

Corporate Responsibility

Report 2012

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This is the PDF version of the Corporate Responsibility Report 2012. The full report is available online. A summary of the report is also available in print.

www.linde.com/cr-report2012

Ladies and Gentlemen,

In the 2012 financial year, we maintained a strong position throughout the year despite an increasingly challenging business climate. This performance again confirmed our conviction that we are on the right path with our business model, which is geared towards sustainability. We will remain committed to our strategic focus on the megatrends defining society today – energy and the environment, healthcare, and the sustained dynamic growth in the emerging economies. These trends and markets are directly linked to the need for sustainable development. In this report, you can read how we embrace sustainability as an integral part of our business strategy. Over the past year, we have focused heavily on the healthcare business. Here demographic change is driving demand for homecare services in particular. The acquisition of the US company Lincare gave added impetus to our strong position in this stable growth market, making us the leading healthcare provider in the gases industry.



When developing and evolving our technologies, we ask ourselves how we can contribute to environmental protection and even more efficient use of valuable natural resources – looking at opportunities both within our company and with our customers. Our mission is to unite the goals of customer value and sustainable development. Our “Clean Technology by Linde” portfolio bundles various process innovations and solutions to help master the challenges of climate protection.

To achieve this, we rely on the skills and dedication of our global workforce, now more than 60,000 strong. Our faith in our employees is well justified, as the results of our second employee survey demonstrate. 86 percent of all employees took part in the survey. The results show that our people are behind our company, relate to our goals and have a very positive impression of our engagement in the area of environmental protection and our prioritisation of safety issues. Stakeholder trust – and I refer to both internal and external stakeholders – is a key pillar for our future success. Which is one of the reasons why we fully endorse the principles of the UN Global Compact principles. This corporate responsibility report explains in detail how we embed those principles into our business activities. We are of course proud to have gained recognition on several occasions in 2012 for our sustainability strategy and the transparency of our sustainability reporting. Key achievements include being added to the global Dow Jones Sustainability Index.

In order to report even more clearly and transparently on our sustainability performance, we have added new indicators to our external reporting. In our 2012 annual report, we included additional non-financial indicators. In addition, we extended the scope of indicators in our corporate responsibility report that are assured by an independent auditor. And we set ourselves new global goals in areas such as energy efficiency and climate protection. This year is the first time we publish our annual report and our corporate responsibility report in the same month – giving you even earlier access to the latest updates on challenges, our progress and our plans in the area of sustainability.

Professor Dr Wolfgang Reitzle
Chief Executive Officer of Linde AG

Corporate profile

The Linde Group is a world-leading gases and engineering company with approximately 62,000 employees in more than 100 countries worldwide. In the 2012 financial year, it generated revenue of EUR 15.280 bn. 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.



- **Americas:** 17,954 employees, EUR 4,339 million sales
- **EMEA** (Europe, Middle East and Africa): 21,614 employees, EUR 7,299 million sales
- **Asia/Pacific:** 11,037 employees, EUR 3,642 million sales

Organisation

The Group comprises three divisions: Gases and Engineering (the two core divisions) and Gist (logistics services). The largest division, Gases, has three reportable segments – EMEA (Europe, Middle East and Africa), Asia/Pacific and the Americas. These are divided into eight Regional Business Units (RBUs). The Gases Division also includes the two Global Business Units (GBUs) Healthcare (medical gases and related maintenance and advisory services) and Tonnage (on-site supply of gases to major customers), as well as the two Business Areas (BAs) Merchant & Packaged Gases (liquefied and cylinder gases) and Electronics (electronic gases).

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 fast-growing Healthcare business (medical gases), and is a leading global player in the development of environmentally friendly hydrogen technologies.

Engineering Division

Linde Engineering 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 in the pharmaceutical industry.

Business review

In the 2012 financial year, Group revenue rose by 10.8 percent to EUR 15.280 bn (2011: EUR 13.787 bn). After adjusting for exchange rate effects, the increase was 6.4 percent. The contribution to revenue made by the newly-acquired Lincare business was EUR 630 m. The share of revenue from joint ventures (not included in Group revenue in accordance with the accounting rules) was EUR 535 m in 2012 (2011: EUR 464 m). Linde achieved an increase in Group operating profit (EBITDA) of 10.0 percent to EUR 3.530 bn (2011: EUR 3.210 bn). The Group operating margin in the 2012 financial year was 23.1 percent, almost as high as the level achieved in 2011 of 23.3 percent.

The rigorous implementation of HPO, the Group's holistic programme for sustainable process optimisation and productivity gains, contributed towards reinforcing Linde's profitability at a high level. In the financial years from 2009 to 2012, these activities resulted in total gross cost savings of around EUR 780 m.

Linde financial highlights

		January to December 2012	2011
<i>Share</i>			
Closing price	€	132.00	114.95
Year high	€	136.15	125.80
Year low	€	114.20	96.16
Market capitalisation (at year-end closing price)	€ million	24,445	19,663
Adjusted earnings per share ¹	€	7.89	7.71
Earnings per share – undiluted	€	7.03	6.88
Number of shares outstanding	(in 000s)	185,189	171,061
<i>Group</i>			
Revenue	€ million	15,280	13,787
Operating profit ²	€ million	3,530	3,210
Operating margin	%	23.1	23.3
EBIT	€ million	1,992	1,910
Profit for the year	€ million	1,324	1,244
<i>Gases Division</i>			
Revenue	€ million	12,591	11,061
Operating profit	€ million	3,403	3,041
Operating margin	%	27.0	27.5
<i>Engineering Division</i>			
Revenue	€ million	2,561	2,531
Operating profit	€ million	312	304
Operating margin	%	12.2	12.0

¹ Adjusted for the effects of the BOC purchase price allocation.

² EBITDA including share of profit or loss from associates and joint ventures.

> More on Linde's [business performance](#) and on [HPO](#) in the Financial Report

Customers

The Linde Group manufactures gases and engineers plants for customers in the food and drinks, steel and automobile, healthcare, construction, electronics and solar industries. A broad, well-balanced customer base ensures stability.

Business segments – Gases Division

FOOD & BEVERAGES	CHEMISTRY & ENERGY	METALLURGY & GLASS	MANUFACTURING INDUSTRY	ELECTRONICS	HEALTHCARE	OTHERS
Aquaculture & water Beverages Food Other F&B	Energy Fine & petrochemistry Pharma Other chemistry	Glass & fibre optics Heat treatment Non-ferrous Steel Other M&G	Aerospace Automotive Heavy construction & machinery Light metal fab. & prod. Other manufacturing	Solar Semiconductor Chip packaging	Hospital Care Homecare Gas Therapies Care Concepts REMEO®	Education & research Retail Distributors

About this report

The Corporate Responsibility Report 2012 is Linde's eighth sustainability report. In it, we again provide information on our sustainability performance, priorities and challenges. Global indicators and targets allow readers to compare our performance. This report is addressed to the stakeholders of The Linde Group – employees, shareholders, neighbours, customers, business partners, non-governmental organisations (NGOs), political circles, the research and scientific community, and the general public. The Corporate Responsibility Report 2012 is only available online. The entire document as well as individual chapters can be downloaded as a PDF. In addition to the online report, Linde also publishes a brochure summarising the contents of the report.

Topics, figures, focus areas

Our corporate responsibility reporting covers all main sustainability issues relevant to Linde. We follow internationally recognised standards on sustainability reporting, such as the Global Reporting Initiative (GRI) guidelines and the requirement of the United Nations Global Compact. Our choice of corporate responsibility priorities is largely guided by the expectations of our customers, shareholders, employees and other stakeholders. We regularly assess the relevance of sustainability topics to both our business and these stakeholder groups. More information on our materiality analysis can be found under "Key material issues".

This report relates to all consolidated Group companies in which Linde has at least a 50 percent stake. In 2012, Linde completed the acquisition of Lincare Holdings Inc. and Air Products' Continental European Homecare business. Indicators for Lincare Holdings Inc. will only be reported after the company has been consolidated for a full year, with the exception of data stipulated by financial reporting regulations. In some areas, indicators for Air Products are fully incorporated in this report and are clearly marked. The reporting period is the 2012 financial year. We also incorporated any additional important information that came to our attention prior to the editorial closing date in March 2013, if applicable. We have largely maintained the structure of the previous year's report. However, selected topics are covered in more detail or supplemented by new key indicators. Compliance falls into this category.

- > More on KPIs and targets in "[Measuring sustainability](#)"
- > More on financial reporting in our [annual report](#)

Integrated reporting

We provide sustainability information in our key corporate publications:

- The Management Report of The Linde Group's annual report contains key non-financial indicators and qualitative information about sustainable business practices at Linde. We have included additional non-financial indicators in our 2012 annual report.
- Also part of the annual report, the Linde Annual 2012 focuses also on Group products and technologies that contribute to healthcare as well as environmental and climate protection.
- The Linde Group website contains detailed information on the subject of corporate responsibility. Launched in 2012, Linde's Clean Technology portal offers a new overview of products and technologies that help to meet the challenges of climate protection. Our product brochures also detail the benefits of our technologies in terms of protecting the environment.
- The websites of our Gases, Engineering and Gist divisions also offer information about sustainability in relation to specific business activities. Additionally, some of Linde's subsidiaries release regional publications that address sustainability issues. Our Afrox subsidiary, for instance, published its first sustainability report in 2013, aligned with the GRI guidelines.
- Our investor relations presentations are available to the public and give detailed accounts of the market opportunities for Linde in the areas of energy and environmental technologies.
- We also publish updates on corporate responsibility issues via social media such as Twitter and Facebook.

In this report, we include links to these other channels and sources where appropriate.

Assurance and evaluation

Selected key performance indicators in this report were again independently reviewed and subsequently assured by KPMG Sustainability. The assurance was carried out in line with the International Standard on Assurance Engagements (ISAE) 3000. This report complies with the version of the GRI's Sustainability Reporting Guidelines (G3.1) valid at the time of publication. This independent organisation has again confirmed that Linde has achieved the highest application level of this standard: A+. Our corporate responsibility report thus also complies with the requirements of the German Sustainability Code.

The Corporate Responsibility Report 2012 also serves as our Communication on Progress within the framework of our commitment to the UN Global Compact. In it, we report on how we incorporate the ten Global Compact principles into our business activities, labelling relevant content with the Global Compact logo. A combined [GRI and Global Compact index](#) provides an overview and summary of all the main topics. Once again, our CR report complies with the UN Global Compact advanced level. We also take into consideration the Blueprint for Corporate Sustainability Leadership: an action plan initiated by the Global Compact LEAD platform.

Strategy

Corporate responsibility (CR) is Linde's contribution to sustainable development. As set out in its global corporate responsibility policy, the Group is committed to behaving responsibly towards people and the environment, to conserving natural resources and to developing sustainable products. Linde's corporate responsibility management anchors these objectives in day-to-day business life. Through our global management systems, we incorporate our commitment to sustainability into all business processes worldwide. We thus put our foundational principle of sustainability into practice. Sustainability is one of the four strategic principles underlying The Linde Spirit – our corporate philosophy. The Linde Spirit defines the values and foundational principles of the Group and applies to all Linde employees throughout the world. Our sustainability activities are based on the following criteria:

Integration into our core business: When developing its corporate responsibility activities, Linde considers its main business processes and the lifecycle of its products. We help our customers to develop more sustainable processes and expect our contractors and suppliers to join us in working towards our corporate responsibility goals.

Continuous improvement: Linde continually analyses how sustainability enables the Group to exploit business opportunities and to minimise risks. We use key performance indicators to compare sustainability performance across the world and set ourselves specific targets.

Engagement with stakeholders: Linde adapts its corporate responsibility activities to reflect the needs of its stakeholders and of its social environment.

Transparency: The Group reports regularly and publicly on the progress it has made in its focus areas for corporate responsibility.

We also respect international standards and guidelines, and align our corporate responsibility activities with these benchmarks. They include:

- The United Nations Universal Declaration of Human Rights
- OECD guidelines for multinational enterprises
- The core labour standards set down by the International Labour Organisation (ILO)
- The UN Guiding Principles on Business and Human Rights
- The ten principles of the UN Global Compact.

Values and standards

Fixed values and principles form the basis for the way we do business. These are set out in the Linde Spirit. Our four key corporate values define how we plan to move towards our goals. And our four fundamental principles define issues of key importance in this context – both inside and outside the company.

Values	Principles
<p>PASSION TO EXCEL We have the commitment and drive to pursue ever higher standards of excellence and we celebrate success.</p> <p>INNOVATING FOR CUSTOMERS We relentlessly pursue new ways of adding value to external customers.</p> <p>EMPOWERING PEOPLE People are given the space to contribute and grow.</p> <p>THRIVING THROUGH DIVERSITY Diversity results in enriched collaboration and enhanced solutions.</p>	<p>SAFETY We do not want to harm people.</p> <p>INTEGRITY Our actions are honest, fair and ethical.</p> <p>SUSTAINABILITY We focus on today's success and accept our responsibility for future generations.</p> <p>RESPECT Every human being deserves to be treated with respect.</p>

Our internal guidelines and standards determine how we implement these values and principles throughout the company. Linde's Code of Ethics defines clear standards that govern our relationships with each other, as well as with customers and suppliers, authorities and other business partners. The Code of Ethics is binding for all employees of The Linde Group. We also encourage our business partners to uphold the standards it describes. Our Code of Ethics is flanked by additional, globally applicable guidelines and standards that further outline the Group's commitment in core areas, including our:

- Corporate responsibility policy
- Group policy on safety, health, environment and quality (SHEQ)
- Procurement principles (Ethical-Legal Principles – Procurement)
- Compliance guidelines

Key material issues

Linde is continuously reviewing its focus, identifying topics that are relevant to the sustainability management of the Group as well as issues of particular interest to our stakeholders. On the basis of this materiality analysis, we determine focus areas for our corporate responsibility strategy and reporting. We draw on findings from internal workshops with specialists and strategy experts, and on insights from interdisciplinary working groups. During this process, we also consider information about environmental and social risks identified by our Enterprise Risk Management.

When selecting focus areas, we follow internationally recognised standards and recommendations in sustainability management and reporting, such as the Global Reporting Initiative (GRI) and capital market requirements for sustainable business practices (SRI ratings). In the period under review, key topics for corporate responsibility at Linde included the responsible supply chain management, environmental goals, human rights, and labour and social standards. These aspects played a particular role in developing our focus further. At the start of 2013, for instance, Linde defined new goals for energy efficiency and climate protection.

- > More on [energy efficiency](#)
- > More on [GRI](#)

Stakeholder dialogue

The Group maintains regular contact with its key stakeholders in a number of different ways. These include Linde employees, shareholders, customers, suppliers, non-governmental organisations, politicians, the research and scientific community, neighbours and the general public.

The Group's corporate responsibility department responded to over 1,600 questions from stakeholders on sustainability issues during the reporting year. Main issues raised concerned environmental topics, corporate governance or the supply chain. Linde is also actively involved in dialogues on specialist topics. In Germany, for instance, the Group hosted the Federal Algae Roundtable Meeting (Bundesalgenstammtisch) in 2012, gathering more than 150 experts from science and industry to discuss renewable raw materials. In terms of political discourse, the transformation of our energy systems was a key issue in the period under review, with the focus on clean, efficient solutions – such as Clean Technology by Linde. The Group also collaborated with industry associations in the drive to ensure a cost-effective and environmentally friendly energy supply, as well as sustainable solutions in the mobility and transport sector.

1,600 stakeholder
questions answered

Our involvement in trade associations and scientific partnerships enables us to learn from the experiences of others and to develop joint solutions and positions regarding sustainability to topics such as climate protection and the safe handling of gases. Linde plays

an active role in industry and business associations at national, European and international level. Among these are the German Chemical Industry Association (VCI), the German Engineering Federation (VDMA), the European Industrial Gases Association (EIGA) and the Asia Industrial Gases Association (AIGA). The Group is also a member of selected corporate responsibility networks. These include the UN Global Compact and econsense (Forum for Sustainable Development of German Business e.V.).

Linde collaborates with partners in science and with other companies to push forward initiatives aimed at securing sustainable development. The Linde Group is one of the founding members of the Clean Energy Partnership (CEP), for instance: the largest demonstration project for hydrogen-based mobility in Europe. This has been funded by Germany's Federal Ministry of Transport, Building and Urban Development (BMVBS) since 2008. Further CEP partners include technology, petroleum and energy groups as well as major car manufacturers and two leading public transport operators. Additionally, Linde joined forces with two other companies to set up a pilot project in the area of wind-hydrogen in 2012. The plan is to produce hydrogen via electrolysis from wind energy in what is known as a multi-energy filling station at the German capital's prospective new airport, Berlin Brandenburg.

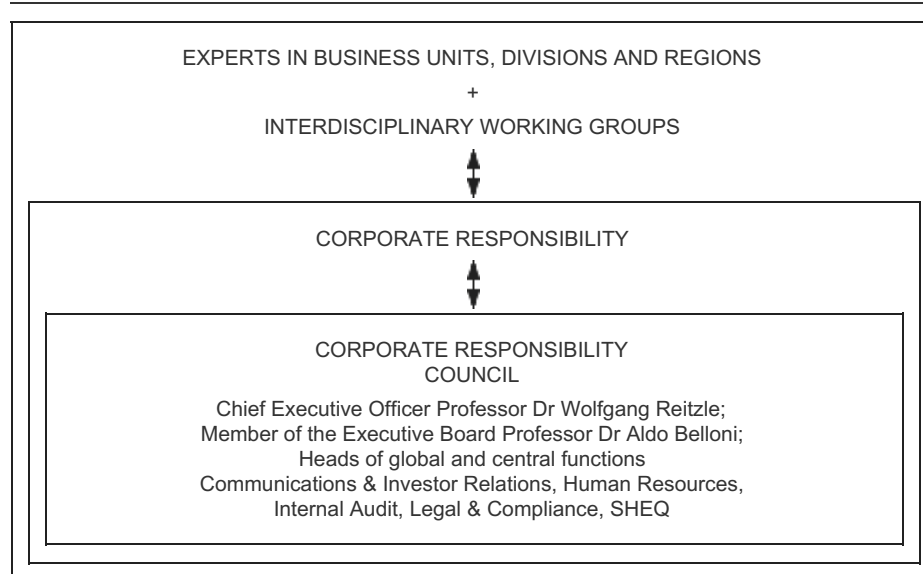
Linde is also a member of organisations dedicated to issues such as environmental protection and occupational health and safety. These include the Institute of Professional Environmental Practice (IPEP) in North America, the Korea Environmental Preservation Association (KEPA) and the Green Network in Denmark.

- > More on [dialogue with shareholders](#)
- > More on [Linde's hydrogen projects](#) in the annual report

Responsibilities for sustainability

Linde's main decision-making body for sustainability issues is the Corporate Responsibility Council. Its members are Professor Dr Wolfgang Reitzle, Chief Executive Officer, and Professor Dr Aldo Belloni, member of the Executive Board, together with the heads of the Group's Global Support Functions: Communications & Investor Relations, HR, Legal & Compliance, Internal Audit and SHEQ. The Council is briefed annually on the progress made in achieving sustainability goals and determines focus areas for the Group's global corporate responsibility strategy. In 2012, the Corporate Responsibility Council discussed such issues as sustainability in the supply chain and human rights.

Organisation



The corporate responsibility department coordinates the implementation of the global sustainability strategy, liaising with the relevant departments and those responsible for corporate responsibility topics in the regions, and is also the central point of contact for stakeholders. At the end of 2012, Linde conducted an internal survey across all regions on sustainability topics. These included regional focus areas on sustainability, collaborations and strategic projects in the area of corporate citizenship.

Business opportunities with sustainability

~12,000

new employees in our
Healthcare business

2,000

employees in China and India
trained on safety and
environmental protection

+10%



annual growth rates in the
global market for liquefied
natural gas

No. 1



healthcare provider in the
global gases industry

1,000,000

patients

EUR 4.5 bn

Growth Markets revenue

-80%

emissions using hydrogen
from regenerative sources

70%

of senior managers in China,
India and Southeast Asia are
from the region

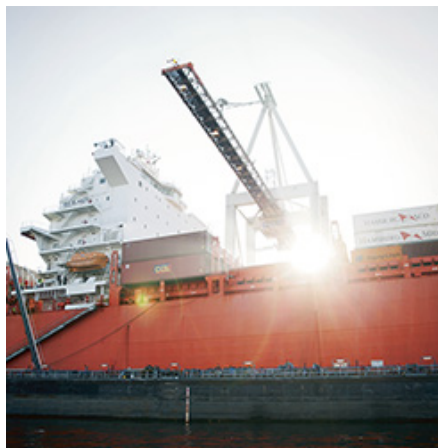
~50%

of capex invested in Growth
Markets

Linde develops solutions that unite customer value with the goals of sustainable development. Looking at the growth markets of the future, Linde has identified energy and the environment, emerging economies and the healthcare business as the drivers offering the biggest potential. Our business strategy aligns with these three megatrends – all of them having a high relevance for sustainable development.

Energy and the environment: advancing the use of eco-friendly fuels

Linde is driving the advancement of alternative energy carriers on several fronts. We partner with various companies, for instance, to develop processes that convert regenerative raw materials into fuel. Feedstocks include landfill gases and specially cultivated algae, which produce green crude. We also focus on the production of green hydrogen using energy from renewable sources. At the same time, we are seeing a rise in demand for liquefied natural gas (LNG). With the lowest emissions of all fossil fuels, LNG is growing in popularity as an environmentally friendly alternative for various industrial applications. It is also being used to generate electricity. Compared to crude oil or coal, it releases up to 30 percent less carbon dioxide when burnt. A change in environmental regulations in the shipping industry means that another new market for LNG is emerging – and Linde is spearheading its development.



Increasingly strict environmental regulations are challenging shipping companies to look for cleaner fuelling options. Switching from fuel oil to natural gas can significantly reduce CO₂, sulphur and nitrogen oxides. In anticipation of rising demand in this area, Linde formed a joint venture with Hamburg-based marine fuel specialist Bomin in August 2012. The joint venture plans to construct small LNG terminals in ports such as Hamburg and Bremerhaven, for instance. These terminals will provide the infrastructure necessary for shipping companies to switch to a more environmentally sound source of power.

[Full report in the Linde Annual 2012](#) ➔

> More on [hydrogen from renewable sources of energy](#)

Healthcare: living an independent life

Worldwide, the homecare market is growing due to shifting demographics. The term respiratory homecare refers to medical gases, services and therapies delivered beyond a clinical setting to patients suffering from conditions such as chronic respiratory pulmonary disorder. Linde offers respiratory therapies such as oxygen therapy and sleep therapy. Following its acquisition of Air Products Continental European Homecare business and the leading US homecare company Lincare, Linde is now the leading healthcare provider in the gases industry. In 2012, Linde generated more than EUR 2 billion with its Healthcare business.



Luisa Branco lives in Portugal and has a chronic lung disease. Previously, the 59 year-old had to be treated in hospital. Today, however, she can live a largely independent life – thanks to Linde's mobile oxygen services. Linde homecare expert João Mendez, regularly visits Luisa at home to make sure her oxygen equipment is running smoothly.

[Full report in the Linde Annual 2012](#) ➔

Emerging economies: growing together

Diversity and efficiency: Linde builds on the expertise of local specialists, who know the regional market and understand individual customer needs. This local competence is backed by international teams working on technical solutions for global use. Projects such as this include a cross-country engagement in Germany and China aimed at finding a new, more efficient way to build air separation plants. The market potential is certainly promising: global investment in air separation facilities totals around three billion euros each year, with Asia accounting for 75 percent of that sum.



Linde engineers in Germany and China working on standardised modules to build air separation plants: Since 2012, a team in Pullach, Germany, has been concentrating on the modules made from components procured from European suppliers. Simultaneously the Hangzhou team in China is focused on module engineering using components mainly purchased on the Chinese market.

[Full report in the Linde Annual 2012](#) ➔

- > More on [diversity at Linde](#)
- > More on [safety, environmental and health training](#)

Minimising risks

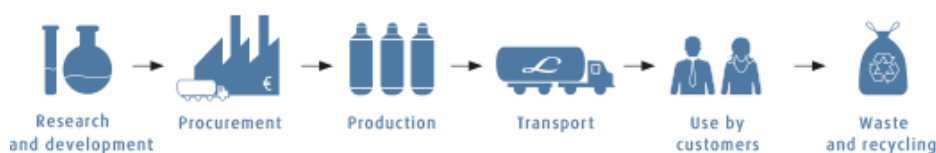
At Linde, we have implemented systems that enable us to identify, evaluate and minimise risks in all our central business processes. Our enterprise risk management (ERM) system covers financial, environmental and social risks. These also include safety, HR, legal and regulatory risk factors, along with risks resulting from political or social upheaval, pandemics and climate change. In 2011, we defined our risk categories relating to human rights and social issues more clearly.

We use our SHEQ management systems to monitor compliance with standards in the areas of safety, environmental protection and occupational health, setting up preventative measures and emergency plans as required. During the year under review, we conducted another survey to assess labour and social standards across all regions. We also expanded our global compliance programme to ensure adherence to legal regulations.

Our risk management measures are closely aligned with the individual processes in the various lines of business. We routinely involve business partners and neighbours in our risk analyses. We also embed the need for compliance with safety, environmental and social standards into our supply chain, for instance. Maintaining continuous dialogue with our stakeholders enables us to identify new issues at an early stage and assess their relevance for our business activities.

- > More on [risk management](#) in our annual report
- > More on [safety and environmental protection](#)
- > More on [labour standards and human rights](#)
- > More on [compliance](#) and [supply chain management](#)
- > More on our [materiality analysis](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Innovation

We continuously develop new application areas for our gases and improve our processes and plant technologies even further. In 2012, Linde spent a total of EUR 101 million on research and development (2011: EUR 98 million). The number of employees working in this field rose to 385 (2011: 342). The Group filed 269 new patents worldwide during the year under review (2011: 235), leaving Linde technologies protected by a total of 2,513 patents at the end of 2012.

2,513 patents protect
Linde technologies

We develop new applications in the context of business orders and therefore work closely with the respective customers, taking their concrete needs into account. Our research activities have a particular focus on the environmental impact of production

processes. Here, we concentrate on making technical processes and plants more energy-efficient and reducing emissions – in our own and our customers' manufacturing processes. In 2012, for instance, Linde developed a process for reducing emissions of environmentally harmful nitrogen oxides during glass manufacturing. To advance the transition towards climate-friendly energy supplies and mobility options, we are researching processes to generate hydrogen or green fuel from renewable raw materials. Linde is working with an industry partner to test a technology that converts a broad spectrum of biogenic raw materials into synthesis gas. The company has also made further improvements to the Carbo-V® technology. This process converts wood and wood biomass, which can already be obtained in a way that conserves resources and does not compete with food production, into biofuels, such as biodiesel.

Research and development

		2012	2011	2010	2009
Research and development expenses	€ million	101	98	94	89
New patents filed		269	235	232	230

In China, Linde advanced the installation of a metal and glass research centre during the reporting year. Meanwhile, in Norway, we opened our own research and innovation centre devoted to the long-term optimisation of oxygen supplies for fish farms.

We also intensified our activities in the central Clean Energy Group in 2012. This team, which operates across different business areas, develops innovative products and processes that help to make renewable energies economically viable, reduce the consumption of natural resources and cut emissions that are harmful to the climate.

140 award winners in the
Linde Innovators Club

At Linde, we systematically promote a culture of creativity and innovation. In 2012, Linde gave the Linde Group Patent & Innovation Award to the best innovations for the seventh time. In this way, we recognised the best patents registered during the

year in each of the following categories: technological invention, commercial invention and Group innovation. The award-winning patent applications are often directly linked to environmental and climate protection. Examples include innovations in the field of renewable energy as well as new technologies to increase plant efficiency. The winners of this award join the Linde Innovators Club, which now has around 140 members.

To heighten employee awareness of the crucial importance of innovation, 2012 saw the staging of the first Linde Technology Day. As part of this event, a new career model for employees working in research and development was unveiled. This aims to promote innovative approaches and ensure even greater reward for outstanding performance.

> More on [innovation](#) in our annual report

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Linde - a sustainable investment

The capital market assesses the sustainability performance of companies by ranking investments according to environmental and social criteria, also considering responsible business practices (socially responsible investment, SRI).

700

individual talks with financial analysts and investors

presented the sustainability opportunities of our "Clean Technology" portfolio and our expanding Healthcare business at all these events.

In 2012, Linde globally conducted more than 700 individual conversations with financial analysts and investors. During 41 conferences and roadshows, at several private investor events and in the course of plant visits, we offered our shareholders and potential investors the opportunity to speak with representatives of the Group, including members of the Executive Board. We

Among Linde's shareholders, the proportion of SRI investors rose to over 4 percent in the period under review (2011: 3 percent). More than half of our ten largest shareholders publicly commit to the United Nations' Principles of Responsible Investment (UN PRI).

>4%

of our investors are focused on sustainability

environmental management systems, and risk and crisis management. Linde was also added to Deutsche Börse's STOXX® Global ESG Leaders Index in the year under review. Additionally, in an analysis of 101 chemical companies conducted by the specialist sustainability rating agency oekom research, Linde received the top ranking in 2012.

Linde is listed in various key sustainability indices and SRI ratings. In September 2012, Linde was added to the global Dow Jones Sustainability Index (DJSI World). Analysts from the Sustainable Asset Management (SAM) Group thereby acknowledged Linde's continuous improvement in the area of sustainability. We received particular recognition for activities in the areas of climate strategy,

Corporate governance

Responsible corporate governance is fundamental to our sustainable success. Linde AG follows the German Corporate Governance Code presented by the Government Commission and as amended from time to time. We comply with the Code's guidelines to the greatest possible extent and explain any deviations in our annual report.

Compliance at Linde

<p>PREVENT</p> <p>Global Code of Ethics</p> <p>Compliance policies</p> <p>Guidance from international standards</p> <p>E-learning</p> <p>Face-to-face training</p> <p>Advice by Compliance Officers</p>
/
<p>DETECT</p> <p>Linde Integrity Line</p> <p>Compliance investigations/audits</p>
/
<p>RESPOND</p> <p>Follow up on reports of misconduct</p> <p>Monitoring of actions taken (consequence management)</p> <p>Cooperation with authorities</p>

Responsible corporate governance also means ensuring that legal regulations and voluntary commitments are upheld. We have therefore continuously expanded our global compliance programme. Our aim here is to prevent any violations. If these do occur, we want to identify them as quickly as possible and take the appropriate action. This requires clear rules, informed employees and a global compliance system that enables us to identify and tackle suspected misconduct.

The Chief Compliance Officer is responsible for implementing Linde's compliance programme, supported by compliance officers in the divisions, regions and operating segments. The Executive Board and the Audit Committee of the Supervisory Board receive regular updates about the activities and progress of the compliance organisation.

The core guidelines governing the way we do business are set out in our Code of Ethics, which is binding for all employees worldwide. This is supplemented by further guidelines on specific issues. Linde's Group-wide compliance activities focus on anti-trust law, corruption prevention, trade law and data protection, for instance. In 2012, we adopted a new global guideline on preventing corruption, which came into force at the start of 2013. When expanding our compliance programme, we also follow the recommendations of the United Nation's Global Compact as well as

Transparency International's Business Principles for Countering Bribery.

Information and training

We take various steps to create an environment in which our employees are familiar with and adhere to our rules and guidelines. New staff members receive a copy of our Code of Ethics when they join the company, for instance, and confirm that they have understood it. In 2012, we published further translations of the Code of Ethics, which is now available in 28 languages. Linde also set up a new intranet compliance portal during the reporting year, making current information about compliance guidelines and contact persons even more accessible to employees.

36,000

e-learning courses on the Linde Code of Ethics since the training was launched

We also train our staff on the contents of our Code of Ethics in classroom-based courses and our Group-wide e-learning platform. By the end of 2012, we had held more than 36,000 e-learning sessions for this purpose. And between 2009 and 2012, over 6,000 members of staff across the globe were provided with on-site training. In 2012, Linde launched a new online training course on

anti-trust law, in which 3,500 employees have already participated. To gather information on the success of our compliance measures, we also covered integrity as a topic in our global employee survey in 2012.

Identifying and tackling misconduct

We actively encourage our employees to report any suspected violations of our Code of Ethics or other Group guidelines and offer them advice on compliance issues. Staff can approach their direct line manager or department head to this end, or contact a representative from the Internal Audit, Human Resources or Legal & Compliance departments.

The Linde Integrity Line, our global reporting system, is one of the key pillars of our compliance programme. It enables employees and external stakeholders to report suspected violations, anonymously if desired. Every report is assessed and forwarded to the Linde Integrity Committee where appropriate. The committee comprises members of the Internal Audit, Legal & Compliance, Corporate Responsibility and Human Resources departments. The Linde Integrity Committee examines the reports and determines further courses of action. Our Integrity Line policy outlines the exact process to be followed and ensures that reports remain confidential and data is protected.

In 2012, the Integrity Line was contacted a total of 309 times, by e-mail, telephone, web portal or regular post. Each of these communications was assessed to determine whether it entailed a general enquiry or an allegation of misconduct. All concrete accusations were investigated and largely related to personnel topics (approximately 43 percent) and to offences against property (approximately 25 percent). We also followed up on reports involving possible conflicts of interest (around 16 percent) and cases of discrimination (approximately 3 percent). In 2012, the Internal Audit department, Human Resources, Legal & Compliance and the department for Safety, Health, Environment and Quality (SHEQ) carried out 77 investigations on the basis of information received via the Integrity Line (2011: 54 investigations).

Linde employees who violate laws or internal regulations must be prepared to face sanctions. Consequences following violations can range from dismissal to criminal prosecution or civil action. If an internal investigation reveals that a report is substantiated, we subsequently explore the measures that have already been implemented – following a set process and timeframe. The responsible line managers are involved in this process and provide their input in every case. All such cases entailed consequences. These included training courses, official warnings, reassignment of the employees in question and restructuring measures. In some cases, the employees in question were dismissed. If our compliance systems uncover any circumstances or events that appear to breach criminal or anti-trust law, we also cooperate closely with the responsible authorities where applicable.

- > More on [corporate governance](#) in our annual report
- > More on our [guidelines and values](#)
- > More on the [Integrity Line](#) on Linde's website
- > More on [legal proceedings](#) in our annual report

Sustainable procurement

Linde works with suppliers in more than one hundred countries. In 2012, we purchased around EUR 10.9 billion (2011: approx. EUR 10.7 billion) worth of products and services from around 100,000 suppliers worldwide. Around EUR 9.2 billion of this amount related to the Gases Division and around EUR 1.7 billion to the Engineering Division. More than 70 percent of the total was spent in OECD countries. In non-OECD countries, China, South Africa and Brazil accounted for approximately 15 percent of the total purchasing volume of our Gases Division.

The most important items we purchase include energy, gas cylinders and valves, tanks and tank equipment, vehicles, IT products, and components for engineering projects, as well as various services. In 2012, Linde started several new projects to enhance procurement efficiency and make procurement management systems even more transparent. Improving energy management was one of the focus areas here.

Sustainability standards

Alongside commercial aspects such as quality, price and availability, we also take account of other sustainability aspects when selecting suppliers. Our Code of Ethics requires that Linde employees maintain fair and honest working relationships with suppliers. At the same time, we expect our suppliers to adhere to quality, environmental and social standards, as well as compliance regulations. These expectations are set down in our procurement guidelines. We inform suppliers of specific requirements. In 2013, we intend to expand the sustainability requirements for suppliers that are currently in force in the different divisions and merge them into a single guideline.

200

new engineering suppliers committed to Linde standard

We use various tools and measures to select and evaluate our suppliers. These include on-site audits and defined qualification processes for new suppliers, which entail self-assessments on quality, environmental and social issues. We also perform risk assessments to check compliance with standards. In the 2012 financial year, Linde conducted an analysis of sustainability risks in the supply chain. It is planned that a more in-depth analysis will follow in the course of 2013. Depending on the potential risks, we also carry out supplier assessments on site, for instance through quality audits that incorporate sustainability aspects. Site safety, for instance, is a particular priority for our Engineering Division, with construction projects all over the world. Linde has therefore implemented a standard that covers safety, health and environmental issues in engineering projects and made this a fundamental prerequisite for working with suppliers. It also addresses compliance with the principles set out in the UN Global Compact. In 2012, more than 200 suppliers for engineering projects were given this standard and confirmed that they understood its requirements. During the year under review, Linde conducted around 100 audits of engineering suppliers to check compliance with this standard – for instance in India and China. Suspected violations of Linde standards can also be reported to the Linde Integrity Line. All such reports of non-compliance along our supply chain are assessed. Allegations that prove to be substantiated may also result in termination of contracts with suppliers.

Raising staff and supplier awareness

To raise awareness of the importance of supply chain sustainability among staff in our procurement departments, we integrated a new information portal on this topic into our company intranet at the start of 2013. We also involve our service providers in our environmental and safety management activities, for instance by offering driver safety training courses for contractors commissioned by Linde to transport gases.

- > More on [driver trainings](#)
- > More on [climate protection](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Safety and environmental protection

190 energy efficiency projects →	12%  fewer transport incidents since 2010 →	1 million tonnes of CO ₂ saved by improving energy intensity at air separation plants →
1,400 audits for environmental protection, safety and occupational health	80% of Linde sites certified to ISO 9001 quality standard	49% of employees trained on environmental protection and safety

Safety is a top priority for us, both in our own business processes and the use of our products by customers. The aim of the Group-wide safety and environmental protection management systems is to keep people and the environment from harm. We are focused on minimising safety risks, minimising the Group’s environmental impact and ensuring the efficient use of energy, resources and materials. Our innovative technologies and products help our customers tackle ecological challenges, such as climate protection and water resource management. Our safety and environmental management systems also extend to contractors and other business partners. To further improve our performance in these areas, we continuously assess potential weak points, conduct risk analyses and implement concrete risk mitigation measures.

Linde has also implemented a global process to record, evaluate and communicate safety, health, environment and quality incidents worldwide. Near-misses from which the Group can learn lessons for the future are also recorded in this way. In 2012, the Group circulated 38 information sheets internally with a description of the relevant incident or near-miss, the main reasons for its occurrence and the measures introduced as a result. In addition, we prepare global risk avoidance plans. These are designed to protect employees and neighbours, as well as the Group’s property and information.

Alongside safety indicators, we measure resource consumption and environmental impact at all sites around the globe. We thereby maintain a steady focus on efficient business practices and on minimising the ecological impact of our operations. Between 2008 and 2012, we conducted around 1,000 environmental protection projects, of which 300 were during the reporting year. Areas of particular priority in 2012 included efforts to reduce water consumption.

Audits, trainings and certified sites (in percent)

	2012	2011	2010	2009
Sites where occupational health and safety audits have been conducted ¹	62.4	54.5	53.2	55.1
Sites where environmental audits have been conducted ¹	53.6	49.1	47.8	48.3
Employees of Linde Gas who have taken up HSE training opportunities	49.1	50.3	47.2	48.8
Sites certified to ISO 9001	80	76	72	71
Sites certified to ISO 14001	31	33	28	27
Sites certified to OHSAS 18001 or SCC	25	22	22	22

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

Audits and certification

Linde has developed global guidelines and standards for safety and environmental protection. We verify compliance with these voluntary commitments and legal requirements through audits. In 2012, more than 1,400 safety, environmental protection and health protection audits were carried out at Linde sites, either by the Group itself or by third parties. Occupational health and safety audits were performed at more than 62 percent of our sites, and environmental audits at around 54 percent. Linde's internal audits follow norms such as the ISO 9001, ISO 14001 and OHSAS 18001 international standards on quality, environmental management and health protection. External certification also endorses the high standard of the Group's safety, environmental protection and quality systems:

- During the year under review, 80 percent of our sites were certified to ISO 9001, the set of international standards for quality management (2011: 76 percent).
- 31 percent of Linde sites were certified to the international environmental management standard ISO 14001 in the reporting year (2011: 33 percent).
- 25 percent of our sites hold certification in accordance with the OHSAS 18001 or SCC (Safety Certification Contractors) standards for their systematic health and safety management system (2011: 22 percent).
- Over 220 of our sites were awarded Responsible Care certification as a hallmark of acting responsibly regarding safety, environmental and health protection during the year under review.
- All Linde Gas Germany production sites were certified to the new ISO 50001 standard in 2012, confirming a systematic approach to energy management with well-defined aims and responsibilities.
- Since 2011, almost 100 percent of Linde sites delivering carbon dioxide to the beverages industry have been externally certified within the framework of the Global Food Safety Initiative (GFSI) – which incorporates the ISO 22000 food safety standard – proving compliance with the relevant quality standards for gases as food additives or processing aids.

Raising environmental protection and safety awareness

Linde systematically trains staff in the areas of occupational health and safety, as well as in product safety and environmental risks. Almost half of our employees in the Gases Division participated in training courses in these areas during the year under review. Moreover, we devise schemes to raise employees' awareness of safety and environmental issues and to encourage them to display greater initiative in these areas. In 2012, for example, Linde held employee workshops worldwide on how to handle acetylene safely.

> More on [trainings on transport safety](#)

Collaboration and awards

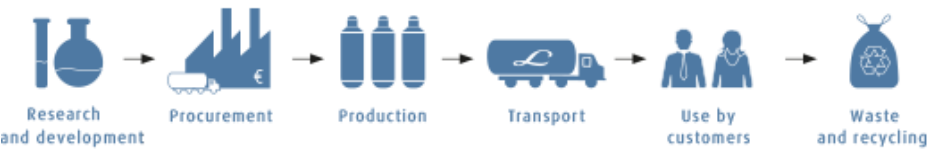
When it comes to safety and environment, we also work with local communities. In 2012, for instance, Linde launched a series of safety talks in China at the invitation of local authorities. In Poland, we exchanged knowledge with the regional fire brigades about the safe handling of gas cylinders and potential response plans in accidents involving acetylene. The Group provided training materials to around 300 firefighters here.

Linde received various awards during 2012 in recognition of its environmental and safety management activities, including its successful approach to safety management in Thailand and its responsible handling of hazardous substances in China. The European Industrial Gases Association (EIGA) also presented awards to several Linde sites in acknowledgement of safety excellence.

Complaints related to the environment

We consistently follow up on suggestions for improvement. During the reporting year, we received 14 environment-related complaints (2011: 28). These mainly concerned noise levels. In addition, 29 environmental incidents occurred that had to be reported to the authorities (2011: 32). These resulted in small environmental fines and warning fees amounting to around EUR 29,000 (2011: EUR 84,300).

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Safety at our sites

Risk to our employees, local residents or neighbouring companies from the operation of plants are identified and evaluated on the basis of an established process. In addition, over the past few years we have introduced a Group-wide management system so that major potential hazards at our plants can be recorded on a uniform basis worldwide. This programme, known as the Major Hazards Review Programme (MHRP), sets out the control mechanisms we have designed to limit these risks as far as possible.

67% of sites concerned
certified to the Major
Hazard Review Programme

By the end of 2012, 67 percent of the sites concerned had been certified in accordance with the MHRP. In order to be prepared for critical incidents, the Group has set up emergency plans on a global scale. These take into account major adverse events such as fires and explosions, whilst also considering the potential impact of natural disasters, crime and pandemics on the Group's sites and business processes. So that the Group can react to these events, responsibilities have been allocated and decision-making channels have been established at local, regional and Group-wide level. During the reporting year, we introduced a new global guideline relating to the safety of employees who work in buildings on production sites. This guideline defines standards for identifying risks within the buildings and sets out measures to take in order to minimise the impact in the event of emergencies such as explosions.

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Transport safety

Transport incidents are one of the key safety issues that Linde focuses on. We are continuously working to further reduce the number and frequency of transport-related incidents, both in our own transport operations and in transport services provided by third parties. The number of serious transport incidents per million kilometres driven decreased again in the year under review, to 0.075 (2011: 0.077). As part of the global package of improvement measures for transport safety, we have set ourselves four goals:

- To adopt all local and global minimum operating standards for transport and integrate them into the Group's global standards database
- To provide our employees and transport contractors concerned with training in these revised standards
- To introduce an audit programme to verify compliance with these operating standards
- To implement a new behavioural safety training for drivers, entitled "ActSafe for Drivers"

New goal

-50%

frequency rate of serious transport incidents by 2017

We have determined a timeline for each of these goals. By the end of 2015, the aim is to have audited at least 60 percent of Linde sites with transport operations to determine the level of compliance with the standards. The ActSafe for Drivers training scheme is scheduled for implementation in at least 30 percent of sites by 2015. In Africa, for instance, more than 260 drivers received training by the end of 2012. Over 20 percent of drivers employed by Linde and contractors participated in the new ActSafe

training courses within pilot projects since 2009. In the course of 2012, we also trained and certified 40 transport auditors.

We also provide practical rollover prevention training for drivers of heavy goods vehicles, which we extended to Eastern Europe and South Africa during the year under review. It is scheduled for implementation in Brazil and India during 2014. Linde also set itself a new, global transport safety target during the reporting year: to halve the frequency rate of serious transport incidents by the end of 2017 (in comparison with 2012 figures).

We systematically promote safe transport practices at Linde. Since 2007, our subsidiary in China has presented annual awards to drivers with the year's best safety records, for instance. The Group also works closely with communities and authorities on transport safety. In 2012, for example, Linde joined forces with local authorities in Bangladesh to conduct an emergency response exercise for transport incidents.

> Information on [measures to reduce transport emissions](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Product stewardship

Strategy

Linde systematically identifies and controls risks along the product value chain, from the procurement of materials to production through to use by the customer. To this end, we analyse such aspects as the ecological impact and toxicity of substances. Linde documents the results in a database, which also serves as a central source of facts and figures for transport safety measures and for the preparation of safety information for customers and the general public.

2,200 participants completed our customer safety trainings.

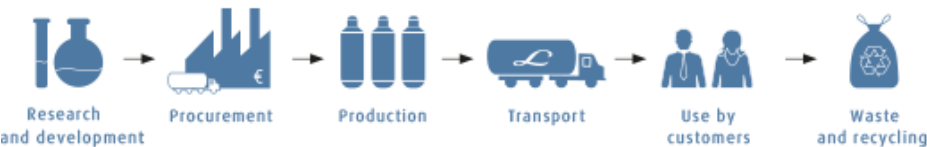
When developing our safety measures, we consider the entire lifecycle of our products. Our global guideline on product stewardship underpins our activities in this area. We conduct audits globally to determine the level of compliance with this standard. By the end of 2012, we additionally had conducted product stewardship assessment in 12 countries, thus covering around 60 percent of our packaged chemicals business activities. We also train our staff in product safety issues.

Linde provides more than 18,000 product safety datasheets, available in all the languages of the countries in which we operate. Customers and the general public can easily access these online, along with other information about our products. We also offer safety training to our customers. In Germany and Austria, for example, Linde ran training sessions for around 2,200 participants during the reporting year on the responsible handling of gases, holding 113 seminars dedicated to its own customer safety programme, LIPROTECT®. In Malaysia, we supported a seminar on the safe packaging of gases in 2012 for around 200 customers and distributors. A range of services covering all aspects of the supply of gases is also available, extending from hazard assessment through to inspection, maintenance and repairs.

530 safety audits completed at customer sites

Depending on the risk, specially trained Linde staff assess whether the conditions are in place for proper gas handling prior to delivery to the customer's site. In 2012, we carried out around 530 audits of this kind at customer sites. In addition, our emergency teams are available to support customers should help be required. This is also the case outside business hours or at weekends. For its comprehensive services enabling the safe supply of gases, Linde Gas Germany received its fifth consecutive quality certificate from TÜV in 2012.

Responsibility along the value chain



Areas in the value chain connected to the topics covered on this page are highlighted

International standards and legal requirements

Our product stewardship programme extends well beyond statutory requirements. With this programme, Linde also supports 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 of Classification and Labelling of Chemicals (GHS)

Additionally, Linde complies with the requirements of REACH, the EU regulation on chemicals. To achieve this, the Group has established a dedicated team of more than 30 experts across Europe. By 2013, we will have registered 5 substances under the REACH regulations. On our REACH internet portal, we provide detailed information on how we are meeting our legal obligations, which substances we have registered, and how we inform our customers and suppliers about this. Linde is also actively working with the European Industrial Gases Association (EIGA) and other trade bodies to implement the REACH process in accordance with the rules and bring it to a successful conclusion with the assistance of customers and suppliers. We have also notified 133 substances in compliance with the European Union's CLP regulation for classification, labelling and packaging of substances and mixtures.

- > More on [products that help our customers reduce emissions](#)
- > More on [plant](#) and [transport safety measures](#)
- > More on [raw materials](#) and [recycling](#)
- > More on [supply chain management](#)
- > More on [safety training](#)

Energy

Strategy

We rely on innovative technologies and the efficient use of energy in order to conserve resources and reduce greenhouse gases while remaining commercially successful. Our global energy management system provides the basis for this. We conduct internal audits to analyse the energy efficiency of our plants and processes across the globe. Potential for cost savings is exploited where technically and economically feasible. Electricity and natural gas jointly account for about 80 percent of the energy carriers Linde uses. The production of air gases in air separation plants accounts for the greatest share of the Group's electricity consumption (over 85 percent). This is why we particularly focus on improving energy efficiency and productivity and have set ourselves a global target in this area.

Energy consumption (in million MWh)

	2012	2011	2010	2009
Electricity consumption ✓	20.0	20.3	19.0	17.7
of which by air separation plants ✓	17.7	17.9	16.8	16.0
Natural gas consumption ✓	25.9	25.4	25.2	23.6
of which by HyCO plants ✓	22.3	21.7	21.2	21.3
Consumption of other energy sources ¹	✓8.7	✓11.7	6.4	5.9

✓ Assured by KPMG Sustainability

¹ Other energy sources include for example heating oil, biofuel energy, propane and butane. The increased consumption of other energies resulted from inclusion of additional other energy sources (e.g. naphtha and methanol) into indicator scope in 2011.

Energy consumption and efficiency

Compared with last year, energy overall consumed by Linde decreased slightly. This was attributable in particular to changes in customer demand. We identified around 190 projects during the reporting year to reduce our energy needs. These projects resulted in savings of approximately EUR 28 million and around 180,000 tonnes of CO₂ emissions.

180,000

tonnes of CO₂ saved through energy efficiency projects

Energy efficiency measures led to savings of around USD 250,000 at one of our US sites, for instance. Linde North America won an award for this initiative in an energy management competition in 2012, giving the prize money of USD 10,000 to a charitable organisation in the region. In Shanghai, Linde received an award from local authorities for activities to cut electricity consumption

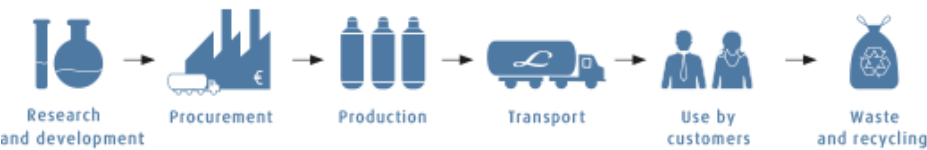
during the year under review. Also during 2012, all the production plants operated by Linde Gas Germany were certified to ISO 50001. This global standard is evidence of a systematic approach to energy management with well-defined remits and aims, coupled with ongoing identification of scope for efficiency gains.

Renewable energy

Renewable energy accounts for around 20 percent of our electricity mix, largely reflecting the national electricity mix usual at our sites. Furthermore, Linde Healthcare has been obtaining Renewable Energy Certificate System (RECS) certificates since 2009. RECS is an initiative that promotes regenerative energy sources across Europe. In 2012, 40,000 MWh of the energy we consumed was once again RECS-certified. In some countries, Linde pursues additional activities to foster renewable energy. In Sweden, for instance, the company holds a 9 percent stake in the wind power company VindIn. The aim of this long-term initiative is to generate 1 million MWh of electricity. In 2012, this project already generated around 47,000 MWh of electricity.

> More on our [products and global targets for energy efficiency and climate protection](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Climate protection

Strategy

Our commitment to climate protection centres on resource-efficient processes and climate-friendly products and technologies. It builds on a systematic analysis of the relevance of the Group's business activities to climate protection. For this purpose, we record and evaluate emissions along the value chains of our products worldwide, from research through production to use by the customer. When accounting for greenhouse gases, Linde takes into consideration the guidance set out in the Greenhouse Gas Protocol.

In 2012, we once again took part in the survey by the Carbon Disclosure Project (CDP) on climate protection reporting and performance. Linde has been included in the regional Carbon Disclosure Leadership Index (CDLI) for Germany, Austria and Switzerland. The CDP recognised Linde's achievement as one of the companies which had made the greatest progress compared with the previous year out of all the companies included in this index for the first time.

Emissions (in million tonnes CO₂ equivalents)

	2012	2011	2010	2009
<i>Direct greenhouse gas emissions (Scope 1)</i>				
CO ₂ emissions ✓	5.3	5.7	5.4	4.6
of which by HyCO plants ✓	4.2	4.3	4.3	3.9
Linde transport fleet	✓0.39	✓0.42	0.41	0.38
Other greenhouse gases ^{1,2}	✓0.4	✓0.6	0.4	0.4
<i>Indirect greenhouse gas emissions (Scope 2)</i>				
CO ₂ emissions ✓	9.8	10.2	9.5	9.0
of which by air separation plants ✓	8.9	8.9	8.3	8.0
<i>Total Scope 1 and 2 emissions</i>	✓15.9	✓16.9	15.7	14.4
<i>Other greenhouse gas emissions (Scope 3)</i>				
Transports by contractors (in thousand t CO ₂ e)	✓380	✓395	310	320
Business travel (in thousand t CO ₂ e)	✓32.1	✓30.6	–	–

✓ Assured by KPMG Sustainability

¹ Includes greenhouse gases specified in the Kyoto protocol: methane (CH₄), nitrous oxide (laughing gas, N₂O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF₆).

² We monitor compliance with local regulatory requirements worldwide and report our data for all sites legally obliged to report emissions.

Global targets

In 2012, Linde emitted around 15.9 million tonnes of greenhouse gases (2011: 16.9 million tonnes) worldwide. The decrease in direct greenhouse gas emissions relative to 2011 is mainly due to a change in customer demand. With regard to climate protection measures in our business processes, we focus in particular on the areas responsible for the bulk of our CO₂ emissions or where we identify an opportunity to make substantial cuts in emissions. These areas include the Group's air separation plants and product transportation.

New goal

-5%

installed design energy intensity at air separation plants by 2017 (base year 2008)

New goal

+2%

energy efficiency at installed HyCO plants by 2015 (base year 2009)

Air separation plants for the production of nitrogen, oxygen and argon are responsible for the majority of Linde's indirect CO₂ emissions. By 2013, our global goal is therefore to improve the installed design energy intensity of our air separation plants per air gas produced by 3 percent relative to the reference year 2008. So far, we have achieved savings of over 1 million tonnes of CO₂. In 2013, we extended this goal to a 5 percent improvement between 2008 and 2017, which has the potential to save over 2.5 million tonnes of CO₂. Additionally, in 2013, we have set ourselves a new global target for our installed hydrogen (HyCO) plants, aiming for a 2 percent increase in their actual energy efficiency by 2015 compared with the 2009 level.

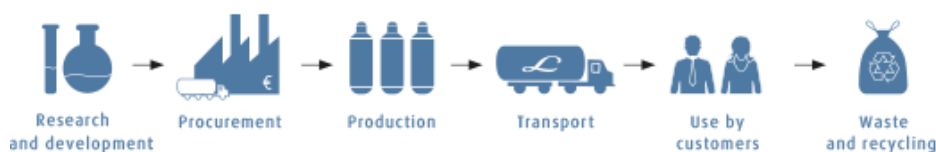
Alongside production, we also examine other links in the value chain for their climate protection potential – for example transport activities. We implement a wide range of measures to reduce emissions caused by the transport of our products. These include optimised routing, improved capacity planning and training courses in fuel-efficient and environmentally sound driving practices. During the year under review, our AGA subsidiary in Sweden exceeded its voluntary target of reducing CO₂ emissions arising from both bulk and cylinder transport of gases by 3 percent in 2012. The focus was on modernising AGA's transport fleet with more environmentally sound, efficient vehicles. Additionally, since 2011, we include CO₂ emissions as a criterion in all tenders for transport suppliers and consider this factor in our decision-making.

Climate-friendly products

We make our greatest contribution to climate protection through our products. Across numerous industries, the Group offers gas applications and technologies that make customer production processes more environmentally sound, help renewable energy sources to become economically viable, and significantly reduce the consumption of natural resources. Linde is leading globally in the enhancement of the environmentally friendly hydrogen technology, for instance. We also calculated a CO₂ balance for gases produced at our air separation plants and for some of our other main product groups. The aim is to give our customers a more transparent overview of the ecological impact of our processes and technologies.

- > More on [research on energy efficiency and the interdisciplinary Clean Energy Group](#)
- > More on [technologies for environmental protection and energy security](#)
- > More on the [European Emissions Trading System](#) in our annual report
- > More on [integrating climate risks in the Enterprise Risk Management system](#) in our annual report

Responsibility along the value chain



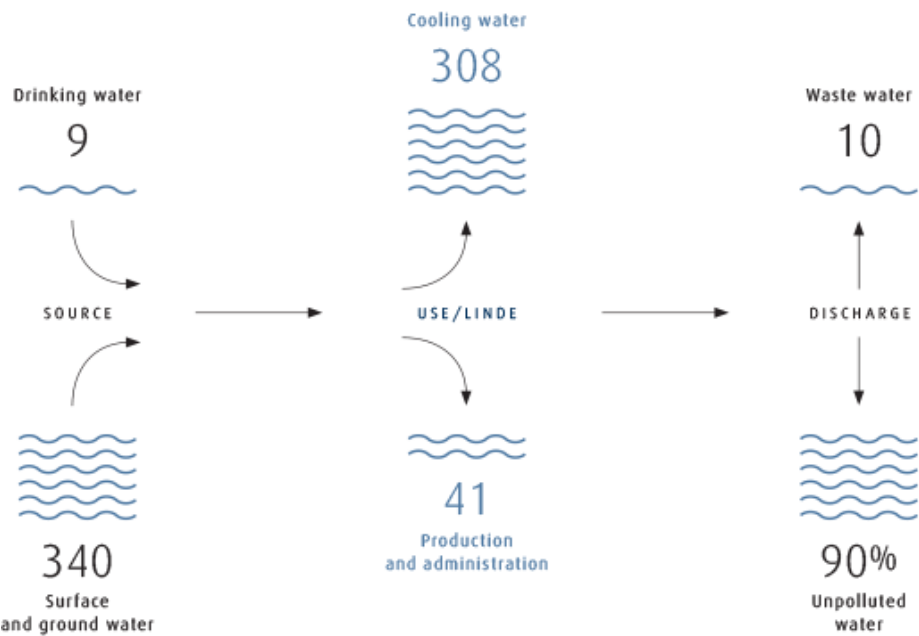
Highlighted: areas in the value chain connected to the topics covered on this page

Water

We strive to use water sustainably at our sites. This includes keeping consumption as low as possible, particularly in areas where water is scarce, and reducing or preventing emissions to water. We offer our customers solutions for improving the quality of drinking water, optimising wastewater treatment and recycling water through closed-loop systems. With its SOLVOX®OxyStream solution, for example, Linde introduced a system to the market which enables particularly cost-effective and energy-efficient oxygenation at land-based aquaculture sites.

In 2012, we made further progress in implementing a new strategy for sustainable water management at sites located in water-stressed areas. This involved conducting a pilot study in Great Britain for instance. We look at optimisation measures and targets on a region- and production-site-specific basis. At our site in Karratha, Australia, for instance, a closed cooling water system, commissioned in 2012, has been helping to reduce water consumption at a new air separation plant by approximately 15,000 cubic metres per year. At one of our sites in Colombia, we introduced a new water circulation system during the year under review, which reuses water multiple times. Our subsidiary Afrox in Africa managed to cut water consumption by around 2.5 percent relative to the prior-year level through water conservation initiatives at various sites.

Water in the Linde Group (in million cubic metres)



Water use

In the 2012 financial year, Linde used an approximate total of 349 million cubic metres of water (2011: 288 million cubic metres). Only a small proportion of this is used up or contaminated in production. Over 85 percent of the total water we need is required for cooling. Most of this cooling water is simply heated and can be fed back into the water cycle without any further treatment, at a temperature that does not pose any risk to the surrounding ecosystem. Linde’s water consumption in 2012 was around 41 million cubic metres (2011: 43 million cubic metres). This water is used in manufacturing products, as a source of steam and in office buildings. As well as continuous flow systems, we also make use of closed-loop systems in which the water can be used several times. This means that only a small amount needs to be replaced, depending on the water quality and equipment used in the plants.

Emissions to water¹ (in tonnes)

	✓2012	✓2011	2010	2009
Chemical oxygen demand (COD)	135	165	308	381
Biochemical oxygen demand (BOD)	51	38	75	157
Nitrates	52	61	35	37
Phosphates	4	3	3	3

✓ Assured by KPMG Sustainability

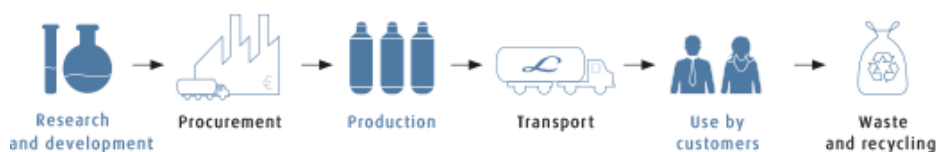
¹ We monitor compliance with local regulatory requirements worldwide and report our data for all sites legally obliged to report emissions.

Waste water

We purify the wastewater from our production and sanitary facilities either by using our own treatment systems or by sending it to municipal or industrial plants. In compliance with official regulations, Linde measures emissions of phosphates, nitrates and organic compounds. In 2012, Linde reported around 9.8 million cubic metres of wastewater worldwide to the authorities (2011: 8.1 million cubic metres).

> Information about [our new aquaculture innovation centre](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Raw materials and resources

As one of the world's leading producers of air gases, Linde's most important raw material is air from the Earth's atmosphere. Another resource crucial to our operations is energy. We also make use of other raw materials, ancillary materials and consumables. These include metals, required for example in the production of components. We also need gas cylinders and tanks, as well as various packaging materials. Gas cylinders are reused and refilled. A typical Linde cylinder will be used three and a half times a year on average and can last for decades.

We work together with our business partners to promote a responsible approach to the consumption of resources. Industrial gases from Linde can, for instance, be used to reduce emissions and energy requirements compared with conventional recycling processes when processing various materials, such as aluminium and rubber.

Resources and materials (in tonnes)

	✓2012	✓2011	2010	2009
Raw materials and supplies	68,848	75,020	65,700	50,000
Packaging materials	4,738	5,286	6,300	5,800

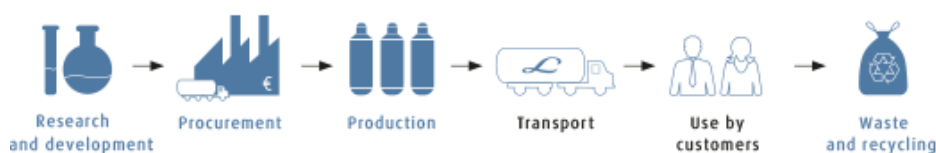
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Renewable raw materials

Linde technologies help promote the use of renewable raw materials. We have made progress in developing our process for obtaining hydrogen from liquid biogenic raw materials such as glycerine. This technology is now being upscaled to demonstration level in preparation for commercial use. Moreover, in 2012, the new Fraunhofer Centre for Chemical-Biotechnological Processes (CBP) opened in Leuna. As general contractor, Linde's Engineering Division was responsible for building the process units and supporting infrastructure. The aim of the CBP is to upscale innovative biotechnological and chemical processes for commercial production, enabling companies to manufacture chemical base products from renewable raw materials.

- > More on the [use of energy](#)
- > More on [global procurement](#) in our annual report
- > More on [waste and recycling](#)

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Waste

We work continuously to reduce and avoid waste. Where possible, waste products are recycled. The rest is disposed of in an environmentally sound manner in compliance with local regulations. We classify the waste generated by our business activities as hazardous or non-hazardous in line with national legislation. Linde's main waste products are oil and oleaginous materials, chemicals, waste containing metal, and gas cylinders. Most gas cylinders are fully recycled at the end of their useful life. Closed-loop systems for products help to increase material and resource efficiency and to cut the volume of waste produced. Lime slurry, for example, a by-product of acetylene production, can be used in other industries with no further treatment required.

Waste and recycling

		✓2012	✓2011	2010	2009
Total waste	thousand t	68.5	64.4	71.9	68.3
Non-hazardous waste	%	71	57	61	52
Hazardous waste	%	29	43	39	48
Recycled materials	%	41	26	43	28
Incineration waste ¹	%	18	30	28	28
Landfill waste	%	26	31	22	35
Other disposal method	%	15	13	7	9

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¹ Incineration waste is partly used for heat recovery.

In 2012, we generated a higher volume of non-hazardous waste, partly attributable to our Gist logistics division – which reported an increase in business activities. At the same time, we managed to reduce our volume of hazardous waste, particularly as a result of various waste treatment measures. In Africa, for instance, initiatives to increase the recycling share had the effect of reducing the volume of waste for disposal by around 40 percent compared with the prior-year figure.

Our waste management targets are determined by regional requirements, as the type of waste produced differs significantly from one site to another depending on the processes being carried out. In the UK, for instance, Linde has set a regional target of increasing its waste recycling rate to 65 percent by 2014, having already achieved 55 percent during the year under review. Since 2008, waste management efforts there have saved around EUR 240,000.

During 2012, we analysed volumes of waste generated and total waste-related costs at several hundred sites. As a follow-up initiative, we launched a pilot project in Southeast Asia at the beginning of 2013 to evaluate improvement potential in waste management and identify best-practice sites.

10,000

liters of helium recovered from medical equipment

Our commitment to responsible waste management extends to joint efforts with our business partners. In 2012, for instance, we joined forces with a customer in Germany on a project intended to recover the valuable rare gas helium from disused MRI scanners prior to metal recycling, around 10,000 litres last year. Helium is used to cool down the magnets in the scanners. Our AGA subsidiary in Estonia has developed a process targeted at landfill sites for oil shale waste and protecting groundwater. This method is now being used within a project co-funded by the EU. The aim is to close as many of these sites in Estonia as possible by 2013 and develop these areas for public use over the coming years.

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Air emissions

Alongside greenhouse gas emissions, Linde also monitors emissions of air pollutants. Normally, the Group's air separation plants hardly produce any direct emissions to air. In other production processes, however, inorganic gases such as carbon monoxide (CO), sulphur oxides (SO_x), nitrogen oxides (NO_x), ammonia (NH₃) and volatile organic compounds (VOCs) are released as emissions into the air. VOC emissions are mainly released during the coating and cleaning of metals such as gas cylinders, storage tanks and plant components.

Emissions to air¹ (in tonnes)

	✓2012	✓2011	2010	2009
VOCs (volatile organic compounds)	96	206	182	236
NH ₃ (ammonia)	11	28	70	78
CO (carbon monoxide)	1,745	1,566	1,747	2,161
NO _x (nitrogen oxides)	796	1,070	717	856
SO _x (sulphur oxides)	391	543	620	730

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¹ We monitor compliance with local regulatory requirements worldwide and report our data for all sites legally obliged to report emissions.

Together with our customers, we are developing solutions for reducing emissions of pollutants into the air. The use of pure oxygen, for example, offers environmental gains in foundries, heat treatment processes, in the steel industry, during the production of non-ferrous metals, waste treatment and recycling processes. Using oxygen instead of air improves energy efficiency while also reducing CO₂ and nitrogen oxide emissions. In 2012, we developed the COROX® LowNOx process to make glass manufacturing more environmentally friendly. This involves feeding additional oxygen into the furnace, which improves the quality of the burner flame and lowers the required temperature level, thus cutting emissions of nitrogen oxides.

Responsibility along the value chain

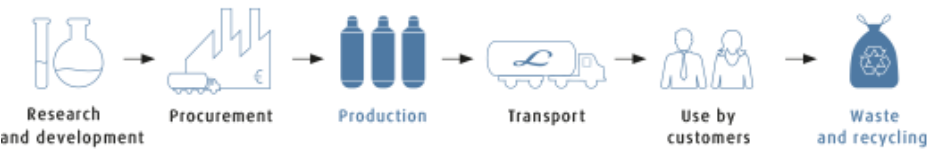


Highlighted: areas in the value chain connected to the topics covered on this page

Biodiversity

Our environmental management programme also includes examining the potential impact of our activities on biodiversity. When planning new sites, we use standard procedures to assess the potential effects on the environment. We are guided here by international recommendations such as the UN Voluntary Guidelines on Biodiversity-Inclusive Impact Assessment. Most of our sites are in industrial or commercial zones. However, if protected areas or other sensitive habitats are located in the immediate vicinity of our sites, we take steps to ensure that they are not negatively impacted, for example by introducing noise protection measures. We also actively include environmental considerations in our plant planning processes. During 2012, our site in Immingham, UK, held a competition inviting pupils to submit ideas for incorporating flora and fauna into the site of a new acetylene facility. The winning suggestion is due to be implemented in 2013.

Responsibility along the value chain



Highlighted: areas in the value chain connected to the topics covered on this page

Employees worldwide

86%

participation in global employee survey →

14,000

courses completed at Linde University →

60

different nations represented at Linde in Germany alone →

75%

of employees completed further training →

33%

fewer work-related accidents since 2009 →

29%

female participants in talent development programme for middle managers →

With around 62,000 employees, The Linde Group operates successfully around the globe. The aim of our human resources management is to acquire the employees best suited to the Group, to nurture them and to build up long-term loyalty. To do this, it is Linde's goal to offer its staff safe and attractive working conditions, fair and respectful treatment, and reward for excellent performance. In return, Linde expects its employees to assume responsibility, both for the success of the company and for the implementation of Linde's corporate values. One of the cornerstones of our global HPO programme designed to improve efficiency is "People Excellence". As part of this initiative, Linde has pinpointed three priorities that are particularly important to sustainable HR efforts: developing talent, a performance-oriented approach and corporate culture.

Employees worldwide

	2012	2011	2010	2009
Group (as of Dec. 31, 2012)	61,965	50,417	48,430	47,731
Gases Division	50,605	39,031	37,603	37,362
EMEA	21,614	20,920	20,575	20,952
Asia/Pacific	11,037	10,868	10,051	9,440
Americas	17,954	7,243	6,977	6,970
Engineering Division	6,564	6,319	5,811	5,716
Other activities	4,796	5,067	5,016	4,653
Employees in production	19,352	19,072	18,134	17,834
Employees in sales, marketing and distribution	31,102	22,172	21,940	20,866
Employees in research and development	385	342	324	345
Employees in administration	11,126	8,831	8,032	8,685
Part-time employees	1.9	2.0	1.9	1.8
Temporary staff ¹	7.5	6.4	4.3	1.8
Employees on parental leave (Germany)	328	271	–	–
Staff covered by collective wage agreements	53.8	53.5	54.9	55.3

¹ In 2010, the definition was adapted. Previously, all contracts concluded for 24 months or longer were reported as unlimited-term contracts. From 2010 on, this indicator includes all contracts with a specific termination date.

As at 31 December 2012, The Linde Group employed a total of 61,965 members of staff, an increase of 11,548 compared with the previous year-end. The acquisitions carried out during the financial year resulted in the addition of 11,499 new employees. On average, 6.9 percent of employees worldwide left the company during the year under review at their own request. Depending on the region, this turnover rate ranged from 2.7 percent in the RBU Continental & Northern Europe to 13.3 percent in the RBU South & East Asia. To cope with order peaks, Linde also uses staffing services if necessary. Around 50 temporary workers performed services for Linde Gas Germany in 2012.

Winning and developing talent

In the global competition for the best talent, the recruitment of well-trained experts, especially highly qualified engineers, plays a particularly important role at Linde. We cooperate with universities and research institutions across the world, seeking to attract newly qualified graduates. During the year under review, the Group launched an initiative at eleven Chinese universities to recruit graduates for its operating business, sales, and research and development. More than 2,000 students attended the presentations put on by Linde. In Europe, Linde has been conducting its second two-year European Graduate Programme since 2011. This offer is aimed at international graduates with outstanding grades.

Worldwide, Linde provides training opportunities in various technical and commercial areas. In Germany, for example, we offer training in 17 different careers. In 2012, depending on the division concerned, between 90.4 and 100 percent of apprentices and trainees in Germany who completed their training were offered at least a fixed-term contract. The number of apprentices and trainees as a proportion of the total number of employees in The Linde Group was 1.1 percent in 2012, 57 percent of which were based in non-German companies.

Employee vocational and further training

	2012	2011	2010	2009
Employees who have taken up training opportunities	% 75.6	64.4	59.1	53.8
Training days per employee	2.0	2.3	2.0	1.6
Expenditure on training programmes per employee	€ 292	268	241	216
Apprentices and trainees in total workforce	% 1.1	1.3	1.3	1.4
Apprentices and trainees in Germany	% 3.1	3.6	3.5	3.7

As well as recruiting the right talent, development programmes are an important element of our HR strategy. The Group offers a range of initiatives designed to continuously develop its employees and to support them in their learning and change processes. These training and development measures are subsumed in the Linde University. As part of its related Global Talent Circle development programme for middle managers, Linde set up a cooperation project with the China Europe International Business School, for example. Over 14,000 courses have been delivered through Linde University since these training programmes were established. In Asia, an e-learning portal was established in 2012, offering around 300 courses. This portal covers all business functions, offering employees flexible development opportunities over the Internet.

3,400

employees completed change management training

more than 200 participants. Succession planning for the Group's management team is also a key component of our long-term approach to HR development. In 2012, Linde held a planning workshop for around 100 strategic positions. The aim is to recognise and nurture potential, and to ensure knowledge transfer. In acknowledgement of its HR initiatives, Linde achieved a leading position in the ranking of "India's Best Companies to Work For" in the year under review.

Workshops on change management are held to give employees the chance to discuss the issues at stake. Since these workshops were introduced in 2010, around 3,400 members of staff have attended them. Mentoring schemes are used to make it easier for new employees, in particular, to integrate into the Group. In North America, for example, Linde runs a mentoring programme with

Remuneration and social benefits

Personnel expenses during the reporting year totalled EUR 3.096 billion (2011: EUR 2.653 billion). Remuneration packages comprising various different elements are designed to encourage employees to focus on Linde's long-term strategic aims. These include a target- and performance-based remuneration structure at managerial level and the global performance management system, designed to ensure a fair and comparable appraisal for the staff. Variable remuneration components are based on the extent to which the Group meets its targets and on employees' individual performance levels. To support this system, we introduced an IT module in 2012 that enables performance evaluations – which are binding for all managers worldwide – to be carried out uniformly across the Group. By means of the Linde Long-Term Incentive Plan, managers may also acquire Linde share options and thus participate directly in the company's growth in value.

Gender is not a factor in determining pay at Linde. Our employees are paid on the basis of their role, qualifications and performance. Our global performance management system includes assessments of all management positions. These evaluations focus on transparency, equality and fair-market-value remuneration. We benchmark remuneration levels internally and externally to check if they are appropriate and in line with established market practice. Remuneration payable to the Executive Board and Supervisory Board is disclosed in The Linde Group's annual report in compliance with the recommendations of the German Corporate Governance Code.

In addition to financial remuneration and participation, Linde offers its employees various social benefits. These are organised at local level and vary from site to site. They include occupational pension plans, childcare subsidies, medical screening and support for preventative programmes such as seminars on avoiding burn-out or preventing addiction.

77%

of the workforce covered under company benefit schemes

We offer employees in 46 countries company and employee-financed pension schemes and healthcare benefits. Almost 80 percent of the Group-wide workforce is covered by company benefit schemes. In the 2012 financial year, we spent a total of EUR 241 million (2011: EUR 190 million) on pensions. Through defined benefit plans, 29,069 active employees are being paid an occupational pension, 19,380 former employees have acquired a vested claim to a company pension and 31,118 pensioners are drawing an occupational pension within the Group. The main pension plans – accounting for around 92 percent of the Group's global obligations – are held in the United Kingdom, Germany, the United States, Australia, the Netherlands, South Africa and Switzerland.

Linde also provides support tailored to its employees' requirements in the form of subsidised health insurance. In China, we extend our Linde-financed supplementary health insurance to employees' family members at subsidised rates. Since 2012, Linde has also been funding supplementary health insurance in China for employees of contractors, applying the same conditions as it offers its own employees.

- > More on [managerial remuneration](#) in our annual report
- > More on [Executive and Supervisory Board remuneration](#) in our annual report
- > More on [pension plans](#) in our annual report

Work-life balance

Linde helps its employees to reconcile their personal and professional goals. Staff have the option of a number of different flexible working models, ranging from flexitime or part-time hours to teleworking, and can also obtain assistance in finding childcare or care solutions for other family members. The various initiatives are based on specific local requirements. The Flexible Futures programme in the UK, for example, gives employees the opportunity to take up to twelve months off if they wish to complete a training course or pursue a private project. Part-time employees in the Group accounted for 1.9 percent of the workforce in the reporting year. In Germany, more than 300 employees took parental leave in 2012, of which around 37 percent were men. Over 190 employees returned to Linde from previous parental leave.

Linde supports its employees with organising childcare in several regions, including North America and Germany. In 2012, the Group increased its budget for a share of daycare places in Greater Munich. This means that the number of daycare places there can be increased from 20 to 45. In other German locations, more than 100 employees received a subsidy towards their childcare places.

Our employees work in countries with varying requirements governing hours of work per week. These standards are based on national regulations and collective wage agreements. As a rule, contracts for full-time employees stipulate a maximum working week of 48 hours worldwide.

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Labour and social standards

In our globally binding Code of Ethics, we commit to the principles of the Human Rights Charter of the United Nations, the core labour standards of the International Labour Organization (ILO) and the principles of the UN Global Compact. Compliance with social standards is reviewed as part of a multi-layered process, a key component of which is a worldwide survey of systems for fair working conditions. Another tool is our Integrity Line, which employees and external stakeholders can use to report instances of misconduct. Furthermore, labour standards are the subject of consultations with employee representatives. The Group's core guidelines also take international standards into account, for instance in requirements for suppliers.

Once again in 2012, we collated information uniformly across all Group locations about our processes for adhering to social standards and observing human rights. The survey covers all regions in which Linde operates. The aim is to examine whether our companies have put processes in place to safeguard social standards. This entails preventing child and forced labour and discrimination, as well as upholding the right to exercise freedom of association and negotiate collective bargaining agreements. A very small percentage of Group employees work in countries where the right to exercise freedom of association and negotiate collective bargaining agreements is limited by national legislation. The results of the survey show, for instance, that Linde has introduced processes to verify the age of its employees. The various regions also reported that almost all of their workforce is covered under state benefit schemes or has access to a healthcare scheme through Linde.

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Involving employees

Linde works together with employee representatives and trade unions. In 2012, 53.8 percent of our staff members were employed under collective wage agreements (2011: 53.5 percent). Linde's system of employee representation in Germany is two-tiered, consisting of works councils in the decentralised units and a central works council for the Group as a whole. In addition, for some years now, Linde has also maintained a European Works Council, currently with 24 members. In 2012, the European Works Council joined a project aimed at improving cross-border cooperation and supported by the European Union.

Honest feedback from employees is crucial to our HR approach. In 2012, the Group conducted a global employee survey for the second time. 86 percent of the workforce took part in this voluntary questionnaire. Compared with the last survey in 2010, there was an improvement in results across the board. 82 percent of employees stated that they were proud to work for Linde. The Group's commitment to environmental protection and its openness in addressing safety issues were cited as particularly positive characteristics by the staff. Meanwhile, aspects such as communication between managers and their teams and cooperation across different departments were mentioned as areas for improvement. In the wake of the survey, managers have been analysing the results with their staff and developing measures to improve the relevant areas. We currently aim to conduct a follow-up survey by the end of 2014.

1,400

ideas submitted by employees to Grass Roots Innovation Development programme in Asia

Additionally, our employees can play an active role by suggesting ways to improve products and processes. In India, for example, Linde Engineering received over 30 staff suggestions within four months in 2012 through a new regional ideas programme, 23 of which the company went on to implement. These include plans to establish an advisory service for customers, helping them to obtain optimum performance from their plants. Also acting on an employee suggestion, Linde Engineering began an initiative in 2012 to enable staff in India to donate their own vacation days for colleagues who would otherwise have to take unpaid leave in urgent situations. In Indonesia, staff submitted over 1,400 ideas to the Grass Roots Innovation Development programme, launched at the start of 2012. There are plans to implement more than 230 of these suggestions.

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Diversity and equal opportunities

Linde has identified diversity as one of the essential ingredients in the Group's success. Our aim is to assemble the best possible teams across the world. These should understand customers' needs on the ground, have an overview of the local market, and know and respect the specific cultural identity. As of 31 December 2012, the Group employed staff from around 130 different countries. More than 60 nations are represented in the German companies alone. The proportion of senior managers in The Linde Group from countries other than Germany exceeded 65 percent in 2012, with more than 40 nations represented at this level. At Linde sites in the emerging markets of China, India and Southeast Asia, over 70 percent of the senior management are from that particular region. In 2012, more than 250 Linde employees were sent on secondment to subsidiaries abroad.

One of Linde's main priorities in the area of diversity and equal opportunities is the promotion of female managers. The proportion of women in the major talent development programme for middle managers, the Global Talent Circle, was raised during the reporting year, from 26.8 percent to 29 percent. Linde has set itself the target of raising the proportion of women in senior management positions to between 13 and 15 percent by 2018.

Global goal

13 – 15%

of women in senior management positions by 2018

Measures taken to achieve this goal include several workgroups focused on different aspects and action items related to diversity. Linde also ensures female applicants are given due consideration at the recruitment stage. The proportion of female participants in the second round of the European Graduate Programme exceeded 50 percent in 2012. Equally, almost half of the participants in the company's talent programmes for trainees in Southeast Asia were women during the year under review. The Group's global aims are

flanked by regional initiatives in the area of diversity and equal opportunities. In Sweden, for example, Linde defined the content and targets of an initiative promoting equality among male and female employees in 2012.

Diversity

		2012	2011	2010	2009
Staff up to 30 years old	%	17.0	16.0	16.4	17.0
Staff between 30 and 50 years old	%	58.8	59.0	59.6	60.1
Staff over 50 years old	%	24.2	25.0	24.0	22.9
Nationalities of employees in Germany		63	63	58	–
Nationalities among senior managers in Germany		12	13	14	–
Female employees in total workforce	%	20.1	19.5	19.3	19.9
of which in senior management positions	%	11.3	11.0	10.3	9.3
of which in development programmes for middle managers	%	29.0	26.8	–	–
Women in the Executive Board	%	0	0	0	0
Women in the Supervisory Board	%	8.3	8.3	0	0
Severely disabled employees (Germany)	%	3.1	3.6	3.5	3.3

Our commitment to equal opportunities also includes doing our best to integrate employees with severe disabilities or health issues. At Linde Germany, this included negotiating a works agreement governing the reintegration of employees into working life after an extended period of disability. In 2012, around 240 people with severe disabilities were employed by Linde in Germany, comprising 3.1 percent of the workforce (2011: 3.6 percent).

The Family and Career working group has been looking at demographic issues at Linde since 2008. The proportion of Group employees aged 50-plus now accounts almost for a quarter of the entire workforce. As a result, we are also developing measures tailored to the requirements of older staff members. Knowledge transfer is also a consideration in this context. The Engineering Division has established the ROCK (Retention of Critical Knowledge) programme, for instance, to ensure that the knowledge of older employees is not lost when they retire.

During the year under review, an engineering and IT careers magazine in North America awarded Linde the title of "Best Diversity Company".

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Occupational health and safety

Linde implements a variety of measures to protect its employees from potential risks associated with their work for the company. We use our global management system for safety, health, environmental protection and quality (SHEQ) to identify potential hazard sources in the workplace and to set risk control standards and guidelines. Defined key performance indicators are used to assess performance levels in the area of occupational safety and health protection, and performance in these areas is also audited. In 2012, these audits were conducted at 62.4 percent of Linde's operating sites (2011: 54.5 percent). In our occupational health and safety measures, we also involve the employees of companies that are working at Linde sites, with our customers or in the area of transport (contractors).

Occupational health and safety

		2012	2011	2010	2009
Workplace accidents with at least one day of absence (employees) ✓	per million hours worked	1.3	1.4	1.9	2.0
Workplace accidents with at least one day of absence (contractors)	per million hours worked	1.3	1.6	2.2	1.7
Workplace accidents of employees with at least one day of absence ✓		136	144	198	202
Workplace accidents of contractors with at least one day of absence		✓151	131	170	128
Working days lost due to industrial accidents (employees)		3,354	2,721	3,813	3,768
Working days lost due to industrial accidents (employees)	per million hours worked	31.6	26.1	36.9	37.3
Fatal workplace accidents involving employees		✓3	5	2	3
Fatal workplace accidents involving contractors		✓4	3	4	7
Sick days per employee		5.3	5.0	5.3	5.5

✓ Assured by KPMG Sustainability

In 2012, the number of work-related accidents at Linde resulting in a lost working day was cut further to 1.3 (2011: 1.4) per million hours worked. During the same period, the number of work-related accidents among contractors also fell to 1.3 (2011: 1.6) per million hours worked. Despite this positive trend, it is with the deepest regret that the Group must report that three Linde employees and four workers employed by contractors lost their lives whilst working for the Group during the reporting year. Six of these fatalities occurred in relation to transport activities and one employee lost her life in a car accident.

Over the coming years, we are looking to expand our occupational health management programme and to work towards global harmonisation in this area. The health risks associated with manual and repetitive work are a particular focus in this regard. The proportion of industrial incidents and chronic illnesses that can be attributed to manual activities lies between approximately 30 and 50 percent per year. Between 2010 and end of 2012, we approved eight global standards and guidelines on workplace health.

Our regional business units support The Linde Group's global initiatives and targets with measures tailored to requirements in specific regions. In Denmark, Linde launched a nationwide health protection project in the year under review, aiming to improve working conditions and thus have a positive impact on the physical and psychological health of employees. 99 percent of staff participated in various workshops under this initiative, while 75 percent took advantage of a voluntary check-up. The plan is to review progress every three years. With a view

to preventing stress-related illness, Linde subsidiaries in some countries have introduced training sessions on stress management techniques for employees. The Group's Cryostar subsidiary in France, for instance, trained around 130 staff members in stress prevention at the workplace in 2012. In the same year, Linde Gas Singapore was commended by the local health authorities for its efforts to promote employee health.

In seeking to improve its occupational health management still further, we are also counting on employee participation. In 2012, Linde recognised innovative solutions for handling gas cylinders in the RBU Continental & Northern Europe with its Manual Handling Award. Teams from two German filling plants were the winners, chosen from around 70 entries submitted for the award. The winning teams had designed rolling aids to ease the strain on workers' backs when moving small gas cylinders around.

> More on [training and audits](#)

Social commitment

Strategy

Linde is involved in a variety of projects in proximity to the Group’s sites around the world, providing assistance locally in the form of donations, sponsorship and volunteering of Linde employees. Our strategy includes a focus on sustainable initiatives related to our business activities. In particular, Linde supports projects in the fields of education and science. Other priorities include such issues as safety, environmental protection and social affairs. Cross-regional activities are coordinated by the Group’s Corporate Centre, while local initiatives are organised on a decentralised basis by the individual regions. As a company, Linde does not make donations to political parties or individuals. In the US, employees of Linde North America have formed a political action committee - an independent, registered committee, under which employees collect donations for politicians, political parties and associations.

In 2012, the total spent on donations, sponsorship and voluntary memberships worldwide was approximately EUR 10.4 million. Organisations Linde supports by way of membership include charitable organisations and NGOs, such as Business Against Crime in South Africa, as well as cultural institutions such as the Prussian Cultural Heritage Foundation (SPK) in Berlin. Linde maintains more than 400 voluntary memberships all over the world.

Projects around the globe

In the field of education, Linde focuses in particular on supporting training for the next generation of engineers and natural scientists. One example of this commitment is the Carl von Linde Academy at Technische Universität München, which is funded by the Group. This establishment provides future engineers, IT experts and natural scientists with knowledge that extends beyond the limits of pure technical knowledge, touching on areas such as business ethics. By the end of 2012, more than 11,000 students had made use of the Academy’s programmes. For several years, Linde has been supporting the Schloss Hansenberg boarding school in Hesse, Germany, a public-private partnership. The aim of this partnership is to foster the talent of pupils with especially strong academic and social skills. In 2012, around 190 pupils benefited from this support in the form of trainee placements, study trips and cooperative natural science projects with universities.

11,000

students have enrolled in the Carl von Linde Academy’s courses

million by 2018. Education also plays an important role in other regions. Linde’s South African subsidiary Afrox, for example, supported some 40 projects – and thus almost 3,800 children – through its Community Involvement Programme during the year under review. Over the course of 2012, Afrox invested around EUR 540,000 in social projects.

Linde also sponsors scientific exhibitions, experiments and competitions in various countries. In Munich, home to the Corporate Centre, Linde is one of the founding members of the Deutsches Museum Future Initiative, the aim of which is to modernise the largest technology museum in the world. Linde is supporting this initiative with a donation which will total EUR 5

250,000

school pupils participated in road safety initiative since it was started

Truck drivers at Linde's Gist logistics division are also supporting road safety – by taking their vehicles to schools in their local communities. During the year under review, over 2,300 primary-school pupils participated in these events. Worldwide, Linde reached more than 65,000 children, pupils and students through its corporate citizenship initiatives in the course of 2012.

65,000

children, pupils and students reached through corporate citizenship initiatives

by up to 230,000 viewers in around 50 countries.

The Group helps its employees to get involved in volunteering by giving them time off work, offering financial assistance or matching their donations. In the UK, employees have the option of donating a specific amount to a charitable organisation of their choice via their monthly payslip. Linde then matches this contribution. Through these and other employee activities, the matched giving programme generated over EUR 300,000 there in 2012. After Hurricane Sandy in the United States, Linde's regional business unit and staff in the stricken region together donated in excess of USD 75,000 in 2012. Across North America, Linde and its employees donated a total of more than USD 550,000 to a variety of charitable organisations during the year under review.

The importance of safety for Linde extends far beyond the company's own business processes to include the wider community. As one of the founding members of a road safety initiative, Linde offers young people in Australia and New Zealand safety training shortly before they sit their driving test. More than 250,000 school pupils had taken up this offer by the end of 2012.

Culture is a particular focus of Linde's sponsorship activities. The Group has been Season Partner of Germany's Bavarian State Opera since 2007, and additionally began supporting live streaming of selected performances in 2012. People who do not have the opportunity to go to the opera can thus experience first-class cultural events free of charge. Each performance is watched online

Measuring sustainability

Key performance indicators (KPIs) help us track our economic, ecological and social performance. We use them to measure our progress and identify scope for improvement. Where possible, we present our performance indicators in this report over a four-year period. Once again, we asked KPMG Sustainability to provide limited assurance on selected non-financial KPIs. This year, we extended the scope of the audit to include additional occupational safety indicators. The scope is described in the independent assurance report. Additionally, indicators covered within the assurance scope are marked as such in the tables provided. We also highlight indicators published in the Group management report of Linde's 2012 annual report.

Our financial figures are published in the Group financial statements within our annual report, in line with the International Financial Reporting Standards (IFRS). We collect key indicators for health, safety and environmental protection, mainly by means of global databases. We continuously evaluate the possibility of including additional KPIs in our external reporting. In 2012, we also integrated further non-financial KPIs into our annual report. We also select and publish our non-financial data considering internationally recognised standards, including:

- The sustainability reporting guidelines issued by the [Global Reporting Initiative](#) (GRI),
- The Greenhouse Gas Protocol published by the World Resources Institute and the World Business Council for Sustainable Development,
- Recommendations from the European Industrial Gases Association (EIGA), the Responsible Care initiative and the German Chemical Industry Association (VCI).

At The Linde Group, we are committed to continuous development and improvement. That is why we set ourselves regional and global targets, against which we can measure our performance. The [table with our targets](#) provides a quick overview of the individual topics and contains links to more detailed information within the relevant chapters.

Our Corporate Responsibility Report 2012 also serves as our Communication on Progress within the framework of the UN Global Compact. We therefore report on how we incorporate the ten Global Compact principles into our business activities.

Financials and compliance

- ✓ Included in the group management report of the [Annual Report 2012](#)
- ✓ Audited by KPMG Sustainability
[More on the assurance](#)

Financial indicators ✓

		2012	2011	2010	2009
<i>Share</i>					
Closing price	€	132.00	114.95	113.55	84.16
Year high	€	136.15	125.80	115.30	87.95
Year low	€	114.20	96.16	76.70	49.66
Market capitalisation (at year-end closing price)	€ million	24,445	19,663	19,337	14,215
Earnings per share - undiluted ¹	€	7.03	6.88	5.94	3.51
No. of shares (at 31 December)	000s	185,189	171,061	170,297	168,907
Cash dividend per share	€	2.70	2.50	2.20	1.80
<i>Group</i>					
Revenue	€ million	15,280	13,787	12,868	11,211
In Germany	%	8.5	9.0	9.5	10.8
Outside Germany	%	91.5	91.0	90.5	89.2
Operating profit ²	€ million	3,530	3,210	2,925	2,385
Operating margin	%	23.1	23.3	22.7	21.3
EBIT	€ million	1,992	1,910	1,679	1,167
Profit for the year	€ million	1,324	1,244	1,064	653
Capital expenditure	€ million	1,952	1,367	1,302	1,137
Equity ratio	%	40.8	42.0	42.3	37.7
Return on capital employed (ROCE)	%	10.0	11.0	10.3	7.7
Expenditure for research and development	€ million	101	98	94	89
Procurement costs	bn €	10.9	10.7	9.7	8.2
Personnel expenses	bn €	3,096	2,653	2,527	2,319
Personnel expenses per employee	1,000 €	50.0	52.6	52.2	48.6
Pension costs	€ million	241	190	178	186
<i>Gases Division</i>					
Revenue	€ million	12,591	11,061	10,228	8,932
Operating profit	€ million	3,403	3,041	2,766	2,378
Operating margin	%	27.0	27.5	27.0	26.6
<i>Engineering Division</i>					
Revenue	€ million	2,561	2,531	2,461	2,311
Operating profit	€ million	312	304	271	210
Operating margin	%	12.2	12.0	11.0	9.1

¹ Based on the weighted average number of shares.

² EBITDA including share of income from associates and joint ventures.

Compliance

	2012	2011	2010	2009
Contacts Integrity Line	309	430	334	—
Investigations as a result of reports to the Integrity Line	77	54	54	—
of which referring to personnel topics	42.9	38.9	42.6	—
of which referring to potential offences against property	24.7	31.5	22.2	—
of which referring to potential discrimination	2.6	0.0	1.9	—
of which referring to potential conflicts of interest	15.6	3.7	14.8	—
Substantiated cases	36	25	29	—

Safety and environmental protection

- ✓ Included in the group management report of the [Annual Report 2012](#)
- ✓ Audited by KPMG Sustainability
[More on the assurance](#)

Use of resources *

		2012	2011	2010	2009
<i>Energy</i>					
Electricity consumption ✓✓	million MWh	20.0	20.3	19.0	17.7
of which by air separation plants ✓✓	million MWh	17.7	17.9	16.8	16.0
Natural gas consumption ✓✓	million MWh	25.9	25.4	25.2	23.6
of which by HyCO plants ✓✓	million MWh	22.3	21.7	21.2	21.3
Consumption of other energy sources ¹	million MWh	✓8.7	✓11.7	6.4	5.9
<i>Water</i>					
Water use ²	million m ³	✓349	✓288	255	242
of which surface and ground water	%	✓97.4	✓96.8	95.7	96.7
of which drinking water	%	✓2.6	✓3.2	4.3	3.3
Total water consumption ³ ✓✓	million m ³	41.2	42.6	43.0	38.9
of which industrial and process water ✓	million m ³	32.1	33.3	32.0	30.9
of which drinking water ✓	million m ³	9.1	9.3	11.0	8.0
Waste water	million m ³	✓9.8	✓8.1	8.4	11.4
<i>Resources and materials</i>					
Raw materials and supplies	t	✓68,848	✓75,020	65,700	50,000
Packaging materials	t	✓4,738	✓5,286	6,300	5,800

¹ Other energy sources include for example heating oil, biofuel energy, propane and butane. The increased consumption of other energies in 2011 resulted from the inclusion of additional other energy sources (e.g. naphtha and methanol) into the indicator scope.

² Water use in 2012 increased due to newly installed air separation plants in China, which mainly use sea water in their processes.

³ 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.

Emissions*

		2012	2011	2010	2009
<i>Direct greenhouse gas emissions (Scope 1)</i>					
CO ₂ emissions ✓✓	million t	5.3	5.7	5.4	4.6
of which by HyCO plants ✓✓	million t	4.2	4.3	4.3	3.9
Linde transport fleet	thousand t CO ₂ e	✓✓0.39	✓✓0.42	0.41	0.38
Other greenhouse gases ^{4,5}	thousand t CO ₂ e	✓✓0.4	✓✓0.6	0.4	0.4
Total	million t	✓6.1	✓6.7	6.2	5.4
<i>Indirect greenhouse gas emissions (Scope 2)</i>					
CO ₂ emissions ✓✓	million t	9.8	10.2	9.5	9.0
of which by air separation plants ✓✓	million t	8.9	8.9	8.3	8.0
Total Scope 1 and 2 emissions	million t CO ₂ e	✓15.9	✓16.9	15.7	14.4
Emissions per million EUR sales	t CO ₂ e	1,095	1,226	1,220	1,284
<i>Other greenhouse gas emissions (Scope 3)</i>					
Transports by contractors	thousand t CO ₂ e	✓380	✓395	310	320
Business travel	thousand t CO ₂ e	✓32.1	✓30.6	–	–
<i>Emissions to air⁵</i>					
VOCs (volatile organic compounds)	t	✓96	✓206	182	236
NH ₃ (ammonia)	t	✓11	✓28	70	78
CO (carbon monoxide)	t	✓1,745	✓1,566	1,747	2,161
NO _x (nitrogen oxides)	t	✓796	✓1,070	717	856
SO _x (sulphur oxides)	t	✓391	✓543	620	730
<i>Emissions to water⁵</i>					
Chemical oxygen demand (COD)	t	✓135	✓165	308	381
Biochemical oxygen demand (BOD)	t	✓51	✓38	75	157
Nitrates	t	✓52	✓61	35	37
Phosphates	t	✓4	✓3	3	3

⁴ Includes greenhouse gases specified in the Kyoto protocol: methane (CH₄), nitrous oxide (laughing gas, N₂O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs) and sulphur hexafluoride (SF₆).

⁵ We monitor compliance with local regulatory requirements worldwide and report our data for all sites legally obliged to report emissions.

Waste and recycling *

		2012	2011	2010	2009
Total waste	thousand t	✓ 68.5	✓ 64.4	71.9	68.3
Non-hazardous waste	%	✓ 71	✓ 57	61	52
Hazardous waste	%	✓ 29	✓ 43	39	48
Recycled waste	%	✓ 41	✓ 26	43	28
Incineration waste ⁶	%	✓ 18	✓ 30	28	28
Landfill waste	%	✓ 26	✓ 31	22	35
Other disposal method	%	✓ 15	✓ 13	7	9

⁶ Incineration waste is partly used for heat recovery.

Transport *

		2012	2011	2010	2009
Distance driven by Linde Gas transport fleet	million km	✓ 845	✓ 866	764	689
Serious transport incidents involving trucks ⁷	per 1 million km	✓ 0.075	✓ 0.077	0.085	0.083

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

Audits and trainings *

		2012	2011	2010	2009
Sites where occupational health and safety audits have been conducted ⁸ ✓	%	62.4	54.5	53.2	55.1
Sites where environmental audits have been conducted ⁸ ✓	%	53.6	49.1	47.8	48.3
Employees of Linde Gas who have taken up HSE training opportunities ✓	%	49.1	50.3	47.2	48.8

⁸ The figures disclosed relate to internal and external audits conducted at production sites worldwide.

Certified sites *

		2012	2011	2010	2009
Sites certified to ISO 9001	%	✓ 80	76	72	71
Sites certified to ISO 14001	%	✓ 31	33	28	27
Sites certified to OHSAS 18001 or SCC	%	✓ 25	22	22	22
Sites with Responsible Care certification	%	29	26	22	21

Environmental incidents *

		2012	2011	2010	2009
Environmental complaints		14	28	19	18
Reportable environmental incidents		29	33	31	24

* In 2012, Linde completed the acquisition of Lincare Holdings Inc. and Air Products' Continental European homecare business. The performance data of the acquisitions will only be reported after they have been consolidated for a full financial year.

Employees

- ✓ Included in the group management report of the [Annual Report 2012](#)
- ✓ Audited by KPMG Sustainability
[More on the assurance](#)

Employment structure *

		2012	2011	2010	2009
Group ✓	as of Dec. 31, 2012	61,965	50,417	48,430	47,731
Gases Division ✓		50,605	39,031	37,603	37,362
EMEA ✓		21,614	20,920	20,575	20,952
Asia/Pacific ✓		11,037	10,868	10,051	9,440
Americas ✓		17,954	7,243	6,977	6,970
Engineering Division ✓		6,564	6,319	5,811	5,716
Other activities ✓		4,796	5,067	5,016	4,653
Employees in production		19,352	19,072	18,134	17,834
Employees in sales, marketing and distribution		31,102	22,172	21,940	20,866
Employees in research & development		385	342	324	345
Employees in administration		11,126	8,831	8,032	8,685
Part-time employees ✓	%	1.9	2.0	1.9	1.8
Temporary staff ¹ ✓	%	7.5	6.4	4.3	1.8
Employees on parental leave (Germany)		328	271		
Staff covered by collective wage agreements ✓	%	53.8	53.5	54.9	55.3
<i>Employee retention and benefits</i>					
Length of service ✓	years	10.1	9.8	9.7	10.1
Staff turnover rate ² ✓	%	6.9	6.3	5.7	4.2
Employees with access to company benefit schemes	%	77	78	76	80
Retired colleagues receiving pensions by Linde		31,118	31,112	32,584	32,012

1 In 2010, the definition was adapted. Previously, all contracts concluded for 24 months or longer were reported as unlimited-term contracts. From 2010 on, this indicator includes all contracts with a specific termination date.

2 Staff turnover rate relates to employees who left the Group voluntarily during the period under review.

Diversity *

		2012	2011	2010	2009
Staff up to 30 years old ✓	%	17.0	16.0	16.4	17.0
Staff between 30 and 50 years old ✓	%	58.8	59.0	59.6	60.1
Staff over 50 years old ✓	%	24.2	25.0	24.0	22.9
Nationalities of employees in Germany		63	63	58	—
Nationalities among senior managers in Germany		12	13	14	—
Female employees in total workforce ✓	%	20.1	19.5	19.3	19.9
of which in senior management positions	%	11.3	11.0	10.3	9.3
of which in development programmes for middle managers ✓	%	29.0	26.8	—	—
Women in the Executive Board	%	0	0	0	0
Women in the Supervisory Board	%	8.3	8.3	0	0
Severely disabled employees (Germany) ✓	%	3.1	3.6	3.5	3.3

Employee training *

		2012	2011	2010	2009
Employees who attended training opportunities ✓	%	75.6	64.4	59.1	53.8
Training days per employee ✓		2.0	2.3	2.0	1.6
Expenditure on training programmes per employee ✓	€	292	268	241	216
Apprentices and trainees in total workforce ✓	%	1.1	1.3	1.3	1.4
Apprentices and trainees in Germany ✓	%	3.2	3.6	3.5	3.7


Occupational health and safety *



		2012	2011	2010	2009
Workplace accidents with at least one day of absence (employees) ✓✓	per million hours worked	1.3	1.4	1.9	2.0
Workplace accidents with at least one day of absence (contractors)	per million hours worked	1.3	1.6	2.2	1.7
Workplace accidents of employees with at least one day of absence ✓✓		136	144	198	202
Workplace accidents of contractors with at least one day of absence		✓151	131	170	128
Working days lost due to industrial accidents (employees) ✓		3,354	2,721	3,813	3,768
Working days lost due to industrial accidents (employees) ✓	per million hours worked	31.6	26.1	36.9	37.3
Fatal workplace accidents involving employees ✓		✓3	5	2	3
Fatal workplace accidents involving contractors		✓✓4	3	4	7
Sick days per employee ✓		5.3	5.0	5.3	5.5

* In 2012, Linde completed the acquisition of Lincare Holdings Inc. and Air Products' Continental European homecare business. Unless required by financial reporting standards (employees at the balance sheet date), figures of Lincare Holdings on employees will only be reported after the company has been fully consolidated for one financial year. Figures on employees of the acquired homecare business of Air Products are fully reported for the 2012 financial year in the sections on employment structure and diversity as well as in the section on employee training for apprentices and trainees.










Goals

Strategy

Status	
	New goal
	In progress
	Target reached










Goal	Timeline	Progress	Status
Transparency			
Definition, collection and reporting of additional sustainability indicators	Ongoing	<ul style="list-style-type: none"> – Further indicators included in corporate responsibility report, for example in the area of compliance – Scope of independent assurance extended to include new indicators – Further non-financial indicators included in 2012 annual report <p>> More on compliance</p> <p>> More on KPIs and targets</p> <p>> More on assurance</p> <p>> More in the annual report</p>	
Stakeholder engagement			
Inclusion of stakeholder requirements in sustainability management activities	Ongoing	<ul style="list-style-type: none"> – Second global voluntary employee survey completed – 1,600 sustainability inquiries from stakeholders answered – More than 700 individual conversations with financial analysts and investors conducted; 41 conferences and roadshows for investors – Expert dialogues conducted, hosting the Federal Algae Roundtable Meeting (Bundesalgenstammtisch) for example, which brought together 150 experts to discuss regenerative raw materials <p>> More on employee survey</p> <p>> More on Linde shares</p> <p>> More on stakeholder dialogue</p> <p>> More on materiality analysis</p>	


Business & governance

Goal	Timeline	Progress	Status
Finances			
Group operating profit of at least EUR 4 bn	2013	> More in the annual report	
Group operating profit of at least EUR 5 bn and adjusted ROCE of around 14 percent*; reported ROCE of around 13 percent	2016	> More in the annual report	
Further reductions in total gross costs of between EUR 750 m and EUR 900 m	2013-2016	> More in the annual report	
Compliance			
Expansion of compliance programme	Ongoing	<ul style="list-style-type: none"> – New anti-corruption guidelines for employees approved – New intranet portal for compliance launched – Over 36,000 e-learning courses on the Code of Ethics by the end of 2012 – Classroom-based training for over 6,000 employees between 2009 and 2012 – Around 3,500 employees trained on anti-trust law via a new online training course > More	
Supply chain			
Sustainability assessment of the supply chain	2014	<ul style="list-style-type: none"> – Analysis of sustainability risks in the supply chain conducted – More in-depth analysis planned > More	
Consolidation and complementation of existing sustainability requirements in a global supplier code of conduct	2014	Company-wide status quo analysis of sustainability requirements applying to suppliers conducted > More	
Raising awareness on the importance of sustainability in the supply chain among procurement managers and suppliers	2014	New intranet sites on sustainability in the supply chain launched > More	
Capital market			
Inclusion of Linde in the most renowned sustainability indices	2014	<ul style="list-style-type: none"> – Linde included in the global Dow Jones Sustainability Index (DJSI World) – Linde included in regional Carbon Disclosure Leadership Index (CDLI) for Germany, Austria and Switzerland > More	
Products			
Development of products and technologies that unite the goals of customer value and sustainable development	Ongoing	<ul style="list-style-type: none"> – Innovations include a new process to reduce emissions of harmful nitrogen oxides during glass manufacture – Research and innovation centre to improve oxygen supply in fish farming opened > More under innovations	








* Adjusted for the amortisation of fair value adjustments identified in the course of the BOC purchase price allocation


Environment & safety

Planned measures	Timeline	Progress	Status
Site safety			
Standardised risk review for sites and definition of control mechanisms to minimise these risks to the greatest possible extent (Major Hazards Review Programme, MHRP)	Long-term goal	67% of sites concerned certified in line with MHRP by the end of 2012 > More	
Transport safety			
Transport safety initiative <ul style="list-style-type: none"> – Adoption of all local and global minimum operating standards for transport – Integration of transport standards in a global database – Training on revised standards for employees and transport contractors – Audits to ensure compliance with operating standards – Global implementation of new behavioural transport safety driver training programme (ActSafe for Drivers) 	2012-2015	<ul style="list-style-type: none"> – 40 transport auditors trained – More than 20% of Linde and contractor drivers worldwide trained in pilot projects from 2009-2012 > More	
50% reduction in the frequency rate of serious transport incidents (base year 2012)	2017	> More	
Climate protection and energy efficiency			
3% improvement in installed design energy intensity in our air separation plants (relative to 2008 baseline)	2013	<ul style="list-style-type: none"> – Savings of more than 1 m tonnes of CO₂ achieved since 2008 – Existing goal extended > More	
5% improvement in installed design energy intensity in our air separation plants (relative to 2008 baseline)	2017	> More	
2% improvement in actual energy efficiency in our installed HyCO plants (relative to 2009 baseline)	2015	> More	
Evaluation of ways to reduce CO ₂ emitted by transport service providers (scope 3 emissions)	Ongoing	<ul style="list-style-type: none"> – Low CO₂ emissions included as criterion for selection of transport suppliers – Driver training courses in fuel efficient driving conducted, including contractors > More	
Evaluation of emissions outside of our production processes (scope 3)	Long-term goal	<ul style="list-style-type: none"> – Business processes assessed in line with scope 3 emissions criteria – Additional scope 3 emission data published > More	
Water			
Development of a strategy for sustainable water use in water-stressed regions	2013	<ul style="list-style-type: none"> – Measures and goals evaluated on various sites in order to optimise the sustainable use of water – Pilot study in Great Britain > More	

Further key environmental areas			
Evaluation of additional quantitative environmental protection goals	Long-term goal	<ul style="list-style-type: none">– New climate protection goals defined– Volumes of waste generated and total waste-related costs at several hundred sites analysed <p>> More on climate protection</p> <p>> More on waste</p>	

Employees & society

Goal	Timeline	Progress	Status
Employee satisfaction			
Review of employee satisfaction	2012	<ul style="list-style-type: none"> – Second global employee survey carried out, with 86% participation rate – Improvements in all categories relative to 2010 survey – Next global employee survey currently planned for 2014 > More	
Management			
Increase in the proportion of women in senior management positions worldwide to between 13 and 15%	2018	<ul style="list-style-type: none"> – Percentage of women in senior management positions increased to 11.3% – Percentage of women in our most important development programme for middle managers increased to 29% > More	
Work/life balance			
Expansion of childcare support	Long-term goal	Budget for daycare places in the Munich raised, enabling increasing number of daycare places from 20 to potentially 45; over 100 employees at other German sites received a daycare subsidy > More	
Labour and social standards			
Evaluation of monitoring systems for compliance with labour standards and human rights	2015	Assessment of regional systems for the enforcement of global standards implemented as a global annual survey > More	
Health protection			
Expansion and harmonisation of Occupational health and hygiene management programmes	Ongoing	<ul style="list-style-type: none"> – Eight global health protection guidelines approved between 2010 and end of 2012; > More	
Reduction of health risks associated with manual tasks	Ongoing	<ul style="list-style-type: none"> – Occupational health and safety audits carried out at more than 60% of our sites – Linde recognised innovative solutions for handling gas cylinders with Manual Handling Award in Europe > More	
Reduction of potential risks from psychological stress	Long-term goal	<ul style="list-style-type: none"> – Subject of workload covered in global employee survey – Trainings on stress management techniques introduced in some business units > More	

Social engagement			
Development of a global strategy to measure the effectiveness of corporate citizenship projects	2013	<ul style="list-style-type: none">– Global survey of corporate citizenship activities completed– Corporate citizenship KPIs defined– Further indicators included in corporate responsibility report > More	


GRI and Global Compact index

Linde's corporate responsibility reporting is based on the Global Reporting Initiative (GRI) guidelines for sustainability reporting. We follow the version of the GRI standard valid at the time of publication (G3.1). The independent Global Reporting Initiative has again confirmed that Linde has achieved the highest application level of these guidelines: A+.












The GRI index gives an overview of the core and supplementary reporting indicators. It also provides links to the relevant content in this report, as well as listing other sources of information. If an indicator has not been covered or is only partially covered, we explain the reasons for this. This index also contains links to further information relating to the ten principles of the UN Global Compact (UNGC).

Status	
	Not covered
	Covered in part
	Covered in full




















Strategy and analysis

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	1.1	Statement from the Chief Executive Officer		CEO statement		
	1.2	Description of key impacts, risks and opportunities		Strategy Risk management Business opportunities Environment and safety Social commitment	Financial Report 2012: risk management Clean Technology by Linde	











Organisational profile

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	2.1	Name of the organisation		Corporate profile		
	2.2	Primary brands, products and/or services		Corporate profile Business opportunities	Clean Technology by Linde Financial Report 2012: business review	
	2.3	Operational structure		Corporate profile	Financial Report 2012: corporate profile	
	2.4	Location of organisation's headquarters		Legal notice		
	2.5	Countries where the organisation operates		Corporate profile	Website Linde	
	2.6	Nature of ownership and legal form			Website Linde: management Financial Report 2012: shareholder structure	
	2.7	Markets served		Corporate profile	Financial Report 2012: corporate profile Financial Report 2012: business review	
	2.8	Scale of the reporting organisation		Corporate profile Financial indicators	Financial Report 2012: financial highlights	
	2.9	Significant changes during the reporting period regarding size, structure or ownership			Linde Annual 2012: strategic acquisitions	
	2.10	Awards received in the reporting period		Environment and safety Climate protection Capital market Diversity and equal opportunities		









Reporting parameters

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	3.1	Reporting period		About this report		
	3.2	Date of the most recent previous report		About this report		
	3.3	Reporting cycle		About this report		
	3.4	Contact point for questions		CR organisation	Website Linde: contact	
	3.5	Definition of report content and stakeholders		About this report Key material issues		
	3.6	Boundaries of the report		About this report		
	3.7	Limitations on the scope of the report		About this report Measuring sustainability		
	3.8	Joint ventures, subsidiaries, outsourcing		About this report Measuring sustainability		 
	3.9	Data measurement techniques and basis of calculations		Measuring sustainability		
	3.10	Effects of new re-statement of information		About this report		
	3.11	Changes from previous reporting periods		About this report	Linde Annual 2012: strategic acquisitions	
	3.12	GRI content index				
	3.13	External assurance statement		Assurance		



Governance, commitments and engagement

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	4.1	Governance structure, including responsibility for sustainability		CR organisation Promotion of women	Website Linde: Executive Board	
	4.2	Independence of Supervisory Board Chairman			Financial Report 2012: corporate governance Financial Report 2012: Executive Board	
	4.3	Management bodies and statement regarding independence of members of the highest governance body, senior managers and executives			Website Linde: management	
	4.4	Mechanisms to provide recommendations to the highest governance bodies		CR organisation Involving employees Compliance	Financial Report 2012: corporate governance	
	4.5	Linkage between the compensation for members of the highest governance body, senior managers and executives, and the organisation's performance with regard to sustainability			Financial Report 2012: remuneration report Financial Report 2012: corporate governance practices	
	4.6	Processes to ensure conflicts of interest are avoided			Financial Report 2012: corporate governance practices	
	4.7	Qualifications and expertise of the members of the highest governance body with regard to sustainability		CR organisation	Financial Report 2012: Executive Board	
	4.8	Missions, values and codes of conduct		Values and standards		
	4.9	Procedures employed by the highest governance body to monitor the organisation's performance with regard to sustainability		CR organisation		








Governance, commitments and engagement

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	4.10	Processes for evaluating the highest governance body's own performance			Financial Report 2012: report Supervisory Board	
	4.11	Implementation of the precautionary principle		Risk management Compliance Product stewardship Environment and safety Health and safety		
	4.12	Support of external initiatives		Stakeholder dialogue Global Compact Diversity and equal opportunities		
	4.13	Memberships in associations		Stakeholder dialogue Social commitment		
	4.14	List of stakeholder groups engaged by the organisation		Stakeholder dialogue Key material issues		
	4.15	Basis for identification of stakeholders		Stakeholder dialogue Key material issues		
	4.16	Approaches to stakeholder dialogue		Stakeholder dialogue Key material issues		
	4.17	Statement on key concerns raised by stakeholders		Stakeholder dialogue Key material issues		

Disclosures on management approach

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
		Economic performance		Corporate profile	Financial Report 2012	
		Market presence		Corporate profile	Financial Report 2012	
		Indirect economic impacts		Social commitment		

Environmental performance

		Materials		Environment and safety Raw materials Supply chain Product stewardship		
		Energy		Environment and safety Energy Climate protection Business opportunities	Clean Technology by Linde	
		Water		Environment and safety Water		
		Biodiversity		Environment and safety Biodiversity		
		Emissions, effluents and waste		Environment and safety Climate protection Water Waste Air emissions	Clean Technology by Linde	
		Products and services		Environment and safety Product stewardship	Clean Technology by Linde	
		Compliance		Environment and safety Compliance	Financial Report 2012: litigation	
		Transport		Environment and safety Transport safety Climate protection		
		Overall		Environment and safety Product stewardship Risk management		



















Disclosures on management approach

UNGC GRI GRI Indicator Status Link within the report External links PDF

Labour practices and decent work

		Employment		Values and standards Employees worldwide		
		Labor/management relations		Values and standards Involving employees		
		Occupational health and safety		Values and standards Health and safety Environment and safety		
		Training and education		Values and standards Developing talent		
		Diversity and equal opportunity		Values and standards Diversity and equal opportunities Labour and social standards		
		Equal remuneration for women and men		Remuneration Diversity and equal opportunities		

Human rights

		Investment and procurement practices		Values and standards Supply chain Labour and social standards Compliance		
		Non-discrimination		Values and standards Diversity and equal opportunities Labour and social standards Compliance		 
		Freedom of association and collective bargaining		Values and standards Involving employees Labour and social standards Compliance		 
		Child labour		Values and standards Labour and social standards Compliance		 
		Forced and compulsory labour		Values and standards Labour and social standards Compliance		 
	6	Security practices				
	7	Indigenous rights				
		Assessment		Labour and social standards Compliance		
		Remediation		Labour and social standards Compliance		










Society

		Community		Social commitment Risk management Environment and safety Product stewardship Site safety Business opportunities		
		Corruption		Values and standards Compliance		
		Public policy		Stakeholder dialogue Social commitment		
		Anti-competitive behavior		Values and standards Compliance		













Disclosures on management approach

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
		Compliance		Values and standards Compliance		






Product responsibility

		Customer health and safety		Product stewardship Compliance		
		Product and service labelling		Product stewardship		
		Marketing communications		Compliance		
		Customer privacy		Compliance		
		Compliance		Compliance Product stewardship		


























Economic indicators

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	EC1	Direct generated economic value		Financial indicators Social commitment	Financial Report 2012: Linde shares	
7	EC2	Financial implications of climate change		Business opportunities Climate protection	Financial Report 2012: income tax expense	
	EC3	Scope of the organisation's defined benefit plan obligations		Employees worldwide Remuneration and social benefits		
	EC4	Financial assistance received from governments				
1	EC5	Standard entry level wage and local minimum wage		Compliance Remuneration and social benefits Labour and social standards		
	EC6	Procedures for selecting local suppliers		Supply chain	Financial Report 2012: purchasing	
6	EC7	Procedures for local hiring		Diversity and equal opportunities		
	EC8	Infrastructure investments and services provided primarily for public benefit		Social commitment		
	EC9	Indirect economic impacts		Employees worldwide Social commitment		

Environmental indicators

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
8	EN1	Materials used by weight or volume		Raw materials Environment and safety indicators		
8,9	EN2	Percentage of materials used that are recycled input materials				
8	EN3	Direct energy consumption by primary energy source		Energy Environment and safety indicators		
8	EN4	Indirect energy consumption by primary source		Energy Environment and safety indicators		
8,9	EN5	Energy saved		Energy		

















Environmental indicators

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
8,9	EN6	Energy-efficient products		Business opportunities	Clean Technology by Linde	
8,9	EN7	Reduction of indirect energy consumption		Energy Climate protection Transport safety		
8	EN8	Total water withdrawal by source		Water Environment and safety indicators		
8	EN9	Water sources affected by withdrawal of water				
8,9	EN10	Water recycled and reused				
8	EN11	Land in, or adjacent to, protected areas				
8	EN12	Impact on biodiversity		Biodiversity		
8	EN13	Habitats protected or restored		Biodiversity		
8	EN14	Managing impacts on biodiversity		Biodiversity		
8	EN15	IUCN Red List species and national conservation list species				
8	EN16	Greenhouse gas emissions		Climate protection Environment and safety indicators		
8	EN17	Other greenhouse gas emissions		Climate protection Environment and safety indicators		
7,8,9	EN18	Initiatives to reduce greenhouse gas emissions		Climate protection Energy Environment and safety indicators		
8	EN19	Emissions of ozone-depleting substances		Environment and safety indicators Climate protection Air emissions		
8	EN20	NOx, SOx and other air emissions		Air emissions Environment and safety indicators		
8	EN21	Water discharge		Water Environment and safety indicators		
8	EN22	Waste by type and disposal method		Waste Environment and safety indicators		
8	EN23	Total number and volume of significant spills		Environment and safety Climate protection Air emissions Environment and safety indicators		
8	EN24	Waste deemed hazardous		Waste Environment and safety indicators		
8	EN25	Water bodies affected by discharges of water and runoff		Water		
7,8,9	EN26	Initiatives to mitigate environmental impact of products and services		Product stewardship Business opportunities	Clean Technology by Linde	
8,9	EN27	Reclaimed packaging material				
8	EN28	Sanctions for non-compliance with environmental laws and regulations		Environment and safety indicators Environment and safety indicators	Financial Report 2012: litigation	
8	EN29	Environmental impacts by transport		Climate protection Transport safety Environment and safety indicators		









Environmental indicators

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
7,8,9	EN30	Environmental protection expenditures				










Social indicators: Labour practices and decent work

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	LA1	Total workforce by employment type, employment contract, and region		Employees worldwide Diversity and equal opportunities Indicators on employees		
	LA2	Employee turnover		Employees worldwide Indicators on employees		
	LA3	Benefits		Remuneration and social benefits		
1,3	LA4	Employees covered by collective bargaining agreements		Remuneration and social benefits Indicators on employees		
3	LA5	Minimum notice period regarding significant operational changes				
1	LA6	Health and safety committees				
1	LA7	Rates of injury, occupational diseases, lost days, and absenteeism		Indicators on employees Health and safety		
1	LA8	Risk-control programmes in place regarding serious diseases		Health and safety		
1	LA9	Health and safety topics covered in formal agreements with trade unions.		Involving employees		
	LA10	Employee training		Developing talent Training on Environment and safety		
	LA11	Programs for skills management and lifelong learning		Developing talent Diversity and equal opportunities		
	LA12	Performance and career development reviews		Developing talent		
1,6	LA13	Composition of staff and governance bodies		Indicators on employees Diversity and equal opportunities	Website Linde: management	
1,6	LA14	Differences in salary according to gender				
	LA15	Parental leave		Work-life balance		














Social indicators: Human rights

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
1,2,3, 4,5,6	HR1	Significant investment agreements		Supply chain		
1,2,3, 4,5,6	HR2	Screening of suppliers with regard to human rights issues		Supply chain		
1,2,3, 4,5,6	HR3	Training on human rights		Compliance		
1,2,6	HR4	Incidents of discrimination		Compliance Indicators on financials and Compliance		
1,2,3	HR5	Operations involving significant risk to exercise freedom of association and collective bargaining agreements		Values and standards Compliance Labour and social standards		 










Social indicators: Human rights

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
1,2,5	HR6	Operations involving significant risk of child labour		Values and standards Compliance Labour and social standards		
1,2,4	HR7	Operations involving significant risk of forced or compulsory labour		Values and standards Compliance Labour and social standards		 
1,2	HR8	Security practices				
1,2	HR9	Rights of indigenous people				
1,2	HR10	Human rights reviews and/or impact assessments.		Labour and social standards		
1,2	HR11	Grievances related to human rights		Compliance		


Social indicators: Society

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
	SO1	Impact on local communities		Environment and safety Risk management Product stewardship Site safety Social commitment Compliance		
10	SO2	Risks related to corruption		Compliance		
10	SO3	Anti-corruption training		Compliance		
10	SO4	Actions taken in response to alleged incidents of corruption		Compliance		
1,2,3, 4,5,6, 7,8,9, 10	SO5	Public policy positions and lobbying		Stakeholder dialogue Global Compact Social commitment		
10	SO6	Contributions to political parties, politicians, and related institutions		Social commitment		
10	SO7	Legal actions for anti-competitive behavior, anti-trust, and monopoly practices			Financial Report 2012: litigation	
	SO8	Sanctions for non-compliance with laws and regulations			Financial Report 2012: litigation	
	SO9	Operations with negative impacts on local communities		Environment and safety		
	SO10	Prevention and mitigation of negative impacts on local communities		Environment and safety		

Social indicators: Product responsibility

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
1	PR1	Impact on health and safety throughout the product lifecycle		Product stewardship Environment and safety Health and safety	REACH website Linde	
1	PR2	Non-compliance concerning health & safety impact of products			Financial Report 2012: litigation	
8	PR3	Product information		Product stewardship	REACH website Linde	
8	PR4	Non-compliance concerning product information		Product stewardship	Financial Report 2012: litigation	
	PR5	Customer satisfaction				
	PR6	Laws and standards related to advertising				
	PR7	Non-compliance related to advertising			Financial Report 2012: litigation	

Social indicators: Product responsibility

UNGC	GRI	GRI Indicator	Status	Link within the report	External links	PDF
1	PR8	Complaints regarding customer privacy	<div><div></div></div>		Financial Report 2012: litigation	
	PR9	Sanctions for non-compliance with laws and regulations concerning products and services	<div><div></div></div>		Financial Report 2012: litigation	

ABOUT LINDE

STRATEGY

BUSINESS & GOVERNANCE

ENVIRONMENT & SAFETY

EMPLOYEES & SOCIETY

MEASURING SUSTAINABILITY



Statement GRI Application Level Check

GRI hereby states that **Linde AG** has presented its report "Corporate Responsibility Report 2012" to GRI's Report Services which have concluded that the report fulfills the requirement of Application Level A+.

GRI Application Levels communicate the extent to which the content of the G3.1 Guidelines has been used in the submitted sustainability reporting. The Check confirms that the required set and number of disclosures for that Application Level have been addressed in the reporting and that the GRI Content Index demonstrates a valid representation of the required disclosures, as described in the GRI G3.1 Guidelines. For methodology, see www.globalreporting.org/SiteCollectionDocuments/ALC-Methodology.pdf

Application Levels do not provide an opinion on the sustainability performance of the reporter nor the quality of the information in the report.

Amsterdam, 22 March 2013

A handwritten signature in blue ink, appearing to read "Nelmara Arbex", is written over a faint, large, stylized "G" watermark that serves as a background for the entire page.

Nelmara Arbex
Deputy Chief Executive
Global Reporting Initiative



The "+" has been added to this Application Level because Linde AG has submitted (part of) this report for external assurance. GRI accepts the reporter's own criteria for choosing the relevant assurance provider.

The Global Reporting Initiative (GRI) is a network-based organization that has pioneered the development of the world's most widely used sustainability reporting framework and is committed to its continuous improvement and application worldwide. The GRI Guidelines set out the principles and indicators that organizations can use to measure and report their economic, environmental, and social performance. www.globalreporting.org

Disclaimer: Where the relevant sustainability reporting includes external links, including to audio visual material, this statement only concerns material submitted to GRI at the time of the Check on 15 March 2013. GRI explicitly excludes the statement being applied to any later changes to such material.

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 2012. We use the Global Compact logo to indicate content relevant to the Global Compact in the online report. This content is also listed in the [GRI and Global Compact index](#).

Once again, our Corporate Responsibility Report 2012 complies with the UN Global Compact advanced level. To meet the requirements of this top COP reporting level, we provide voluntary information on 24 criteria alongside this report. This information is available on the [UN Global Compact website](#). We also consider the Blueprint for Corporate Sustainability Leadership, which is an action plan initiated by the Global Compact LEAD platform.



The following table provides an overview of the commitments, standards and management systems that we use to incorporate the principles of Global Compact in our business processes. We also report on the progress we made during 2012, as well as specifying future plans. Further information about our support for the principles is provided in the text boxes for each action area.

Incorporation of UN Global Compact principles in business processes

Human rights	
Principles	<p>Principle 1: Support and respect the protection of internationally proclaimed human rights</p> <p>Principle 2: Make sure that the company is not complicit in human rights abuses</p>
Systems	<p>Our Code of Ethics is binding for all employees. In it, Linde commits to protecting and promoting human rights and the core principles of the United Nations international charter on human rights.</p> <p>Our global Ethical-Legal Principles Procurement align with the principles anchored in the conventions of the International Labour Organization (ILO) and the United Nations Universal Declaration of Human Rights.</p> <p>Our global SHEQ (Safety, Health, Environment and Quality) policy defines how we protect the health and safety of our employees. We also include contractors and other business partners in our occupational health and product safety management programme.</p> <p>The primary aim of our compliance programme is to prevent misconduct and identify possible compliance violations. Suspected abuses can be reported to the Linde Integrity Line.</p>
Progress in reporting period	<p>In 2012, we again conducted a uniform internal survey on social standards and human rights worldwide. The aim is to check whether our subsidiaries have implemented processes to protect social standards. These should prevent child and forced labour as well and discrimination, while upholding the right to exercise freedom of association and negotiate collective bargaining agreements.</p> <p>We also expect our suppliers to uphold social standards. In 2013, we intend to expand on the sustainability requirements for suppliers that are currently in force in the different divisions and merge them into a single policy. To raise employee awareness, we also integrated a new information portal on this topic into our company intranet at the start of 2013. We conducted over 100 site audits of engineering suppliers during 2012.</p> <p>> More on labour and social standards</p> <p>> More on supply chain management</p>

Labour standards

Principles	Principle 3: Uphold freedom of association and the right to collective bargaining
	Principle 4: Eliminate all forms of forced labour
	Principle 5: Abolish child labour
	Principle 6: Eliminate discrimination in respect of employment and occupation
Systems	In our Code of Ethics, we commit to protecting and promoting human rights. This includes the prohibition of discrimination, harassment, slavery and servitude as well as upholding the right to freedom of peaceful assembly and association, and the right to fair remuneration.
	Our global Ethical-Legal Principles – Procurement address the issues of forced and child labour, communication channels and negotiation structures between employers and employees, and equal opportunities and fair treatment.
	Our diversity management programme also aims to prohibit discrimination and actively promote equal opportunities.
Progress in reporting period	In 2012, we again conducted a uniform internal survey on social standards and human rights worldwide. The aim is to check whether our subsidiaries have implemented processes to protect social standards. These should prevent child and forced labour as well as discrimination, while upholding the right to exercise freedom of association and negotiate collective bargaining agreements.
	From 2012 onwards, several new task forces have been considering various aspects and measures related to gender equality in the Group. In 2012, around 20 percent of our employees were female, and over 11 percent of our top managers. The proportion of women in our major talent development programme for middle managers increased to 29 percent.
	> More on labour and social standards > More on diversity and equal opportunities

Environment

Principles	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
Systems	Our commitment to protecting the environment is outlined in our binding Code of Ethics. Our global Safety, Health, Environment and Quality (SHEQ) policy defines the framework for implementation in this area.
	Our environmental management system, our risk management system and our product safety programme are geared towards minimising the environmental impact of our processes and products. This includes preventative measures such as risk analyses and certification of our sites in line with international standards, as well as monitoring instruments such as audits.
	Raising employee awareness of environmental and safety issues is also an important factor, and one which we address through various channels, including training initiatives.
	We are helping to tackle major ecological challenges of our time through our energy and environmental technologies. Our comprehensive technology portfolio helps reduce the current environmental impact of fossil fuels and cut CO ₂ emissions. We are also driving the development of alternative fuels and renewable energy sources. Furthermore, our gases are used to improve the quality of untreated and drinking water supplies and to clean wastewater.
	Our corporate citizenship activities are also supporting environmental initiatives.
	In 2012, environmental audits were conducted at 53.6 percent of our sites. We also performed over 530 audits at customer sites to ensure the conditions were in place for proper gas handling.
	Almost half of the employees at Linde Gas took part in training sessions on occupational health and safety and environmental protection.

Progress in reporting period

We set ourselves two new global targets for climate protection. By 2017, we aim to improve the installed design energy intensity of our air separation plants per air gas produced by 5 percent relative to the reference year 2008. Additionally, by 2015, we aim for a 2 percent increase in the actual energy efficiency of our installed hydrogen (HyCO) plants compared with the 2009 level.

We have also set ourselves a new target in relation to transport safety: to halve the frequency rate of serious transport incidents by the end of 2017 relative to the 2012 baseline.

We continuously develop new application areas for our gases and work to improve processes and plant technologies. Among other solutions in 2012, Linde developed a method to reduce emissions of environmentally harmful nitrogen oxides released when glass is manufactured.

- > More on [audits](#)
- > More on [energy efficiency](#)
- > More on [climate protection](#)
- > More on [transport safety](#)
- > More on [innovations](#)
- > More on [products for environmental protection and supply security](#)

Anti-corruption
Principles

Principle 10:
Work against corruption in all its forms, including extortion and bribery

Our Code of Ethics prohibits corruption for all employees worldwide.

Systems

This commitment is backed by additional, supplementary guidelines, including regulations governing competitive and anti-trust laws as well as our Ethical-Legal Principles – Procurement.

The primary aim of our compliance programme is to prevent misconduct and to investigate and penalise possible violations. Suspected abuses can be reported to the Linde Integrity Line.

In 2012, we approved a new, global anti-corruption guideline, which took effect at the start of 2013.

To make current information about compliance guidelines and points of contact even more accessible to employees, Linde set up a new intranet compliance portal in 2012.

By the end of 2012, we had held more than 36,000 e-learning sessions on our Code of Ethics, while over 6,000 employees around the globe were provided with on-site training between 2009 and 2012. In 2012, Linde launched a new online course on anti-trust law, in which 3,500 employees have already participated.

- > More on [compliance](#)

Independent assurance report

To the readers of The Linde Group's Corporate Responsibility Report 2012

We were engaged by the Executive Board of The Linde Group (further 'Linde') to provide assurance on the 2012 data for selected environmental and safety indicators listed in the section 'Scope' together with the related explanatory information in the publication: 'Corporate Responsibility Report 2012' (further 'The Report'). The Executive Board of Linde is responsible for the preparation of The Report, including the identification of material issues. Our responsibility is to issue an assurance report based on the engagement outlined below.

Scope

Our assurance engagement was designed to provide limited assurance on whether the 2012 data for the following selected environmental and safety indicators together with the related explanatory information are presented, in all material respects, in accordance with the reporting criteria:

- | | |
|--|--|
| <ul style="list-style-type: none"> – Use of resources: <ul style="list-style-type: none"> – Energy – Water – Resources and materials – Emissions: <ul style="list-style-type: none"> – 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 | <ul style="list-style-type: none"> – Waste and recycling – Transport: <ul style="list-style-type: none"> – Number of serious traffic incidents involving trucks – Occupational health and safety: <ul style="list-style-type: none"> – 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 |
|--|--|

We do not provide any assurance on the achievability of the objectives, targets and expectations of Linde.

Procedures performed to obtain a limited level of assurance are aimed at determining the plausibility of information and are less extensive than those for a reasonable level of assurance.

The Report is published online at www.linde.com/cr-report. Indicators in scope of our assurance engagement are marked with a "✓".

Reporting criteria and assurance standard

Linde applies the Sustainability Reporting Guidelines (G3.1) of the Global Reporting Initiative supported by internally developed guidelines for reporting on Corporate Responsibility as described in sections GRI 3.6 to 3.9 of the GRI Index. It is important to view the performance data in the context of these reporting criteria. We believe these criteria are suitable in view of the purpose of our assurance engagement.

We conducted our engagement in accordance with the International Standard on Assurance Engagement (ISAE 3000): Assurance Engagement other than Audits or Reviews of Historical Financial Information, issued by the International Auditing and Assurance Standards Board. This standard requires, among others, that the assurance

team possesses the specific knowledge, skills and professional competencies needed to provide assurance on sustainability information, and that they comply with the requirements of the Code of Ethics for Professional Accountants of the International Federation of Accountants to ensure their independence.

Work undertaken

Our procedures included the following:

- A risk analysis, including a media search, to identify relevant corporate responsibility issues for Linde in the reporting period.
- Reviewing the suitability of the internal reporting criteria including conversion factors used.
- Evaluating the design and implementation of the systems and processes for the collection, processing and control of the data for the selected environmental and safety indicators, including the consolidation of this data.
- Interviews with relevant staff at corporate and regional levels responsible for carrying out internal control procedures on the data and consolidating the data for the selected environmental and safety indicators.
- Visits to five selected production sites in Germany (2), Hungary (1) and Thailand (2), and four selected regions respectively divisions in Europe (3) and Asia (1), to review the source data and the design and implementation of validation procedures at local level.
- Evaluating internal and external documentation, based on sampling, to determine whether the data for the selected environmental and safety indicators together with the related explanatory information is supported by sufficient evidence.
- An analytical review of the data and trend explanations submitted by all production sites for consolidation at group level.

During the assurance process we discussed the necessary changes in The Report and reviewed the final version of The Report to ensure that it reflects our findings.

Conclusion

Based on the procedures performed, as described above, nothing has come to our attention to indicate that the 2012 data for selected environmental and safety indicators listed in the section 'Scope' together with the related explanatory information are not presented, in all material respects, in accordance with the reporting criteria.

Emphasis of matter

Without qualifying our conclusion above, we draw attention to the explanation on the scope of the emissions to air and water, which explains that the values stated apply to production sites legally obliged to report.

Amsterdam, 26 March, 2013

KPMG Sustainability,

Part of KPMG Advisory N.V.
W.J. Bartels, Partner

Legal Notice

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Executive Board

Professor Dr Wolfgang Reitzle (Chief Executive Officer)

Professor Dr Aldo Belloni

Mr Thomas Blades

Mr Georg Denoke

Mr Sanjiv Lamba

Supervisory Board

Dr Manfred Schneider (Chairman)

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 appeared end of March 2013 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.