5–10%</td>
</tr>
<tr>
<td></td>
<td>Proportion of women in the workforce⁴</td>
<td>&gt;10%</td>
</tr>
<tr>
<td></td>
<td>Proportion of women in management positions¹</td>
<td>&gt;20%</td>
</tr>
<tr>
<td></td>
<td>Ratio of trainees to total employees⁶</td>
<td>&gt;3%</td>
</tr>
<tr>
<td><strong>Occupational health and safety</strong></td>
<td>Recordable incident rate⁷</td>
<td>7</td>
</tr>
<tr>
<td><strong>Corporate governance &amp; compliance</strong></td>
<td>Proportion of workforce to have completed compliance training⁸</td>
<td>&gt;95%</td>
</tr>
<tr>
<td><strong>Supplier management</strong></td>
<td>Proportion of new suppliers to have had their compliance with the supplier code of conduct verified</td>
<td>90%⁵</td>
</tr>
<tr>
<td></td>
<td>Number of suppliers that have passed business partner compliance checks</td>
<td>90%¹⁰</td>
</tr>
<tr>
<td></td>
<td>Proportion of suppliers assessed against sustainability criteria</td>
<td>50%¹¹</td>
</tr>
<tr>
<td><strong>Environmental and climate protection</strong></td>
<td>CO₂ emissions from production sites (tonnes CO₂e)¹²</td>
<td>–20%¹³</td>
</tr>
<tr>
<td></td>
<td>CO₂ emissions from production sites per manufactured engine (kg CO₂e)¹⁴</td>
<td>–20%¹³</td>
</tr>
<tr>
<td></td>
<td>Nitrogen oxide emissions from production sites per manufactured engine (kg)¹⁵</td>
<td>–3%¹⁶</td>
</tr>
<tr>
<td></td>
<td>Particulate emissions from production sites per manufactured engine (g)¹⁵</td>
<td>–3%¹⁶</td>
</tr>
</tbody>
</table>

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 Torqueedo.  
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 50 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 CO₂ = carbon dioxide equivalents; CO₂ emissions from the production sites of the DEUTZ Group excluding joint ventures. CO₂ 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. CO₂ = carbon dioxide equivalents; CO₂ 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. CO₂ reporting includes scope 1 (CO₂ emissions from diesel, natural gas, LPG, heating oil, and CNG caused by combustion in our own facilities) and scope 2 (CO₂ 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.

<table>
<thead>
<tr>
<th>Field of action</th>
<th>Key topics</th>
<th>Aspects under the HGB</th>
</tr>
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<tbody>
<tr>
<td>Social responsibility</td>
<td>Product stewardship</td>
<td>• Social responsibility</td>
</tr>
<tr>
<td></td>
<td>Corporate citizenship</td>
<td>• Social responsibility</td>
</tr>
<tr>
<td></td>
<td>Personnel development</td>
<td>• Treatment of employees</td>
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<tr>
<td></td>
<td>Occupational health and safety</td>
<td>• Treatment of employees</td>
</tr>
<tr>
<td>Corporate responsibility</td>
<td>Corporate governance &amp; compliance</td>
<td>• Respect for human rights</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Measures to combat corruption and bribery</td>
</tr>
<tr>
<td>Supplier management</td>
<td>Supplier management</td>
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<td></td>
<td></td>
<td>• Measures to combat corruption and bribery</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Environmental matters</td>
</tr>
</tbody>
</table>

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.
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 employees1 are motivated and 69 percent feel empowered to do their work. DEUTZ has set itself the target of maintaining these levels of employee2 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.

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.

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 to more than 10 percent and the proportion of female managers 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, meaning that we were able to exceed our medium-term goal during the reporting period. 12.4 percent of managers 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

<table>
<thead>
<tr>
<th></th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratio of trainees to total employees</td>
<td>2.6</td>
<td>2.5</td>
<td>2.5</td>
</tr>
</tbody>
</table>

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 (Garching), 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 was 2.6 percent.

The aim is to increase the ratio of trainees to total employees 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 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 in 2023 is within a range of 5 to 10 percent.

In 2019, the rate of staff turnover for the DEUTZ Group was 6.3 percent.
**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.

<table>
<thead>
<tr>
<th>DEUTZ Group: Recordable incident rate (RIR)¹</th>
<th>2019²</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>RIR</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2019²</td>
<td>11.2</td>
<td>15.0</td>
<td>13.4</td>
</tr>
</tbody>
</table>

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 (RIR²) was eleven in the year under review. The Company therefore did not meet its target for 2019, which was for the RIR² 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 RIR² 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 RIR¹ 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.


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 and 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 employees¹ 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 employees¹ 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 training¹

<table>
<thead>
<tr>
<th>%</th>
<th>2019</th>
<th>2018</th>
<th>2017²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion of workforce to have completed compliance training</td>
<td>98.1</td>
<td>93.5</td>
<td>–</td>
</tr>
</tbody>
</table>

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 employees¹ 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. 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.
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 of suppliers by the end of 2023.

DEUTZ also intends to use a new business partner compliance tool 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 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.
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 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 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. 

Information: Supplier management, p. 91

1 Excluding joint ventures.
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 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 sites¹

<table>
<thead>
<tr>
<th></th>
<th>2019⁶</th>
<th>2018⁵</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity</td>
<td>87,316</td>
<td>94,999</td>
<td>84,605</td>
</tr>
<tr>
<td>Natural gas</td>
<td>35,989</td>
<td>38,271</td>
<td>35,277</td>
</tr>
<tr>
<td>District heating</td>
<td>10,969</td>
<td>12,349</td>
<td>12,223</td>
</tr>
<tr>
<td>Heating oil¹</td>
<td>2,685</td>
<td>3,359</td>
<td>3,653</td>
</tr>
<tr>
<td>Diesel fuel¹</td>
<td>20,764</td>
<td>18,165</td>
<td>19,218</td>
</tr>
<tr>
<td>CNG</td>
<td>72</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LPG</td>
<td>390</td>
<td>633</td>
<td>421</td>
</tr>
<tr>
<td>Total</td>
<td>158,186</td>
<td>167,777</td>
<td>155,397</td>
</tr>
</tbody>
</table>

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.

Dieel 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

The majority of the scope 1 emissions from our production sites 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: CO₂ emissions from production sites

<table>
<thead>
<tr>
<th>Tonnes CO₂e</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ emissions (Scope 1)</td>
<td>13,590</td>
<td>13,530</td>
<td>13,239</td>
</tr>
<tr>
<td>CO₂ emissions (Scope 2)</td>
<td>38,828</td>
<td>42,240</td>
<td>38,012</td>
</tr>
<tr>
<td>Total CO₂ emissions</td>
<td>52,418</td>
<td>55,770</td>
<td>51,251</td>
</tr>
</tbody>
</table>

Scope 1: CO₂ emissions from diesel, natural gas, LPG, heating oil, and CNG caused by combustion in our own facilities.

Scope 2: CO₂ emissions relating to purchased energy, for example electricity and district heating.

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 CO₂ emissions from our production sites.

DEUTZ Group: CO₂ emissions from production sites per manufactured engine

<table>
<thead>
<tr>
<th>Emissions per engine</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂e (kg)</td>
<td>250</td>
<td>257</td>
<td>299</td>
</tr>
</tbody>
</table>

Excluding joint ventures. CO₂e = carbon dioxide equivalents; CO₂ 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.

CO₂ 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.

The figure CO₂ emissions per manufactured engine 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 CO₂ emissions per manufactured engine fell by roughly 3 percent due to the impact of the measures introduced to reduce these emissions.

Targets for the reduction of CO₂ emissions

Under our new sustainability strategy, we have set ourselves the target for 2023 of reducing CO₂ emissions by 20 percent compared to the base year 2017, both for our production sites and per manufactured engine. 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 CO₂ emissions of our production sites rose by around 2 percent in comparison with the base year 2017. However, the CO₂ emissions per manufactured engine were reduced by around 16 percent compared to the base year.

CO₂ = carbon dioxide equivalents; CO₂ emissions from the production sites of the DEUTZ Group excluding joint ventures. CO₂ figures are reported in accordance with the Greenhouse Gas Protocol and are determined by multiplying the energy consumed by the relevant emissions factor.

Notes to the consolidated financial statements
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. 

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

<table>
<thead>
<tr>
<th></th>
<th>2019 a</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrogen oxide (kg)</td>
<td>0.33</td>
<td>0.19</td>
<td>0.25</td>
</tr>
<tr>
<td>Particulate (g)</td>
<td>2.70</td>
<td>1.80</td>
<td>2.21</td>
</tr>
</tbody>
</table>

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 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 by 3 percent compared to the base year 2019.

a 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.
INDEPENDENT PRACTITIONER’S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON NON-FINANCIAL REPORTING¹

To DEUTZ AG, Köln

We have performed a limited assurance engagement on the combined separate non-financial report pursuant 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 information 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            ppa. Juliane v. Clausbruch
Wirtschaftsprüfer             Wirtschaftsprüfer
German public auditor       German public auditor
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

CONTACT

DEUTZ AG
Ottostrasse 1
51149 Cologne (Porz-Eil), Germany

Investor Relations
Telephone  +49 (0) 221 822 24 91
Fax  +49 (0) 221 822 15 24 91
Email  ir@deutz.com
Website  www.deutz.com

Public Relations
Telephone  +49 (0) 221 822 24 93
Fax  +49 (0) 221 822 15 24 93
Email  pr@deutz.com
Website  www.deutz.com

CREDITS

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Only the German version of this report is legally binding.
The Company cannot be held responsible for any misunderstanding or misinterpretation arising from this translation.