

DEUTZ Group: Annual CO₂ emissions in our plants¹⁾

Tonnes	2015	2014
CO ₂ emissions (Scope 1)	13,251	16,289
CO ₂ emissions (Scope 2)	51,070	57,021
CO ₂ emissions (Scope 3)	531	1,528
Total CO ₂ emissions	65,134	77,463

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.

FURTHER IMPROVEMENT OF AIR PURITY

Over and above the effects of the production programme, emissions of dust, carbon dioxide, benzene and nitrogen oxide have decreased substantially as a result of particularly low-emission engines being tested and a shortening of the testing times in the test bay.

DEUTZ Group: Emissions per engine in our plants¹⁾

Emissions per engine	2015	2014
CO ₂ (kg)	460	365
Nitrogen oxide (kg)	0.128	0.140
Dust (g)	2.6	2.7
Benzene (mg)	44.8	48.6

¹⁾ CO₂ emissions in plants in the DEUTZ Group. All other figures relate to German plants.

A variety of individual technical and organisational measures made it possible to shorten the testing times. To further reduce emissions and costs, we are planning to carry out cold testing²⁾ of some of our products in the production test bays in Cologne. The construction of a laboratory for exhaust after-treatment technology, which contains a model gas testing rig, enables the simulation of engine emissions for bench-scale testing. This saves on various test runs at the development stage.

In order to satisfy customers' requirement for even more eco-friendly engine technologies, DEUTZ AG has converted four of its test cells so that engines can be tested with LPG as part of research and development. The advantage in terms of air purity is obvious: LPG-powered engines do not emit any dust.

²⁾ Functional testing of the engine without initiating the combustion process.

FOCUS ON WATER POLLUTION CONTROL

We ensure the safe operation of all equipment to which the German Federal Water Act (WHG) applies by having them inspected regularly by experts from a central monitoring agency. This not only ensures the necessary technical requirements for safe operation are in place but also reduces the likelihood of equipment downtimes.

The retirement and deinstallation of the electroplating plant in Cologne-Deutz significantly lowered environmental risk during the reporting year. The deinstallation of the electroplating equipment and the transfer of some of it to the new location of the external service provider were carried out in close cooperation with the local environmental authorities – a model example of collaborative partnership.

In the last stage of its expansion, the R&D testing centre's cellars were extensively refurbished. The work was undertaken in order bring the equipment-specific water pollution controls in line with the latest technology. This predominantly involved replacing waste water pipes and recoating the floors, which have to resist penetration by substances that could pollute the water. Just under €0.2 million was invested in these measures.

Use of resources improved again The recooling plant, which supplies the R&D testing centre with water for cooling, had previously been operated using an open recirculating cooling system. Besides the loss of water resulting from this process, the outdated machinery consumed a lot of electricity. We completed the installation of a closed recirculating cooling system and the replacement of the inefficient circulating equipment last year. Just under €0.3 million was invested in this construction work. The ongoing benefits of this measure – reduced water consumption at the Cologne-Porz site and lower consumption of electrical energy – will help to conserve the resources available to our Company in the long term.

Target for a continuous decrease in waste The high standards of quality that we insist on for the products obtained from our suppliers require them to be adequately protected during transit. We therefore cannot do away with packaging completely. Nonetheless, we want to reduce it steadily and thereby lower the volume of waste that we expect to produce. We examine, on a case-by-case basis, whether returnable packaging systems (e.g. return of empty containers) can be used instead of non-reusable packaging and introduce them where possible. Last year, we invested €0.5 million in additional returnable packaging (2014: €1.1 million). Another example of successful waste reduction is the storage of the fuel additive AdBlue¹⁾ in a 5m³ tank. €110 thousand was invested in the installation of this facility. In addition to a reduction in the cost of disposing of non-reusable packaging, there are savings from the reduced logistics, mainly derived from a decrease in the number of orders processed.

SAFETY MANAGEMENT

The Board of Management has defined a key target for workplace health and safety of zero accidents, an extremely challenging objective that is designed to set an example. The introduction of this target has resulted in a steady improvement in the frequency of accidents²⁾ and the number of notifiable accidents per thousand employees (TMQ)³⁾. Accident frequency, which is the number of notifiable workplace accidents in relation to the number of hours worked, stood at 12.9 in 2015 (2014: 20.8), its lowest level since we began recording statistics on workplace health and safety. The number of notifiable accidents per thousand employees went down to 17.7 (2014: 26.1) and is now around 30 per cent below the current average for the companies insured by our industry-specific accident insurer BGHM (Berufsgenossenschaft Holz und Metall).

Internal health, safety and environment audits are conducted regularly, resulting in improved safety standards. The frequency of these audits depends mainly on the level of risk in the area being audited. Any variances from internal or statutory rules are followed up rigorously on the basis of action plans. The health, safety and environment departments must be involved in processes for approving hazardous materials and signing off machinery and equipment. Risk assessments are reviewed regularly and are adapted as the need arises. Personal protective gear is specified for each function and has been chosen based on an analysis of accidents.

Irrespective of the preventive measures taken with regard to health and safety, DEUTZ AG also has an emergency organisation consisting of full-time and ad-hoc staff. The linchpin of this organisation is the DEUTZ AG works fire brigade, which is officially recognised by the German authorities. Internal and external training is provided to ensure employees have the necessary skills and qualifications.

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 various direct and indirect subsidiaries and equity investments. The subsidiaries include a production facility in Spain, a production company in China and several companies that perform sales and service functions. The Chinese production company DEUTZ Engine (China) Co., Ltd. in Linyi, China, was wound up at the end of 2015. DEUTZ AG has a direct or indirect stake in a total of 27 companies (2014: 29 companies). It is also by far the largest production company of the DEUTZ Group and provides the head-office functions for the Group.

Because the business performance and financial situation of DEUTZ AG are essentially the same as for the DEUTZ Group, we make reference here to the 'Business performance in the DEUTZ Group' section on page 32 et seq. of this combined management report.

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 on page 31 et seq. of this combined management report. The DEUTZ Group's net income in accordance with IFRS is reconciled to DEUTZ AG's net income in accordance with the German Commercial Code (HGB):

DEUTZ AG: Reconciliation

€ million	
DEUTZ Group net income (IFRS)	3.5
Consolidation of equity investments	10.7
DEUTZ AG income (IFRS)	14.2
Material differences due to different financial reporting standards	
Recognition of development expenditure	34.4
Measurement of provisions for pensions and other post-retirement benefits	-16.4
Other differences relating to the financial reporting standards	-5.4
DEUTZ AG net income (HGB)	26.8

¹⁾ 32.5% aqueous urea solution (AdBlue® is a registered trade mark of the German Association of the Automotive Industry (VDA))

²⁾ Accident frequency: number of accidents per million hours worked (as defined by the employers' liability insurance association).

³⁾ Known as TMQ (Tausend-Mann-Quote) in German.