

Employees

Corporate social
responsibility

Environment

Valuable contribution from people with disabilities DEUTZ has been successfully working with NOSTRA GmbH for more than 30 years. People with disabilities work as full and equal employees at DEUTZ AG's Cologne-Kalk site, where they are responsible for the picking and packaging process for the entire range of engine spare parts. Day in, day out, they prove that people with disabilities make a valuable, economically viable contribution in the modern world of work. Today, for example, around 50 full-time employees pack engine parts and put together gasket sets and spare parts kits. Highly complex certification standards, such as DIN EN ISO 9001, have been achieved.

DEUTZ has also successfully worked in partnership with GWK, a not-for-profit organisation based in Cologne, for more than 40 years. Currently, over 110 people work for us at various sites on tasks including processing packaging and assembly orders, using machines to produce additional articles such as belt pulleys and oil level gauges and handling printing orders. The many different work steps enable the integration of employees with a variety of abilities who benefit from the continuity of the repetitive tasks.

Variety of community activities DEUTZ has been supporting the community with its 'DEUTZ fulfils your wish' Christmas initiative for a number of years. In 2016, around 120 youngsters from Kalker Kindermittagstisch wrote down their wishes on 'wish notes' and hung them on the Christmas tree so that DEUTZ employees had the chance to make their wishes come true. Kalker Kindermittagstisch serves a hot meal to the children every day and supervises them while they do their homework. Employees at the Cologne-Kalk plant also organised a donations drive as part of this community project.

Our employees demonstrated their generosity in various other ways during 2016. In the spring, apprentices at our Ulm site got involved with 'Guter Hirte' in Ulm, an organisation that looks after young single parents with small children, young people in need and child refugees without parents. And in December, employees in Ulm collected donations for 'Radio 7 Drachenkinder', a fundraiser organised by the radio station for traumatised local children who have experienced a lot of suffering as a result of illness, disability or severe setbacks in life.

DEUTZ choir reaches a milestone The 100 voices of the DEUTZ choir celebrated 70 years of singing in 2016. They marked the occasion with two gala concerts entitled 'Tales from Vienna' at the Cologne Philharmonic Hall on 25 and 26 June. Another highlight was a concert tour to Berlin, where the choir's appearances included a benefit concert at the Kaiser Wilhelm Memorial Church on 29 September. On 10 and 11 December, the choir again gave outstanding performances at its three Advent concerts in Cologne-Gürzenich, at which it was joined by the Domstadt Philharmoniker orchestra. At these concerts, donations were collected by 'Kölner Kreidekreis', which supports orphans and children who have been taken into care.

Engagement as a matter of course DEUTZ has also long been committed to diversity management: we value the diversity of our individual employees around the world – in terms of gender, origin, age, religion and disability – and we try to harness this for the success of the Company. For example, we have a clear target to increase the number of management positions within the DEUTZ Group that are occupied by women. Further information can be found in the corporate governance report on pages 129 et seq. of this annual report.

The members of the Board of Management and managers at DEUTZ AG are also fully aware of their responsibility to lead by example. They have been contributing personally to various charitable associations, trade associations, committees, trusts and other forums for many years.

ENVIRONMENT

DEUTZ upholds its responsibility for protecting the environment and preventing climate change in a variety of ways, and our environmentally friendly products and resource-efficient production methods play an important role in this regard. Our environmental management system enables us to keep track of aspects that are highly relevant to the environment, such as keeping the air clean, avoiding and correctly disposing of waste, protecting against soil and water pollution and sustainably reducing energy consumption. Furthermore, the Board of Management of DEUTZ AG set a core environmental target for 2016 of a year-on-year reduction in carbon dioxide emissions of 2 per cent per engine produced.

ENERGY MANAGEMENT SYSTEM

After successfully implementing the energy management system and obtaining certification for it in recent years, we made organisational and technological refinements to the system in 2016.

For example, the energy teams were reorganised in connection with the restructuring of the Cologne and Ulm sites and we introduced a KPI system for monitoring energy targets in the plants. Data capture was further improved by integrating mobile data entry technology into the energy monitoring system. This system provides a basis for identifying potential savings through the use of detailed analyses.

At operational level, this involved implementing the resulting measures as well as planning and implementing the energy concepts in new buildings. The energy teams' hard work enabled us to achieve annual savings of 715 MWh from a total of 20 projects.

As well as maintaining the continuous improvement process, our focus for 2017 is to raise awareness among employees in areas of production where energy consumption is high. We will also concentrate on carrying out an efficient closure of the plant in Cologne-Deutz and completing the energy concept in the new shaft centre.

DEUTZ Group: Energy consumption in our plants¹⁾

MWh	2016	2015
Electricity	79,837	80,283
Natural gas	35,795	34,243
District heating	23,017	23,857
Heating oil	4,440	3,863
Diesel fuel ²⁾	20,144	21,335
LPG ³⁾	310	–

¹⁾ Plants in the DEUTZ Group, excluding joint ventures.

²⁾ At 9.85 kWh/litre (mean).

³⁾ At 12.8 kWh/kg (mean).

ENVIRONMENTAL MANAGEMENT SYSTEM

One of the ways in which the effectiveness of DEUTZ AG's environmental management system can be seen is that key aspects, such as sustainability, are taken into consideration when workstations are being planned. The system has had its compliance with DIN EN ISO 14001 reconfirmed by the certification body DNV GL 2016.

For example, when shaft production was relocated from the Cologne-Deutz site to Cologne-Porz, the supply of coolant was centralised at the same time. This has a number of advantages in the machining of shafts. Centralised control of the system means it is no longer necessary to monitor a large number of individual machines. The useful life of the cutting fluid can now be used optimally, thereby conserving resources and reducing hazardous waste. Permanent, centralised monitoring of key parameters of the cutting fluid also ensures a high level of manufacturing quality. This is directly beneficial from both a financial and an environmental perspective. We anticipate that fluid consumption will decrease by between 5 and 10 per cent this year.

Internal environmental and energy audits, which are conducted by a team of specialists according to a defined schedule, help to ensure that the processes being audited comply with statutory requirements and that departmental targets are met. Our environmental management system also helps in this regard and its rule set is continuously updated and analysed to ascertain at an early stage whether any process changes are needed.

In 2016, DEUTZ AG began to implement the new requirements arising from the risk- and opportunity-based approach of the ISO 14001:2015 standard for environmental management. The first results, particularly the assessment of opportunities, will be examined by the external auditors in spring 2017.

Focus on reducing emissions The assessment of environmentally relevant processes has shown that the emissions from operating the engine test bays during development and production have a strong impact on our environmental footprint. To be able to better evaluate the overall impact, DEUTZ analyses total annual emissions of the greenhouse gas CO₂ as well as of the pollutants dust, nitrogen oxide and benzene.

DEUTZ Group: Annual CO₂ emissions in our plants¹⁾

Tonnes	2016	2015
CO ₂ emissions (Scope 1)	13,433	13,251
CO ₂ emissions (Scope 2)	51,315	51,070
CO ₂ emissions (Scope 3)	1,224	532
Total CO ₂ emissions	65,972	64,853

Scope 1: CO₂ emissions caused by combustion in our own facilities.

Scope 2: CO₂ emissions relating to purchased energy (e.g. electricity, district heating).

Scope 3: CO₂ emissions from flying and the use of hire cars.

¹⁾ Plants in the DEUTZ Group, excluding joint ventures.

Another analysis shows total CO₂ emissions resulting from the direct or indirect consumption of energy per engine produced during the reporting period:

DEUTZ Group: Emissions per engine in our plants¹⁾

Emissions per engine		
	2016	2015
Carbon dioxide (kg)	470	460
Nitrogen oxide (kg)	0.22	0.128
Dust (g)	2.7	2.6
Benzene (mg) ²⁾	<85.0	44.8

¹⁾ CO₂ in plants in the DEUTZ Group, excluding joint ventures. The other data relates to German plants.

²⁾ Measurement uncertainty is three times higher than the measured value.

There was a small year-on-year increase in carbon dioxide emissions per engine, which rose by 2.2 per cent. This means that the target of reducing carbon dioxide emissions by 2.0 per cent per engine produced was not achieved. The reason for this is that around two-thirds of the test bay emissions are attributable to research and development activities, whereas production testing only accounts for about a third. More endurance testing aimed at refining engines with large cubic capacities and improving product quality led to the increase. Ultimately, however, these tests play a part in ensuring that our future engines put fewer emissions and less CO₂ into the environment when they later go into operation. The per-engine level of other emissions (dust, nitrogen oxide and benzene) also increased in 2016 for the same reason, even though the revision rate in engine production has been successfully lowered and testing programmes have been significantly streamlined and further standardised.

The state-of-the-art, high-performance exhaust gas aftertreatment system used in the production test bays at the German sites ensures that DEUTZ remains comfortably within permitted limits and, in some cases, is very significantly below them.

FOCUS ON WATER POLLUTION CONTROL

The relocation of shaft production provided an opportunity to check that the production machines were not causing water pollution. This thorough inspection of the machines was carried out in order to pinpoint and completely eliminate any leaks from what are normally inaccessible places.

Moreover, the collection trays were designed with generous dimensions on-site by a specialist company. We invested €450 thousand in the installation of the collection trays, which play a key role in water pollution control.

All equipment that can contain or collect water pollutants and that is subject to mandatory inspection requirements is inspected at defined regular intervals by experts in order to comply with water pollution control requirements and increase technical uptime.

The risk of contaminating water courses and soil as a result of operating this equipment has been significantly reduced because we invested in renewing our machinery as part of the relocation of shaft production from Cologne-Deutz to Cologne-Porz.

SAFETY MANAGEMENT

Over the past few years, ongoing measures in the area of occupational health and safety have led to a reduction in the frequency of accidents.

However, the latest environmental KPIs show that the frequency of accidents¹⁾ and the number of notifiable accidents per thousand employees has increased despite safer workplaces being designed and improvements made to our health and safety organisation. Accident frequency, which is the number of notifiable workplace accidents in relation to the number of hours worked, stood at 20.9 in 2016 (2015: 12.9) and was thus significantly higher than in the previous year. Similarly, the number of notifiable accidents per thousand employees increased to 27.9 (2015: 17.7). The investigations carried out after the accidents did not reveal any clear systemic reasons for the accidents so, after reviewing the risk assessments, the necessary instructions were provided to the individuals affected in most cases.

One of the ways in which the DEUTZ AG safety organisation has been improved is the provision of cross-departmental training for fire wardens. This training, which consists of both theoretical and practical parts, was run by the works fire brigade.

¹⁾ Accident frequency: number of accidents per million hours worked (as defined by the employers' liability insurance association).