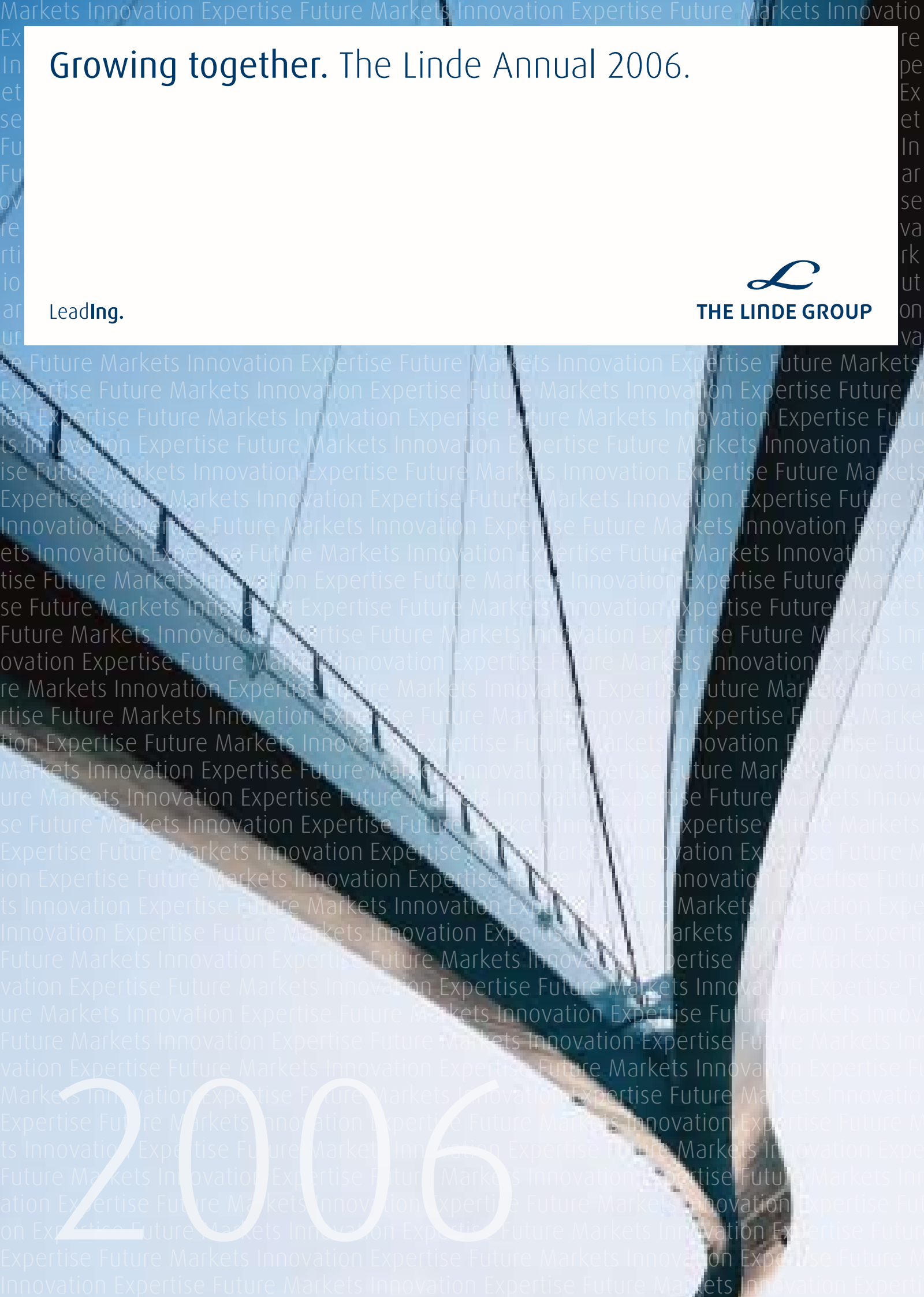
Growing together. The Linde Annual 2006.

LeadIng.

THE LINDE GROUP



Linde Financial Highlights

in € million		2006	2005 [1]	Change
Share				
Closing price [2]	€	**78.26**	62.81	24.6%
Year high [2]	€	**79.56**	63.36	25.6%
Year low [2]	€	**56.32**	45.55	23.6%
Market capitalisation		**12,579**	7,529	67.1%
Earnings per share				
Group	€	**13.30**	4.30	209.3%
Continuing operations	€	**1.45**	3.06	–52.6%
Discontinued operations	€	**11.85**	1.24	855.6%
Number of shares outstanding (in 000s)		**160,736**	119,864	34.1%
Sales				
Group		**12,439**	9,511	30.8%
Group excluding BOC		**10,516**	9,511	10.6%
Continuing operations		**8,113**	5,884	37.9%
Discontinued operations		**4,326**	3,627	19.3%
EBITDA before non-recurring items				
Group		**2,216**	1,705	30.0%
Group excluding BOC		**1,876**	1,705	10.0%
Continuing operations		**1,586**	1,132	40.1%
Discontinued operations		**630**	573	9.9%
EBIT before amortisation of fair value adjustments and non-recurring items				
Group		**1,371**	953	43.9%
Continuing operations		**990**	702	41.0%
Discontinued operations		**381**	251	51.8%
Earnings after taxes on income				
Group		**1,858**	523	255.3%
Continuing operations		**219**	373	–41.3%
Discontinued operations		**1,639**	150	992.7%
Number of employees at 31 December				
Group		**55,445**	42,229	31.3%
Continuing operations		**51,038**	22,906	122.8%
Discontinued operations		**4,407**	19,323	–77.2%
Gases Division				
Sales		**6,195**	4,448	39.3%
EBITDA		**1,540**	1,104	39.5%
Number of employees		**39,142**	17,783	120.1%
Engineering Division				
Sales		**1,863**	1,623	14.8%
EBITDA		**153**	117	30.8%
Number of employees		**5,166**	4,408	17.2%

1 Adjusted for amendments to accounting standards.
2 Prices adjusted for capital increase.

Corporate profile

The Linde Group

The Linde Group is a world-leading industrial gases and engineering group which operates in more than 70 countries and has over 51,000 employees. Following the acquisition of the British company The BOC Group, we restructured The Linde Group, and achieved sales in the 2006 financial year of €8.113 billion based on the new portfolio. This figure includes our interest in BOC from the date it was first consolidated on 5 September 2006 to the year-end.

Our strategy is geared towards earnings-based growth and focuses on the expansion of our international business, based on forward-looking gases applications and plant construction solutions. With our Gist Division, we are also one of the leading providers of logistics services.

Gases Division

The Linde Group is a world leader in the international industrial gases market. We offer a wide range of compressed and liquefied gases as well as chemicals, and we are therefore an important partner for a huge variety of industries. Linde gases are used, for example, in steel production, refining, chemical processing, environmental protection and welding, as well as in food processing, glass production and electronics. We are also investing in the expansion of our fast-growing Healthcare business, i.e. medical gases, and we are a leading global player in the development of environmentally friendly hydrogen technology.

Engineering Division

Our Engineering Division is successful throughout the world, with its focus on promising market segments such as olefin plants, natural gas plants and air separation plants, as well as hydrogen and synthesis gas plants. In contrast to virtually all our competitors, we are able to call on our 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.

Growing

together.

6 September 2006 marked the beginning of a new era for our company: the birth of The Linde Group. The merger of Linde and BOC has created a leading global industrial gases and engineering player with a strong position in all markets and core areas of competence worldwide.

Integration of the two companies is advancing fast, facilitated by the mutually complementary offerings of BOC and Linde. Armed with a comprehensive portfolio of innovative products and services, we are focusing on our joint aim: growing faster, together.

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THE LINDE GROUP

Foreword

Dear Stakeholders,

I am delighted to present the latest edition of the Linde Annual, which again forms an integral part of our annual report. The title, "Growing Together", is both a promise and commitment – a bridge connecting the past with the future. During the last fiscal year, Linde AG merged with the British BOC Group to create The Linde Group. The two companies complement each other perfectly, both in reach and range. So not only does this move make perfect business sense, it also cements our joint determination to become a defining force on the global markets for industrial and medical gases and plant engineering.

Our challenge now is to tap the impressive abilities of The Linde Group to the full. The four chapters of this Annual explore our strengths and the technologies, innovations and visions we are drawing on to ensure future success. Reference projects and innovative developments from the past fiscal year demonstrate how we are taking every possible measure to consolidate our technological lead and pioneering global position within the burgeoning gas market.

As an innovation driver, The Linde Group prides itself on complementing its high-quality product portfolio with state-of-the-art process and application know-how. One of our main aims is to improve the economy and efficiency of customer processes – whether in the oil, chemistry, glass, metal, food or shipbuilding industries. We apply the same principles in the challenging and safety-critical field of medical gases and equipment.

The Linde Group's technological leadership is most evident on the international engineering front. Our Engineering Division supports production processes across the most varied industries with air separation units plus plants for olefin, hydrogen, synthesis and natural gas. The Division plays a key role in the move towards low-emission fuels, also helping to develop oil fields cost-effectively and ensure a sufficient supply of noble gases such as helium. And our wide-ranging expertise in innovative hydrogen technologies – from H_2 production to vehicle fuelling – is paving the way for zero-emission traffic in the future.

As you will see from this Annual, the new size and scope of The Linde Group means we are ideally equipped to play a key role in shaping the future with innovative technologies and customer-centric services. We now look forward to new and exciting opportunities for further growth over the coming fiscal year and beyond.

Professor Dr Wolfgang Reitzle
Chief Executive Officer

Executive Board

Professor Dr Wolfgang Reitzle
Born 1949
Doctorate in Engineering (Dr.-Ing.)
Chief Executive Officer
Member of the Executive Board since 2002

"Fiscal 2006 will be remembered as the year of the most far-reaching changes that our company has experienced in its almost 128-year-old history. The merger with the British BOC Group combined with the spin-off of our Material Handling Division has created a leading global gas and engineering player with a secure, promising future."

Dr Aldo Belloni
Born 1950
Doctorate in Chemical Engineering (Dr.-Ing.)
Responsible for: Europe and Middle East, Global Business Unit Healthcare, Innovation Management, Engineering Division
Member of the Executive Board since 2000

"Close collaboration between our Gases and Engineering Divisions gives us a unique competitive edge. We are the only gas company worldwide to cover the entire value chain – from the construction of on-site plants of all types and sizes through the production of gases to their actual application. The merger with BOC will further synergise the strengths and one-stop proposition of these Divisions."

J. Kent Masters
Born 1960
BS Chemical Engineering,
MBA Finance
Responsible for: Americas and Africa,
Global Business Unit Tonnage (On-site),
Business Area Bulk
Member of the Executive Board since 2006

"The synergised strengths of Linde and BOC under the umbrella of the new Linde Group are reflected at all product segment levels. We are the world leader in cylinder and liquid gases and number two in the on-site business. We plan to jointly consolidate and expand our excellent position."

Trevor Burt
Born 1958
Bachelor of Science (BS)
Responsible for: Asia/Pacific,
Business Areas Packaged Gases and
Electronics Gases
Member of the Executive Board since 2006

"Looking at the merger from a regional perspective, especially with an eye on emerging markets, Linde and BOC were made for each other. Traditionally, Linde has always had a strong foothold in Eastern Europe, whereas BOC was an early mover in Asia. By combining our forces, the new Linde Group is even better equipped to capitalise on growth opportunities in these fast-growing markets."

Georg Denoke
Born 1965
Degree in Information Science,
Degree in Business Administration
Responsible for: Finance,
Labour Director
Member of the Executive Board since 2006

"We will gradually reduce our debt over the coming years without compromising on strategic investments to keep us on our profitable growth path. Ultimately, the industrial gas market offers excellent prospects for a stable cash flow."


At home in
mar


kets
throughout the world


At home in
mar

kets

throughout the world

Production of TFT-LCD displays and solar cells would be impossible without specialty gases. The electronics industry is one of the fastest growing target markets for industrial gases. The Linde Group is also experiencing spiralling demand for electronics gases. To ensure we can meet our customers' needs in this area, we have constructed new production facilities in Germany and China.

kets

throughout the world

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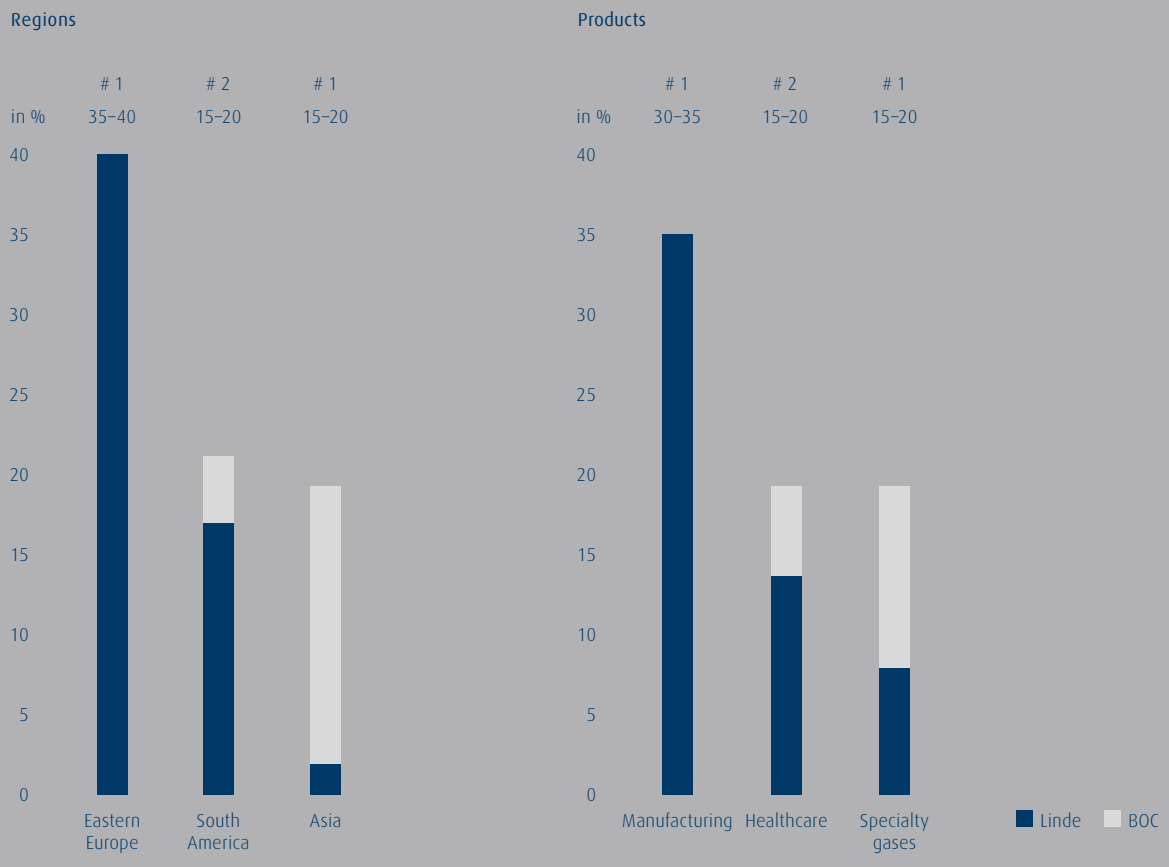
At home in markets throughout the world

The merger of Linde and BOC to form The Linde Group has created a major global player, propelling the new Group to the forefront of all its target regions and markets. By leveraging the best of both companies in the gas and engineering business, the merger also creates exciting new growth opportunities driven by a synergised, end-to-end service offering and in-depth consulting know-how.

Global Linde Group market share [1]



Leading role // The Linde Group occupies a leading position in all main growth segments, both in terms of market reach and portfolio. Linde and BOC complement each other's strengths to perfection.

[1] Source: Annual reports, analysts' reports, Spiritus Consulting, Linde Group analyses.

The Linde-BOC merger has created a world-leading gas and engineering company. Under the umbrella of The Linde Group, the companies complement each other both in geographical footprint and in portfolio. On the one hand, Linde brings a particularly strong market presence in Western and Eastern Europe and Latin America to the table. On the other, BOC has extended the Group's global network to include its local market Great Britain, is a leading player in Africa and has expanded successfully into the Asia/Pacific region.

With a 34 percent share, the Linde Group leads the global market for gases in the manufacturing industries, holding a particularly strong position with welding gases. Our gas products for the food industry are also at the forefront of the global market (see page 32), as are our metal fabrication gases – largely thanks to BOC's outstanding position here. With a market share of almost 20 percent, we are ranked second on the worldwide market for medical products (see Healthcare, page 27). In addition, Linde is positioned as one of the leading global suppliers of industrial gases such as hydrogen and helium, also constructing the production systems for these gases.

Expansion in specialty gases

The Linde Group has carved out a leading position on the booming and highly profitable specialty gases market for the electronics industry, particularly in East Asia and Europe. These high-purity, sophisticated gases are used to manufacture wafers (see glossary), semiconductors and other electronic components, solar cells, TFT-LCD screens and LEDs. Since most semiconductor and screen manufacturers have based their headquarters and/or their main production facilities in Asia, we continue to expand our strong market presence in that region. In 2006, we opened state-of-the-art facilities in the Suzhou High-Tech Park near Shanghai, China, to purify and fill gases and chemicals for the semiconductor industry.

Besides China, these products are also delivered to Taiwan, Korea, Singapore, Japan, Malaysia, Vietnam and Australia. We have also started construction work in Taiwan on the largest generator for high-purity nitrogen (35,000 Nm^3/h) for the semiconductor industry.

Linde also strengthened its position in the European specialty gas market for the electronics industry with the opening of its new electronic gases facility in Unterschleißheim, Munich, in mid-September last year. Products from the German plant are delivered primarily to customers of the Linde Nippon Sanso Group, a joint venture between Linde and the Taiyo Nippon Sanso Corporation (TNSC). The Unterschleißheim plant is dedicated exclusively to semiconductor gases (electronic specialty gases, ESG) and mainly supplies customers within Europe.

Linde's product portfolio for high-purity specialty gases extends from doping and etching gases to mixtures for removal of ultra-thin layers. Applications range from electronic chips to solar cells and from nanotechnology (see glossary) to fibre optics. Thanks to strong demand from Linde Nippon Sanso customers, production at Unterschleißheim has increased existing capacity by 75 percent since the new plant opened. And it is designed to scale output as demand rises.

Final closure of the agreement to acquire Spectra Gases in the US has also bolstered our position on the international specialty gas market. The New Jersey-based company has vast specialist know-how in segments and regions where Linde has not had as strong a footprint to date. Spectra Gases manufactures high-purity specialty gases for production, research and analysis. Our new subsidiary also supplies specialty gas mixtures for the semiconductor industry and laser therapy.

Strong growth across all regions

The merger between Linde and BOC gives The Linde Group a truly global footprint spanning around 70 countries across all continents. A glance at the map shows that the regional strengths of Linde and BOC complement each another almost without overlap (see diagram, p. 20/21).

This has enabled The Linde Group to consolidate its presence in all regional markets. In Europe our market share lies above 30 percent, in North America at around 15 percent and our joint operations in South America account for 24 percent of that market. Thanks to BOC's traditional strength in Africa, we have captured well over 40 percent of that market. We currently hold a market share of around 12 percent in the Asia/Pacific region, with a strong upwards trend.

We continue to acquire selected companies to further extend our reach. Although the BOC merger tied up a lot of our resources, we nonetheless succeeded in also acquiring the Turkish industrial gases company Karbogaz A.S. during the last fiscal year, thus consolidating our market position in South-East Europe and the Middle East. Karbogaz is one of Turkey's most important industrial gas and dry ice (see glossary) suppliers and the regional market leader in the thriving carbon dioxide (CO_2) segment. Headquartered in Istanbul, the company employs a staff of 230 and generates annual sales of approximately EUR 27 million.

One-stop service

Our customers are increasingly interested in gas-related services. Especially given the importance of background knowledge and safety, customer expectations extend beyond safe, predictable gas deliveries to include around-the-clock professional advice and assistance. We have developed various service programmes to meet needs in this area. For example, BOC developed and introduced a comprehensive service programme in Great Britain for our customers in the metal fabrication industry. This one-stop offering is divided into two packages, Response Red and Response Black. The packages cover 300 top-quality industrial gases, supply devices and equipment and support services, including safety checks and training, technical customer service and consulting. The premium Response Black programme includes a range of complementary services, such as regular technical inspections of the customer's facilities and equipment, profitability calculations, advanced training in modern welding technologies and immediate hotline assistance and emergency response.

Automotive industry partner // The Linde Group is the global market leader in gases for the manufacturing industries. The automotive industry is a major force here and Linde offers a comprehensive product and service programme for gas applications in welding and cutting.

Innovative ideas

The traditional cylinder gas business remains a vital pillar of The Linde Group's sales organisation. During the year under review, it gained new impetus through innovative marketing ideas. Our new sales concept, Gas & More, improves business relations with several million small and mid-sized customers through local competence centres (see breakout box, p. 17).

We have also forged new paths in product development over the last fiscal year. As one of their first joint innovations in the cylinder gas business, Linde and BOC developed a system of integrated gas regulators in the cylinder valves. This new-generation VIPR (Valve Integrated Pressure Regulator) system saves customers the hassle of changing pressure valves at the point of use, saving time and maximising the convenience factor. Global roll-out will take place during the first half of 2007.

In Australia, we piloted a new system to track the location of gas cylinders. Given the millions of cylinders in transit worldwide, an effective tracking system offers massive logistics and financial rewards. We have named this electronic tracking system after one of the last Aboriginal trackers, Mitamirri. Following successful trials, Mitamirri will be gradually introduced in the entire region by 2009.

On-site systems secure future business

Sometimes it makes sense to construct air separation or hydrogen production systems at the customer site. This applies in particular to companies that require predictable, high-volume gas flows. Companies that opt for on-site supply can be from industries as diverse as chemicals, petrochemicals, steel, metal fabrication, metallurgy, food, semiconductors and waste management. Thanks to close collaboration between our Gases and Engineering Divisions, we offer customers a one-stop service for projects such as these. Our Engineering Division develops and installs the systems according to customer specifications, while the Gases Division looks after financing, operation and reliable gas supply. Long-term supply contracts with key accounts – usually lasting 15 years, which corresponds to the typical lifespan of an on-site system – make these projects financially attractive despite the relatively high up-front investment costs. They also represent a highly attractive proposition for the customer – they receive the industrial gases they need from a dedicated on-site system, which requires no capital investment or drain on their human resources.

As a rule, the capacity of an on-site system is designed not only to cover the customer's peak demand curve but also to supply neighbouring companies. The surplus is fed via pipeline. This is significantly more economical than delivery by tanker, since it avoids the expensive process of liquefying gases for transport.

Interest from industrial customers in cost-effective on-site supply solutions increased again during the last fiscal year. The Linde Group's new order figures also reflect on-site contracts concluded by BOC.

Connecting with customers // With our new sales concept, Gas & More, we are transforming our cylinder gas supply points into attractive competence centres where customers can buy gases and receive advice. At these centres, heating and plumbing companies will find acetylene, metal companies inert welding gases, doctors medical gases and private households propane for heating, cooking or barbecuing. They also provide a wide range of supporting equipment and products, from welding units through protective gear to gas-operated barbecue sets. Our highly qualified staff are ready to answer all our customers' questions on application and safety issues. By the end of last fiscal year, we had already opened ten Gas & More centres in Germany, with another five to ten set to follow in 2007. At the same time, we will also be using the new system to start synchronising retail activities across Europe in order to iron out the current differences between markets. The experience gained by the former BOC organisation from its Gas & Gear retail chain in Australia and South Africa and Tradequip in Great Britain will play an important role here.

Significant on-site projects in 2006

In fiscal 2006, we received new orders from Eastern Europe, Russia, Asia, the USA, Latin America and Germany. In November 2006, the Gases Division placed an order with the Engineering Division to construct an additional hydrogen production facility for the German Burghausen location, at the centre of the Bavarian chemical triangle. With a total capacity of 11,000 Nm^3/h, the new system is scheduled for completion in 2008 and will then deliver hydrogen to the OMV AG crude oil refinery and the chemical company Wacker Chemie AG. OMV requires up to 6,500 Nm^3/h additional hydrogen and steam from January 2008 to desulphurise heating oil and diesel fuel, while Wacker Chemie's hydrogen consumption will increase approximately 4,500 Nm^3/h from August 2008 due to expansion of its silicon production in Burghausen. Linde has been operating a hydrogen production facility with a capacity of 7,400 Nm^3/h at Burghausen since 2000.

Linde is constructing the largest self-operated on-site system of its kind for the Corus steelwork in Ijmuiden, the Netherlands. The new air separation plant will replace four older Linde systems from mid-2009 and supply oxygen for Corus' growing steel production. Our Dutch subsidiary Hoek Loos B.V. is managing the contract. Alongside oxygen, Linde's supply contract with Corus also covers delivery of other atmospheric gases such as nitrogen, argon, xenon, krypton, neon and helium. Some of the noble gases produced in Ijmuiden will also be supplied to other Linde customers.

In collaboration with its Chinese joint venture partner Shanghai Coking & Chemical Corporation (SCCC), Linde also won a long-term contract from Bayer Polyurethane (Shanghai) Ltd. Co. The agreement to supply hydrogen and carbon monoxide spans 15 years and involves construction of an on-site facility at the Bayer plant in the Shanghai Chemical Industry Park. The joint venture Shanghai HuaLin Industrial Gases Co. Ltd. (JV HuaLin), in which The Linde Group holds a 50 percent stake, presented a compelling concept based on the use of synthesis gas as feedstock. This gas is extracted by SCCC in an environmentally friendly coal gasification process. However, the system can also run on natural and liquefied gas.

The use of synthesis gas, transported to the system via pipeline, is particularly attractive because China possesses ample coal reserves but little natural gas. The new facility is scheduled to commence operations mid-2008. The HuaLin joint venture has also come to an agreement with Bayer allowing them the option of adding a second steam reformer (see glossary) and increasing supplies to a total of 58,000 Nm^3/h hydrogen and 16,300 Nm^3/h carbon monoxide by April 2011.

Business through BOC

Linde's on-site business has also benefited from the BOC Group's long-standing experience on Asian markets such as China, Thailand and India, as well as in the US. In the Chinese province of Shandong, The Linde Group and the petrochemical company SINOPEC Qilu have agreed to operate three air separation plants under the joint venture Zibo BOC Qilu Gases Co. Ltd. SINOPEC Qilu, a subsidiary of SINOPEC Corp. and one of China's largest oil processing and chemical companies, brings two existing air separation plants into the joint venture. Construction of the third is scheduled for completion in March 2008, adding a daily capacity of 1,500 tons of oxygen. Zibo BOC Qilu Gases will then supply the key account SINOPEC Qilu, other companies in the region and other markets with over 4,000 tpd (tons per day) of oxygen, nitrogen and argon.

Like many other key accounts of The Linde Group, the Chinese petrochemical company is looking to secure its gas supply on a long-term basis and transfer responsibility to experienced specialists, allowing it to focus on its core business.

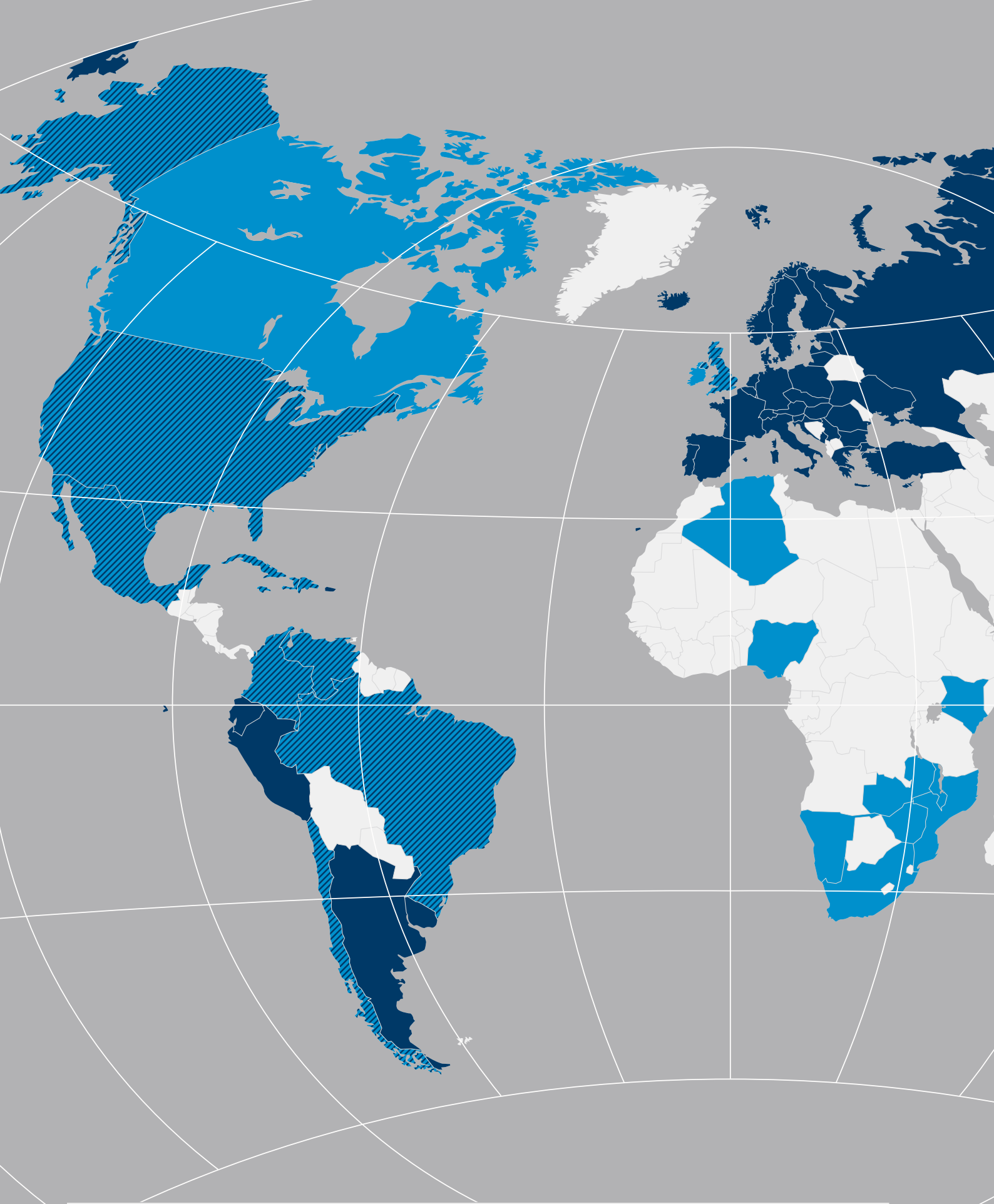
In Thailand, Map Ta Phut Industrial Gases Production Co. Ltd. (MIGP) opened an air separation plant last fiscal year with a capacity of 1,300 tpd in the Map Ta Phut industrial park, a key location for many Thai chemical companies. MIGP is a joint venture between the BOC subsidiary Thai Industrial Gases Public Company Limited and Bangkok Industrial Gas Company Limited. The plant supplies the chemical company TOC Glycol Ltd. with 800 tpd oxygen. The remainder will be supplied to other customers by our subsidiary.

After a construction period of only 18 months, BOC India opened an air separator in Bellary, South India, on the JSW Steel Ltd. factory site in 2006. With a capacity of 1,400 tpd, the facility produces oxygen, nitrogen and argon for this strategic customer, the second-largest private steel manufacturer in India. A further 200 tpd liquid products are available to other customers.

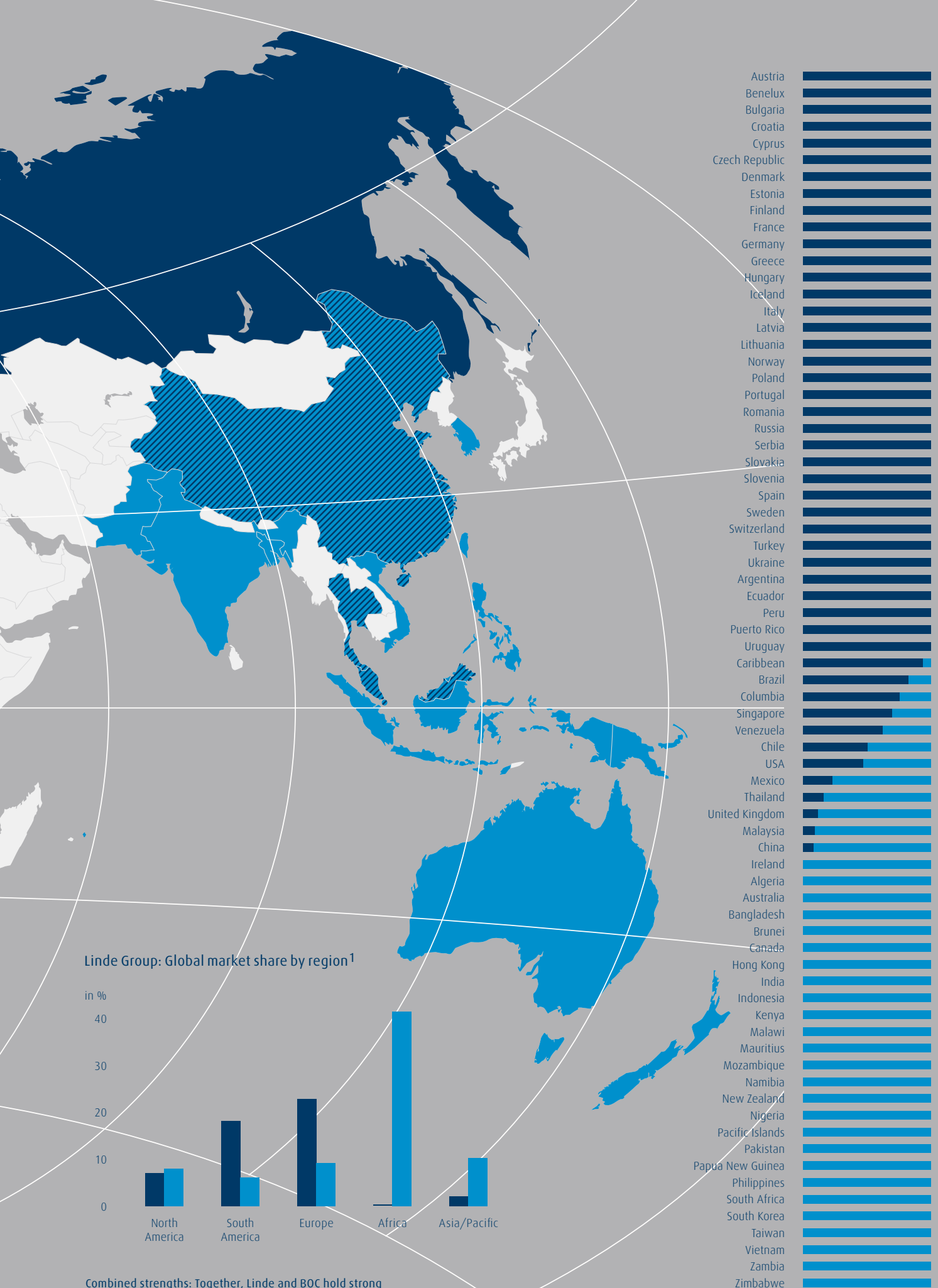
A second plant of this type is under construction and will supply JSW with 3,000 tons of gas per day from 2008. BOC's collaboration with the JSW steel group dates back to a 15-year contract signed in 2004.

In the US, BOC has received an order for an on-site system to supply the Gerdau Ameristeel Corp. steelwork in Knoxville, Tennessee with gaseous oxygen and nitrogen. The air separator will have a capacity of 130 tpd and replace delivery of liquid oxygen and nitrogen to the plant by BOC.

On-site production // Major industrial gas consumers are increasingly opting for reliable and cost-effective on-site supply. This particularly benefits customers in the chemical, petrochemical, steel, metal fabrication, semiconductor and food industries, for example. Linde plans, constructs and operates these on-site gas production plants for its customers.



Perfect fit // While Linde traditionally holds a leading position on the Central and Eastern European markets and in Latin America, BOC has established a strong presence in Great Britain, North America, Africa and across the Asia/Pacific region. The Linde Group is therefore ideally placed to take advantage of growth opportunities in all key markets across the globe.



Linde Group: Global market share by region[1]

Combined strengths: Together, Linde and BOC hold strong market positions in all the world's key economic regions.

[1] Source: Annual reports, analysts' reports, Spiritus Consulting, Linde Group analyses

Linde
BOC
Linde + BOC

Minimal overlap: The Linde Group operates in over 70 countries worldwide. Linde and BOC's activities in each country complement one another ideally.

Driving value through

inn


ovation

Driving value through

inn

ovation

As a leading provider of medical gases and innovative healthcare equipment, Linde fulfils the same stringent requirements that apply to the pharmaceutical industry. Medical gases, used to treat patients with respiratory conditions, for instance, are subject to official safety, quality and purity regulations that are just as rigorous as those for other pharmaceutical products.

ovation

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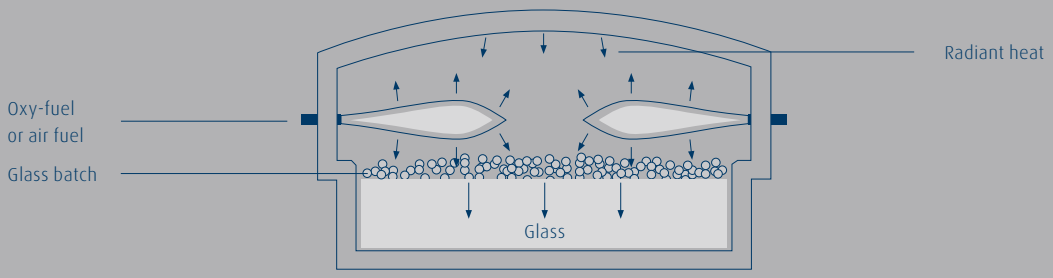
Driving value through innovation

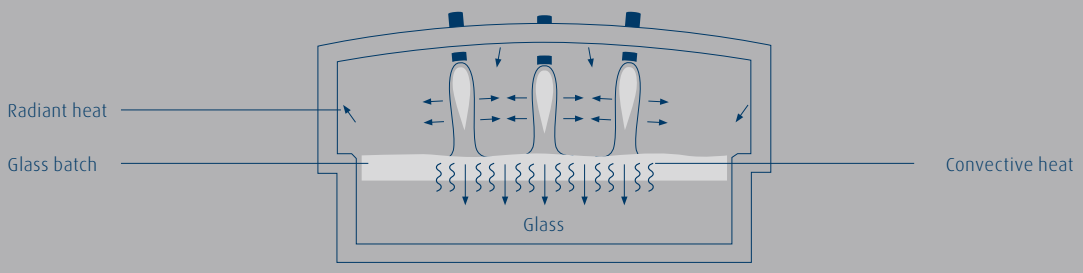
From food processing to shipbuilding and glass, from healthcare to the environment – innovative gas applications and intelligent processes enhance quality of life and profitability across the widest range of industries. Innovation driver and technology leader, The Linde Group plays an instrumental role in helping its customers achieve these objectives with a wide range of consulting, support and enabling services.

Innovative CGM™ technology for the glass industry

Conventional burner installation – horizontal



CGM™ burner installation – vertical



Pioneering glass production // Linde's new CGM™ (Advanced Glass Melting) technology optimises efficiency, cost-effectiveness and glass quality in furnaces. This solution is the first to position burners in the crown of the furnace melter, applying oxy-fuel flames directly to the batch. This melts the glass faster than conventional horizontal firing. CGM™ was developed by BOC and has been marketed by Linde since 2004, based on a license agreement concluded with BOC.

Driving innovation across industry

In many industries, modern production processes would be almost inconceivable without the use of industrial gases. Gases increase process efficiency, save energy and optimise product quality across the widest range of applications in the chemical, pharma, metal, glass, food, semiconductor and electronics industries. The Linde Group Gases Division is committed to finding tailored solutions to many of the challenges facing our customers.

However, gases are by no means restricted to industrial applications – they also play a vital role in healthcare. Here we also leverage our technical leadership and innovative drive to enhance quality of care. Examples include mobile gas supply solutions for patients with respiratory conditions, pain relief for mothers in labour and the safest and lowest-impact anaesthetics.

Linde also delivers state-of-the-art equipment to ensure that medicinal gases are dosed and administered in a safe, reliable, user-friendly and cost-effective manner.

Mobile oxygen and ventilation equipment

During the year under review, Linde was proud to receive the "Ei des Kolumbus" (Egg of Columbus) award from the "Stiftung Innovation" foundation in recognition of our innovative work in the medical field. Linde Medical Devices GmbH, a Linde Group subsidiary, received the award in December 2006 for the Oxy-Gen Lite® mobile oxygen generator. This device supplies oxygen to patients with chronic respiratory diseases and enhances their quality of life, increasing mobility and allowing safe and restful sleep. Oxy-Gen Lite® weighs only ten kilograms and can be carried like a handbag. The most compelling feature of this device is the fact that it uses electrolysis to generate high-purity (99.78 percent pure) oxygen from water. The hydrogen produced during this process is used to power an integrated fuel cell (see glossary), generating around two thirds of the electricity required for electrolysis. The rest of the electricity comes from the mains supply.

Mid-2006 Oxy-Gen Lite® was added to the catalogue of medications and appliances issued by the German association of health care insurers, which means that doctors have been able to prescribe it since that time.

Oxy-Gen Lite® is the ideal home-based solution for patients with chronic lung diseases involving constricted airways such as asthma and COPD (chronic obstructive pulmonary disease). Hospital-based patients requiring a portable supply of oxygen rely on our specially developed LIV® (Linde Integrated Valve) system. This compact unit already complies with future best practices for inpatient gas supply. LIV® is extremely light, offering an optimum in ease, safety and economy. Its most compelling feature is an integrated valve regulator, which uses sensors for precise pressure release and control during ventilation.

The last fiscal year also saw the launch of VENTYO™ by our Healthcare segment. This combines nitrous oxide or laughing gas (N_2O) with oxygen (O_2) and simplifies the supply of pain relief gases to mothers-to-be during birth. Building on the successful market launch in Scandinavia, we have now started global roll-out.

Linde also launched Helontix™ Vent, introduced in September 2006 at the ERS (European Respiratory Society) congress in Munich, Germany, to supply helium and oxygen to patients suffering shortage of breath of an obstructive nature. This non-invasive system provides hospital staff with a quick and efficient way of administering the gas mixture.

Stringent quality standards

Medicinal gases such as oxygen and gas mixtures – nitrous oxide with oxygen, for example, or helium (He) with oxygen or nitric oxide (NO) with nitrogen – are subject to official safety, quality and purity regulations that are just as rigorous as those that apply to other pharmaceutical products. Linde complies with these standards along the entire product chain – from production through distribution and quality control to the point of use. And we take a pioneering role in establishing pharmaceutical standards for medicinal gases. We took our first steps in this direction with INOmax®, a gas mixture for the treatment of newborns with certain pulmonary disorders.

And during the year under review, we successfully registered general medical oxygen as a pharmaceutical product. Under the brand name CONOXIA®, we offer doctors and patients a safe, easy-to-use gas with pharmaceutical-grade certification. And the Linde guarantee covers not only the exact chemical compound of the gas, but also fault-free production and ongoing quality assurance.

Conquering the Himalayas with Linde oxygen // High-altitude mountaineering poses a challenge for the human body because air pressure decreases exponentially with increasing altitude. At 5,000 metres, only around half the usual quantity of oxygen is available and at the peak of Mount Everest (8,848 m) only a third.

The body is only able to adapt completely to these conditions at heights up to around 5,300 metres. But the low level of oxygen in the air can already cause life-threatening illnesses such as high-altitude pulmonary or cerebral oedema at 3,000 metres and above. Apart from rapid descent or temporary treatment in transportable high-pressure chambers, pure oxygen is the most effective way to treat mountaineers suffering from these ailments. Linde's portable oxygen supply system, LIV® provides an innovative solution that is light, reliable and easy to use. It has already been used to successfully treat two patients on Himalaya expeditions to Nanga Parbat (Pakistan) and Kailash (Tibet). LIV® has therefore passed the acid test for medical treatment at high altitude with flying colours.

Innovative care

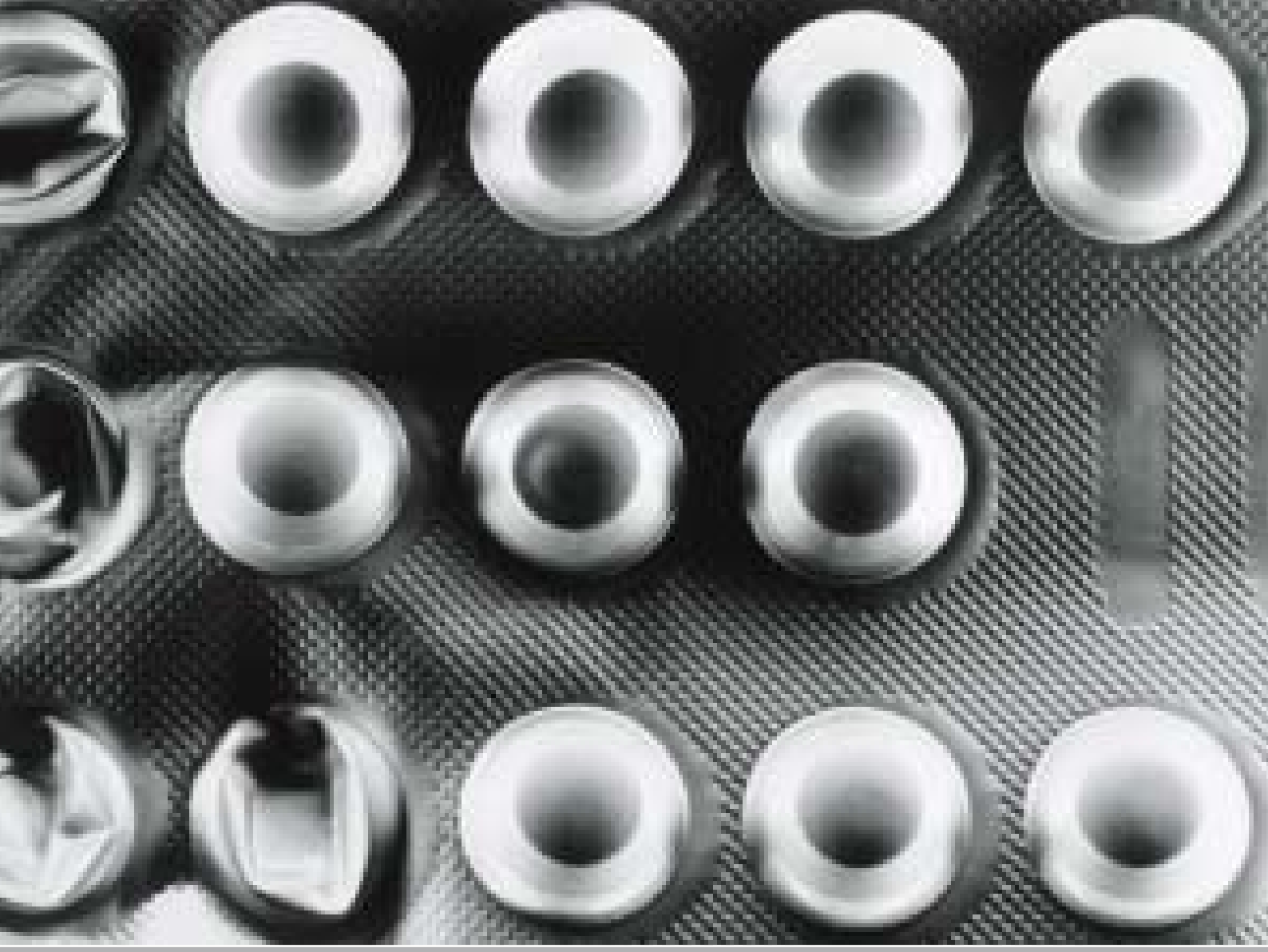
Through our Homecare segment, we supply over 100,000 patients worldwide with medical gases, primarily to treat respiratory diseases such as COPD and asthma. But to Linde, this means more than just providing the gases and necessary equipment. We have extended our offering to include innovative healthcare facilities to further improve quality of life and safety for patients. At the forefront of this initiative is our REMEO® concept, implemented in 2006. REMEO® gives patients in need of ventilatory support or undergoing weaning an alternative to protracted stays in hospital intensive care units. The concept is based on the Eibl Homecare GmbH facilities, which we acquired in 2005. The subsidiary is situated in the German state of Brandenburg and runs a treatment centre for long-term ventilated patients in Mahlow, near Berlin. In this centre, mechanically ventilated patients benefit from state-of-the-art technology, care and professional supervision over extended periods. If their condition improves, the patient can be discharged and receives further treatment at home under the supervision of trained Eibl staff. Since our concept is medically proven and significantly undercuts the costs of intensive care, we are starting to expand it to markets outside Germany.

However, our service offering extends far beyond oxygen and ventilation treatment. Our Homecare segment reports strong growth in sleep therapy, for instance. Pathological sleep disorders are often diagnosed too late or not at all, leading to chronic fatigue and a significant drop in daytime wellbeing. We offer extensive screening and diagnostic services, both in sleep centres and at patients' homes. In this way, Linde Homecare covers the entire patient experience – from diagnosis through treatment to ongoing care and subsequent check-ups.

A sharper look // Excimer lasers (see glossary) have revolutionised eye surgery. They offer a fast, effective and highly precise way of treating common eye disorders such as astigmatism (see glossary) and short or long-sightedness.

In this process, an ultraviolet light beam is used to vaporise unwanted tissue. Because the pulsed gas lasers work with a "cold" beam, they do not heat or damage the surrounding tissue. The procedure takes only a few minutes and patients can resume their normal lives within a few days – without glasses or contact lenses.

Gases play an important role in the effectiveness of Excimer lasers, which are also used in the manufacture of computer chips and flatscreens, for example. Typically, the laser gas consists of 0.05 to 0.3 percent halogen (fluorine or hydrogen chloride), one to ten percent noble gas (krypton, xenon or argon) and 90 to 99 percent buffer gas (helium or neon). Linde delivers these gases primarily for the operation and calibration of Excimer lasers and is one of the few manufacturers worldwide to fulfil the high-purity requirements of Excimer lasers.



Sterile nitrogen for the pharma industry // Gases that come into direct contact with pharmaceuticals during the production process have to meet the same high international quality specifications as the drugs themselves. Cryogenic liquid nitrogen is used to enhance the process flow in the pharmaceutical/biotechnology industry. And with Linde's new VERISEQ® SLG (Sterile Liquid Gas) series of on-site systems, liquid nitrogen can now be sterilised at the point of use.

VERISEQ® SLG systems remove microorganisms from gaseous nitrogen with sterile filters. The sterile gaseous nitrogen is then passed through a heat exchanger and liquefies with liquid nitrogen that has not yet been filtered. The unfiltered nitrogen evaporates during this process and is fed to the sterile filter as a gas. The units are fully automatic and can be run in continuous or batch mode. VERISEQ® SLG systems comply with all Good Manufacturing Practice (GMP – see glossary) requirements regarding operation, function and design.

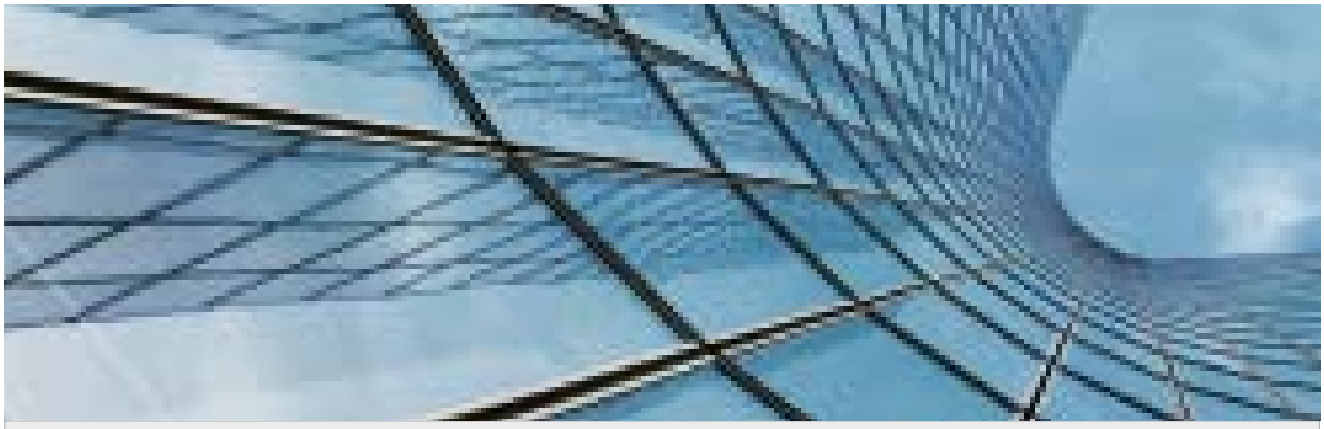
In combination with VERISEQ LIN (Liquid Nitrogen), VERISEQ® SLG systems guarantee a totally traceable supply of sterile liquid nitrogen. VERISEQ® SLG systems fall under the umbrella of our VERISEQ® PGC (Pharmaceutical Gas Concept), which expands our gas offering with equipment, application know-how and quality assurance services to support pharmaceutical and biotechnological production processes.

Glass production innovations

As a leading industrial gas manufacturer, we see it as our responsibility to help our customers to boost productivity through technological innovation, cut costs, improve product quality and reduce harmful emissions. As one of our important target markets, the glass industry benefits from our process enhancements. Over the past fiscal year, for example, we pushed sales of the BOC-developed CGM™ (Advanced Glass Melting) technology, designed to optimise furnace technology and efficiency. Linde brings this innovative technology to the glass industry based on a license agreement concluded with BOC in 2004. To date, BOC and Linde have installed CGM™ melting systems at over 35 furnaces worldwide across all segments (including float, container, specialty and fibre glass).

The CGM™ solution is the first to position burners in the crown of the furnace melter. These apply oxy-fuel flames directly to the batch, melting glass faster than exclusively horizontal firing. The benefits of this method include improved glass quality and increased production capacity.

In 2006, we licensed our CGM™ technology to a glass engineering company for the first time. Our agreement enables the French company Stein Heurtey SA, one of the largest global suppliers of glass melting and manufacturing equipment, to integrate the CGM™ solution in its furnaces.



Internet service // In cooperation with OGIS GmbH, we developed a new software solution, Online Glass Engineering, available under the "Engineering" link at the www.glassglobal.com portal. This software helps glass players optimise processes and meet the challenges of mounting energy costs, stricter environmental requirements and growing international competition. This online glass engineering tool is a complete, one-stop solution, regularly updated and expanded free of charge. All data and enquiries are fully encrypted before transmission for maximum confidentiality.

Increasing glass quality, reducing energy costs

Although attention has focused on ways of reducing the energy costs involved in glass melting for many years, little progress had been made in this area to date. To answer growing needs in this area, Linde has now developed a solution that not only reduces costs, but also helps improve glass quality: the HYFINE™ system. This involves injecting oxygen and hydrogen simultaneously into the molten glass, where they react to form water. Hot water vapour bubbles form and rise to the surface, setting the melt in motion. This results in further mixing, expels unwanted gases and dissolves residual quartz grains. Injecting the oxygen and hydrogen mixture also improves thermal efficiency by transferring heat more effectively into the melt – a key factor in cutting energy costs.

Gases for the food industry

Gases have played an important role in the food and beverages industry since Carl von Linde's time. Indeed, cold storage operators and breweries were among the first customers to implement his groundbreaking discoveries in refrigeration technology.

BOC is also a successful player in this field, securing several contracts to supply food-grade gases to the food and beverages industry in Great Britain and Ireland in the last fiscal year. Customers there include InBev, Bernard Matthews, Moy Park, Grampian Country Foods and Sun Valley Foods. Foodstuff applications are not limited to freezing and transport cooling, however.

Gases are also used to provide a protective atmosphere in food packaging, keeping the contents fresh and retaining flavour for longer. Demand for MAP (Modified Atmosphere Packaging) solutions is growing rapidly in the food industry. Fruit, vegetables, meat, fish and bakery products in particular require carefully adapted gas mixtures to keep them fresh within their packaging for as long as possible. A whole range of gas mixtures is used for this purpose, with carbon dioxide, nitrogen and oxygen as the main ingredients. The right gas depends on the individual product. For example, packaging for products rich in water, such as fruit or salad, is mainly flushed with carbon dioxide to retard the growth of microorganisms. Crisp bags, however, predominantly contain gaseous nitrogen to prevent the fat turning rancid, whereas oxygen is used with meat so it maintains its pink colour.

In addition to the pure gases above, we also offer numerous modified atmosphere gas mixtures under our BIOGON® food-grade gas brand.

We supplied a BIOGON® pure gas for the 2006 FIFA World Cup™ in Germany, for example. Here we helped ensure a steady supply of cool, fresh beer by delivering BIOGON® C carbon dioxide to the dispensers in the stadiums – both directly and through our dealer network.

Combating the greenhouse effect // BOC is currently working on the final stages of a pioneering environmental project in Western Australia. In cooperation with Alcoa, the aluminium manufacturer, and the chemicals company CSBP, Australia's largest supplier of fertiliser, BOC is investing in the infrastructure for safe purification, compression and pipeline transport of carbon dioxide (CO_2). The greenhouse gas is generated during ammonia production at the CSBP plant in Kwinana, south of Perth. It is then pumped to Alcoa's waste processing plant via pipeline and injected into the bauxite residue from aluminium production. This decreases the material's alkalinity (pH) levels and permanently binds the CO_2. The process significantly reduces waste storage risks and prevents the CO_2 that would otherwise be emitted by CSBP entering the atmosphere and contributing to the greenhouse effect.

Protecting our food // Gases play an increasingly significant role in the food industry, where they are used for refrigeration, freezing and protective atmospheres in packaging. Gas mixtures with carbon dioxide, nitrogen and oxygen as the main ingredients keep foods such as fruit, vegetables, meat, fish and bakery products fresh and retain flavour longer.

Another hit during the year under review was our SPACECUP drinks holder, which is proving increasingly popular at parties. ICEBITZZZ™ dry ice nuggets (solid carbon dioxide at a temperature of –79 degrees Celsius) are locked into a capsule at the bottom of a specially designed glass. When a non-fizzy drink is poured into the glass, the release of gaseous carbon dioxide produces an impressive fog effect. This fascinating visual display makes the SPACECUP ideal for the booming cocktail culture, adding a drop of excitement to fruit juices, clear drinks and cocktails such as Mai Tais, Blue Stars and Manhattans.

Comprehensive service programme

Drawing on years of experience working with the food industry, we launched a comprehensive food service programme in fiscal 2006. The AVANTO™ programme aims to improve food industry processes, optimise gas supply and quality assurance, and reduce costs.

To achieve this, we developed special gas sensor systems that help guarantee quality and safety in food processing, for instance.

AVANTO™ also includes a wide range of services to improve inventory management, ordering and the logistics chain. A key component of AVANTO™ is SECCURA®, our automated gas supply system. This uses remote data transmission to ensure sufficient gas is available to our customers around the clock – without them needing to check levels or place orders. Remote monitoring works with both on-site and tank facilities as well as with trailer stations and individual cylinders and bundles.

Safety in metal fabrication

The SECCURA® automatic gas supply system has also been welcomed by the metal fabrication industry. The EuroBLECH trade fair in October 2006 in Hanover, Germany, gave visitors and exhibitors the chance to experience SECCURA® in action and see how it kept the mobile Linde nitrogen and oxygen tanks on the exhibition grounds full.

As a leading global supplier of industrial gases, we also feel a sense of responsibility for the safety of our customers in their handling of gas and gas equipment. Last fiscal year we developed a complete safety programme under the LIPROTECT® brand, offering safety-related training, services and products. This safety programme covers all operator duties defined under the German Work Safety Ordinance of 2002. It also offers safety training tailored to individual customer requirements and an extensive range of services related to gas supply – from risk assessment through safety and compliance checks to system maintenance.

Shipbuilding innovations

Linde is taking a front seat in the burgeoning shipbuilding market, working closely with the shipyard industry to focus on innovations in welding and cutting technology. We see this as an important investment in one of tomorrow's promising markets. For two decades now, container shipping has been the fastest growing shipping market. Experts anticipate an average yearly growth of nine percent until 2015 in the container business. This is driving shipyard industry orders, with the international container ship fleet growing a good six percent each year since 2002. Added to the demand for additional capacity is the need to replace older container ships. This generates an additional annual volume of around one million DWT (Deadweight Tonnage). The estimated global order volume for container ships is around one thousand units. Analysts predict that global container capacity will increase by approximately 50 percent between 2006 and the end of 2008.

This enormous demand is driving prices upwards, with new container ship prices rising around 30 percent between 2004 and 2005 alone.

High demand also places shipyards under pressure to achieve sustainable productivity increases. Linde is the ideal partner here, contributing expertise in welding, cutting and flame straightening to optimise and automate shipyard work. Our collaboration with AKER Ostsee shipyard is a good example, involving the first ever use of high-performance MAG (metal active gas) tandem welding with CORGON® He gases in shipbuilding. Linde is also driving pioneering development work on laser cutting and laser-MAG hybrid welding systems (see glossary) as well as robot-controlled flame straightening systems.

Shipyard industry solutions // The consistently high demand for container ships in particular makes it essential for the shipping industry to keep optimising and automating its processes. Linde is the ideal partner here, developing innovative and efficient technologies for welding and cutting.

Proven

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In fiscal 2006, The Linde Group secured the largest contract for an air separation plant in history from Qatar Shell GTL Ltd. and Qatar Petroleum. Linde will be delivering a total of eight large air separators to supply oxygen to the Pearl GTL (gas-to-liquids) plant in Qatar – the largest integrated complex of its kind in the world. To fulfil this mega-order in the shortest possible time, the plant modules are being manufactured in various different regions. China is supplying the rectification boxes (see glossary), while Germany is producing the heat exchanger boxes in Bremen and plate-fin heat exchangers in Schalchen, near Munich (see photo).

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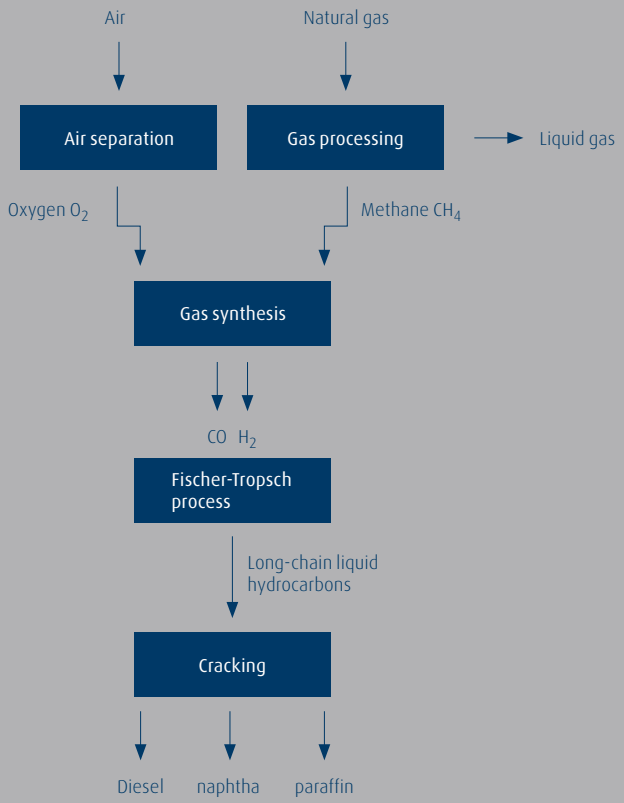
Proven expertise for tomorrow's energies

With its extensive industrial know-how, our Engineering Division plays a strategic role in mastering today's energy issues. And it will move even further to the fore as we step up to tomorrow's energy challenges. Customers rely on this Division to deliver state-of-the-art engineering solutions across the broadest application spectrum – from the production of environmentally friendly fuels and hydrogen to the generation of electricity from lignite without emitting carbon monoxide and the liquefaction of natural gas for shipping.

GTL process: from natural gas to liquid fuel



GTL-process // In the GTL process, natural gas is converted using atmospheric oxygen generated in an air separation unit. This reaction produces both hydrogen (H_2) and carbon monoxide (CO), which together make up the synthesis gas. The Fischer-Tropsch process is then used to obtain synthetic fuels. Linde offers systems and solutions for almost every step of the GTL process. These include, for example, POX systems (partial oxidation – see glossary).

Few companies in the world have the in-house expertise and technology to handle complex, large-scale industrial projects, covering every step from the initial plans to handover of a turnkey plant. With over 4,000 plants in over 100 countries, our Engineering Division's competence and skill is field-proven. It leads the market in all target segments – air separation, olefin, synthesis gas, hydrogen and natural gas plants. With each new contract, it asks itself how it can design the system that best meets that customer's individual requirements. We are constantly advancing our engineering processes and researching new technologies to meet evolving needs to reduce costs, save scarce resources and protect the environment. As an international technology leader, we are committed to developing solutions today for tomorrow's challenges.

With this as its mission, the Engineering Division also acts as a pillar, underpinning the leading global position of our gas business. This synergistic relationship also extends to key technologies, where both Divisions work closely to create eco-friendly fuels for a mobile society.

GTL: synthetic fuel with a future

While the technology for hydrogen-powered vehicles is currently reaching its first milestones on the way to market-readiness, the manufacture of fuels from natural gas, or GTL (gas-to-liquids), is already thriving.

The innovative GTL process first produces a synthesis gas from natural gas using oxygen. This is then converted to a liquid hydrocarbon such as diesel fuel or kerosene in a second step (see diagram on page 40). The benefit of synthesis gas is that it is biodegradable and sulphur-free.

Against the background of high oil prices, GTL technology provides an attractive alternative future fuel source for global markets. GTL plants and the fuel they generate are already profitable if we assume crude oil prices of USD 50 per barrel (159 litres).

Major contract for Pearl GTL plant

The Engineering Division is already at the forefront of the GTL plant business. In 2006, we were awarded a contract by Qatar Shell GTL Ltd., a member of the Royal Dutch Shell Group, and Qatar Petroleum (QP) for the construction of eight large air separation units for the Pearl GTL plant in Ras Laffan Industrial City, Qatar.

Pearl GTL will be the largest integrated complex of its kind in the world and Linde's Engineering Division will ensure that it produces some 860,000 cubic metres of oxygen each hour. The huge capacity makes this the largest single contract ever placed for air separation units. The GTL plant will use natural gas as feedstock to manufacture around 140,000 barrels of liquid hydrocarbons per day, including naphtha, GTL fuels, paraffin, kerosene and lubricant oils. The complex will also produce approximately 120,000 barrels per day of condensate, liquefied petroleum gas and ethane. Linde is responsible for the basic and detailed engineering, materials procurement and monitoring, as well as construction and initial operation.

The Qatar Shell GTL contract reflects the growing importance of energy within the gas and engineering business. GTL is a significant milestone in this trend, alongside hydrogen for refinery applications, LNG (liquefied natural gas), coal gasification and oxygen for CO_2-free power plants (see page 42).

The Linde Group has been active in the GTL segment for many years now. In South Africa, for example, we delivered two air separators at the end of the 1980s for the world's largest GTL complex at the time. Our South Africa-based customer PetroSA, formerly Mossgas, uses the plant to produce 34,000 barrels of diesel as well as kerosene, lubricant oils and naphtha from natural gas. Until recently, there was only one other GTL plant in the world – in Bintulu, Malaysia. However, work is starting this year on two new projects. Alongside the Shell plant, another complex has also been ordered in Qatar by our customer Sasol – a clear sign of the importance oil companies are placing on this new technology. The other plant will be constructed in Nigeria (see table on page 43).

Construction of the world's largest nitrogen plant

Linde and BOC's joint subsidiary Linde BOC Process Plants LLC (LBPP) completed work on the fifth air separation unit for the Mexican crude oil group PEMEX (Petroleos Mexicanos) in fiscal 2006. Identical in design to the existing four units, the system increases nitrogen yield at this location by 25 percent. The Linde Group is also working on a 55 megawatt power plant. PEMEX uses nitrogen to force crude oil to the surface in the nearby offshore development area. This project is a good example of the successful, long-standing collaboration between Linde and BOC in international plant construction. Details of other LBPP projects can be found in the info box on this page.

CO_2 sequestration – protecting the climate with Linde technology

Over the coming decades, we will continue to meet most of our rising energy needs with fossil fuels such as gas, oil and, in particular, coal. However, with the Kyoto Protocol, the industrialised countries have undertaken to significantly reduce CO_2 emissions. Time is pressing, particularly as experts worldwide are now also warning of dire effects on the global economy if we do not succeed in drastically reducing greenhouse gas emissions. In October 2006, Nicholas Stern, former Chief Economist of the World Bank, presented a report in collaboration with British Prime Minister Tony Blair and Chancellor of the Exchequer Gordon Brown. The Stern Review predicts a 20 percent drop in global GDP if climate change continues unchecked.

The challenge lies in minimising CO_2 emissions today without compromising the efficiency and profitability of industrial plants. Linde already plays a pioneering role in driving the technologies that will enable this transition.

One such technology is CO_2 sequestration. Carbon dioxide is separated from plant off-gases and stored underground to prevent it escaping into the atmosphere and harming the climate. Linde is currently supplying components for an emission-free power plant based on oxy-fuel technology to the energy group Vattenfall, for their pilot system at the Schwarze Pumpe plant in Lausitz, Germany. We are able to draw on our extensive expertise in cryogenic air (see glossary) and CO_2 separation for this 30 megawatt power plant, scheduled to commence operations in 2008.

Construction of a 250 to 600 megawatt oxy-fuel power station at the same location is also planned within the next decade, to be followed by a 1,000 megawatt commercial plant in 2020 with a competitive cost model.

Linde and BOC: long-standing collaboration // Linde and BOC have been working closely on various engineering projects for many years now. Linde has been delivering air separation and synthesis gas plants to BOC through the US-based joint venture Linde BOC Process Plants LLC (LBPP) in Tulsa, Oklahoma (USA), since fiscal 2002. The product portfolio has subsequently been expanded to include all types of plants.

Fiscal 2006 was no exception, with Linde and BOC working together on a series of projects. For instance, LBPP produced air separation units for BOC Korea to supply our customer Samsung Electronics with high-purity nitrogen for manufacturing purposes. Also in Asia, our joint venture constructed two nitrogen plants for BOC China. This allows us to supply customers in the electronic industry in Suzhou and Shanghai. In the US, LBPP provided a hydrogen facility in Toledo, Ohio (USA), for BOC to supply BP.

Gas-to-Liquids (GTL) // The use of natural gas to manufacture liquid fuels such as aeroplane kerosene and diesel is growing in importance due to shrinking oil reserves and environmental considerations. GTL products have the advantage of being sulphur-free.

GTL site (producing more than 10,000 barrels/day)

Name	Location	Opened	Capacity (barrels/day)	Operator/manufacturer
Mosselbay	Mosselbay/South Africa	1991	34,000	PetroSA
Bintulu	Bintulu/Malaysia	1993	14,000	Shell
Oryx	Ras Laffan/Qatar	2006	34,000	Sasol/QP
Escravos	Nigeria	2008	34,000	Sasol/Chevron
Pearl	Ras Laffan/Qatar	2009/2010	2x 70,000	Shell/QP

Major Hammerfest project // Europe's largest natural gas liquefaction plant on the Melkøya peninsula, off Hammerfest on the coast of Norway, will start operations at the end of 2007. Over the last fiscal year, the Engineering Division has connected the processing plant, completed work on the power plant and successfully implemented the Linde-supplied air separation unit. The entire contract is worth more than € 800 million for Linde.

A further example of CO_2 sequestration is the natural gas liquefaction plant in Hammerfest, Norway. Constructed by Linde, this is the first plant in the world where the carbon dioxide contained in natural gas is not only physically separated, but subsequently dehumidified, condensed and pumped back into storage. This reduces the CO_2 entering the atmosphere by around 700,000 tons per year.

The BP project in Peterhead, Great Britain, also allows carbon dioxide to be stored safely. The CO_2 generated is separated using a Linde system and pumped into an oil field. This protects the environment from the damaging effects of this gas while simultaneously increasing yield from the oil field.

As early as the start of 2003, Linde was already involved setting up the ENCAP programme (Enhanced Capture of CO_2, see info box on this page). ENCAP was officially kicked off in 2004, under the EU's Sixth Framework Programme, with a total of 33 partners. Its aim is to develop suitable technologies for CO_2 separation in power plant processes.

Provisional acceptance certificate for Linde helium plant

In June 2006, Linde's helium extraction, purification and liquefaction plant passed the test and received a provisional acceptance certificate (see glossary). The plant was commissioned by Helison Production S.p.A. Located in Skikda, near the Mediterranean coast of Algeria, the plant produces around 660 million standard cubic feet (19 million standard cubic metres) of helium annually. It also generates 100 tpd (tons per day) of liquid nitrogen and 40 tpd of gaseous nitrogen.

Major Hammerfest project on target

Work is advancing as planned on Europe's most northern natural gas liquefaction plant on the Melkøya peninsula, off Hammerfest on the coast of Norway. Over the last fiscal year, Linde connected, started and tested the processing plant for our customer Statoil. We also completed work on the power plant as scheduled. Five gas turbines are now supplying the energy required to run the plant, with emissions reduced to a minimum. The air separation unit, designed and constructed by Linde, also successfully commenced operations during the year under review. This unit delivers gaseous nitrogen to the entire Melkøya complex. A further milestone in this ambitious project was the successful completion of the first test run for the liquefaction plant in December 2006.

Linde manufactured the cold box (see glossary) as early as fiscal 2005 in Antwerp, Belgium. Positioned at the heart of the plant, this box was prefabricated in Germany at Schalchen, Bavaria and Bremen, before final assembly in Belgium. The 62 metre tower was then transported to Hammerfest by heavy-load ship. The cold box is where the actual liquefaction process takes place, cooling the natural gas from around 40 degrees to –163 degrees Celcius. These boxes contain several heat exchangers, separating columns and traps. When the gas flows through the heat exchangers, it gradually cools until it liquefies and shrinks to one six-hundredth of its volume.

The gas is pumped from the Barents Sea to Melkøya via pipeline. The pipeline on the sea bed will tap three new gas fields in succession as of 2007 – first the Snøhvit field, followed by the Askeladd and Albatross fields. Installed at a depth of around 300 metres, these systems are unmanned and are operated remotely from Melkøya.

ENCAP (Enhanced Capture of CO_2) // 33 industry partners and a number of universities and research bodies are involved in the ENCAP programme, which runs until early 2009. The total project budget is € 22 million. Key goals include the development of pre-combustion technologies, which significantly reduce CO_2 emissions from power plants. Linde's Engineering Division is currently involved in the subprojects "Process and Power Systems" and "High-Temperature Oxygen Generation of Power Cycles".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The opening of the new Linde Hydrogen Center near Munich, Germany, marks another important milestone on the journey towards a hydrogen infrastructure. With a hydrogen fuelling station, training centre and showroom, these facilities appear futuristic but demonstrate that hydrogen as an ecologically sound fuel of the future is no longer a utopian vision.

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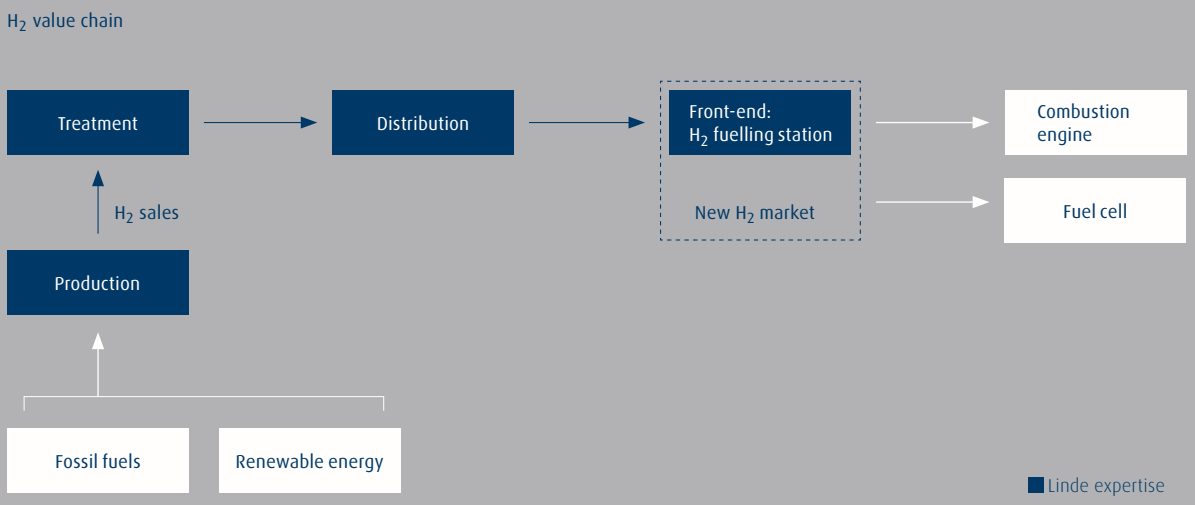
ClearEnergy

The future starts here

We are already developing the answers to tomorrow's challenges. Creation of The Linde Group through the merger of Linde and BOC puts us in a prime position to do so. A leading global manufacturer of hydrogen and helium, we play a key role in shaping the future evolution of hydrogen as a promising energy carrier. In addition, we have the resources and know-how to supply the rare noble gas helium in the quantities required by commercial, medical and scientific applications worldwide.

The market for hydrogen energy



H_2 value chain // Hydrogen is one of the most promising energy carriers of the future. Linde already has solutions in place extending across the entire value chain – from H_2 manufacture using fossil and renewable resources through storage, liquefaction and distribution in gaseous and liquid form to hydrogen fuelling stations with state-of-the-art nozzle connections.

As one of the world's largest hydrogen suppliers, The Linde Group is systematically putting the building blocks in place to position hydrogen as a future mobility enabler. Both Linde and BOC have achieved significant milestones in this area over the last fiscal year. The joint aim of our activities is to put the technology and infrastructure in place to allow hydrogen to be used as both as an environmentally friendly fuel and an innovative storage and transport medium for energy produced with regenerative sources. This means focusing on the entire hydrogen value chain, from production through storage and transport to refuelling. We are concentrating both on vehicles powered directly by hydrogen as well as on cars that turn gaseous hydrogen and atmospheric oxygen into electricity through fuel cells.

We operate numerous hydrogen production and supply facilities to meet future demands in this area. Both increasingly tight legal requirements regarding fuel purity and emissions and the depletion of fossil fuels (coal, crude oil and natural gas) call for a sense of responsibility and the foresight to develop alternatives and enabling technologies in good time.

The merger between Linde and BOC means we are ideally equipped to meet these challenges. The new company consolidates the strengths of both partners to form one of the industry's leading global players, now operating over 150 hydrogen production facilities worldwide.

Perfect team

Linde and BOC demonstrated their synergised strengths well before the merger with Linde BOC Process Plants (LBPP). This joint Linde-BOC subsidiary is based in Tulsa, Oklahoma (USA), and has been building plants for BOC for years. Last year, three hydrogen plants delivered to BOC by LBPP commenced operations in the US, for instance. The hydrogen complex on the Sunoco refinery site in Toledo supplies up to 120 million standard cubic feet of hydrogen per day (approximately 3,360,000 cubic metres) to the Sunoco and neighbouring BP refineries as well as other customers in the region. The facility also supplies the Sunoco refinery with steam.

In Lima, Ohio (USA), BOC invested around USD 40 million in equipment and pipelines to supply the Valero Energy Corp. refinery and other regional customers.

And the new facility in Salt Lake City, Utah, supplies the Chevron and Holly Corp. oil refineries there with over 26 million standard cubic feet of hydrogen daily (approximately 728,000 cubic metres).

Milestones on the way towards an end-to-end hydrogen infrastructure

In refineries, hydrogen is mainly used as a means of desulphurising and purifying conventional oil-based fuels. However, numerous development and demonstration projects are now focussing on building a hydrogen infrastructure and refuelling network for the future. The long-term aim of these projects is a gradual move towards a zero-emission society, largely relying on regenerative energy sources such as wind and hydropower, biomass and solar energy. Linde not only develops the enabling technologies for this transition, but also plays an active part in raising public awareness.

A significant milestone here was the official opening of the Linde Hydrogen Center in Unterschleißheim, near Munich, in October 2006. This unique facility demonstrates that Linde masters all technologies required for a fully functional hydrogen value chain. The Linde Hydrogen Center bundles a hydrogen fuelling station, technology test centre, training and events forum and presentation platform under one roof.

The heart of the facility is the fuelling station, which supplies a test fleet of hydrogen-fuelled cars and buses with both liquid hydrogen (LH_2) and compressed gaseous hydrogen (CGH_2). Refuelling an average of around ten hydrogen vehicles a day, the Linde Hydrogen Center is one of the busiest hydrogen fuelling stations in the world. It should soon be possible to obtain all the hydrogen required by the Linde Hydrogen Center from sustainable production methods. The Center's innovative measuring and control equipment provides our engineers, customers and partners with valuable insights for further research and development in fuelling technology.

traiLH2™ is a totally self-contained mobile refuelling unit // Thanks to its integrated fuel cell, which is supplied from the on-board hydrogen, it operates independently of existing power networks – giving drivers the freedom to "fill 'er up" just about anywhere. The hydrogen is stored in the semitrailer in liquid form. Given that LH_2 has a higher energy density than CGH_2, this increases the energy capacity.

Linde unveiled a key building block in the future hydrogen supply infrastructure at the 2006 FIFA World Cup™. traiLH2™ is an innovative mobile fuelling station for hydrogen-powered vehicles. Trials for this self-sufficient refuelling unit started in early summer last year, in the German state of North Rhine-Westphalia. traiLH2™ generates its own electricity from an integrated fuel cell and supplies both gaseous and liquid hydrogen. Vehicle refuelling is fully automated and operated by touch screen, allowing the user to select the type and amount of fuel required.

We also showcased traiLH2™ to international experts in autumn 2006 at the general assembly of the European Hydrogen and Fuel Cell Technology Platform (HFP) in Brussels. At this event, we used both stationary and mobile facilities to supply buses and cars with liquid and gaseous hydrogen. Linde also presented the latest developments in hydrogen and fuel cell technology at an accompanying exhibition.

Based on the success of the field trials, we are now planning to market this mobile solution worldwide. traiLH2™ is the ideal complement to stationary fuelling facilities, helping to extend a hydrogen infrastructure to rural and remote areas.

We established another landmark on the way to zero-emission transport in March 2006, when we opened Berlin's second public hydrogen fuelling station as part of the Clean Energy Partnership (CEP), one of the largest European projects devoted to sustainable mobility. The system is integrated into a conventional TOTAL service station. Counting the fuelling facilities on the Berliner Versorgungsbetriebe (BVG) public utilities site, this is the German capital's third station. Linde supplies all the H_2 fuelling, compression and storage technology, both for cryogenic liquid hydrogen and for compressed gaseous hydrogen up to 350 bar. The station is also designed to meet future needs for 700 bar compressed-gas storage tanks.

The new service station also provides a platform for the EU hydrogen project Hy-FLEET:CUTE. This project involves Europe's largest H_2 bus fleet – a total of 14 buses with hydrogen combustion engines operated by the BVG in Berlin. To simplify filling these vehicles, Linde installed a steam reformer in early 2006, which generates hydrogen on-site from a propane/butane mixture (LPG). The hydrogen from the steam reformer also supplies fuel cells, which deliver electrical power and heat to the TOTAL station shop.

The Zero Regio project went live in November 2006 after a two-year run-up. This EU-sponsored research and test project involves Linde collaborating with companies and research bodies from four European countries. Zero Regio concentrates on two European urban areas – the Rhein-Main district of Germany and the Lombardy region in Italy. Over the next three years, scientific tests there will evaluate the functionality of fuel-cell driven vehicles and hydrogen fuelling facilities integrated in conventional filling stations. Linde is using an innovative compression technology (ionic compressor – see glossary) to supply the Agip fuelling station on the edge of the German Hoechst industrial estate, compressing the hydrogen to almost 900 bar. A "liquid piston" achieves this extremely high pressure using salts that remain in a liquid state within certain temperature ranges. The pressure is necessary to bring the refuelling intervals for hydrogen-driven vehicles close to those of vehicles using conventional fuels.

BOC also pushes H_2 fuel

The last year has also seen further efforts by BOC to increase public awareness of hydrogen as a clean and sustainable fuel. BOC's Sustainable Energy Team participated in the National Hydrogen Association's annual meeting and exhibition in Long Beach, California, for example. BOC also sponsored public test drives in electric fuel-cell vehicles in Vancouver, Canada, and on the 115 kilometre Hydrogen Highway between Vancouver and Whistler during the biennial GLOBE environmental event.

BOC is currently involved in developing a fuel-cell-powered sports car, destined to set new standards in emissions, performance and reach. This LIFECar is based on the Morgan Aero Eight, equipped with four electric motors (one at each wheel). The motors draw their energy from a QinetiQ fuel cell.

Eco-friendly textile cleaning // Cleaning Enterprises, a subsidiary of The Linde Group, is marketing a new, environmentally friendly process for cleaning textiles under the brand name Fred Butler®. The innovative procedure replaces the commonly used agent perchloroethylene (perc) with carbon dioxide recycled from industrial applications. Building on the early successes of this process in various countries in Western and Northern Europe, Fred Butler® opened its first German branch in Frankfurt am Main on 17 May 2006.

With the Fred Butler® method, the articles for cleaning are picked up from convenient local drop-off points and delivered to central facilities. The laundry is placed in a sealable, drum-shaped cleaning chamber from which the air is expelled. Next, CO_2 gas is pumped in until the pressure is over 50 bar. Liquid CO_2 is added along with a small quantity of biodegradable surfactants and the cleaning process begins. The liquid CO_2 binds grease, oil and other dirt particles and gently removes them from the fibres. When cleaning is complete, distillation separates the impurities from the CO_2. The carbon dioxide can then be used in further cleaning cycles, with only around two percent escaping into the air. The procedure is free of unpleasant odours and poses no health risks.

The Fred Butler® CO_2 method has already received awards from several organisations, including the EU, for its eco-friendly ratings.

Available to private customers and corporate clients such as hospitals and institutional kitchens, Fred Butler® ensures the best care for sensitive fabrics and items such as leather, silk, furs and down quilts.

Global market leader for helium

The merger between Linde and BOC has also propelled The Linde Group to the forefront of the promising global market for the rare noble gas helium. Linde holds a 51 percent stake in the helium plant in Skikda, Algeria, and, with local partner Sonatrach, manages two joint venture companies – Helison Production Ltd. and Helison Marketing Ltd. BOC has been one of the world's leading helium suppliers for decades, a role consolidated by its purchase in 1977 of the Otis helium facility in Kansas, USA, which dates back to 1965. This facility now meets 16 percent of the global demand for helium. 85 percent of the gas is sourced in the USA, with the remainder coming from Algeria, Poland, Qatar and Russia.

Although helium is one of the universe's most abundant elements, it is very rare on earth. In the earth's atmosphere, the concentration of helium by volume is only 0.0005, which is much too low for extraction to be viable. However, helium can be extracted from natural gas. Through the disintegration of substances such as uranium and radium, it can reach concentrations of between 0.2 and five percent by volume.

Helium is extracted from natural gas by means of liquefaction. With a temperature of –268.92 degrees Celsius and a pressure of 1,013 bar, this liquid gas is then purified and stored or transported in special containers.

In past decades, helium was mainly used as a lifting agent for balloons and airships, but it now plays a crucial role in key modern technologies. Unique properties such as an extremely low level of reactivity, a low boiling point (–269 degrees Celsius), high thermal conductivity and high diffusibility make pure helium and helium mixtures ideal for a wide range of applications. These include welding and cutting (ships, space systems and aluminium frames for example), laser and measurement systems, fibre-optic cables and semiconductors and artificial atmospheres with oxygen. Helium is also used as a cooling agent in nuclear magnetic resonance (NMR) spectroscopy and magnetic resonance imaging (MRI – see glossary) systems. Due to the sheer range of possible applications, annual sales volumes far exceed 100 million cubic metres.

Expansion of logistics and production

To meet constantly rising demands for helium rapidly and cost-effectively, we are systematically expanding both our offering and the supporting distribution and logistics networks. For example, in February 2006, we opened a new logistics platform in Berre, north of Marseilles in France, to distribute liquid helium produced in Skikda, on the Mediterranean coast of Algeria. The special liquid helium containers delivered to Marseilles are stored temporarily in the 13,500 square metre facilities in Berre, allowing for safe and prompt delivery to customers in Europe and further afield. The expensive helium containers are also cleaned, maintained and, if necessary, repaired on-site at the logistics platform before returning them empty as regular cargo for refilling in Skikda.

Helison Marketing receives all helium produced in Skikda, selling it to Linde and other gas companies.

In May 2006, BOC opened a new distribution centre in the USA, exclusively for helium. Based in Montgomery, near Chicago, this centre supplies customers across the entire Midwest with gaseous and liquid helium and delivers all supporting services. It replaces the previous helium distribution facility at Carol Stream, Illinois.

BOC also expanded its global helium network with a new distribution centre in Dubai during the last fiscal year. This is the first BOC facility in the United Arab Emirates and has been operational since September 2006, allowing us to supply customers in the Middle East and Asia with liquid and gaseous helium extracted from natural gas at the huge North Field in Qatar. Qatar remains the only source of helium in the Middle East to date. After Russia and Iran, the emirate holds the largest natural gas reserves in the world.

Also during the last fiscal year, BOC began preparations in Australia for construction of the first company-owned production facilities for liquid helium in the southern hemisphere. Construction of the new plant, one of only 15 worldwide, starts in 2007. On completion, helium will be extracted from the liquid gas produced by a new Darwin LNG plant, liquefied, purified and distributed in special containers, primarily within the Australian market but also in New Zealand and Asia.

These new BOC facilities will produce 4.2 million cubic metres of liquid helium per year – between 2 and 3 percent of global demand.

Cryotechnology in science and research

Not only is Linde one of the world's leading helium suppliers, the company is also a leading light when it comes to system engineering and the possibilities of helium as a cryogenic agent. From medical diagnostics to satellite research and particle physics testing – a growing number of processes would not be possible without helium-based cryotechnology. Almost all major research bodies and many leading industrial companies rely on Linde's technology – to date the company has developed and delivered over one thousand cryogenic facilities.

New plants in the past fiscal year included a third helium liquefaction facility for Siemens Magnet Technology (SMT) in Oxford, England. BOC installed the Linde-engineered system on the SMT site and is currently also operating it for the customer. The aim is to meet the increased demand for liquid helium to cool the superconductive magnetic coils in the magnetic resonance imaging (MRI) systems produced there. The new helium liquefier complements the existing large-scale facilities for helium recovery and reliquefaction, also operated by BOC in collaboration with SMT in Oxford.

We have also strengthened our position on the Chinese MRI marketplace with a major new supply contract from AllTech Medical Systems. We will be supplying the company's MRI manufacturing facilities in the high-tech industrial zone in Chengdu, West China, with a helium technology package. This bundles liquid helium and liquid nitrogen with facilities for helium recovery and reliquefaction plus magnet-cooling services.

Herschel instrument cooling

At the start of 2008, an Ariane 5 rocket is set to blast off from the Kourou spaceport in French Guyana carrying the world's largest space telescope, Herschel. The satellite was developed by the European Space Agency (ESA) – with the assistance of Linde. Throughout the entire construction and test phase, we have been supplying the liquid helium required to cool the highly sensitive measuring instruments (such as cameras and spectrometers), integrated in a cryostat built and tested by EADS Astrium in Friedrichshafen, Germany. By the end of 2007, we will have delivered some 80,000 litres of liquid helium in total. When Herschel reaches its observation posts, 1.5 million kilometres from the earth, 2,000 litres of helium in the observatory cryostats will ensure the instruments are cooled to approximately –271 degrees Celsius for at least three years. Herschel will study the formation of galaxies in the early universe and their subsequent evolution. Featuring a mirror 3.5 metres in diameter, this new-generation telescope is the first space observatory covering the full far infrared and sub-millimetre waveband. The satellite is named after the German-born British astronomer Sir Frederick William Herschel, who discovered infrared radiation in 1800.

Herschel telescope // Due to be launched in 2008, the world's largest space telescope ever will be positioned 1.5 million kilometres away from earth – approximately 5 times the distance to the moon – to give us insights into the origin and development of stars and galaxies thousands of millions of light-years away. Featuring a mirror 3.5 metres in diameter, this new-generation telescope is the first space observatory covering the full far infrared and sub-millimetre waveband.

Helium cooling facilities for WENDELSTEIN project

Linde technology also plays a pivotal role in nuclear fusion research. The Max Planck Institute of Plasma Physics, Greifswald branch, placed an order with Linde Kryotechnik AG in Pfungen, Switzerland, for a helium refrigeration plant for the WENDELSTEIN 7-X fusion project. The system will be used to cool the superconductive magnetic coils and cryogenic vacuum pumps for the stellarator (see glossary), which is currently under construction and should be operational in 2008. The aim of fusion research is to generate energy by fusing atomic nuclei. Many chemical elements were created from hydrogen as a result of fusion. The most viable fusion under conditions achievable on earth is between the hydrogen isotopes deuterium and tritium. This generates a helium nucleus and releases a neutron and a large amount of energy. In a power plant, one gram of fuel could produce 90,000 kilowatt hours of energy, the equivalent to the combustion heat from eleven tons of coal.

Joint ILC project

Linde teamed up with Air Products in November 2006 for an important futuristic project. Together, the companies hope to win the contract to provide, operate and maintain the cryotechnology components for the planned International Linear Collider (ILC). Although the institutions involved in the project have not yet decided on the site for this linear elementary particle accelerator, Linde and Air Products expect to be shortlisted for cooling units and supporting equipment in 2007. We are confident that our joint expertise in cryogenics and helium technology will enable us to make a significant contribution to this innovative futuristic project.

In the ILC, electrons and positrons with energies of between 500 and 1,000 GeV (giga electron volts) will collide. At up to 40 kilometres, the length of the acceleration path will be over ten times that of the longest to date – SLAC in California, USA. Scientists intend to use the ILC to explore central questions about the nature of matter, energy, space and time, as well as researching dark matter, dark energy and the existence of extra dimensions.

Helium for superconductors (see glossary) // One of the uses of liquid helium in medical technology is cooling the superconductive magnetic coils in MRI systems. These systems allow high-resolution cross-sectional images of the human body in any plane.

Cold box for ISS // On 4 July 2006, the spaceship Discovery transported the MELFI (Minus Eighty Degree Laboratory Freezer for ISS) system to the ISS (International Space Station). The Engineering Division was part of the team of companies that spent eight years collaborating on the freezer system's development and construction. MELFI provides the ISS with storage facilities for biological samples and other degradable matter over a longer period. One of the challenges in developing MELFI involved storing samples at temperatures as low as –80 degrees Celsius. The other main challenge was to fit the system into the cupboard-like ISS payload rack.

The MELFI technology consists of a cold box to generate the cooling power, four cylindrical, double-walled cooling containers (dewars) each with 75 litre capacity, a vacuum-insulated piping system for cold-distribution and the electronics for system control. A cooling machine is used to generate a cold stream of gaseous nitrogen (Brayton cycle) in the cold box, transported to the four dewars via the 2,000 metre insulated pipe system. The temperature of each dewar can be regulated independently using control valves and they are able to house a large number of samples. MELFI has been designed for an operational lifespan of at least ten years.

Review of the year

January
Linde AG confirms its interest in acquiring the British company The BOC Group. This friendly approach is based on a cash offer of 1,500 British pence per share. A merger of the two companies would be a logical step, as Linde and BOC complement each other almost perfectly, both in terms of their markets and their products.

February
The Executive Board of Linde presents the annual financial statements for the 2005 financial year. "We have become more effective and efficient and are therefore well-equipped for the tasks which lie ahead," sums up Professor Wolfgang Reitzle, President of the Executive Board of Linde AG. Given the positive overall business performance, the Executive Board proposes to the Supervisory Board that a resolution be put to the vote at the Shareholders' Meeting on 4 May 2006 to increase the dividend from € 1.25 to € 1.40 per share.

March
Linde makes a conditional offer to purchase all the shares in The BOC Group for 1,600 British pence per share in cash. The BOC Board of Directors proposes recommending the acceptance of this offer by its shareholders. The submission of the acquisition offer is conditional on the approval of the EU and US competition authorities. The offer requires the approval of the BOC shareholders and the relevant English courts. The transaction is due to be completed in the third quarter of 2006.

April
In the first quarter of the 2006 financial year, Linde achieves significant increases in sales and operating profit (EBIT) and confirms its forecast for the whole year. "We have taken advantage of the good economic environment and have begun the new financial year at full pelt," comments CEO Reitzle.

May
The syndication of the credit which Linde AG will use to finance the acquisition of BOC is completed. The transaction involves Deutsche Bank, Commerzbank, Dresdner Kleinwort Wasserstein, Morgan Stanley and the Royal Bank of Scotland. The value of the credit is around € 15 billion.

June
The European Commission approves the acquisition of The BOC Group by Linde AG, subject to certain conditions. These relate to the disposal of Linde's gases business in the UK, BOC's gases operations in Poland and some customer contracts for ethylene oxide in the UK and Ireland. Linde also agrees to dispose of various helium supply contracts and to terminate certain joint ventures between BOC and Air Liquide in the Asia/Pacific region to the extent agreed with the Commission.

July
The US Federal Trade Commission (FTC) issues its approval of the acquisition of The BOC Group by Linde, subject to certain disposals. Linde agrees to sell eight air separation plants in the United States. Linde will also dispose of three supply contracts for liquefied helium with suppliers in the United States, Russia and Poland, together with the associated plants.

Via its financing subsidiary Linde Finance B.V., Linde issues a hybrid bond in two tranches worth a total of € 1.05 billion. The transaction is substantially oversubscribed.

At the same time, Linde successfully increases its share capital. Around 99.9 percent of the subscription rights for new shares are exercised. The proceeds of the issue are around € 1.8 billion. The capital increase and the hybrid bond are part of the refinancing of the offer to acquire all the shares in The BOC Group.

In the first six months of 2006, Linde achieves significant increases in sales and operating profit (EBIT). "What's special about this half-year is that we have continued to improve our business operations, while at the same time successfully meeting the additional challenges in the run-up to the proposed acquisition of BOC," explains CEO Reitzle.

August
Qatar Shell GTL Ltd, which belongs to the Royal Dutch Shell Group, and Qatar Petroleum award Linde the contract to build eight large air separation plants for the Pearl Gas-To-Liquids (GTL) plant in Ras Laffan Industrial City, Qatar. The Pearl GTL plant will be the largest integrated complex of its kind in the world. Linde will supply the plants to produce the required amount of oxygen, around 860,000 cubic metres per hour, making this the largest contract for air separation plants ever put out to tender.

The shareholders of The BOC Group ratify the proposed acquisition of the company by Linde at extraordinary general meetings in accordance with British legal procedures.

September

The merger of Linde and BOC to form The Linde Group creates a world-leading industrial gases and engineering group. On a pro forma basis, The Linde Group achieves annual sales of around € 12 billion and, with about 53,000 employees worldwide, an operating profit (EBIT) of € 1.6 billion. The Corporate Centre of the Group is established in two locations. The principal place of business is Munich, which is where the Executive Board is based, while a second head office with support functions is based in Surrey, England, near the former headquarters of The BOC Group.

The global interests of The Linde Group are also reflected at the highest management level of the new group. The top management team will consist of five members, led by Professor Wolfgang Reitzle (57), the President of the Executive Board of Linde AG. The other members of the Executive Board will be Dr. Aldo Belloni (56), already a member of the Executive Board of Linde AG, Kent Masters (45) and Trevor Burt (48) from the former BOC organisation, and Georg Denoke (41), previously responsible for finance at Linde Gas. He succeeds Dr. Peter Diesch, who will leave the Group at the end of the year at his own request.

October

In Lohhof near Munich, The Linde Group opens the Linde Hydrogen Center. This facility, unique in terms of its intended use, combines the functions of a hydrogen fuelling station with those of a technology test centre, training establishment and presentation platform. The capital outlay for the Hydrogen Center, which is equipped with the most up-to-the-minute technology, is € 3 million. The Center highlights the leading role of The Linde Group in the field of hydrogen technology.

November

The Linde Group achieves double-digit increases in sales and operating profit in the third quarter and, following the radical reorganisation of the past few months, paves the way for a successful future. "I am very confident that this trend will persist and that we will be able to exploit the huge opportunities for growth and synergies presented by the merger with BOC," says Wolfgang Reitzle, the President of the Executive Board of Linde AG.

The KION Group, which The Linde Group set up as a new legally independent umbrella company for the three brands (Linde, Still and OM) of forklift trucks and logistics equipment, is sold at a price of € 4 billion to a consortium comprising the financial investors Kohlberg Kravis Roberts & Co. (KKR) and Goldman Sachs Capital Partners. The validity of the contract is dependent on the receipt of approval from the appropriate competition authorities. This is a further milestone in the conversion of The Linde Group into a pure gases and engineering group.

December

Linde and the petrochemical company SINOPEC Qilu enter into an agreement to set up a joint venture company with equal shares, as well as a long-term supply agreement for industrial gases. The joint venture, which is called Zibo BOC Qilu Gases Co. Ltd, has an investment volume of around USD 64 million. In addition to the two existing air separation plants which SINOPEC Qilu brings into the joint venture, a new air separation plant is to be built in Zibo in the Chinese province of Shandong by March 2008. This will have a capacity of 1,500 tonnes of oxygen per day. The joint venture will supply SINOPEC Qilu, other companies in the region and export markets with more than 4,000 tonnes of oxygen, nitrogen and argon per day.

Supervisory Board

(As at 31 December 2006)

Members of the Supervisory Board

Dr Manfred Schneider
Chairman
Chairman of the Supervisory Board of Bayer AG

Hans-Dieter Katte [1]
Deputy Chairman
Chairman of the Pullach Works Council, Engineering Division, Linde AG

Michael Diekmann
Second Deputy Chairman
Chairman of the Executive Board of Allianz SE

Dr Karl-Hermann Baumann
Former Chairman of the Supervisory Board of Siemens AG

Dr Gerhard Beiten
Lawyer
Member of the Executive Board of Landesverband Bayern der Deutschen Schutzvereinigung für Wertpapierbesitz e.V. (DSW)

Dr Clemens Börsig
(appointed on 30 June 2006)
Chairman of the Supervisory Board of Deutsche Bank AG

Siegried Friebel [1]
Chairwoman of the Works Council of Linde-KCA-Dresden GmbH

Gerhard Full
Former Chairman of the Executive Board of Linde AG

Gernot Hahl [1]
Chairman of the Worms Works Council, Gases Division, Linde AG

Thilo Kämmerer [1]
Trade Union Secretary on the Executive Board of IG Metall Frankfurt

Klaus-Peter Müller
Spokesman for the Executive Board of Commerzbank AG

Prof Dr Jürgen Strube
Chairman of the Supervisory Board of BASF Aktiengesellschaft

Wilfried Woller [1]
Member of the Managerial Board responsible for management sector 5, IG Bergbau, Chemie, Energie

Supervisory Board committees

Members at 31 December 2006:
Standing Committee:

Dr Manfred Schneider
(Chairman)

Hans-Dieter Katte [1]
Michael Diekmann
Gerhard Full
Gernot Hahl [1]

Audit Committee:

Dr Karl-Hermann Baumann
(Chairman)

Gerhard Full
Hans-Dieter Katte [1]
Dr Manfred Schneider
Wilfried Woller [1]

Mediation Committee in accordance with § 27(3) German Codetermination Law:

Dr Manfred Schneider
(Chairman)

Hans-Dieter Katte [1]
Michael Diekmann
Gernot Hahl [1]

[1] Representing the employees.

Members of the Supervisory Board who have retired during the 2006 financial year:

Dr Josef Ackermann
(retired on 30 June 2006)
Chairman of the Management Board and Chairman of the Group Executive Committee of Deutsche Bank AG

Joachim Hartig [1]
(retired on 28 December 2006)
Chairman of the Works Council for Works I + II of Linde Material Handling GmbH & Co. KG

Kay Pietsch [1]
(retired on 28 December 2006)
Chairman of the Hamburg Works Council of STILL GmbH

Frank Zukauski [1]
(retired on 28 December 2006)
Director of the Cylinder Components Centre of STILL GmbH

Members of the Supervisory Board newly appointed in January 2007:

Jens Riedel [1]
(appointed on 22 January 2007)
Chairman of the Leuna Works Council, Gases Division, Linde AG

Josef Schregle [1]
(appointed on 22 January 2007)
Manager responsible for finance and financial control in the Engineering Division of Linde AG

Josef Schuhbeck [1]
(appointed on 22 January 2007)
Chairman of the Schalchen Works Council, Engineering Division, Linde AG

Imprint

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Published by
Linde AG
Abraham-Lincoln-Strasse 21
65189 Wiesbaden
Germany

Design
Peter Schmidt Group, Hamburg

Text
Linde AG

Photography
Rüdiger Nehmzow, Duesseldorf, front cover and pp. 2, 3, 4, 8, 10, 11, 22, 25, 36, 38, 39, 46, 48 and 49
Claudia Kempf, Wuppertal, pp. 6 and 7
The Linde Group, pp. 17 and 19
Laif, Köln, pp. 15 and 35
Getty Images, Munich, pp. 24, 28, 33 and 58
Corbis, Hamburg, p. 30
Mauritius Images, Hamburg, pp. 31, 43 and 59 (montage)
Stefan Schacher, Zurich, Switzerland, p. 44
Bernd Hoff, Duesseldorf, p. 52
Ulrich Nusko, Bern, Switzerland, p. 54
EADS ASTRIUM, p. 57
Fotosearch, Wankesha, USA, p. 59 (montage)

Production, typesetting and lithography
Brand Implementation GmbH, Hamburg

Printed by
Offsetdruck Raff, Riederich

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Our Annual Report, which includes the Linde Annual and the Financial Report of the Linde Group, is available in English and German. You can download either version from our website at www.linde.com. You will also find an interactive version of the Annual Report online.

If you require any additional information about the Linde Group, please contact our Investor Relations department. Our staff would be delighted to send you anything you need free of charge.

→ Glossary

Astigmatism
Regular astigmatism is the result of an irregularly shaped cornea. This makes round objects such as balls appear elongated. Irregular astigmatism describes a condition where the curve on one side of the meridian or axis is not symmetrical with the curve on the other side. The eye constantly tries to compensate for the resultant refraction errors, which can lead to headaches.

Cold box
Completely encased and fully equipped, ready-to-use unit comprising heat exchangers to separate gases at low temperatures.

Cryogenic air separation
Separation of gas mixtures by applying extremely low temperatures. For instance, air is separated into oxygen, nitrogen and noble gases.

Dry ice
Solid, frozen carbon dioxide (CO_2) that is similar to water ice in appearance but significantly colder (–79 °C). Dry ice does not occur naturally on earth, so is industrially manufactured. Its primary use is as a cooling agent, but it can also be used to generate CO_2 fog, for instance.

Excimer laser
An ultraviolet gas laser used in ophthalmology as a laser scalpel for lens correction. "Excimer" is a contraction of "excited" and "dimer". However, since the majority of Excimer lasers are now of the noble gas halide type, the term is actually a misnomer.

Fuel cell
A system in which hydrogen and oxygen react to form water without combustion (cold burning), generating a significant amount of electrical energy. So fuel cells transform chemical energy into electrical power.

Good Manufacturing Practice (GMP)
Quality control guidelines regulating production processes and environments for manufacturing pharmaceuticals, APIs and medical products, foods and animal feed. The European Commission, American FDA and International Conference on Harmonisation of Technical Requirements for Registration of Pharmaceuticals for Human Use (ICH) have all issued guidelines in this area.

Ionic compressor
Ionic compressors represent a quantum leap in gas compression technology, compressing gases at a constant temperature and operating without fixed (metal) compression pistons. Ionic compressors are based on three key elements:
- → Use of innovative ionic liquids (organic salts with melting points between –90 °C and +100 °C)
- → Replacement of the conventional fixed piston with a liquid piston
- → Near-isothermal compression in a single step, up to a compression ratio of one to thirty thanks to an internal cooling mechanism.

The benefits of this technology include: significant reduction in wear-and-tear parts, extended maintenance intervals, very low energy consumption in theory and practice thanks to isothermal compression, and multiple potential applications, for instance at natural gas and hydrogen fuelling stations.

Laser-MAG hybrid welding
A procedure that combines the technical benefits of metal inert gas (MIG) and metal active gas (MAG) welding with the high speed achieved by laser welding. The electrical arc and laser beam use the same process gas and function together in a molten bath.

Laser welding
A procedure in which the energy required for soldering is obtained from a laser beam. The high intensity of the beam generates a vapour capillary at the welding point, enabling high-speed welding, deep penetration and minimal distortion.

Magnetic resonance imaging (MRI)
An imaging procedure that allows examination of structures inside the human body. MRI generates cross-sectional images of the body using magnetic fields rather than X-rays.

Nanotechnology
Collective term for a wide range of technologies dedicated to the research, development and production of objects and structures smaller than 100 nanometres (one nanometre is one billionth of a metre, 10^{-9} m).

Partial oxidation (POX)
Refinery procedure that converts by-products (high-viscosity liquid hydrocarbons) using pure oxygen. This gasification reaction produces a gas mixture that primarily consists of hydrogen (H_2), carbon monoxide (CO) and carbon dioxide (CO_2). The mixture can be used as a synthesis gas or fuel, or as feedstock for hydrogen production.

Provisional acceptance certificate
Certificate indicating provisional acceptance of a plant by a customer, usually after successful testing. Final acceptance follows after expiry of the mechanical warranty periods (usually twelve or 24 months after provisional acceptance).

Rectification
Thermal separation procedure comprising several consecutive distillation steps. The main benefits of rectification are uninterrupted operation and more effective separation. The rate is several times higher than that obtained by distillation, since vapour in the counter-flow comes into contact with the liquid several times in succession.

Steam reformer
Plant for converting light hydrocarbons such as natural gas using water vapour in a cracking furnace. A hydrogenous gas mixture forms that is then used for chemical syntheses and to generate hydrogen.

Stellarator
Functional technology for fusion reactors. A stellarator confines plasma using a magnetic cage. In WENDELSTEIN 7-X, the magnetic field is generated by superconductive niobium–titanium coils. Liquid helium is used to keep the magnets at low temperatures.

Superconductor
Material that abruptly loses its electrical resistance and expels its interior magnetic field when cooled below its critical temperature, close to absolute zero.

Wafer
In the semiconductor, photovoltaic and micromechanics industries, a wafer is a circular or square slice, around one mm thick, on which electronic and micromechanical components or photoelectric layers are constructed. These slices are usually made of monocrystalline silicon with diameters of between 150 and 300 mm, although 450 mm is under discussion. The larger the wafer, the more integrated circuits (chips) it can hold, so the cheaper the production.

Published by

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