Corporate Responsibility

At a Glance 2012
### Key Figures [2012]

#### Financial Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share closing price</td>
<td>€ 132.00</td>
<td>€ 114.95</td>
</tr>
<tr>
<td>Market capitalisation (at year-end closing price)</td>
<td>€ million</td>
<td>24,445</td>
</tr>
<tr>
<td>Revenue</td>
<td>€ million</td>
<td>15,280</td>
</tr>
<tr>
<td>Operating profit</td>
<td>€ million</td>
<td>3,530</td>
</tr>
<tr>
<td>EBIT</td>
<td>€ million</td>
<td>1,992</td>
</tr>
<tr>
<td>Profit for the year</td>
<td>€ million</td>
<td>1,324</td>
</tr>
<tr>
<td>Capital expenditure</td>
<td>€ million</td>
<td>1,952</td>
</tr>
<tr>
<td>Equity ratio</td>
<td>%</td>
<td>40.8</td>
</tr>
<tr>
<td>Return on capital employed (ROCE)</td>
<td>%</td>
<td>10.0</td>
</tr>
<tr>
<td>Research and development expenses</td>
<td>€ million</td>
<td>101</td>
</tr>
<tr>
<td>Personnel expenses</td>
<td>€ bn</td>
<td>3,096</td>
</tr>
<tr>
<td>Pension costs</td>
<td>€ million</td>
<td>.241</td>
</tr>
</tbody>
</table>

#### Employees

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>61,965</td>
<td>50,417</td>
</tr>
<tr>
<td>Temporary staff</td>
<td>7.5</td>
<td>6.4</td>
</tr>
<tr>
<td>Apprentices and trainees in total workforce</td>
<td>1.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Staff turnover rate</td>
<td>6.9</td>
<td>6.3</td>
</tr>
<tr>
<td>Staff covered by collective wage agreements</td>
<td>53.8</td>
<td>53.5</td>
</tr>
<tr>
<td>Nationalities of employees in Germany</td>
<td>63</td>
<td>63</td>
</tr>
<tr>
<td>Nationalities among senior managers in Germany</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Female employees in total workforce</td>
<td>20.1</td>
<td>19.5</td>
</tr>
<tr>
<td>of which in senior management positions</td>
<td>11.3</td>
<td>11.0</td>
</tr>
<tr>
<td>of which in development programmes for middle managers</td>
<td>29.0</td>
<td>26.8</td>
</tr>
<tr>
<td>Training days per employee</td>
<td>2.0</td>
<td>2.3</td>
</tr>
<tr>
<td>Workplace accidents with at least one day of absence</td>
<td>1.3</td>
<td>1.4</td>
</tr>
</tbody>
</table>

#### Environment and Safety

<table>
<thead>
<tr>
<th>Indicator</th>
<th>2012</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electricity consumption</td>
<td>million MWh</td>
<td>20.0</td>
</tr>
<tr>
<td>Natural gas consumption</td>
<td>million MWh</td>
<td>25.9</td>
</tr>
<tr>
<td>Consumption of other energy sources&lt;sup&gt;3&lt;/sup&gt;</td>
<td>million MWh</td>
<td>8.7</td>
</tr>
<tr>
<td>Consumption of raw materials and supplies</td>
<td>t</td>
<td>68,848</td>
</tr>
<tr>
<td>Water consumption&lt;sup&gt;4&lt;/sup&gt;</td>
<td>million m³</td>
<td>41.2</td>
</tr>
<tr>
<td>Total direct CO₂ emissions</td>
<td>million t</td>
<td>5.3</td>
</tr>
<tr>
<td>Total indirect CO₂ emissions</td>
<td>million t</td>
<td>9.8</td>
</tr>
<tr>
<td>Emissions of air pollutants</td>
<td></td>
<td></td>
</tr>
<tr>
<td>VOCs (volatile organic compounds)</td>
<td>t</td>
<td>96</td>
</tr>
<tr>
<td>NH₃ (ammonia)</td>
<td>t</td>
<td>31</td>
</tr>
<tr>
<td>CO (carbon monoxide)</td>
<td>t</td>
<td>1,745</td>
</tr>
<tr>
<td>NOₓ (nitrogen oxides)</td>
<td>t</td>
<td>796</td>
</tr>
<tr>
<td>SO₂ (sulphur oxides)</td>
<td>t</td>
<td>391</td>
</tr>
<tr>
<td>Emissions to water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical oxygen demand (cod)</td>
<td>t</td>
<td>135</td>
</tr>
<tr>
<td>Biochemical oxygen demand (bod)</td>
<td>t</td>
<td>51</td>
</tr>
<tr>
<td>Nitrates</td>
<td>t</td>
<td>52</td>
</tr>
<tr>
<td>Phosphates</td>
<td>t</td>
<td>4</td>
</tr>
<tr>
<td>Waste</td>
<td>thousand t</td>
<td>68.5</td>
</tr>
<tr>
<td>Serious transport incidents involving trucks&lt;sup&gt;5&lt;/sup&gt;</td>
<td>per 1 million km</td>
<td>0.075</td>
</tr>
<tr>
<td>Sites certified to iso 9001</td>
<td>%</td>
<td>80</td>
</tr>
<tr>
<td>Sites certified to iso 14001</td>
<td>%</td>
<td>31</td>
</tr>
<tr>
<td>Sites certified to ohsas 18001 or scc</td>
<td>%</td>
<td>25</td>
</tr>
</tbody>
</table>

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<sup>1</sup> EBITDA including share of income from associates and joint ventures.

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

<sup>3</sup> 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.

<sup>4</sup> Water consumption relates to drinking water and industrial water used. Once-through water is drawn from a natural or other sources, solely warmed and ultimately piped back to the original source at a temperature not posing any risk to the surrounding ecosystem.

<sup>5</sup> Severe traffic incidents, e.g. with heavy effects on the health of the employees involved or with reportable emissions to the environment, as well as transport incidents leading to material costs above a defined threshold.
CORPORATE PROFILE

THE LINDE GROUP

The Linde Group is a world-leading gases and engineering company with approximately 62,000 employees working 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.

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.

CUSTOMER SEGMENTATION WITHIN THE GASES DIVISION

<table>
<thead>
<tr>
<th>FOOD &amp; BEVERAGES</th>
<th>CHEMISTRY &amp; ENERGY</th>
<th>METALLURGY &amp; GLASS</th>
<th>MANUFACTURING INDUSTRY</th>
<th>ELECTRONICS</th>
<th>HEALTHCARE</th>
<th>OTHERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquaculture &amp; water</td>
<td>Energy</td>
<td>Glass &amp; fibre</td>
<td>Aerospace</td>
<td>Solar</td>
<td>Hospital</td>
<td>Education &amp; research</td>
</tr>
<tr>
<td>Beverages</td>
<td>Fine &amp; petro-</td>
<td>optics</td>
<td>Automotive</td>
<td>Semi-</td>
<td>Care</td>
<td>&amp; research</td>
</tr>
<tr>
<td>Food</td>
<td>chemistry</td>
<td>Heat treatment</td>
<td>Heavy construction &amp;</td>
<td>conductor</td>
<td>Care Concepts</td>
<td></td>
</tr>
<tr>
<td>Other F &amp; B</td>
<td></td>
<td>Non-ferrous</td>
<td>machinery</td>
<td>Chip</td>
<td>REMEO®</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Steel</td>
<td>Light metal fab. &amp; prod.</td>
<td>packaging</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Other M &amp; G</td>
<td>Other manufacturing</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Hospital Care
Homecare
Gas Therapies
Care Concepts REMEO®
Education & research
Retail Distributors
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).
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. 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.
SUSTAINABILITY IN OUR CORE BUSINESS

WE ALIGN OUR BUSINESS STRATEGY WITH THREE GLOBAL MEGATRENDS – ALL OF THEM RELEVANT TO SUSTAINABLE DEVELOPMENT.
Looking at the growth markets of the future, Linde has identified energy and the environment, the healthcare business and emerging economies as the drivers offering the biggest potential.  

1 Climate change calls on the entire world to reduce greenhouse gas emissions. Bundled under our “Clean Technology by Linde” umbrella, we develop and deliver a range of environmental and energy efficiency innovations to support that aim.  

2 Demographic shifts are placing healthcare systems under increasing pressure. The healthcare market share relevant to the gases industry is currently worth around EUR 12 billion and this figure is rising. Two thirds of that share are attributable to the homecare segment. Linde strengthened its position in this segment in 2012.  

3 Linde is particularly well placed in the emerging economies – markets that again reported strongest economic growth in 2012. We combine local experts with international teams to secure sustainable growth in these regions.
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, there is 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 for power generation. 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.
By switching from fuel oil to natural gas, shipping companies can significantly reduce emissions of 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. These terminals will provide the infrastructure necessary for shipping companies to switch to a more environmentally sound source of power.
LIVING AN INDEPENDENT LIFE

Longer life expectancy and the rising prevalence of chronic diseases are placing hospitals, doctors and nursing staff under growing pressure to cut costs without compromising patient care. Our homecare portfolio gives patients who rely on respiratory therapies greater independence and quality of 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.
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.
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 EUR 3 billion each year, with Asia accounting for 75 percent of that sum.
Growing together: from project planning through to environmental protection (QHSE: Quality, Health, Safety, Environment). Linde engineers in Germany and China are 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.
SUSTAINABILITY IN OUR CORPORATE STRATEGY

Through our global management systems, we incorporate our commitment to sustainability into our 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. We align our sustainability activities with the following principles:

→ Integration into our core business: When developing 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 Organization (ILO)
→ The UN Guiding Principles on Business and Human Rights
→ The ten principles of the UN Global Compact

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 the company’s stakeholders. On the basis of this materiality analysis, we determine focus areas for our corporate responsibility strategy and reporting. In the period under review, key topics for corporate responsibility at Linde included responsible supply chain management, environmental goals, human rights, and labour and social standards.
OUR VALUES

PASSION TO EXCEL
We have the commitment and drive to pursue ever higher standards of excellence and we celebrate success.

INNOVATING FOR CUSTOMERS
We relentlessly pursue new ways of adding value to external customers.

EMPOWERING PEOPLE
People are given the space to contribute and grow.

THRIVING THROUGH DIVERSITY
Diversity results in enriched collaboration and enhanced solutions.

OUR PRINCIPLES

SAFETY
We do not want to harm people.

INTEGRITY
Our actions are honest, fair and ethical.

SUSTAINABILITY
We focus on today’s success and accept our responsibility for future generations.

RESPECT
Every human being deserves to be treated with respect.

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

As part of our efforts, we are actively involved in dialogue on specialist topics. In Germany, the Group hosted the Federal Algae Roundtable Meeting (Bundesalgenstammstisch) in 2012, gathering more than 150 experts from science and industry to discuss renewable raw materials. Linde is also involved in trade associations, as well as selected corporate responsibility networks such as the German Global Compact Network. We actively collaborate with partners in science and other companies. 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. 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.

Responsibilities for sustainability
Linde’s main decision-making body for sustainability issues is the Corporate Responsibility Council. The Council is briefed annually on the progress made in achieving sustainability goals and determines the 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. 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. It also acts as the point of contact for stakeholders.

ORGANISATION

EXPERTS IN BUSINESS UNITS, DIVISIONS AND REGIONS

INTERDISCIPLINARY WORKING GROUPS

CORPORATE RESPONSIBILITY COUNCIL

Chief Executive Officer
Professor Dr Wolfgang Reitzle;
Member of the Executive Board
Professor Dr Aldo Belloni;
Heads of global and central functions
Communications & Investor Relations,
Human Resources, Internal Audit,
Legal & Compliance, SHEQ
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 sustainable 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.

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. 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.

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 €101 million on research and development. The number of employees working in this field rose to 385. The Group filed 269 new patents worldwide during the year under review, leaving Linde technologies protected by a total of 2,513 patents at the end of 2012.

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.
Compliance

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.

We also 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. 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. In 2012, the Integrity Line was contacted a total of 309 times. All concrete accusations were investigated. 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.

Sustainable procurement

Linde works with suppliers in more than one hundred countries. In 2012, we purchased around EUR 10.9 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.

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 environmental and social standards. Safety on construction sites, for instance, is a particular priority for our Engineering Division. Linde has therefore implemented a standard that covers safety, health and environmental issues in engineering projects all over the world and made this a fundamental prerequisite for working with suppliers. 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. In the 2012 financial year, Linde conducted an analysis of sustainability risks in the supply chain. A more in-depth analysis is planned for 2013.

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**Sustainable procurement**

Linde works with suppliers in more than one hundred countries. In 2012, we purchased around EUR 10.9 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.

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 environmental and social standards. Safety on construction sites, for instance, is a particular priority for our Engineering Division. Linde has therefore implemented a standard that covers safety, health and environmental issues in engineering projects all over the world and made this a fundamental prerequisite for working with suppliers. 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. In the 2012 financial year, Linde conducted an analysis of sustainability risks in the supply chain. A more in-depth analysis is planned for 2013.
RESPONSIBILITY FOR PEOPLE AND THE ENVIRONMENT

The aim of our group-wide safety and environmental protection management systems is to keep people and the environment from harm. Our innovative technologies and products help our customers tackle ecological challenges, such as climate protection and water resource management.

Safety is a top priority for us, both in our own business processes and in the use of our products by customers. 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 and near-misses worldwide. 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. Our safety and environmental management systems extend to contractors and other business partners.

Monitoring standards worldwide
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, occupational health and safety audits were carried out at more than 62 percent of our sites, and environmental audits at around 54 percent of our sites. These were performed by Linde or by third parties. 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.

More than 1,400 occupational health, safety and environmental protection audits carried out at Linde sites in 2012

Raising environmental 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.

Around 1,000 environmental protection projects implemented by Linde between 2008 and 2012
Site safety
Risks 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. 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, Linde 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. During the reporting year, we introduced a new global guideline relating to the safety of employees who work in buildings on production sites.

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. 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”

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 training scheme is scheduled for implementation in at least 30 percent of sites by 2015. Over 20 percent of drivers employed by Linde and contractors have 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. 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).

Product stewardship
Linde systematically identifies and controls risks along the product value chain, from the procurement of materials to production through to use by the customer. 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 had additionally conducted product stewardship assessments in 12 countries, thus covering around 60 percent of our packaged chemicals business activities.

Collaboration with local communities
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.

Awards
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.
Energy and climate protection

We rely on innovative technologies and the efficient use of energy in order to conserve resources and reduce greenhouse gases while remaining commercially successful. 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. 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 in 2012. 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.

During 2012, all the production plants operated by Linde Gas Germany were also 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.

NEW GOAL

-5%
INSTALLED DESIGN ENERGY INTENSITY OF AIR SEPARATION PLANTS BY 2017
(BASE YEAR 2008)

We systematically analyse the relevance of our business activities to climate protection. For this purpose, we record and evaluate emissions along the value chains of our products worldwide. 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. Our global goal is 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. In 2013, we extended this goal and also set ourselves a new global goal for our installed hydrogen (HyCO) plants.

NEW GOAL

+2%
ENERGY EFFICIENCY OF INSTALLED HYCO PLANTS BY 2015
(BASE YEAR 2009)

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. 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.

Raw materials

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.

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. 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 up-scaled to demonstration level in preparation for commercial use.

Over

1 million
TONNES OF CO₂ SAVED BY IMPROVING THE DESIGN ENERGY INTENSITY OF OUR INSTALLED AIR SEPARATION PLANTS WORLDWIDE COMPARED WITH 2008

Water

We strive to use water sustainably at our sites. We offer our customers solutions for improving the quality of drinking water, optimising wastewater treatment and recycling water through closed-loop systems. With its Solvovox® 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. 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. 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.
In the 2012 financial year, Linde used an approximate total of 349 million cubic metres of water. 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. The Group’s water consumption in 2012 was around 41 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. We purify the waste water from our production and sanitary facilities either by using our own treatment systems or by sending it to municipal or industrial plants.

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. 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.

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 (SOx), nitrogen oxides (NOx), ammonia (NH3) and volatile organic compounds (VOCs) are released as emissions into the air. Together with our customers, we are developing solutions for reducing emissions of pollutants into the air. In 2012, we developed a 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.
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.

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.

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. 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 more than 200 participants.

Remuneration and social benefits
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’
Protecting employees

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 more than 62 percent of our operating sites. 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).

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. 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. 99 percent of staff participated in various workshpos under this initiative, while 75 percent took advantage of a voluntary check-up.

In seeking to improve our 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.
Social standards and human rights
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 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 this 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.

Involving employees
Honest feedback from employees is crucial to our HR approach. In 2012, the Group conducted a global employee survey for the second time. 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.

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.

Diversity and equal opportunities
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. 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.

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 29.0 percent. Linde has set itself the target of raising the proportion of women in senior management positions. Measures taken to achieve this goal include several workgroups focused on different aspects and action items related to diversity. 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. The Family and Career working group has been looking at demographic issues at Linde since 2008. 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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<th>Year</th>
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<td>2009</td>
<td>2.0</td>
<td>1.7</td>
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<td>2010</td>
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<td>2011</td>
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86% of all Linde staff participated in our voluntary global employee survey in 2012.
Social commitment
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. 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.

Since 2004, 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. 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 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. 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.

\[ \text{GLOBAL GOAL} \]

13-15% of women in senior management positions by 2018

More than 65,000 children, pupils and students have been reached by Linde through corporate citizenship initiatives in 2012.

More than 11,000 students have enrolled in the Carl von Linde Academy’s courses.

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 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. 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.

\[ \text{SAFETY FIRST: DRIVERS FROM LINDE’S GIST LOGISTICS SERVICE PROVIDER, GISI, VISIT ELEMENTARY SCHOOLS WITH THEIR VEHICLES.} \]
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.