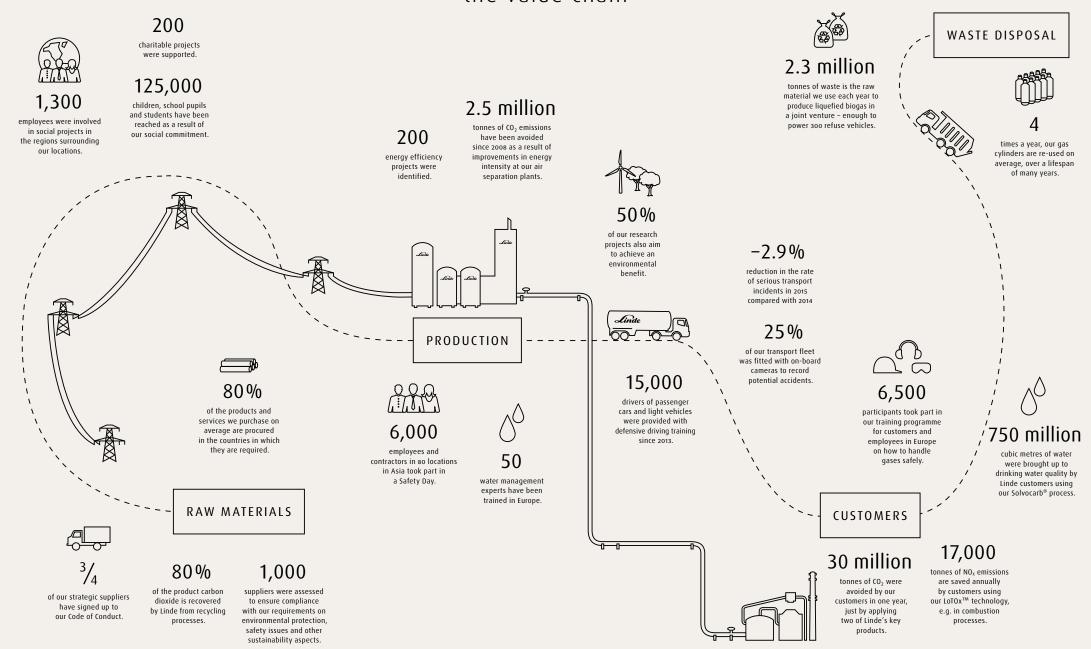
# Corporate Responsibility

REPORT 2015





# Sustainability in the value chain





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This is the PDF version of the Corporate Responsibility Report 2015. The full report is available online.

http://www.linde.com/cr-report2015



### **CEO STATEMENT**

# ladies and Gentle men,

Our approach to corporate responsibility involves responsibility along the value chain, making sustainability an integral part of our business. One example of this is our commitment to the efficient use of resources. As an energyintensive company, we continuously work on reducing our energy consumption and CO<sub>2</sub> emissions. In 2015, we identified around 200 projects at our business locations worldwide which will contribute towards achieving these reductions. Moreover, we have set ourselves a new target. By the year 2020, we want to avoid a total of 6 m tonnes of  $CO_2$  emissions compared with 2009.

The greatest contribution to sustainability comes from our products. Linde technologies and services frequently combine economic benefit with a contribution to environmental protection or help to improve quality of life. Our customers were able to avoid more than 30 m tonnes of CO<sub>2</sub> in 2015 by using just two key Linde applications: for example, by improving efficiency in combustion processes. Through various projects and collaborations, we are



promoting the use of hydrogen in the field of environmentally friendly mobility. In July 2015, the world's largest plant for generating green hydrogen in Mainz Energy Park in Germany came on stream - a lighthouse project for the use of renewable energy. The hydrogen can be stored and used later: for example, to generate electricity. We are also involved in a number of research projects looking at how environmentally harmful CO<sub>2</sub> can be captured and stored.

Sustainability thus becomes an important investment in the development of our Group. Our support for the United Nations Global Compact is another expression of our commitment to sustainability. The principles of the Global Compact include environmental protection, respect for human rights and workers' rights, and combating corruption. We are convinced that long-term economic success will only be achieved by entities acting responsibly along the value chain. We are committed to this approach and we would like to discuss this subject with you in future.

Yours sincerely,

Dr Wolfgang Büchele

Chief Executive Officer of Linde AG



# **ABOUT THIS REPORT**

Reporting period	1 January to 31 December 2015
Reporting cycle	Annual
Publication	10 March 2016
Format	The report is available online. The contents of the report (either the report or individual sections) can be downloaded as PDF files.
Integrated reporting	We publish non-financial key performance indicators (KPIs) and qualitative information about sustainability in our Annual Report. The Corporate Responsibility Report supplements the disclosures in the Annual Report. More information about sustainable business practices can be found inter alia in the following publications and communication channels of the Group:
	<ul> <li>The Linde Group's website contains information on the corporate responsibility focus areas.</li> </ul>
	<ul> <li>The Clean Technology portal provides an overview of products and technologies for climate protection.</li> </ul>
	<ul> <li>The websites of our Gases, Engineering and Gist Divisions provide information about sustainability specific to their own business operations.</li> </ul>
	<ul> <li>Some Linde subsidiaries produce regional publications which address sustainability issues.</li> </ul>
	<ul> <li>Product brochures also contain information about the environmental benefits of our technologies.</li> </ul>
	<ul> <li>Our investor relations presentations (which are open to the public) provide information about market opportunities for Linde arising from technologies relating to the energy and environmental sectors and from healthcare.</li> </ul>
	<ul> <li>We use social media to provide corporate responsibility updates.</li> </ul>
	In this report, we include links to these sources where appropriate.
Topics	Our stakeholders, who include our employees, customers and shareholders, are an important resource in identifying key issues for Linde. We review the topics we address on a regular basis to ensure that we are meeting the needs of our stakeholders. Information about this materiality analysis is made publicly available.  The content of our report is also based on the requirements set out in the Global Reporting Initiative (GRI, G4), the results of our materiality analysis and external CR ratings.





The report relates to all companies in The Linde Group over which Linde AG is able to exercise control (the power to govern the financial and operating policies of the entity) or joint control together with other parties.

In the case of companies over which Linde AG can exercise joint control, the KPIs are recorded pro rata, with the exception of figures for workplace accidents, which are shown in full even for jointly controlled entities.

The financial data of the Group has been extracted from the 2015 Annual Report and has not been modified.

Key performance indicators, data collection methods, bases of calculation

Key performance indicators (KPIs) enable us to track our economic, ecological and social performance. We measure our progress and identify potential for improvement. We use global reporting systems to collect most of the data needed to generate KPIs for safety, health and environmental protection, and employees. Our financial KPIs are calculated and published in accordance with International Financial Reporting Standards (IFRS). In the various sections of this report, KPIs are disclosed over a four-year period. The table entitled "All key performance indicators" covers a five-year period.

As a result of changes in the IFRS, the number of sites included in the reporting process has increased since the 2012 reporting year. In addition, Linde acquired US homecare company Lincare in 2013. The KPIs for the 2012 reporting year have been adjusted to take account of these two factors. Major changes in KPIs compared with prior years are often due to the increase in the number of sites or the Lincare acquisition. Any changes in the bases of calculation compared with the prior year are disclosed together with the relevant data. If adjustments have been made to the prior-year data, this is also noted.

# Independent assurance provided by a third party

Material KPIs and selected non-material KPIs were reviewed by KPMG AG Wirtschaftsprüfungsgesellschaft (KPMG). Those KPIs which were within the scope of KPMG's engagement are identified as such in the tables presented in this report. The scope of the engagement and the conclusion reached by KPMG are disclosed in the independent assurance report.

The engagement was conducted in accordance with the International Standard on Assurance Engagements (ISAE) 3000 which covers assurance reports on sustainability reports and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements.





UN Global Compact and Global Reporting Initiative	With this report, we are complying for the first time with the GRI G4 Sustainability Reporting Guidelines of the Global Reporting Initiative (GRI). We have chosen to comply with the more demanding of the two reporting options, the comprehensive option.  The Corporate Responsibility Report also serves as a Communication on Progress (COP) report within the framework of our commitment to the United Nations Global Compact. We report on how we incorporate the ten Global Compact principles into our business activities. Content relevant to the Global Compact is indicated as such in the report by the Global Compact logo. A combined GRI and Global Compact Index gives a summary and overview of all the focus areas. We are again reporting in accordance with the Advanced Level of the UN Global Compact. We also consider the Blueprint for Corporate Sustainability Leadership, which is an action plan initiated by the Global Compact LEAD platform.
Terminology used	Specialist terminology and abbreviations are explained in the report's glossary.
Prior-year reports	The Group has published reports covering issues such as the environment, employees, sustainability and corporate responsibility since 2004. All these reports can be accessed from the archive on the Group's website.
Contact	Your views are important to us. Please <u>e-mail</u> us any questions or suggestions you may have.

- → Statements relating to the future
- → Materiality analysis
- → UN Global Compact
- → GRI and Global Compact Index
- → Independent Assurance Report



## **ABOUT LINDE**

### The Linde Group

In the 2015 financial year, The Linde Group generated revenue of EUR 17.944 bn, making it one of the leading gases and engineering companies in the world, with approximately 64,500 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 (the logistics services company Gist). The largest division, Gases, has three segments: EMEA (Europe, Middle East and Africa), Asia/Pacific and the Americas. These segments are further subdivided into nine Regional Business Units (RBUs). In addition, Linde has established five Global Governance Centres (GGCs) for the Gases Division which are centrally managed and operate across the regions: GGC Merchant & Packaged Gases (liquefied gases and cylinder gas), GGC Electronics (electronic gases), GGC Healthcare, GGC Operations and GGC Deliver. The Group has also set up the Group-wide function Opportunity & Project Development in order to take better advantage of business opportunities.

#### **Gases Division**

The Linde Group is a world leader in the international gases market. The company offers a wide range of compressed and liquefied gases as well as chemicals, and is the partner of choice across a huge variety of industries. Linde gases are used, for example, in the energy sector, steel production, chemical processing, environmental protection and welding, as well as in food processing, glass production and electronics. The company is also investing in the expansion of its Healthcare business (medical gases and services), and is a leading global player in the development of environmentally friendly hydrogen technologies.

### **Engineering Division**

Linde's Engineering Division is successful throughout the world, with its focus on promising market segments such as olefin, natural gas, air separation, hydrogen and synthesis gas plants. In contrast to virtually all competitors, the company can rely on its own extensive process engineering know-how in the planning, project development and construction of turnkey industrial plants. Linde plants are used in a wide variety of fields: in the petrochemical and chemical industries, in refineries and fertiliser plants, to recover air gases, to produce hydrogen and synthesis gases, to treat natural gas and to produce noble gases.





### The Linde World



### **Business Review**

Linde achieved a 5.3 percent increase in Group revenue in the 2015 financial year to EUR 17.944 bn (2014: EUR 17.047 bn). Positive exchange rate effects had an impact here. In particular, the exchange rates of certain currencies (the US dollar, the British pound and the Chinese renminbi) to the euro moved significantly, especially in the first six months of the year. This created positive exchange rate effects arising on the translation of various local currencies into the reporting currency (the euro). After adjusting for exchange rate effects, Group revenue was 2.3 percent below the figure for the prior year.

As far as Group operating profit is concerned, Linde achieved a value that was up by 5.4 in a year-on-year comparison to EUR 4.131 bn (2014: EUR 3.920 bn). Exchange rate effects also need to be taken into consideration here. If an adjustment were to be made for these effects, the Group operating profit would have dropped by 2.4 percent. The Group operating margin in 2015 was 23.0 percent (2014: 23.0 percent).

Return on capital employed (ROCE) after adjusting for non-recurring items was 9.4 percent in 2015 (2014: 9.5 percent). Linde's profit for the year (after deducting the tax expense) was EUR 1.252 bn (2014: EUR 1.162 bn).

- → Customer relationships
- → Business review (Annual Report)





### Linde financial highlights

		2015	2014	2013	2012 <sup>1</sup>
Share					
Closing price	€	133.90	154.20	152.05	132.00
Year high	€	193.85	157.30	153.90	136.15
Year low	€	128.05	139.15	128.60	114.20
Market capitalisation (at year-end closing price)	€ million	24,857	28,625	28,219	24,445
No. of shares (at 31 December)	000s	185,638	185,638	185,588	185,189
Cash dividend per share	€	3.45	3.15	3.00	2.70
Group					
Revenue	€ million	17,944	17,047	16,655	15,833
In Germany	%	7.3	7.4	7.9	8.2
Outside Germany	%	92.7	92.6	92.1	91.8
Operating profit <sup>2</sup>	€ million	4,131	3,920	3,966	3,686
Operating margin	%	23.0	23.0	23.8	23.3
EBIT	€ million	2,043	1,885	2,171	2,055
Profit for the year	€ million	1,252	1,162	1,430	1,341
Capital expenditure (excluding financial assets)	€ million	1,936	1,954	2,268	2,038
Equity ratio	%	43.7	41.4	41.5	39.8
Return on capital employed (ROCE)	%	9.4	9.5	9.7	10.2
Procurement costs	€ bn	10.5	11.6	11.1	10.9
Personnel expenses	€bn	3.928	3.536	3.423	3.117
Personnel expenses (per employee)	1,000 €	60.9	53.9	53.9	49.7
Pension costs	€ million	307	293	281	241
Donations	€ million	2.4	2.8	2.7	2.8
Gases Division					
Revenue	€ million	15,168	13,982	13,971	13,214
Operating profit <sup>2</sup>	€ million	4,151	3,835	3,846	3,566
Operating margin	%	27.4	27.4	27.5	27.0
Engineering Division					
Revenue	€ million	2,594	3,074	2,879	2,561
Operating profit <sup>2</sup>	€ million	216	300	319	312
Operating margin	%	8.3	9.8	11.1	12.2

<sup>1</sup> Adjusted for the effects of the first-time retrospective application of new or revised IFRSs. See also Note 7 in the Notes to the Group financial statements of the Linde Group Financial Report 2013





<sup>2</sup> EBIT (before non-recurring items) adjusted for amortisation of intangible assets and depreciation of tangible assets

## **STRATEGY**



Sustainability is a vital component of our Group strategy. Linde combines long-term economic added value with ecological and social responsibility. We want to apply the 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. We behave responsibly towards people and the environment and conserve natural resources. By doing so, we comply with our foundational principle of sustainability, one of four principles underlying the Linde Spirit. The Linde Spirit describes the values of our Group and applies to all our employees around the world. The activities for sustainable development which we pursue are based on established principles:





- Focus on our core business: When developing our sustainability measures, we consider our main
- Continuous improvement: We continually analyse how sustainability enables us to exploit business
  opportunities and minimise risks for the Group. We use key corporate responsibility indicators to
  measure our sustainability performance and compare the results around the world.
- **Engagement with stakeholders:** We adapt our corporate responsibility activities to reflect the needs of our stakeholders.

business processes and the entire life-cycle of our products.

**Transparency:** We report regularly and publicly on the progress we have made in our focus areas.

### Responsibility for sustainability

The Executive Board of Linde AG makes decisions about the key issues relating to sustainable development. In 2015, those decisions included setting a new climate protection target and setting more detailed targets for the proportion of women in management positions. Experts from within the Group advise on key strategic elements of sustainability and prepare decision criteria for the Executive Board. These experts include the heads of the following Corporate & Support Functions: Corporate Communications & Investor Relations, Group Human Resources, Group Legal & Compliance, Corporate Internal Audit and SHEQ. Our departments and business units implement the guidelines and devise tailor-made measures for different sectors and regions. The Corporate Responsibility department coordinates the implementation of initiatives in consultation with the departments and those employees in the regions responsible for the topics. It is also the key point of contact for stakeholders.

- → Engagement with stakeholders
- → Key issues
- → Corporate strategy (Annual Report)
- → Global standards
- → Products





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### **VALUES AND PRINCIPLES**

Values and principles are the basis for the way we do business. They are set out in the Linde Spirit and describe how we want to achieve our corporate goals.

### Our values

Empowering people	People are given the space to contribute and grow.
Innovating for customers	We relentlessly pursue new ways to add value to external customers.
Thriving through diversity	Diversity results in enriched collaboration and enhanced solutions.
Passion to excel	We have the commitment and drive to pursue ever higher standards of excellence and we celebrate success.

### Our principles

Safety	The Linde Group will avoid to harm people and society.
Integrity	Our actions are honest, fair and ethical.
Sustainability	We are focused on today's success, but accept our responsibility for future generations.
Respect	Every human being deserves to be treated with respect.

### Global standards

Internal guidelines determine how we assume our obligations in the Group. Our Code of Ethics defines clear standards which govern the way our employees interact with each other as well as our conduct towards customers, suppliers, partners and the authorities. The Code of Ethics is binding for all employees in The Linde Group. Our Code of Ethics is supplemented by other global guidelines and standards which concern our commitment in core areas such as safety, environmental protection, health, supplier management and compliance. We base our standards on internationally recognised guidelines and principles. These include:

- the German Corporate Governance Code
- the Universal Declaration of Human Rights
- the OECD Guidelines for Multinational Enterprises
- the ILO International Labour Standards
- the ten principles of the UN Global Compact
- the Responsible Care Global Charter

#### MORF ABOUT

- → Labour standards
- → Health and safety
- → Environmental protection
- → Compliance





# THE LINDE GROUP

## MATERIAL TOPICS

We devise our strategic measures in the area of sustainability on the basis of a so-called materiality analysis. Within this process, we are constantly conducting assessments to ascertain which sustainability topics are relevant to our Group. For this purpose, we consider which topics are particularly important from an internal perspective and what demands are placed upon us by our stakeholders. On the basis of this, we determine focus areas for our sustainability management and reporting. Besides, this process helps us identify key topics at an early stage.

### Key topics

	Concepts	
Customer focus		Resource conservation
Operational exce	lence	Partnership
Environment	People	Corporate governance
→ Energy	→ Safety	→ Compliance
→ Climate protection	→ Talent management	
→ Products (energy and the environment)	→ Products (health)	

### Process

When we prioritise sustainability topics, our focus is on:

- whether those topics have a direct impact on our business development;
- whether those topics are of particular relevance to our stakeholders and to the decisions they make;
- which areas have a particular influence on the economic, ecological and social impact of our business activities.

We also examine in which stage of the value chain topics are of particular relevance.

To meet the diverse demands on our company, we use numerous sources of information and approaches for exchange. These include surveys and dialogue with shareholders, customers and other stakeholders. We also record enquiries from our stakeholders. In 2015, the Group's Corporate Responsibility department answered more than 2,000 questions about sustainability at Linde. Other sources are legislative initiatives and political decisions.

Within Linde, we evaluate information from employee surveys as well as from workshops with subject specialists and strategy experts, and interdisciplinary working groups. We also consider findings derived from the Group's core processes, including information about environmental and social risks identified by Group risk management as well as purchase analyses and market analyses.



With our activities we comply with internationally recognised standards for sustainability management. These include the principles set out in the UN Global Compact and sustainability ratings.

- → Responsibility for sustainability
- → Engagement with stakeholders





# **GOALS**

## Strategy and corporate governance

Target/goal	Timeframe	Progress	Status
Finance			
Achieve Group operating profit of between EUR 4.2 billion and EUR 4.5 billion and ROCE of between 9 percent and 10 percent in the 2017 financial year	2017	> More in the <u>Annual Report</u>	
Achieve a reduction in gross costs of between EUR 750 m and EUR 900 m	2013 - 2016	> More in the <u>Annual Report</u>	•
Compliance			
Expand the compliance programme	Ongoing	More than 55,000 e-learning sessions on the Code of Ethics completed since the programme has began; over 138,000 compliance trainings in total	
		E-learning programme introduced for employees who award contracts for consultancy and other services on Linde's behalf	
		10,000 participants in e-learning sessions on antitrust law	
		6,700 queries answered by compliance officers	
		> <u>More</u>	
Products			
Develop products and technologies that unite the	Ongoing	Analysis of environmental benefits of selected technologies and applications	
goals of customer value and sustainable development		500 patents in the chemical and environmental sectors, clean energy and hydrogen technologies	
		Around 50 percent of research projects with environmental benefit	
		Trial of processes for the production, storage, use and feed-in to the natural gas network of hydrogen from renewable electricity, working with partners from the energy industry and various research institutes	
		> More about <u>innovations</u>	
		> More about <u>climate protection</u>	
		> More about <u>water</u>	
		> More about <u>emissions to air</u>	
		> More about <u>waste</u>	





Target/goal	Timeframe	Progress	Status
Engagement with stakehold	ers		
Reflect the needs of our stakeholders in our	Ongoing	More than 2,000 questions from stakeholders answered about sustainability at Linde	
sustainability management		More than 1,000 conversations conducted with investors; just under 60 conferences and roadshows, events for private investors and plant visits organised worldwide	
		> More about <u>stakeholders</u>	
		> More about <u>materiality analysis</u>	

> More about <u>investor relations in the Annual Report</u>

## Safety and environmental protection

Target/goal	Timeframe	Progress	Status
Conduct a standardised risk review of sites and define control mechanisms to minimise these risks to the greatest possible extent (Major Hazards Review Programme, MHRP)	Long-term goal	Around 90 percent of the sites concerned certified in line with MHRP by the end of 2015  > More	•
Transport			
Halve the frequency of serious transport incidents per million kilometres travelled compared with the	2017	In future, the target will also include incidents previously classified as non-preventable (the new target will be communicated at the latest in the 2016 Annual Report)	•
base year 2012		Based on the new definition, the number of serious transport incidents has fallen by around 16 percent since 2012	
		> <u>More</u>	
Transport safety initiatives  Implement all local and	2012 - 2015	Safety standards revised to reduce risks arising from in-vehicle distractions	
<ul><li>global minimum standards for transport operations</li><li>Incorporate the standards</li></ul>		Training provided to support the global guideline on the fitting and use of vehicle mirrors	
<ul><li>into a global database</li><li>Deliver training on revised</li></ul>		Training programme aimed at avoiding commercial vehicle rollovers continued	
standards to employees and contractors concerned  Conduct audits to ensure		Defensive driving training provided for more than 15,000 drivers of passenger cars and light vehicles	
compliance with standards		Training of internal incident investigators started	
<ul> <li>Implement worldwide the new driver safety training programme (ActSafe for Drivers)</li> </ul>		A quarter of Linde's global commercial fleet fitted with on-board camera recording systems	
		> <u>More</u>	

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# ABOUT

# STRATEGY & GOVERNANCE

Target/goal	Timeframe	Progress	Status
Climate protection and energ	y efficiency		
Achieve a 5 percent improvement in energy intensity at installed air separation plants (base year 2008)	2017	Average energy intensity improved by more than 6 percent, saving around 2.5 million tonnes of CO <sub>2</sub> > More	
Achieve a 2 percent	2015	Energy efficiency increased by 2.7 percent	
improvement in energy efficiency at our installed hydrogen plants (base year 2009)		Around 640,000 tonnes of CO <sub>2</sub> saved > More	
Avoid a total of 6 million tonnes of CO <sub>2</sub> emissions as a result of technical improvements in plant design and more efficient production processes in air separation plants and hydrogen plants (base year 2009)	2020	New target	
Evaluate ways to reduce emissions from transport vehicles (scope 1 emissions)	Ongoing	Measures implemented which are designed to achieve route optimisation, better use of transport capacity and environmentally friendly driving	
		> <u>More</u>	
Water			
Develop a strategy for sustainable use of water in regions experiencing water stress	2016	39 plants in Europe inspected for sustainable use of water since 2014; several improvements implemented; expected cost savings of over EUR 2 m between 2014 and 2016	•
		50 employees received training on topics such as saving water, water treatment and handling claims	
		Optimised cooling circuits in two air separation plants reduced the quantity of water and waste water being processed by 13,000 cubic metres per annum.	
		> <u>More</u>	
Set other quantitative targets for environmental protection	Long-term goal	Water supplies at our key production sites worldwide reviewed	
		600 production sites around the world reviewed for their proximity to international protected areas	
		> More about <u>water</u>	
		>More about <u>biodiversity</u>	







# Employees and society

Target/goal	Timeframe	Progress	Status
Continuously reduce the number of workplace accidents per million hours worked (base year 2012)	2020	2.7 workplace accidents per million hours worked in 2015 at Linde sites worldwide (2014: 2.4), 2.2 at contractors (2014: 1.8)	•
		> <u>More</u>	
Management			
Increase the proportion of	2017	New target	
female employees in the first management tier below the Executive Board worldwide to 14 percent in 2017 and 18 percent in 2022		Proportion of women in the first management tier below the Executive Board at 11 percent  > More	
•	2017		
Increase the proportion of female employees in the second management tier below the Executive Board worldwide to 17 percent in 2017 and 22 percent in 2022	2017	New target  Proportion of women in the second management tier below the Executive Board at 16 percent  > More	
Work-life balance		more	
Expand support for employees requiring childcare	Long-term goal	Childcare subsidy provided for children of employees at German sites; services to help employees find appropriate childcare places and to provide care in exceptional circumstances used more than 2,200 times since 2007	-
		> <u>More</u>	
Health protection			
Expand and harmonise	Ongoing	Free preventive health checks set up in several regions	
occupational health management programmes		New health management programme developed > More	
Reduce health risks arising from manual work	Ongoing	Around 1,400 occupational health and safety audits conducted at sites; around 53 percent of operating sites audited	•
		New powered movers used at 25 sites in North America to transport gas cylinders	
		99 percent of Gist Division employees handling heavy loads trained on how to do so safely	
		> <u>More</u>	
Minimise potential risk from psychological stress	Long-term goal	Events held on topics such as mental health in the workplace and conflict resolution in the Regional Business Unit (RBU) South Pacific	
		> <u>More</u>	







GLOBAL COMPACT. Principles covered.

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### INNOVATION AND PRODUCTS

INNOVATION

More than

500

patents

in the chemical and environmental sectors, Clean Energy and hydrogen technologies



50 % of research projects with an environmental

benefit

90

joint research projects in 21 countries

132 million euro

invested in research and development



3,224

patents

for Linde technologies

### Innovation

In 2015, we invested a total of EUR 132 m in research and development (2014: EUR 106 m). At 31 December 2015, 348 employees were working in this field (31 December 2014: 390). To protect our innovations from the competition, we filed 287 new patents across the Group during the reporting year. At 31 December 2015, Linde technologies were protected by a total of 3,224 patents, many of which address sustainability issues. More than 500 patents relate just to the chemical and environmental sectors, Clean Energy and hydrogen technologies.

Ongoing innovation and continuous, focused research and development activities are vital for the long-term success of a global technology company such as Linde. As a result, manifold activities were bundled and expanded in the new Technology & Innovation Corporate & Support Function in the 2015 financial year.

By drawing on the findings of its research, the Group is continuously moving into new areas of application for its gases and is constantly striving to make further improvements to its processes and plant technologies. This application development is almost always set in the context of commissions and therefore involves close

liaison with customers, taking into account their requirements. The Linde Group pays particular attention to the environmental compatibility of its production processes. More than half of research and development projects in the year under review were also aimed at achieving environmental advantages.





	2015	2014	2013	2012
Expenditure for research and development (in € million)	132	106	92	101
Employees in the research and development field	348	390	367	385
New patents filed	287	260	263	269

To achieve these goals, Linde combines the skills in its Gases Division with those in its Engineering Division, whilst also involving leading institutions and companies in various cooperation projects. Key topics are the use and production of environmentally friendly hydrogen as a source of fuel. When it comes to hydrogen, Linde is also focusing on large-scale technical energy storage and the further processing of basic materials for the chemicals industry.

In July 2015, the world's largest plant for the generation of green hydrogen went into operation in EnergiePark Mainz. The joint venture is seen as a lighthouse project in the field of regenerative energy. The main aim of EnergiePark Mainz is to use excess electricity from regenerative electricity sources such as wind power plants to separate water into oxygen and hydrogen. The green hydrogen generated in this manner can be stored and then used later to generate electricity again, among other possible uses.

In October 2015, the joint venture H<sub>2</sub> Mobility, which has its registered office in Berlin, went into operation. This joint venture between various industrial corporations, including Linde, aims to gradually expand the network of hydrogen filling stations in Germany. The aim is to have around 400 hydrogen filling stations in operation by 2023.

In our Engineering Division, research and development funds were allocated in 2015, as in previous years, primarily to the development of new and existing technologies in the following product lines: natural gas plants, air separation plants, olefin plants, and hydrogen and synthesis gas plants. We are always looking for ways to make further improvements in the energy efficiency and environmental credentials of our plants.





**PRODUCTS** 



# 750 million

cubic metres of water was brought up to drinking water quality by Linde customers using our Solvocarb® process.

# 30 million

tonnes of CO<sub>2</sub>
was avoided by our
customers in one year,
just by applying two of
Linde's key
technologies.

17,000

tonnes
of NO<sub>X</sub> emissions
is saved annually by
customers using our
LoTOx™ technology, e.g.
in combustion
processes.

### **Products**

We are constantly looking at ways in which we can support our customers so that they can develop more sustainable processes; for example, through greater energy efficiency or reduced emissions. This range comprises processes and technologies required along the entire length of the value chain of renewable and fossil fuels: from production via conversion, transport and storage to their most efficient use. Healthcare is an important growth market. Our therapies for the treatment of respiratory disease and the services we are able to provide in the care continuum from hospital to home contribute towards improving patients' lives. In 2015, our Healthcare business generated revenue of EUR 3.665 billion.



### Materiality: Products (Energy and the environment, Healthcare)

## Key indicators

- Energy and the environment: Revenue, Group operating profit, ROCE →, research and development costs, research projects with an environmental benefit  $\rightarrow$ , emissions avoided in customer applications
- Healthcare: Revenue from Linde Healthcare, number of patients, number of hospitals supplied →



### **Targets**

### Group targets:

- Group operating profit of between EUR 4.2 billion and EUR 4.5 billion
- ROCE of between 9 percent and 10 percent in the 2017 financial year ->



### **Business** case

### **Financial**

- EUR 3.665 billion revenue at Linde Healthcare in 2015 →
- Contribution towards the target for Group operating profit in 2017 as a result of products in the energy and environmental sectors, gaining access to new markets and customers  $\rightarrow$
- Customers: Increased efficiency due to a reduction in energy consumption →

### **Environmental**

■ Emissions savings by customers have a positive environmental impact →

### Social

- 20,000 hospitals supplied with Linde Healthcare products →
- 1.7 million patients in their own homes who rely on Linde's respiratory care offerings (oxygen therapy, sleep therapy or ventilation therapy) →
- Linde Healthcare's innovative and efficient healthcare solutions help ease the burden on healthcare systems →

- → Opportunities in the healthcare market
- → Additional research and development projects (Annual Report)
- → Products for energy efficiency and climate protection
- → Avoiding customers' NO<sub>x</sub> emissions
- → Products for water
- → Waste





## CORPORATE GOVERNANCE

Good corporate governance is an essential prerequisite of our long term business success. Our corporate governance is based on the current version of the German Corporate Governance Code promulgated by the Government Commission. We comply to a great extent with the requirements of the Code and explain any deviations from the Code in our Annual Report. Corporate governance also means ensuring that all our employees comply with laws, regulations and voluntary commitments. The core guidelines governing the way we do business are set out in our Code of Ethics, which describes the principles we expect all Linde employees to adopt when dealing with business partners, officials, colleagues and society. Issues covered in the Code of Ethics include not only corruption, antitrust law and protecting company secrets, but also human rights, safety standards, work standards and social standards. Our Group-wide compliance organisation helps us to fulfil our commitments in our day-to-day business.

### Compliance organisation

Linde's compliance organisation is led by the Chief Compliance Officer. He is supported by our Head of Compliance and compliance officers in the divisions, regions and business areas, whose job is to advise employees, provide training and handle compliance cases. The Executive Board and the Audit Committee of the Supervisory Board are regularly informed about activities of the compliance organisation and about progress achieved.

### Prevention is key

Our objective is to prevent violations of laws and voluntary commitments. In our global compliance programme, we therefore especially rely on providing information, training and personal advice in the first place.

### Information

We use various means of communication to ensure that our employees are always kept up to date. Our global intranet portal provides information about compliance and compliance guidelines in up to 29 languages. Regular intranet news items, e-mail bulletins and features in employee magazines keep our employees updated on recent compliance topics. We also involve the Executive Board in our communication measures relating to compliance.

As one of the signatories of the UN Call to Action: Anti-Corruption and the Global Development Agenda, Linde has joined other companies in demonstrating its commitment to the ongoing development of efficient anti-corruption measures.





We offer training on compliance topics to our employees. New Linde employees get to know our compliance guidelines already during their induction process. Regular refresher courses complement our programme. Also, we provide targeted training on special topics to selected employees in relevant areas of the Group: for example, in 2015 around 10,000 staff took part in e-learning sessions on antitrust law. We also introduced a new e-learning programme in the reporting year for all executives and employees who award contracts for consultancy and other services on Linde's behalf. More than 22,000 members of staff across the globe were provided with classroom-based training between 2009 and 2015. During the same period, employees completed more than 138,000 compliance training sessions.

#### Advice

We operate compliance hotlines where our compliance officers provide support to all our employees, regardless of their role or seniority. In 2015, our compliance officers received more than 6,700 requests for legal advice. Most of the queries related to the prevention of corruption (27 percent) and to antitrust law (25 percent). We also received queries about export control (24 percent) and data protection (14 percent).

### Compliance

	2015	2014	2013	2012
Contacts Integrity Line	301	734	393	309
Investigations as a result of reports to the Integrity Line	141	127	88	77
of which referring to personnel topics (in %)	26.2	26.8	36.4	42.9
of which referring to potential offences against property (in %)	26.2	32.3	33.0	24.7
of which referring to potential discrimination (in %)	2.8	1.6	2.3	2.6
of which referring to potential conflicts of interest (in %)	13.5	9.4	12.5	15.6

### Handling misconduct

We actively encourage our employees to ask for advice early if they have any concerns or doubts and to report any violations of our Code of Ethics, other Group guidelines or legal requirements. Staff members can approach their direct line manager or department head, or they can contact a representative from Internal Audit, Human Resources or Legal Services. We also have a global reporting system, the Linde Integrity Line, which enables employees and external stakeholders such as customers and suppliers to report suspected violations. We ensure that each case is examined and processed within a short period of time. In accordance with our internal guideline, we ensure that reports remain confidential and that data is protected.

In 2015, the Integrity Line was contacted 301 times in total. Most of the concerns expressed related to personnel issues (26 percent) or to offences against property (26 percent). There were also reports of potential conflicts of interest (14 percent) and of discrimination (3 percent). During the reporting year, the Internal Audit department, Human Resources, Legal Services and the department for Safety, Health, Environment and Quality conducted investigations of 141 cases involving suspected misconduct (2014: 127).





As part of our global compliance programme, we have processes in place to identify and deal swiftly with any misconduct. If Linde employees violate laws or regulations or fail to comply with the Group's voluntary commitments, they must be prepared to face sanctions, which may include termination of employment. Violations may also give rise to criminal or civil proceedings. All the cases which have been reported via the Integrity Line and prove to be justified once they have been investigated entail consequences. In 2015, these consequences included training, warnings and dismissals. We apply the knowledge we gain from dealing with these cases to make further improvements to our compliance programme.

**MORE ABOUT** 

→ Supply chain



### SUSTAINABLE INVESTMENT

The capital market evaluates the sustainability of companies by making financial investments which take account of the principles of good corporate governance and ecological and social criteria. In 2015, we conducted over 1,000 conversations with investors around the world. At just under 60 conferences and roadshows, events for private investors and in the course of plant visits, we offered our shareholders and potential investors the opportunity to speak personally to representatives of the Group, including members of the Executive Board. The proportion of Linde investors who are focused on sustainability remained stable in the reporting year at 11 percent, the same as in 2014.

In 2015, Linde shares were again included in the global Dow Jones Sustainability Index (DJSI World). DJSI World is one of the most widely recognised sustainability indices. It lists the leading companies based on economic, ecological and social criteria. During the reporting year, we also qualified again for the inclusion in the FTSE4Good Index and the MSCI Global Sustainability Index.

### **MORE ABOUT**

→ Carbon Disclosure Leader Index for climate reporting



### ENGAGEMENT WITH STAKEHOLDERS

We consult our major stakeholders on a regular basis about key topics. Our most important stakeholders are our employees, customers and suppliers, and shareholders, as well as politicians, economists and scientists, non-governmental organisations, neighbours in the vicinity of our sites and the general public. We conduct regular analyses of the expectations of major shareholders in our Group, in order to identify at an early stage relevant topics, opportunities and risks.

In 2015, we once again conducted a survey within the Group about sustainability topics across all regions. The survey covered local activities and focus areas, collaborations with stakeholders and corporate citizenship within communities. We incorporate the results of the survey into our report.

We engage in debates with experts on specialist topics. The invitation to our Linde Technology Days 2015 on the subject of digitalisation was accepted not only by specialists within our Group but also by experts from other companies. The participants discussed how digitalisation is changing the business world and examined the opportunities and competitive advantages arising as a result.

We cooperate with scientific institutions and other companies to develop sustainable solutions; for example, in the fields of energy supply and mobility. Linde is one of the founding members of the Clean Energy Partnership (CEP), the largest demonstration project for hydrogen-based mobility in Europe. With the support of the German government, the CEP is testing fuel-cell vehicles and their refuelling systems. H<sub>2</sub> Mobility is the name of a joint venture between Linde and five leading industrial companies devoted to setting up a nationwide network of hydrogen filling stations in Germany. The network of public hydrogen filling stations in Germany is planned to be expanded to around 400 by 2023.

Linde is an active member of a number of German, European and international industry associations and trade associations. These include the German Chemical Industry Association (VCI), the German Engineering Association (VDMA), the European Industrial Gases Association (EIGA), the European Chemical Industry Council (CEFIC) and the Asian Industrial Gases Association (AIGA). From October 2014 to December 2015, our Chief Executive Officer, Dr Wolfgang Büchele, was Chairman of the North Africa Middle East Initiative of German Business (NMI). In November 2015, he was elected Chairman of the Committee on Eastern European Economic Relations. He assumed office on 1 January 2016. Linde is also a member of selected corporate responsibility networks. These include the UN Global Compact and econsense (the Forum for Sustainable Development of German Business).

### **Politics**

In 2015, our dialogue with politicians and society focused among other things on securing a competitive framework for the purchase of energy for our production plants and on the reform of the European Emissions Trading Scheme. Increasing use of renewable energy as a source of energy and ambitious climate protection targets in Germany and in Europe are creating significant opportunities for innovative and efficient technologies. On the other hand, the transformation of the energy system and ambitious climate targets result in rising costs for the industry. Against this backdrop, Linde has highlighted the importance of industrial gases for a variety of industrial value chains. In addition, we have provided information about the contribution made by our technologies to climate protection and















efficiency. One particular example of this is our commitment to the expansion of emission-free electromobility through hydrogen-powered and fuel cell vehicles.

As a group, Linde does not make donations to political parties or to individuals. In the United States, employees of Linde North America have formed a political action committee. Under the umbrella of this independent registered committee, employees collect donations to politicians, political parties and associations and make decisions as to how the funds will be used.

- → Involving employees
- → Social commitment
- → Materiality



## **CUSTOMER RELATIONSHIPS**

With its gases and services, Linde is a partner to companies in virtually all industry sectors. We supply our products and services to more than two million customers worldwide. A third of the revenue of our Gases Division is derived from around 500 major customers. These customers are the focus of our key customer management. We work constantly to ensure that we deliver customer satisfaction and continue to increase customer loyalty. Experts in our key customer management teams in all three operating segments exchange views about customer satisfaction initiatives within the Group, identify success factors and communicate them to other business units.

### Customer segmentation within the Gases Division

Food & beverages	Chemistry & energy	Metallurgy & glass	Manufacturing industry	Electronics	Healthcare	Others
Aquaculture & Water Treatment	Energy	Glass & Fibre Optics	Aerospace	Solar	Hospital Care	Education & Research
Beverages	Fine & Petro- chemistry	Heat Treatment	Automotive	Semiconductor	Homecare	Retail
Food	Pharma	Non-ferrous	Heavy Construction & Machinery	Chip Packaging	Gas Therapies	Distributors
	Other Chemistry	Steel	Light Metal Fab. & Prod.		Care Concepts	
		Other Metallurgy & Glass	Other manu- facturing			

In 2015, we expanded and extended two key initiatives to optimise our customer focus, with a particular emphasis on optimising order processing in all customer segments. We conducted for the second time a detailed survey of our customers in the 12 countries in which our Gases Division generates the most revenue. In future this survey should take place every 18 months. Based on the findings from the 2015 survey, we launched more than 120 additional projects across all our business units during the year. These projects focused on areas such as customer enquiries, invoices and delivery information. We were able to complete over half these projects successfully during the reporting year.

In the second major initiative we enable customers to rate Linde immediately after the completion of a transaction: for example, following a delivery or once the customer has received the invoice. The aim is to ensure that every customer complaint receives a prompt and appropriate response and that we provide systematic solutions to any potential problems. Customers will also receive information from us about the steps we are taking to avoid any recurrence of the event which provoked the complaint. We are already actively using customer feedback to improve our products and processes in all regions. By the end of 2016, we are planning to include the 29 countries which generate the most revenue in the programme. We also organise events for our customers, so that we can gain a better understanding of their needs. In the UK and Ireland, for example, four events during the reporting year were attended by more than 70 customers.





In 2015, our Group again received recognition from a number of different business partners. In the United States, we were given a Preferred Quality Supplier award by a major customer in the electronics industry. In China, we were awarded the status of Excellent Supplier by a customer in the telecommunications industry in recognition of our delivery reliability, quality and customer focus. For the sixth time in succession, Linde Gas Deutschland received an award from TÜV Saarland for service and customer satisfaction. More than 85 percent of TÜV customers questioned declared that they were satisfied or very satisfied with the service provided by Linde.

### **MORE ABOUT**

→ Products and technologies





### SUSTAINABLE PROCUREMENT

We have business relationships with suppliers in more than 100 countries. When selecting suppliers, we consider not only commercial criteria such as quality, price and availability, but also aspects such as safety and the environment. The most important items we purchase include energy, gas cylinders and valves, tanks and tank equipment, vehicles, IT products, services and components for production plants, as well as equipment and consumables for our Healthcare business. In 2015, we spent around EUR 10.5 billion (2014: EUR 11.6 billion) on purchasing goods and services worldwide. Of this amount, approximately EUR 9.0 billion related to the Gases Division and approximately EUR 1.5 billion to the Engineering Division. Around 78 percent of the total was spent in OECD countries. We purchase about 80 percent of the products and services locally in the countries where they are needed. This cuts down the distances travelled and reduces costs and emissions. Working with local companies also enables us to support the local economy.

### Global standards

In 2013, we introduced a global Code of Conduct for Suppliers. This sets out minimum requirements for safety, environmental protection, labour rights and human rights, and corporate integrity. Our new suppliers automatically sign up to the Code of Conduct and there has been a continual process of ensuring that those suppliers with whom contracts were signed prior to 2013 also agree to be bound by the Code. By the end of 2015, more than three quarters of our strategic suppliers had signed up to the Code. During the reporting year, we provided training on the implementation of the Code of Conduct for Suppliers to around 20 percent of employees working in procurement across the Group. More training is planned for 2016.

### Evaluating our suppliers

We conduct random checks to ensure that our suppliers comply with the guidelines set out in our Code of Conduct. We focus in particular on suppliers in higher-risk areas, such as environmental protection, safety and social responsibility.

In 2015, we reviewed just under 1,000 suppliers to ensure that they complied with our guidance on environmental and safety issues and other issues relating to sustainability. We investigate any breaches of our requirements by our suppliers. When conducting audits of construction sites during the reporting year, we identified around 200 deviations from the Code, some of which related for example to work permit procedures and construction traffic. We then worked together with the contractors affected to devise measures to improve the situation and to monitor their implementation. Six cases were reported in 2015 via our Integrity Line relating solely to supplier relationships. In one case, the supplier relationship was terminated.

We also involve selected suppliers in the training we deliver on safety and environmental management. More than 1,000 employees of contractors, for example, took part in our global initiative, which aims to strengthen awareness of safety risks on construction sites in our Engineering Division. Drivers who are contractors as well as our own Linde drivers regularly participate in driver education programmes and training. Measures such as these are designed to ensure that suppliers comply with our requirements and that we help our suppliers to improve their performance.





In 2015, we worked together with 25 selected suppliers to develop business continuity plans. These should ensure that the best possible way is found to resume business operations following unexpected events such as natural disasters. The aim was to identify any potential risks and to remedy any weaknesses in procurement processes. This led to some suppliers introducing back-up systems for critical processes and increasing inventory levels of finished products and critical equipment parts.

In addition, we invited selected Chinese suppliers once again in 2015 to a workshop focusing on the importance of sustainability for successful business relationships.

- → Working together with transport suppliers
- → Safety and environmental protection
- → Integrity Line
- → Conflict minerals





## SAFETY AND ENVIRONMENTAL PROTECTION



### Strategy

We have set up management systems for safety and environmental protection based on guidelines and standards which apply worldwide. We focus on minimising safety risks and reducing our environmental impact as well as on ensuring efficient use of energy, resources and materials. Our products and technologies also support customers' efforts to make their business processes safer, more efficient and more environmentally friendly.





We conduct audits worldwide to verify compliance with the prescribed standards. In order to identify areas of weakness, we record incidents which have particular relevance for safety and environmental protection. In addition, we document near misses from which lessons can be learnt. To ensure that we are prepared for events such as natural disasters, serious crime and pandemics, we also draw up risk management plans. Our top priority is the protection of our employees, business partners, neighbours and property.

We also cooperate with the authorities in the areas surrounding our business locations on safety and environmental protection. In the course of 2015, for example, we carried out safety training or emergency drills at around 70 sites worldwide, sometimes in conjunction with fire brigades or other local organisations.

### Audits and trainings

	2015	2014	2013	2012
Production sites where occupational health and safety audits have been conducted (in %)	52.6	57.4	58.1	62.4
Production sites where environmental audits have been conducted (in $\%)$	48.0	50.0	51.8	54.5
Number of conducted occupational health and safety audits <sup>1</sup>	745	749	790	769
Number of conducted environmental audits <sup>1</sup>	633	639	657	661
Employees of Linde Gas who have taken up HSE training opportunities (in %)	65.1	62.6	57.8	54.0

<sup>1</sup> The figures disclosed relate to internal and external audits conducted at production sites worldwide.

Within the framework of our global safety initiative, we conducted a worldwide survey among our senior managers at the beginning of 2015 about the Group's safety culture. Based partly on the results of this survey, existing targets and performance indicators were reviewed and redefined. Training schemes and awareness-raising activities with a regional focus support us in our goal to eliminate workplace accidents and traffic accidents. In the Regional Business Unit (RBU) South Asia & ASEAN, for example, some 6,000 employees and contractors in 80 locations took part in a Safety Day during the financial year. Within Linde Engineering, training was provided in 2015 in several regions to executives, employees and contractors on construction sites on how to handle safety issues and manage the risk of accidents. To increase the sense of personal responsibility for safety of all executives in the operating business units of the Group still further, we have set safety targets which are linked to the executives' salaries.

Once again in 2015, we received several awards in recognition of our commitment to safety and environmental protection. In the UK, for example, Linde won an Occupational Health and Safety Award from the Royal Society for the Prevention of Accidents (RoSPA). The organisation highlighted the involvement of our employees and the commitment of our leadership.





As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

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	2015	2014	2013	2012
Environmental complaints	17	25	24	14
Reportable environmental incidents	15	21	25	29

As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

We follow up suggestions about how we can make further improvements. In 2015, we received 17 complaints relating to the environment (2014: 25). Most of these complaints were concerned with the issue of noise. In addition, there were 15 reportable environmental incidents in 2015 (2014: 21). The Group did not have to pay any fines or compensation (2014: EUR 8,000).

- → Audits
- → Products and technologies



GLOBAL COMPACT. Principles covered.

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# **PRODUCTION**

Safety is our top priority at all our sites. Linde experts work at locations around the world to identify and assess risks which may arise from production. In addition, we have developed and introduced the Major Hazards Review Programme (MHRP) to record the greatest potential hazards on a uniform basis. This programme is used for the systematic evaluation of risks which might result in accidents or damage to property or to the environment. It helps us to minimise the risk of incidents arising as a result of safety shortcomings within our processes and is constantly being refined in order to address potential new risks. By the end of 2015, we had certified more than 90 percent of the relevant plants in accordance with the MHRP process. In the course of the reporting year, we also started to introduce a global standard for quantitative risk analyses on our sites.

We pay attention to production safety from the initial planning stage of our new plants. An individual safety plan is devised for each new plant. This plan is based on our own standards, the rules which apply in the relevant country and our customers' guidelines. Environmental protection is also included in the plan. In 2015, around 1,400 safety, environmental protection and health protection audits were carried out on our sites by Linde itself or by third parties. Our internal audits are conducted in accordance with the provisions of the international certification processes for quality, environmental management and safety (ISO 9001, ISO 14001 and OHSAS 18001). Several of our sites also have external certifications. In 2015, more sites for instance in Ecuador, China and Romania were externally certified in accordance with environmental management standard ISO 14001. In Tunisia and Italy, additional sites were externally certified for the first time according to OHSAS 18001, the standard for occupational health and safety management systems. The Group's plants supplying carbon dioxide to the food industry for the production of carbonated drinks are certified to the food safety system certification FSSC 22000.

### Certified sites (in percent)

	2015	2014	2013	2012
Production sites certified to ISO 9001	<b>√</b> 66.4	<b>√</b> 72.1	<b>~</b> 77.9	79.6
Production sites certified to ISO 14001	<b>✓</b> 31.0	<b>~</b> 30.5	<b>~</b> 31.8	31.8
Production sites certified to OHSAS 18001	<b>✓</b> 16.1	<b>~</b> 15.7	<b>~</b> 17.8	17.7

Assured by KPMG





As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year.

Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.



GLOBAL COMPACT. Principles covered.

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# **TRANSPORT**

Our safety management also covers the transportation of products. We work constantly on reducing the number of transport-related incidents. In 2015, as part of our global safety initiative, we reviewed our performance indicators and targets. Until now, our target has been to halve the number of preventable serious transport incidents per million kilometres travelled by the end of 2017 compared with 2012. In future, incidents previously classified as non-preventable will be included in a new fiveyear target yet to be defined. The Group is planning to communicate the new target in the 2016 Financial Report at the latest. According to the new definition, Linde has been able to reduce the frequency of all serious transport incidents per million kilometres travelled since 2012 by around 16 percent.



To improve transport safety, we have defined a number of different measures. We regularly review local and global minimum standards for vehicle activities and integrate them into our global standard database. In 2015, our safety standards were enhanced, for example, to reduce risks arising from invehicle distractions. We also provided training during the reporting year to support the global directive on the fitting and use of vehicle mirrors within our commercial vehicle fleet. This initiative aims to reduce the risks from blind spots around vehicles. Drivers employed by our transport service providers also participate in our regular education programmes on transport standards. Since 2007, uniform safety and operational standards have applied throughout the Group to drivers working for our transport service providers. Compliance with these standards is a condition set out in the purchase agreements made with these contractors.









#### Transport

		2015	2014	2013	2012
Distance driven by Linde's transport fleet and its contractors	million km	1,010	975	963	969
Serious transport incidents involving trucks <sup>1</sup> ✓	per 1 million km	0.101	0.104	0.139	0.121

Assured by KPMG

In 2015, we also expanded our defensive driving training programme beyond heavy goods vehicle drivers, making it compulsory for drivers of all vehicle types. Over the past three years, we have provided training to more than 15,000 passenger car and light vehicle drivers worldwide.

In order to obtain information vital to the improvement of transport safety, we launched courses during the reporting year designed to improve the skills of our internal incident investigators in several countries, including some in Asia. The aim is to conduct incident investigations consistently throughout the Group. We are planning to extend the course to North and South America in 2016. Linde is also investing in technology which will provide information that will help determine the causes of incidents. By the end of 2015, we had fitted on-board camera systems to a quarter of our global commercial fleet to record incidents. The proportion of the fleet fitted with such systems is expected to increase in 2016. Once again, we recognised many drivers in various regions in 2015 for their personal commitment to safety and their incident-free records.

#### **MORE ABOUT**

- → Transport emissions
- → Measures taken to reduce transport emissions



<sup>1</sup> Severe traffic incidents, e.g. with serious 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. The performance indicator was redefined in 2015. The new definition includes not only preventable transport incidents but also incidents previously classified as non-preventable. The figure has been recalculated for previous years.

# PRODUCT STEWARDSHIP

We monitor product safety along the entire product value chain. Our global standards relate not only to the manufacture of products and their transportation, but also to the use of those products. We examine potential risks which might arise from existing products, products which are used in new applications or new products which have been recently launched onto the market. Key aspects to consider when we conduct risk assessments are the quantities of products sold and the properties of products such as toxicity. For locations where particularly sensitive chemicals are produced or handled, we have devised standardised product safety risk assessments.

In 2015, we developed a new global guideline on product stewardship, which brings together existing provisions relating to the handling of products. During the reporting year, we also continued to work on safety initiatives relating to acetylene gas cylinders. In various countries, we are testing the use of a new type of sealing cap for acetylene cylinders which is better at preventing damage to the valves and gas leaks when the cylinders are being transported in customers' vehicles. In 2014, we had already launched a training initiative to raise awareness among customers of potential risks which might arise when acetylene is transported. We have invested a total of around EUR 40,000 in these measures.

We hold around 25,000 safety data sheets for our products in a variety of languages. We are currently implementing new software to help develop an automatic system for generating consistent product information in all regions by the end of 2016 in all the languages required.

Depending on the risk potential, we also assess whether conditions are in place for the proper handling of gases on customer sites. In addition, we offer services such as inspection, maintenance and repairs relating to the supply of gases to the customer. We also organise training for both our employees and our customers to promote responsible handling of our products. Through an in-house training programme, we provided instruction in 2015 to around 6,500 participants in ten European countries on how to handle gases safely.

### International standards

We continuously check the Group's compliance with legal regulations. We provide information on a global internet platform about how Linde complies with the provisions of REACH, the EU Regulation on chemicals. We are currently preparing for the third registration phase in 2018. Only a small number of the substances we produce are required to be registered under REACH. To ensure the successful implementation of the provisions of REACH, we also seek to engage with customers and suppliers and work together with the European Industrial Gases Association (EIGA). When operating production plants for medical gases, our Healthcare product area complies worldwide with Good Manufacturing Practice for pharmaceutical products. As the legally responsible manufacturer of medical devices, we implement the requirements of the European RoHS Directive (Restriction of Hazardous Substances) in our Healthcare business around the world.





Through our product stewardship programme, we also support the Global Product Strategy (GPS) devised by the International Council of Chemical Associations for the safe handling of chemical substances and the United Nations' Globally Harmonised System (GHS) of Classification and Labelling of Chemicals. To ensure the highest possible levels of safety for patients over the entire life-cycle of our pharmaceutical products, such products are monitored on a continuous basis using the Vigilance Signal Detection System. Regular analysis is performed on the safety of pharmaceutical products.

### **MORE ABOUT**

- → Supply chain management
- → Safety training programmes
- → Implementation of REACH



GLOBAL COMPACT. Principles covered.

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# RAW MATERIALS

Efficient use of resources enables us to reduce our environmental impact and cut costs. The most important raw material we use in the production of our gases is air. More than 80 percent of the weight of gases sold by Linde in 2015 was derived from this renewable resource. In the case of carbon dioxide, another of the Group's main products, around 80 percent of the raw material required is recovered from recycling processes. Another major raw material we use is natural gas. This is used principally in hydrogen plants. In addition, key materials processed include steel and aluminium, required for example for the manufacture of components used in plant construction. In order to manufacture products, energy is needed as fuel.

Our key packaging material is gas cylinders. In general, these are re-used. A typical Linde cylinder has a lifespan of many years and is refilled on average four times a year. Currently, there are around 25 million Linde cylinders in circulation. We examine our supply chain for conflict minerals listed in the US Dodd-Frank Act. Against this background, for example, all Linde Electronics suppliers are required to confirm that their products are conflict-free. We check that this is indeed the case when conducting our regular supplier audits.

### Usage of resources and materials (in tonnes)

	2015	2014	2013	2012
Raw materials and supplies	54,170	52,770	57,750	57,170
Packaging materials <b>▽</b>	4,130	5,580	3,990	4,765

Assured by KPMG

### Renewable raw materials

Our technologies underpin the use of renewable energy and renewable raw materials. For example, we are participating in a pilot project launched in 2015 in Mainz, Germany. In what is currently the largest electrolysis plant in the world, surplus renewable energy, especially wind power, is being converted into hydrogen. In Scandinavia, our customers have been able to purchase hydrogen produced entirely from renewable energy such as wind power since 2014 which is certified with a quarantee of origin.

#### **MORE ABOUT**

- → Use of energy
- → Waste and recycling
- → Technologies for renewable energy



i As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.



# **ENERGY AND CLIMATE PROTECTION**

Linde understands and knows about the environmental impact of its processes and works constantly to develop solutions which will limit and control such effects. We focus not only on reducing emissions, but also on making continual improvements in our operations to ensure the efficient use of resources, materials and energy. We provide our customers with gases and technologies which decrease the consumption of natural resources and encourage the use of renewable energy.

We control our energy consumption and greenhouse gas emissions worldwide and report thereon based on the standards set out in the internationally recognised Greenhouse Gas Protocol. To make the  $\rm CO_2$  balance sheet of the main air gases transparent for our customers, we use a standard formula which has been externally certified. In 2015, Linde was included in CDP's regional Carbon Disclosure Leadership DACH index for the fourth time in a row. Through this index, the independent organisation recognises the quality of companies' reporting on climate protection.



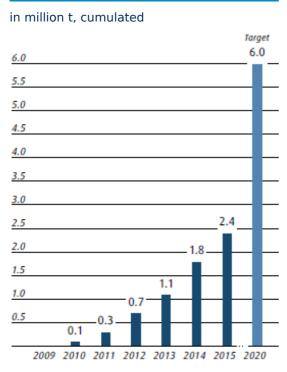




# Global targets

Around 60 percent of the Group's total  $CO_2$  emissions are by-products of electricity generation by energy providers and are reported by us as indirect emissions. Most of this electricity is required for the operation of more than 400 air separation plants. We have already exceeded the global target we had set ourselves of improving the average energy intensity of our air separation plants by 5 percent by 2017. By the end of 2015, we had achieved efficiency improvements of more than 6 percent compared with the reference year 2008. The benchmark is the global average efficiency of the air separation plants operating at the design plant load. This was possible mainly as a result of continuous improvements in efficiency in the air separation plants newly brought on stream: for example, by using more efficient compressors and turbines.

# Climate protection target: avoidance of 6 million tonnes of $CO_2$ by 2020



Direct emissions at Linde stem mainly from the operation of hydrogen and synthesis gas plants (HyCO plants). By 2015, we achieved the target we had set ourselves of increasing the energy efficiency of our HyCO plants installed around the world by 2 percent. We had increased the energy efficiency of the plants concerned by 2.7 percent by the end of the reporting year compared with the reference year 2009.

We have therefore set ourselves a new climate protection target. By 2020, we are seeking to avoid a total of 6 million tonnes of  $\mathrm{CO}_2$  emissions compared with the year 2009. To meet this target, we are focusing on technical improvements in plant design and more efficient production processes in our HyCO plants and air separation plants.

Another key focus of our climate protection measures is the transportation of products. Our own transport fleet and transport service providers carrying Linde goods covered more than 1 billion kilometres in 2015. Optimised routes, better use of

transport capacity and defensive driving training helped us reduce the number of kilometres travelled, cut the amount of fuel consumed and bring down the level of transport emissions.





#### Greenhouse gas emissions

	2015	2014	2013	2012
Direct greenhouse gas emissions (Scope 1)				
CO <sub>2</sub> emissions (in million t)	7.1	7.3	7.2	7.6
of which by HyCO plants (in million t)✓	4.0	4.0	4.2	4.3
Linde transport fleet¹ (in million t CO₂e)✓	0.92	0.88	0.49	0.50
Other greenhouse gases² (in million t CO₂e)✓	1.7	1.5	1.5	0.4
Total (in million t CO <sub>2</sub> e)*	9.7	9.7	9.2	8.5
Indirect greenhouse gas emissions (Scope 2)				
CO <sub>2</sub> emissions (in million t)	15.4	15.0	13.0	12.8
of which by air separation plants (in million t)	13.7	13.5	11.8	11.6
Total Scope 1 and 2 emissions (in million t CO₂e)✓	25.1	24.7	22.2	21.3
Emissions per million EUR sales (in t CO <sub>2</sub> e)	1,399	1,449	1,333	1,345
Emissions per Linde employee (in t CO <sub>2</sub> e)	389	377	350	339
Other indirect greenhouse gas emissions (Scope 3)				
Business travel³ (in thousand t CO₂e)✓	68.8	72.9	81.0	34.1

Assured by KPMG

- 1 From 2015, this figure also includes greenhouse gas emissions generated by Linde's transport contractors. The 2014 figure has been recalculated.
- 2 This includes greenhouse gases specified in the Kyoto Protocol: methane (CH<sub>4</sub>), nitrous oxide (laughing gas, N<sub>2</sub>O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). In 2014, Linde has refined the determination method of the indicator for these GHGs to include additional emitters and emission sources. The reported figure for 2013 was recalculated based on this new method.
- 3 Since 2014, we also include the Radiative Forcing Index (RFI) to calculate emissions from business travel. Thereby, we take into account the higher impact of air travel on the greenhouse effect. Emissions for the year 2013 have been re-calculated accordingly.
- As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

# **Energy consumption**

As an energy-intensive company, we require a reliable and competitively priced energy supply and are constantly reviewing the energy efficiency of our production processes. In 2015, our energy consumption was around 1 percent higher than in 2014. In the reporting year, we took part in the European Union's Emissions Trading System at seven of our production sites. There were around 1.1 million tonnes of CO<sub>2</sub> emissions at these plants during the year. Linde was allocated emissions allowances for around 0.9 million tonnes of CO<sub>2</sub> in 2015. Further certificates were purchased.

In the reporting year, we identified some 200 projects around the world that helped reduce our energy consumption and  $CO_2$  emissions. Implementing these projects generated cost savings of over EUR 23 m in 2015 and avoided around 160,000 tonnes of  $CO_2$  emissions. For example, we increased the energy efficiency of compressors at 14 production sites by replacing old installations with new and more energy-efficient models. As a result of these projects alone, we achieved cost savings in the reporting year of over EUR 1.6 m.





### Energy consumption (in million MWh)

	2015	2014	2013	2012
Electricity consumption	26.8	26.2	23.4	23.5
of which by air separation plants*	23.9	23.5	20.7	20.8
Natural gas consumption*	39.5	39.5	36.4	35.9
of which by HyCO plants*	25.4	24.9	23.0	22.8
Consumption of other energy sources 1 ✓	12.6	12.2	14.8	13.4

Assured by KPMG

- 1 Examples of other energy sources are heating oil, biofuel energy, propane, butane, thermal energy and diesel fuel. From 2015, this figure also includes diesel consumption by Linde's transport contractors. The 2014 figure has been recalculated.
- As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

In Europe, we worked on the implementation of the provisions of the European Union's Energy Efficiency Directive (EED). These include regular energy audits for companies at production sites, distribution sites and offices, or alternatively certification in accordance with ISO 50001. The global standard testifies to systematic energy management, which allows efficiency potential to be recognised. Since 2012, around 85 percent of Linde Gas production plants in Germany have been certified according to ISO 50001. We are also exploring the use of renewable energy, the current level of which largely reflects the energy mix applicable in the various regions.

In the US State of California, we won the 2015 COOL Planet Award presented by Southern California Edison and non-profit organisation The Climate Registry in recognition of our energy management and commitment to reducing greenhouse gases.

# Products for energy efficiency and climate protection

We offer our customers various solutions to make production and energy generation processes more environmentally friendly. Our gases and technologies help our customers to reduce emissions to a large extent. In oxyfuel plants, which are used for example by the glass and steel industries, the combustion air is enriched with oxygen, resulting in much more efficient combustion than if normal ambient air was used. Hydrogen produced by Linde is utilised by the oil industry in desulphurisation. Desulphurised fuel combined with a filter significantly reduces emissions of soot particles, which like CO<sub>2</sub> contribute to the greenhouse effect. In 2015, the use of these two technologies alone by our customers avoided around 30 million tonnes of CO<sub>2</sub>.

Our products are also deployed in the mobility sector to reduce environmental pollution. The use of liquefied natural gas (LNG) or hydrogen reduces or eliminates emissions from cars, buses, trucks and ships. We are investing in the development of forward-looking, efficient refuelling technology as well as cooperating with partners to set up a supply infrastructure. In the UK, we introduced cryogenic refrigeration trucks in 2015 which use liquid nitrogen as the refrigerant. Not only do these trucks emit 64 percent less CO<sub>2</sub> than conventional trucks with diesel-powered refrigeration units, they are also significantly quieter. This means that they can be used around the clock even in urban areas with noise restrictions.





In addition, we are researching projects involving the recycling and storage of CO<sub>2</sub>. In Germany, we opened our own Pilot Reformer research facility in Pullach in 2015. New processes for the production of synthesis gas using CO<sub>2</sub> will be tested at this facility. In Sweden, Linde won an environmental award in the reporting year for a process which converts the waste product CO<sub>2</sub> into carbonic acid, which can be used in the drinks industry, in freezing or in firefighting.

### Materiality: Energy and climate protection



# •• Key indicators

- CO<sub>2</sub> emissions
- **Energy consumption**
- Energy efficiency



# Targets

- 5 percent energy intensity at installed air separation plants by 2017 (base year 2008)
- 6 tonnes of CO<sub>2</sub> emissions in our HyCO plants and air separation plants by 2020 (base year 2009)



#### **Business** case

#### **Financial**

- Cost savings of EUR 23 m as a result of energy efficiency projects in 2015
- Contribution towards the target of reducing gross costs by a total of between EUR 750 m and EUR 900 m in the four-year period from 2013 to 2016 →
- Contribution towards the target for Group operating profit in 2017 as a result of products in the energy and environmental sector, gaining access to new markets and customers ->

#### **Environmental**

■ 2.5 million tonnes of CO<sub>2</sub> emissions avoided since 2008 due to improvement in energy intensity at air separation plants

### Corporate governance

Compliance with legal and regulatory provisions

### **MORE ABOUT**

- → Climate protection innovations
- → Regulatory risks
- → Incorporation of climate risks into Group risk management
- → Clean technology
- → Collection of data



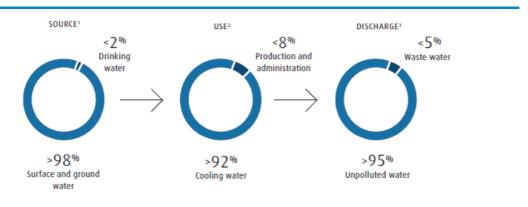


# **WATER**

We work continuously to ensure the efficient use of water on our sites and to reduce emissions to water. We offer our customers products and technologies which can be used throughout the water cycle.

More than 85 percent of our water requirement is used in cooling processes. Most of this cooling water is just heated, and can subsequently be fed back into the water system without the need for further treatment. We take care to ensure that the temperature reached does not pose any risk to the surrounding ecosystem. The rest of our water requirement is used in the manufacture of products, as a source of steam and in office buildings.

#### Water



- More than 98 % of the water used at Linde's sites comes from surface water, sea water or ground water sources which do not meet drinking water quality standards. Less than 2 % of the demand at Linde's sites is covered by water which meets drinking water quality standards.
- More than 92 % of the water used in Linde's processes is used for cooling purposes, including once-through cooling water and sea water. Less than 8 % of the water used in Linde's processes is consumed in the process or discharged into the sewerage system after use.
- More than 95 % of the water discharged is unpolluted cooling water which can be fed back into the water system without need for further treatment. Less than 5 % of the discharged water is piped to a waste water treatment plant or facility: e.g. boiler blowdown, purge from cooling towers, and sanitary foul water.

Our total water use in 2015 was around 681 million cubic metres (2014: 682 million cubic metres). Of this, our water consumption, excluding once-through water, was around 52.8 million cubic metres (2014: 50.7 million cubic metres). We use closed-loop systems as a means of reducing our water consumption, as these enable water to be used several times. The amount of waste water reported at our locations worldwide in 2015 was around 14.0 million cubic metres (2014: 13.2 million cubic metres). In accordance with the regulatory requirements on site, we measure emissions of phosphates, nitrates and organic compounds to water.





### Emissions to water<sup>1</sup> (in tonnes)

	2015	2014	2013	2012
Chemical oxygen demand (COD)✓	1,430	1,585	2,157	201
Biochemical oxygen demand (BOD)✓	498	544	163	97
Nitrates <b>√</b>	336	295	89	52
Phosphates*	47	39	3	4

Assured by KPMG

- 1 In 2015, we have further improved the determination method for emissions to water (COD, BOD, nitrates, phosphates) applying measurement and extrapolation models. Although there are inherent limitations by applying this methodology, full measurement of these emissions by all Linde sites is considered economically not viable. The reported figures of the water emission indicators of the Linde Group therefore serve as an approximation. The figures for 2014 have been restated accordingly.
- As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

### Initiatives for efficient use of water

In 2015, we reviewed water supplies at our key production sites worldwide. Just under one fifth of these sites are in regions which experience water stress or water scarcity according to the definition of the World Business Council for Sustainable Development (WBCSD). In Europe, Linde experts in plant construction, water and water chemistry joined forces in 2014 to create an interdisciplinary network. The aim of this project is to optimise the use of water and cooling water systems. Since the beginning of the project, we have inspected 39 plants at 19 locations in the region and we have implemented a number of improvements. In two air separation plants, the quantity of water and waste water being processed has been reduced by 13,000 cubic metres per annum as a result of optimising cooling circuits, equivalent to cost savings of around EUR 15,000. We expect this initiative to produce total cost savings of over EUR 2 m between 2014 and 2016. The cost savings achieved so far have already exceeded the investment made in the project. In the course of 2015, we also delivered training to 50 employees in Europe on topics such as saving water, water treatment and handling claims. We want to expand this programme over the coming years.

We also offer our water management expertise to our customers. In 2015, we launched an initiative which analyses the entire water circuit in customers' new plants. The main aim is to use fresh water in a way which is resource-efficient in regions with water scarcity and to recycle the waste water produced. We are working together with universities and other partners on research into new methods of water processing which will reduce the use of chemicals when waste water is treated.

## Products for water protection

Our gases and technologies are used to eliminate harmful substances in drinking water and bodies of water and also help to treat waste water. This also enables us to support industrial customers in meeting stricter environmental regulations. Around 750 million cubic metres of water, for example, was brought up to drinking water quality in 2015 in just six countries using the Linde Solvocarb® process installed by our customers. After a major fire in 2015 in a fertiliser warehouse in southern Germany, our Solvox® process helped to reduce the concentration of ammonium nitrate in a river to such an extent that the fish deaths feared were prevented. The process is also used successfully in river desalination.

#### **MORE ABOUT**

→ Technologies for water







GLOBAL COMPACT. Principles covered.

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# **AIR EMISSIONS**

We monitor emissions worldwide not only of greenhouse gases but also of air pollutants in accordance with relevant local legislation. Normally, the operation of our air separation plants results in hardly any direct emissions to air. Other production processes, for example in hydrogen plants and steam boilers, can result in emissions of inorganic gases such as carbon monoxide (CO), sulphur oxides ( $SO_X$ ) and nitrogen oxides (NO<sub>x</sub>). Volatile organic compounds (VOCs) are mainly released during the coating and cleaning of metals such as those used in gas cylinders, storage tanks and plant components.

We work together with our customers and with scientific and research partners to develop solutions which will reduce emissions to air. LoTOx™ technology is being used, for example, to capture and store nitrogen oxides from waste gases arising from combustion processes. By the end of 2015, we had installed more than 30 such systems in customers' plants around the world, especially in the United States and China. These systems are capable of preventing more than 17,000 tonnes of  $NO_X$  per annum being emitted into the air.

### Emissions to air<sup>1</sup> (in tonnes)i

	2015	2014	2013	2012
VOC (volatile organic compounds)✓	598	657	92	109
NH <sub>3</sub> (ammonia) <sup>2</sup>	73	165	12	11
CO (carbon monoxide) ✓	3,213	3,325	2,177	2,895
NO <sub>x</sub> (nitrogen oxides)✓	6,443	6,762	6,273	5,556
SO <sub>x</sub> (sulphur oxides)*	570	447	122	391

#### Assured by KPMG

- 1 In 2014, Linde has refined the determination method for emissions to the air. Where available, measurements were used for the new methodology. For production sites for which no measurements were available, we estimated the figures. Where possible, the reported figures for 2013 were recalculated based on these new methods. The determination method for VOC emissions could not be applied retroactively. Therefore, the values for this indicator are not comparable for the years 2013 and 2014.
- 2 The determination method for ammonia was revised during 2015, Reported ammonia emissions include uncontrolled releases to the atmosphere and since 2015 have been extended to include controlled releases to abatement systems at certain sites. The figure for 2014 has been restated accordingly.
- As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.







GLOBAL COMPACT. Principles covered.

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# **WASTE**

The main waste products of our Group are oil and oleaginous materials, waste which contains metal and gas cylinders which have reached the end of their useful life. By using closed-loop systems for products, we increase our material efficiency and resource efficiency and cut the quantity of waste produced. Lime slurry, for example, a by-product of acetylene production, can be re-used in other industries without any further treatment being required. We dispose of any waste which is not suitable for re-use or recycling in an environmentally sound manner. Thereby, we classify our waste as hazardous or non-hazardous in accordance with the relevant legislation in the country in which we are operating. When devising measures to achieve further reductions in waste, we focus in particular on hazardous waste. The overall amount of waste fell in 2015 compared with 2014, as less waste was produced on construction sites.

#### Waste and recycling

	2015	2014	2013	2012
Total waste (in thousand t) <sup>1</sup>	71.5	94.1	124.9	81.5
Non-hazardous waste (in %)*	69	76	76	70
Hazardous waste (in %)*	31	24	24	30
Recycled waste (in %)*	43	56	65	41
Incineration waste (in %) <sup>2</sup> ✓	20	15	14	18
Landfill waste (in %)*	21	19	10	26
Other disposal methods (in %)*	16	10	11	15

Assured by KPMG

- 1 The lower figure for waste in 2015 is mainly due to a reduction in construction waste.
- 2 Incineration waste is partly used for heat recovery.
- As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

Our waste management objectives are based on regional requirements, as the type of waste produced differs greatly from one site to another depending on the processes being carried out. In the reporting year, we achieved the target we had set ourselves of increasing the waste recycling rate in the UK to 70 percent by 2015. By the end of 2015, a 71 percent recycling rate for waste was achieved in the region. Across the Group, the recycling rate was around 43 percent. During the reporting year, as part of a national campaign in New Zealand, we expanded our activities relating to the proper disposal of environmentally harmful refrigerants such as chlorofluorocarbons (CFCs), which are used for example in old refrigeration and air conditioning units. Working together with other companies, we offer free collection and disposal to both customers and noncustomers. Since the beginning of the campaign in 1993, more than 290 tonnes of refrigerants have been collected. This is equivalent to a reduction in  $CO_2$  emissions of up to 260,000 tonnes. Since 2009, we have been involved in a joint venture with a Californian waste service provider in the US to extract fuel and energy from waste. Around 2.3 million tonnes of waste is recycled annually, which is sufficient to provide liquefied biogas to power 300 refuse vehicles. Additionally, the waste service provider's site provides electricity for around 8,500 households in the region.





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GLOBAL COMPACT. Principles covered.

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# **ECOSYSTEMS**

When planning new sites, we use standardised processes to examine the impact on the environment. At our new acetylene plant in Immingham in the UK, which opened in 2015, we worked together from the beginning with a governmental environmental protection organisation, to ensure that nature was protected as much as possible during the construction work as well as during the subsequent operation of the plant. In our efforts to protect ecosystems, we also follow internationally recognised guidelines, such as the Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment issued by the United Nations. Our evaluation considers ecologically sensitive areas, bodies of water and the impact on plants and animals. Most of our sites are located in industrial zones or business parks. If these sites are directly adjacent to protected areas or other sensitive habitats, we seek to minimise any potential adverse impact we might have on such areas, for example by implementing noisereduction measures.

In 2015, we conducted a review of more than 600 of our production sites. The aim of the review was to establish whether any of these sites were located in the vicinity of international protected areas. None of the sites investigated lay within or in the vicinity of a particularly sensitive protected area as defined by the International Union for Conservation of Nature.







# GLOBAL COMPACT. Principles covered.

# **EMPLOYEES ACROSS THE WORLD**

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PROGRESS	Diversity Initiatives launched on diversity in the workplace, e.g. in Asia, North America and Europe	Safety Safety targets set which are linked to the salaries of senior managers in order to increase their sense of responsibility with regard to safety issues	Social standards  200 audits covering social topics conducted at Linde locations in the past 3 years
INDICATORS	Developing talent  14 m  euro expenditure on training programmes  ->	Diversity  14.8 %  women in senior management positions  →	Donations  2.4 m euro donated for social causes
OUTLOOK	Attractive employer  Step up activities aimed at winning and retaining talented employees	Training Increase the number of places for new apprentices and trainees in Germany	Health management  Provide new ways in which employees can achieve a good work-life balance; introduce preventive healthcare

Factors which are crucial to the long-term success of our Group are the commitment, motivation and qualifications of our employees. We therefore want to win talented employees, to support their professional development and to be an attractive employer.

At the end of the year 2015, Linde employed a total of 64,538 staff, a decrease of 1,053 compared with the previous year-end. During the reporting year, we refined the structures and processes within the Group to make us even more responsive to customers' wishes, increase our competitiveness and intensify our focus on growth areas. 11.2 percent of employees left Linde in 2015 at their own request. Depending on the region, this turnover rate ranged from 2.1 percent in the Regional Business Unit (RBU) Southern Europe to 22.7 percent in North America. The overall staff turnover rate, which includes employees retiring and being dismissed as well as employees reaching the end of temporary contracts, was 18.7 percent.





### Employees worldwide

	2015	2014	2013	2012
Group (as of Dec. 31)	64,538	65,591	63,487	62,765
Gases Division	52,395	53,436	51,536	51,405
EMEA	21,067	21,779	21,544	21,636
Asia/Pacific	11,533	12,175	12,122	11,809
Americas	19,795	19,482	17,870	17,960
Engineering Division	7,038	7,330	6,997	6,564
Other activities	5,105	4,825	4,954	4,796
Employees in production	21,194	21,684	20,200	19,829
Employees in sales, marketing and distribution	31,649	31,851	31,778	31,249
Employees in research & development	348	390	367	385
Employees in administration	11,348	11,666	11,141	11,302
Temporary staff (in %)	8.6	8.6	6.2	6.4
Staff turnover rate (in %) <sup>1</sup>	11.2	10.0	9.4	10.1
Average length of service (in years)	9.0	8.4	8.9	9.3

<sup>1</sup> Staff turnover rate relates to employees who left the Group voluntarily during the period under review.



As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

# WINNING TALENT

Linde is competing globally for skilled employees. We want to win the best talent for our Group and to build long-term loyalty amongst our employees. We therefore cooperate with universities and research institutions around the world in order to attract the interest of newly qualified graduates. We also provide training opportunities in various technical and commercial areas. In Germany alone, we offer training in 21 different professions. In 2015, half of one year's cohort of apprentices and trainees in Germany were taken on as permanent employees at the end of their vocational training and a further 47 percent were offered a fixed-term contract. The number of apprentices and trainees as a proportion of the total number of employees in the Group was 0.9 percent in 2015, of which 53 percent were in non-German companies. From 2016, we are planning to increase the total number of places for new apprentices and trainees in Germany to 100. In 2015, 82 people began apprenticeships and traineeships at Linde in Germany. For autumn 2016, we have scheduled to start the new cohort of our European Graduate Programme. This programme offers talented young people practical insights into various areas of our Group within Germany and outside Germany and prepares them for future management roles.

#### Employee training

	2015	2014	2013	2012
Employees who attended training opportunities (in %)	56.9	66.2	60.3	61.0
Average training days per employee	2.9	3.1	3.0	2.6
Average expenditure on training programmes per employee (in €)	384	350	341	386
Apprentices and trainees in total workforce (in %)	0.9	0.9	0.9	0.9
Apprentices and trainees in Germany (in %)	3.0	3.2	3.1	3.2

As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year.

Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

In 2015, we stepped up our activities aimed at winning and retaining talented employees. Measures relating to our corporate culture which will enhance our attractiveness as an employer are one of the areas on which we are focusing. Here we rely on transparency. Under a pilot scheme in North America, we established a presence in 2015 on a social media platform where applicants and employees can rate companies.

# Professional development

We promote the individual development of our employees. In 2015, we invested around EUR 14 m in the professional development of our staff. Linde University provides professional development programmes covering such subject areas as personnel management, intercultural communications and diversity. During the year, for example, around 500 managers in the Regional Business Unit (RBU) South Asia & ASEAN took part in training on handling change processes within the Group. Besides, more than 80 employees and managers in North America completed training on intercultural communication.

As part of the Group-wide Six Sigma programme, we provide employees with training on successfully identifying opportunities for improvement in all areas of the Group, from production to administration. Projects during the year focused on more efficient processes and the quality of products and services. In 2015, Lean Six Sigma training was provided to more than 1,100 employees. Over 800 optimisation projects were completed, leading to total cost savings of more than EUR 40 m.

### Materiality: Talent management



# ■■■ Key indicators

- Number of employees →
- Training days per employee
- Expenditure on training programmes ->
- Women in management positions →
- Staff turnover rate →



## Targets

- 14 % women in the first management tier below the Executive Board by 2017, 18 % by 2022 ->
- 17 % women in the second management tier below the Executive Board by 2017, 22 % by 2022 ->



### **Business** case

#### Social

- Jobs with attractive working conditions
- Opportunities for employees to obtain qualifications and for their professional development →
- Contribution towards a policy of gender equality →

#### **Financial**

- Productivity as a result of skilled and motivated employees
- Increasing the attractiveness of Linde as an employer
- Cost savings of EUR 40 m in 2015 from the implementation of optimisation projects by employees ->





# REMUNERATION AND SOCIAL BENEFITS

The remuneration package of our employees comprises not only a fixed salary component but also variable remuneration components depending on the position of the employee within the Group. We also offer our staff various additional benefits in line with local conditions and in response to the competition. These benefits include occupational pensions and contributions towards health insurance or medical screening. Personnel expenses in 2015 totalled EUR 3.928 bn (2014: EUR 3.536 bn), of which EUR 3.378 bn (2014: EUR 3.069 bn) related to salaries (including social security contributions) and EUR 307 m (2014: EUR 293 m) to pensions. During the reporting year, 42.6 percent of our staff were employed on the basis of collective wage agreements (2014: 46.5 percent).

We ensure our employees' remuneration is appropriate and in line with the market and we conduct internal and external comparisons of remuneration on a regular basis. Over the past few years, we have paid special attention to fair remuneration for female and male employees in comparable positions. When we have conducted analyses of remuneration and salary increases in a number of different regions, we have not identified any significant differences for comparable positions.

We use a Group-wide IT system to ensure fair staff appraisals. The system includes amongst other things performance evaluations which are binding on managers and job evaluations of all executive positions. The evaluations take account of such criteria as transparency, equal opportunities and pay in line with market conditions. Our managers are provided with training on how to use the system and how to conduct discussions with staff. Executive pay is based on the extent to which Group targets and the employee's individual targets have been achieved. Depending on the business area, sustainability targets such as safety and diversity may also be relevant to the calculation. Senior managers also participate directly in the company's growth in value through the Linde Long Term Incentive Plan. In 2015, managers below Executive Board level invested in 22,637 Linde shares via the scheme. For each of these shares, the plan participants are entitled to an additional Linde share on the expiry of the four-year qualifying period.

#### Remuneration and social benefits

	2015	2014	2013	2012
Personnel expenses (in € bn)	3.928	3.536	3.423	3.117
Pension costs (in € million)	307	293	281	241
Staff covered by collective wage agreements (in %)	42.6	46.5	45.6	45.1
Retired employees receiving pensions from Linde	29,116	30,941	31,006	31,118

i As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year.

Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.





Employees in more than 50 countries have access to occupational pensions and healthcare benefits. Around 80 percent of Linde employees are members of occupational pension schemes. Through defined benefit plans, 26,088 active employees are being paid an occupational pension and a further 16,416 former employees have acquired a vested claim to a company pension. In total, 29,116 pensioners are drawing an occupational pension from the Group. At Linde, globally binding rules apply to the modification, introduction or closure of pension plans. Any such measure must be agreed with the Global Pension Committee, which consists of the Chief Executive Officer, the Chief Financial Officer and experts in accounting, finance and human resources.

#### **MORE ABOUT**

- → Remuneration of the Executive Board (Annual Report)
- → Remuneration of the Supervisory Board (Annual Report)
- → Pensions (Annual Report)



# **WORK-LIFF BALANCE**

We help our employees achieve a better work-life balance by providing a wide range of opportunities worldwide. In particular, these include flexible working models such as flexitime, part-time work and teleworking arrangements. Part-time employees accounted for around 2 percent of the workforce in 2015. In the Corporate Centre, a new company agreement came into effect during the reporting year, making it possible for employees to work from home under certain conditions. In Germany, a total of 434 employees took parental leave during the year, 42 percent of whom were fathers. In the same period, 209 employees in Germany returned to Linde after a period of parental leave.

#### Work-life balance

	2015	2014	2013	2012
Part-time employees (in %)	1.9	2.1	1.9	1.7
Employees on parental leave (Germany)	434	369	344	328

As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

We also focus on helping employees who are reliant on childcare or have a family member who requires care and on providing assistance during periods of poor health or social hardship. The measures we take are designed to suit the specific local situation and demands on the Group. In Germany, we provide our employees with a childcare subsidy. A service bureau is also available to help employees find appropriate childcare places and to provide care in exceptional circumstances. Since the introduction of the service in 2007, the bureau's services have been used more than 2,200 times.

We promote the physical and mental health of our employees in many countries. Advice on coping with family crises and addiction problems is provided, for example, and we have also introduced initiatives designed to prevent illness. In 2015, events were held, for instance, in Linde's Regional Business Unit (RBU) South Pacific covering areas such as mental health in the workplace and conflict resolution.





# INVOLVING EMPLOYEES

We rely on the experience of our employees and dialogue with our staff to help us improve and respond to change. With our People Excellence initiative, we support the willingness of our employees at all levels of the company to engage in continuous learning and change. Among other things, this programme aims to provide professional development opportunities for managers and to devise schemes which recognise exceptional performance. Between November 2014 and February 2015, we trained around 180 employees as People Excellence Champions. Their expertise should help managers to plan and implement measures which will contribute towards enhancing employee commitment and performance. We award employees around the world who make a particular effort to uphold our corporate goals and corporate values. One of the prizes we awarded in 2015 was to a project team in China and Korea. The team, which runs numerous talent and employee development schemes, contributed to us being selected as one of the 50 best employers in those countries by the Top Employers Institute.

We strive to work together with employee representatives and trade unions on the basis of partnership and trust, aiming to reconcile the interests of the Group and the workforce. Linde's system of employee representation in Germany is two-tiered, consisting of a central works council for the Group as a whole and works councils in the decentralised units. Cross-border issues are dealt with by Linde's European Works Council, which currently has 27 members and protects the rights of employees in Europe to information, consultation and advice. There are regional-level works councils in many other countries.

Employee satisfaction is a key factor in our success. Open feedback from staff enables management and the Group to continue to develop. We therefore conduct global employee surveys on a regular basis. We also encourage our employees to play their part, bringing their knowledge and ideas to the company to introduce improvements and innovations. A cross-departmental team in Germany developed a new concept for ideas management in 2015. This comprises a new process to select those ideas for improvement which will be implemented from the suggestions submitted by employees as well as the rewarding of ideas. This new concept should be introduced in 2016.





GLOBAL COMPACT. Principles covered.

# **DIVERSITY AND EQUAL OPPORTUNITIES**

As a group with global operations, we rely on employees who understand local markets and customers and use their different experiences and perspectives to enrich the work of their team. At 31 December 2015, employees from 134 different countries worked in our Group, while 64 nations were represented in the German companies alone. The proportion of senior managers from countries other than Germany in The Linde Group was 70 percent in the reporting year, with 49 nations represented at this level. In 2015, around 200 of our employees were sent on secondment to subsidiaries abroad.

#### Diversity (in %)

2015	2014	2013	2012
17.6	18.4	18.2	17.6
57.6	57.5	58.0	58.4
24.8	24.1	23.8	24.0
64	65	65	67
69.5	71.0	72.9	69.7
29.3	28.7	27.3	26.9
25.4	25.4	25.9	25.4
14.8	13.9	13.2	12.3
0	0	0	0
25.0	16.6	16.6	8.3
3.6	3.4	3.5	3.1
	17.6 57.6 24.8 64 69.5 29.3 25.4 14.8 0 25.0	17.6     18.4       57.6     57.5       24.8     24.1       64     65       69.5     71.0       29.3     28.7       25.4     25.4       14.8     13.9       0     0       25.0     16.6	17.6     18.4     18.2       57.6     57.5     58.0       24.8     24.1     23.8       64     65     65       69.5     71.0     72.9       29.3     28.7     27.3       25.4     25.4     25.9       14.8     13.9     13.2       0     0     0       25.0     16.6     16.6

As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

Linde's executives play an important role in promoting diversity. On the Executive Board, Thomas Blades is responsible for Diversity & Inclusion. For a number of years, diversity has been an integral part of our executive development programmes. It is also considered when employee evaluations take place. In the Asia/Pacific segment, which comprises 15 countries, we launched an initiative in 2015 on diversity in the workplace which involved talks, mentoring schemes and workshops and the setting up of women's networking groups. In the United States, we promoted inter-generational exchange programmes and exchanges between African American and Latin American colleagues.





Goal	Measures taken	Status
1 4 % of women in the first management tier below the Executive Board by 2017, 18 % by 2022	<ul> <li>Initiative for women with management responsibility and leadership potential</li> <li>Networking events and workshops</li> <li>Mentoring schemes</li> </ul>	1 1 % by the end of 2015
17 % of women in the second management tier below the Executive Board by 2017, 22 % by 2022		16 % by the end of 2015

An important priority for Linde in the area of diversity is to increase the number of women in management positions. As part of a joint initiative set up by all 30 DAX companies in Germany, Linde set itself the target in 2011 of increasing the proportion of women in senior management positions to between 13 and 15 percent by 2018. In 2015, this proportion was 14.8 percent. During the reporting year, we replaced this target with more detailed targets for the two upper tiers of management. The proportion of women in the first management tier below the Executive Board should rise to 14 percent by 2017 and 18 percent by 2022. In 2015, the proportion of female senior managers in this tier was around 11 percent. In the second management tier below the Executive Board, we want the proportion of women to be 17 percent by 2017 and 22 percent by 2022. This figure was 16 percent in 2015. In order to meet these targets, the Linde Executive Board is supporting various employee initiatives promoting women. These include cross-departmental networking events and training programmes for women with management responsibility or leadership potential. An internal mentoring programme was launched in 2015 in Germany. Experienced managers provide support particularly to women to enable them to continue to develop their personal and professional skills. The programme should be expanded in 2016. The proportion of women taking part in the Global Leadership Development Circle, our development programme for senior managers, was 23 percent in 2015 (2014: 27 percent).





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# WE SUPPORT

# OCCUPATIONAL SAFETY AND HEALTH PROTECTION

The key aim of our global safety management is to protect our employees. We have set out global guidelines governing occupational safety and health protection. We carry out risk assessments and audits to ascertain whether the right conditions are in place to ensure safety at work. In 2015, we conducted audits at 52.6 percent of our operating sites (2014: 57.4 percent).

#### Occupational health and safety

		2015	2014	2013	2012
Workplace accidents of employees with at least one day of absence		365	318	304	324
Workplace accidents of contractors with at least one day of absence		150	140	150	155
Workplace accidents with at least one day of absence (employees)	per million hours worked	2.7	2.4	2.3	2.5
Workplace accidents with at least one day of absence (contractors)	per million hours worked	2.2	1.8	1.7	1.3
Fatal workplace accidents involving employees*		2	2	4	4
Fatal workplace accidents involving contractors		1	3	6	4
Sick days	per employee	5.6	5.3	4.7	4.7

Assured by KPMG

We have set ourselves the target of continuously reducing the number of workplace accidents resulting in lost working days per million hours worked by our employees by 2020. The reference year is 2012. In 2015, the rate of workplace accidents at Linde sites around the world per million hours worked was 2.7 (2014: 2.4). The equivalent figure for contractors during 2015 was 2.2 (2014: 1.8). It is with the deepest regret that we must report that two Linde employees lost their lives while working for us in 2015 in road accidents in Brazil and Tunisia.





As a result of the application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.

As part of our global safety initiative, we have launched numerous measures designed to continue to reduce safety risks and to reinforce the importance of personal responsibility and safety-conscious behaviour. Around 30 to 50 percent of workplace accidents and chronic illnesses at Linde can be attributed to manual or repetitive activities. Many of our health protection initiatives therefore focus in particular on the risks associated with such activities. One such initiative in 2015 was our introduction of powered movers at 25 sites in North America for lifting and transporting cylinders containing liquefied oxygen weighing up to 360 kilograms. These powered machines allow our employees to avoid heavy physical exertion. In the Gist Division, 99 percent of personnel handling heavy loads received training on how to do so safely during the reporting year.

In 2015, we devised a new healthcare management programme. The initiative focuses on areas such as work-life balance and preventive measures to enhance health protection. Starting in Germany in 2016, our employees should be offered a broad range of options as a result of this initiative.





# Key indicators

- Workplace accidents with at least one day of absence per million hours worked (employees and contractors)
- Transport incidents →



## Targets

- Continuously reduce workplace accidents (base year 2012)
- Reduce serious transport incidents (base year 2012) ->



### **Business case**

#### Social

Avoidance of accidents and injuries

#### **Environmental**

Avoidance of environmental damage as a result of transport incidents ->

### **Financial**

- Reduction in lost working days
- Reduction in material damage to vehicles or plants
- Contribution towards the target of reducing gross costs by a total of between EUR 750 m and EUR 900 m in the four-year period from 2013 to 2016 →

### **MORE ABOUT**

- → Training and audits
- → Transport





# LABOUR STANDARDS AND HUMAN RIGHTS

Linde commits to the principles of the UN Human Rights Charter. We also seek to ensure that working conditions worldwide within the Group comply with the core labour standards of the International Labour Organisation (ILO) and with other international obligations and industry standards. We conduct regular reviews across all regions to establish whether processes have been set up to ensure compliance with labour standards. Our Group guidelines take human rights into account. These guidelines include the Code of Conduct, purchasing guidelines and purchasing agreements, the Integrity Line policy and Group risk management. In the Linde Group position on human rights adopted in 2014, we describe the processes which confirm our commitment.

Over the past three years, more than 200 audits have been conducted at the Group's business locations which covered social topics such as the avoidance of child labour and the provision of safe, fair working conditions. To detect potential weaknesses, we also evaluate the information we receive from our Integrity Line. This is a service which can be used by employees and external stakeholders to report any breaches of the Group's commitment. Around 26 percent of the reports received via the hotline in 2015 related to human resources issues. In various regions, we took steps during the reporting year to raise employee awareness: for example, more than 650 employees in India attended training on workplace harassment.

#### **MORE ABOUT**

- → Human rights
- → Integrity Line

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REPORT

BOUT

STRATEGY &

SAFETY &





# **SOCIAL COMMITMENT**



We are involved in a variety of projects around the world near our business locations. Our main focus is on education. We also support selected initiatives in areas such as safety, environmental protection, health and social affairs as well as some cultural projects. Cross-regional involvement in such projects is managed by our Corporate Centre, while local initiatives are coordinated by employees in the region concerned. In 2015, we provided funding of several million euro for projects and initiatives worldwide, around EUR 2.4 m have been donated by the Group. This allowed us to support more than 200 projects. As a result of our social commitment, we were able to reach, amongst others, more than 125,000 children, school pupils and students during the year under review.

## Education, culture and research

We support science education projects in several countries, for example, exhibitions, scientific or technical experiments and competitions. We provided foundation capital of over EUR 8 m to set up the Carl von Linde Academy at the Technical University of Munich. By the end of the summer semester of 2015, around 18,000 students had attended courses offered by the Academy. The institution provides engineering, IT and natural science students with key skills that extend beyond the limits of their theoretical subjects, covering such areas as innovation and business ethics. In Munich, home to our Corporate Centre, we are also a founding member of the Deutsches Museum Future Initiative, the aim of which is to modernise the largest technology museum in the world. By 2018, we will have provided financial backing of EUR 5 m. We have also formed a public-private partnership with the Schloss Hansenberg boarding school in Hesse, Germany. The school fosters the talents of pupils with particularly strong academic and social skills. Since the beginning of our involvement in 2004, more than 600 pupils have completed their education at the school. Linde has been the Season Partner of the Bavarian State Opera since 2007. We have also sponsored the live streaming of selected performances since 2012. This allows people who are unable to attend a performance at the opera house to enjoy a world-class cultural event for free.

In 2015, for the fifth consecutive year, we supported the Shell Eco-marathon, a competition for young engineers which promotes energy-efficient mobility and takes place every year in several regions of the world. As a global partner, we assumed responsibility for supplying the hydrogen to fill the fuel-cell vehicles used in the competition, while Linde engineers supported the event organisers and participants by providing technical expertise. In the United States, we sponsored a competition where



school pupils designed their own hydrogen-powered model cars. More than 200 school pupils took part in the event which aims to promote interest in mathematics and technical subjects.

# Safety and environmental protection

As a company which places special emphasis on safety, we are involved in a number of road safety projects in several countries. Several thousand children in the UK have taken part so far in the Child Road Safety Programme organised by Gist, our logistics division. Under this scheme, our truck drivers visit primary schools, bringing their vehicles with them, and talk to pupils about road traffic risks. In 2015, Gist received an award for this programme from the charity Brake which campaigns for child road safety.

As a founding member of a road safety initiative, we enable young people in Australia and New Zealand to receive safety training just before they take their driving test. Each year around 50,000 school pupils take part in the scheme.

We are also committed to protecting the environment in the areas surrounding our business locations. In 2015, for example, around 120 Linde employees planted trees in Spain. In China, we donated over EUR 40,000 to a project designed to improve environmental protection in rural areas.

# Improving living conditions and health

In many countries, we support projects which help to improve living conditions for the people in that particular region. In 2015, for example, we sponsored a project in India which helps women learn to read, write and count, so that they have the skills to find employment. During the reporting year, we continued to donate products such as medical gases and medical devices for charitable purposes in several regions. In Sweden, Linde Healthcare again supported research in 2015 into pain management for children.

# Voluntary work and disaster relief

We support the voluntary work of our employees, for example, by granting staff time off work or, in some regions, by matching employees' donations. In 2015, over 1,300 Linde employees volunteered around the world. After the earthquake in Nepal in April 2015, employees and the Group donated a total of around EUR 160,000 to charities as a result of various initiatives.







# **KEY FIGURES**

Included in the group management report of the Annual Report 2015

# Financials, Compliance and Innovation<sup>1</sup>

Assured by KPMG

# Financial indicators

		2015	2014	2013	2012	2011
Share						
Closing price	€	133.90	154.20	152.05	132.00	114.95
Year high	€	193.85	157.30	153.90	136.15	125.80
Year low	€	128.05	139.15	128.60	114.20	96.16
Market capitalisation (at year-end closing price)	€ million	24,857	28,625	28,219	24,445	19,663
No. of shares (at 31 December)	000s	185,638	185,638	185,588	185,189	171,061
Cash dividend per share	€	3.45	3.15	3.00	2.70	2.50
Group						
Revenue	€ million	17,944	17,047	16,655	15,833	13,787
In Germany	0/0	7.3	7.4	7.9	8.2	9.0
Outside Germany	0/0	92.7	92.6	92.1	91.8	91.0
Operating profit <sup>2</sup>	€ million	4,131	3,920	3,966	3,686	3,210
Operating margin	0/0	23.0	23.0	23.8	23.3	23.3
EBIT	€ million	2,043	1,885	2,171	2,055	2,152
Profit for the year	€ million	1,252	1,162	1,430	1,341	1,244
Capital expenditure (excluding financial assets)	€ million	1,936	1,954	2,268	2,038	1,367
Equity ratio	0/0	43.7	41.4	41.5	39.8	42.0
Return on capital employed (ROCE)	0/0	9.4	9.5	9.7	10.2	11.0
Procurement costs	€ bn	10.5	11.6	11.1	10.9	10.7
Personnel expenses	€bn	3.928	3.536	3.423	3.117	2.653
Personnel expenses (per employee)	1,000€	60.9	53.9	53.9	49.7	52.6
Pension costs	€ million	307	293	281	241	190
Donations	€ million	2.4	2.8	2.7	2.8	



# Financials, Compliance and Innovation<sup>1</sup>

# Financial indicators

		2015	2014	2013	2012	2011
Gases Division						
Revenue	€ million	15,168	13,982	13,971	13,214	11,061
Operating profit <sup>2</sup>	€ million	4,151	3,835	3,846	3,566	3,041
Operating margin	0/0	27.4	27.4	27.5	27.0	27.5
Engineering Division						
Revenue	€ million	2,594	3,074	2,879	2,561	2,531
Operating profit <sup>2</sup>	€ million	216	300	319	312	304
Operating margin	0/0	8.3	9.8	11.1	12.2	12.0

## Compliance

		2015	2014	2013	2012	2011
Contacts Integrity Line		301	734	393	309	430
Investigations as a result of reports to the Integrity Line		141	127	88	77	54
of which referring to personnel topics	0/0	26.2	26.8	36.4	42.9	38.9
of which referring to potential offences against property	%	26.2	32.3	33.0	24.7	31.5
of which referring to potential discrimination	0/0	2.8	1.6	2.3	2.6	0.0
of which referring to potential conflicts of interest	0/0	13.5	9.4	12.5	15.6	3.7

# Innovation ✓

		2015	2014	2013	2012	2011
Expenditure for research and development	€ million	132	106	92	101	98
Employees in the research and development field		348	390	367	385	342
New patents filed		287	260	263	269	235



# Safety and environmental protection<sup>1</sup>

## Resources consumed

		2015	2014	2013	2012	2011
Energy						
Electricity consumption **	million MWh	26.8	26.2	23.4	23.5	20.3
of which by air separation plants 🍑	million MWh	23.9	23.5	20.7	20.8	17.9
Natural gas consumption **	million MWh	39.5	39.5	36.4	35.9	25.4
of which by HyCO plants 🕶	million MWh	25.4	24.9	23.0	22.8	21.7
Consumption of other energy sources <sup>3</sup>	million MWh	12.6	12.2	14.8	13.4	11.7
Water						
Water use <sup>4</sup>	million m <sup>3</sup>	681	682	681	632	288
of which ground and surface water	%	98.5	98.5	98.6	98.5	96.8
of which drinking water✓	%	1.5	1.5	1.4	1.5	3.2
Total water consumption <sup>5</sup> ✓✓	million m <sup>3</sup>	52.8	50.7	44.5	47.4	42.6
of which industrial and process water✓	million m <sup>3</sup>	42.8	40.8	34.8	38.1	33.3
of which drinking water✓	million m <sup>3</sup>	10.0	9.9	9.7	9.3	9.3
Waste water✓✓	million m <sup>3</sup>	14.0	13.2	13.8	12.5	8.1
Resources and materials						
Raw materials and supplies*	t	54,170	52,770	57,750	57,170	59,950
Packaging materials*	t	4,130	5,580	3,990	4,765	5,850







## Emissions

		2015	2014	2013	2012	2011
Direct greenhouse gas emissions (Scope 1)						
CO <sub>2</sub> emissions	million t	7.1	7.3	7.2	7.6	5.7
of which by HyCO plants ~~	million t	4.0	4.0	4.2	4.3	4.3
Linde transport fleet <sup>6</sup> ✓✓	million t CO <sub>2</sub> e	0.92	0.88	0.49	0.50	0.42
Other greenhouse gases <sup>7</sup>	million t CO₂e	1.7	1.5	1.5	0.4	0.6
Total❤	million t CO <sub>2</sub> e	9.7	9.7	9.2	8.5	6.7
Indirect greenhouse gas emissions (Scope 2)						
CO <sub>2</sub> emissions	million t	15.4	15.0	13.0	12.8	10.2
of which by air separation plants 💜	million t	13.7	13.5	11.8	11.6	8.9
Total Scope 1 and 2 emissions ✓	million t CO <sub>2</sub> e	25.1	24.7	22.2	21.3	16.9
Emissions per million EUR sales	t CO <sub>2</sub> e	1,399	1,449	1,333	1,345	1,226
Emissions per Linde employee	t CO <sub>2</sub> e	389	377	350	339	335
Other indirect greenhouse gas emissions (Scope 3)						
Business travel <sup>8</sup> ✓	thousand t CO <sub>2</sub> e	68.8	72.9	81.0	34.1	30.6
Emissions to air <sup>9</sup>						
VOC (volatile organic compounds)  ✓	t	598	657	92	109	206
NH₃ (ammonia) <sup>10</sup> ✓	t	73	165	12	11	28
CO (carbon monoxide)	t	3,213	3,325	2,177	2,895	1,566
NO <sub>x</sub> (nitrogen oxides)✓	t	6,443	6,762	6,273	5,556	1,070
SO <sub>x</sub> (sulphur oxides) <b>√</b>	t	570	447	122	391	543
Emissions to water <sup>11</sup>						
Chemical oxygen demand (COD)✓	t	1,430	1,585	2,157	201	165
Biochemical oxygen demand (BOD)✓	t	498	544	163	97	38
Nitrates*	t	336	295	89	52	61
Phosphates*	t	47	39	3	4	3





# Waste and recycling

		2015	2014	2013	2012	2011
Total waste <sup>12</sup>	thousand t	71.5	94.1	124.9	81.5	64.4
Non-hazardous waste	0/0	69	76	76	70	57
Hazardous waste **	0/0	31	24	24	30	43
Recycled waste <sup>✓✓</sup>	0/0	43	56	65	41	26
Incineration waste <sup>13</sup> ✓	0/0	20	15	14	18	30
Landfill waste  ✓	0/0	21	19	10	26	31
Other disposal methods	0/0	16	10	11	15	13

#### Transport

		2015	2014	2013	2012	2011
Distance driven by Linde's transport fleet and its contractors	million km	1,010	975	963	969	866
Serious transport incidents involving trucks <sup>14</sup>	per 1 million km	0.101	0.104	0.139	0.121	0.113

# Audits and trainings

	2015	2014	2013	2012	2011
%	52.6	57.4	58.1	62.4	54.5
%	48.0	50.0	51.8	54.5	49.1
	745	749	790	769	701
	633	639	657	661	664
%	65.1	62.6	57.8	54.0	50.3
	0/0	% 52.6 % 48.0 745 633	%     52.6     57.4       %     48.0     50.0       745     749       633     639	%     52.6     57.4     58.1       %     48.0     50.0     51.8       745     749     790       633     639     657	%     52.6     57.4     58.1     62.4       %     48.0     50.0     51.8     54.5       745     749     790     769       633     639     657     661

# Certified sites

		2015	2014	2013	2012	2011
Production sites certified to ISO 9001	%	<b>~</b> 66.4	<b>**</b> 72.1	<b>~</b> 77.9	<b>~</b> 79.6	76.0
Production sites certified to ISO 14001	0/0	<b>3</b> 1.0	<b>~</b> 30.5	<b>**</b> 31.8	<b>~</b> 31.8	33.0
Production sites certified to OHSAS 18001	%	<b>1</b> 6.1	<b>1</b> 5.7	<b>17.8</b>	<b>~</b> 17.7	22.0

# Environmental incidents

	2015	2014	2013	2012	2011
Environmental complaints	17	25	24	14	28
Reportable environmental incidents	15	21	25	29	33



# Employees<sup>1</sup>

# Employment structure

		2015	2014	2013	2012	2011
Group*	as of Dec. 31	64,538	65,591	63,487	62,765	50,417
Gases Division		52,395	53,436	51,536	51,405	39,031
EMEA*		21,067	21,778	21,544	21,636	20,920
Asia/Pacific <sup>*</sup>		11,533	12,175	12,122	11,809	10,868
Americas <b>√</b>		19,795	19,482	17,870	17,960	7,243
Engineering Division		7,038	7,330	6,997	6,564	6,319
Other activities		5,105	4,825	4,954	4,796	5,067
Employees in production		21,194	21,684	20,200	19,829	19,072
Employees in sales, marketing and distribution		31,649	31,851	31,778	31,249	22,172
Employees in research and development✓		348	390	367	385	342
Employees in administration		11,348	11,666	11,141	11,302	8,831
Part-time employees*	0/0	1.9	2.1	1.9	1.7	2.0
Temporary staff*	0/0	8.6	8.6	6.2	6.4	6.4
Employees on parental leave (Germany)		434	369	344	328	271
Staff covered by collective wage agreements	0/0	42.6	46.5	45.6	45.1	53.5
Employee retention and benefits						
Number of new hires*		11,554	12,049	8,955	_	_
thereof women*	0/0	45.5	46.2	41.6	_	_
Staff turnover rate <sup>16</sup> ✓	0/0	11.2	10.0	9.4	10.1	6.3
Average length of service	years	9.0	8.4	8.9	9.3	9.8
Retired employees receiving pensions from Linde		29,116	30,941	31,006	31,118	31,112





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		2015	2014	2013	2012	2011
Staff up to 30 years old	0/0	17.6	18.4	18.2	17.6	16.0
Staff between 31 and 50 years old	0/0	57.6	57.5	58.0	58.4	59.0
Staff over 50 years old	0/0	24.8	24.1	23.8	24.0	25.0
Nationalities of employees in Germany		64	65	65	67	63
Non-German nationalities among senior managers in Germany	0/0	69.5	71.0	72.9	69.7	
Proportion of female employees*						
in total workforce 🗸	0/0	29.3	28.7	27.3	26.9	19.5
in Germany	0/0	25.4	25.4	25.9	25.4	_
in senior management positions	0/0	14.8	13.9	13.2	12.3	11.0
in the Executive Board	0/0	0	0	0	0	0
in the Supervisory Board	0/0	25.0	16.6	16.6	8.3	8.3
Severely disabled employees (Germany)	0/0	3.6	3.4	3.5	3.1	3.6
	_					

# Employee training

		2015	2014	2013	2012	2011
Employees who attended training opportunities	0/0	56.9	66.2	60.3	61.0	64.4
Average training days per employee*		2.9	3.1	3.0	2.6	2.3
Average expenditure on training programmes per employee *	€	384	350	341	386	268
Apprentices and trainees in total workforce	0/0	0.9	0.9	0.9	0.9	1.3
Apprentices and trainees in Germany  ✓	0/0	3.0	3.2	3.1	3.2	3.6



#### Occupational health and safety

		2015	2014	2013	2012	2011
Workplace accidents of employees with at least one day of absence		365	318	304	324	144
Workplace accidents of contractors with at least one day of absence		<b>~</b> 150	<b>~</b> 140	<b>~</b> 150	<b>~</b> 155	131
Workplace accidents with at least one day of absence (employees)	per million hours worked	2.7	2.4	2.3	2.5	1.4
Workplace accidents with at least one day of absence (contractors)	per million hours worked	2.2	1.8	1.7	1.3	1.6
Fatal workplace accidents involving employees		<b>√</b> 2	<b>~</b> 2	<b>~</b> ₄	<b>~</b> 4	5
Fatal workplace accidents involving contractors		<b>~</b> ₁	<b>~</b> 3	<b>~</b> 6	<b>~</b> 4	3
Sick days	per employee	5.6	5.3	4.7	4.7	5.0

- 1 As a result of the first-time application of the revised accounting standards, the sites in the scope of our reporting changed in the 2013 financial year. Accordingly, the key financial, environmental and employee KPIs for 2012 were adjusted retrospectively in the year 2013. In addition, the KPIs for employees, occupational health and safety and environmental protection for the year 2012 were retrospectively adjusted to account for the effects of the acquisition of the US homecare company Lincare.
- 2 EBIT (before non-recurring items) adjusted for amortisation of intangible assets and depreciation of tangible assets
- 3 Examples of other energy sources are heating oil, biofuel energy, propane, butane, thermal energy and diesel fuel. From 2015, this figure also includes diesel consumption by Linde's transport contractors. The 2014 figure has been recalculated.
- 4 Increased water use from 2012 on is mainly due to use of sea water and once-through water at sites in Mexico, China and the United Arab Emirates.
- 5 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.
- 6 From 2015, this figure also includes greenhouse gas emissions generated by Linde's transport contractors. The 2014 figure has been recalculated.
- 7 This includes greenhouse gases specified in the Kyoto Protocol: methane (CH<sub>4</sub>), nitrous oxide (laughing gas, N<sub>2</sub>O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>). In 2014, Linde has refined the determination method of the indicator for these GHGs to include additional emitters and emission sources. The reported figure for 2013 was recalculated based on this new method.
- 8 Since 2014, we also include the Radiative Forcing Index (RFI) to calculate emissions from business travel. Thereby, we take into account the higher impact of air travel on the greenhouse effect. Emissions for the year 2013 have been re-calculated accordingly.
- 9 In 2014, Linde has refined the determination method for emissions to the air. Where available, measurements were used for the new methodology. For production sites for which no measurements were available, we estimated the figures. Where possible, the reported figures for 2013 were recalculated based on these new methods. The determination method for VOC emissions could not be applied retroactively. Therefore, the values for this indicator are not comparable for the years 2013 and 2014.
- 10 The determination method for ammonia was revised during 2015. Reported ammonia emissions include uncontrolled releases to the atmosphere and since 2015 have been extended to include controlled releases to abatement systems at certain sites. The figure for 2014 has been restated accordingly.
- 11 In 2015, we have further improved the determination method for emissions to water (COD, BOD, nitrates, phosphates) applying measurement and extrapolation models. Although there are inherent limitations by applying this methodology, full measurement of these emissions by all Linde sites is considered economically not viable. The reported figures of the water emission indicators of the Linde Group therefore serve as an approximation. The figures for 2014 have been restated accordingly.
- 12 The lower figure for waste in 2015 is mainly due to a reduction in construction waste.
- 13 Incineration waste is partly used for heat recovery.
- 14 Severe traffic incidents, e.g. with serious 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. The performance indicator was redefined in 2015. The new definition includes not only preventable transport incidents but also incidents previously classified as non-preventable. The figure has been recalculated for previous years.
- 15 The figures disclosed relate to internal and external audits conducted at production sites worldwide.
- 16 Staff turnover rate relates to employees who left the Group voluntarily during the period under review.





# **GLOBAL COMPACT**

Linde supports the United Nations Global Compact. Every year, we report on how we incorporate the ten Global Compact principles into our business activities. This Communication on Progress (COP) forms part of our Corporate Responsibility Report. Content relevant to the Global Compact is indicated as such in the online report. This content is also listed in the GRI and Global Compact Index.

We report in accordance with the Advanced Level of the UN Global Compact. To meet the requirements of the highest COP reporting level, we provide voluntary information on 24 criteria alongside this report. This information is available on the website of the <a href="UN Global Compact">UN Global Compact</a>. We also consider the <a href="Blueprint for Corporate Sustainability Leadership">Blueprint for Corporate Sustainability Leadership</a>, which is an action plan initiated by the Global Compact LEAD platform.

CHOBAL COMP

The following table provides an overview of the commitments, standards and management systems which help us incorporate the principles of the Global Compact into our business processes. We also report on how we measure and monitor our performance and on the progress we have made, the measures we propose to implement and the targets and goals we have set ourselves.

#### **Human rights**

**Principle 1:** Support and respect the protection of internationally proclaimed human rights **Principle 2:** Make sure that the company is not complicit in human rights abuses

Strategy

Linde undertakes to respect and protect human rights. We comply with international principles and guidelines such as

ts. We comply with <u>Labour standards</u>

the UN Universal Declaration of Human Rights,

Safety and health

the UN Guiding Principles on Business and Human Rights

<u>Suppliers</u>

- the OECD Guidelines for Multinational Enterprises.

Our aim is to make a contribution towards supporting human rights within the sphere of influence of our company: in our business activities, in the protection of our employees and in relationships with our stakeholders.

REPOR

ABOUT

STRATEGY &

SAFETY &





#### **Human rights**

#### Implementation and monitoring

Our commitments to protect human rights are set out in our Group guidelines which are binding on all our employees. These include our Code of Ethics and a position paper on human rights issued in 2014. Our Code of Ethics is supplemented by other global guidelines and standards. These include global guidelines on safety and health protection. In our Code of Conduct for Suppliers, we also require our suppliers to protect human rights and comply with minimum social

We review our commitments to protect human rights by applying a multi-layer implementation and monitoring process:

- We provide our employees with training on the contents of our Code of Ethics.
- Training and audits are an integral part of our safety management system. We include contractors and other business partners in our training.
- We use global surveys in all regions to verify the implementation of fair working conditions.
- Our dialogue with employee representatives also includes discussions and consultation about labour standards.
- We address the impact of our procurement practices and set out minimum standards for suppliers. We test compliance on a sample
- Employees and external stakeholders can use the confidential Linde Integrity Line to report grievances, anonymously if they so wish.

#### Code of Ethics

#### Code of Conduct for Suppliers

Policy on health, safety and environmental protection

Labour standards

Safety and health

**Suppliers** 

**Compliance** 

Integrity Line

#### Progress in the reporting year

- Global survey conducted within the Group on processes which ensure Labour standards respect for human rights Safety and health
- Since the beginning of 2012, audits covering social topics have been conducted at more than 200 operating sites.
- Occupational safety and health protection audits have been conducted at around 53 percent of the Group's operating sites.
- Global analysis of Linde's safety culture
- More than three quarters of our strategic suppliers have signed up to our Code of Conduct for Suppliers.
- Training has been provided to around 20 percent of employees working in procurement across the Group on the implementation of the Code of Conduct for Suppliers.
- Reduction of around 16 percent in serious transport incidents per million kilometres travelled since 2012
- Training about workplace harassment delivered in India

#### **Targets**

#### **Outlook**

- Implement measures to achieve our global targets:
  - Continuously reduce workplace accidents by 2020 (base year 2012)
  - Increase proportion of female managers
- Set a new target for the reduction of transport incidents

**Suppliers** 





#### Labour standards

**Principle 3:** Uphold the freedom of association and recognise the right to collective bargaining

Principle 4: Uphold the elimination of all forms of forced labour

Principle 5: Uphold the abolition of child labour

Principle 6: Uphold the elimination of discrimination in respect of employment and occupation

#### Strategy

Linde is committed to upholding international labour rights and standards and to dealing fairly with its employees. We are guided here by the principles set out in the core labour standards of the International Labour Organisation (ILO).

<u>Labour standards</u>

**Diversity** 

**Involving employees** 

**Suppliers** 

#### These include:

- recognising the right of employees to freedom of association and collective bargaining to the extent that this is permitted by local legislation and promoting open dialogue between employees and management where there are no designated employee representatives;
- rejecting any form of forced labour or human trafficking;
- complying with requirements about the minimum age of employees, as set out in local legislation and international agreements;
- observing guidelines on equal opportunities and fair treatment and adopting a policy of zero tolerance for any form of illegal discrimination or employee harassment.

We also expect our suppliers to comply with these labour standards.

#### Implementation and monitoring

Our commitments to the protection of human rights are set out in mandatory guidelines for employees. These include our Code of Ethics and a position paper on human rights issued in 2014. Our Code of Ethics Code of Conduct for is supplemented by other global guidelines and standards. These include global guidelines on safety and health protection. In our Code of Conduct for Suppliers, we also require our suppliers to protect human Policy on health, rights and comply with minimum social standards.

Code of Ethics

<u>Suppliers</u>

safety and environmental protection

We have implemented various measures to ensure compliance with labour rights:

 Linde has a central works council for the Group as a whole as well as <u>Labour standards</u> a European works council which currently has 27 members and is responsible for cross-regional topics. In other countries, employee representation is at regional level. Our dialogue with employee representatives also includes discussions and consultation about labour standards.

**Diversity** 

<u>Involving employees</u>

**Suppliers** 

**Compliance** 

**Integrity Line** 

- Employees are provided with training on the content of our Code of
- Our diversity management programme aims to exclude any form of discrimination and actively promote equal opportunities.
- We use a global survey to conduct a regular review of the extent to which systems are implemented to exclude any form of forced labour and child labour.
- We set out minimum requirements in the area of social standards with which our suppliers must comply. We test compliance on a sample basis.
- Potential violations can be reported via the Linde Integrity Line, anonymously if so desired.





#### Labour standards

#### Progress in the reporting year

 Global survey conducted within the Group on processes which ensure

Labour standards
that human sights a subject to the survey of the sur that human rights are being respected

 More than 1,000 employees of contractors were involved in the global initiative designed to strengthen safety awareness on Engineering Division construction sites.

Suppliers **Diversity** 

- Since 2012, around 200 audits covering social topics have been conducted at our business locations
- More than three quarters of our strategic suppliers have signed up to the Code of Conduct for Suppliers.
- Proportion of women in our most important development programme for senior managers is 23 percent
- Proportion of women in the first management tier below the Executive Board is 11 percent
- Proportion of women in the second management tier below the Executive Board is 16 percent
- Support provided for networking events, workshops, training programmes for women with management responsibility and leadership potential, and mentoring schemes
- Launch of an internal mentoring scheme which provides support particularly to women to enable them to continue to develop their personal and professional skills
- Initiatives launched on diversity in the workplace, e.g. in Asia, North America and Europe
- Training about workplace harassment delivered in India

#### Outlook

- Implement measures to achieve our global target: increase the proportion of female managers
- <u>Targets</u>
- Increase the proportion of women in the first management tier below the Executive Board to 14 percent by 2017 and 18 percent by 2022
- Increase the proportion of women in the second management tier below the Executive Board to 17 percent by 2017 and 22 percent
- Internal mentoring scheme to be expanded

#### **Environmental protection**

Principle 7: Support a precautionary approach to environmental challenges

Principle 8: Undertake initiatives to promote greater environmental responsibility

**Principle 9:** Encourage the development and diffusion of environmentally friendly technologies

#### Strategy

Linde is committed to making a contribution towards protecting the environment. We focus in particular on the Group's sites, the transportation of products and their use by customers. We concentrate on minimising safety risks and our environmental impact, as well as on the efficient use of energy, resources and materials.

Safety and the environment

**Innovation and** 

Linde

Our products and services support our customers' efforts to make their business processes safer and more environmentally friendly.

products Clean Technology by

Within the context of our social commitment, we also support environmental protection.

Social commitment





#### **Environmental protection**

#### Implementation and monitoring

Our commitment to protecting the environment is outlined in our mandatory Code of Ethics. Our global guideline on health, safety and the environment defines the framework for implementation in this

Code of Conduct for Suppliers

Our environmental management system and our risk management system are geared towards minimising the environmental risks that might arise from our products and processes. Measures include risk analyses and certification of our sites in accordance with international standards, as well as monitoring tools such as audits.

Policy on health, safety and environmental protection

Code of Ethics

Training is one of the ways in which we raise awareness of environmental and safety issues among our employees.

<u>Innovation and</u> products

We have a wide-ranging portfolio of technologies which help reduce the environmental impact of fossil fuels and cut CO<sub>2</sub> emissions. We are also driving forward the development of alternative fuels and renewable energy sources. Furthermore, our gases are used to improve the quality of untreated water and drinking water as well as to clean waste water.

Clean Technology by Linde

#### Progress in the reporting year

 More than 600 production sites around the world reviewed for their proximity to international protected areas; water supply studied at our key production sites.

Safety and the environment

Average energy intensity of our own installed air separation plants has increased by more than 6 percent since 2008; leading to savings of 2.5 m tonnes of CO<sub>2</sub> emissions.

<u>Innovation and</u> products

Energy efficiency of globally installed hydrogen plants has increased by 2.7 percent since 2009, leading to savings of around 640,000 tonnes of CO<sub>2</sub> emissions.

Production

Around 200 projects identified which increase energy efficiency. Their implementation has generated cost savings of more than EUR 23 m and has reduced CO<sub>2</sub> emissions by around 160,000 tonnes

Energy and climate protection

We have conducted around 1,400 safety, environmental protection and health protection audits.

<u>Water</u>

- Around 65 percent of the employees in our Gases Division received training on environmental protection, occupational safety and health protection.
- More than 50 percent of our research and development projects aimed to achieve an environmental benefit.
- 500 patents in the chemical and environmental sectors, Clean Energy and hydrogen technologies
- 30 m tonnes of CO<sub>2</sub> emissions avoided just as a result of customers using two key Linde technologies
- Over 17,000 tonnes of NO<sub>X</sub> emissions avoided at customers' plants by using LoTOx™ systems
- Around 750 m cubic metres of water brought up to drinking water quality using Linde's Solvocarb® process installed by our customers

#### Outlook

Avoid a total of 6 m tonnes of CO<sub>2</sub> emissions by 2020 as a result of technical improvements in plant design and more efficient production processes in our air separation plants and hydrogen plants (base year 2009)

**Targets** 

- Cost savings of over EUR 2 m expected between 2014 and 2016 due to optimised use of water
- Training programme on topics such as saving water, water treatment and handling claims to be expanded



# Anti-corruption

Principle 10: Work aga	Principle 10: Work against corruption in all its forms, including extortion and bribery									
Strategy	Good corporate governance is an essential prerequisite of our business success. It involves complying with laws, regulations and voluntary commitments.  The aim of our global compliance programme is to prevent misconduct and to investigate and follow up any violations.									
Implementation and monitoring	Our key compliance guidelines are set out in our Code of Ethics and other supplementary guidelines. To prevent misconduct, our global compliance programme is based on three pillars: communication, training and personal advice.  At the same time, we encourage our employees to report any violations of our Code of Ethics, other Group guidelines or legal regulations, and we offer them advice on doing so. Employees and third parties can use the Linde Integrity Line to report any doubts or suspicions they may have. Each report to the Integrity Line is examined. Our Integrity Line guideline defines the exact process to be followed and ensures that reports remain confidential and that data is protected. If the suspicion proves justified, this entails consequences.  We apply the knowledge we gain from dealing with these cases to make further improvements in our compliance programme.	Compliance Integrity Line								
Progress in the reporting year	<ul> <li>More than 55,000 e-learning sessions on our Code of Ethics completed since the programme was launched, over 138,000 sessions compliance sessions in total</li> <li>E-learning programme introduced for employees who award contracts for consultancy and other services on Linde's behalf</li> <li>10,000 participants in e-learning sessions on antitrust law</li> <li>22,000 employees provided with on-site training by qualified instructors</li> <li>6,700 queries answered by compliance officers</li> </ul>	<u>Compliance</u>								
Outlook	<ul> <li>Further measures to expand the compliance programme</li> </ul>	<u>Targets</u>								



# **GRI AND GLOBAL COMPACT INDEX**

# General Standard Disclosure: Strategy und analysis

UNGC	GRI	GRI indicator	Explanations	
	G4-1 Statement from the most senior decision-maker of the organisation		CR Report 2015: CEO statement	
	G4-2	Key impacts, risks, and opportunities	CR Report 2015: Strategy and governance CR Report 2015: Safety and environmental protection Financial Report 2015: Opportunity areas Financial Report 2015: Risk areas Website Linde: Clean Technology by Linde	

# General Standard Disclosure: Organisational profile

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-3	Name	CR Report 2015: Corporate profile	
	G4-4	Primary brands, products and services	CR Report 2015: Corporate profile Website Linde: About Linde Website Linde: Clean Technology by Linde	
	G4-5	Location of the headquarter	CR Report 2015: Impressum	
	G4-6	Countries of operations	CR Report 2015: Corporate profile Website Linde: Linde worldwide	
	G4-7	Nature of ownership and legal form	Financial Report 2015: Linde in the capital market Website Linde: Management	
	G4-8	Markets served	Financial Report 2015: Corporate profile Financial Report 2015: Business review / Gases Division CR Report 2015: Corporate profile	
	G4-9	Scale	Financial Report 2015: Linde financial highlights CR Report 2015: Corporate profile CR Report 2015: Key figures	
	G4-10	Total number of employees	CR Report 2015: Corporate profile CR Report 2015: Employees across the world CR Report 2015: Diversity CR Report 2015: Key figures	We include gender-specific data where relevant for The Linde Group: for example, the percentage of female staff and the percentage of women in senior management positions. Contractors are working for Linde mainly on construction sites and as transport service providers. We involve these contractors in our safety and environmental protection management systems.
1;3	G4-11	Employees covered by collective bargaining agreements	CR Report 2015: Remuneration and social benefits CR Report 2015: Key figures	
	G4-12	Supply chain	CR Report 2015: Supply chain	

USTAINABILITY







#### General Standard Disclosure: Organisational profile

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-13	Significant changes	Financial Report 2015: Acquisitions CR Report 2015: Corporate profile CR Report 2015: Employees across the world Website Linde: Shareholder structure	There were no significant changes in 2015.
	G4-14	Precautionary approach or principle	CR Report 2015: Strategy and governance CR Report 2015: Compliance CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship CR Report 2015: Health and safety Financial Report 2015: Risk management	
	G4-15	Externally developed sustainability charters, principles or other initiatives	CR Report 2015: Global Compact CR Report 2015: Values and standards CR Report 2015: Compliance CR Report 2015: Labour standards	
	G4-16	Memberships of associations	CR Report 2015: Stakeholders CR Report 2015: Social commitment	We publish information about our most important memberships of associations.

# General Standard Disclosure: Identified material aspects and boundaries

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-17	Entities included in the organisation's consolidated financial statements	CR Report 2015: About this report CR Report 2015: Corporate profile	We do not publish any indicators on the CR performance of other companies (e.g. joint ventures, suppliers), as we have no operational control over these companies.
	G4-18	Process for defining the report content	CR Report 2015: About this report CR Report 2015: Key material issues	
	G4-19	Material Aspects	CR Report 2015: About this report CR Report 2015: Key material issues	We have covered the material aspects in our Corporate Responsibility Report. They are also included in this table. We set out the main issues under the heading "Key topics".
	G4-20	Aspect Boundary within the organisation	CR Report 2015: About this report CR Report 2015: Key material issues CR Report 2015: Key figures Financial Report 2015: List of shareholdings	On the Group's corporate responsibility website, we have identified which stage of the value chain is relevant for each topic. In each case, this information is given at the end of the pages on that particular topic: e.g. on the climate protection page.
	G4-21	Aspect Boundary outside the organisation	CR Report 2015: About this report CR Report 2015: Key material issues CR Report 2015: Key figures	On the Group's corporate responsibility website, we have identified which stage of the value chain is relevant for each topic. In each case, this information is given at the end of the pages on that particular topic: e.g. on the climate protection page.
	G4-22	Restatements of information provided in previous reports	CR Report 2015: About this report CR Report 2015: Key figures	
	G4-23	Changes from previous reporting periods	CR Report 2015: About this report Financial Report 2015: List of shareholdings	





# General Standard Disclosure: Stakeholder engagament

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-24	Stakeholder groups engaged	Website Linde: Stakeholders CR Report 2015: Stakeholders CR Report 2015: Key material issues	
	G4-25	Criteria for the selection of stakeholders	Website Linde: Stakeholders CR Report 2015: Stakeholders CR Report 2015: Key material issues	
	G4-26	Approach to stakeholder engagement	Website Linde: Stakeholders CR Report 2015: Stakeholders CR Report 2015: Key material issues	
	G4-27	Key topics and concerns through stakeholder engagement	CR Report 2015: Key material issues CR Report 2015: Stakeholders Website Linde: Stakeholders	

# General Standard Disclosure: Report profile

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-28	Reporting period	CR Report 2015: About this report	
	G4-29	Date of most recent previous report	CR Report 2015: About this report	
	G4-30	Reporting cycle	CR Report 2015: About this report	
	G4-31	Contact point for questions	CR Report 2015: Strategy and governance Website Linde: Corporate Responsibility Contact	
	G4-32	GRI Content Index	CR Report 2015: GRI index	With this CR Report we comply for the first time with the 'comprehensive' level of the G4 guidelines of the Global Reporting Initiative.
	G4-33	External assurance	CR Report 2015: Assurance	

#### General Standard Disclosure: Governance

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-34	Governance structure of the organisation	Financial Report 2015: Executive Board Financial Report 2015: Supervisory Board Financial Report 2015: Diversity in the Supervisory Board CR Report 2015: Strategy and governance CR Report 2015: Promotion of women Website Linde: Executive Board	
	G4-35	Process for delegating authority for sustainability topics from the highest governance body to senior executives and other employees	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance	
	G4-36	Executive-level positions with responsibility for economic, environmental and social topics	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance	
	G4-37	Processes for consultation between stakeholders and the highest governance body	Financial Report 2015: Supervisory Board and Executive Board procedures CR Report 2015: Strategy and governance CR Report 2015: Compliance CR Report 2015: Involving employees	





# General Standard Disclosure: Governance

NGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-38	Composition of the highest governance body and its committees	Financial Report 2015: Executive Board Financial Report 2015: Members and committees of the Supervisory Board CR Report 2015: Strategy and governance CR Report 2015: Promotion of women	
	G4-39	Chair of the highest governance body	Financial Report 2015: Members and committees of the Supervisory Board	
	G4-40	Nomination and selection processes for the highest governance body and its committees	Financial Report 2015: Supervisory Board and Executive Board procedures	
	G4-41	Process to avoide and manage conlicts of interest for the highest governance body	Financial Report 2015: Corporate governance practices	
	G4-42	Highest governance body's and senior executives' roles related to sustainability impacts	Financial Report 2015: Responsibilities Financial Report 2015: Identification of opportunities Financial Report 2015: Role of the Executive Board and the Supervisory Board regarding risk management CR Report 2015: Strategy and governance	
	G4-43	Highest governance body's collective knowledge of sustainability topics	CR Report 2015: Strategy and governance Financial Report 2015: Responsibilities	
	G4-44	Evaluation of the highest governance body's performance with respect to sustainability topics	Financial Report 2015: Supervisory Board and Executive Board procedures	
	G4-45	Highest governance body's role in the identification and management of impacts, risks, and opportunities related to sustainability	Financial Report 2015: Identification of opportunities Financial Report 2015: Role of the Executive Board and the Supervisory Board regarding risk management Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance	
	G4-46	Highest governance body's role in reviewing the effectiveness of the organisation's risk management processes for sustainability topics	Financial Report 2015: Role of the Executive Board and the Supervisory Board regarding risk management Financial Report 2015: Committees and meetings of the Supervisory Board CR Report 2015: Strategy and governance	
	G4-47	Frequency of the highest governance body's review of economic, environmental and social impacts, risks, and opportunities	Financial Report 2015: Identification of opportunities Financial Report 2015: Role of the Executive Board and the Supervisory Board regarding risk management CR Report 2015: Strategy and governance	The Linde AG Executive Board regularly makes decisions on sustainability topics at its meetings.
	G4-48	Highest committee or position that reviews and approves the sustainability report	CR Report 2015: CEO statement CR Report 2015: Strategy and governance	
	G4-49	Process for communicating critical concerns to the highest governance body	Financial Report 2015: Supervisory Board and Executive Board procedures CR Report 2015: Compliance CR Report 2015: Involving employees	
	G4-50	Critical concerns that were communicated to the highest governance body	CR Report 2015: Strategy and governance CR Report 2015: Compliance	





#### General Standard Disclosure: Governance

INGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-51	Remuneration policies for the highest governance body and senior executives	Financial Report 2015: Corporate governance practices Financial Report 2015: Remuneration of the Executive Board and the Supervisory Board CR Report 2015: Remuneration and social benefits	
	G4-52	Process for determining remuneration	Financial Report 2015: Remuneration of the Executive Board and the Supervisory Board CR Report 2015: Remuneration and social benefits	
	G4-53	Expression and consideration of stakeholders' views	Financial Report 2015: Remuneration of the Executive Board and the Supervisory Board	
	G4-54	Ratio of the annual total compensation for the organisation's highest-paid individual to the median annual total compensation for all employees		In our Code of Ethics, we set out our commitment to fair remuneration. To ensure that we provide this, we regularly review remuneration in the regions where we operate to ensure that it is appropriate and in line with the market. We do not consider that the information required for this GRI G4 performance indicator is appropriate in evaluating the fairness of the remuneration system at Linde.
	G4-55	Ratio of percentage increase in annual total compensation for the organisation's highest-paid individual to the median percentage increase in annual total compensation for all employees		In our Code of Ethics, we set out our commitment to fair remuneration. To ensure that we provide this, we regularly review remuneration in the regions where we operate to ensure that it is appropriate and in line with the market. We do not consider that the information required for this GRI G4 performance indicator is appropriate in evaluating the fairness of the remuneration system at Linde.

# General Standard Disclosure: Ethics und integrity

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-56	Values, principles, standards and norms of behavior	CR Report 2015: Values and standards CR Report 2015: Compliance CR Report 2015: Labour standards Website Linde: Company guidelines and position papers	
	G4-57	Internal and external mechanisms for seeking advice on ethical and lawful behavior, and matters related to organisational integrity	CR Report 2015: Values and standards CR Report 2015: Compliance Website Linde: Integrity Line PDF: Guideline Integrity Line	
	G4-58	Internal and external mechanisms for reporting concerns about unethical or unlawful behavior, and matters related to organisational integrity	CR Report 2015: Compliance Website Linde: Integrity Line PDF: Guideline Integrity Line	





#### **Economic indicators**

INGC	GRI	GRI indicator	Links and Downloads	Explanations	
conom	nic performa	nnce			
7	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Business model Financial Report 2015: Targets and strategy Financial Report 2015: Business review Financial Report 2015: Corporate governance practices		
	G4-EC1	Direct economic value generated and distributed	Financial Report 2015: Linde shares Financial Report 2015: Remuneration and social benefits Financial Report 2015: Group Financial Statements CR Report 2015: Social commitment	We do not publish information about tax payments at country level, as we classify this as confidential.	
7	G4-EC2	Financial implications and other risks and opportunities due to climate change	Financial Report 2015: Opportunities arising from increased climate protection efforts Financial report 2015: Regulatory and legal risks CR Report 2015: Energy and climate protection CDP Website		
7	G4-EC3	Coverage of the organisation's defined benefit plan obligations	Financial Report 2015: Provisions for pensions and similar obligations Financial Report 2015: Remuneration and social benefits		
	G4-EC4	Financial assistance received from government		We do not publish a total figure for financial assistance received from governments, as we classify this information as confidential. Subsidies for large projects (mainly research or pilot projects that are of public	
				interest) are reported on an adhoc basis: for example, through press releases.	
arket	presence				
	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Business model Financial Report 2015: Targets and strategy CR Report 2015: Supply chain CR Report 2015: Diversity	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most material	
				sustainability topics for our Group, we only report on individual aspects in this area	

which are relevant to us.

our commitment to fair

In our Code of Ethics, we set out

remuneration. To ensure that

we provide this, we regularly review remuneration in the regions where we operate to ensure that it is appropriate and in line with the market. We do not publish figures on entry level wages, as we classify this information as confidential.





G4-EC5

Ratios of standard entry

level wage by gender compared to local

minimum wage

<u>CR Report 2015: Remuneration and social benefits</u> <u>CR Report 2015: Labour standards</u>

PDF: Code of Ethics



# **Economic indicators**

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
6	G4-EC6	Proportion of senior managament hired from the local community	CR Report 2015: Diversity	In 2012, we looked at our senior managers in the key emerging markets and ascertained that about 70 percent of them had been hired from the local community. We are not aware of any significant subsequent change to this figure.

#### Indirect economic impacts

1;6	G4-DMA	Management approach	CR Report 2015: Employees and society CR Report 2015: Social commitment	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
2	G4-EC7	Development and impact of infrastructure investments and services supported	Financial Report 2015: Targets and strategy CR Report 2015: Social commitment CR Report 2015: Employees across the world CR Report 2015: Winning talent CR Report 2015: Remuneration and social benefits	
2	G4-EC8	Indirect economic impacts	CR Report 2015: Social commitment CR Report 2015: Employees across the world CR Report 2015: Remuneration and social benefits Website Linde: Linde worldwide	

# Procurement practices

1;2;3; 4;5;6	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Supply chain CR Report 2015: Raw materials Website Linde: Supply chain PDF: Code of Conduct for Suppliers PDF: Ethical-Legal Principles	
	G4-EC9	Proportion of spending on local suppliers	CR Report 2015: Supply chain	







UNGC	GRI	GRI indicator	Links and Downloads	Explanations
Materia	als			
8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship CR Report 2015: Raw materials CR Report 2015: Supply chain Website Linde: Supply chain Website Linde: Product stewardship Website Linde: Raw materials PDF: Policy on health, safety and environmental protection	
8	G4-EN1	Materials used by weight or volume	CR Report 2015: Raw materials CR Report 2015: Key figures CR Report 2015: Energy and climate protection	The most important renewable resource for Linde is air from the atmosphere. The Group derives its products from the components of air. We report air gases sold in the financial year as a proportion of total gases sold, measured by weight. The consumption of other key resources and materials we publish as a total figure for raw materials and supplies used. We do not distinguish here between renewable and non-renewable materials, as this information is not strategically meaningful for our Group. The key packaging material for Linde is gas cylinders, which are reused and have therefore not been included in the performance indicator for packaging
8;9	G4-EN2	Materials used that are recycled input materials	CR Report 2015: Safety and environmental protection CR Report 2015: Raw materials	materials.  This performance indicator is only relevant for certain areas of our business operations and the information is therefore not strategically meaningful for the Group.  The most important renewable resource for Linde is air from the atmosphere. The Group derives many of its products from the components of air. We report air gases sold in the financial year as a proportion of total gases sold, measured by weight as well as the proportion of CO <sub>2</sub> products derived from recycling processes.







NGC	GRI	GRI indicator	Links and Downloads	Explanations
nergy				
8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Opportunities arising from increased climate protection efforts Financial report 2015: Regulatory and legal risks CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Joals CR Report 2015: Innovation and products CR Report 2015: Safety and environmental protection CR Report 2015: Energy and climate protection Website Linde: Clean Technology by Linde Website Linde: Energy PDF: Policy on health, safety and environmental protection	
8	G4-EN3	Energy consumption within the organisation  CR Report 2015: Energy and climate protection CR Report 2015: Key figures	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report our direct consumption of natural gas and other fuels, including heating oil, thermal energy, refinery gases and synthesis gases, diesel fuel, butane and propane. Standard conversion factors are used. Our total
				energy consumption including electricity consumption in 2015 was around 79 million MWh (2014: 78 million MWh). We do not break direct energy consumption down further into renewable and non-renewable primary energy sources, as the cost of collecting the data is not strategically meaningful for the Group. We do not publish information on the sale of energy, as we classify this as confidential.
8	G4-EN4	Energy consumption outside of the organisation	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report Scope 3 emissions from business travel. The underlying energy consumption is thereby presented indirectly.
8	G4-EN5	Energy intensity	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	Total energy consumption (in MWh) within the Group per million euro of revenue fell in the 2015 reporting year to 4,397 MWh per million euro (2014: 4,570 MWh per million euro).
2	G4-EN6	Reduction of energy consumption	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	
2	G4-EN7	Reduction in energy requirements of products and services	CR Report 2015: Strategy and governance CR Report 2015: Innovation and products CR Report 2015: Energy and climate protection	Our products and technologies support our customers' efforts to increase energy efficiency in their processes. In our reports, we provide examples of selected Linde products which have generated energy savings and resulted in reduced CO <sub>2</sub> emissions for our customers.





NGC	GRI	GRI indicator	Links and Downloads	Explanations
/ater	<del>_</del>			
8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Safety and environmental protection CR Report 2015: Water Website Linde: Water PDF: Policy on health, safety and environmental protection	
8	G4-EN8	Total water withdrawal	CR Report 2015: Water CR Report 2015: Key figures	Most of the water used by Linde is taken from surface water and used as cooling water. In most cases, it can be fed back into the water system without the
				need for further treatment. The performance indicator for water use is based, where available, on measurements taken. If measurements are not available, we use estimates. The data requested for this GRI
				indicator on total water withdrawal is only of limited relevance to Linde and therefore does not constitute a strategically meaningful control parameter for our Group.
8;9	G4-EN9	Water sources affected by withdrawal of water	CR Report 2015: Water CR Report 2015: Key figures	We report the proportion of Linde sites in regions with water stress or water scarcity as defined by the World Business Council for Sustainable Development.
8	G4-EN10	Water recycled and reused	CR Report 2015: Water CR Report 2015: Key figures	Most of the water used by Linde is taken from surface water and used as cooling water. In most cases, it can be fed back into the water system without the need for further treatment.
iodive	ersity			ileco foi fortifei d'estificiti.
8	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Safety and environmental protection CR Report 2015: Ecosystems Website Linde: Biodiversity PDF: Policy on health, safety and environmental protection	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
8	G4-EN11	Operational sites in or adjacent to protected areas	CR Report 2015: Ecosystems CR Report 2015: Water Website Linde: Biodiversity	
8	G4-EN12	Impacts on biodiversity in protected areas	CR Report 2015: Ecosystems CR Report 2015: Water Website Linde: Biodiversity	



UNGC	GRI	GRI indicator	Links and Downloads	Explanations
8	G4-EN13	Habitats protected or restored	CR Report 2015: Ecosystems CR Report 2015: Water Website Linde: Biodiversity	
8	G4-EN14	Endangered species	CR Report 2015: Ecosystems Website Linde: Biodiversity	

#### Fmissions

Emissio	ons			
7;8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Opportunities arising from increased climate protection efforts Financial report 2015: Regulatory and legal risks CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Innovation and products CR Report 2015: Safety and environmental protection CR Report 2015: Energy and climate protection CR Report 2015: Air emissions Website Linde: Air Website Linde: Clean Technology by Linde PDF: Policy on health, safety and environmental protection	
8	G4-EN15	Direct greenhouse gas emissions (Scope 1)	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report direct (Scope 1) and indirect (Scope 2) emissions in accordance with the standards set out in the Greenhouse Gas Protocol. As a source for global warming potential, we use publications by the IPCC (Intergovernmental Panel on Climate Change). Calculations of emissions from direct and indirect energy consumption (electricity) are based on local conversion factors, where these are available. If this is not the case, we use average country factors. The source for these is data from the IEA (International Energy Agency) and DEFRA (the Department for Environmental and Rural Affairs). Our reports include all Linde production sites over which Linde has operational control.







UNGC	GRI	GRI indicator	Links and Downloads	Explanations
8	G4-EN16	Energy indirect greenhouse gas emissions (Scope 2)	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report direct (Scope 1) and indirect (Scope 2) emissions in accordance with the standards set out in the Greenhouse Gas Protocol. As a source for global warming potential, we use publications by the IPCC (Intergovernmental Panel on Climate Change). Calculations of emissions from direct and indirect energy consumption (electricity) are based on local conversion factors, where these are available. If this is not the case, we use average country factors. The source for these is data from the IEA (International Energy Agency) and DEFRA (the Department for Environmental and Rural Affairs). Our reports include all Linde production sites over which Linde has operational control. Linde does not emit significant quantities of biogenic CO <sub>2</sub> .
8	G4-EN17	Other indirect greenhouse gas emissions (Scope 3)	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report Scope 3 emissions from business travel. The effect of radiative forcing in aviation is taken into consideration. The data used is based on statistics provided by the travel service provider which organises all the Group's business trips. Emission factors are provided by DEFRA (the Department for Environmental and Rural Affairs). Linde does not emit significant quantities of biogenic CO <sub>2</sub> .
8	G4-EN18	Greenhouse gas emissions intensity	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report the following ratios: The ratio of Scope 1 + Scope 2 emissions (in tCO <sub>2</sub> e) to revenue (in EUR million) The ratio of Scope 1 + Scope 2 emissions (in tCO <sub>2</sub> e) to the number of employees at the year-end.
7;8;9	G4-EN19	Reduction of greenhouse gas emissions	CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report on current climate protection targets in the section entitled accordingly. In 2015, the Group set itself a new climate target (Scope 1 and 2). By 2020, Linde wants to avoid a total of 6 million tonnes of CO <sub>2</sub> e in direct and indirect greenhouse gas emissions compared with the year 2009.



UNGC	GRI	GRI indicator	Links and Downloads	Explanations
8	G4-EN20	Emissions of ozone- depleting substances	CR Report 2015: Energy and climate protection CR Report 2015: Air emissions CR Report 2015: Key figures	For Linde, the most relevant emissions in terms of climate protection are CO <sub>2</sub> emissions from its own business operations. We present detailed information about these emissions.  We are currently assessing how useful it would be for us to include this GRI indicator in our reporting by 2020.
8	G4-EN21	NOx, SOx, and other air emissions	CR Report 2015: Energy and climate protection CR Report 2015: Air emissions CR Report 2015: Key figures	Global emissions of air pollutants (NOx, SOx, CO, VOC and NH3) are calculated when available on the basis of measured data. For sites where no measurements have been taken, estimates are made.
Effluent	ts and waste			

7;8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Safety and environmental protection CR Report 2015: Water CR Report 2015: Waste Website Linde: Waste Website Linde: Waste Website Linde: Waste PDF: Policy on health, safety and environmental protection	
8	G4-EN22	Total water discharge	CR Report 2015: Water CR Report 2015: Key figures	Most of the water used by Linde is taken from surface water and used as cooling water. In most cases, it can be fed back into the water system without the need for further treatment. The data requested for this GRI indicator on total water discharge is only of limited relevance to Linde and therefore does not constitute a strategically meaningful control parameter for our Group.

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
8	G4-EN23	Total weight of waste	CR Report 2015: Waste CR Report 2015: Key figures	Not only do we disclose the total amount of hazardous and non-hazardous waste we produce, we also give details about the proportions of waste we dispose of in different ways. Some of the relevant information is provided by waste disposal contractors. Other data required for this GRI indicator on waste and waste disposal methods is not relevant to Linde and therefore does not constitute a strategically meaningful control parameter for our Group.
8	G4-EN24	Spills	CR Report 2015: Safety and environmental protection CR Report 2015: Energy and climate protection CR Report 2015: Water CR Report 2015: Production CR Report 2015: Air emissions CR Report 2015: Key figures	Serious emissions from process losses are included in our key figures on emissions to air and emissions to water. We disclose the number of reportable environmental incidents together with information on the background to those incidents. Spills are included in these figures.
8	G4-EN25	Hazardous waste	CR Report 2015: Waste CR Report 2015: Key figures	Not only do we disclose the total amount of hazardous and non-hazardous waste we produce, we also give details about the proportions of waste we dispose of in different ways. All the information relevant to the topic of waste in The Linde Group has therefore been covered. In most cases, hazardous waste is handled by specialist waste disposal companies. Linde does not import any significant quantities of waste.
8	G4-EN26	Water bodies and related habitats affected	CR Report 2015: Water	Where necessary, waste water from our production processes and sanitary facilities is either dealt with directly in our own waste water treatment plants or fed into municipal or industrial treatment systems. We comply here with permitted emission levels.







UNGC	GRI	GRI indicator	Links and Downloads	Explanations
Produc	ts and servi	ces		
7;8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship CR Report 2015: Energy and climate protection Website Linde: Environment and safety Website Linde: Clean Technology by Linde PDF: Policy on health, safety and environmental protection	Linde has global guidelines in place for potential cases of recalls.
7;8;9	G4-EN27	Impact mitigation of environmental impacts of products and services	CR Report 2015: Strategy and governance CR Report 2015: Innovation and products CR Report 2015: Product stewardship Website Linde: Clean Technology by Linde	
8;9	G4-EN28	Products sold and their reclaimed packaging materials		Data on the total volume of products sold is classified as confidential. In our report, we disclose the total volume of packaging material, as well as major initiatives for taking back packaging material. Gas cylinders for deliveries to our customers are reused on average four times a year and refilled. The gas cylinders have a lifespan of many years. In individual cases, Linde assumes responsibility for disposing of other packaging materials for its customers. Sometimes we also offer customers waste collection and disposal services.
Compli	ance			
8	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Risk management CR Report 2015: Safety and environmental protection CR Report 2015: Compliance	
8	G4-EN29	Fines and sanctions for non-compliance with environmental laws and regulations	CR Report 2015: Safety and environmental protection CR Report 2015: Key figures	We report the number of reportable environmental incidents, the number of environmental complaints received and payments arising as a result.





	nmental in				
UNGC	GRI	GRI indicator	Links and Downloads	Explanations	
Transp	ort				
8	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Safety and environmental protection CR Report 2015: Transport CR Report 2015: Energy and climate protection Website Linde: Transport PDF: Policy on health, safety and environmental protection		
8	G4-EN30	Environmental impacts	CR Report 2015: Transport CR Report 2015: Energy and climate protection CR Report 2015: Key figures	We report an estimated number for fuel consumption of the Linde transport fleet and related direct greenhouse gas emissions.	_
Overali	1				H
8	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards		_
			CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship PDF: Policy on health, safety and environmental protection		
7;8;9	G4-EN31	Environmental protection expenditures and investments	CR Report 2015: Safety and environmental protection	Key figures are collected at local level in accordance with local legislation. We do not publish these figures, as we classify this information as confidential.	0 20 11
Supplie	er environme	ental assessment			
	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Supply chain CR Report 2015: Transport CR Report 2015: Raw materials Website Linde: Supply chain PDF: Code of Conduct for Suppliers	In 2013, we commissioned an external analysis of sustainability risks in our supply chain. This enables us to classify every individual supplier according to its risk potential in the area of sustainability.	CAFETY C
7;8;9	G4-EN32	Suppliers screened	CR Report 2015: Supply chain CR Report 2015: Raw materials	In 2015, all new suppliers automatically signed up to the Code of Conduct for Suppliers. There is also a continual process in place to ensure that those suppliers with whom contracts were signed prior to 2013, the year the Code of Conduct for Suppliers was introduced, agree to be bound by the Code.	PMDIOVERS







NGC	GRI	GRI indicator	Links and Downloads	Explanations
7;8;9	G4-EN33	Environmental impacts in the suppy chain	CR Report 2015: Supply chain CR Report 2015: Raw materials	By way of example, we report key figures on impacts in the supply chain and measures taken for contractors on construction sites.
Environ	nmental grie	vance mechanisms		
7;8;9	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Compliance Website Linde: Compliance PDF: Policy on health, safety and environmental protection	
7;8;9	G4-EN34	Grievances		We report the number of reportable environmental incidents, the number of environmental complaints received and payments arising as a result.
Social	indicators:	Labour practices and dece	nt work	
UNGC	GRI	GRI indicator	Links and Downloads	Explanations
Employ	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Personnel opportunities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Employees across the world	
			Website Linde: Values and standards PDF: Code of Ethics (p. 39)	
	G4-LA1	Employee hires and employee turnover	CR Report 2015: Employees across the world CR Report 2015: Key figures	We report the number of new employee hires by gender and the employee turnover rate. We do not publish any other data on hiring employees as we
				classify this information as confidential. Where it is relevant for The Linde Group, we also provide gender-specific data, such as the percentage of female staff and the percentage of women in senior management positions.
	G4-LA2	Benefits provided to full-time employees	CR Report 2015: Remuneration and social benefits CR Report 2015: Work-life balance CR Report 2015: Key figures	confidential. Where it is relevant for The Linde Group, we also provide gender-specific data, such as the percentage of female staff and the percentage of women in senior







INGC	GRI	GRI indicator	Links and Downloads	Explanations
abor ,	/ managame	ent relations		
1;3	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Involving employees Website Linde: Involving employees PDF: Position on Human Rights	
3	G4-LA4	Minimum notice periods regarding operational changes	CR Report 2015: Involving employees	We notify our employees and/or employee representative bodies promptly of any significant company agreements. In 2015, the Executive Board of Linde AG and the European Works Council entered into an agreement on minimum standards for efficiency improvement measures which have an impact on staff numbers. These measures should be implemented in a socially responsible manner. Provisions set out in the agreement include an open and transparent information and consultation process to be conducted with employee representatives and ways in which compulsory redundancies can be avoided.
ccupa 1	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Safety risks CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Safety and environmental protection CR Report 2015: Health and safety CR Report 2015: Supply chain Website Linde: Labor standards Website Linde: Occupational health and safety PDF: Policy on health, safety and environmental protection	



UNGC	GRI	GRI indicator	Links and Downloads	Explanations
1	G4-LA6	Type of injury and rates of injury, occupational diseaeses, lost days, and absenteeism, and total number of work-related fatalities	CR Report 2015: Safety and environmental protection CR Report 2015: Transport CR Report 2015: Health and safety CR Report 2015: Key figures	We record and publish those key figures which are relevant to the evaluation and improvement of our health and safety performance. These include the number of workplace accidents per million hours worked by employees and contractors (LTIR), the number of workplace accidents resulting in fatalities of employees and contractors, the number of accidents with at least one day of absence, etc. We do not break down these figures by region, as we classify this information as confidential. Where it is relevant for The Linde Group, we provide gender-specific data, such as the percentage of female staff and the percentage of women in senior management positions.
1	G4-LA7	Workers with high incidence or high risk of diseases	CR Report 2015: Safety and environmental protection CR Report 2015: Health and safety	
1	G4-LA8	Health and safety topics covered in formal agreements with trade unions	CR Report 2015: Involving employees CR Report 2015: Key figures	We report the proportion of employees covered by collective wage agreements. We do not record other data included as part of this GRI indicator, as this information does not constitute a strategically meaningful control parameter for our Group.
Trainin	g and educa	ation		
	G4-DMA	Management approach	Financial Report 2015: Responsibilities Financial Report 2015: Personnel opportunities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Employees across the world CR Report 2015: Winning talent CR Report 2015: Labour standards	



Website Linde: Competing for talent

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-LA9	Hours of training	CR Report 2015: Involving employees CR Report 2015: Safety and environmental protection CR Report 2015: Key figures	Where it is relevant for The Linde Group, we provide gender-specific data, such as the percentage of female staff and the percentage of women in senior management positions. We also provide information on the number of women participating in talent programmes. We do not break down this information further by employee category, as it does not constitute a strategically meaningful control parameter for our Group.
	G4-LA10	Skills management and lifelong learning	CR Report 2015: Winning talent	
	G4-LA11	Performance and career development reviews	CR Report 2015: Winning talent	We conduct regular staff appraisals to ensure that our employees are presented with targeted professional development opportunities. To date, we have not reported any data relating to these appraisals.

# Diversity and equal opportunity

1;6	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Diversity CR Report 2015: Labour standards Website Linde: Values and standards Website Linde: Diversity Website Linde: Labor standards PDF: Code of Ethics (p. 38) PDF: Position on Human Rights	
1;6	G4-LA12	Composition of governance bodies	Financial Report 2015: Diversity in the Supervisory  Board CR Report 2015: Diversity CR Report 2015: Key figures Website Linde: Executive Board and Supervisory Board	We report on all aspects which are key to our diversity management. We classify information on our employees' membership of minority groups as confidential. The composition of the Executive Board and the Supervisory Board by gender, age and origin is published on our website.





1GC	GRI	GRI indicator	Links and Downloads	Explanations
ual r	emuneration	for women and men		
1;6	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Remuneration and social benefits CR Report 2015: Diversity Website Linde: Diversity PDF: Code of Ethics (p. 38) PDF: Position on Human Rights	
1;6	G4-LA13	Ratio of basic salary and remuneration of women to men	CR Report 2015: Remuneration and social benefits CR Report 2015: Diversity	The remuneration of individual Linde Group employees is dependent on their function and their qualifications and is not determined by genderspecific aspects. We regularly review remuneration in the regions where we operate to ensure that it is appropriate and in line with market conditions. We do not publish data relating to this issue, as we classify this information as confidential.
upplie	er assessmer	nt for labor practices		
1;6	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Supply chain CR Report 2015: Transport CR Report 2015: Raw materials Website Linde: Supply chain PDF: Code of Conduct for Suppliers	In 2013, we commissioned an external analysis of sustainability risks in our supply chain. This enables us to classify every individual supplier according to its risk potential in the area of sustainability. This enables us to classify individual suppliers according to their risk potential in the area of sustainability.
1;6	G4-LA14	New suppliers screened	CR Report 2015: Supply chain PDF: Code of Conduct for Suppliers	In 2015, all new suppliers automatically signed up to the Code of Conduct for Suppliers. There is also a continual process in place to ensure that those suppliers with whom contracts were signed prior to 2013, the year the Code of Conduct for Suppliers was introduced, agree to be bound by the Code.
1;6	G4-LA15	Impacts on labor practices in the supply chain	CR Report 2015: Supply chain	By way of example, we report key figures on impacts in the supply chain and measures taken for contractors on construction sites.
abor µ	oractices grie	evance mechanisms		
1;6	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Compliance CR Report 2015: Labour standards Website Linde: Integrity Line PDF: Guideline Integrity Line (p. 3)	





G4-LA16	Grievance	CR Report 2015: Compliance CR Report 2015: Labour standards Website Linde: Integrity Line PDF: Guideline Integrity Line (p. 7)	
	_		
GRI	GRI indicator	Links and Downloads	Explanations
ment			
G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Values and standards CR Report 2015: Compliance CR Report 2015: Supply chain CR Report 2015: Diversity CR Report 2015: Labour standards Website Linde: Values and standards Website Linde: UN Global Compact Website Linde: Integrity Line PDF: Position on Human Rights PDF: Code of Ethics (p. 25) PDF: Code of Conduct for Suppliers	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
G4-HR1	Investment agreements and contracts that include human rights clauses	CR Report 2015: Supply chain	
G4-HR2	Employee training on human rights policies	CR Report 2015: Compliance CR Report 2015: Supply chain PDF: Code of Ethics (p. 8)	In this report, we provide information on the number of training sessions completed on our Code of Ethics, which also covers the issue of human rights. Moreover, we report the proportion of employees working in procurement who were provided with training on the content of the Code of Conduct for Suppliers. In addition, Linde is training security personnel on this subject (see GRI indicator G4-HR7).
scrimination			
G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Diversity CR Report 2015: Labour standards CR Report 2015: Compliance CR Report 2015: Supply chain Website Linde: Diversity Website Linde: Labor standards Website Linde: Integrity Line PDF: Position on Human Rights	
	GRI G4-DMA G4-HR1 G4-HR2	G4-DMA Management approach  G4-HR1 Investment agreements and contracts that include human rights clauses  G4-HR2 Employee training on human rights policies	Indicators: Human Rights  GRI GRI indicator  Einancial Report 2015: Responsibilities  GR Report 2015: Supply chain  GR Report 2015: Linde: Undicated Website Linde: Undicated human rights clauses  GA-HR1 Investment agreements and contracts that include human rights clauses  GA-HR2 Employee training on human rights policies  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Supply chain  Financial Report 2015: Supply chain  GR Report 2015: Supply chain  Financial Report 2015: Financial chain supply chain  Financial Report 2015: Financial chain supply chain  Financial Report 2015: Financial chain supply ch





G4-HR3

1;2;6

Incidents of discrimination

CR Report 2015: Compliance CR Report 2015: Diversity CR Report 2015: Key figures



# Social Indicators: Human Rights

UNGC GRI GRI indicator Links and Downloads Explanations

#### Freedom of association and collective bargaining

1;2;3	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Involving employees CR Report 2015: Labour standards CR Report 2015: Compliance CR Report 2015: Supply chain Website Linde: Involving employees Website Linde: Labor standards Website Linde: Integrity Line PDF: Position on Human Rights PDF: Code of Ethics (p. 38) PDF: Code of Conduct for Suppliers	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.	
	G4-HR4	Risk regarding the right to exercise freedom of association and collective bargaining	CR Report 2015: Involving employees Website Linde: Labor standards	In our Code of Ethics, which is binding on all employees, and our Code of Conduct for Suppliers, we set out our commitment to safeguarding freedom of assembly and association. In 2015 again, we investigated risks relating to the right to freedom of assembly and association as part of a global labour and social standards survey. In 2013, Linde commissioned an external analysis of sustainability risks in the supply chain which focused on country and product risks and also covered the right to freedom of assembly and association.	
Child la	abor				
1;2;5	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance	This topic is relevant to Linde in the context of sustainability	

			] · ·	
1;2;5	G4-DMA	Management approach	<u>Financial Report 2015: Responsibilities</u>	This topic is relevant to Linde in
			CR Report 2015: Strategy and governance	the context of sustainability
			CR Report 2015: Values and standards	and is covered by our
			CR Report 2015: Labour standards	management systems. As it is
			<u>CR Report 2015: Compliance</u>	not one of the most relevant
			CR Report 2015: Supply chain	sustainability topics for our
			Website Linde: Labor standards	Group, we only report on
			Website Linde: Integrity Line	individual aspects in this area
			PDF: Position on Human Rights	which are relevant to us.
			PDF: Code of Ethics (p. 38)	
			PDF: Code of Conduct for Suppliers	



#### Social Indicators: Human Rights

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
1;2;5	G4-HR5	Risks for incidents of child labor	CR Report 2015: Labour standards Website Linde: Labor standards	In our Position Paper on Human Rights, in our Code of Ethics, which is binding on all employees, and in our Code of Conduct for Suppliers, we set out our commitment to respecting human rights worldwide. In 2015 again, we investigated child labour risks as part of a global labour and social standards survey. In 2013, Linde commissioned an external analysis of sustainability risks in the supply chain which focused on country and product risks and also covered the subject of child labour.
1;2;4	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Labour standards CR Report 2015: Compliance CR Report 2015: Supply chain Website Linde: Labor standards Website Linde: Integrity Line PDF: Position on Human Rights PDF: Code of Ethics (p. 38) PDF: Code of Conduct for Suppliers	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
1;2;4	G4-HR6	Risks for incidents of forced or compulsory labor	CR Report 2015: Labour standards Website Linde: Labor standards	In our Position Paper on Human Rights, in our Code of Ethics, which is binding for all employees, and in our Code of Conduct for Suppliers, we set

out our commitment to respecting human rights worldwide. In 2015 again, we investigated forced labour risks as part of a global labour and social standards survey. In 2013, Linde commissioned an

external analysis of sustainability risks in the supply chain which focused on country and product risks and also covered the subject of

forced labour.





# Social Indicators: Human Rights

NGC	GRI	GRI indicator	Links and Downloads	Explanations
ecurit	y practices			
1;2	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Compliance CR Report 2015: Labour standards Website Linde: Labor standards Website Linde: Integrity Line PDF: Position on Human Rights PDF: Code of Ethics (p. 37) PDF: Code of Conduct for Suppliers	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.  Security personnel at our sites have to undergo a rigorous vetting process. Our security officers must respect human dignity and human rights and act in accordance with local laws and regulations. In
				safeguarding the security of our sites, we comply with international standards such as the UN Basic Principles on the Use of Force. Linde security personnel all receive training on these issues.
1;2	G4-HR7 Security personnel trained	Security personnel trained		Security personnel at our sites have to undergo a rigorous vetting process. Our security officers must respect human dignity and human rights and act in accordance with local laws and regulations. In
				safeguarding the security of our sites, we comply with international standards such as the UN Basic Principles on the Use of Force. Linde security personnel all receive training on these issues.
ndigei	nous rights			
1; 2	G4-DMA	Management approach		This aspect is not one of the key sustainability topics for The Linde Group, as our business activities are not associated with any violations of indigenous rights. For this reason, we do not provide any further information on this topic.
1;2	G4-HR8	Incidents of violations involving the rights of indigenous peoples		We are not aware of any instances where the rights of indigenous peoples were violated in 2015.







UNGC	GRI	Human Rights  GRI indicator	Links and Downloads	Explanations	
Assessi				<u> </u>	
1;2	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Compliance CR Report 2015: Labour standards Website Linde: Labor standards		
1;2	G4-HR9	Review of operations	CR Report 2015: Labour standards		
Supplie	er human rig	hts assessment			
1;2	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Goals CR Report 2015: Supply chain Website Linde: Supply chain Website Linde: Code of conduct for suppliers	In 2013, we commissioned an external analysis of sustainability risks in our supply chain. This enables us to classify every individual supplier according to its risk potential in the area of sustainability.  In 2015, all new suppliers automatically signed up to the Code of Conduct for Suppliers. There is also a continual process in place to ensure that those suppliers with whom contracts were signed prior to 2013, the year the Code of Conduct for Suppliers was introduced, agree to be bound by the Code.	CONTENTS
			PDF: Code of Conduct for Suppliers		l E
1;2;3; 4;5;6	G4-HR10	Suppliers screened	CR Report 2015: Supply chain		THE
					ABOUT
1;2;3; 4;5;6	G4-HR11	Human rights impacts in the supply chain	CR Report 2015: Supply chain	By way of example, we report key figures on impacts in the supply chain and measures taken for contractors on construction sites.	STRATEGY &
Human	rights griev	rance mechanisms			STRA
1;2	G4-DMA	Management approach	CR Report 2015: Compliance		
			CR Report 2015: Labour standards Website Linde: Code of conduct for suppliers Website Linde: Compliance Website Linde: Integrity Line PDF: Guideline Integrity Line		SAFETY &



1;2

G4-HR12

Grievances

CR Report 2015: Compliance CR Report 2015: Labour standards



environment. Our community investment programmes are coordinated at a regional level. These involve voluntary work with communities in the vicinity of our business locations. The needs of those local communities are identified in consultation with

Our business operations have

no significant negative impacts on local communities beyond the risks outlined in the environment and safety section. We monitor and minimise potential risks through our corporate responsibility management.

our stakeholders.

C:-	امنامانا		Cariata
oucia	HILLIGIC	<b>วเบเร</b> ะ	Society

UNGC GRI **GRI** indicator Links and Downloads **Explanations** Local communities G4-DMA This topic is relevant to Linde in Management approach Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance the context of sustainability and is covered by our CR Report 2015: Stakeholders CR Report 2015: Safety and environmental management systems. As it is not one of the most relevant protection CR Report 2015: Production sustainability topics for our CR Report 2015: Product stewardship Group, we only report on individual aspects in this area CR Report 2015: Social commitment Website Linde: Social commitment which are relevant to us. G4-S01 Operations with local Around the world, we review CR Report 2015: Stakeholders and manage the local and community engagement CR Report 2015: Safety and environmental programs global impact of our business protection CR Report 2015: Social commitment activities on people and the

CR Report 2015: Safety and environmental

protection

Anti-corruption

G4-S02

Impacts on local

communities

10	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Compliance Website Linde: Compliance PDF: Code of Ethics (p. 34)	
10	G4-S03	Assessment of operations regarding corruption	CR Report 2015: Compliance Financial Report 2015: Compliance	A mandatory risk analysis process (compliance risk assessment) was introduced in 2014, covering general compliance, antitrust law and corruption. We do not publish the results of these analyses, as we classify this information as confidential.





Social indicators: Soci	ıet۱	I

NGC	GRI	GRI indicator	Links and Downloads	Explanations
10	G4-S04	Communication and training	CR Report 2015: Compliance PDF: Code of Ethics (p. 9)	Our aim is to train 100 percent of our employees on our Code of Ethics. All employees receive a copy of the Code of Ethics when they start working at the company and must confirm in writing that they have read and understood it. Furthermore, we organise a Group-wide elearning programme and classroom-based courses to familiarise our employees with the Code of Ethics. We report total figures for both. We do not evaluate the annual percentage as the effort involved in doing so would be disproportionate to the benefit.
10	G4-S05	Confirmed incidents of corruption	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.
Public	policy			
;2;3; ;5;6;	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Stakeholders CR Report 2015: Social commitment	This topic is relevant to Linde in the context of sustainability and is covered by our
;8;9; 10			CR Report 2015: Global Compact Website Linde: Stakeholders PDF: Code of Ethics (p. 42)	management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
10	G4-S06	Political contributions	CR Report 2015: Stakeholders CR Report 2015: Social commitment	
Anti-co	ompetitive b	ehaviour		
10	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance	

10	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards Website Linde: Compliance PDF: Code of Ethics (p. 16)	
10	G4-S07	Legal actions	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.





Social	indicators:	Society

JNGC	GRI	GRI indicator	Links and Downloads	Explanations
ompli	iance			
	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Compliance Website Linde: Values and standards Website Linde: Compliance PDF: Code of Ethics (p. 9)	
	G4-S08	Monatery value of fines and non-monetary sanctions	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.
upplie	er assessmer	nt for impacts on society		
	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Goals CR Report 2015: Supply chain CR Report 2015: Transport Website Linde: Supply chain PDF: Code of Conduct for Suppliers	In 2013, we commissioned an external analysis of sustainability risks in our supply chain. This enables us to classify every individual supplier according to its risk potential in the area of sustainability.
	G4-S09	Suppliers screened	CR Report 2015: Supply chain	In 2015, all new suppliers automatically signed up to the Code of Conduct for Suppliers. There is also a continual process in place to ensure that those suppliers with whom contracts were signed prior to 2013, the year the Code of Conduct for Suppliers was introduced, agree to be bound by the Code.
	G4-S010	Impacts on society in the supply	CR Report 2015: Supply chain	By way of example, we report key figures on impacts in the supply chain and measures taken for contractors on construction sites.
Grieva	nce mechani	sms for impacts on society		
	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Compliance Website Linde: Integrity Line PDF: Guideline Integrity Line (p. 3)	
			ror: doidenne integrity tine (p. 3)	







# Social indicators: Product responsibility

UNGC GRI GRI indicator Links and Downloads Explanations

# Costumer health and safety

1	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship Website Linde: Compliance Website Linde: Product stewardship PDF: Code of Ethics (p. 21) PDF: Policy on health, safety and environmental protection	
1	G4-PR1	Assessement of products and services on health and safety impacts	CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship REACH Website Linde	
1	G4-PR2	Compliance with regulations	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.

# Product and service labelling

8	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Strategy and governance CR Report 2015: Values and standards CR Report 2015: Safety and environmental protection CR Report 2015: Product stewardship Website Linde: REACH Website Linde: Product stewardship PDF: Policy on health, safety and environmental protection	
8	G4-PR3	Labelling of products	CR Report 2015: Product stewardship Website Linde: REACH	
8	G4-PR4	Compliance with regulations	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.
	G4-PR5	Results of surveys measuring costumer satisfaction	CR Report 2015: Costumers CR Report 2015: Product stewardship Website Linde: Stakeholders	We systematically measure customer satisfaction levels worldwide as part of our customer experience management programme. We use the results of surveys, our customer complaint management service and other information channels to help us improve our products and offerings.

Marketing communications







VGC	GRI	GRI indicator	Links and Downloads	Explanations
	G4-DMA	Management approach	CR Report 2015: Compliance PDF: Code of Ethics (p. 23)	This topic is relevant to Linde in the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
	G4-PR6	Sale of banned or disputed products	PDF: Code of Ethics (p. 26)	
	G4-PR7	Compliance with regulations	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.
stum 1	G4-DMA	Management approach	CR Report 2015: Compliance	This topic is relevant to Linde in
			Website Linde: Compliance PDF: Code of Ethics (p. 36)	the context of sustainability and is covered by our management systems. As it is not one of the most relevant sustainability topics for our Group, we only report on individual aspects in this area which are relevant to us.
				In our Code of Ethics, we set out our commitment to the protection of personal data. We have therefore appointed a senior data protection officer. We keep our employees informed about data protection requirements and provide training for those who come
				into contact with personal data in their professional capacity.
1	G4-PR8	Complaints	CR Report 2015: Compliance	In this report, we disclose the total number of complaints made to the Linde Integrity



# Social indicators: Product responsibility

UNGC	GRI	GRI indicator	Links and Downloads	Explanations
Compli	ance			
	G4-DMA	Management approach	Financial Report 2015: Responsibilities CR Report 2015: Compliance CR Report 2015: Product stewardship Website Linde: Compliance Website Linde: Product stewardship PDF: Code of Ethics (p. 9)	
	G4-PR9	Fines	Financial Report 2015: Legal risks Financial Report 2015: Litigation	In our Financial Report, we disclose the most important current or foreseeable legal or arbitration proceedings in which The Linde Group or one of its Group companies is involved.

# INDEPENDENT ASSURANCE REPORT

To the Management of The Linde Group, Munich

We have performed an independent assurance engagement on selected environmental and safety performance indicators, including explanatory notes, for the business year 2015 of The Linde Group, Munich (further "Linde"), published in the online Linde Corporate Responsibility Report 2015 (further "the Report"), available at <a href="http://corporateresponsibility.linde.com/cr-report/2015/">http://corporateresponsibility.linde.com/cr-report/2015/</a>. The following selected environmental and safety performance indicators are included in the scope of the assurance engagement and marked with the symbol in the Report:

- Use of resources:
  - Energy
  - Water
  - Resources and materials
- Emissions:
  - Direct greenhouse gas emissions (Scope 1)
  - Indirect greenhouse gas emissions (Scope 2)
  - Other indirect greenhouse gas emissions (Scope 3)
  - Emissions to air
  - Emissions to water
- Waste and recycling
- Transport safety
  - Number of serious traffic incidents involving trucks per 1 million km
- Occupational health and safety:
  - Workplace accidents by employees (per million working hours)
  - Number of workplace accidents by contractors with at least one day of absence
  - Number of fatalities involving employees
  - Number of fatalities involving contractors
- Certified sites
  - Production sites certified to ISO 9001
  - Production sites certified to ISO 14001
  - Production sites certified to OHSAS 18001

It was not part of our engagement to review product or service related information, references to external information sources, expert opinions and future-related statements in the Report.





# Management's Responsibility for the Report

The legal representatives of Linde are responsible for the preparation of the Report in accordance with the Reporting Criteria. Linde applies the principles and standard disclosures of the G4 Sustainability Reporting Guidelines of the Global Reporting Initiative and the Corporate Accounting and Reporting Standard (Scope 1 and 2) of World Resources Institute / World Business Council for Sustainable Development, supported by internal guidelines, as Reporting Criteria.

This responsibility includes the selection and application of appropriate methods to prepare the Report and the use of assumptions and estimates for individual qualitative and quantitative sustainability disclosures which are reasonable under the circumstances. Furthermore, this responsibility includes designing, implementing and maintaining systems and processes relevant for the preparation of the Report in a way that is free of – intended or unintended – material misstatements.

# Independence and quality assurance on the part of the auditing firm

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA-Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

The quality assurance system of the KPMG AG Wirtschaftsprüfungsgesellschaft is based on the International Standard on Quality Control 1 "Quality Control for Audit, Assurance and Related Service Practices" (ISQC 1) and, in addition on national statutory requirements and professional standards, especially the Professional Code for Certified Accountants as well as the joint statement of WPK (Chamber of Public Accountants) and IDW (Institute of Public Auditors in Germany): Requirements for quality assurance in the auditing practice (VO 1/2006).

# Practitioner's Responsibility

Our responsibility is to express a conclusion based on our work performed and the evidences obtained on the selected environmental and safety performance indicators marked with the symbol "\scriv" in the Report, available at <a href="http://corporateresponsibility.linde.com/cr-report/2015/">http://corporateresponsibility.linde.com/cr-report/2015/</a>.

# Nature and extent of the assurance engagement

We conducted our work in accordance with the International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other than Audits or Reviews of Historical Financial Information" and the International Standard on Assurance Engagements (ISAE) 3410: "Assurance Engagements on Greenhouse Gas Statements" of the International Auditing and Assurance Standards Board (IAASB). These standards require that we comply with our professional duties and plan and perform the assurance engagement to obtain a limited level of assurance to preclude that the above mentioned environmental and safety performance indicators are not prepared, in all material respects, in accordance with the aforementioned Reporting Criteria. In a limited assurance engagement the evidence gathering procedures are more limited than in a reasonable assurance engagement and therefore less assurance is obtained than in a reasonable assurance engagement. The choice of audit procedures is subject to the auditor's own judgement. This includes the assessment of the risk of material misstatement in the Report under consideration of the Reporting Criteria.





Within the scope of our engagement, we performed amongst others the following procedures when conducting the limited assurance:

- A risk analysis, including a media search, to identify relevant information on Linde's sustainability performance in the reporting period.
- Evaluation of the design and implementation of the systems and processes for the collection, processing and control of selected environmental and safety performance indicators included in the scope of this engagement, including the consolidation of the data.
- Inquiries of personnel on corporate level responsible for providing the data and information, carrying out internal control procedures and consolidating the data and information, including the explanatory notes.
- Evaluation of internal and external documentation, to determine whether the qualitative and quantitative disclosures are supported by sufficient evidence.
- An analytical review of the data and trend explanations submitted by all sites for consolidation at corporate level.
- Visits to four selected production sites in Malaysia (2), Sweden (2), and four selected regions in Southeast Asia, Eastern Asia / China, Northern Europe and Africa, to review the source data and the design and implementation of validation procedures at local and regional level.
- Evaluation of the overall presentation of the selected environmental and safety performance indicators in the Report.

### Conclusion

Based on the procedures performed and evidences received to obtain limited assurance, nothing has come to our attention that causes us to believe that the selected environmental and safety performance indicators for the business year 2015, including explanatory notes, marked with the symbol "\under" in the Report, available at <a href="http://corporateresponsibility.linde.com/cr-report/2015/measuring-sustainability/key-figures.html">http://corporateresponsibility.linde.com/cr-report/2015/measuring-sustainability/key-figures.html</a>, are, in all material respects, not prepared in accordance with the Reporting Criteria.

This assurance report is issued based on an assurance engagement agreed upon with Linde. The assurance engagement to obtain limited assurance is issued on purpose of Linde and the assurance report is solely for information purposes of Linde on the results of the assurance engagement. This assurance report must not be used as basis for (financial) decision-making by third parties of any kind. We have responsibility only towards Linde. We do not assume any responsibility for third parties.

Munich, March 10, 2016

KPMG AG Wirtschaftsprüfungsgesellschaft

Simone Fischer Wirtschaftsprüferin (German Public Auditor) ppa. Christian Hell





# **GLOSSARY**

# Α

#### Air separation plants

Air separation plants use Linde processes to produce oxygen, nitrogen and argon.

# C

### Carbon Capture and Storage (CCS)

This process involves separating  $CO_2$  from combustion flue gases and storing it, especially in underground sites. The aim is to reduce  $CO_2$  emissions into the atmosphere.

### Carbon Capture and Usage (CCU)

This process involves separating  $CO_2$  from combustion flue gases and using it in industrial processes such as growth promoters for plants or in the cultivation of algae.

# Carbon Disclosure Projet (CDP)

CDP is a not-for-profit organisation providing a standardised framework for companies to report environmental information such as greenhouse gas emissions and water consumption. CDP represents several hundred institutional investors.

# $CO_2$ equivalent $(CO_2e)$

Unit of measurement used to express the effect different greenhouse gases have on the climate compared with a carbon dioxide (CO<sub>2</sub>) baseline

#### **Conflict Minerals**

The US Dodd-Frank Wall Street Reform and Consumer Protection Act (Dodd- Frank Act) defines conflict minerals as raw materials exploited and traded in the Democratic Republic of Congo or neighbouring countries which finance conflict. The Dodd-Frank Act applies to the ores from which these are extracted: tantalum (coltan), tin (cassiterite), wolfram and gold.

#### Contractors

Employees from third party firms who provide services on Linde's behalf, especially transport services.

#### D

#### Defined benefit plans

Pension plans under which an enterprise/employer defines an amount of pension benefit to be provided as a function of one or more factors such as the age, length of service and salary of the employee.

# Diversity

For Linde, this term comprehends the diverse composition of its staff – for example men and women in all ages, with different nationalities, backgrounds, religions or philosophies of life.

SUSTAINABILIT





#### **Emissions Trading Programme**

The European Union's emissions trading programme is a climate protection instrument aimed at cutting greenhouse gas emissions at the lowest possible economic cost.

# G

# Global Product Strategy (GPS)

The Global Product Strategy of the International Council of Chemical Associations is designed to establish uniform global standards and procedures for companies in order to improve safety in connection with the handling of chemical substances.

#### Global Reporting Initiative (GRI)

International initiative bringing together numerous stakeholders. Founded in 1997 with the aim of generating recognised, comparable guidelines for corporate reporting on economic, social and environmental activities

#### Good Manufacturing Practice

Good manufacturing practice refers to quality assurance guidelines which apply to the production of pharmaceutical products and active ingredients.

#### Greenhouse Gas Protocol

Globally recognised standard designed to manage and quantify greenhouse gas emissions. The Greenhouse Gas Protocol originated from an initiative from the World Business Council for Sustainable Development (WBCSD) and the World Resources Institute (WRI).

# Н

#### HSF

Abbreviation for Health, Safety and Environment

#### HyCO plants

A collective term for plants which produce hydrogen, carbon monoxide and synthesis gas. HyCO plants include in particular steam reformers, partial oxidation plants and methanol crackers.

# Ī

#### Integrity Line

System that employees can use to report internal and external stakeholder doubts or suspicions. If an internal investigation reveals that the doubts or suspicions raised were justified, a prescribed process is used within a defined timeframe to determine which measures are to be taken and to follow up on their implementation.

#### International Standard on Assurance Engagements (ISAE) 3000

ISAE 3000 provides guidelines for audits, which contain non-financial data, for example for the audits of sustainability reports. The guidelines are published by the International Audit and Assurance Standards Board (IAASB).

#### International Union for Conservation of Nature (IUCN)

International environmental organization that is committed to nature conservation and species protection, as well as to the sustainable and responsible use of resources. Among other things, the IUCN draws up the "IUCN Red List of Threatened Species" and categorises protected areas.



#### LNG

Liquefied Natural Gas. LNG is regarded as a promising fuel of the future because of its high energy density, constant calorific value and high level of purity.

# M

# Major Hazard Review Programme

Linde set up this programme to ensure the safety of its production processes. As part of Linde's process risk management system, the MHRP allows the Group to identify promptly potential risks that might result in accidents or damage to property or to the environment, and to introduce appropriate safety and control measures.

# 0

#### Olefinplant

Petrochemical unit for the production of olefins such as ethylene and propylene from hydrocarbons.

# R

#### RBU

Linde's Gases Division has three reportable segments – EMEA, Asia/Pacific and the Americas. These are divided into nine Regional Business Units (RBUs) – Africa & UK, Central Europe, Northern Europe, Southern Europe, Middle East & Eastern Europe, South Asia & ASEAN, East Asia, South Pacific, Americas.

#### **REACH**

REACH stands for Registration, Evaluation and Authorisation of Chemicals, and is an EU directive to reform European chemicals legislation. It came into force on 1 June 2007. It stipulates that within the EU, the health and environmental impact of chemical substances must be tested and registered as of an annual production or import volume of one tonne.

# Restriction of Hazardous Substances (RoHS)

The revised RoHS EU Directive (2011/65/EU) is designed to restrict the use of certain hazardous substances in electrical and electronic equipment.

### RFI (Radiative Forcing Index)

At high altitudes, emissions from air travel have a more significant impact on global warming. This effect can be made quantifiable by using the RFI (Radiative Forcing Index): CO<sub>2</sub> emissions from air travel are multiplied by the RFI (a factor greater than 1).

#### ROCE

Return on capital employed (ROCE)

# S

### **Serious Transport Incidents**

Transport-related incidents, such as traffic accidents, which have a considerable impact on the health of the parties concerned, result in environmental emissions which must be reported or give rise to a certain level of costs.



Abbreviation for Safety, Health, Environment and Quality

# Synthesisgas

Gas mixture of carbon monoxide and hydrogen or nitrogen and hydrogen used to produce methanol, ammonia and other basic chemicals.

# T

#### The Climate Registry

Non-profit association of federal states and provinces in North America that aims to independently record and monitor the greenhouse gas emissions of companies, municipalities and organisations. Participation is voluntary.

#### ΤÜV

A leading German testing, inspection and certification company

# U

#### **UN Global Compact**

The United Nations (UN) Global Compact is a global alliance of organisations and private businesses that aims to protect human rights, support compliance with labour standards, encourage environmental responsibility and combat corruption.

# ٧

### Vigilance Signal Detection - System

A system to ensure the systematic ongoing safety of a pharmaceutical product. It aims to discover, evaluate and understand undesirable effects and side-effects of the product by assessing various sources such as incident reports, scientific and medical literature and clinical studies, so that appropriate measures may be taken to minimise risks.

# VOC (Volatile Organic Compounds)

Refers to a variety of organic compounds, many of which are used as solvents or thinners in paints and varnishes. They act as precursors of ground level ozone, also known as "summer smog".

#### Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment

The internationally recognised guidelines are endorsed by the parties to the United Nations Convention on Biological Diversity and comprise recommendations as to how to incorporate the impact on biodiversity into an impact assessment.

# W

#### **WBCSD**

The World Business Council for Sustainable Development is an organization that is designed to motivate companies to do business more sustainably and provide them with support in this regard.

# **LEGAL NOTICE**

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# **Executive Board**

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# Legal Seat of the Company

Munich, Commercial register at the Local Court of Munich, HRB 169850

# Value-added tax identification number

DE 113822613

# **Publication**

The report was published mid-March 2016 and is available in German and English.

#### Statements relating to the future

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.



