

# Corporate Responsibility

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AT A GLANCE 2013

## CORPORATE PROFILE

### THE LINDE GROUP

In the 2013 financial year, The Linde Group generated revenue of EUR 16.655 billion, making it the largest gases and engineering company in the world with approximately 63,500 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term, profitable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment – in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development.

### ORGANISATION

The Group comprises three divisions: Gases and Engineering (the two core divisions) and Other Activities (logistics services company Gist). The largest division, Gases, has three reportable segments – EMEA (Europe, Middle East and Africa), Asia/Pacific and the Americas. These are divided into seven Regional Business Units (RBUs). The Gases Division also includes the two Global Business Units (GBUs) Healthcare (medical gases, medical devices, clinical care and related services) and Tonnage (on-site supply of gases to major customers), as well as the Business Area (BA) Electronics (electronic gases).



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*Ladies and Gentlemen,*

For us, sustainability is an investment in the future. Our holistic approach extends beyond our contribution to environmental conservation and social development to include the continuous improvement of our processes and procedures. We are rigorously implementing measures aimed at increasing efficiency. This allowed us to hold our own pretty well in 2013, despite an increasingly challenging business climate over the course of the year. Through our initiatives, we target the Group's key business processes, such as the production and transport of our products. We have succeeded in cutting down energy consumption, optimising plants and reducing the journeys needed for delivery. This is our way of combining excellence in operations with cost savings and environmental protection.

We plan to make even further progress in sustainability and have set ourselves measurable non-financial targets next to our specific financial targets. A main focus here is on safety and increasing energy efficiency. One of our targets is to improve the average energy intensity of our globally installed air separation plants by 5 percent by 2017. Thanks to the measures necessary to achieve this goal, we have so far been able to avoid more than 1.4 million tonnes of CO<sub>2</sub> emissions. Through projects aimed at increasing energy efficiency, we saved some EUR 35 million and prevented more than 220,000 tonnes of CO<sub>2</sub> emissions in 2013 alone.



Sustainable business practices also mean helping new technologies succeed – especially technologies that contribute to an affordable, reliable and eco-friendly energy supply. We are prepared to lead the way towards this goal, such as in the field of hydrogen. At Linde, we are committed to helping unleash the potential of hydrogen as an environmentally friendly source of energy and as a method for storing electricity from renewable sources.

We also live up to our social responsibility. My fellow Executive Board members and I approved a Code of Conduct for Suppliers of The Linde Group in 2013. This code of conduct defines the requirements we place on our suppliers regarding safety, environmental protection, labour standards and compliance. In addition, we published a global position on human rights in early 2014, in which we affirm our support of human rights and describe the steps we are taking to anchor this voluntary commitment. These and other activities show that we are living by the principles of the United Nations Global Compact within our Group.

I am delighted that our progress on sustainability management was repeatedly acknowledged in 2013. The inclusion of our Group in the global Dow Jones Sustainability Index again last year is one example of this.

Linde has set the right course. We are counting on the expertise and commitment of our approximately 63,500 employees worldwide for our continued success. My heartfelt thanks go out to all of them. They have made Linde what it is today: the world's largest gases and engineering company – a company that is well positioned globally, has a sustainable business model and offers promising prospects for the future.

A handwritten signature in black ink, which appears to be 'W. Reitzle', written in a cursive style.

PROFESSOR DR WOLFGANG REITZLE  
[CHIEF EXECUTIVE OFFICER OF LINDE AG]

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# INVESTMENT FOR GREEN ENERGY

We see great potential for our technologies in the energy and environment growth market. One example of this is our commitment to hydrogen as an energy source and a form of storage for electricity from renewable sources.

We are laying the foundation to ensure that the vision of affordable, reliable and environmentally friendly energy supplies can become a reality.

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## AT A GLANCE

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**-30%**  
CO<sub>2</sub> emissions

when petrol or diesel are replaced with hydrogen derived from natural gas

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One tank of hydrogen will last for up to

**700**  
kilometres.

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**17**  
million EUR

will be invested by Linde and several partners in the construction of a hydrogen facility in the Mainz Energy Park.

The facility will be able to absorb up to

**6**  
megawatts  
of electric power – roughly the output generated by three wind turbines – and to produce up to 200 tonnes of green hydrogen per annum.

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**< EUR 1**

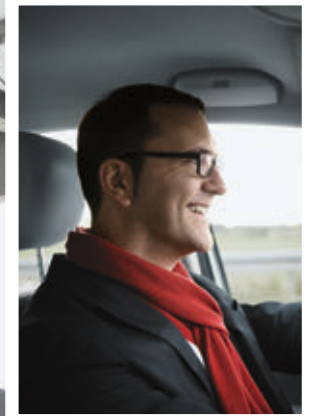
are the costs for a kilowatt hour of storage capacity if hydrogen is used as energy storage. The corresponding cost for storage in a battery would be around EUR 400.

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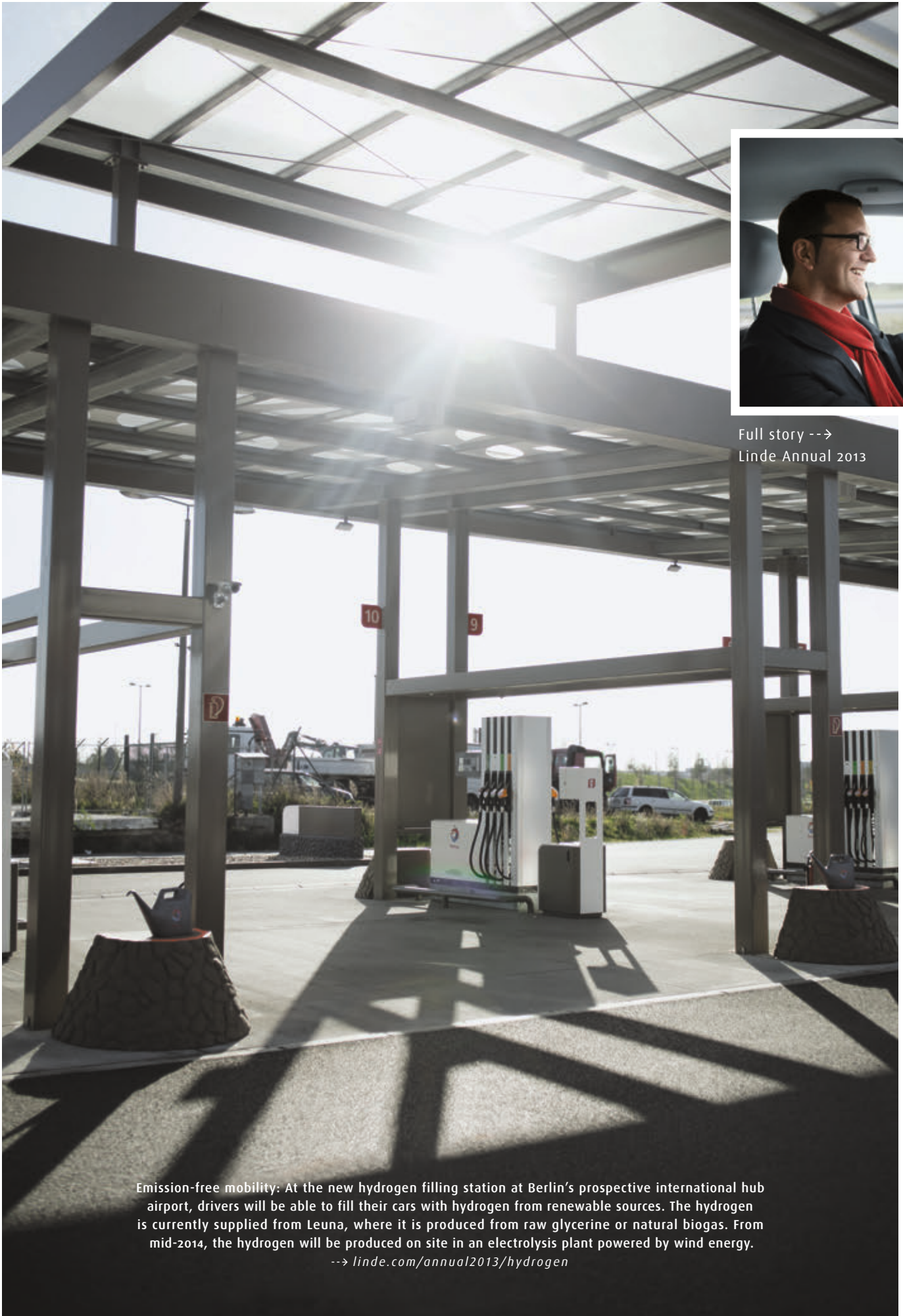
By 2023, Linde and its partners want to build around

**400**  
hydrogen  
filling stations  
in Germany.

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Full story -->  
Linde Annual 2013



Emission-free mobility: At the new hydrogen filling station at Berlin's prospective international hub airport, drivers will be able to fill their cars with hydrogen from renewable sources. The hydrogen is currently supplied from Leuna, where it is produced from raw glycerine or natural biogas. From mid-2014, the hydrogen will be produced on site in an electrolysis plant powered by wind energy.

--> [linde.com/annual2013/hydrogen](http://linde.com/annual2013/hydrogen)

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## IMPROVING PATIENT SERVICE

The healthcare market is a growth driver for Linde – a trend which will accelerate still further as a result of demographic changes over the next few years. We deliver medical gases, medical devices, clinical care and supporting services to patients, doctors and therapists worldwide.

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### AT A GLANCE

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**1/3**  
of the population  
in Europe  
will be over 65  
by 2050.

Linde is active in the  
healthcare market in

**60**  
countries.

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Anniversary:  
For  
**25 years**

Linde has been  
supplying oxygen to  
patients in Germany in  
their own homes.

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By 2020, the global  
market relevant to Linde  
in this sector  
will grow to around

**17**  
billion EUR.

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Linde serves  
**1.4**  
million  
patients  
worldwide.

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**100,000**  
more patients  
were supplied  
with Linde products  
or services in  
2013 than in 2012.

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Full story -->  
Linde Annual 2013

Linde's medical gases are also used for pain relief. Professor Dr Krzysztof Szymanowski is Director of the Maternity Clinic at the University Hospital (GPSK) in Poznan in Poland. The clinic's neonatal unit is one of the largest in the country. Linde introduced a gas mixture of oxygen and nitrous oxide into the Polish market to help relieve the pain of childbirth.

--> [linde.com/annual2013/healthcare](http://linde.com/annual2013/healthcare)

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## THE BEST WAY TO GET THERE

We are constantly improving our processes. One example of this is the transportation of our liquefied and cylinder gases. Worldwide, we seek to optimise our production planning, our selection of transport routes and the equipment of our trucks. Our aim is to tailor our deliveries to the needs of our customers, to reduce our fuel consumption and to improve transport safety – a contribution to the sustainability of our business.

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### AT A GLANCE

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**1,500**  
employees

participated in  
driver safety training  
in South-East Asia.

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In

**83**  
countries

Linde has included  
safe driving  
in the contractual terms  
and conditions it  
agrees with its suppliers.

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Linde manages around  
**2**  
million deliveries

of liquefied gases  
every year to customers  
worldwide.

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**> 3,000**  
trucks

operated by Linde to  
deliver liquefied gas  
products to customers  
worldwide

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Around  
**200**  
million EUR

invested in 2013  
as part of ongoing  
improvements to  
vehicles and tanks

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**-27%**  
serious transport  
incidents

since 2010

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Full story -->  
Linde Annual 2013



Linde eco-trailer on the road: The vehicle is significantly lighter than its predecessor model, has a greater payload, benefits from additional active and passive safety equipment and consumes on average two litres of fuel less per hundred kilometres travelled.  
--> [linde.com/annual2013/processoptimisation](http://linde.com/annual2013/processoptimisation)

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# SUSTAINABILITY AND STRATEGY

Sustainability is a vital component of our Group strategy. We combine long-term economic value added with environmental and social responsibility. As set out in our global corporate responsibility policy, we are committed to behaving responsibly towards people and the environment and to conserving natural resources.

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## OPPORTUNITIES AND RISKS

We want to apply our fundamental principle of sustainability to an even greater extent to drive our business operations. We are constantly analysing how our products help our customers develop more sustainable processes: e.g., through increased energy efficiency or reduced emissions. Clean technologies are one of the key areas here. In our research and development, we focus in particular on the environmental impact of our production processes.

We record and evaluate risks systematically and reduce risks by adopting responsible business practices and making constant improvements in our operations. We use global management systems, for example, to implement standards for sustainable business practices within our business processes worldwide. These include global guidelines for safety, environmental protection, compliance, supplier management and fair working conditions.

## KEY ISSUES AND RESPONSIBILITIES

We continuously analyse stakeholder expectations, comparing them with our internal assessment of the risks and opportunities associated with the Group's business development. Based on this materiality analysis, we establish our priorities for sustainability measures. The findings also serve as a basis

for the decisions of our Corporate Responsibility Council. The committee is the highest decision-making body for sustainability issues at Linde. In 2013, the Corporate Responsibility Council discussed issues such as the introduction of the new Code of Conduct for Suppliers, the expansion of our global climate protection goals and the release of a Group statement on human rights.

## STAKEHOLDERS

We consult our key stakeholders about material issues. These include Linde employees and our shareholders, customers and suppliers. Other relevant interest groups are: politicians and the research and scientific community, non-governmental organisations, neighbours and the general public. The Group's corporate responsibility department responded to over 3,600 questions from stakeholders on sustainability issues during the reporting year. The main issues raised concerned corporate governance topics, eco-efficiency, labour standards and sustainable products.

PROGRESS

**100%**  
of countries

in which Linde operates are the focus of a new Code of Conduct for Suppliers; an external risk analysis in the supply chain was conducted.

**1**

statement

issued about the Group's support for human rights; Group guidelines reviewed to ensure compliance with human rights

**100%**  
of new suppliers

in the Engineering Division under contract to comply with Code of Conduct

**42,500**

training sessions on the Code of Ethics delivered

compliance training and compliance consulting expanded

**380**

suppliers

in India trained on topics such as process safety and fire protection

**800**

individual conversations held with investors

**3,600**  
questions

from stakeholders about sustainability issues

OUTLOOK

Supplier management

Global analysis of the supply chain planned in respect of conflict minerals that are listed in the US Dodd-Frank Act

Sustainable products

Review of environmental benefits of the product portfolio planned

Innovation

Research and development on the use of hydrogen for large-scale energy storage, carbon capture & storage and carbon capture & usage (CCS/CCU) and on the conversion of biomass into fuels or into basic materials for use in the chemical industry

**3,000**

customers

included in  
satisfaction survey

We also engage in debate on specialist topics. In 2013, Linde participated in events which involved discussions with scientific experts in Germany and Italy on the use of renewable energy and hydrogen as fuel. Once again in 2013, our dialogue with politicians and society focused in particular on the need for a cost-effective and environmentally friendly energy supply.

**COMPLIANCE**

The primary goal of our global compliance management system is to prevent rather than manage compliance incidents. For this, we rely on three pillars of preventative measures: communication, training and personal advice. By the end of 2013, we had held more than 42,500 e-learning sessions on our Code of Ethics. Over 10,000 members of staff across the globe were provided with on-site training between 2009 and 2013. By the end of 2013, we also invested more than 18,500 working hours in competition law e-learning. In the course of the year, we also launched a compliance training refresher initiative. In 2013, our compliance helplines received more than 3,500 requests for legal advice.

The Linde Integrity Line, our global reporting system, is a key pillar of our compliance management system. It enables employees and external stakeholders to report suspected violations, anonymously if desired. In 2013, the Integrity Line was contacted 393 times in total, by e-mail, web portal, letter or telephone. All concrete allegations were investigated. In 2013, the Internal Audit department, Human Resources, Legal Services and the department for Safety, Health and Environment carried out 88 investigations on the basis of reports received via the Integrity Line.

**18,500**  
working hours

invested in competition  
law e-learning

**SUSTAINABLE INVESTMENT**

In 2013, we conducted more than 800 conversations with investors globally. We offered shareholders and potential investors the chance to engage in dialogue with representatives of the Group at 24 conferences and 38 roadshows, at several private investor events and in the course of plant visits. Among Linde's shareholders, the proportion of SRI investors rose to over 7 percent at the end of 2013.

Linde was again included in sustainability indices in the reporting year. In September 2013, the Group was once more listed in the global Dow Jones Sustainability Index (DJSI World).

**92**

million EUR

spent on research and  
development

**2,605**  
patents protect  
Linde  
technologies.

**INNOVATION**

During the 2013 financial year, we spent a total of EUR 92 million on research and development, 367 employees were working in this field. To protect our innovations from the competition, we filed 263 new patents across the Group over the course of the past financial year. As of 31 December 2013, Linde technologies were protected by a total of 2,605 patents.

By drawing on the findings of our pure research, we are continuously moving into new areas of application for our gases and are constantly striving to make further improvements to our processes and plant technologies. Application development is always set in the context of commissions and therefore involves close liaison with customers, taking

into account their individual requirements. We pay particular attention to the environmental compatibility of our production processes.

Once again, during the year under review, we were able to step up our involvement in environmentally friendly hydrogen technology. Together with five partners from the energy and automotive sectors, Linde signed an action plan in September 2013, under the terms of which around 400 hydrogen filling stations will be built in Germany by 2023.

The continuing increase in the quantity of electricity derived from renewable sources means that new solutions for large-scale storage are needed. We are involved in many projects in this area, including activities at the Mainz Energy Park in Germany. In cooperation with partners from the energy industry and various research institutes, we are trialling processes for the production, storage, use and the feed-in of hydrogen from renewable electricity to the natural gas network.

### PRODUCTS FOR CLIMATE PROTECTION

We offer our customers solutions that cover many areas of sustainable electricity and fuel generation. One example of this is the conversion of energy into hydrogen. So that surplus electricity generated from wind and sun does not go to waste, it can be converted into hydrogen using electrolysis in a process known as power-to-gas, and then stored. We are working together with energy companies and partners in the automotive industry on optimising this process. We have also developed FROSTCRUISE®, an efficient and environmentally friendly in-transit refrigeration system. The overall carbon footprint reduction for the transport of refrigerated goods is 19 percent compared to current systems.

In order to be able to disclose product-specific CO<sub>2</sub> balance sheets to our customers, we have developed a calculation method for our major air gases. This method includes the products' full life cycles and was externally certified in 2013.

### CUSTOMER RELATIONSHIPS

A focus on the customer is a key pillar of our HPO (High Performance Organisation) efficiency improvement programme. Our Customer Experience Management approach comprises measures which help us better understand our customers' needs and wishes. In recent years, we have invested more than EUR 5 million in training and certifying our sales professionals. Our aim is to keep improving our employees' technical knowledge, professionalism and expertise.

In 2013, we conducted a pilot project with around 3,000 customers in various countries. As part of this project, we carried out a survey which covered issues such as customer satisfaction, the criteria which influence customers' purchasing decisions and the likelihood that they would recommend Linde to others. Measures based on the findings are due to be implemented in 2014.

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# 46%

of our Gases and  
Engineering  
Divisions' strategic  
suppliers

committed to comply  
with the Code of Conduct  
for Suppliers

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### SUPPLIERS

When selecting suppliers, we consider not only commercial criteria such as quality, price and availability, but also other aspects of sustainability. These include safety, environmental protection, labour and human rights as well as ethical business practices. Linde maintains business relationships with more than 100,000 suppliers in over 100 countries. More than 65 percent of procurement costs were spent in OECD countries. In non-OECD countries, around 17 percent of the total in the Gases Division were spent in China, South Africa and Brazil.

In 2013, we commissioned an external analysis of sustainability risks in the supply chain, focusing on country risk and product risk. We will use the findings as a basis to further develop the procedures we use for the selection and evaluation of suppliers. In 2014, we plan to conduct a global analysis of the supply chain with regard to conflict minerals that are listed in the US Dodd-Frank Act.

In 2013, the Executive Board of Linde AG approved a new global Code of Conduct for Suppliers that defines standards for safety, environmental protection, labour standards and human rights as well as compliance. At Linde Engineering, for example, all new suppliers were required to comply with the Code of Conduct in 2013. Overall in the reporting year, 46 percent of our Gases and Engineering Divisions' strategic suppliers were committed to comply with the Code of Conduct for Suppliers.

We include contractors in our environmental and safety management system. In 2013, for instance, we trained some 380 suppliers in India on topics such as process safety and fire protection.

We reserve the right to check whether suppliers comply with the standards set forth in the Code of Conduct. At Linde Engineering, 32 suppliers were audited in the reporting year. The principles of the UN Global Compact were an important part of these audits.

For further information go to  
--> [linde.com/cr-report2013/strategy](http://linde.com/cr-report2013/strategy)

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## SAFETY ALONG THE VALUE CHAIN

We have implemented Group-wide safety and environmental protection management systems. Our main priorities are to minimise safety risks and the Group's environmental impact, and to ensure that we use energy, resources and materials efficiently. Through our products and services, we help our customers to make their business processes safer and more environmentally friendly.

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### PRODUCTION

Worldwide, we work to identify and assess the risks that the operation of our plants could present. In addition, we have introduced a Group-wide management system, so that major potential hazards of our plants can be recorded on a uniform basis worldwide. This programme, known as the Major Hazards Review Programme (MHRP), enables us to identify control mechanisms to limit these risks as far as possible. By the end of 2013, we had certified 76 percent of the relevant plants in accordance with the MHRP. During the reporting year, more than 1,400 safety, environmental protection and health protection audits were carried out by the Group itself or by third parties. In 2014, we plan to obtain ISO 14001 certification for four more business units in our Engineering Division.

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**76%**

of concerned sites  
certified in accordance to  
the Major Hazards  
Review Programme

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In 2013, we also launched a global campaign to raise our employees' awareness of the safety issues of particular relevance to the Group. Around 30,000 employees received training on tasks with increased risks and around 20,000 employees were provided with training on working at height. Other trainings are planned for 2014.

### TRANSPORT

We are constantly working on minimising the number of transport-related incidents. With this in mind, we have set ourselves a global target. By the end of 2017, we are aiming to halve the number of serious transport incidents per million kilometres travelled compared with 2012. In 2013, this key figure was cut further to 0.062 (2012: 0.075). This equals a goal attainment of 35 percent. In order to achieve our global target, we have defined a package of measures. By the end of 2013, 75 transport auditors had been trained and 23 percent of our sites with transport operations had been audited in regards to compliance with our revised transport standards. In South-East Asia alone, by the end of 2013, around 1,500 drivers at more than 60 different sites attended safety training designed to prevent accidents with motorcyclists.

We also involve transport contractors in our transport safety initiatives. Since 2007, uniform safety rules have been in place which must be observed by all suppliers when

GOALS

**+2%**

improvement  
in energy efficiency  
for installed  
HyCO plants by 2015

**-50%**

serious  
transport incidents  
by 2017

**-5%**

energy intensity  
for installed  
air separation plants  
by 2017

PROGRESS

**1,500**  
drivers

in South-East Asia pro-  
vided with safety training  
designed to avoid accidents  
with motorcyclists

**-1.4**

million  
tonnes of  
CO<sub>2</sub> emissions

avoided as a result  
of the improvement in  
the energy intensity  
of air separation plants,  
average energy  
intensity improved  
by 3.8 %

**35**

million EUR  
saved

thanks to energy efficiency  
projects in 2013

**-17%**

serious transport  
incidents in 2013  
compared to previous year

**60%**  
recycling rate

in UK as a result  
of a pilot project for  
waste management

OUTLOOK

**Improving environ-  
mental management**

Findings from  
waste management pilot  
projects in South-East  
Asia and in the UK to be  
extended to other  
countries; plans to obtain  
ISO 14001 certification  
for more engineering sites

**Raising safety  
awareness**

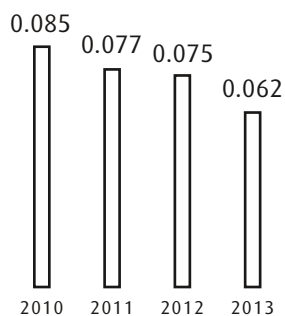
Global initiative  
planned which will cover  
the most important  
safety issues

**Product  
responsibility**

Investment of  
EUR 3 million planned to  
improve product  
safety data sheets and to  
refine the labelling  
of products for  
transportation purposes

providing transport services for Linde. This requirement has also been incorporated as a criterion in the Group's purchasing contracts, which is effective in 83 countries.

#### Serious transport incidents\*



\*Per million kilometres travelled

#### SAFE PRODUCTS

We monitor product safety along the product value chain, from the procurement of materials via production through to use by the customer. For those sites where highly hazardous chemicals are produced or handled, we have also developed specialist product safety risk assessments, carried out uniformly across the world. The corresponding audits have so far been conducted in 17 countries. Our main focus during the reporting year was South-East Asia.

Linde holds more than 18,000 product safety data sheets in a variety of languages. Over the next five years, we plan to continue to improve these data sheets and to refine the labelling of our products for transportation purposes. A budget of more than EUR 3 million has been earmarked for this purpose. We also offer training to customers in the safe handling of our products. Both employees and customers take advantage of these training offers. Through our own customer safety programme LIPROTECT®, for example, around 1,200 participants in Germany received training in 2013 in how to handle gases responsibly.

**1,200**  
participants  
completed training  
of our customer  
safety programme  
in Germany

#### RAW MATERIALS

As a producer of air gases, our most important raw material is air from Earth's atmosphere. We generate a material share of our revenue with products that are based on this natural, renewable raw material. In the manufacturing process, our principal input is energy. Here, to protect resources, we rely on measures designed to increase energy efficiency in our own plants and processes worldwide.

In the 2013 financial year, we continued to develop promising technologies and cooperate in the field of renewable raw materials. We have, for instance, extended our cooperation with Sapphire Energy, Inc. The shared goal is to develop a technology for commercial use that enables algae biomass to be processed into green crude oil on an industrial scale, creating a viable, environmentally friendly source of energy. In the reporting period, we also improved the Carbo-V® technology to such an extent that this process is ready to enter demonstration operations with a partner. During this process, wood and wood-like biomass, which can already be harvested in a way that conserves resources and does not compete with food production, are processed into bio-fuels, such as biodiesel.

#### ENERGY AND CLIMATE PROTECTION

We are continuously working on using resources even more efficiently and on achieving further reductions in our greenhouse gas emissions. We are achieving the greatest possible impact on climate protection through our products. Across numerous sectors, we offer gases applications and technologies that make our customers' production processes more environmentally sound, reduce the consumption of natural resources, and help renewable energy sources to become a viable option. We received a number of awards for our initiatives to support climate protection in 2013. Linde Gas Benelux, for example, was the first gases company in the Benelux countries to receive the Lean and Green Award for its voluntary commitment to cut its CO<sub>2</sub> in bulk transport by 20 percent within five years. The award is bestowed by a non-profit network for sustainable mobility founded by the Dutch government.

#### ENERGY CONSUMPTION AND CORPORATE CARBON FOOTPRINT

In 2013, Linde emitted around 21 million tonnes of greenhouse gases – around 0.3 million tonnes less CO<sub>2</sub> than in the previous year. In 2013, we identified around 300 projects that help us reduce the Group's energy consumption. By implementing these projects, we achieved cost savings of more than EUR 35 million and saved 227,000 tonnes of CO<sub>2</sub>. In California, for example, we have been working with energy companies on 16 projects since 2009 to optimise energy use at Linde sites. As a result, we have reduced energy costs at these sites by USD 1.75 million per year.



As an energy-intensive company, Linde depends on access to a reliable and competitively priced energy supply. We are exploring the use of renewable energies. In the UK, we have been obtaining 100 percent of the electricity we use at all office sites from renewable energy sources since the end of 2013.

**GLOBAL GOALS**

Most of our power requirements and thus the majority of indirect CO<sub>2</sub> emissions relate to the operation of around 400 air separation plants. Our target is to improve the average energy intensity of our globally installed air separation plants by 5 percent by 2017. The benchmark is the global average efficiency of the air separation plants operating at the design plant load. The reference year is 2008. By the end of 2013, we had already achieved a 3.8 percent improvement in average energy intensity, meaning we had already saved more than 1.4 million tonnes of CO<sub>2</sub>.

In 2013, we set ourselves a new global target for our installed hydrogen (HyCO) plants. The operation of these plants accounts for most of the Group's direct emissions. Our aim is to increase the energy efficiency of these hydrogen plants by 2 percent by 2015 compared with the reference year of 2009. In order to achieve this target, we are implementing a number of different measures, including optimising plant capacity utilisation and installing energy-efficient cooling systems.

A further key focus of climate protection measures is product transportation. We are reducing the number of journeys in various regions by using larger, optimally sized tanks. In this way, in Germany alone, we were able to cut delivery costs by around EUR 500,000 and reduce our CO<sub>2</sub> emissions in 2013.

**227,000**

tonnes of CO<sub>2</sub>

saved through energy efficiency projects

**WATER**

One of the aims of our environmental management is to use water sustainably at our sites. Because water consumption levels and the availability of water vary from one location to another, measures to reduce water consumption and to protect water resources are defined and implemented at a local level. In 2013, we identified around 30 projects that help us make the Group's water management more efficient and cut costs by more than EUR 700,000. We carried out several

water-related projects, including improvements to cooling water systems. We offer our customers solutions to improve the quality of drinking water, to optimise the treatment of waste water and to reuse water through closed-loop systems.

**-700,000**  
EUR costs

by improving water management

**AIR EMISSIONS**

Normally, the Group's air separation plants hardly produce any direct emissions to the air. In other production processes, however, inorganic gases such as carbon monoxide (CO), sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>), ammonia (NH<sub>3</sub>) and volatile organic compounds (VOCs) are released as emissions into the air. We work with our customers and partners to develop solutions to reduce emissions of pollutants into the air. In 2013, we developed a mobile system for the treatment of ship emissions in cooperation with another company. The system makes it easier to clean vessels that carry chemicals. The process involves removing VOC vapours from exhaust gases using liquid nitrogen.

**WASTE**

We work continuously to reduce and avoid waste. Our waste management targets are determined by regional requirements, as the type of waste produced differs significantly from one site to another depending on the diverse business activities. In the UK, for instance, we have set ourselves a regional target of increasing the waste recycling rate to 65 percent by 2014, having already achieved 60 percent in the year under review. We launched a pilot project in South-East Asia in 2013 to optimise waste management. The aim was to reduce both costs and environmental impact. In Africa, we developed a new recycling programme in 2013. The breathing bags produced by the regional subsidiary Afrox and used by mine workers have to be replaced every ten years. Afrox took back thousands of these breathing sets and recycled some of them into products such as bags and aprons.

For further information go to

--> [linde.com/cr-report2013/safety](http://linde.com/cr-report2013/safety)

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## BUILDING A SUCCESSFUL TEAM

The aim of our human resources strategy is to acquire the employees best suited to the Group across the world, to nurture these employees and to build up long-term loyalty. Our main priorities are to adapt the Group to changing social developments, to create attractive working conditions and to promote excellence.

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### WINNING TALENT

The recruitment of well-trained experts and the provision of continuing professional development for existing employees are key elements of our human resources strategy. In 2013, we launched a new round of our two-year entry programme for European graduates, with participants from 15 countries. We also provide training opportunities in various technical and commercial areas, encompassing 17 different professions in Germany alone. In the year under review, 75 percent of one year's cohort of trainees in Germany were taken on as permanent employees at the end of their vocational training; a further 20 percent were offered a fixed-term contract.

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**1,600**  
employees

participated in seminars of  
Linde University in China

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We invested around EUR 13 million in the continuing professional development of our employees during the reporting year. Group-wide professional development programmes are provided through Linde University. These focus on such subject areas as change leadership, intercultural communication and diversity. The Linde University Campus in China celebrated its second anniversary in 2013 and continued to expand its range of training opportunities. By the end of 2013, more than 1,600 employees had participated in training seminars in the region.

We offer our executive staff around 130 different professional development modules across the world. In September 2013, for example, the Future Leader Programme for the new generation of managers was launched in the Asia/Pacific region.

### REMUNERATION AND SOCIAL BENEFITS

The remuneration package of Linde employees comprises various elements. In addition to a basic fixed salary, our employees receive variable remuneration components depending on their position within the Group. We also offer our staff social benefits in line with the conditions which apply in the different regions. These benefits include occupational pensions, health insurance at subsidised rates,

PROGRESS

13.2%

of senior management positions filled by women

- lower target achieved

1

new guideline introduced on corporate volunteering

Around 60% of sites

covered by occupational safety and environmental protection audits in 2013

Female participants

in the most important professional development programme

23.4%

for senior management

35.6%

for middle management

UK

Stress management workshops

conducted in IT departments

700 employees

in the Greater China region benefit from a new flexible working scheme.

-6%

workplace accidents in comparison with previous year

GOALS AND OUTLOOK

Promotion of women

Goal: 13-15% of senior management positions to be filled by women by 2018

Employee satisfaction

Third global employee survey to be conducted in 2014

Work-life balance

On-going initiative to review the range of measures which help employees achieve a better work-life balance

and health promotion measures. Employees in more than 50 countries have access to occupational pensions and health-care benefits. Hereby, around 80 percent of the Group-wide workforce is covered by company benefit schemes.

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**193**

million EUR  
spent  
on pensions

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**13**

million EUR  
invested in professional  
development

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In 2013, we carried out an exemplary analysis of the salaries of employees not employed on the basis of collective wage agreements. The main focus was the head offices of Linde AG, Linde Gas, Linde Gas Germany and Linde Engineering. The analysis did not reveal any significant differences in the remuneration paid to male and female employees in comparable positions. Personnel expenses during the reporting year totalled EUR 3.423 billion, of which EUR 2.974 billion related to salaries (including social security contributions) and EUR 193 million to pensions.

**WORK-LIFE BALANCE**

We have introduced a range of initiatives to help our employees achieve a work-life balance. The focus is on flexible working times, supporting employees who are reliant on childcare or have a family member who requires care, and providing assistance during periods of poor health or social hardship. The various measures are designed to suit the specific local situation and requirements.

In our Greater China region, we introduced a flexible working scheme for around 700 office staff during the year under review. In Germany, we have agreed a teleworking model for employees in the Engineering Division who are caring for a family member or who are themselves recovering from ill-health. We are currently reviewing our concept for the support of childcare provision in Germany.

**INVOLVING EMPLOYEES**

Employee satisfaction is a key factor in our success. In 2013, we introduced a number of measures in response to the findings from the global employee survey conducted during the previous year. These measures focused, amongst other things, on communication between managers and their staff, and individual career planning. In Africa, for example, we set up focus groups in which employees from different business areas discuss various aspects of our corporate culture. Plans are in place for a third global employee survey in 2014.

We encourage our employees to use their experience and skills to come up with ideas for further improvements. In 2013, employees submitted their suggestions on areas such as optimising products, improving efficiency, providing better customer service and increasing employee commitment. In Germany, bonuses were awarded for around 80 employee suggestions in the reporting year. In our Greater China region, employees have submitted more than 200 suggestions since 2011, 80 of which had been implemented in practice by the end of 2013. Estimated cost savings of around EUR 5 million were made as a result.

**DIVERSITY**

For a global group, an intercultural workforce is a crucial advantage. As of 31 December 2013, the Group employed staff from 139 different countries. The proportion of senior managers from countries other than Germany in The Linde Group exceeded 70 percent in the reporting year, with more than 50 nations represented at this level.

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**63,487**  
employees  
worldwide

⋮

**51,536**  
Gases Division

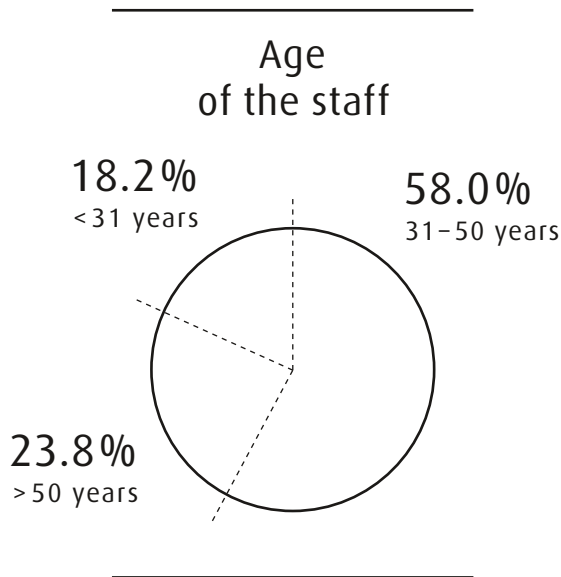
⋮

**6,997**  
Engineering Division

⋮

**4,954**  
Other Activities

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One of our main priorities in the area of diversity is the promotion of female managers. In 2013, we were able to raise the percentage of female senior managers to 13.2. Thus, we reached the lower level of our global target: by 2018, we want to increase the proportion of women in senior management positions to between 13 and 15 percent. Various measures have been introduced in a bid to achieve this target. Diversity as a value has also been integrated into executive development. Moreover, the promotion of diversity forms part of the individual target agreements for managerial staff in the relevant positions. Once again, the number of women taking part in our two major management development programmes grew during the reporting year. In the Global Leadership Development Circle, the most important development programme for senior managers, the proportion of women rose to 23.4 percent. In the Global Talent Circle, which is aimed at middle management, the proportion of women taking part was 35.6 percent.

**OCCUPATIONAL SAFETY AND  
HEALTH PROTECTION**

One of the aims of our global safety management is to protect our employees. In addition, we help our staff to remain in good health and fit for work. For this purpose, we have put in place global standards governing occupational safety and health protection. Risk assessments and audits are carried out to review work safety. In 2013, such audits were conducted at 58.1 percent of our operating sites (2012: 62.4 percent).

Between 2010 and end of 2013, we approved nine global guidelines on workplace health. When implementing initiatives relating to health protection, we focus in particular on the risks associated with manual and repetitive activities. In 2013, we provided instruction for specialist trainers in this area in North America. At our subsidiary Lincare, we carried out a review of the health risks faced by workers.

Changes made as a result included ergonomic improvements to the loading systems of the company's delivery vehicles. In many countries we offer initiatives designed to prevent illness. In North America, for example, all members of staff have the opportunity to take part in a health programme introduced in 2013. This programme is supported financially by Linde. Meanwhile, in the UK, we ran workshops on stress management for our IT staff.

**LABOUR STANDARDS AND  
HUMAN RIGHTS**

In our Code of Ethics, which is binding on the entire Group, we commit to the principles of the UN Human Rights Charter and the core labour standards of the International Labour Organization (ILO). Through regular reviews across all the regions, we collate information on the processes that the Group has put in place to ensure compliance with labour standards and the upholding of human rights. To detect potential weaknesses, we evaluate the information supplied to the Integrity Line, a service that employees and external stakeholders can use to report any breaches of our Code of Ethics. In the Benelux countries, a number of staff were given training on the subject of workplace harassment in the reporting year. This will enable them to act as points of contact for over 600 employees in the region.

Contact people for

**600  
employees**

in Benelux countries  
trained on the subject of  
workplace harassment

As a participant of the UN Global Compact, Linde also supports the UN Guiding Principles on Business and Human Rights. In 2013, we continued to investigate the extent to which the Group's global guidelines account for compliance with human rights. During the period under review, the Executive Board of Linde AG also passed a statement on human rights for the Group, in which we reaffirm our support of human rights and describe Group processes that substantiate this commitment.

### SOCIAL COMMITMENT

Across the world, we are involved in a variety of projects in proximity to our sites. We focus on initiatives which are linked with our business activities, and are, above all, committed to projects in the field of education. We also support a range of local activities covering such areas as safety, environmental protection, health and social affairs. In 2013, Linde provided funds of more than EUR 6.8 million for donations, sponsorship and voluntary memberships (other than of trade associations). Of this amount, around EUR 2.7 million was in the form of donations. This allowed us to support more than 170 projects worldwide. Through our initiatives during the year under review, we reached around 70,000 children, school pupils and students.

Through selected initiatives, we also support corporate volunteering. In early 2014, we adopted a corporate guideline on this topic.

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**70,000**  
children, pupils  
and students

reached through corporate  
citizenship initiatives

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More than  
**12,000**  
students  
enrolled in the  
Carl von Linde  
Academy's courses.

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### ACCESS TO EDUCATION

By the end of 2013, more than 12,000 students had attended courses offered by the Carl von Linde Academy. Based at the Technical University of Munich (TUM), this institution provides up-and-coming engineers, IT experts and natural scientists with key skills that extend beyond the limits of their theoretical subjects. Linde has supported the development of the Academy, donating foundation capital of more than EUR 8 million. During the reporting year we extended our cooperation with the Schloss Hansenberg boarding school in Hesse in Germany. The school fosters the talents of pupils with particularly strong academic and social skills.

We also sponsor scientific or technical exhibitions, experiments and competitions in several countries. In Munich, home to the Group's corporate centre, we are one of the founding members of the Deutsches Museum Future Initiative, the aim of which is to modernise the largest technology museum in the world. We are supporting the initiative with financial backing which will total EUR 5 million by 2018.

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**13,000**  
children

participated in the Child  
Road Safety Programme  
organised by Gist.

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### SAFETY

In keeping with our particular focus on safety, we are involved in a range of community road safety projects across several countries. One example is the comprehensive safety programme for young road users in Australia and New Zealand.

During 2013, more than 13,000 children participated in the Child Road Safety Programme organised by Gist, our logistics division. As part of this programme, truck drivers regularly visit primary schools, taking their vehicles with them, to raise pupils' awareness of the importance of road safety.

### EMERGENCY AID

In 2013, Linde provided emergency aid in several of the world's regions. Following the floods in Germany in early summer 2013, we matched the donations made by our employees in Germany, resulting in total aid of EUR 150,000. During the reporting year, Linde staff and the Group also donated more than USD 170,000 to help victims of Typhoon Haiyan in the Philippines.

For further information go to

--> [linde.com/cr-report2013/employees](http://linde.com/cr-report2013/employees)

## KEY FIGURES

		2013	2012 <sup>1</sup>
<i>Financial indicators</i>			
Share closing price	€	152.05	132.00
Market capitalisation (at year-end closing price)	€ million	28,219	24,445
Revenue	€ million	16,655	15,833
Operating profit <sup>2</sup>	€ million	3,966	3,686
EBIT	€ million	2,171	2,055
Profit for the year	€ million	1,430	1,341
Equity ratio	%	41.5	39.8
Return on capital employed (ROCE)	%	9.7	10.2
Research and development expenses	€ million	92	101
Personnel expenses	€ bn	3.423	3.117
Pension costs	€ million	281	241
<i>Employees</i>			
Number of employees	<i>as of Dec. 31</i>	63,487	62,765
Temporary staff	%	6.2	6.4
Apprentices and trainees in total workforce	%	0.9	0.9
Staff turnover rate <sup>3</sup>	%	9.4	10.1
Staff covered by collective wage agreements	%	45.6	45.1
Nationalities of employees in Germany		65	67
Non-German nationalities in senior management positions	%	72.9	69.7
<i>Female employees</i>			
in total workforce	%	27.3	26.9
in senior management positions	%	13.2	12.3
Training days per employee		3.0	2.6
Workplace accidents with at least one day of absence	<i>per million hours worked</i>	2.3	2.5
<i>Safety and environmental protection</i>			
Electricity consumption	<i>million MWh</i>	23.4	23.5
Natural gas consumption	<i>million MWh</i>	36.4	35.9
Consumption of other energy sources <sup>4</sup>	<i>million MWh</i>	14.8	13.4
Consumption of raw materials and supplies	<i>t</i>	57,750	57,170
Water consumption <sup>5</sup>	<i>million m<sup>3</sup></i>	44.5	47.4
Total direct CO <sub>2</sub> emissions	<i>million t</i>	7.2	7.6
Total indirect CO <sub>2</sub> emissions	<i>million t</i>	13.0	12.8
<i>Other emissions to the air<sup>6</sup></i>			
VOC (volatile organic compounds)	<i>t</i>	92	109
NH <sub>3</sub> (ammonia)	<i>t</i>	9	11
CO (carbon monoxide)	<i>t</i>	1,520	2,895
NO <sub>x</sub> (nitrogen oxides)	<i>t</i>	5,222	5,556
SO <sub>x</sub> (sulphur oxides)	<i>t</i>	96	391
<i>Emissions to water<sup>6</sup></i>			
Chemical oxygen demand (COD)	<i>t</i>	130	201
Biochemical oxygen demand (BOD)	<i>t</i>	118	97
Nitrates	<i>t</i>	46	52
Phosphates	<i>t</i>	1	4
Waste	<i>thousand t</i>	124.9	81.5
Serious transport incidents involving trucks <sup>7</sup>	<i>per 1 million km</i>	0.062	0.075
Production sites certified to ISO 9001	%	77.9	79.6
Production sites certified to ISO 14001	%	31.8	31.8
Production sites certified to OHSAS 18001	%	17.8	17.7

<sup>1</sup> Indicators were adjusted for the effects of the first-time retrospective application of new or revised accounting standards. See also Note 7 of the Notes to the Financial Report 2013. Moreover, human resources, environmental and safety indicators were adjusted for the figures of US homecare company Lincare which was acquired by Linde in 2012.

<sup>2</sup> EBIT adjusted for amortisation of intangible assets and depreciation of tangible assets

<sup>3</sup> Staff turnover rate relates to employees who left the Group voluntarily during the period under review.

<sup>4</sup> Other energy sources include for example thermal energy, heating oil, biofuel energy, propane, butane and from 2013 diesel fuel.

<sup>5</sup> Water consumption relates to drinking water and industrial water used. Once-through water is drawn from a natural or other sources, solely warmed and ultimately piped back to the original source at a temperature not posing any risk to the surrounding ecosystem.

<sup>6</sup> We monitor compliance with local regulatory requirements worldwide and report our data for all sites legally obliged to report emissions.

<sup>7</sup> Severe traffic incidents, e.g. with heavy effects on the health of the employees involved or with reportable emissions to the environment, as well as transport incidents leading to material costs above a defined threshold

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REPORT 2013 ]



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You can find the full report at: [www.linde.com/cr-report2013](http://www.linde.com/cr-report2013)

This report contains statements relating to the future which are based on management's current estimates about future developments. These statements are not to be understood as guarantees that these expectations will prove to be true. The future development and the results actually achieved by The Linde Group and its affiliated companies are dependent on a number of risks and uncertainties and may therefore deviate significantly from the statements relating to the future.

Linde has no plans to update its statements relating to the future, nor does it accept any obligation to do so.

