



# Leveraging Potential

FINANCIAL REPORT 2016

Leading.

  
THE LINDE GROUP

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Imprint

# LINDE FINANCIAL HIGHLIGHTS

<i>Linde Financial Highlights</i>		2015	2016	Change
<b>Share</b>				
Closing price	EUR	133.90	156.10	16.6%
Year high	EUR	193.85	163.55	-15.6%
Year low	EUR	128.05	115.85	-9.5%
Market capitalisation (at year-end closing price)	EUR m	24,857	28,978	16.6%
Earnings per share from continuing operations – undiluted	EUR	6.10	6.50	6.6%
Earnings per share from continuing operations – undiluted (before special items)	EUR	6.82	7.00	2.6%
Number of shares outstanding as at 31.12.	thou. units	185,638	185,638	–
<b>Group (continuing operations)</b>				
Revenue	EUR m	17,345	16,948	-2.3%
Operating profit <sup>1</sup>	EUR m	4,087	4,098	0.3%
Operating margin	%	23.6	24.2	+60 bp <sup>2</sup>
EBIT (earnings before interest and tax)	EUR m	2,029	2,075	2.3%
EBIT (before special items)	EUR m	2,221	2,201	-0.9%
Profit for the year	EUR m	1,236	1,327	7.4%
Return on capital employed (before special items)	%	9.5	9.4	-10 bp <sup>2</sup>
Number of employees as at 31.12.		59,774	59,715	-0.1%
<b>Gases Division</b>				
Revenue	EUR m	15,168	14,892	-1.8%
Operating profit <sup>1</sup>	EUR m	4,151	4,210	1.4%
Operating margin	%	27.4	28.3	+90 bp <sup>2</sup>
<b>Engineering Division</b>				
Revenue	EUR m	2,594	2,351	-9.4%
Operating profit <sup>1</sup>	EUR m	216	196	-9.3%
Operating margin	%	8.3	8.3	–

<sup>1</sup> EBIT (before special items) adjusted for amortisation of intangible assets and depreciation of tangible assets.

<sup>2</sup> Basis points.

# CORPORATE PROFILE

## THE LINDE GROUP

In the 2016 financial year, The Linde Group generated revenue of EUR 16.948 bn, making it one of the leading gases and engineering companies in the world, with approximately 60,000 employees working in more than 100 countries worldwide. The strategy of The Linde Group is geared towards long-term profitable growth and focuses on the expansion of its international business with forward-looking products and services. Linde acts responsibly towards its shareholders, business partners, employees, society and the environment in every one of its business areas, regions and locations across the globe. The company is committed to technologies and products that unite the goals of customer value and sustainable development.

## ORGANISATION

The Group comprises three divisions: Gases and Engineering (the two core divisions) and Other Activities (the logistics services company Gist). The largest division, Gases, has three segments: EMEA (Europe, Middle East and Africa), Asia/Pacific and the Americas. These segments are further subdivided into nine Regional Business Units (RBUs). In addition, Linde has established five Global Governance Centres (GGCs) for the Gases Division which are centrally managed and operate across the regions: GGC Merchant & Packaged Gases (liquefied gases and cylinder gas), GGC Electronics (electronic gases), GGC Healthcare, GGC Operations and GGC Deliver. The Group has also set up the Group-wide function Opportunity & Project Development in order to take better advantage of business opportunities.

## GASES DIVISION

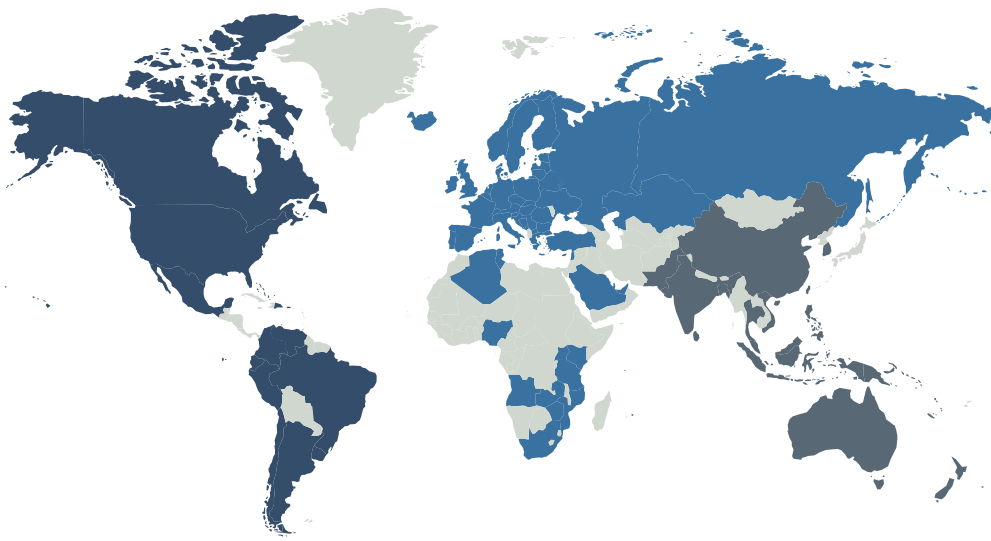
The Linde Group is a world leader in the international gases market. The company offers a wide range of compressed and liquefied gases as well as chemicals, and is the partner of choice across a huge variety of industries. Linde gases are used, for example, in the energy sector, steel production, chemical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

## ENGINEERING DIVISION

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

## THE LINDE WORLD

With its gases and engineering operations, Linde is represented in more than 100 countries around the world. The Gases Division has three segments: EMEA (Europe, Middle East and Africa), Asia/Pacific and the Americas. These segments are further subdivided into nine Regional Business Units (RBUs). This structure means that Linde is in the best position to respond to local and regional market conditions in the gases business and to meet its gases customers' requirements as effectively as possible. Active the world over, the Engineering Division specialises in olefin plants, natural gas plants, air separation plants and hydrogen and synthesis gas plants.



SEGMENTS WITHIN THE GASES DIVISION  
 ■ AMERICAS ■ EMEA ■ ASIA/PACIFIC ■ REGIONS WITHOUT LINDE GASES BUSINESS

## CUSTOMER SEGMENTATION WITHIN THE GASES DIVISION

FOOD & BEVERAGES	CHEMISTRY & ENERGY	METALLURGY & GLASS	MANUFACTURING INDUSTRY	ELECTRONICS	HEALTHCARE	OTHERS
Aquaculture & water treatment	Energy	Glass & fibre optics	Aerospace	Solar	Hospital care	Education & research
Beverages	Fine & petro-chemistry	Heat treatment	Automotive	Semi-conductor	Homecare	Retail
Food	Pharma	Non-ferrous	Heavy construction & machinery	Chip packaging	Gas therapies	Distributors
	Other chemistry	Steel	Light metal fab. & prod.		Care concepts	
		Other metallurgy & glass	Other manufacturing			

## OUR VISION

We will be the leading global gases and engineering company, admired for our people, who provide innovative solutions that make a difference to the world.

## OUR COMPANY VALUES

PASSION TO EXCEL.

INNOVATING FOR CUSTOMERS.

EMPOWERING PEOPLE.

THRIVING THROUGH DIVERSITY.

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# Group Governance

## SECTION 1

# LETTER TO THE SHAREHOLDERS





## Ladies and Gentlemen,

There is no doubt that 2016 was an eventful year, both at a social and political level, as well as at a level that affects us most, namely the economic level. We witnessed, and indeed are continuing to witness, radical changes brought about by digitalisation. We have seen elections and votes with surprising outcomes. And we have had to cope with a sustained low oil price, which comes on top of the global growth outlook over the course of the year, which also deteriorated further.

Despite this turbulence, we were able to perform to our expectations. Our Group revenue grew by 0.2 percent to total EUR 16.948 bn (excluding Gist) after adjustments to reflect exchange rate effects. We improved our Group operating profit by as much as 2.7 percent after adjusting for exchange rate effects. Our Group operating margin showed particularly encouraging development, increasing by 60 basis points year-on-year from 23.6 percent to 24.2 percent.

Dear shareholders, rest assured that we are doing everything in our power to continue to leverage the potential we have: we have a fundamentally stable business model focusing on sustainability, as well as competitive solutions and promising innovations. These give us an edge over our competitors.

As a result, we remain committed to maintaining a sustainable payout of dividends. At the Annual General Meeting on 10 May 2017, the Executive Board and Supervisory Board will propose the payment of a dividend of EUR 3.70 per share (2015: EUR 3.45 per share). This would see the dividend increase by 7.2 percent, ahead of the growth in our Group operating profit. This sends out a positive signal to you, our shareholders, and reflects our confidence in a stable and profitable business development in the future.

Looking ahead to the current 2017 financial year, we expect to see Group revenue development of somewhere in the range of -3 percent to +3 percent after adjustments for exchange rate effects. As far as Group operating profit is concerned, we expect this year to bring an increase, net of exchange rate effects, that is on a par with the 2016 increase and could come to as much as 7 percent. We have set a target of 9 to 10 percent for our return on capital employed.

It is also clear, however, that the outlook for the global economy will continue to remain tepid over the next years, which will come in conjunction with slower growth in industrial production as well. This will have a particular impact on what is by far our largest division, the Gases Division. We will also be confronted with considerable cost pressure and will have to hold our own in an aggressive competitive environment with peers that are operating on a lower cost basis than we are.

You, our shareholders, have clear expectations in terms of Linde's performance – and this is an area where we lag behind our competitors. This is why the targets set out above are closely linked to the measures taken as part of the LIFT programme that we launched in 2016. This programme is set to run for three years and entails numerous measures designed to ensure further increases in efficiency.

In December 2016, we announced that we are pursuing a merger of equals with our competitor Praxair. This merger would create value and would bring together two leading industrial gases companies and take advantage of their respective strengths. Linde's established position as a leader in technology would be combined with Praxair's operational excellence, from which a new global market leader would emerge. The merged company would have a strong position in all key regions and end markets, creating a balanced, more diversified global portfolio. This strategic merger would combine the potential, excellent employees and first-class processes of both companies.

Finally, I would like to take this opportunity, on behalf of the Executive Board, to thank all of our employees, for whom last year certainly cannot have been an easy one. Nevertheless, the dedication and commitment that they showed in their work for Linde did not suffer – quite on the contrary, as the figures show.

I am firmly convinced that we can build further on our success despite a very challenging market environment. Linde remains a strong company that enjoys an excellent position. An alliance with Praxair would put us in an even better position – this would be a good thing for Linde's employees, a good thing for our customers and a good thing for you, Linde's owners.



PROFESSOR DR ALDO BELLONI  
[CHIEF EXECUTIVE OFFICER OF LINDE AG]

## THE EXECUTIVE BOARD

**PROFESSOR DR ALDO BELLONI**  
**BORN 1950**

Doctorate in engineering [Dr.-Ing.]  
Chief Executive Officer

Responsible for Opportunity & Project Development, the Americas segment, the Healthcare Global Governance Centre and the Corporate & Support Functions Corporate Communications & Investor Relations, Corporate Internal Audit, Corporate Office, Corporate Strategy & Market Intelligence, Group Human Resources, Group Legal & Compliance, Group Information Services, Group Accounting & Reporting, Group Insurance, Group Mergers & Acquisitions, Group Risk Management, Group Tax, Group Treasury, Operational Finance, Controlling & Investments, Real Estate, SHEQ [Safety, Health, Environment, Quality], Gist, as well as for Finance/Controlling for the EMEA, Americas, Asia/Pacific segments  
Employment Director  
Member of the Executive Board since 2016

**DR CHRISTIAN BRUCH**  
**BORN 1970**

Doctorate in engineering [Dr.-Ing.]  
Degree in mechanical engineering

Responsible for the Engineering Division and for the Corporate & Support Function Technology & Innovation  
Member of the Executive Board since 2015

**BERND EULITZ**  
**BORN 1965**

Degree in engineering

Responsible for the EMEA [Europe, Middle East, Africa] segment and the Global Governance Centres Deliver and Operations, as well as the Corporate & Support Function Group Procurement  
Member of the Executive Board since 2015

**SANJIV LAMBA**  
**BORN 1964**

Chartered accountant  
Bachelor of Commerce

Responsible for the Asia/Pacific segment, the Global Governance Centres Merchant & Packaged Gases, Electronics and Global Gases Business Helium & Rare Gases  
Member of the Executive Board since 2011

THE EXECUTIVE BOARD



SANJIV LAMBA - PROFESSOR DR ALDO BELLONI  
BERND EULITZ - DR CHRISTIAN BRUCH  
[FROM LEFT TO RIGHT]

# THE SUPERVISORY BOARD

## Members of the Supervisory Board

**PROFESSOR DR WOLFGANG REITZLE**  
[CHAIRMAN]  
Former Chairman of the Executive Board of Linde AG  
(Member and Chairman of the Supervisory Board since 21 May 2016)

**HANS-DIETER KATTE**<sup>1</sup>  
[DEPUTY CHAIRMAN]  
Chairman of the Pullach Works Council,  
Engineering Division, Linde AG

**MICHAEL DIEKMANN**  
[SECOND DEPUTY CHAIRMAN]  
Former Chairman of the Board of Management  
of Allianz SE

**PROFESSOR DR ANN-KRISTIN ACHLEITNER**  
Professor at the  
Technical University Munich [TUM]

**DR CLEMENS BÖRSIG**<sup>2</sup>  
Chairman of the Board of Management  
of Deutsche Bank Foundation,  
Former Chairman of the Supervisory Board  
of Deutsche Bank AG

**ANKE COUTURIER**<sup>1</sup>  
Head of Global Pensions,  
Linde AG

**FRANZ FEHRENBACH**  
Chairman of the Supervisory Board of Robert Bosch GmbH,  
Managing Partner of  
Robert Bosch Industrietreuhand KG

**GERNOT HAHL**<sup>1</sup>  
Chairman of the Worms Works Council,  
Gases Division, Linde AG

**DR MARTIN KIMMICH**<sup>1</sup>  
SECOND Authorised Representative, IG Metall Munich

**DR VICTORIA OSSADNIK**  
Vice President (VP) Enterprise Services Delivery  
at Microsoft Deutschland GmbH  
(Member of the Supervisory Board since 7 January 2016)

**XAVER SCHMIDT**<sup>1</sup>  
Head of Department Chairman  
of IG Bergbau, Chemie, Energie Hanover

**FRANK SONNTAG**<sup>1</sup>  
Chairman of the Dresden Works Council,  
Engineering Division, Linde AG

Members who left the Supervisory Board on  
20 May 2016:

**DR MANFRED SCHNEIDER**  
[CHAIRMAN]  
Former Chairman of the Supervisory Board  
of Bayer AG

<sup>1</sup> Employee representative.

<sup>2</sup> Independent expert member as defined by § 100 (5) and § 107 (4) of the German Stock Corporation Act (AktG).

Memberships of other German statutory supervisory boards and comparable German and foreign boards are shown in ► [NOTE \[35\]](#) of the Notes to the Group financial statements.

## Supervisory Board committees

### MEDIATION COMMITTEE

[in accordance with § 27 (3) of the German Co-Determination Act (MitbestG)]

- PROFESSOR DR WOLFGANG REITZLE  
[CHAIRMAN]
- HANS-DIETER KATTE<sup>1</sup>
- MICHAEL DIEKMANN
- XAVER SCHMIDT<sup>1</sup>

### STANDING COMMITTEE

- PROFESSOR DR WOLFGANG REITZLE  
[CHAIRMAN]
- HANS-DIETER KATTE<sup>1</sup>
- MICHAEL DIEKMANN
- FRANZ FEHRENBACH
- GERNOT HAHL<sup>1</sup>

### AUDIT COMMITTEE

- DR CLEMENS BÖRSIG<sup>2</sup>  
[CHAIRMAN]
- PROFESSOR DR ANN-KRISTIN ACHLEITNER
- GERNOT HAHL<sup>1</sup>
- HANS-DIETER KATTE<sup>1</sup>
- PROFESSOR DR WOLFGANG REITZLE

### NOMINATION COMMITTEE

- PROFESSOR DR WOLFGANG REITZLE  
[CHAIRMAN]
- MICHAEL DIEKMANN
- FRANZ FEHRENBACH

<sup>1</sup> Employee representative.

<sup>2</sup> Independent expert member as defined by § 100 (5) and § 107 (4) of the German Stock Corporation Act (AktG).

Memberships of other German statutory supervisory boards and comparable German and foreign boards are shown in ► [NOTE \[35\]](#) of the Notes to the Group financial statements.

## REPORT OF THE SUPERVISORY BOARD



Dear stakeholders,

During the reporting year, the Supervisory Board conducted detailed reviews of the Group's situation, its prospects and its strategic development, as well as the future long-term positioning of The Linde Group and key individual initiatives. We monitored and advised the Executive Board in the running of its business operations in accordance with the duties assigned to us by law, the articles of association and the Supervisory Board's procedural rules. Through verbal updates at our meetings and in the form of written reports, the Executive Board regularly provided us with timely and comprehensive updates on company performance, the economic situation, profitability and plans for the company and its subsidiaries, as well as briefing us on all issues relevant to the strategy being pursued by the company and its subsidiaries, planning, business development, the risk situation, risk management and compliance. We assessed the plausibility of all documents presented to us and regularly consulted the Executive Board on significant issues. The Supervisory Board was involved in all major decisions made by the company. These include Executive Board transactions and measures requiring the approval of the Supervisory Board. This applies in particular to the annual capital expenditure programme, major acquisitions, divestments, and defined capital and financial measures.

In our committees and at meetings of the full Supervisory Board, we carried out critical reviews of the reports and proposed resolutions submitted by the Executive Board and put forward our suggestions. The

Chairman of the Supervisory Board also ensured that he remained up to date on the current business situation, significant business transactions and decisions taken by the Executive Board. He maintained close contact with the Executive Board and with the Chief Executive Officer in particular, sharing information and ideas, and held regular consultations with the CEO on the Group's strategy, planning, business development, risk situation, risk management and compliance. On the basis of the reports submitted by the Executive Board and the auditors report, the Supervisory Board was able to satisfy itself as to the effectiveness of the risk monitoring system set up in accordance with § 91 (2) of the German Stock Corporation Act (AktG). At no time during the year did the Supervisory Board have any objections in relation to the sound and efficient management of the Group.

## Meetings and resolutions of the Supervisory Board

A total of eight Supervisory Board meetings were held in the 2016 financial year: four scheduled and four extraordinary meetings. The members of the Supervisory Board each took part in more than half of the meetings of the Supervisory Board and the committees of which they are members. In detail, the members of the Supervisory Board took part in the meetings of the Supervisory Board and its committees as follows:

### DISCLOSURE REGARDING PARTICIPATION IN MEETINGS OF THE SUPERVISORY BOARD AND THE SUPERVISORY BOARD COMMITTEES OF LINDE AG BY THE INDIVIDUAL SUPERVISORY BOARD MEMBERS IN THE 2016 FINANCIAL YEAR<sup>1</sup>

Supervisory Board members	Supervisory Board and committee meetings <sup>1</sup>	Participation	Attendance in %
Dr Manfred Schneider (Chairman) (until 20.05.2016)	7	6	86
Professor Dr Wolfgang Reitzle (Chairman) (as of 21.05.2016)	10	10	100
Hans-Dieter Katte (Deputy Chairman)	16	16	100
Michael Diekmann (Second Deputy Chairman)	13	11	85
Professor Dr Ann-Kristin Achleitner	12	12	100
Dr Clemens Börsig	12	10	83
Anke Couturier	8	8	100
Franz Fehrenbach	13	13	100
Gernot Hahl	16	16	100
Dr Martin Kimmich	8	8	100
Dr Victoria Ossadnik (as of 07.01.2016)	8	8	100
Xaver Schmidt	8	8	100
Frank Sonntag	8	8	100

<sup>1</sup> This does not include the work of the Supervisory Board members outside of meetings of the Supervisory Board and the committees of which they are members.

Once again during the reporting year, the Supervisory Board's advisory and monitoring activities focused on the Group's growth prospects, its individual lines of business and its reportable segments. We regularly discussed the potential impact of the global economic situation and currency effects, the impact of oil price developments and the order situation in the plant construction sector with the Executive Board, alongside issues relating to the development of individual markets, while also discussing how to plan for the future and considering the stability of future developments. The Supervisory Board took an in-depth look at the efficiency improvement measures launched in 2015 and 2016, as well as the possible merger with the US industrial gas company Praxair, Inc. Another focal point of the Supervisory Board's work in 2016 related to the changes within the Supervisory Board and Executive Board of Linde AG.

After a thorough review of the documents submitted and detailed discussions on the proposals of the Executive Board, the Supervisory Board granted all the necessary approvals. In 2016, the resolutions adopted by the Supervisory Board were adopted at meetings as a general rule. Supervisory Board members who were unable to attend in person participated in the passing of resolutions by casting their votes in writing. Two Supervisory Board resolutions were passed in written proceedings. In detail, the Supervisory Board focused on the following issues in 2016:

**January 2016** – On 25 January 2016, we elected Franz Fehrenbach, by way of a written resolution, to succeed Klaus-Peter Müller, who had left the Supervisory Board with effect from 31 December 2015, as a member of the Standing Committee and the Nomination Committee of the Supervisory Board.

On 29 January 2016, the shareholder representatives on the Supervisory Board passed a resolution on the use of the option provided for in § 96 (2) sentence 3 of the German Stock Corporation Act (AktG) and notified the Chairman of the Supervisory Board that they rejected total compliance with the minimum gender distribution levels within the Supervisory Board of Linde AG.

**March 2016** – At our meeting held on 9 March 2016, we discussed in detail and approved the annual financial statements of Linde AG and the Group financial statements for the year ended 31 December 2015 and agreed the proposed appropriation of earnings. We also addressed the 2015 mandatory EMIR audit pursuant to § 20 of the German Securities Trading Act (WpHG), a system audit on compliance with the requirements set out in the Securities Trading Law. On the basis of a proposal made by the Standing Committee, we agreed on the targets reached in relation to the variable cash emoluments and total emoluments earned by the individual Executive Board members for 2015. In addition, we issued the declaration of compliance with the German Corporate Governance Code and adopted

the Report of the Supervisory Board and the Corporate Governance Report for 2015, the further development of the targets regarding our composition, as well as the agenda for the Annual General Meeting, including the proposed resolutions. In addition to its regular reports on business performance and the general position of The Linde Group, the Executive Board also presented us with an updated plan for the 2016 financial year and the updated medium-term business plan. This included information on variances from the prior-year budget. The Executive Board also presented a focus report on the Engineering Division.

**May 2016** – Immediately before the Annual General Meeting on 3 May 2016, the Executive Board reported on business performance in the first quarter of 2016, current business development and Linde's economic situation. We also discussed the mode of settlement for the matching shares rights that members of the Executive Board had acquired as part of the 2012 stock option plan and whose waiting period expired in 2016. After having been given detailed explanatory information, and conducting a detailed discussion, on the recommendation of the Standing Committee, we also approved the request made by Executive Board member Thomas Blades regarding the premature cancellation of both his appointment as member of the Executive Board and his existing contract of employment. Additionally, the meeting was used to prepare for the subsequent shareholder meeting.

Immediately after the Annual General Meeting held on 3 May 2016, another Supervisory Board meeting was held at which we elected Professor Dr Wolfgang Reitzle as the successor of Dr Manfred Schneider in the role of Chairman of the Supervisory Board and of the Mediation Committee with effect from 21 May 2016.

**June 2016** – On 20 June 2016, we used written proceedings to set the timing and terms and conditions of Thomas Blades' departure from the company.

**July 2016** – An extraordinary strategy meeting was held on 26 July 2016. The Executive Board reported on its assessment of business, market and competitive developments, and on a possible merger with Praxair, Inc. The meeting was also used to address personnel matters relating to the Executive Board.

**September 2016** – On 12 September 2016, the shareholder representatives on the Supervisory Board recommended, in agreement with the CEO, that the preliminary talks with Praxair, Inc. on a possible merger of the two companies be ended. It turned out that it had not been possible to reach an agreement on certain detailed issues that had been discussed – particularly with regard to governance. The fact that the merger made sense from a strategic point of view, however, had not been called into question.

The extraordinary Supervisory Board meeting held on 13 September 2016 focused on personnel matters relating to the Executive Board. The Standing Committee



recommended, following a comprehensive assessment and critical evaluation of the overall situation, that Georg Denoke be dismissed both as CFO and from his role as Employment Director. The Supervisory Board unanimously approved this recommendation and implemented it on the very same day. We also appointed Dr Wolfgang Büchele as the new Employment Director in addition to his existing duties. Dr Wolfgang Büchele used this meeting to announce to the Supervisory Board that he would no longer be available for an extension of his term of office on the Executive Board of Linde AG, which will end on 30 April 2017.

At our meeting on 27 September 2016, the Executive Board outlined in detail the economic situation facing The Linde Group and its divisions, described the outlook for the full 2016 financial year and delivered focus reports on the Healthcare product area and the Engineering Division. The meeting also focused on progress made in implementing the strategies highlighted in earlier years, strategic development and the Group's competitive environment. The latest developments in relation to strategy and the competitive position of The Linde Group and its divisions were covered in detail. Key questions discussed included the strategic positioning and direction of Linde and its divisions, and projects considered or launched in this regard, as well as the impact of such projects on The Linde Group's financial position, net assets and results of operations. Finally, the Supervisory Board also discussed the succession planning for the Executive Board.

**December 2016** – Our meeting held on 7 December 2016 addressed current business developments. On the basis of comprehensive documentation, we also dealt with the preview of the 2016 financial statements, the budget for the 2017 financial year and the medium-term business plan for the years 2018 to 2020, including financial, capital expenditure and human resources plans. The Executive Board explained any variances between the plans and targets and the actual results, providing reasons for these variances. We also discussed the proposal made by the Executive Board to have the 2017 investment programme approved in detail. After careful examination, we granted our approval. After the Executive Board had received and assessed a modified proposal for a possible merger among equals with Praxair, Inc. at the end of November 2016, it presented strategic options for action to us. We discussed these models in detail and gained a comprehensive picture of the opportunities and risks, the entrepreneurial and strategic objectives being pursued, the feasibility of the transaction and its impact on our company. The Supervisory Board supported the resumption of talks with Praxair, Inc. At this meeting, Dr Wolfgang Büchele also made an offer to the Supervisory Board to resign from his position as member of the Executive Board, Chief Executive Officer and Employment Director at the end of 7 December 2016. The Supervisory

Board accepted this offer and, with effect from 8 December 2016, appointed Professor Dr Aldo Belloni as member of the Executive Board, Chief Executive Officer and Employment Director of Linde AG until the end of 31 December 2018. We also passed a resolution on the terms and conditions of Dr Wolfgang Büchele's departure and Professor Dr Aldo Belloni's return.

In a special meeting held on 20 December 2016, we consented to the signing, by the Executive Board of Linde AG, of a term sheet, which has no legally binding effect, on the key terms and conditions of a potential merger of Linde AG and Praxair, Inc.

## Committees and committee meetings

The Supervisory Board continues to have four committees: the Mediation Committee, formed under § 27 (3) of the German Co-Determination Act (MitbestG), the Standing Committee, the Audit Committee and the Nomination Committee. The Chairman of the Supervisory Board chairs all the committees with the exception of the Audit Committee. The current members of each committee are listed on ► [PAGE 7](#). Information about the responsibilities of each committee is given in the Corporate Governance Report on ► [PAGES 14 TO 21](#). The committee chairmen reported in detail on the agendas and outcomes of their committee meetings at the plenary Supervisory Board meeting following their sessions.

The Standing Committee of the Supervisory Board held four meetings during the reporting year. The Chairman of the Standing Committee also remained in close contact with the other committee members outside meetings in order to liaise on particular issues. The Standing Committee addressed personnel matters relating to the Executive Board and prepared Supervisory Board decisions on personnel matters. The Standing Committee also gave its consent to members of the Executive Board taking up mandates and secondary occupations with other companies, establishments and institutions.

The Audit Committee met on four occasions during the year under review in the presence of the auditors, the Chief Executive Officer and the Chief Financial Officer/interim CFO. It discussed and reviewed in detail the annual financial statements of Linde AG and the Group financial statements, the management reports, the proposed appropriation of profits and the audit reports, including the report on the audit focus and the oral presentation by the auditors of the main results of the audit. The Audit Committee raised no objections on the basis of its reviews. No significant weaknesses in the accounting-related internal control system or in the system for the early identification of

risks were detected by the auditors. The Executive Board also discussed the interim and half-year financial reports with the Audit Committee, taking into account auditor's report on the review conducted, prior to their publication. In addition, this Committee prepared the proposal from the Supervisory Board on the appointment of the auditors at the Annual General Meeting, issued the audit mandate to the auditors, determined the audit focus and agreed the audit fees. The Audit Committee monitored the independence, qualifications, rotation and efficiency of the auditors and the services provided by the auditors in addition to the audit itself. It also entered into an agreement with the auditors in accordance with the Group's internal rules about the provision of services not related to the audit, and the auditors informed the Committee at each of its meetings about the fees it had charged in relation to such services. Furthermore, it kept up to date on the evolution of the risk management system and compliance structures, compliance issues, any legal or regulatory risks, the risk position and the identification and monitoring of risk within the Group. The Audit Committee also reviewed the evolution of internal control systems within the Group based on a presentation by the Executive Board. It received a report on the structure, roles and responsibilities within the Internal Audit department, on its audit work and the audit plan for 2016. The Audit Committee was briefed on the effectiveness of the internal control system, risk management system and internal audit system; it discussed the findings in detail and was duly satisfied as to the efficacy of the systems in question. The Executive Board also briefed the Audit Committee on a regular basis with regard to the status of various activities relating to the external and internal financing of the Group and the safeguarding of its liquidity. Other issues included the 2015 mandatory EMIR audit pursuant to § 20 of the German Securities Trading Act (WpHG), the possible implications of Brexit for our company and current legal and accounting developments. For selected agenda items, department heads also attended meetings of the Audit Committee, submitting reports and answering questions. In addition, the Chairman of the Audit Committee held talks on issues of significance in the periods between committee meetings, with the Chairman of the Supervisory Board, Chief Executive Officer, the interim CFO and the auditors in particular. The Audit Committee and, where necessary, the Supervisory Board were regularly apprised of the outcome of these discussions.

The members of the Nomination Committee discussed succession planning for the Supervisory Board on several occasions outside of meetings. They prepared the proposed resolution of the Supervisory Board to be presented to the Annual General Meeting on 3 May 2016 on the Supervisory Board by-election.

Once again, the Mediation Committee did not need to be convened in 2016.

## Corporate governance and declaration of compliance

We continually monitor changes to the German Corporate Governance Code and permanently verify that the provisions are being implemented correctly. In March 2017, the Executive Board and the Supervisory Board issued an updated declaration of compliance in accordance with § 161 of the German Stock Corporation Act (AktG) and made it permanently available to its shareholders on the company's website. ► [WWW.LINDE.COM](http://WWW.LINDE.COM). Further information on corporate governance at Linde can be found in the Corporate Governance Report. ► [SEE PAGES 14 TO 21](#).

## Annual financial statements and Group financial statements

KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, (KPMG) audited the annual financial statements of Linde AG prepared in accordance with the principles set out in the German Commercial Code (HGB), as well as the consolidated financial statements of The Linde Group for the year ended 31 December 2016 prepared in accordance with IFRS as adopted by the European Union including the combined management report of Linde AG and The Linde Group in accordance with German generally accepted standards for the audit of financial statements and in supplementary compliance with International Standards on Auditing (ISA). The auditors have confirmed that the Group financial statements and the combined management report meet the requirements set out in § 315a (1) of the German Commercial Code (HGB) and have issued unqualified opinions on both the Group financial statements and annual financial statements. In accordance with the terms of its engagement, KPMG performed audit reviews of the interim and half-yearly financial reports in the 2016 financial year. At no time did these reviews give rise to any objections. KPMG also confirmed that the system for the early identification of risks complies with legal requirements; no risks posing a threat to the Group's viability were identified. In the 2016 financial year, the audit focused on the "Assessment of the internal control system for long-term construction contracts of Linde AG – Engineering Division". No significant weaknesses in the accounting-related internal control system or in the system for the early identification of risks were detected by the auditors. Once again during the reporting year, the auditors declared their independence to the Audit Committee.

The documents relating to the financial statements and the audit reports were issued to all members of the Supervisory Board in good time. They were then

the subject of extensive deliberations at the Audit Committee meeting on 7 March 2017 and the meeting of the Supervisory Board to approve the financial statements on 8 March 2017. The auditors took part in the discussions both at the Audit Committee meeting and at the meeting of the full Supervisory Board. They presented the main results of their audits and were able to provide supplementary information and to answer questions. The Audit Committee also presented the results of its review to the Supervisory Board. We conducted our own examination of all of the documents submitted and the audit reports and discussed them in detail. After considering the results of the preliminary review by the Audit Committee and the final results of our own review of the documents submitted to us by the Executive Board and by the auditors, we find no grounds for objection and concur with the results of KPMG's audit. We hereby approve and adopt the financial statements of Linde AG and the Group financial statements for the year ended 31 December 2016 as drawn up by the Executive Board; the annual financial statements of Linde AG are hereby final. We also approve the Executive Board's proposal for the appropriation of profits.

We would like to thank the gentlemen who have left the Supervisory Board and the Executive Board for their many years of particularly committed cooperation. We would also like to thank the Executive Board and all employees worldwide for their hard work and performance during the last financial year.

MUNICH, 8 MARCH 2017  
ON BEHALF OF THE SUPERVISORY  
BOARD



PROFESSOR DR WOLFGANG REITZLE  
[CHAIRMAN OF THE SUPERVISORY  
BOARD OF LINDE AG]

## Changes to the composition of the Supervisory Board and the Executive Board

Dr Victoria Ossadnik was appointed by court to the Supervisory Board of Linde AG on 7 January 2016 after Klaus-Peter Müller had resigned from the Supervisory Board on 31 December of the previous financial year. On 3 May 2016, the Annual General Meeting elected her as shareholder representative on the Supervisory Board for the remaining term of office of the other Supervisory Board members. Dr Manfred Schneider also resigned as member and Chairman of the Supervisory Board with effect from the end of 20 May 2016 and left the Supervisory Board on this date. The Annual General Meeting elected Professor Dr Wolfgang Reitzle to the Supervisory Board to replace Dr Manfred Schneider with effect from 21 May 2016. The members of the Supervisory Board elected Professor Dr Wolfgang Reitzle as their new Chairman. An overview of the composition of the Supervisory Board and its committees is provided on ► [PAGES 6 TO 7](#).

The following members left the Executive Board: Thomas Blades (as at 30 June 2016), Georg Denoke (as at 13 September 2016) and Dr Wolfgang Büchele (as at 7 December 2016). Professor Dr Aldo Belloni was appointed as member of the Executive Board and Employment Director with effect from 8 December 2016. The Supervisory Board appointed him to succeed Dr Wolfgang Büchele as Chief Executive Officer.

## CORPORATE GOVERNANCE

# CORPORATE GOVERNANCE DECLARATION AND CORPORATE GOVERNANCE REPORT

### Compliance with the German Corporate Governance Code and declarations of compliance

Linde AG follows the German Corporate Governance Code presented by the Government Commission on the German Corporate Governance Code and as amended from time to time. In March 2016, the Executive Board and Supervisory Board of Linde AG issued a declaration of compliance with the recommendations of the German Corporate Governance Code as amended on 5 May 2015 in accordance with § 161 of the German Stock Corporation Act (AktG) and made this declaration permanently available to the public on the Linde website.

There were no changes or additions to the German Corporate Governance Code after the submission of the declaration in March 2016. The Executive Board and Supervisory Board of Linde AG studied the requirements of the German Corporate Governance Code in detail before issuing the following declaration of compliance in March 2017.

“The Executive Board and the Supervisory Board of Linde AG declare in accordance with § 161 of the German Stock Corporation Act:

All the recommendations of the Government Commission on the German Corporate Governance Code as amended on 5 May 2015 have been complied with since the last declaration of compliance and except for the following exception will be complied with in future.

#### *Clause 4.2.3 para 2 sentence 6*

In accordance with clause 4.2.3 para 2 sentence 6 of the German Corporate Governance Code the Executive Board members’ remuneration in total and its variable components should be capped at a given maximum amount. Employment contracts with Executive Board members do not include a ceiling for the Executive Board members’ total remuneration; variable components are capped as is described below.

The components of the variable cash emoluments are limited in terms of amounts. The Long Term Incentive Plan which provides for remuneration in the form of options to purchase shares (performance shares) and bonus shares linked to personal investment (matching shares) has a cap in terms of amounts at the time of the granting of option rights and matching shares rights. However, the value of the performance shares and matching shares after a multi-year qualifying period is not limited in terms of amounts. An additional cap like that was not deemed appropriate. In such a case, the synchronisation of interests of shareholders and Executive Board members to be achieved by share-based remuneration would be disrupted, which in our opinion would not be in the shareholders’ interest.

Since in future the value of the performance shares and the matching shares after expiration of a multi-year qualifying period are not to be capped, a ceiling for the remuneration amount will not be set in future.”

The current declaration of compliance and past declarations of compliance with the German Corporate Governance Code are available on the company’s website at ► [WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE](http://WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE).

Linde AG also complies with the suggestions made in the Code, with only one exception:

The Code suggests that it should be possible for shareholders to follow the Annual General Meeting via modern communication media (e.g. the Internet). We transmit the opening remarks made by the Chairman of the Supervisory Board and also the Chief Executive Officer’s speech, but not the general discussion. In principle, the articles of association permit the transmission of the Annual General Meeting in full via electronic media. However, out of respect for shareholders’ privacy, we do not transmit the contributions of individual speakers. Nevertheless, we will continue to follow developments closely.

## Corporate governance practices

Linde AG has traditionally attached great importance to sound, responsible management and supervision geared towards the creation of sustainable value added. Our success has always been based on close and efficient cooperation between the Executive and Supervisory Boards, consideration of shareholders' interests, an open style of corporate communication, proper accounting and audit procedures as well as a responsible approach to risk and to statutory and Group-internal rules and regulations.

Linde upholds high ethical standards. These are set out, among other things, in core values (Linde Spirit) and in the Code of Ethics, both of which apply across the Group. The Executive Board has also issued its own guidelines on competition/antitrust law, preventing corruption, the engagement of sales agents, occupational safety, environmental and health protection, quality and procurement. Like the Linde Spirit and the Code of Ethics, these guidelines apply to all employees throughout The Linde Group.

### Compliance

To reinforce compliance with both legal regulations and voluntary principles, the Group has a global compliance organisation. Linde's Group-wide compliance activities are focused in particular on antitrust law, the fight against corruption, export control and data protection. A binding risk analysis process (compliance risk assessment) was introduced in 2014, covering the issues of general compliance, antitrust law and corruption. The full-time employees working in Compliance are affiliated to Group Legal. Compliance officers have been appointed in the divisions, business units and operating segments to support Group-wide observance of the compliance programme. The Chief Compliance Officer coordinates and implements compliance measures. The Executive Board and the Audit Committee of the Supervisory Board are regularly informed about the current state of progress in the compliance organisation, including measures aimed at communicating existing rules of conduct to employees, training employees in those rules and updating the rules as necessary. Training is provided for Linde employees worldwide. Classroom-based courses are supplemented by a Group-wide e-learning programme. We thereby create a working environment in which our employees are entirely familiar with our rules and guidelines.

The Integrity Line reporting system is an important element of the compliance framework at The Linde Group. It enables both internal and external stakeholders to raise issues or report any doubts or suspicions that they might have. If an internal investigation reveals that the doubts or suspicions raised

were justified, a prescribed process is used to determine which measures are required. Linde also checks that these measures have actually been implemented.

Information on Linde's core values and compliance policy can be found on the company's website at ► [WWW.LINDE.COM/GUIDELINESCOREVALUES](http://WWW.LINDE.COM/GUIDELINESCOREVALUES) and ► [WWW.LINDE.COM/CORPORATEGOVERNANCE](http://WWW.LINDE.COM/CORPORATEGOVERNANCE).

### Executive Board and Supervisory Board procedures

Linde AG, which has its registered office in Munich, is governed by the provisions of the German Stock Corporation Act (AktG) and the German Co-Determination Act (MitbestG), capital market regulations and the rules set out in its articles of association. The Executive Board and Supervisory Board are responsible for the management and supervision functions assigned to them. They cooperate closely in the interests of Linde to ensure the continuation of the Group as a going concern and to create sustainable value added. They must act in the interests of the shareholders and for the benefit of the Group.

### Executive Board

The Executive Board of Linde AG is responsible for managing the company and conducting its business. Its actions and decisions are geared towards the best interests of the Group, taking into consideration the concerns of shareholders, employees, customers and other stakeholder groups. Its aim is to create sustainable value for stakeholders. The Executive Board establishes the strategic direction of the Group, agrees this strategy with the Supervisory Board, ensures it is properly implemented and reviews the progress made during regular discussions with the Supervisory Board. It is also responsible for annual and multi-year business plans, Group financing and the preparation of quarterly, half-yearly, annual and Group financial statements. In addition, the Executive Board ensures that appropriate risk management and risk control systems are in place and provides regular, timely and detailed reports to the Supervisory Board on all relevant Group issues including strategy, medium-term business plans, business trends, the risk situation, risk management and compliance with legal regulations and internal Group guidelines. The Executive Board also takes the necessary measures to facilitate compliance in the Group companies.

Given the Group's extensive reach across international markets and industry sectors, the Executive Board is responsible for ensuring that this diversity is reflected at management level. The goal is to put together the best teams worldwide. The Group's HR strategy includes the definition, delivery and continuous evolution of Group-wide talent development programmes. Linde supports intercultural diversity by adopting an international human resources policy and

making appointments across national borders. Another of Linde's main priorities in the area of diversity is the promotion of female managers. The Executive Board is supporting numerous employee initiatives to promote women. These include networking events, training programmes for women with management responsibility or leadership potential, and an internal mentoring scheme. Regarding the proportion of women working at the two levels of management below Executive Board level, the Executive Board has set targets in line with the Act on the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector (*Gesetz für die gleichberechtigte Teilhabe von Frauen und Männern an Führungspositionen in der Privatwirtschaft und im öffentlichen Dienst*). The proportion of women in the first management tier below the Executive Board is to come to 14 percent (11 percent at Linde AG) by 30 June 2017 and 18 percent (18 percent at Linde AG) by 30 June 2022. In 2016, the proportion of female senior managers in this tier was 16 percent (2015: 11 percent). In the second management tier below the Executive Board, Linde is aiming for the proportion of women to rise to 17 percent (15 percent at Linde AG) by 30 June 2017 and 22 percent (20 percent at Linde AG) by 30 June 2022. This figure was 18 percent in 2016 (2015: 16 percent). Information on these targets and on diversity in The Linde Group can be found in the report ► [EMPLOYEES](#) on ► [PAGES 71 TO 73](#).

Key Executive Board activities and transactions require the approval of the Supervisory Board. This applies in particular to the annual capital expenditure programme, major acquisitions, divestments, and defined capital and financial measures. The Supervisory Board can also specify special approval requirements in individual cases. While in office, members of the Executive Board are bound by a detailed restraint clause. Any conflicts of interest must be disclosed immediately to the Supervisory Board, as well as to fellow Board members. No such conflicts of interest arose for any member of the Executive Board during the reporting period.

The procedural rules of the Executive Board govern the work it performs, the allocation of responsibilities to individual members, the issues which must be dealt with by the full Executive Board and the majority required for resolutions to be passed by the Executive Board. The Executive Board passes resolutions at meetings held on a regular basis. A simple majority of the votes cast is sufficient for a resolution to be passed, unless a greater majority is prescribed by law. If the vote is tied, the Chairman has the casting vote. Without prejudice to the collective responsibility of all members of the Executive Board, each member of the Executive Board has individual responsibility for the functions assigned to him when the decisions of the Executive Board are being made. It is incumbent upon the Chairman of the

Executive Board to assume responsibility not only for the functions assigned to him, but also to coordinate all areas of responsibility entrusted to the Executive Board in a proper manner. He is the main point of contact between the Executive Board and the Supervisory Board and represents the company in public.

At 31 December 2016, the Executive Board consisted of four members. At the moment, the Executive Board has exclusively male members, with one falling into the over-40 age group, two in the over-50 age group and one in the over-60 category. Professor Dr Aldo Belloni exceeded the standard age limit for Executive Board members set out in the procedural rules. When Professor Dr Aldo Belloni was appointed member of the Executive Board in December 2016, the Supervisory Board also took the age limit that applies to Executive Board members into account, but opted to appoint Professor Dr Aldo Belloni as member and Chairman of the Executive Board on special grounds. The appointments to the Executive Board also take into account the international operations of The Linde Group. Professor Dr Aldo Belloni is an Italian citizen, while Sanjiv Lamba is a citizen of India. The composition of the Executive Board is also such that all of the required areas of expertise are covered.

As at the balance sheet date, no member of the Executive Board was a member of supervisory boards of listed companies outside The Linde Group or of comparable supervisory bodies of other business entities. Information about memberships held by the members of the Executive Board who were in office in the 2016 financial year on other German statutory supervisory boards or comparable German and foreign boards of business entities is given in ► [NOTE \[35\]](#) of the Notes to the Group financial statements.

The Executive Board has no committees.

Information on the composition of the Executive Board and on individual Board members, including their responsibilities and duties, may be found in the overview on ► [PAGE 4](#) or on the Linde website. The CVs of Executive Board members are available on the Linde website.

### **Supervisory Board**

Equal numbers of shareholder representatives and employee representatives sit on the Supervisory Board of Linde AG, which comprises, in accordance with the company's articles of association, the minimum number of members as specified in the relevant regulations. Currently, the minimum number specified by law is twelve. The appointment of the members of the Supervisory Board is also governed by the relevant legal regulations. The current term of office of the members of the Supervisory Board ends with the closure of the Annual General Meeting in 2018. The shareholder representatives are elected individually

at the election to the Supervisory Board at the Annual General Meeting. The Supervisory Board's Nomination Committee prepares for the election of shareholder representatives with the Annual General Meeting. When proposing candidates to the Supervisory Board, it takes into account the targets set by the Supervisory Board in terms of its composition, as well as such criteria as the requirements of the German Stock Corporation Act (AktG), the Corporate Governance Code and the Supervisory Board's procedural rules. The composition of the Supervisory Board is balanced to ensure that its members collectively possess the knowledge, skills and professional experience necessary to enable them to discharge their duties in a group with global operations in a fit and proper manner. All Supervisory Board members must ensure that they have sufficient time to perform those duties. When submitting proposals to the Annual General Meeting regarding the election of new Supervisory Board members, the Supervisory Board checks that the candidates are able to invest the time likely to be required. At present, no members of the Supervisory Board sit on the executive board of a listed company. New members are provided with comprehensive induction documents and information upon their appointment to the Supervisory Board. The members of the Supervisory Board and the Supervisory Board committees complete the training or professional development measures necessary for the performance of their duties on their own initiative. Also during their meetings and at specialist lectures conducted by internal and external experts that are organised specifically for the Supervisory Board, they take an in-depth look at issues that are of fundamental significance to the company. In 2016, for example, these issues included changes in the legal requirements resulting from the EU Statutory Audit Regulation and the German Audit Reform Act (Abschlussprüfungsreformgesetz), as well as developments and their strategic impact on key markets in the Healthcare business.

The Supervisory Board appoints the Executive Board and monitors and advises the Executive Board in the running of its business operations. Executive Board decisions that are of fundamental importance to the Group require the approval of the Supervisory Board. With regard to the composition of the Executive Board, the Supervisory Board considers diversity in addition to the appropriate professional qualifications of candidates. The "Act on the Equal Participation of Women and Men in Leadership Positions in the Private Sector and the Public Sector" subjects Linde AG to the obligation to set targets for the proportion of women on the Executive Board and at the two levels of management below the Executive Board. These targets have to be met by 30 June 2017 for the first time. In the medium and long term, the Supervisory Board is aiming to have at least one woman on the company's Executive Board.

Given the short period of time available to meet this target by the maximum deadline of 30 June 2017 set by the legislator, it does not, however, believe that this target can be met. The appointment periods and terms of the employment contracts of all Executive Board members expire after 30 June 2017. To prevent setting a target that the Supervisory Board does not feel is realistic or in the interests of the company given the resources at its disposal, the Supervisory Board has set a target of 0 percent, which corresponds to the current status quo, for the period leading up to 30 June 2017. This does not, of course, rule out a situation in which the Supervisory Board would consider the aim of increasing the proportion of women in the Executive Board if it had to fill an unexpected vacancy on the Executive Board before this point in time. This was also the case when the position of Chief Executive Officer had to be filled in December 2016.

The Chairman of the Supervisory Board coordinates the work of the plenary Supervisory Board and chairs its meetings. He is responsible for ensuring that resolutions passed by the Supervisory Board and its committees are duly executed and he is authorised to issue the statements on behalf of the Supervisory Board required to implement the resolutions of the Supervisory Board and its committees. The Chairman of the Supervisory Board maintains close contact with the Executive Board and the Chairman of the Executive Board in particular throughout the year, sharing information and ideas. The Supervisory Board regularly meets at the beginning of its meetings without the Executive Board.

### *Targets of the Supervisory Board regarding its composition*

The Supervisory Board has defined the following specific targets for its composition in accordance with clause 5.4.1 of the German Corporate Governance Code. These take into account the particular situation of the Group, the Group's international reach, potential conflicts of interest, the number of independent Supervisory Board members, an age limit for Supervisory Board members, a regular limit on the length of membership of the Supervisory Board and the need for diversity.

#### → **International expertise**

With operations in more than 100 countries, The Linde Group has a global footprint. To reflect this, at least five of the Supervisory Board members should have extensive international expertise.

#### → **Potential conflicts of interest and independence**

At least 75 percent of the Supervisory Board members should have no direct or indirect business, financial or personal ties with the company or its corporate bodies, a controlling shareholder or a company affiliated with the latter, that could constitute a significant and not just temporary conflict of

interest or give rise to concerns regarding partiality. The mere existence of an employment relationship between employee representatives and the company or its affiliated companies does not preclude impartiality as described above. Supervisory Board members should not have management or advisory roles on the executive bodies of the main competitors of The Linde Group. No more than two former Executive Board members should sit on the Supervisory Board.

- **Age limit for Supervisory Board members**  
Supervisory Board members should be no older than 72.
- **Standard threshold for membership of the Supervisory Board**  
The Supervisory Board has set three terms of office as the maximum period of membership of the Supervisory Board. This maximum threshold is to be adhered to as a general rule.
- **Diversity**  
The Supervisory Board is committed to diversity in its composition and to the fair representation of women in particular. As Linde Aktiengesellschaft is a listed stock corporation that is subject to the provisions of the German Co-Determination Act (MitbestG), the Supervisory Board comprises at least 30 percent female members and at least 30 percent male members in line with the principles set out in § 96 (2) of the German Stock Corporation Act (AktG).

The current composition of the Supervisory Board matches the above-stated objectives and the areas of expertise currently covered by its membership include engineering, law and economics, as well as finance, accounting and financial control. All of the members of the Supervisory Board are familiar with the sector in which the company operates.

Thanks to professional experience gained during their careers to date, all of the current Supervisory Board members have a particular level of international expertise. No conflicts of interest arose for any member of the Supervisory Board during the 2016 financial year. Where such conflicts of interest do occur, they must be disclosed immediately to the Supervisory Board. No Supervisory Board members currently have management or advisory roles on the executive bodies of any of Linde's major competitors. Four Supervisory Board members, Anke Couturier, Gernot Hahl, Hans-Dieter Katte and Frank Sonntag, are company employees. No other consultancy, service or work contracts have been concluded between Supervisory Board members and the company. One Supervisory Board member, Professor Dr Wolfgang Reitzle, is a former member of the company's Executive Board. When he was elected by the 2016 Annual General Meeting, the two-year cooling-off period required for Executive Board members of

a listed company in accordance with § 100 (2) No. 4 of the German Stock Corporation Act (AktG) was taken into account. No member of the Supervisory Board reached the age limit. The Supervisory Board currently has two members in the over-40 age category, five members in the over-50 category and five members in the over-60 category. Two of the Supervisory Board members elected by the employees in 2013, Gernot Hahl and Hans-Dieter Katte, have been members of the Supervisory Board since 1998. As part of the election for a replacement Supervisory Board member in 2016, the proportion of women on the Supervisory Board was increased to 33 percent on the side of the shareholder representatives. Total compliance with the objectives regarding gender distribution on the company's Supervisory Board has been rejected. The minimum gender distribution levels set out in § 96 (2) sentence 1 AktG have been met on the shareholder side. The Supervisory Board currently includes a total of three women, Professor Dr Ann-Kristin Achleitner and Dr Victoria Ossadnik on the shareholder representative side, and Anke Couturier on the employee representative side. This means that the Supervisory Board is currently 25 percent female.

The procedural rules of the Supervisory Board include rules regarding the independence of its members. No member of the Supervisory Board is in a personal or commercial relationship with the company or its bodies that could represent a conflict of interests. Furthermore, no member of the Supervisory Board currently sits on the executive board of a company with which Linde has a business relationship. Linde AG has no controlling shareholder whose relationship with a member of the Supervisory Board could jeopardise that member's independence. Consequently, the Supervisory Board is composed exclusively of individuals with a sufficient level of independence.

In its procedural rules, the Supervisory Board has also set out regulations governing regular reviews to determine the efficiency of its activities. In accordance with the procedural rules, the last review was conducted at the end of 2015. Based on the outcome of this efficiency review, suggestions regarding, in particular, future personnel changes and additional topics to be addressed by the Supervisory Board were implemented in 2016. Information about the members of the Supervisory Board and their memberships of other legally prescribed German supervisory boards and/or comparable German or foreign boards of business entities is given in ► [NOTE \[35\]](#) of the Notes to the Group financial statements. The CVs of Supervisory Board members are available on the Linde website.

### **Supervisory Board committees**

The Supervisory Board has four committees, which lay the groundwork for the plenary Supervisory Board. If it is permitted by law and laid down in the procedural rules of



the Supervisory Board, decision-making powers may in individual cases be delegated by the Supervisory Board to these committees. The Chairman of the Supervisory Board chairs all the committees with the exception of the Audit Committee. The committee chairmen report back to the Supervisory Board on the work of their committees, doing so at the first plenary Supervisory Board meeting following the committee meeting.

The Standing Committee, which comprises three shareholder representatives and two employee representatives, advises the Supervisory Board in particular on the appointment and dismissal of members of the Executive Board and on decisions regarding the remuneration system for the Executive Board, including the terms and conditions of employment contracts, pension contracts and any other contracts pertinent to the remuneration of Executive Board members, and the total remuneration of individual Executive Board members. Moreover, the Standing Committee is responsible for approving transactions with Executive Board members and related parties, as well as for approving other activities of the Executive Board members, especially the holding of positions on supervisory boards and comparable boards of business entities that are not part of The Linde Group. It also provides advice on long-term succession planning for the Executive Board and reviews the efficiency of the work of the Supervisory Board on a regular basis.

The Audit Committee similarly comprises three shareholder representatives and two employee representatives. It lays the groundwork for the decisions of the Supervisory Board regarding the adoption of the annual financial statements and the approval of the Group financial statements, taking account of the auditors reports, and makes arrangements with the auditors. It supports the Supervisory Board in the execution of its supervisory duties and monitors, in particular, the accounting process and the effectiveness of the internal control system, risk management system and internal audit system, as well as the statutory audit. It also deals with compliance issues. The Executive Board also discusses the interim and half-year financial reports with the Audit Committee prior to publication. The Audit Committee also makes a recommendation to the plenary Supervisory Board regarding the proposal for the election of the company's auditors. In common with the member of the Audit Committee Professor Dr Ann-Kristin Achleitner, the Chairman of the Audit Committee, Dr Clemens Börsig, has specialist knowledge and many years experience of financial reporting and the application of accounting principles and internal control systems.

The Nomination Committee comprises the Chairman of the Supervisory Board, the Second Deputy Chairman of the Supervisory Board and one other shareholder representative. It makes recommendations to the

Supervisory Board on proposed candidates for the election of shareholder representatives at the Annual General Meeting.

The Mediation Committee, formed under the provisions of the German Co-Determination Act (MitbestG), comprises the Chairman of the Supervisory Board, the Deputy Chairman of the Supervisory Board (elected by the employee representatives on the Supervisory Board), one shareholder representative and one employee representative. It makes suggestions to the Supervisory Board regarding the appointment of Executive Board members if the required majority of two-thirds of the votes cast by Supervisory Board members is not obtained in the first ballot.

The Supervisory Board and its committees pass resolutions at meetings which are convened on a regular basis.

The names of those sitting on the Supervisory Board and on the Supervisory Board committees when the annual financial statements were being prepared are given on ► [PAGES 6 TO 7](#) or may be consulted on the Internet at ► [WWW.LINDE.COM/SUPERVISORYBOARD](http://WWW.LINDE.COM/SUPERVISORYBOARD). Information about the activities of the Supervisory Board and its committees, about the work it has done with the Executive Board, as well as a disclosure regarding participation in meetings by the individual Supervisory Board members in the 2016 financial year is provided in the Report of the Supervisory Board.

► [SEE PAGES 8 TO 13.](#)

## Additional corporate governance information

### *Annual General Meeting*

The shareholders assert the rights accorded to them by law and by the articles of association either before or during the Annual General Meeting by exercising their right to vote. Each share entitles the shareholder to one vote.

The Annual General Meeting takes place within the first six months of each financial year. Notice of the Annual General Meeting, together with the reports and documents required by law for the meeting, including the financial report, is published, along with the agenda for the meeting, the conditions governing participation, an overview of shareholder rights, forms for voting by post, plus shareholder counter-motions and nominations, on the Linde website in both German and English, and is thus easily accessible for shareholders. Notice of the Annual General Meeting and the associated documents may also be transmitted electronically to shareholders if they so wish.

Shareholders who are unable to attend the Annual General Meeting or who leave the meeting before voting

has commenced have the option of exercising their vote through a proxy of their choice or a proxy appointed by the company who then votes in accordance with their instructions. Proxy forms may also be submitted in electronic form. Moreover, shareholders have the option of casting their votes without appointing a proxy in writing or using electronic media (ballot by mail).

The Executive Board of Linde AG presents the annual financial statements and Group financial statements, together with the combined management report, for approval at the Annual General Meeting. The Annual General Meeting passes resolutions regarding the appropriation of profits, the ratification of the acts of the Executive Board and Supervisory Board, the appointment of the auditors and generally also the election of shareholder representatives to the Supervisory Board. Decisions are also made at the Annual General Meeting about the content of the articles of association, key structural measures, capital measures and the authorisation to repurchase shares. The meeting has the opportunity to approve the remuneration system for Executive Board members. Once the Annual General Meeting has closed, the results of the votes on each agenda item are published on the company's website without delay.

#### ***Consequential loss and liability insurance***

The company has taken out consequential loss and directors and officers liability insurance (D & O) for the members of the Executive Board and Supervisory Board. For members of the Executive Board, the retention in accordance with legal rules is 10 percent of the claim, up to a figure of one and a half times the fixed annual emoluments of the Board member in question. An appropriate retention has been agreed for members of the Supervisory Board in accordance with the recommendation set out in the German Corporate Governance Code.

#### ***Directors' dealings***

Linde AG publishes without delay as stipulated by law transactions subject to notification pursuant to Article 19 of the Market Abuse Regulation which have been executed by the persons named therein, in particular transactions carried out by members of the executive bodies of the company and related parties involving shares in, and debt instruments issued by, in the company or related financial instruments. The transactions reported to Linde AG in the past financial year can be accessed on the company's website.

#### ***Interests in share capital***

The total holdings of all the members of the Executive Board and Supervisory Board in Linde AG shares or related financial instruments during the financial year did not exceed 1 percent of the shares issued by the company.

On 31 December 2016, Executive Board members held a total of 120,000 shares and share options in Linde AG (0.065 percent of shares issued), while Supervisory Board members held a total of 41,000 shares and share options in Linde AG (0.022 percent of shares issued).

#### ***Remuneration of the Executive Board and Supervisory Board***

The remuneration report, which also includes information on the share-based emoluments, can be found on [PAGES 22 TO 37](#) of this financial report.

#### ***Communications and stakeholder relations***

Linde AG complies with the legal requirement to treat all its shareholders equally. Transparency plays an important role and the company always aims to provide shareholders and the public with comprehensive, consistent and up-to-date information. Linde makes extensive use of the Internet as a reporting tool. Comprehensive facts and figures about Linde are available online. Interested parties can subscribe to an electronic newsletter on the company's website or keep up to date on the latest Linde developments via social media.

A financial calendar, which is also published on Linde AG's website, keeps our shareholders and the general public informed about the dates of the company's main recurring publications, the Annual General Meeting, the Press Conference on the annual results and analyst conferences. Linde AG publishes ad-hoc announcements, press releases and notifiable securities transactions (directors' dealings) in the media specified by the law and on its website. The company's articles of association are also available on its website. Four times in the financial year, Linde reports to its shareholders on its business performance, the net assets, financial position and results of operations of the Group, the forecast for the future, and opportunities and risks. Linde provides information to the capital market and to the public every quarter through analyst conferences and press conferences or in the form of teleconferences. These coincide with the publication of quarterly, half-year and annual results. Regular events where the CEO and CFO meet institutional investors and financial analysts also ensure a continual exchange of information with the financial markets. The dates and locations of roadshows and investor conferences are published on the Linde website. The presentations given at these events are also available to view on the website, which additionally contains video and audio recordings of major events.

Linde considers not only the interests of its shareholders but also the concerns of its stakeholders, who are a key element in the Group's success. As far as possible, all stakeholders are included in corporate communications. Linde's stakeholders include all of its employees, customers and suppliers, as well as trade associations and government bodies.

**Accounting, audit and risk management**

Linde AG prepares its Group financial statements and the Group half-year financial report and interim financial reports in accordance with International Financial Reporting Standards (IFRS) as adopted by the European Union. The preparation of the statutory annual financial statements of Linde AG, on which the dividend payment is based, complies with German commercial law (HGB). The annual financial statements and the Group financial statements are prepared by the Executive Board, examined by the Supervisory Board and audited by the auditors. As required by law, the members of the Executive Board confirm that, to the best of their knowledge, the annual financial statements, the Group financial statements and the combined management report provide a true and fair view, describing the main opportunities and risks associated with the likely future development of the Group and the company. The audit procedures are in accordance with German auditing regulations and German generally accepted standards for the audit of financial statements promulgated by the Institut der Wirtschaftsprüfer (the Institute of Public Auditors in Germany) and, in the case of the Group financial statements, also comply with International Standards on Auditing. The audit procedures also include a review of the system for the early identification of risks. The Audit Committee meets the Executive Board to discuss the interim and half-year financial reports in detail prior to publication.

In May 2016, the Supervisory Board issued the mandate for the audit of the annual financial statements and Group financial statements to KPMG AG Wirtschaftsprüfungsgesellschaft, Berlin, who had been appointed at the Annual General Meeting as auditors of the annual financial statements and Group financial statements for the 2016 financial year and had also been appointed to conduct audit reviews of the interim and half-year financial reports for the 2016 financial year. KPMG/a predecessor company has been the auditor of the annual financial statements of Linde AG since 31 December 1984. Since the 2013 financial year, Mr Klaus Becker has been signing the annual financial statements, with Mr Harald von Heynitz providing his signature, as the auditor responsible for the audit (Global Lead Partner), since the annual and Group financial statements for 2015. The auditors issued a detailed declaration confirming their independence to the Audit Committee of the Supervisory Board. There were no conflicts of interest. It was agreed with the auditors that the Chairman of the Supervisory Board and the Chairman of the Audit Committee would be informed immediately during the audit of any potential reasons for the disqualification of the auditors or for their lack of impartiality, unless these could be eliminated without delay. The auditors were obliged to report immediately all the significant audit findings and events arising from the audit that have an impact on

the duties of the Supervisory Board. The auditors have also undertaken to inform the Supervisory Board if they discover facts in the course of their audit which reveal any inaccuracies in the company's declaration of compliance with the German Corporate Governance Code.

Linde has reporting, monitoring and risk management systems in place which are continually being updated and adapted by the Executive Board to take account of changing circumstances. The internal audit department performs reviews at regular intervals of the efficiency and effectiveness of the risk management system and the internal control system. The auditors also assess the system in place for the early identification of risk and provide regular reports on their findings at a global level to the Executive Board and Supervisory Board. Additionally, the Audit Committee supports the Supervisory Board in monitoring the activities of executive management and also deals with risk management issues in this context. It receives regular reports from the Executive Board about risk management, the risk position, and the identification and monitoring of risks. In addition, it is informed on a regular basis about existing risks and the evolution of those risks. Moreover, the Audit Committee has agreed with the auditors that, if necessary, they will report to the Committee any significant weaknesses that they identify in the internal control system in relation to the accounting process and in the system for the early identification of risks. Further details about risk management in The Linde Group are provided in the Opportunity and risk report on ► [PAGES 82 TO 95](#). This includes the report on the accounting-related internal control system.

# REMUNERATION REPORT

(PART OF THE  
COMBINED MANAGEMENT REPORT)

The remuneration report sets out the structure, basic features and amount of the remuneration payable to members of the Executive Board and Supervisory Board. It forms part of the combined management report for Linde AG and The Linde Group and takes account of the recommendations of the German Corporate Governance Code. The remuneration report also contains the information which is legally required under the provisions of the German Commercial Code (HGB). This information is therefore not repeated in the Notes to the Group financial statements.

## Remuneration of the Executive Board

The full Supervisory Board is responsible for determining the total emoluments of each individual member of the Executive Board. In line with the procedural rules of the Supervisory Board, it is incumbent upon the Standing Committee to do the groundwork so that the Supervisory Board can pass resolutions relating to remuneration.

The remuneration system for the Executive Board, described in more detail below, has applied since 1 January 2012. It was approved at the 2012 Annual General Meeting of Linde Aktiengesellschaft with a majority of 96.45 percent. With effect from 1 January 2014, the Supervisory Board made minor amendments to take account of the corresponding changes to the German Corporate Governance Code. No amendments were made in 2015 or 2016.

The amount and structure of the remuneration payable are based on the size and international reach of the Group, its economic and financial situation, its performance and prospects and the unit of the Group for which the Executive Board member is responsible, as well as on customary remuneration practice among peers and the remuneration structure which applies elsewhere in the company. To gauge customary practice among peers, Linde compares its remuneration system with that of

several other groups of companies (DAX 30 companies, similar German and international companies). As regards the remuneration structure which applies elsewhere in the company, the Supervisory Board considers when determining the emoluments of the Executive Board the relationship between the remuneration of the Executive Board and that of senior management and the staff overall, also in terms of its development over time. To do so, it has established how to identify members of senior management and the relevant members of staff. The emoluments also depend on the duties of each individual member of the Executive Board, and on his or her personal performance and the performance of the Executive Board as a whole. The remuneration is calculated so that it is competitive at international level and gives Board members an incentive to create sustainable performance and sustainable growth in a dynamic environment. In its evaluation and weighting of various criteria, the Supervisory Board was advised by an independent external expert on executive pay. The amounts of the fixed cash emoluments and the variable remuneration components were subject to a scheduled review as at 1 January 2014 and some adjustments were made. No adjustments were made in 2015 or 2016.

The remuneration system places particular emphasis on sustainable business development. There is a significant focus on multi-year remuneration components. As a result of the obligation to invest part of the variable cash emoluments in Linde shares and to hold those shares for several years and as a result of the granting of a Long Term Incentive Plan in the form of options to purchase Linde shares (performance shares) and bonus shares (matching shares) after compulsory personal investment by the Executive Board member, the remuneration of the members of the Executive Board is linked to the price of Linde shares. This creates a long-term incentive to achieve a positive Group performance.

The members of the Executive Board receive no remuneration for any Group offices held.

### *Total emoluments*

The remuneration system comprises the following components:

- fixed monthly cash emoluments;
- benefits in kind/other benefits;
- variable cash emoluments which are paid in cash in April of the following year linked to an obligation to use 40 percent of the cash amount (after the deduction of tax) to acquire Linde shares and hold them for a period of at least four years;
- a Long Term Incentive Plan, which provides for multi-year share-based remuneration in the form of options to purchase shares (performance shares) and bonus shares linked to personal investment by the Executive Board member (matching shares);
- pension commitments.

Of these components, the fixed cash emoluments, the benefits in kind/other benefits and the pension commitments are not performance-related, while the variable cash emoluments and the Long Term Incentive Plan are performance-related.

The regular target remuneration for a year (i.e. the total of fixed cash emoluments, variable cash emoluments and entitlements under the Long Term Incentive Plan) comprises the following targets for the performance-related entitlements:

- 25 percent fixed cash emoluments;
- 30 percent one-year variable cash emoluments;
- 45 percent multi-year variable emoluments, of which:
  - around 50 percent obligatory investment in Linde shares required to be held for at least four years;
  - around 50 percent share-based remuneration components from the Long Term Incentive Plan, of which:
    - 80 percent performance shares;
    - 20 percent matching shares.

Within the variable remuneration components, around 40 percent is determined solely on a one-year basis and around 60 percent on a multi-year basis. Around 65 percent of the variable emoluments are directly linked to performance indicators or targets relating to sustainable corporate governance

### **Fixed cash emoluments**

Each member of the Executive Board receives fixed monthly cash emoluments.

### **Benefits in kind/other benefits**

Benefits in kind are also provided which are taxed in accordance with the fiscal regulations applicable in each case. They comprise mainly the cost or monetary advantage of insurance benefits at normal market rates and the provision of company cars.

### **Variable cash emoluments**

Variable cash emoluments are based on two equally-weighted key ratios, return on capital employed (ROCE) and the operating margin, based on the customary definitions used by the Group which are given on ► [PAGE 43](#). For each of the two measurement factors, a minimum target is defined in the form of an ambitious performance hurdle. If this hurdle is not reached in respect of one of the measurement factors, the variable cash emoluments linked to this factor are not paid. If neither minimum target is reached, there is no entitlement at all to variable cash emoluments. The amount of the variable cash emoluments based on reaching the ROCE and operating margin targets may be modified by an individual performance component.

If the entitlement to variable cash remuneration is met as a result of target achievement, 60 percent of

the variable cash remuneration calculated on this basis is paid in cash, with no further obligation attached to the amount (cash component). 40 percent of the total amount of the one-year variable remuneration is paid in cash at the same time as the cash component, but there is an obligation on the Executive Board member to reinvest this portion of the total amount in Linde AG shares (deferral component). The member of the Executive Board must invest the net amount of the deferral component (estimated to be 50 percent of the gross amount) in Linde shares and must hold these shares for a period of at least four years.

### **Measurement factors for variable cash emoluments Group ROCE**

The variable cash remuneration for all the members of the Executive Board is based on the Group ROCE achieved in the financial year, to the extent that each member receives a fixed euro amount for each 0.1 percent of Group ROCE achieved. The variable cash remuneration is only paid if Group ROCE exceeds or equals an ambitious minimum return on capital which has been defined (performance hurdle).

### **Operating margin**

The variable cash remuneration is based on the operating margin achieved in the area for which the Executive Board member is responsible. The operating margin is calculated as the ratio of operating profit to revenue. A fixed euro amount is paid to each Board member for each 0.1 percent of operating margin achieved. For the Chief Executive Officer and Chief Financial Officer, this is based on the operating margin of the Group. For those members of the Executive Board responsible for operations, the margin in the gases segments or the Engineering Division for which he or she is responsible is relevant. In both cases, payment is only made if ambitious minimum margins derived from specific market conditions are met. The Supervisory Board may attach additional conditions to the establishment and the amount of the remuneration entitlement linked to the operating margin. These conditions should be set in the light of the prevailing market situation.

### **Individual performance component**

To reflect the personal performance of Executive Board members, the amounts calculated on the basis of the two measurement factors (Group ROCE and the operating margin) are multiplied using a performance multiplier of between 0.8 and 1.2. The Supervisory Board may exercise its discretion to reduce or increase the amounts calculated as a result of the achievement of one or both targets by up to 20 percent, to take account of the individual performance of the Executive Board member.

### *Deferral component*

Of the variable cash remuneration, 40 percent is paid but effectively deferred, as the Executive Board member has an obligation to invest the net amount in Linde shares and to hold these shares for a period of at least four years from the date they are transferred to a securities account (deferral shares). The net amount of the deferral component is paid directly to a bank with instructions to acquire the deferral shares for the Executive Board members in a block order on the third stock exchange trading day after the Annual General Meeting of Linde AG, to transfer the shares to a separate securities account and to manage them. The shares must be newly acquired in the market. It is not possible to use shares for this purpose which are already held by the Executive Board members. The deferral shares carry dividend rights during the blocked period. The dividend is paid to the Executive Board members.

### *Cap*

The cash component (i.e. 60 percent of the variable cash remuneration, calculated on the basis of one or both the targets being met and payable in cash) is capped at 250 percent of the fixed cash emoluments. The deferral component (the remaining 40 percent of the variable cash remuneration) is capped at 165 percent of the fixed cash emoluments as at the date on which it is paid.

In exceptional circumstances which lead to an unforeseen increase in the value of the deferral shares by the end of the blocked period, where this is not due to the performance of the Executive Board member, the Supervisory Board has the right to offset this by reducing the amount of the cash and/or deferral components in subsequent years.

### *Regular reviews*

The Supervisory Board conducts regular reviews of the targets set and the calibration of the variable remuneration, including the performance hurdles, in order to prevent potential distortions. It may also take into account special items or the specific impact on both measurement factors (Group ROCE and the operating margin) of any investment or acquisition projects.

### *Share-based emoluments*

#### *Long Term Incentive Plan 2012*

The scheme agreed upon at the Annual General Meeting held on 4 May 2012 provides for the granting of options to purchase shares in Linde (performance shares) in annual tranches. Executive Board members and selected executives are required to make a compulsory personal investment in shares of the company at the beginning of the scheme. For the shares acquired by a scheme participant as a personal investment, bonus shares (matching shares) are granted at the end of the four-year qualifying period if certain conditions are met.

The members of the Executive Board are granted options and rights to matching shares for a specified sum. The target value for each tranche is EUR 1,000,000 for the CEO and between EUR 375,000 and EUR 625,000 for the Executive Board members. The number of options or matching share rights to be allocated to each member of the Executive Board is determined on the basis of the fair value per option or per right to a matching share at the grant date calculated in an actuarial report. Of the remuneration, 80 percent of the amount which may be earned as a result of participating in the LTIP 2012 if the target is reached relates to performance shares and 20 percent to matching shares. The company has the option of making a payment in cash to the scheme participants instead of issuing performance shares and/or matching shares. In exceptional circumstances, the Supervisory Board may restrict the option rights and matching rights granted to the Executive Board members in terms of content, either in full or in part. The first tranche under the LTIP 2012 was issued after the 2012 Annual General Meeting.

### *Options to purchase performance shares*

Each option confers the right, if certain targets are met, to purchase one share in Linde AG (performance shares) at the exercise price, which is equivalent in each case to the lowest issue price, currently EUR 2.56. The options in a tranche have a five-year term. If the conditions required for the exercise of the options are met, they may first be exercised once a four-year qualifying period calculated from the issue date has expired (the performance period). Options may only be exercised if certain performance targets are reached, which are based on movements in earnings per share and relative total shareholder return. Equal weighting is given to these two performance targets in terms of the total options allocated. Within each of these performance targets, a minimum target must be reached if the options in a particular tranche are to become exercisable, and there is also a stretch target. If the stretch target for one of these performance targets is reached, all the options relating to that performance target in that particular tranche become exercisable.

Further information about the value of the options, and about the structure, conditions and, in particular, the performance targets of the scheme is given in

► [NOTE \[26\] OF THE NOTES TO THE GROUP FINANCIAL STATEMENTS.](#)

### *Personal investment and matching shares*

The number of the Linde shares to be contributed as a personal investment by the Executive Board members corresponds to the number of the rights to matching shares granted to them per tranche. For each share in Linde contributed by a scheme participant as a personal investment and held by the participant during the four-year qualifying period for the options, one matching share in Linde is granted free of charge. Conditions for

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granting matching shares are a personal investment in shares of the company by the scheme participant at the appropriate time, the unrestricted holding of such shares during the qualifying period and the existence of a service contract at the end of the qualifying period in respect of which no notice has been given.

Movements in the options and rights to matching shares issued to members of the Executive Board under the Long Term Incentive Plan 2012 were as follows in the period under review:

## OPTIONS, MATCHING SHARES – LONG TERM INCENTIVE PLAN 2012

2

## Executive Board members in office at 31.12.2016

		Options					Matching shares				
		At 01.01.	Granted in the financial year	Exercised in the financial year	Forfeited in the financial year	At 31.12.	At 01.01.	Granted in the financial year	Forfeited in the financial year	Allocated in the financial year	At 31.12.
		in units	in units	in units	in units	in units	in units	in units	in units	in units	in units
Professor Dr Aldo Belloni (Chairman) (as of 08.12.2016)	2015	–	–	–	–	–	–	–	–	–	–
	2016	21,220 <sup>1</sup>	–	–	8,419	12,801	2,376 <sup>1</sup>	–	–	915	1,461
Dr Christian Bruch	2015	2,592 <sup>2</sup>	4,470	–	–	7,062	291 <sup>2</sup>	475	–	–	766
	2016	7,062	5,373	–	673	11,762	766	618	–	73	1,311
Bernd Eulitz	2015	3,181 <sup>2</sup>	4,470	–	–	7,651	355 <sup>2</sup>	475	–	–	830
	2016	7,651	5,373	–	1,262	11,762	830	618	–	137	1,311
Sanjiv Lamba	2015	21,220	5,960	–	–	27,180	2,376	633	–	–	3,009
	2016	27,180	7,165	–	8,419	25,926	3,009	824	–	915	2,918
<b>TOTAL</b>	2015	<b>26,993</b>	<b>14,900</b>	–	–	<b>41,893</b>	<b>3,022</b>	<b>1,583</b>	–	–	<b>4,605</b>
<b>TOTAL</b>	2016	<b>63,113</b>	<b>17,911</b>	–	<b>18,773</b>	<b>62,251</b>	<b>6,981</b>	<b>2,060</b>	–	<b>2,040</b>	<b>7,001</b>

Executive Board members who left the Executive Board in 2016<sup>3</sup>

Thomas Blades (until 30.06.2016)	2015	21,220	5,960	–	–	27,180	2,376	633	–	–	3,009
	2016	27,180	–	–	27,180	–	3,009	–	3,009	–	–
Dr Wolfgang Büchele (Chairman) (until 07.12.2016)	2015	12,304	11,921	–	–	24,225	1,428	1,267	–	–	2,695
	2016	24,225	14,329	–	38,554	–	2,695	1,647	4,342	–	–
Georg Denoke (until 13.09.2016)	2015	22,758	7,450	–	–	30,208	2,555	792	–	–	3,347
	2016	30,208	8,956	–	22,706	16,458	3,347	1,030	1,608	915	1,854

<sup>1</sup> Rights outstanding at the beginning of the reporting period from the time spent as member of the Executive Board of Linde AG before rejoining on 8 December 2016.

<sup>2</sup> Rights outstanding at the beginning of the reporting period from their time spent as executives within The Linde Group.

<sup>3</sup> Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016".

The qualifying period for the options held on 31 December 2016 has not yet expired. The exercise price of all the options is currently EUR 2.56 per option. During the reporting period, no Executive Board options expired.

In 2016, the matching shares relating to the 2012 tranche were allocated in the form of the payment of the equivalent value of the matching shares in cash.

The weighted average remaining term of the options and rights to matching shares of the Executive Board is 1.7 years (2015: 1.8 years).

As a prerequisite for participation in the 2016 tranche of the Long Term Incentive Plan 2012, the Executive Board members in office in the 2016 financial year made

the following personal investment in Linde shares: Dr Wolfgang Büchele 1,647 (2015: 1,267), Dr Christian Bruch 618 (2015: 475), Georg Denoke 1,030 (2015: 792), Bernd Eulitz 618 (2015: 475) and Sanjiv Lamba 824 (2015: 633). Professor Dr Aldo Belloni and Thomas Blades were granted neither options nor rights to matching shares in 2016. They did not make any personal investment in 2016 either.

Information about the rules which apply to the option schemes in the event of a change of control is given on ► [PAGES 101 TO 104](#) of the combined management report for Linde AG and The Linde Group (Disclosures in accordance with § 289 (4), § 315 (4) of the German Commercial Code (HGB)).

### Total cost of share-based emoluments and remeasurement of virtual shares

The total cost of share-based emoluments in 2016 was EUR 13 m (2015: EUR 6 m). During the financial year, the following cost was recognised in respect of share-based payment instruments held by members of the Executive Board currently in office and the gain on remeasurement of current entitlements to virtual shares in Linde:

#### COST OF SHARE-BASED PAYMENTS AND CHANGE IN VALUE OF EXISTING ENTITLEMENT TO VIRTUAL SHARES

3

##### Executive Board members in office at 31.12.2016

in EUR		Cost of share-based payments (without virtual shares)	Change in value of virtual shares <sup>1</sup>
Professor Dr Aldo Belloni (Chairman) (as of 08.12.2016)	2015 2016	– –	– –
Dr Christian Bruch	2015 2016	72,648 166,129	– –
Bernd Eulitz	2015 2016	70,391 168,929	– –
Sanjiv Lamba	2015 2016	177,881 334,848	18,912 25,390

##### Executive Board members who left the Executive Board in 2016<sup>2</sup>

in EUR			
Thomas Blades (until 30.06.2016)	2015 2016	177,881 -761,136 <sup>3</sup>	21,856 -115,903
Dr Wolfgang Büchele (Chairman) (until 07.12.2016)	2015 2016	395,929 -541,731 <sup>3</sup>	– –
Georg Denoke (until 13.09.2016)	2015 2016	227,403 471,019	24,876 -42,740
<b>TOTAL</b>	2015 2016	<b>1,122,133</b> <b>-161,942</b>	<b>65,644</b> <b>-133,253</b>

<sup>1</sup> In 2012 and 2013, 40 percent of the variable cash remuneration was converted as at the balance sheet date into virtual shares with dividend entitlement and not paid for at least another three years. (The amounts paid in each case are dependent on movements in the Linde share price.)

<sup>2</sup> Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016".

<sup>3</sup> Reversal, in the statement of profit and loss, of annual share-based remuneration tranches previously recognised as an expense at the time the member left.

In the statutory financial statements of Linde AG, the company has availed itself of the option not to recognise share-based remuneration systems as personnel expenses, in accordance with legal regulations. For the matching shares of Linde AG employees, a cost of EUR 2.1 m (2015: EUR 1.4 m) was recognised as an expense in accordance with the German Commercial Code (HGB). Of this amount, EUR 0.3 m (2015: EUR 0.4 m) related to rights to matching shares of members of the Executive Board.

#### Pension commitments

For members joining the Executive Board of the company on or after 1 January 2012, a defined contribution pension scheme was introduced in the form of a direct commitment, which will provide benefits comprising old age pensions, disability pensions and surviving dependants' pensions. For new members, the annual

contributions made by the company during the period of employment will be 45 percent of the fixed cash emoluments (and therefore around 11 percent of the target emoluments). After 15 years of service on the Board, a target pension level of around 50 percent of the final fixed cash emoluments would be achieved as an old age pension. The capital is invested with an external provider. The pension commitment is designed to be similar to the Linde Pension Plan (Linde Vorsorgeplan) for employees. Insolvency insurance is provided as a result of the integration of the pension commitments into the existing Contractual Trust Arrangement (CTA). The contributions participate in the performance of the CTA and also participate in potential CTA surpluses. The model provides for guaranteed minimum interest of 3 percent plus any overperformance. The regular old age pension is payable from the age of 65 and in the case of early retirement from the age of 62. The



employer's contributions are legally non-forfeitable in accordance with the German Company Pension Act (BetrAVG). When the benefits fall due, the Executive Board member is entitled to the account balance inclusive of guaranteed interest. In the case of death or invalidity, a minimum benefit is payable for a period of service on the Board of less than ten years. In this case, the amount payable is topped up by the missing contributions to the amount that would have been payable if the Executive Board member had served on the Board for ten years (up to a maximum age of 65), as long as the period served on the Board was at least three years. Those entitled to the full pension account are, firstly, the widow, widower or surviving civil partner of the Executive Board member and, secondly, orphans of the Executive Board member if there is no widow, widower or surviving civil partner.

The pension payable is calculated on the basis of the mortality tables and interest rates which are valid when the pension is drawn. In all cases, the Executive Board member may choose to have his or her pension paid in one of three ways:

- as a lump sum;
- in five to ten annual instalments with the accrual of interest (depending on the term) until the payments are due;
- in the form of payments for life including an annual increase of 1 percent per annum.

On request and with the Group's agreement, the Executive Board member may opt for other payment variants.

Pension commitments for Georg Denoke and Sanjiv Lamba, who were already on the Executive Board of the company at 1 January 2012, are set out in individual contracts. The pension is based on a particular percentage of the last fixed monthly pensionable emoluments paid. The percentage rate on entry is 20 percent. This percentage increases by 2 percent for every year of service completed by the Executive Board member. The maximum percentage that can be achieved for the pension is 50 percent of the last fixed monthly emoluments paid. Payments are made on a monthly basis once the member has retired from the Group and is eligible for his or her pension (old age pension from the age of 65, pension for medical disability or incapacity for work, and surviving dependants' pension in the event of death). Widowed spouses receive 60 percent of the pension of the deceased member of the Executive Board. The commitments also include benefits for any orphans or children who have lost one parent. Each child entitled to maintenance receives 10 percent (in the case of children who have lost one parent) up to a maximum of 25 percent (in the case of orphans) of the pension of the contracting party, generally until his or her 18th year, although maintenance may continue to be paid

until he or she reaches the age of 27. If the deceased has left several children, the amounts are reduced proportionately and limited in total to half the pension to which the contracting party was entitled. The total maintenance payments to surviving dependants must not exceed the full amount of the pension of the contracting party. Current pensions are adjusted annually to take account of the change in the consumer price index for private households based on information provided by the German Statistical Office. If a member of the Executive Board has reached the age of 55 and completed ten years of service on the Executive Board, and his or her employment contract is terminated early by the Supervisory Board or his or her term of office is not extended for reasons beyond the control of the Executive Board member, he or she would immediately receive the pension earned, taking into account other income. If, however, an Executive Board member has not completed ten years of service or if the employment contract is terminated before he or she reaches the age of 55, he or she acquires entitlement by law to a pension as a supplement to the occupational pension in the amount specified by law, provided the Executive Board member was employed by the company for a minimum period of three consecutive years.

In his contract of employment concluded on 7 December 2016, the Executive Board member Professor Dr Aldo Belloni was not granted any occupational pension benefits.

### *Emoluments of the Executive Board for 2016*

With regard to the composition of the Executive Board, the following changes were made in the 2016 financial year: Thomas Blades left the Executive Board and the company as of 30 June 2016. Georg Denoke left the Executive Board on 13 September 2016; his contract of employment will end on 28 February 2017. Dr Wolfgang Büchele resigned as CEO and member of the Executive Board at the end of 7 December 2016; his contract of employment will end on 30 April 2017. Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016". Professor Dr Aldo Belloni was appointed as member of the Executive Board and CEO with effect from 8 December 2016. He had already been an Executive Board member between 1 January 2000 and 31 December 2014.

The total cash remuneration for members of the Executive Board for performing their duties at Linde AG and its subsidiaries in and/or for the 2016 financial year was EUR 10,070,838 (2015: EUR 11,578,045). Of this amount, EUR 3,772,668 (2015: EUR 4,295,945) related to fixed remuneration components which are not performance-related and EUR 6,298,170 (2015: EUR 7,282,100) to variable short-term or long-term performance-related remuneration components. The measurement of

benefits in kind and other benefits was based on their value for tax purposes. 60 percent of the variable cash emoluments, i.e. EUR 3,778,902 (2015: EUR 4,369,260) is paid out. 40 percent, i.e. EUR 2,519,268 (2015: 2,912,840) is required to be invested (after the deduction of tax) in Linde shares which must be held for a qualifying period of four years. This therefore constitutes a long-term remuneration component. The total remuneration of the members of the Executive Board in 2016 was EUR 12,945,883 (2015: EUR 14,953,014). Included in the total remuneration are options and rights to matching shares which were granted to members of the Executive Board under the Long Term Incentive Plan. In each case, the options and matching shares are included at their value on allocation. In the 2016 financial year,

members of the Executive Board were granted a total of 41,196 (2015: 40,231) options with a value on allocation of EUR 55.83 (2015: EUR 67.11) per option and 4,737 (2015: 4,275) rights to matching shares with a value on allocation of EUR 121.40 (2015: EUR 157.91) per right to a matching share. Out of these options and rights to matching shares, 23,285 options and 2,677 rights to matching shares are attributable to the Executive Board members who have now left.

Subject to the approval of the annual financial statements of Linde AG for the year ended 31 December 2016, the emoluments for the individual members of the Executive Board for 2016 (including variable emoluments calculated on the basis of Group ROCE after special items of 8.5 percent) are as follows:

**TOTAL REMUNERATION OF MEMBERS OF THE EXECUTIVE BOARD**

4

**Executive Board members in office at 31.12.2016**

		Cash emoluments				Long Term Incentive Plan		Total	Pensions		
		Fixed emoluments	Benefits in kind/Other benefits	Variable cash emoluments		Total cash emoluments <sup>2</sup>	Options	Matching shares	Total emoluments	Service cost in financial year <sup>3</sup> IFRS	Service cost in financial year <sup>3</sup> HGB
				Current <sup>1</sup> (60%)	Non-current <sup>2</sup> (40%)		Value on the grant date	Value on the grant date			
<i>in EUR</i>											
Professor Dr Aldo Belloni (Chairman) (as of 08.12.2016)	2015	-	-	-	-	-	-	-	-	-	-
	2016	77,419	153	70,769	47,179	195,520	-	-	195,520	-	-
Dr Christian Bruch	2015	500,000	20,630	476,070	317,380	1,314,080	299,982	75,007	1,689,069	305,849	244,679
	2016	500,000	28,025	470,850	313,900	1,312,775	299,975	75,025	1,687,775	274,210	221,028
Bernd Eulitz	2015	500,000	28,157	522,090	348,060	1,398,307	299,982	75,007	1,773,296	308,020	246,416
	2016	500,000	24,207	533,700	355,800	1,413,707	299,975	75,025	1,788,707	261,243	220,542
Sanjiv Lamba	2015	600,000	16,709	732,840	488,560	1,838,109	399,976	99,957	2,338,042	274,349	150,294
	2016	600,000	18,404	739,320	492,880	1,850,604	400,022	100,034	2,350,660	252,223	177,952

**Executive Board members who left the Executive Board in 2016<sup>4</sup>**

<i>in EUR</i>											
Thomas Blades (until 30.06.2016)	2015	600,000	21,955	722,760	481,840	1,826,555	399,976	99,957	2,326,488	309,022	270,394
	2016	300,000	11,704	364,080	242,720	918,504	-	-	918,504	0	0
Dr Wolfgang Büchele (Chairman) (until 07.12.2016)	2015	1,200,000	37,733	1,075,500	717,000	3,030,233	800,018	200,072	4,030,323	651,268	539,175
	2016	1,122,581	46,979	1,008,451	672,301	2,850,312	799,988	199,946	3,850,246	0	0
Georg Denoke (until 13.09.2016)	2015	750,000	20,761	840,000	560,000	2,170,761	499,970	125,065	2,795,796	256,911	139,917
	2016	527,083	16,113	591,732	394,488	1,529,416	500,013	125,042	2,154,471	165,849	116,652
<b>TOTAL</b>	2015	<b>4,150,000</b>	<b>145,945</b>	<b>4,369,260</b>	<b>2,912,840</b>	<b>11,578,045</b>	<b>2,699,904</b>	<b>675,065</b>	<b>14,953,014</b>	<b>2,105,419</b>	<b>1,590,875</b>
<i>(in percent)</i>		<b>28</b>	<b>1</b>	<b>29</b>	<b>19</b>	<b>77</b>	<b>18</b>	<b>5</b>	<b>100</b>		
<b>TOTAL</b>	2016	<b>3,627,083</b>	<b>145,585</b>	<b>3,778,902</b>	<b>2,519,268</b>	<b>10,070,838</b>	<b>2,299,973</b>	<b>575,072</b>	<b>12,945,883</b>	<b>953,525</b>	<b>736,174</b>
<i>(in percent)</i>		<b>28</b>	<b>1</b>	<b>29</b>	<b>20</b>	<b>78</b>	<b>18</b>	<b>4</b>	<b>100</b>		

<sup>1</sup> 60 percent of the variable cash remuneration is paid directly in the year following the balance sheet date.

<sup>2</sup> 40 percent of the variable cash remuneration is paid out in the year following the balance sheet date with the obligation to acquire Linde shares and to hold them for at least four years.

<sup>3</sup> No past service cost arose in the 2015 or 2016 financial years.

<sup>4</sup> Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016".

CORPORATE GOVERNANCE  
REMUNERATION REPORT  
(PART OF THE  
COMBINED MANAGEMENT REPORT)

At the balance sheet date, the present value for accounting purposes of pension commitments accruing to the individual Board members was as follows: Professor Dr Aldo Belloni EUR 4,745,363 (2015: EUR 0) (Group), EUR 3,755,068 (2015: 0) (Linde AG); Dr Wolfgang Büchele EUR 0 (2015: EUR 1,111,884) (Group), EUR 0 (2015: EUR 1,006,674) (Linde AG); Thomas Blades EUR 0 (2015: EUR 1,262,717) (Group), EUR 0 (2015: EUR 1,181,352) (Linde AG); Dr Christian Bruch EUR 1,221,132 (2015: EUR 848,196) (Group), EUR 848,899 (2015: EUR 654,033) (Linde AG); Georg Denoke EUR 2,246,635 (2015: EUR 2,789,595) (Group), EUR 1,322,106 (2015: EUR 1,965,365) (Linde AG); Bernd Eulitz EUR 1,182,177 (2015: EUR 861,327) (Group), EUR 877,330 (2015: EUR 692,771) (Linde AG); Sanjiv Lamba EUR 1,576,405 (2015: EUR 1,158,813) (Group), EUR 946,275 (2015: EUR 819,326) (Linde AG). On the basis of his contract of employment dated 7 December 2016, Professor Dr Aldo Belloni did not acquire any pension entitlements. The change in the present value of the pension commitments is the result of changes in holdings, the unwinding of interest of entitlements acquired in previous years and actuarial losses. The present values of the pension commitments accruing to Dr Christian Bruch and Bernd Eulitz, who were appointed to the Executive Board on 1 January 2015, include their vested rights from their time spent as executives within The Linde Group.

### ***Disclosures in accordance with the requirements of the German Corporate Governance Code***

Disclosed in the table below, in accordance with the requirements set out in the German Corporate Governance Code, is the allocated remuneration of the Executive Board for the 2016 financial year including other benefits and including the maximum and minimum emoluments attainable in the case of variable remuneration components. In contrast to the ► TABLE ENTITLED "TOTAL REMUNERATION OF MEMBERS OF THE EXECUTIVE BOARD", the one-year variable remuneration is disclosed in the table below at the target value, which is the value that would apply if all the targets were fully met. As in the ► TABLE ENTITLED "TOTAL REMUNERATION OF MEMBERS OF THE EXECUTIVE BOARD", the options and rights to matching shares included in the share-based remuneration (Long Term Incentive Plan) are reported at fair value on the grant date. The option rights and rights to matching shares only become exercisable or are only allocated after a four-year qualifying period has elapsed. In each case, the number of option rights or rights to matching shares is determined by the actual targets met after the qualifying period has expired. Therefore, the value of the rights may be higher or lower than the figures disclosed in the table below, depending on the prevailing share price at the date of transfer. Moreover, in contrast to the ► TABLE ENTITLED "TOTAL REMUNERATION OF MEMBERS OF THE EXECUTIVE BOARD", the total remuneration in the table below includes the pension expense.

REMUNERATION ALLOCATED DURING THE YEAR

Executive Board members in office at 31.12.2016

Remuneration allocated during the year, in EUR	Professor Dr Aldo Belloni Member of the Executive Board from 08.12.2016 Chairman of the Executive Board from 08.12.2016			
	2015	2016	2016 (Min.)	2016 (Max.)
Fixed emoluments	-	77,419	77,419	77,419
Other benefits	-	153	153	153
<b>TOTAL</b>	-	<b>77,572</b>	<b>77,572</b>	<b>77,572</b>
One-year variable emoluments				
Short-term cash emoluments <sup>1,2</sup>	-	71,315	0	193,548
Multi-year variable emoluments	-	47,544	0	127,741
including long-term cash emoluments (deferral) <sup>3,4</sup>	-	47,544	0	127,741
including Long Term Incentive Plan (qualifying period: 4 years) <sup>5</sup>				
Options	-	-	-	-
Matching shares	-	-	-	-
<b>TOTAL</b>	-	<b>196,431</b>	<b>77,572</b>	<b>398,861</b>
Service cost	-	-	-	-
<b>TOTAL EMOLUMENTS</b>	-	<b>196,431</b>	<b>77,572</b>	<b>398,861</b>

Executive Board members who left the Executive Board in 2016<sup>6</sup>

Remuneration allocated during the year, in EUR
Fixed emoluments
Other benefits
<b>TOTAL</b>
One-year variable emoluments
Short-term cash emoluments <sup>1,2</sup>
Multi-year variable emoluments
including long-term cash emoluments (deferral) <sup>3,4</sup>
including Long Term Incentive Plan (qualifying period: 4 years) <sup>5</sup>
Options
Matching shares
<b>TOTAL</b>
Service cost
<b>TOTAL EMOLUMENTS</b>

<sup>1</sup> 60 percent of the variable cash remuneration is paid in cash with no further obligation incumbent on the Executive Board member.

<sup>2</sup> Capped at 250 percent of the fixed emoluments. The individual maximum values disclosed are the potential maximum values in terms of amount in accordance with the agreed upper limit: i.e. 250 percent of the fixed emoluments.

<sup>3</sup> 40 percent of the variable cash remuneration is paid out in cash with the obligation to acquire Linde shares and to hold them for at least four years.

<sup>4</sup> Capped at 165 percent of the fixed emoluments. The individual maximum values disclosed are the potential maximum values in terms of amount in accordance with the agreed upper limit: i.e. 165 percent of the fixed emoluments.

<sup>5</sup> The value of the options and rights to matching shares are not limited in terms of amount once the qualifying period has elapsed. The amounts disclosed are the individual maximum amounts if both the performance targets are met in full and are based on the closing price of Linde shares on 30 December 2016 (EUR 156.10).

<sup>6</sup> Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016".

<i>Dr Christian Bruch</i> Member of the Executive Board from 01.01.2015				<i>Bernd Eulitz</i> Member of the Executive Board from 01.01.2015				<i>Sanjiv Lamba</i> Member of the Executive Board from 09.03.2011			
2015	2016	2016 (Min.)	2016 (Max.)	2015	2016	2016 (Min.)	2016 (Max.)	2015	2016	2016 (Min.)	2016 (Max.)
500,000	500,000	500,000	500,000	500,000	500,000	500,000	500,000	600,000	600,000	600,000	600,000
20,630	28,025	28,025	28,025	28,157	24,207	24,207	24,207	16,709	18,404	18,404	18,404
<b>520,630</b>	<b>528,025</b>	<b>528,025</b>	<b>528,025</b>	<b>528,157</b>	<b>524,207</b>	<b>524,207</b>	<b>524,207</b>	<b>616,709</b>	<b>618,404</b>	<b>618,404</b>	<b>618,404</b>
487,950	447,900	0	1,250,000	534,060	525,960	0	1,250,000	775,800	738,240	0	1,500,000
700,289	673,600	0	1,745,440	731,029	725,640	0	1,745,440	1,017,133	992,216	0	2,217,740
325,300	298,600	0	825,000	356,040	350,640	0	825,000	517,200	492,160	0	990,000
299,982	299,975	0	823,970	299,982	299,975	0	823,970	399,976	400,022	0	1,099,114
75,007	75,025	0	96,470	75,007	75,025	0	96,470	99,957	100,034	0	128,626
<b>1,708,869</b>	<b>1,649,525</b>	<b>528,025</b>	<b>3,523,465</b>	<b>1,793,246</b>	<b>1,775,807</b>	<b>524,207</b>	<b>3,519,647</b>	<b>2,409,642</b>	<b>2,348,860</b>	<b>618,404</b>	<b>4,336,144</b>
305,849	274,210	274,210	274,210	308,020	261,243	261,243	261,243	274,349	252,223	252,223	252,223
<b>2,014,718</b>	<b>1,923,735</b>	<b>802,235</b>	<b>3,797,675</b>	<b>2,101,266</b>	<b>2,037,050</b>	<b>785,450</b>	<b>3,780,890</b>	<b>2,683,991</b>	<b>2,601,083</b>	<b>870,627</b>	<b>4,588,367</b>

<i>Thomas Blades</i> Executive Board member from 08.03.2012 to 30.06.2016				<i>Dr Wolfgang Büchele</i> Member of the Executive Board from 01.05.2014 Chairman of the Executive Board from 20.05.2014 to 07.12.2016				<i>Georg Denoke</i> Executive Board member from 12.09.2006 to 13.09.2016			
2015	2016	2016 (Min.)	2016 (Max.)	2015	2016	2016 (Min.)	2016 (Max.)	2015	2016	2016 (Min.)	2016 (Max.)
600,000	300,000	300,000	300,000	1,200,000	1,122,581	1,122,581	1,122,581	750,000	527,083	527,083	527,083
21,955	11,704	11,704	11,704	37,733	46,979	46,979	46,979	20,761	16,113	16,113	16,113
<b>621,955</b>	<b>311,704</b>	<b>311,704</b>	<b>311,704</b>	<b>1,237,733</b>	<b>1,169,560</b>	<b>1,169,560</b>	<b>1,169,560</b>	<b>770,761</b>	<b>543,196</b>	<b>543,196</b>	<b>543,196</b>
742,200	366,600	0	750,000	1,095,900	1,016,245	0	2,943,548	856,500	596,577	0	1,317,708
994,733	244,400	0	495,000	1,730,690	1,677,430	0	4,398,913	1,196,035	1,022,773	0	2,404,574
494,800	244,400	0	495,000	730,600	677,496	0	1,942,741	571,000	397,718	0	869,687
399,976	-	-	-	800,018	799,988	0	2,199,075	499,970	500,013	0	1,374,104
99,957	-	-	-	200,072	199,946	0	257,097	125,065	125,042	0	160,783
<b>2,358,888</b>	<b>922,704</b>	<b>311,704</b>	<b>1,556,704</b>	<b>4,064,323</b>	<b>3,863,235</b>	<b>1,169,560</b>	<b>8,512,021</b>	<b>2,823,296</b>	<b>2,162,546</b>	<b>543,196</b>	<b>4,265,478</b>
309,022	289,509	289,509	289,509	651,268	631,395	631,395	631,395	256,911	165,849	165,849	165,849
<b>2,667,910</b>	<b>1,212,213</b>	<b>601,213</b>	<b>1,846,213</b>	<b>4,715,591</b>	<b>4,494,630</b>	<b>1,800,955</b>	<b>9,143,416</b>	<b>3,080,207</b>	<b>2,328,395</b>	<b>709,045</b>	<b>4,431,327</b>

Disclosed in the table below, in accordance with the requirements set out in the German Corporate Governance Code, is remuneration received, comprising fixed emoluments, other benefits, one-year variable emoluments and multi-year variable emoluments, set out according to the relevant reference year, and the pension expense in and/or for the 2016 financial year. The remuneration received table does not include any remuneration for former members of the Executive Board.

In the case of Professor Dr Aldo Belloni, only the remuneration he received as an active member of the Executive Board is shown and not also those benefits he received on the basis of his previous activities for

the Executive Board, which ended in 2014. During the term of his contract of employment, Professor Dr Aldo Belloni does not have any entitlement to retirement benefits that he would otherwise have on the basis of his previous activity as a member of the company's Executive Board. In contrast to the multi-year variable emoluments granted disclosed above, this table shows the actual value of multi-year emoluments granted in prior years and received in 2016. In the 2016 financial year, the 2012 tranche of the Long Term Incentive Plan was allocated when the qualifying period came to an end; no tranche of the Long Term Incentive Plans had been exercisable in the previous year.

**REMUNERATION RECEIVED DURING THE YEAR**

6

**Executive Board members in office at 31.12.2016**

	Professor Dr Aldo Belloni Member of the Executive Board from 08.12.2016 Chairman of the Executive Board from 08.12.2016		Dr Christian Bruch Member of the Executive Board from 01.01.2015		Bernd Eulitz Member of the Executive Board from 01.01.2015		Sanjiv Lamba Member of the Executive Board from 09.03.2011	
	2015	2016	2015	2016	2015	2016	2015	2016
<i>Remuneration received during the year, in EUR</i>								
Fixed emoluments	-	77,419	500,000	500,000	500,000	500,000	600,000	600,000
Other benefits	-	153	20,630	28,025	28,157	24,207	16,709	18,404
<b>TOTAL</b>	-	<b>77,572</b>	<b>520,630</b>	<b>528,025</b>	<b>528,157</b>	<b>524,207</b>	<b>616,709</b>	<b>618,404</b>
One-year variable emoluments								
Short-term cash emoluments <sup>1</sup>	-	70,769	476,070	470,850	522,090	533,700	732,840	739,320
Multi-year variable emoluments	-	47,179	317,380	323,331	348,060	373,499	488,560	1,100,414
including long-term cash emoluments (deferral 2016) <sup>1</sup>	-	47,179	317,380	313,900	348,060	355,800	488,560	492,880
(deferral 2012) <sup>2</sup>	-	-	-	-	-	-	-	489,325
including Long Term Incentive Plan 2012 (qualifying period: 2012-2016)	-	-	-	9,431	-	17,699	-	118,209
Others	-	0	0	0	0	0	0	0
<b>TOTAL</b>	-	<b>195,520</b>	<b>1,314,080</b>	<b>1,322,206</b>	<b>1,398,307</b>	<b>1,431,406</b>	<b>1,838,109</b>	<b>2,458,138</b>
Service cost	-	-	305,849	274,210	308,020	261,243	274,349	252,223
<b>TOTAL EMOLUMENTS</b>	-	<b>195,520</b>	<b>1,619,929</b>	<b>1,596,416</b>	<b>1,706,327</b>	<b>1,692,649</b>	<b>2,112,458</b>	<b>2,710,361</b>

**Executive Board members who left the Executive Board in 2016<sup>3</sup>**

	Thomas Blades Executive Board member from 08.03.2012 to 30.06.2016		Dr Wolfgang Büchele Member of the Executive Board from 01.05.2014 Chairman of the Executive Board from 20.05.2014 to 07.12.2016		Georg Denoke Executive Board member from 12.09.2006 to 13.09.2016	
	2015	2016	2015	2016	2015	2016
<i>Remuneration received during the year, in EUR</i>						
Fixed emoluments	600,000	300,000	1,200,000	1,122,581	750,000	527,083
Other benefits	21,955	11,704	37,733	46,979	20,761	16,113
<b>TOTAL</b>	<b>621,955</b>	<b>311,704</b>	<b>1,237,733</b>	<b>1,169,560</b>	<b>770,761</b>	<b>543,196</b>
One-year variable emoluments						
Short-term cash emoluments <sup>1</sup>	722,760	364,080	1,075,500	1,008,451	840,000	591,732
Multi-year variable emoluments	481,840	242,720	717,000	672,301	560,000	512,697
including long-term cash emoluments (deferral 2016) <sup>1</sup>	481,840	242,720	717,000	672,301	560,000	394,488
(deferral 2012) <sup>2</sup>	-	-	-	-	-	-
including Long Term Incentive Plan 2012 (qualifying period: 2012-2016)	-	-	-	-	-	118,209
Others	0	0	0	0	0	0
<b>TOTAL</b>	<b>1,826,555</b>	<b>918,504</b>	<b>3,030,233</b>	<b>2,850,312</b>	<b>2,170,761</b>	<b>1,647,625</b>
Service cost	309,022	289,509	651,268	631,395	256,911	165,849
<b>TOTAL EMOLUMENTS</b>	<b>2,135,577</b>	<b>1,208,013</b>	<b>3,681,501</b>	<b>3,481,707</b>	<b>2,427,672</b>	<b>1,813,474</b>

<sup>1</sup> 60 percent of the variable cash remuneration is paid in cash with no further obligation incumbent on the Executive Board member. 40 percent of the variable cash remuneration is paid out in cash with the obligation to acquire Linde shares and to hold them for at least four years.

<sup>2</sup> In 2012 and 2013, 40 percent of the variable cash remuneration was converted as at the balance sheet date into virtual shares with dividend entitlement and not paid for at least another three years.

<sup>3</sup> Information in connection with the termination of the Executive Board activities can be found in the section entitled "Payments made to Executive Board members who left the Board in 2016".

***Other remuneration-related arrangements***

The Supervisory Board has the right, at its own discretion, to award a special payment to an Executive Board member for exceptional performance. Again in the 2016 financial year, no such payment was granted. Any potential special payment is capped at an amount which, when taken together with the cash component and deferral component for that financial year, does not exceed the cap in terms of the amount for the one-year variable emoluments.

***Benefits in the event of termination of a contract***

In the event that he is not reappointed between the ages of 55 and 63 for reasons beyond his control, the Executive Board member Sanjiv Lamba will receive, in accordance with an existing contract, a lump sum severance payment of 50 percent of his annual cash remuneration (fixed emoluments and that portion of the variable cash emoluments which is to be paid in cash with no obligation to invest in shares (60 percent)) for the last full financial year before the termination of his employment.

In compliance with the German Corporate Governance Code, all contracts with members of the Executive Board, with the exception of the contract with Professor Dr Aldo Belloni, include the following provision. In the event of the early termination of the employment contract of a member of the Executive Board without due cause for that termination, his or her severance pay will be capped at twice the annual cash emoluments (fixed emoluments and that portion of the variable cash emoluments which is to be paid in cash with no obligation to invest in shares (60 percent)) ("severance cap"). The calculation is based on the annual cash emoluments for the last full financial year prior to the dismissal of the member from the Executive Board. If the annual cash emoluments of the member of the Executive Board for the financial year in which his or her employment is terminated are likely to be significantly higher or lower than the annual cash emoluments for the last full financial year, the Supervisory Board may at its discretion make an adjustment to the calculation of the annual cash emoluments. If the remaining term of the employment contract is less than two years, the severance pay is calculated pro rata. For the period on the basis of which the severance pay is determined, the Executive Board members receive no pension payments. The contract of employment with Professor Dr Aldo Belloni does not provide for any severance payment in the event that it is terminated prematurely.

If Linde AG is acquired by another company and there is a change of control, and an employment contract is terminated within nine months of that date by mutual consent or as a result of a failure to renew the contract at the appropriate time or as a result of the resignation of the Executive Board member due to his or her position

on the Board being unduly compromised by the takeover, members of the Executive Board, with the exception of Professor Dr Aldo Belloni, have an entitlement to benefits based on their contractual cash emoluments but limited in extent. However, the burden of proof is on the member of the Executive Board to demonstrate the actual circumstances of his or her dismissal as a result of which his or her position has been unduly compromised. The recommendation of the German Corporate Governance Code relating to severance caps in the event of a change of control is also being followed. In accordance with the Code, the Executive Board contracts provide for severance pay in the event of a member resigning from the Board early due to a change of control equivalent to the amount payable in the event of early retirement from the Board without cause under any other circumstances. Moreover, the Executive Board member would receive additional compensation equivalent to his or her annual cash emoluments (fixed emoluments and that portion of the variable cash emoluments which is to be paid in cash with no obligation to invest in shares (60 percent)). The additional compensation would not be payable if the member of the Executive Board had served on the Board for less than three years or if he or she had not yet reached the age of 52 or had already reached the age of 63 when the employment contract ended. If the member of the Executive Board receives benefits on the occasion of or in connection with the acquisition by a majority shareholder, a controlling interest or another legal entity, these are taken into account when the compensation and severance pay benefits are calculated. The pension entitlement is determined in accordance with the rules for the early termination of an employment contract without cause.

If the employment contract of a member of the Executive Board is terminated with due cause, no payments are made to the Board member.

Executive Board members are bound by a restraint clause for a period of two years following the termination of their contracts. By way of compensation, the company undertakes to pay former Board members an amount equivalent to 50 percent of their fixed emoluments during the period of restraint. The compensation qualifies in full for pension benefits. The contract of employment with Professor Dr Aldo Belloni does not contain a restraint clause.

If the member of the Executive Board leaves the company's service as a result of death or incapacity for work, the Executive Board member or his or her heirs are entitled to the fixed monthly emoluments for the month in which the employment contract ended, and for the following six months. Moreover, the Executive Board member or his or her heirs are entitled to that proportion of the variable cash emoluments in respect of that part of the year in which the member of the Executive Board was active. In this case, 100 percent of the amount is paid in cash.

### *Payments made to Executive Board members who left the Board in 2016*

The members who left the Executive Board in 2016, Thomas Blades, Georg Denoke and Dr Wolfgang Büchele, received and will receive only the amount of remuneration to which they are entitled under their contracts of employment.

For the period from 1 January 2016 to 30 June 2016, Thomas Blades received, in addition to his fixed monthly cash emoluments, an amount of EUR 606,800 as pro rata one-year variable remuneration, which will fall due for payment in April 2017. 40 percent of this amount is to be used to purchase deferral shares; the provisions of the contract of employment regarding the deferral component of the variable emoluments continue to apply unchanged. Thomas Blades lost the performance shares options and rights to matching shares based on the Long Term Incentive Plan 2012 (LTIP 2012), without receiving any compensation, due to his resignation from the Board with effect from 30 June 2016. No compensation was provided for adherence to a restraint clause and no severance payment was made. Thomas Blades' entitlement to occupational pension benefits lapsed when he left the Board because the vesting requirements had not been met at that time.

Up until the termination of his contract of employment at the end of 30 April 2017, Dr Wolfgang Büchele will receive the fixed monthly cash emoluments of EUR 100,000 set out in his contract of employment and his variable emoluments. Fixed emoluments of EUR 77,419 and pro rata variable emoluments of EUR 117,948 are attributable to the period between his departure from the Executive Board and 31 December 2016. For the period from 1 January 2017 until the termination of his contract of employment at the end of 30 April 2017, fixed emoluments totalling EUR 400,000 are to be paid; the amount of the variable emoluments will be based on the provisions set out in the contract of employment, which are set out in further detail under the section entitled "Variable cash emoluments" above. The provisions of the contract of employment regarding the deferral component of the variable emoluments continue to apply unchanged. A provision of EUR 586,000 was set up for the variable emoluments in 2017. At the end of 30 April 2017, all of his performance shares options and rights to matching shares will be lost. For a period of two years after his departure, Dr Wolfgang Büchele will receive compensation for adherence to a contractually agreed post-contractual restraint clause. His entitlement to occupational pension benefits will lapse upon the termination of his contract of employment because the vesting requirements will not have been met.

Up until the termination of his contract of employment at the end of 28 February 2017, Georg Denoke will receive the fixed monthly cash emoluments of EUR 62,500 set out in his contract of employment and his

variable emoluments. Fixed emoluments of EUR 222,917 and pro rata variable emoluments of EUR 418,280 are attributable to the period between his departure from the Executive Board and 31 December 2016. For the period from 1 January 2017 until the termination of his contract of employment at the end of 28 February 2017, fixed emoluments totalling EUR 125,000 are to be paid; the amount of the variable emoluments will be based on the provisions set out in the contract of employment, which are set out in further detail under the section entitled "Variable cash emoluments" above. The provisions of the contract of employment regarding the deferral component of the variable emoluments continue to apply unchanged. A provision of EUR 225,000 was set up for the variable emoluments in 2017. At the end of 28 February 2017, his performance shares options and rights to matching shares which have not yet been exercised will be adjusted on a pro rata basis. On 13 September 2016, the company decided not to require Georg Denoke to adhere to a post-contractual restraint clause, meaning that its obligation to pay compensation lapses six months after the declaration. As a result, Georg Denoke is only entitled to the contractual compensation for adherence to a restraint clause for the period from 1 March to 13 March 2017. After his departure, he will be entitled to severance pay of EUR 3,180,000 in line with the agreements reached in his contract of employment. His contractual pension entitlements (vested entitlement to occupational pension benefits) will remain unaffected. As at 31 December 2016, provisions of EUR 2,246,635 (The Linde Group) and EUR 1,322,106 (Linde AG) had been set up for this purposes.



### *Loans and advances*

During the financial year, no loans or advances were made to members of the Executive Board.

### *Total emoluments of former members of the Executive Board*

Former members of the Executive Board and their surviving dependants received total emoluments of EUR 10,202,212 in the 2016 financial year (2015: EUR 2,214,936). The total emoluments also include changes in the value of annual tranches of share-based remuneration that have been recognised as an expense and previous claims under virtual shares for former Executive Board members, as well as the abovementioned payments to Executive Board members who left the Board in 2016, with the exception of the pro rata one-year variable remuneration paid to Thomas Blades.

A provision has been made in the Group financial statements for current pensions and future pension benefits in respect of former members of the Executive Board and their surviving dependants of EUR 59,710,818 (2015: EUR 58,771,380). In the annual financial statements of Linde AG, a provision of EUR 46,747,736 was made (2015: EUR 50,381,450). The differences in the amounts disclosed are attributable to different accounting parameters being used to calculate the figures included in the Group financial statements and the annual financial statements.

## Remuneration of the Supervisory Board

The remuneration of the Supervisory Board is determined at the Annual General Meeting based on a proposal from the Executive Board and Supervisory Board. It is governed by Article 11 of the articles of association.

Under the new system approved at the 2013 Annual General Meeting, the remuneration of the Supervisory Board changed so that it comprises only fixed emoluments.

### *Annual fixed emoluments*

Each member of the Supervisory Board receives annual fixed emoluments of EUR 150,000.

### *Emoluments of the Chairman and Deputy Chairmen of the Supervisory Board*

The Chairman of the Supervisory Board receives annual fixed emoluments of EUR 450,000 and each of the Deputy Chairmen receives annual fixed emoluments of EUR 225,000. These fixed amounts also include the recompense for chairing and serving on committees.

### *Emoluments of the Standing Committee and Audit Committee*

Each member of the Standing Committee and the Audit Committee (excluding the Chairman and Deputy Chairmen of the Supervisory Board) receives EUR 30,000 in addition to his or her annual fixed emoluments and the Chairman of the Audit Committee receives EUR 60,000 in addition to his or her annual fixed emoluments.

### *Attendance fees*

The company pays members of the Supervisory Board an attendance fee of EUR 1,000 every time they attend a Supervisory Board meeting or committee meeting. This amount remains unchanged if several meetings take place on the same day.

### *Payment date, VAT and reimbursement of expenses*

The remuneration of the Supervisory Board is paid after the end of the relevant financial year. The company reimburses members of the Supervisory Board for their expenses and also for VAT on their emoluments and on their expense reimbursements. The company can take out liability insurance for the benefit of members of the Supervisory Board to cover the legal liability arising from their activities as Board members.

### *Voluntary personal investment*

The members of the Supervisory Board made a personal commitment to the Supervisory Board that, in return for 25 percent of the fixed gross emoluments payable in each financial year, they would purchase shares in Linde

and in each case hold these shares for the duration of their membership of the Supervisory Board of Linde AG. This does not apply if the Supervisory Board members remit at least 85 percent of their fixed emoluments to the Hans Böckler Foundation in accordance with the guidelines of the Confederation of German Trade Unions (DGB) or to the employer as a result of an obligation under a service or employment contract. If in these cases the proportion of fixed emoluments transferred is less than 85 percent, the personal commitment applies to the proportion of the fixed emoluments which has not been transferred.

In the 2015 financial year, the Supervisory Board members fulfilled their personal commitment. No cost arose for the company as a result. The Supervisory Board bought Linde shares on the stock market and reported the purchases in accordance with the German Securities Trading Act (WpHG).

The ongoing talks between Linde AG and Praxair, Inc. regarding a merger of the two companies prompted Linde AG to release the Supervisory Board members from the abovementioned personal commitment for the time being. All of the Supervisory Board members affected then made a declaration to the Chairman of the Supervisory Board and the Chief Executive Officer stating that they would not fulfil their personal commitment to acquire Linde shares for as long as they are released from the personal commitment by the company. The personal commitment to hold Linde shares that have already been acquired for the duration of their membership of the Supervisory Board remains unaffected by these declarations.

### *Emoluments of the Supervisory Board for 2016*

The total emoluments of the Supervisory Board (fixed emoluments and attendance fees) amounted to EUR 2,537,574 (2015: EUR 2,512,000) plus VAT of EUR 482,139 (2015: EUR 477,280). The total cost for the attendance fees was EUR 112,000 (2015: EUR 82,000).

The following table lists the remuneration of the individual members of the Supervisory Board by component in the 2016 and 2015 financial years:

CORPORATE GOVERNANCE  
REMUNERATION REPORT  
(PART OF THE  
COMBINED MANAGEMENT REPORT)

## EMOLUMENTS OF THE SUPERVISORY BOARD

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<i>in EUR</i>		<i>Fixed emoluments<sup>1</sup></i>	<i>Emoluments for sitting on committees<sup>1</sup></i>	<i>Attendance fees<sup>1</sup></i>	<i>Total emoluments<sup>1</sup></i>
Professor Dr Wolfgang Reitzle (Chairman) (as of 21.05.2016)	2015 2016	– 276,639	– –	– 8,000	– 284,639
Dr Manfred Schneider (Chairman) (until 20.05.2016)	2015 2016	450,000 173,361	– –	10,000 5,000	460,000 178,361
Hans-Dieter Katte <sup>2</sup> (Deputy Chairman)	2015 2016	225,000 225,000	– –	10,000 13,000	235,000 238,000
Michael Diekmann (Second Deputy Chairman)	2015 2016	225,000 225,000	– –	6,000 8,000	231,000 233,000
Professor Dr Ann-Kristin Achleitner	2015 2016	150,000 150,000	30,000 30,000	9,000 11,000	189,000 191,000
Dr Clemens Börsig	2015 2016	150,000 150,000	60,000 60,000	8,000 10,000	218,000 220,000
Anke Couturier	2015 2016	150,000 150,000	– –	5,000 7,000	155,000 157,000
Franz Fehrenbach <sup>3</sup>	2015 2016	150,000 150,000	– 28,033	4,000 9,000	154,000 187,033
Gernot Hahl <sup>2</sup>	2015 2016	150,000 150,000	60,000 60,000	9,000 13,000	219,000 223,000
Dr Martin Kimmich <sup>2</sup>	2015 2016	150,000 150,000	– –	5,000 7,000	155,000 157,000
Dr Victoria Ossadnik (as of 07.01.2016)	2015 2016	– 147,541	– –	– 7,000	– 154,541
Xaver Schmidt <sup>2</sup>	2015 2016	150,000 150,000	– –	5,000 7,000	155,000 157,000
Frank Sonntag <sup>2</sup>	2015 2016	150,000 150,000	– –	5,000 7,000	155,000 157,000
<b>TOTAL<sup>4</sup></b>	2015	<b>2,250,000</b>	<b>180,000</b>	<b>82,000</b>	<b>2,512,000</b>
<i>(in percent)</i>		<b>90</b>	<b>7</b>	<b>3</b>	<b>100</b>
<b>TOTAL</b>	2016	<b>2,247,541</b>	<b>178,033</b>	<b>112,000</b>	<b>2,537,574</b>
<i>(in percent)</i>		<b>89</b>	<b>7</b>	<b>4</b>	<b>100</b>

<sup>1</sup> Amounts excluding VAT.<sup>2</sup> The employee representatives have decided to forward their remuneration to the Hans Böckler Foundation in accordance with the guidelines of the Confederation of German Trade Unions.<sup>3</sup> Member of the Standing Committee as of 25 January 2016.<sup>4</sup> This includes the emoluments of the Supervisory Board member Klaus-Peter Müller, who resigned at the end of 31 December 2015 (fixed emoluments: EUR 150,000, emoluments for committee-related activities: EUR 30,000, attendance fees: EUR 6,000, total emoluments: EUR 186,000).**Loans, advances and other emoluments**

At 31 December 2016, there were no advances or loans to members of the Supervisory Board. This was also the case throughout the whole of 2016 and in 2015. Moreover, the members of the Supervisory Board received no payments or advantages in 2015 or 2014 for services they provided individually, in particular advisory or agency services.

## LINDE IN THE CAPITAL MARKET

### *DAX achieves positive annual result despite volatile development*

The 2016 stock market year was characterised by concerns relating to political stability: the Brexit vote, Donald Trump's victory in the US presidential elections and the referendum in Italy all had an impact on the development of the stock markets, as did concerns over the global economy and measures taken by international central banks.

Nevertheless, Germany's leading index, the DAX, was able to hold its own in this difficult international environment. In the first few months of the year, the slowdown of the Chinese economy and the drop in oil prices sent the index on a downward trajectory. The DAX touched on a low of around 8,700 points in February and only bounced back after the Chinese government announced that it would be taking countermeasures.

In the second quarter, Germany's leading index initially showed positive development on the whole. In June, however, the surprising outcome of the EU referendum in the United Kingdom triggered the biggest price slump within the space of a day, sending the DAX plunging from around 10,350 to under 9,200 points.

Contrary to expectations, the DAX nevertheless made a fairly swift recovery. By August, the index had already returned to the pre-Brexit level. In the third quarter, investors were keeping a watchful eye on the monetary policy pursued by the US Federal Reserve (the Fed). The Fed initially, however, left its key rate unchanged in September, waiting until December to lift it slightly, by 0.25 percentage points.

November 2016 had a surprise in store when Donald Trump emerged as the winner of the US presidential elections. While this only triggered a momentary price dip on the DAX, the US markets benefited considerably from positive expectations regarding monetary policy and economic incentives provided by Trump. Germany's leading index was boosted by the continuation of the European Central Bank's loose monetary policy at the end of 2016. On 30 December 2016, the DAX closed the 2016 stock market year at 11,481 points, up by 6.9 percent.

With this result, the DAX outperformed most of Europe's major stock market indices. The MSCI Europe

Index only gained 4.0 percent. The FTSEurofirst 300 Index, London, lost 0.6 percent, with the DJ EURO STOXX gaining 1.5 percent. The CAC 40 Index in Paris rose by 4.9 percent.

The US stock markets outperformed the DAX: the S & P 500 Index climbed by 7.5 percent compared to the previous year. The technology index NASDAQ (NASDAQ composite) achieved an even better performance, rising by 9.5 percent. The emerging markets showed similarly positive development. The MSCI Emerging Markets Index, for example, rose by 8.6 percent in the year under review.

### *Upward trend sees Linde shares outperform the DAX leading index*

At the beginning of the stock market year, the Linde share generally slightly outperformed the DAX. On the whole however, it developed in tandem with Germany's leading index and was initially hit by economic concerns. Like the DAX, Linde shares also reached their low in February, sliding to EUR 115.85.

The forecast for the 2016 financial year, which was published in March 2016, was partly interpreted by the capital markets as a sign of a slowdown in growth, which temporarily narrowed the lead that the Linde share had over the DAX. In the months that followed, however, the Linde share was once again able to gain a slight lead over the leading index. In June, Linde shares followed the downward trend of the DAX resulting from the Brexit decision.

On 16 August, Linde confirmed that it was involved in talks on a possible merger with Praxair, pushing its share price up by around 11 percent that day. From then on, the share price performance was mainly event-driven. When the merger talks were initially ended in mid-September, the price of Linde shares dropped, although they remained above the DAX level.

In October, the company's shares received positive impetus from the reporting of the quarterly results and the publication of Linde's future strategic focus. This also included the announcement of further efficiency measures (LIFT programme).

Just before the end of the year, the capital markets showed a positive reaction to the announcement made in early December that the merger talks were to be resumed. This tailwind allowed the Linde share to make further gains, reaching an annual high of EUR 163.55 on 19 December 2016.

In addition to the news regarding a possible merger with Praxair, Linde shares also continued to benefit from The Linde Group's fundamentally solid and stable business model. This business model is characterised by long-term contractual structures, a broad-based customer portfolio and a stable cash flow.

Further efficiency measures adopted in the year under review, as well as the well-known HPO (High

CORPORATE GOVERNANCE  
LINDE IN THE CAPITAL MARKET

Performance Organisation) concept designed to achieve a sustainable productivity gain, contribute to a positive perception of Linde on the capital market.

The capital market is increasingly evaluating responsible behaviour in the corporate sector with investments that take the principles of sustainable management into account (Socially Responsible Investment, SRI). Linde is represented in a number of SRI funds, indices and ranking systems. Among others, Linde forms part of the global Dow Jones Sustainability Index (DJSI World), the FTSE4Good Index series, the Ethibel Sustainability Index (ESI) and the STOXX Global ESG Leaders Index. Further information on Linde's capital market activities can be found on ► [PAGE 60](#).

## CAPITAL MARKET-BASED FIGURES

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		2015	2016
Number of shares with dividend entitlement for the financial year	Units	185,638,071	185,638,071
Year-end closing price	EUR	133.90	156.10
Year high	EUR	193.85	163.55
Year low	EUR	128.05	115.85
Total dividend of Linde AG for the financial year	EUR m	640	687
Market capitalisation <sup>1</sup>	EUR m	24,857	28,978
Average weekly volume	Units	2,510,206	2,817,454
Volatility <sup>1</sup> (200 days)	%	30.2	27.3
<b>Information per share</b>			
Cash dividend	EUR	3.45	3.70
Dividend yield	%	2.6	2.4
Operating cash flow	EUR	19.3	18.32
Earnings (reported EPS)	EUR	6.10	6.50

<sup>1</sup> Calculation at 31 December.

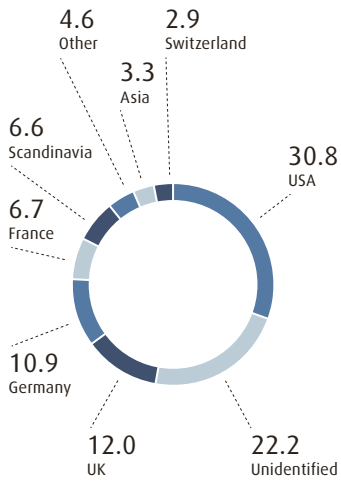
LINDE PERFORMANCE IN COMPARISON WITH  
THE MOST IMPORTANT INDICES<sup>1</sup>

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	2016 in percent	Weighting Linde shares in percent
Linde (including dividend)	19.8	-
Linde (excluding dividend)	16.6	-
DAX	6.9	3.05
Prime Chemical	7.6	12.92
DJ EURO STOXX	1.5	0.77
DJ EURO STOXX Chemical	5.4	9.15
FTSEurofirst 300	-0.6	0.43
FTSE E300 Chemical	4.0	8.08
MSCI Europe	4.0	0.42

<sup>1</sup> At 31 December 2016.

**INSTITUTIONAL INVESTOR HOLDINGS  
BY REGION IN %**



**Dividend payment**

Linde has adopted an earnings-based dividend payout geared towards continuity. At the Annual General Meeting on 10 May 2017, the Executive Board and Supervisory Board will propose the payment of a dividend of EUR 3.70 per share. This is an increase of 7.2 percent compared with last year's dividend of EUR 3.45. In relation to the profit for the year from continuing operations (attributable to Linde AG shareholders) resulting in a dividend payout ratio of 57.0 percent (2015: 56.5 percent). The dividend yield based on the year-end closing price was around 2.4 percent (2015: 2.6 percent).

**Stable shareholder structure**

In the annual shareholder identification survey, Linde identified the shareholders of around 78 percent (2015: around 76 percent) of the outstanding shares on the balance sheet date of 31 December 2016. This solely reflects institutional investors.

**High level of investor relations (IR) activities sustained**

In the 2016 financial year, Linde continued its intensive communication with capital market participants. At almost 40 conferences and roadshows around the world, several events for private investors and in the course of plant visits, Linde offered its shareholders and potential investors the opportunity to speak personally to representatives of the Group, including members of the Executive Board.

A key focus of Linde's communications with the capital markets is the strategic development of the Group. In particular, the focus is on leveraging the Group's strengths to enhance the performance of the Group as a whole even further. This also includes further increasing efficiency within the Group, which this year included, among other things, the launch of the LIFT programme. Linde also explained current business developments of the entire Group, as well as the impact of exchange rates and the global economic climate, and was able to convince national and international investors alike of the potential offered by its products, technologies and services.

Communications in the second half of the year focused on the possible merger with Praxair, Inc. The Investor Relations team kept shareholders and potential investors informed of current developments in connection with the merger talks and remains available to answer any questions and queries in the future.

Transparency, continuity and reliability will continue to be the hallmarks of Linde's IR work in 2017, too. The IR team will continue to present the arguments that make an investment in Linde attractive to investors: its forward-looking and robust business model characterised by long contract periods, financing on a long-term basis and an excellent position in the fast-growing business sectors.

All current information about Linde shares can be found on the Group's website at ► [WWW.LINDE.COM](http://WWW.LINDE.COM) in the Investor Relations section. If you have any questions or require information, the IR team is available at your service at +49.89.35757-1321. You can also direct your questions to Linde online by sending an e-mail to ► [INVESTORRELATIONS@LINDE.COM](mailto:INVESTORRELATIONS@LINDE.COM).

**LINDE SHARE INFORMATION**

Type of share	Bearer shares
Stock exchanges	All German stock exchanges
Security reference numbers	ISIN DE0006483001
	CUSIP 648300
Reuters (Xetra)	LING.DE
Bloomberg	LIN GR

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# Combined Management Report

## SECTION 2

# FUNDAMENTAL INFORMATION ABOUT THE GROUP

## BUSINESS MODEL OF THE LINDE GROUP

### *The Linde Group*

The Linde Group is a gases and engineering company with global operations. The Group comprises three divisions:

- Gases Division
- Engineering Division
- Other Activities

### *Gases Division*

The company offers a wide range of compressed and liquefied gases as well as chemicals, and is the partner of choice across a huge variety of industries. Within the Gases Division, Linde allocates its activities to the following product areas:

- On-site
- Healthcare
- Cylinder gases
- Liquefied gases

In the case of the on-site business, customers are generally supplied via an on-site production plant, while in the other product areas gases are delivered to the customer in gas cylinders or tankers.

### *Operational management*

On the organisational front, the Gases Division comprises three segments: EMEA, Asia/Pacific and the Americas. Responsibilities are allocated on the basis of a regional structure. Within the three segments, Regional Business Units (RBUs) are responsible for the operating business.

There are also five Global Governance Centres (GGCs) which are managed centrally and act on a Group-wide basis: GGC Merchant & Packaged Gases (liquefied gases and cylinder gas), GGC Electronics (electronic gases), GGC Healthcare, GGC Operations

and GGC Deliver. These units are responsible, by way of example, for establishing best practice, and ensure that the process standards which have been defined are implemented and continually enhanced across the Group. The Group-wide Opportunity & Project Development (OPD) function is responsible, in particular, for the development of new projects.

The Corporate & Support Functions provide assistance to the business units of the Group. ► [SEE MANAGEMENT ORGANISATION, PAGES 204 TO 205.](#)

### *Engineering Division*

Linde's Engineering Division offers its customers worldwide an extensive range of gas production and processing services. The focus is on promising market segments such as olefin, natural gas, air separation, hydrogen and synthesis gas plants. In contrast to virtually all competitors, the company can rely on its own extensive process engineering know-how in the planning, project development and construction of turnkey industrial plants. The Engineering Division either supplies plant components and services directly to the customer or to the Gases Division, which operates the plants on behalf of the customer under a gases supply contract.

The Engineering Division is centrally managed and assisted by the Corporate & Support Functions. At Group level, one of the members of the Executive Board is responsible for the Engineering Division. ► [SEE MANAGEMENT ORGANISATION, PAGES 204 TO 205.](#)

### *Other Activities*

Other Activities comprises the operations of logistics services company Gist. Gist specialises in the distribution of chilled food and beverages, and operates principally in the United Kingdom and in Ireland.

Due to the plans to sell Gist, the business has been reported as a discontinued operation in this Annual Report. Further information about these costs is given in ► [NOTE \[19\]](#) of the Notes to the Group financial statements.

### *Corporate management*

The Executive Board is international in composition and is responsible for the management of the company. Each operational member of the Executive Board is responsible for one segment. ► [SEE MANAGEMENT ORGANISATION, PAGES 204 TO 205.](#) By reflecting the operating model in the allocation of responsibilities to individual members of the Executive Board, the Group ensures that the individual strengths and skills of the Executive Board members are used effectively at both regional and product level.



# VALUE-BASED MANAGEMENT OF THE LINDE GROUP

## Core financial performance indicators

One of the key elements of Linde's corporate strategy is the pursuit of sustainable earnings-based growth, with the aim of achieving a steady increase in corporate value. To measure the medium-term and long-term financial success of this value-based management strategy, the Group uses the following core performance indicators:

- Group revenue and the revenue of the Gases Division and the Engineering Division,
- Group operating profit (Earnings Before Interest, Tax, Depreciation and Amortisation, EBITDA) and the operating profit of the Gases Division and the Engineering Division,
- Group operating margin and the operating margin for the Engineering Division and for the segments EMEA, Asia/Pacific and Americas and
- Return on capital employed (ROCE) for the Group.

These performance indicators are submitted on a regular basis to the entire Executive Board and are used for internal management purposes. The variable remuneration of the Executive Board is also based on these performance indicators. ► [SEE REMUNERATION REPORT, PAGES 22 TO 37.](#)

Just like the other financial and non-financial indicators, the core financial performance indicators only include profits and losses from continuing operations. Profits and losses from discontinued operations are not included in the calculation.

## Other financial and non-financial indicators

To manage its operating business and represent its performance, Linde also uses other indicators such as EBIT (earnings before interest and tax), free cash flow before financing activities (operating free cash flow) and segment-specific performance indicators, such as order intake in the Engineering Division. Order intake is a key indicator of future business performance in the plant construction business, which is geared towards the long term. Another financial indicator used

is earnings per share (EPS). Since this figure is based on post-tax earnings, it also takes account of financing and fiscal components.

The calculations of operating free cash flow and of earnings per share are given on ► [PAGES 62 AND 132](#) of this financial report.

Other non-financial indicators include the number of serious transport incidents, the number of work-related accidents, CO<sub>2</sub> emissions, and water and energy consumption. Further information on these figures is given on ► [PAGES 71 TO 81](#) of this financial report.

## Calculation of the core financial performance indicators

The core performance indicator ROCE is calculated as EBIT adjusted for special items divided by capital employed. ► [SEE GRAPHIC 12.](#)

Group operating profit (EBITDA) is calculated by adjusting Group EBIT for special items and for the amortisation of intangible assets and depreciation of tangible assets. The amortisation of intangible assets and depreciation of tangible assets are included in functional costs. They are disclosed in the segment information on ► [PAGES 114 TO 115.](#)

The operating margin is derived from two of the performance indicators: "revenue" and "operating profit".

EBIT is calculated as Group revenue less cost of sales and other functional costs (marketing and selling expenses, research and development costs, administration expenses) less other operating expenses. In addition, the figure includes other operating income and the share of profit or loss from associates and joint ventures. ► [SEE TABLE 15, PAGE 50.](#) EBIT is also adjusted for special items. Special items are items which, due to their nature, frequency and/or extent, are likely to have an adverse impact on how accurately the key financial figures reflect the sustainability of the earning capacity of The Linde Group in the capital market.

In the 2016 financial year, the special items related to restructuring costs and expenses in connection with the planned merger with Praxair.

A reconciliation between the reported performance indicators and the performance indicators after adjusting for special items is given in the Notes to the Group financial statements. ► [SEE NOTE \[38\].](#)

## DEFINITION OF ROCE

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### Return

+/- EBIT

+/- Special items

### Capital employed<sup>1</sup>

Equity

+ Financial debt

+ Liabilities from finance leases

+ Net pension obligations

- Cash &amp; cash equivalents and securities

- Receivables from finance leases

<sup>1</sup> Calculated as the average of the figures as at 31 December of the current year and 31 December of the prior year.

# TARGETS AND STRATEGY OF THE LINDE GROUP

## *Merger*

Linde is aiming for a merger among equals with the US company Praxair. This merger would bring together two leading companies for industrial gases, allowing both players to exploit their respective strengths. Linde's established position as a technology leader would be combined with Praxair's operational excellence, allowing a new global market leader to emerge. The merged company would have a strong position in all key regions and end markets, creating a balanced, more diversified global portfolio. This strategic merger would combine the potential, excellent employees and first-class processes of both companies.

## *Boosting efficiency*

Developments in the markets in which Linde operates have accelerated. The competition has also become even more intense. It is absolutely crucial for the company to become more agile so that it can react to customer requirements in a highly efficient manner and exploit any opportunities that present themselves.

As part of the Focus restructuring programme, Linde has taken key organisational adjustment steps in recent years to implement structures that will ensure effective procedures in the future, too. In the three-year period from 2015 to 2017, this programme aims to reduce costs by around EUR 180 m.

Linde also launched the LIFT programme in the autumn of 2016 in order to secure its entrepreneurial success in the long term, too. The company plans to use this initiative to further optimise its portfolio, which includes plans to sell the logistics service provider Gist. As well as reviewing the range of products and services on offer, the company's regional activities are also being put under the microscope. The company will be withdrawing from unattractive regional markets. In general, regional responsibility will be strengthened further in order to accelerate any necessary local restructuring measures. Linde intends to streamline cross-sectional functions and bring decision-making processes and competencies even closer to the operating business.

In general, LIFT aims to establish flatter hierarchies and a wider span of control. Processes will be streamlined and be made more decision-oriented. Linde will be investing in digital distribution channels to fully exploit the opportunities that digital customer relationships offer. It will forge ahead with process standardisation and automation, for example by making use of opportunities for electronic invoicing and payment. Savings potential not relating to personnel will also be exploited.

Another aspect involves ensuring the competitiveness of Linde Engineering. This will involve reviewing the cost structure, improving the technological basis, expanding the service business and pressing ahead with plant standardisation.

The company aims to use the LIFT programme to reduce costs by around EUR 370 m a year from 2019 onwards.

# REPORT ON THE ECONOMIC POSITION OF THE GROUP

## MACROECONOMIC ENVIRONMENT

### GROSS DOMESTIC PRODUCT (GDP) IN REAL TERMS<sup>1</sup>

13

	% Weighting <sup>2</sup>	% Growth				
		2012	2013	2014	2015	2016
EMEA	29.3	0.6	1.1	1.9	1.8	1.6
Eurozone	15.8	-0.9	-0.2	1.2	1.9	1.7
Germany	4.6	0.7	0.6	1.6	1.5	1.8
Asia/Pacific	26.7	6.0	5.9	5.9	5.6	5.5
China	14.8	7.8	7.8	7.3	6.9	6.7
Americas	33.0	2.3	2.0	2.0	1.7	0.9
USA	24.8	2.2	1.7	2.4	2.6	1.6
<b>WORLD</b>	<b>100.0</b>	<b>2.6</b>	<b>2.5</b>	<b>2.8</b>	<b>2.7</b>	<b>2.2</b>

<sup>1</sup> Source: Oxford Economics, in respect of countries in which Linde operates. The prior-year figures have been adjusted on the basis of the latest available data (as at 3 February 2017).

<sup>2</sup> Weighting is based on GDP 2016.

### INDUSTRIAL PRODUCTION (IP)<sup>1</sup>

14

	% Growth				
	2012	2013	2014	2015	2016
EMEA	-0.9	-0.3	1.3	1.3	1.2
Eurozone	-2.3	-0.7	0.9	2.0	1.3
Germany	-0.4	0.1	1.5	0.5	1.1
Asia/Pacific	5.4	5.1	5.1	4.2	4.0
China	8.4	8.0	7.4	6.2	6.1
Americas	1.9	1.7	2.0	-0.7	-1.5
USA	2.8	1.9	2.9	0.3	-1.0
<b>WORLD</b>	<b>2.4</b>	<b>2.3</b>	<b>3.2</b>	<b>1.8</b>	<b>1.5</b>

<sup>1</sup> Source: Oxford Economics, in respect of countries in which Linde operates. The prior-year figures have been adjusted on the basis of the latest available data (as at 3 February 2017).

### *Global economic trends*

Linde operates in more than 100 countries worldwide and offers its customers a diverse portfolio of products and services. Macroeconomic trends and economic conditions in the various regions therefore both have a significant influence on the Group's business situation. To put the business performance of Linde into perspective, a summary is given below of the economic trends in 2016.

Based on data from Oxford Economics, global economic growth emerged weaker in 2016 than in 2015. In a global economy characterised by macroeconomic and political uncertainty, initial estimates suggest that global real gross domestic product (GDP) rose by 2.2 percent (2015: 2.7 percent). Global industrial production (IP), an important indicator for Linde's business, showed little momentum for the second year running, with initial estimates pointing towards an increase of 1.5 percent (2015: 1.8 percent). This means that both gross domestic product and industrial production showed slightly weaker growth than had been expected back in the first quarter (GDP: 2.3 percent; IP: 1.9 percent). The main factor influencing the global economy relating to economic developments in the emerging markets, particularly in China but also in Brazil and Russia. Growth in the US was driven by consumption, while industrial production continued to show weak development – despite the stabilisation on the oil and commodities markets starting in the beginning of the year. The outcome of the UK referendum on whether to remain in the European Union (EU) and the surprising result of the US presidential elections had barely any impact on the global economy in 2016, as there was no global slump in consumer or corporate confidence that would have had a negative impact on consumption and capital expenditure in the short term.<sup>1</sup>

### *EMEA (Europe, Middle East and Africa)*

The economy in the EMEA region as a whole saw a growth rate of 1.6 percent in 2016 (2015: 1.8 percent). Industrial production grew by 1.2 percent, but decelerated compared to 2015 (1.3 percent). Similar to the previous year, there were substantial variations in economic trends in the various EMEA sub-regions. In Western Europe, growth came in at 1.7 percent, more or less on a par with the previous year. Out of the major economies in Western Europe, Germany, Spain, and the UK saw relatively robust trends. In Germany, GDP rose by 1.8 percent in 2016, higher than the prior-year level of 1.5 percent. The UK achieved growth of 2.0 percent (2015: 2.2 percent). Spain once again showed particularly strong growth of 3.3 percent. In France and Italy, the growth rates were moderate and came in at a similar level to the previous year: France reported growth of 1.1 percent (2015: 1.2 percent), while Italy grew by 0.9 percent (2015: 0.6 percent).

In Eastern Europe, the economy recovered in 2016 overall, despite the ongoing recession in Russia. While the region as a whole grew by 1.1 percent (2015: 0.7 percent), GDP growth in Russia was once again in the red at –0.5 percent (2015: –3.7 percent). The countries in the region that reported the highest levels of GDP growth were Romania (4.8 percent), Slovakia (3.4 percent) and Bulgaria (3.4 percent).

Growth in the Middle East in 2016 came to 1.8 percent, down considerably on the previous year (4.0 percent).

Many of Africa's economies continued the positive trend seen in the previous year. It was only in South Africa that GDP showed only slight growth in 2016, increasing by 0.4 percent, which is even lower than the growth seen in 2015, a weak year on the whole (1.3 percent). This resulted in a drop in growth in the region as a whole to 0.3 percent (2015: 2.5 percent).

### *Asia/Pacific*

The most favourable economic trends in 2016 were once again to be seen in the Asia/Pacific region. GDP growth in this region came in at 5.5 percent, more or less on a par with the previous year (5.6 percent). Industrial production showed growth of 4.0 percent, which is also similar to the prior-year level (2015: 4.2 percent).

China once again reported slightly slower growth of 6.7 percent (2015: 6.9 percent), although growth remains still in the Chinese government's target corridor. Chinese industrial production rose by 6.1 percent (2015: 6.2 percent). Both figures are ahead of the forecasts released at the beginning of the year, largely due to the continuation of expansive fiscal and monetary policy.

Just like in 2015, GDP in Southeast Asia grew by 5.7 percent in 2016. Industrial production, however, showed weaker growth of 2.2 percent (2015: 3.6 percent).

In Australia, there was hardly any change in the economic situation in 2016. While gross domestic product showed slightly weaker year-on-year growth of 2.2 percent (2015: 2.4 percent), industrial production growth increased to 1.7 percent (2015: 1.2 percent). The mining industry was once again the main driving force behind the increase in industrial production.

<sup>1</sup> The growth values set out below for individual regions correspond to the average values, weighted based on economic output, for the countries in which Linde operates ("Linde regions").

### *Americas*

GDP growth in the Americas region reached 0.9 percent, well below the rate in 2015 (1.7 percent). This was once again due to the ongoing recession in Brazil and to weaker development in the United States. US GDP increased by only 1.6 percent in 2016 (2015: 2.6 percent). Industrial production dropped by 1.0 percent, meaning that it was even more disappointing than in 2015, which had already been weak (2015: 0.3 percent). GDP growth in Brazil was in negative territory again at -3.4 percent (2015: -3.8 percent) and industrial production also contracted by 6.7 percent (2015: -8.2 percent).

The macroeconomic data presented here for GDP and industrial production is based on the dataset from Oxford Economics as at 3 February 2017.

## SECTOR-SPECIFIC BACKGROUND

### *Gases industry*

In 2016, the global gases market showed similar growth to that of the previous year. Demand varied from region to region and from industrial sector to industrial sector. The competitive situation was characterised by consolidation and efficiency increases. North America, Europe and Asia remain the largest sales markets for industrial gases. The fastest rate of growth in 2016 was once again in Asia.

The global steel industry is still suffering from excess capacity (particularly in China) and price pressure from Chinese steel exports. Decisions to close individual steelworks were unable to counteract this situation to any considerable degree. According to information released by the World Steel Association, global steel production in 2016 was up by only 0.8 percent year-on-year, with a capacity utilisation rate of only around 69 percent.

Developments in the chemical and energy sector (oil and gas) were also characterised by considerable challenges. The low oil and gas prices meant that there was no significant revival in new investment activity. In the long term, however, investment activity is expected to bounce back due to the ongoing rise in the demand for fossil resources.

The overall conditions for refineries deteriorated slightly again in 2016 compared with the previous year. With low commodities prices overall, margins are at a low level. Market participants remain hesitant to embark on new investments due to existing excess capacity and the mood of uncertainty.

The manufacturing industry once again showed subdued development across the board in the 2016 financial year. Some areas and regions are already showing positive demand impetus generated by new technologies such as additive production processes (e.g. laser welding). The construction industry continued to show stable growth worldwide last year, although growth on the biggest market, China, was slightly slower than in previous years.

The demand for applications in the glass industry to reduce energy consumption and avoid emissions continued to rise in 2016.

The electronics industry once again showed dynamic development in 2016. Ongoing improvements to production processes in semiconductor manufacturing continue to boost the demand for high-purity gases. The demand for microchips used in mobile end devices, however, is growing at a slower rate. New fields of application relating to digitalisation, SSD storage media and automotive electronics should, however, supply positive demand impetus in the future, too.

The environment for LEDs continues to improve. The market is benefiting from growing public awareness of lighting applications which are environmentally friendly and energy-efficient.

The performance of the food and beverage industry was once again relatively steady in 2016. This development is being driven by the ongoing trend towards healthier eating, higher consumption of meat protein and more processed foods. At the same time, demand for convenience products continues to rise.

The global healthcare market was very stable again in 2016, although it was characterised by ongoing mounting cost and price pressure due to moves to step up savings drives and greater regulation, particularly in the United States as a result of competitive bidding. Long-term growth drivers remain the ongoing population growth and population ageing, the increase in chronic conditions such as asthma or chronic obstructive pulmonary disease (COPD) and the general trend towards greater prevention and more intensive patient care, also outside of a hospital environment.

### *Plant construction*

The international large-scale engineering business was once again characterised by weak demand and more intense competition in 2016. Investments and, as a result, the market volume fell further in a year-on-year comparison. Political instability in the Middle East and North Africa, coupled with sustained low oil and natural gas prices, as well as weak growth rates in up-and-coming markets such as India and China further intensified this trend.

### *Air separation plants*

Excess capacity in the global steel industry and the restraint shown with regard to the realisation of major projects in China resulted in lower demand for new air separation plants. This clearly exacerbated the competitive and cost pressure in 2016. By contrast, Linde was able to secure a significant share of the air separation projects still available on the market, e.g. in the United States and India.

### *Olefin plants*

The market for olefin plants was also marked by a general reluctance to invest in 2016. Due to the combination of low oil prices, lower growth of consumer markets and considerable new capacities for olefins already under construction, investors across the globe postponed, shelved or reassessed their projects. This did not affect ongoing projects at Linde in 2016.

### *Natural gas plants*

Due to the low prices of oil, natural gas and LNG, the oil and gases industry slashed its investment level drastically in 2016 and postponed a large number of investment decisions. Nevertheless, Linde was able to secure a large-volume milestone project in 2016 with the contract for a gas processing plant in eastern Russia.

### *Hydrogen and synthesis gas plants*

The weaker Chinese economy, coupled with global excess capacity, meant that the chemical industry was once again more reluctant to invest in 2016. Due to the fact that oil prices remain low, the Russian petrochemical industry, for example, only made limited investments in desulphurisation processes within refineries.

# BUSINESS REVIEW OF THE LINDE GROUP

## RESULTS OF OPERATIONS OF THE LINDE GROUP (CONTINUING OPERATIONS)

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	2015	2016	Change	
	<i>in EUR m</i>	<i>in EUR m</i>	<i>in EUR m</i>	<i>in percent</i>
Revenue	17,345	16,948	-397	-2.3
Cost of sales	11,166	10,847	-319	-2.9
<b>GROSS PROFIT</b>	<b>6,179</b>	<b>6,101</b>	<b>-78</b>	<b>-1.3</b>
Research and development costs, marketing, selling and administration expenses	4,330	4,228	-102	-2.4
Other operating income and expenses	168	189	21	12.5
Share of profit or loss from associates and joint ventures (at equity)	12	13	1	8.3
<b>EBIT</b>	<b>2,029</b>	<b>2,075</b>	<b>46</b>	<b>2.3</b>
Financial result	-397	-324	73	18.4
Income tax expense	396	424	28	7.1
<b>PROFIT FOR THE YEAR</b>	<b>1,236</b>	<b>1,327</b>	<b>91</b>	<b>7.4</b>
attributable to Linde AG shareholders	1,133	1,206	73	6.4
attributable to non-controlling interests	103	121	18	17.5
Restructuring and merger costs (special items)	192	126	-66	-34.4
Amortisation of intangible assets/depreciation of tangible assets	1,866	1,897	31	1.7
<b>OPERATING PROFIT</b>	<b>4,087</b>	<b>4,098</b>	<b>11</b>	<b>0.3</b>
<b>OPERATING MARGIN <i>in %</i></b>	<b>23.6</b>	<b>24.2</b>	<b>-</b>	<b>+60 bp</b>
<b>EARNINGS PER SHARE <i>in EUR</i> – UNDILUTED</b>	<b>6.10</b>	<b>6.50</b>	<b>0.40</b>	<b>6.6</b>
<b>EARNINGS PER SHARE <i>in EUR</i> – UNDILUTED (BEFORE SPECIAL ITEMS)</b>	<b>6.82</b>	<b>7.00</b>	<b>0.18</b>	<b>2.6</b>
<b>RETURN ON CAPITAL EMPLOYED (BEFORE SPECIAL ITEMS) <i>in %</i></b>	<b>9.5</b>	<b>9.4</b>	<b>-</b>	<b>-10 bp</b>



### *Revenue and operating profit*

In the 2016 financial year, the revenue of The Linde Group from continuing operations came to EUR 16.948 bn (2015: EUR 17.345 bn). Group operating profit from continuing operations amounted to EUR 4.098 bn, on a par with the prior-year level of EUR 4.087 bn. In addition to the lower contribution to revenue made by the Engineering Division compared with the previous year, this development was driven, in particular, by exchange rate changes. These resulted in negative exchange rate effects arising on the translation of various local currencies into the reporting currency (the euro). After adjusting for these exchange rate effects, Group revenue was 0.2 percent higher than in 2015. Group operating profit increased by 2.7 percent after adjusting for exchange rate effects.

The Group operating margin came in at 24.2 percent, up by 60 basis points on the prior-year value (2015: 23.6 percent). The measures already taken to boost efficiency back in 2015 (Focus programme) also contributed to this improvement. In the three-year period from 2015 to 2017, this programme aims to reduce costs by up to EUR 180 m. Linde launched another Group-wide efficiency programme in 2016 (LIFT programme). This programme, which is also to run for a period of three years, is designed to generate further savings of around EUR 370 m a year. Total expenses of approximately EUR 400 m are likely to be incurred in the period leading up to the end of 2017 for the programmes. As of 2019, the two programmes combined are to result in savings of around EUR 550 m a year. The expenses of EUR 116 m incurred during the reporting period were classified as special items. Expenses of approx. EUR 10 m in connection with the planned merger with Praxair have also been reported as special items. This brings the total special items to EUR 126 m. In 2015, restructuring costs of EUR 192 m were recognised as a special item. Note: The reconciliation of the key financial figures before special items is given in ► [NOTE \[38\]](#) of the Notes to the Group financial statements.

### *Results of operations*

The cost of sales fell at a faster rate than revenue. This is mainly due to the fact that the Engineering Division made less of a contribution to revenue than in the previous year. As a result, the gross margin in the 2016 financial year came to 36.0 percent (2015: 35.6 percent).

The other functional costs were down by EUR 102 m in a year-on-year comparison. First, the restructuring costs included in this item in 2015 were much higher than the expenses reported in 2016. Second, the measures to boost efficiency that had been introduced in 2015 already resulted in savings in 2016, allowing the company to reduce its functional costs.

The balance of other operating income and expenses improved by EUR 21 m, primarily due to an increase in the profit on disposal of non-current assets.

The financial result improved primarily due to the redemption of two hybrid bonds in the amount of EUR 700 m and GBP 250 m, which bore interest at a rate of 7.375 percent and 8.125 percent respectively.

The information provided above relates exclusively to continuing operations. As the business of the logistics service provider Gist is to be sold in the coming year, it has been reported as a discontinued operation. The profit for the year from discontinued operations came to EUR -52 m in 2016 (2015: EUR 16 m). This includes a loss resulting from valuation at fair value, less costs to sell, in the amount of EUR 75 m. Further information is given in ► [NOTE \[19\] OF THE NOTES TO THE GROUP FINANCIAL STATEMENTS](#).

# GASES DIVISION

## GASES DIVISION

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	2015	2016	Change	
	in EUR m	in EUR m	in EUR m	in percent
Revenue	15,168	14,892	-276	-1.8
Operating profit	4,151	4,210	59	1.4
Operating margin in percent	27.4	28.3	-	+90 bp
Capital expenditure (excluding financial assets)	1,881	1,660	-221	-11.7
Number of employees (at the balance sheet date)	52,395	52,907	512	1.0

Revenue in the Gases Division fell by 1.8 percent from EUR 15.168 bn to EUR 14.892 bn, mainly due to negative exchange rate effects. After adjustments to reflect exchange rate and natural gas price effects, revenue rose by 1.4 percent.

## REVENUE AND OPERATING PROFIT BY SEGMENT

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in EUR m	2015			2016		
	Revenue	Operating profit	Operating margin in percent	Revenue	Operating profit	Operating margin in percent
EMEA	6,010	1,790	29.8	5,736	1,807	31.5
Asia/Pacific	4,157	1,063	25.6	4,109	1,084	26.4
Americas	5,183	1,298	25.0	5,232	1,319	25.2
Consolidation	-182	-	-	-185	-	-
<b>GASES DIVISION</b>	<b>15,168</b>	<b>4,151</b>	<b>27.4</b>	<b>14,892</b>	<b>4,210</b>	<b>28.3</b>

## REVENUE DEVELOPMENT ON A COMPARABLE BASIS BY SEGMENT

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in EUR m	31.12.2015	31.12.2016	Exchange rate effect	Exchange rate-adjusted revenue development in percent	Natural gas price effect	Comparable revenue development in percent
	EMEA	6,010	5,736	-223	-0.9	-47
Asia/Pacific	4,157	4,109	-105	1.4	-15	1.8
Americas	5,183	5,232	-86	2.6	-2	2.7
<b>GASES DIVISION</b>	<b>15,168</b>	<b>14,892</b>	<b>-413</b>	<b>0.9</b>	<b>-64</b>	<b>1.4</b>

## EMEA (Europe, Middle East, Africa)

Revenue in the EMEA region came to EUR 5.736 bn in the 2016 financial year, down by 4.6 percent on the previous year (2015: EUR 6.010 bn). Once again, negative exchange rate effects have to be taken into account. On a comparable basis, after adjusting for exchange rate effects and changes in the price of natural gas, the revenue was on a par with the previous year. The operating profit showed positive development, coming in at EUR 1.807 bn (2015: EUR 1.790 bn). This was also supported by income arising from changes to pension schemes and profits on disposal of non-current assets. In addition, the measures to boost efficiency already resulted in initial savings. The operating margin rose to 31.5 percent as a result (2015: 29.8 percent).

Different business trends were to be seen in the product areas of the various sub-regions of the EMEA segment. In the on-site business, Linde was able to benefit from the ramp-up of new plants in the Middle East & Eastern Europe, as well as in Northern Europe, in particular. Revenue growth was also, however, influenced by the insolvency of a customer in the United Kingdom. This had already been communicated in the fourth quarter of last year. Revenue in the business with liquefied and cylinder gases showed relatively stable development. In its Healthcare business, Linde achieved revenue growth in virtually all regions.

The most important projects from an entrepreneurial perspective in the year under review included two large air separation plants that Linde brought on stream in Russia. The plants will supply the customer SIBUR in Dzerzhinsk under a long-term gas supply agreement. The investment volume came to the equivalent of around EUR 50 m. SIBUR is the largest petrochemical company in Russia and Eastern Europe.

In Porvoo (Finland), Linde brought a new hydrogen plant on stream for the Finnish oil company Neste Oil. The investment came to around EUR 70 m and is linked to a long-term on-site agreement. Neste Oil's refinery has two hydrogen production plants, the older of which has now been replaced by a more efficient one.

Linde has been a pioneer of hydrogen refuelling technology for years now, and is continuing to drive forward the establishment of hydrogen infrastructure for fuel-cell vehicles. Together with partners, five additional public filling stations featuring Linde technology went into operation in Germany in 2016. Other H<sub>2</sub> filling stations were opened in the UK, Sweden, Japan and the United States.

Under the BeeZero brand, the newly established subsidiary Linde Hydrogen Concepts unveiled the world's very first car-sharing service that is exclusively composed of hydrogen-powered fuel-cell vehicles in

2016. Linde expects the operation of the fuel-cell fleet to provide valuable insights that will be helpful in the further development of hydrogen technologies and the expansion of the H<sub>2</sub> infrastructure.

In South Africa's Free State province, a helium and natural gas plant is set to go into operation in 2018 thanks to a collaboration announced by Linde and Renergen, a provider of alternative energy. Renergen will supply Linde with helium under a supply agreement, with Linde being awarded the distribution rights. Together with the helium sources in the United States, Canada, Qatar, Australia and Algeria, the new agreement strengthens Linde's position as a supplier with access to diversified helium sources.

In Duisburg, home to one of the most tradition-steeped Linde production sites, the company started work on the construction of a new liquefier. The system is expected to come on stream in early 2018 and produce around 200,000 tonnes of liquid nitrogen a year. The new system is Linde's way of adjusting its production capacities to meet the high demand for liquid nitrogen in the Rhine-Ruhr region, particularly among major clients in the chemicals and electronics industries.

2016 also saw the Group start work on the comprehensive modernisation of its filling plant for industrial and medical gases in Unterschleissheim in the north of Munich, a move that will double the plant's capacity. As of mid-2017, the site will be able to fill more than 750,000 and handle around 1.2 million cylinders every year. This will make the filling plant The Linde Group's biggest in Germany.

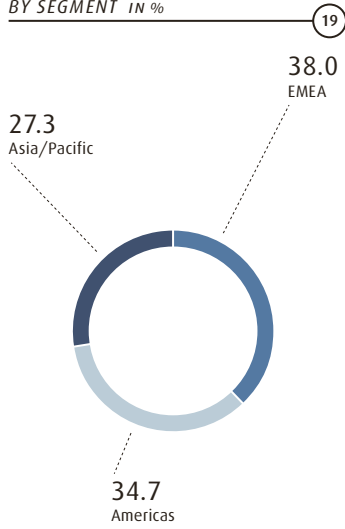
## Asia/Pacific

Business trends in the Asia/Pacific segment were mainly hindered by negative exchange rate effects. Revenue amounted to EUR 4.109 bn in the 2016 financial year, down by 1.2 percent in a year-on-year comparison (2015: EUR 4.157 bn). The comparable revenue growth came in at 1.8 percent. Operating profit rose by 2.0 percent to EUR 1.084 bn (2015: EUR 1.063 bn). This corresponds to an operating margin of 26.4 percent (2015: 25.6 percent).

In Asia, all product areas showed positive development. Particularly in the on-site and liquefied gases business, Linde benefited from the ramp-up of new plants and good plant utilisation levels.

In the South Pacific region, the ongoing weak economic environment in manufacturing industry and declining investment in the mining industry had an adverse impact on growth. Corresponding cost-cutting measures have been identified, and in some cases already implemented, as part of both the Focus Initiative and the recently launched efficiency programme LIFT.

ANALYSIS OF REVENUE  
BY SEGMENT IN %



The termination of an on-site agreement in the second quarter of last year and the drop in LPG prices also had an adverse impact on revenue.

Linde has constructed two large air separation plants for Tata Steel Limited, one of the biggest steel companies in the world, at the latter's site within the industrial complex of Kalinganagar in Odisha (India). The plants went into operation in the year under review. The plants were constructed by the Engineering Division with a total investment volume of around EUR 80 m. Linde's Gases Division operates the plants under a long-term on-site gas supply contract. The two new air separation plants will each produce gaseous oxygen, nitrogen and argon to supply the Tata Steel steelworks. They also produce liquefied gases for the regional market.

Linde also brought two air separation plants on stream as scheduled in China. The plants both produce gases for customers in the electronics industry. An air separation plant also went into operation in Taiwan, supplying the customer TSMC with gases for semiconductor production. The amount of the investment was around EUR 22 m.

Linde was also able to bring a gas production facility on stream for BASF Petronas Chemicals Sdn Bhd, a joint venture between BASF and PETRONAS in Malaysia, in 2016. Around EUR 9 m was invested in the facility, which will supply the customer with hydrogen at the Gebeng site.

A carbon dioxide plant went on stream in Marsden Point (New Zealand). The plant will supply up to 50,000 tonnes of recycled and purified CO<sub>2</sub> a year for a whole variety of applications, including the food and beverage industry, artificial fertiliser manufacturers and paper factories. A corresponding long-term agreement is in place between BOC New Zealand and the customer, Refining NZ. Around EUR 28 m was invested in the plant.

The groundbreaking for the biggest air separation plant in Bangladesh was done in Rupganj. From 2017 onwards, this air separation plant will double Linde's production capacity in the Southeast Asian country. The main buyers of air gases in Bangladesh include the shipping and ship recycling industries, but also food manufacturers and the pharmaceuticals industry.

In Malaysia, Linde took a key step in its quest to expand its market position in Southeast Asia in the long term. The company set up the joint venture Pengerang Gas Solution, Sdn Bhd together with PETRONAS Gas Bhd. The joint venture will be constructing two air separation plants to supply PETRONAS, in particular, with gaseous oxygen and nitrogen in the industrial complex of Pengerang in the south of Malaysia. A total of around EUR 150 m is being invested in the gas production facilities. The joint venture will operate the facilities as part of a long-term gas supply contract.

In the Philippines, Linde will be investing EUR 25 m in the expansion of an existing air separation plant

and the construction of a new nitrogen liquefaction plant in Apalit Pampanga in the period leading up to 2018. This investment will increase the local capacity to 400 tonnes of liquefied gases, which are in high demand in the fast-growing healthcare, electronics, food and beverage industries, as well as in the country's manufacturing sector.

Linde EOX Sdn Bhd, a subsidiary of Linde Malaysia Sdn Bhd, published an announcement in 2016 on the construction of an air separation plant in Tanjung Kiduron. The investment in the project comes to around EUR 7 m. The plant, which is scheduled to go into operation in 2017, will have a production volume of 33 tonnes of liquefied gases a day. Together with the existing air separation plant in Kuching, this will make Linde EOX the biggest producer of liquefied gases in eastern Malaysia.

## Americas

In the Americas segment, revenue increased in the period under review by 0.9 percent to EUR 5.232 bn (2015: EUR 5.183 bn). On a comparable basis, revenue rose by 2.7 percent. When compared with the prior-year period, operating profit increased by 1.6 percent to EUR 1.319 bn (2015: EUR 1.298 bn). The operating margin rose to 25.2 percent (2015: 25.0 percent).

Several sometimes contrary effects have to be taken into account with regard to both revenue and earnings development. In the Healthcare business in North America, price reductions came into effect at the beginning of the financial year due to government tenders. These cuts were stepped up further with effect from 1 July 2016. In December, some of these price cuts were subsequently postponed to the beginning of January of this year. As a result, the fourth quarter of 2016, in particular, showed better development than expected. The takeover of American HomePatient, Inc., which specialises in respiratory therapy, resulted in an increase in revenue. The revenue contribution made by American HomePatient in 2016 came to EUR 252 m. The acquisition helps to counteract the negative effects resulting from the price cuts thanks to the increased number of patients requiring care and the associated cost savings achieved thanks to economies of scale. Linde also sold two subsidiaries of Lincare that trade in medication and pharmaceutical products in the third quarter of the year. As was to be expected, the deconsolidation of these companies had a negative impact on revenue in the Healthcare area. In addition to the negative effects resulting from the state price cuts, the operating profit also includes positive effects resulting from changes to pension schemes and proceeds from the sale of the Lincare companies. Linde is also making ongoing adjustments to its cost structure and continues to pursue a strategy of organic growth.

REPORT ON THE ECONOMIC  
POSITION OF THE GROUP

## GASES DIVISION

In North America, the on-site business showed particularly good development. This was also aided by the ramp-up of new plants and extension of the agreement on the supply of nitrogen with the customer PEMEX in Mexico, which was agreed at the end of 2015. In September, Linde North America also announced that it would be investing more than USD 100 m in a new air separation plant and the expansion of its production capacities in Claymont, Delaware. Producing 1,200 tonnes of liquefied oxygen, nitrogen and argon and 400 tonnes of gaseous products a day, this will be Linde's largest liquefaction plant in North America from 2019 onwards. The particularly energy-efficient new plant will improve the supply situation for numerous Linde customers in the region.

In the individual South American countries – particularly in Brazil and Venezuela – the overall conditions continued to deteriorate in 2016. The economic situation in the region is characterised by high inflation and low growth. Although all product areas in South America showed positive development, the rates of growth are based on a relatively low prior-year level.

## Product areas

Bolstered by the acquisition of American HomePatient, Linde was able to increase its revenue in the health-care business by 3.8 percent on a like-for-like basis in 2016, bringing it to EUR 3.740 bn (2015: EUR 3.603 bn).

In the on-site product area, revenue increased on a comparable basis by 2.1 percent to EUR 3.757 bn (2015: EUR 3.680 bn). After adjusting for the effects of the expiry of contracts, revenue in this product area was up by 3.4 percent year-on-year.

Trends in the liquefied gases business were positive. Revenue here increased by 1.7 percent to EUR 3.575 bn (2015: EUR 3.514 bn). Revenue relating to cylinder gases came to EUR 3.820 bn on a comparable basis, which was 1.9 percent lower than the figure for the previous year (2015: EUR 3.894 bn). Within this context, it is important to remember that the prior-year figures benefited from positive price effects in the electronics and specialty gases area, particularly in North America.

### GASES DIVISION: REVENUE BY PRODUCT AREA

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<i>in EUR m</i>	<i>2015<sup>1</sup></i>	<i>2016</i>	<i>Change in percent</i>
Liquefied gases	3,514	3,575	1.7
Cylinder gases	3,894	3,820	-1.9
On-site	3,680	3,757	2.1
Healthcare	3,603	3,740	3.8
<b>GASES DIVISION</b>	<b>14,691</b>	<b>14,892</b>	<b>1.4</b>

<sup>1</sup> Adjusted for exchange rate effects and changes in the price of natural gas.

# ENGINEERING DIVISION

Revenue and earnings trends in Linde's international plant construction project business reflected the

progress made on individual projects. Revenue in the Engineering Division fell in financial year 2016 by 9.4 per cent to EUR 2.351 bn (2015: EUR 2.594 bn). Operating profit also fell to EUR 196 m (2015: EUR 216 m). The operating margin was 8.3 percent, matching the figure for the prior year (2015: 8.3 percent). This means that the operating margin was still above the industry average and matched the target of around 8 percent that Linde had set itself for the 2016 financial year. Order intake in 2016 was EUR 2.257 bn (2015: EUR 2.494 bn). The ongoing low oil and gas prices resulted in tepid demand in plant construction in 2016, too. As at the end of December 2016, the order backlog came to EUR 4.386 bn (2015: EUR 4.541 bn), meaning that it remains at a solid level.

## ENGINEERING DIVISION

21

in EUR m	2015	2016	Change	
	in EUR m	in EUR m	in EUR m	in percent
Revenue	2,594	2,351	-243	-9.4
Order intake	2,494	2,257	-237	-9.5
Order backlog	4,541	4,386	-155	-3.4
Operating profit	216	196	-20	-9.3
Operating margin	8.3%	8.3%		
Capital expenditure (excluding financial assets)	32	30	-2	-6.3
Number of employees (at the balance sheet date)	7,038	6,432	-606	-8.6

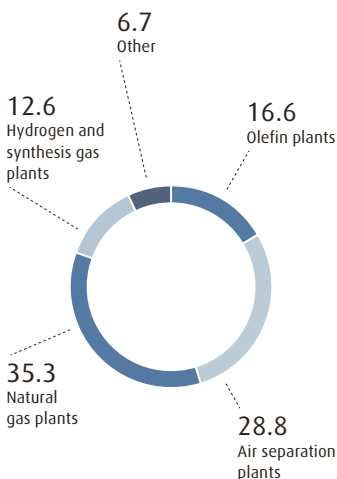
## ENGINEERING DIVISION: REVENUE AND ORDER INTAKE BY PLANT TYPE

22

in EUR m	Revenue		Order intake	
	2015	2016	2015	2016
Olefin plants	683	819	321	374
Natural gas plants	572	448	1,135	796
Air separation plants	406	419	426	651
Hydrogen and synthesis gas plants	690	485	355	284
Other	243	180	257	152
<b>ENGINEERING DIVISION</b>	<b>2,594</b>	<b>2,351</b>	<b>2,494</b>	<b>2,257</b>

## ORDER INTAKE BY PLANT TYPE IN %

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### Olefin plants

Despite a difficult market environment in the international plant construction business, Linde was able to establish a solid competitive position.

The Linde Engineering Division, for example, was awarded a contract by Shell in 2016 to provide procurement and supply services for the construction of an ethylene plant and two polyethylene plants in Pennsylvania (USA). Linde Engineering will also supply accessories, such as process furnaces, plate heat exchangers and a pressure swing adsorption (PSA) unit. The total volume of the contract comes to around EUR 360 m, with around EUR 220 m contained in the order intake for 2016. The remainder had already been recognised in the previous year.

### Natural gas plants

Due to the low prices for oil, natural gas and LNG and a result of the start-up of new major LNG plants and the associated excess capacity, the oil and gas industry reduced its capital expenditure across the board, postponing the majority of investment decisions.

Despite this trend, Linde was already been selected as the licensor of the natural gas processing technology for the Amur GPP project (Amur Gas Processing Plant) in eastern Russia in the previous year. The plant will be erected in five phases in the period leading up to 2024. For the second phase of the project, which started in 2016, an amount of just under EUR 500 m was recognised in the order intake. Once it is completed, Amur GPP will be one of the

world's largest gas processing projects, with a processing capacity of up to 49 billion cubic metres of natural gas per year.

2016 also saw Gazprom and their general contractor SRDI Peton Oil & Gas select the Engineering Division as the licensor of a mid-scale natural gas liquefaction (LNG) plant in Portovaya on the Russian Baltic Sea coast. The plant is to liquefy natural gas from the nearby compressor station, which belongs to the Nord Stream pipeline. As part of its contract with Peton, Linde will be responsible for the basic engineering of the LNG plant and will also provide the equipment and all cryogenic components.

### Air separation plants

Linde also managed to attract a significant share of orders in the air separation plant segment, despite a difficult environment and tough competition.

For example, the Gases Division awarded a contract to the Engineering Division in the third quarter for the construction of two major air separation plants for the newly established joint venture between Linde and PETRONAS Gas Berhad. The plants will supply oxygen and nitrogen to the integrated PETRONAS refinery and petrochemical complex in Pengerang, Malaysia. The project includes the engineering, procurement, construction and commissioning (EPCC) of the plants. The corresponding order intake in the Engineering Division came to more than EUR 100 m in 2016.

The Engineering Division received a contract from the customer JSC Grodno Azot from Belarus for the construction of two air separation plants. Linde is responsible for the engineering and procurement. The plants, which correspond to an order value of around EUR 30 m, are scheduled for completion in 2018.

### Hydrogen and synthesis gas plants

The development of the market segment for hydrogen and synthesis gas plants slowed down considerably. This was due, for one thing, to a largely saturated market for petrochemicals and an excess supply of basic chemicals. For another, many projects which were awarded around three to four years ago started up for the first time in 2016. This also resulted in a greater reluctance among companies to make new investments. Nevertheless, Linde succeeded in winning orders in this product area, too.

Linde's Engineering Division, for example, received an order in 2016 from Sweden's largest fuel manufacturer, Preem, to build a hydrogen plant at Preem's refinery site in Gothenburg. The order is worth around USD 40 m in total. This is the first order for a standardised, modular plant from Linde's new HYDROPRIME® MAX product line.

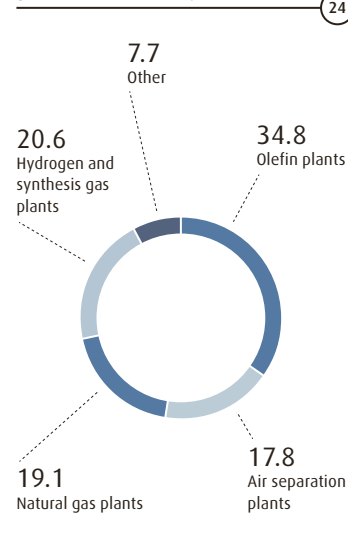
In the last quarter of the 2016 financial year, Linde brought a large hydrogen plant (steam methane

reformer) on stream at the site of the Neste Oil refinery in Porvoo (Finland). Linde's Engineering Division was responsible for building the turnkey plant, which will be operated by Linde subsidiary AGA. The hydrogen will be used for a large number of processes and products at the refinery, for example for diesel fuel desulphurisation and the manufacture of high-quality oils.

### Other types of plant

In August 2016, Linde Engineering brought a reference plant for helium purification on stream for the customer Weil Group Resources in Mankota, Saskatchewan (Canada) – the first plant of its kind in the world. The plant uses a hybrid process of membrane and pressure swing adsorption (PSA) technology and processes raw gas, producing industrial-quality helium (99.999 percent purity). Another helium purification plant using this innovative hybrid process will be built for the company Renergen in South Africa's Free State province. Linde Engineering had already received the contract for the initial planning, or "early engineering", of the plant in 2016. The main contract is likely to be awarded in the first half of 2017.

REVENUE  
BY PLANT TYPE IN %



## OTHER ACTIVITIES

In the 2016 financial year, the Other Activities segment comprised Linde's logistics services company Gist. The company specialises in the distribution of chilled food and beverages.

Due to the plans to sell Gist, the business has been reported as a discontinued operation in this Annual Report. Further information about these costs is given in ► [NOTE \[19\] OF THE NOTES TO THE GROUP FINANCIAL STATEMENTS.](#)

Gist generated revenue of EUR 602 m in 2016 (2015: EUR 607 m) and an operating profit of EUR 44 m (2015: EUR 44 m).



# NET ASSETS AND FINANCIAL POSITION OF THE LINDE GROUP

## GROUP STATEMENT OF FINANCIAL POSITION (SUMMARY)

25

<i>in EUR m</i>	31.12.2015	31.12.2016	Absolute change	Change in percent
Goodwill	11,604	11,405	-199	-1.7
Other intangible assets	2,760	2,440	-320	-11.6
Tangible assets	12,782	12,756	-26	-0.2
Other non-current assets	1,280	1,362	82	6.4
Other current assets	5,504	5,763	259	4.7
Cash and cash equivalents	1,417	1,463	46	3.2
<b>TOTAL ASSETS</b>	<b>35,347</b>	<b>35,189</b>	<b>-158</b>	<b>-0.4</b>
Equity	15,449	15,480	31	0.2
Provisions for pensions	1,068	1,564	496	46.4
Financial debt	9,483	8,528	-955	-10.1
Other liabilities	7,728	7,951	223	2.9
Other provisions	1,619	1,666	47	2.9
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>35,347</b>	<b>35,189</b>	<b>-158</b>	<b>-0.4</b>

## Net assets

The drop in goodwill in the amount of EUR 199 m was due primarily to two contrary effects: In connection with the recognition of assets as non-current assets classified as held for sale and disposal groups, part of the goodwill in the amount of EUR 336 m was also reclassified. Acquisitions made during the financial year increased this balance sheet item by EUR 146 m.

The drop in other intangible assets, which comprise customer relationships, brands and other intangible assets, was largely attributable to amortisation in the amount of EUR 298 m. This development was countered by additions (including additions from acquisitions) amounting to EUR 88 m.

As far as tangible assets are concerned, additions from capital expenditure totalling EUR 1.677 bn were offset by depreciation of EUR 1.593 bn.

Within current assets, trade receivables were the biggest item at EUR 2.755 bn (31 December 2015: EUR 2.724 bn). The increase was almost exclusively due to exchange rate effects in the amount of EUR 27 m.

The item also includes non-current assets classified as held for sale. These increased by EUR 599 m year-on-year, mainly due to the planned sale of the business of the logistics service provider Gist (31 December 2015: EUR 11 m). Securities had the opposite effect, falling by EUR 290 m to EUR 131 m, largely due to disposals (31 December 2015: EUR 421 m).

At EUR 15.480 bn, equity is on a par with the prior-year level. The profit for the year of EUR 1.275 bn resulted in an increase in equity. Exchange rate effects of EUR 132 m and effects from the remeasurement of pension schemes of EUR 418 m had a negative impact. The payment of the dividend to the shareholders of Linde AG for 2015, in the amount of EUR 640 m, also resulted in a reduction in equity. The equity ratio at 31 December 2016 was 44.0 percent (31 December 2015: 43.7 percent).

Provisions for pensions and similar obligations rose to EUR 1.564 bn as at 31 December 2016. This increase is mainly due to the change in the actuarial assumptions. 80.3 percent of the pension obligations (defined benefit obligation (DBO)) of The Linde Group

(31 December 2015: 86.4 percent) are covered by assets. The drop in the coverage ratio is mainly attributable to the increase in the pension obligation, which is largely the result of a drop in discount rates.

For off balance sheet commitments, see ► [NOTE \[36\]](#) of the Notes to the Group financial statements.

## Financial position

Group Treasury controls centrally the global financial management of all the Group companies. This comprises capital structure management, the financing of Group companies, cash and liquidity management, the management of financial risks (counterparty default, interest rate, currency, country and liquidity risks) and the management of pension assets.

### *Financing principles and objectives*

The aim of external financing and liquidity management is to ensure that the Group has adequate liquidity at all times.

For Linde, external financial headroom is maintained primarily by the capital markets and a major international banking group. Within the Group, the principle of internal financing applies, i.e. the financing requirements of subsidiaries are covered wherever possible, and wherever it makes financial sense, by intra-Group loans. Group companies are financed either by the cash surpluses of other business units in cash pools, or by Group loans from Linde Finance B.V. and/or Linde AG, taking into consideration any risks specific to that particular country.

Group Treasury also negotiates credit facilities with local banks to take account of legal, fiscal or other requirements. Especially in countries with currency restrictions, local financing is used to finance small amounts or for projects that involve specific local circumstances.

Linde maintained an adequate liquidity position again in 2016. In addition to cash and cash equivalents of EUR 1.463 bn, Linde also holds securities totalling EUR 131 m. These securities are mainly German government bonds with maturities of less than one year.

### *Euro Commercial Paper Programme*

The Linde Group uses a Euro Commercial Paper Programme for short-term financing. Under the programme, the issuers are Linde AG and Linde Finance B.V. with a guarantee from Linde AG. The volume of the programme is EUR 2 bn. At 31 December 2016, there were no euro commercial papers outstanding under this programme.

### *Syndicated credit facility*

Linde also has a EUR 2.5 bn syndicated revolving credit line at its disposal, which is available until 2020. In total, 33 major German and international banks used by Linde are involved in the syndicated facility. The facility is unutilised at the end of the 2016 financial year and also serves as back-up for Linde's Euro Commercial Paper Programme. This means that the Group has a high level of flexibility in its financing.

### *Capital market activities*

In April 2016, Linde Finance B.V. made an issue with a total volume of EUR 750 m under the EUR 10 bn Debt Issuance Programme with a term of twelve years and a fixed coupon of 1.00 percent. The proceeds from the issue were used for the early redemption of two hybrid bonds in the amount of EUR 700 m and GBP 250 m which Linde had issued in 2006 as part of the financing for the takeover of the British provider of gases BOC. The two subordinated bonds had been equipped with a first-time right of termination after ten years, which Linde exercised as at July 2016.

Under the EUR 10 bn Debt Issuance Programme, issues totalling EUR 7.488 bn in various currencies were outstanding at 31 December 2016 (31 December 2015: EUR 6.891 bn). ► [SEE ALSO NOTE \[23\] OF THE NOTES TO THE GROUP FINANCIAL STATEMENTS.](#)

REPORT ON THE ECONOMIC  
POSITION OF THE GROUP  
NET ASSETS AND FINANCIAL POSITION  
OF THE LINDE GROUP

### Rating

The Group's stated objective remains a strong "investment grade" rating. In August 2016, the European rating agency Scope published its first rating for The Linde Group, awarding the company an A+ rating (long-term) with a stable outlook. A short-term credit rating of S-1+ was awarded, the highest category in Scope's rating system. The agencies Moody's and S&P confirmed their ratings for Linde in 2016.

The Group's gearing (the ratio of net debt to equity) was 44.8 percent as at 31 December 2016 (31 December 2015: 49.5 percent).

The available liquidity results from the short-term securities of EUR 131 m, the cash and cash equivalents of EUR 1.463 bn and the syndicated credit facility of EUR 2.5 bn, less the current financial liabilities. This means that the available liquidity amounted to EUR 2.240 bn as at 31 December 2016 (31 December 2015: EUR 3.315 bn).

#### RATING 2016

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Rating agencies	Long-term rating	Outlook	Short-term rating
Moody's	A2	Stable	P-1
Standard & Poor's	A+	Stable	A-1
Scope	A+	Stable	S-1+

### Capital structure

The capital structure of the Group is determined in such a way as to optimise cost and risk. Gross financial debt fell during the reporting period by EUR 955 m to EUR 8.528 bn (31 December 2015: EUR 9.483 bn). In addition to the redemption of the two hybrid bonds with a total volume of around EUR 1.050 bn, further bonds in the amount of approx. EUR 370 m were redeemed in 2016. The issue of a bond in the amount of EUR 750 m had the opposite effect.

The Linde Group continues to be financed on a long-term basis. The current financial liabilities came to EUR 1.854 bn on 31 December 2016 (31 December 2015: EUR 1.023 bn). This increase is primarily attributable to the reclassification of further bonds that are due for redemption within the next twelve months. The funds required were raised in January 2017 by placing a five-year bond in the amount of EUR 1 bn. Consequently, non-current financial liabilities fell by EUR 1.786 bn to EUR 6.674 bn at 31 December 2016 (31 December 2015: EUR 8.460 bn).

Net financial debt comprises gross financial debt less short-term securities and cash and cash equivalents. At 31 December 2016, net financial debt came to EUR 6.934 bn (31 December 2015: EUR 7.645 bn). The decrease of EUR 711 m was due to a variety of sometimes contrary effects. The payment of the dividend to the shareholders of Linde AG in the amount of EUR 640 m resulted in an increase in net financial debt. By contrast, net financial debt was reduced by the solid cash flow from operating activities and by exchange rate and valuation effects.

The dynamic indebtedness factor (net financial debt to operating profit over the past twelve months) was 1.7 at 31 December 2016. This is once again down on the figure as at the end of the previous financial year (31 December 2015: 1.9) and remains well below the upper limit Linde had set itself of 2.5.

## GROUP STATEMENT OF CASH FLOWS

Within the cashflow from operating activities from continuing operations, the change in working capital showed positive development, mainly as a result of higher advance payments received from customers in the plant construction business. Income taxes paid also

fell as a result of refund payments. As far as cashflow from operating activities is concerned, it is important to bear in mind that Linde received a one-off payment of EUR 159 m in connection with the revision of a large-volume gas supply agreement with a customer from Singapore in the previous year. This was included in "other changes" in the previous year. Non-cash valuation effects and the use of restructuring provisions also contributed to the change in this item.

Payments made for investments in consolidated companies rose to EUR 250 m (2015: EUR 113 m) and related mainly to the acquisition of the US company American HomePatient, Inc.

The cash inflows from the disposal of assets also include proceeds on the disposal of consolidated companies. These include, among other things, the proceeds from the disposal of two Lincare subsidiaries in the third quarter of 2016.

### GROUP STATEMENT OF CASH FLOWS (SUMMARY, CONTINUING OPERATIONS)

27

<i>in EUR m</i>	2015	2016	Absolute change	Change in percent
<b>OPERATING PROFIT</b>	<b>4,087</b>	<b>4,098</b>	<b>11</b>	<b>0.3</b>
Change in working capital	59	279	220	-
Income taxes paid	-532	-446	86	16.2
Other changes	-31	-531	-500	-
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>	<b>3,583</b>	<b>3,400</b>	<b>-183</b>	<b>-5.1</b>
Cash outflow for investments in tangible assets, intangible assets and financial assets (excluding securities)	-1,952	-1,836	116	5.9
Payments for investments in consolidated companies	-113	-250	-137	-
Cash inflows from the disposal of assets	186	323	137	73.7
<b>OPERATING FREE CASH FLOW</b>	<b>1,704</b>	<b>1,637</b>	<b>-67</b>	<b>-3.9</b>
Payments for/proceeds from investments in securities	99	291	192	-
Net cash inflows/outflows from the proceeds/repayment of loans and capital market debt	-434	-763	-329	-75.8
Dividend payments to Linde AG shareholders and non-controlling interests	-701	-765	-64	-9.1
Net interest payments for financial debt and interest rate derivatives	-364	-347	17	4.7
Other changes	-24	-21	3	12.5
<b>CHANGE IN CASH AND CASH EQUIVALENTS</b>	<b>280</b>	<b>32</b>	<b>-248</b>	<b>-88.6</b>

# CAPITAL EXPENDITURE OF THE LINDE GROUP

## CAPITAL EXPENDITURE OF THE LINDE GROUP (CONTINUING OPERATIONS)

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	2015		2016		Change	
	in EUR m	in percent	in EUR m	in percent	in EUR m	in percent
EMEA	895	44.0	753	37.6	-142	-15.9
Asia/Pacific	386	19.0	375	18.7	-11	-2.8
Americas	600	29.5	532	26.5	-68	-11.3
<b>GASES DIVISION</b>	<b>1,881</b>	<b>92.4</b>	<b>1,660</b>	<b>82.8</b>	<b>-221</b>	<b>-11.7</b>
ENGINEERING DIVISION	32	1.6	30	1.5	-2	-6.3
Reconciliation	3	0.1	22	1.1	19	-
<b>GROUP (EXCLUDING FINANCIAL ASSETS)</b>	<b>1,916</b>	<b>94.1</b>	<b>1,712</b>	<b>85.4</b>	<b>-204</b>	<b>-10.6</b>
Financial assets	120	5.9	292	14.6	172	-
<b>GROUP</b>	<b>2,036</b>	<b>100.0</b>	<b>2,004</b>	<b>100.0</b>	<b>-32</b>	<b>-1.6</b>

The capital expenditure decision-making and allocation process is centralised in The Linde Group. Every item of capital expenditure which exceeds specific size criteria must be approved by the member of the Executive Board responsible for that area, by a central investment committee or by the full Executive Board. Capital expenditure decisions are carefully reviewed, as they are a critical success factor for a project-based, investment-focused company such as Linde.

On this basis, Linde continued to apply its growth-based capital expenditure strategy in 2016. The Group has again invested specifically in those areas in which opportunities exist for above-average growth and which contribute towards increasing the profitability and competitiveness of the Group. During the reporting period, Linde's investment activity focused not only on the on-site product area, but also particularly on the liquefied gases and cylinder gas product areas.

The investment ratio in the Gases Division in 2016 was 11.1 percent of revenue (2015: 12.4 percent). This put it within the range set out in the 2015 forecast of between 11 percent and 12 percent.

Investments in consolidated companies during the 2016 financial year totalled EUR 254 m (2015: EUR 107 m).

The remaining investment in financial assets of EUR 38 m (2015: EUR 13 m) related mainly to capital increases in joint ventures or non-current loans to associates and joint ventures.

## EXECUTIVE BOARD SUMMARY OF THE 2016 FINANCIAL YEAR FOR THE LINDE GROUP

Due to an environment characterised by macroeconomic and political uncertainty, global economic growth in 2016 came to 2.2 percent, down on the prior-year value of 2.7 percent. In addition, the continued low oil prices had a negative impact on the investment activities of many customers, particularly in the international market for large-scale plant construction. This once again had a negative impact on Linde's Engineering Division.

Nevertheless, Linde showed relatively stable development. Group revenue in the 2016 financial year came to EUR 16.948 bn, down by 2.3 percent on the figure for the previous year of EUR 17.345 bn. After adjusting for exchange rate effects, the growth in Group revenue came to 0.2 percent, which falls within the forecast range of between -3 and +4 percent.

Group operating profit came to EUR 4.098 bn (2015: EUR 4.087 bn). After adjustments to reflect exchange rate effects, it increased by 2.7 percent, which also falls within the targeted range of between -3 and +4 percent.

The Group operating margin came to 24.2 percent in 2016, up on the prior year (2015: 23.6 percent).

The return on capital employed (ROCE) after adjusting for special items was 9.4 percent in 2016 (2015: 9.5 percent), outstripping the target of around 9 percent.

The results of operations were once again adversely affected by special items in 2016. These include restructuring costs of EUR 116 m (2015: EUR 192 m) and expenses in connection with the intended merger with Praxair in the amount of EUR 10 m. All in all, however, the measures that have been taken already had a positive impact on the results of operations. The cost of sales and functional costs were cut by EUR 421 m in total. As a result, the profit for the year was up by EUR 91 m or 7.4 percent on the previous year to EUR 1.327 bn (2015: EUR 1.236 bn).

Against this background, earnings per share rose to EUR 6.50 (2015: EUR 6.10 bn), a 6.6 percent increase. Earnings per share prior to special items stood at EUR 7.00 (2015: EUR 6.82).

In the Gases Division, Linde generated revenue of EUR 14.892 bn in the 2016 financial year (2015: EUR 15.168 bn). After adjustments to reflect exchange rate effects, revenue growth came to 0.9 percent, which falls within the range of between +/- 0 percent and +5 percent that Linde had been aiming for in the 2016 financial year.

As far as operating profit in the Gases Division is concerned, Linde achieved a value that was up by 1.4 percent in a year-on-year comparison to EUR 4.210 bn (2015: EUR 4.151 bn). Excluding exchange rate effects, the operating profit in the Gases Division was up by 3.9 percent on the value for 2015. Once again, Linde was able to achieve a value within the range of between -1 percent and +6 percent that it had originally planned.

The development in the operating margins reported by the segments in the Gases Division was positive: EMEA 31.5 percent (2015: 29.8 percent), Asia/Pacific 26.4 percent (2015: 25.6 percent), Americas 25.2 percent (2015: 25.0 percent). The increase in the operating margin in EMEA and Asia/Pacific was mainly the result of the measures to boost efficiency taken in 2015, which had a positive impact on the margin this year.

In the Engineering Division, Linde generated revenue of EUR 2.351 bn in the 2016 financial year (2015: EUR 2.594 bn). This means that Linde reached the range it was originally aiming for, namely between EUR 2.0 bn and EUR 2.4 bn.

The operating margin of the Engineering Division was also in line with expectations at 8.3 percent (2015: 8.3 percent): Linde had sought to achieve a figure of around 8 percent for the 2016 financial year.

Linde will maintain its dividend distribution, which is geared towards continuity: at the Annual General Meeting on 10 May 2017, the Executive Board and Supervisory Board will propose the payment of a dividend of EUR 3.70 per share. This is an increase of 7.2 percent compared with last year's dividend. This would equate to a disproportionately substantial increase in the dividend compared to the Group operating profit development, which Linde continues to take as a basis. The cash flow from operating activities and the capital expenditure level are taken into account as well.

# NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS OF LINDE AG

## General information

Linde AG, which comprises the Linde Gas and Linde Engineering Divisions and the Corporate Centre, is the holding company and management company of The Linde Group.

The statutory financial statements of Linde AG are prepared in accordance with the provisions of the German Commercial Code (HGB) and the German Stock Corporation Act (AktG). The main differences between these financial statements and the Group financial statements which are prepared in accordance with International Financial Reporting Standards (IFRS) are in respect of revenue recognition and the measurement of financial instruments. The core financial performance indicator (and also the sole financial performance indicator) of Linde AG is the profit for the year. The dividend payable to Linde AG shareholders is distributed out of the profit for the year.

In the 2016 financial year, the new definition of revenue under the German Accounting Directive Implementation Act (BilRUG) was applied, with implications for other items in the statement of financial position/statement of profit or loss. The decision was made not to adjust the prior-year figures. If the prior-year figures had been adjusted, the impact on the net assets and results of operations would have been as follows:

- Reclassification of other assets to trade receivables in the amount of EUR 102 m
- Reclassification of sundry liabilities to trade payables in the amount of EUR 24 m
- Reclassification of other operating income to revenue in the amount of EUR 135 m
- Reclassification of other operating expenses/functional costs to the cost of sales in the amount of EUR 132 m

The amendment to the German Mortgage Credit Directive Implementation Act and the associated amendment to the German Commercial Code, which came into force in 2016, resulted in a change in the discount rate for pension obligations from an average of seven to an average of ten years. This produced a positive impact on earnings of EUR 113 m.

## Net assets of Linde AG

The total assets of Linde AG fell by EUR 218 m in 2016, from EUR 20.826 bn to EUR 20.608 bn.

Non-current assets increased by EUR 55 m to EUR 18.093 bn. The share of non-current assets in relation to total assets came to 87.8 percent (2015: 86.6 percent). Financial assets make up a significant share of the non-current assets. This is due to Linde AG's function as the parent company of The Linde Group. In the period under view, financial assets increased by EUR 54 m. Receivables and other assets rose from EUR 1.985 bn to EUR 2.110 bn. The main contributory factor here was the increase in financial receivables from affiliated companies. Linde AG also enters into Credit Support Annexes (CSAs) with banks. Under these agreements, the positive and negative fair values of derivatives held by Linde AG are collateralised with cash on a regular basis. The corresponding amounts due from banks are disclosed under this heading.

Linde AG holds 100 percent of the shares in a special fund. This fund is disclosed in securities held as current assets. In the course of 2016, the holding of securities fell by EUR 293 m.

Liquid assets fell by EUR 191 m to EUR 168 m.

Equity (before the appropriation of profit) rose by EUR 299 m to EUR 10.144 bn. Two contrary effects in particular have to be taken into account in this regard: the profit for the year of EUR 939 m resulted in an increase in equity, while the payout of the dividend for 2015 in the amount of EUR 640 m reduced equity.

The equity ratio increased from 47.3 percent to 49.2 percent as a result.

Total provisions came to EUR 1.007 bn, down slightly on the prior year. The liabilities of Linde AG fell in 2016, largely due to the reduction in financial liabilities to Linde Finance B.V resulting from the redemption of a bond, namely by EUR 461 m to EUR 9.451 bn.

## BALANCE SHEET OF LINDE AG (SUMMARY)

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	31.12.2015	31.12.2016	Change	
	in EUR m	in EUR m	in EUR m	in percent
<b>Assets</b>				
Financial assets	17,499	17,553	54	0.3
Other non-current assets	539	540	1	0.2
Receivables and other assets	1,985	2,110	125	6.3
Securities	400	107	-293	-73.3
Cash and cash equivalents	359	168	-191	-53.2
Other assets	44	130	86	195.5
<b>TOTAL ASSETS</b>	<b>20,826</b>	<b>20,608</b>	<b>-218</b>	<b>-1.0</b>
<b>Equity and liabilities</b>				
Equity	9,845	10,144	299	3.0
Provisions for pensions	274	188	-86	-31.4
Other provisions	796	819	23	2.9
Liabilities	9,911	9,451	-460	-4.6
Übrige Passiva	-	6	6	-
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>20,826</b>	<b>20,608</b>	<b>-218</b>	<b>-1.0</b>

## Financial position of Linde AG

The net financial debt of Linde AG (securities held as non-current assets, securities held as current assets, financial liabilities, financial receivables, liquid assets) fell in 2016 by EUR 566 m, from EUR 6.351 bn to EUR 5.785 bn.

This is mainly due to the drop in financial liabilities to affiliated companies of EUR 826 m. In addition, the financial receivables from externals rose by EUR 51 m as a result of Credit Support Annexes (CSA). At present, the amount stated is EUR 292 m (2015: EUR 240 m).

## Results of operations of Linde AG

Revenue in Linde AG in the 2016 financial year was EUR 2.917 bn, significantly higher than the figure for 2015 of EUR 2.097 bn. EBIT rose from EUR -11 m to EUR 118 m.

In the Linde Gas Division, revenue rose by 9.7 percent to EUR 1.449 bn (2015: EUR 1.321 bn), mainly due to the reclassifications in connection with the German Accounting Directive Implementation Act (BilRUG). In the Linde Engineering Division, Linde AG reported a year-on-year increase in revenue to EUR 1.543 bn in the 2016 financial year (2015: EUR 809 m).

All in all, Linde AG recognised revenue from contracts mainly in the following countries in the 2016 financial year: Norway, China, Saudi Arabia, the US and Russia.

Linde AG generated 35.1 percent (2015: 47.2 percent) of its sales revenue from customers in Germany. Exports accounted for 64.9 percent (2015: 52.8 percent) of revenue, with 45.8 percent (2015: 42.3 percent) relating to

Europe, 37.6 percent (2015: 34.7 percent) to the Asia/Pacific region and 14.0 percent (2015: 19.3 percent) relating to the Americas. Sales to Africa accounted for 2.6 percent of Linde AG's exports in 2016 (2015: 3.7 percent). Most of the export business relates to the Linde Engineering Division. As the international plant construction business is project business and revenue is only received once the project is completed, there are always fluctuations in the regional figures year by year.

The order intake of the Linde Engineering Division fell by 5.0 percent in a year-on-year comparison to EUR 1.523 bn (2015: EUR 1.603 bn).

The order backlog reached EUR 6.828 bn at the end of the year under review, down by 0.4 percent on the prior-year value (EUR 6.853 bn). The average duration of a contract is around three years.



REPORT ON THE ECONOMIC  
POSITION OF THE GROUP  
NET ASSETS, FINANCIAL POSITION  
AND RESULTS OF OPERATIONS  
OF LINDE AG

## RESULTS OF OPERATIONS OF LINDE AG (SUMMARY)

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	31.12.2015	31.12.2016	Change	
	in EUR m	in EUR m	in EUR m	in percent
Revenue	2,097	2,917	820	39.1
Cost of sales	1,382	2,120	738	53
<b>GROSS PROFIT</b>	<b>715</b>	<b>797</b>	<b>82</b>	<b>11.5</b>
Functional costs	868	767	-101	-11.6
Other income	381	199	-182	-47.8
Other expenses	239	111	-128	-53.6
<b>EBIT</b>	<b>-11</b>	<b>118</b>	<b>129</b>	<b>-</b>
Investment income	901	871	-30	-3.3
Other financial result	-246	-40	206	-84
<b>PROFIT BEFORE TAXES ON INCOME</b>	<b>644</b>	<b>949</b>	<b>305</b>	<b>47.4</b>
Income tax expense	-25	10	35	-140
<b>PROFIT FOR THE YEAR</b>	<b>669</b>	<b>939</b>	<b>270</b>	<b>40.4</b>
Transfer to revenue reserves	-29	-252	-223	769
<b>UNAPPROPRIATED PROFIT</b>	<b>640</b>	<b>687</b>	<b>47</b>	<b>7</b>

The gross margin fell from 34.1 percent to 27.3 percent. The main reason for the drop in the margin is the marked increase in the proportion of revenue relating to the Linde Engineering Division compared with the prior year. The engineering business generally has lower gross margins than the gases business.

The drop in functional costs to EUR 767 m (2015: EUR 868 m) is largely due to reclassifications in connection with the German Accounting Directive Implementation Act (BilRUG) and to restructuring costs in the prior year.

The drop in miscellaneous income and miscellaneous expenses was largely due to the drop in income from the reversal of provisions in the amount of EUR 46.9 m (2015: EUR 97.9 m) and to the effects of the implementation of the German Accounting Directive Implementation Act (BilRUG).

Investment income fell in 2016 to EUR 871 m (2015: EUR 901 m). Included in the figure are dividends of EUR 689 m (2015: EUR 819 m) and income from profit-sharing agreements of EUR 182 m (2015: EUR 82 m). Linde AG has direct or indirect profit-sharing agreements with most of its German subsidiaries. For the dividend payments which derive from subsidiaries mainly outside Germany, distributions are voted on in the individual companies.

The changes under the heading "Other financial result" relate mainly to the marked drop in interest expenses from pension obligations in the amount of EUR 29 m (2015: EUR 157 m), which was due almost exclusively to the change in the discount rate for pension obligations from an average of seven to an average of ten years, and to exchange gains on the measurement of the plan assets relating to pension obligations of EUR 67 m (2015: exchange rate gains: EUR 37 m).

Profit before tax came to EUR 949 m, which was higher than the prior-year figure of EUR 644 m.

After taking tax into account, Linde AG generated a profit for the year of EUR 939 m in 2016 (2015: EUR 669 m). This was up by 40.4 percent on the prior year, largely due to the significant improvement in results in the Linde Engineering Division and the change in the discount rate for pension obligations. The original forecast was for an increase of 5 percent.

# RESEARCH AND DEVELOPMENT

## The Linde Group

During the 2016 financial year, Linde spent a total of EUR 121 m on research and development (2015: EUR 131 m). As at 31 December 2016, there were 345 employees in total working in this field (2015: 348), 228 of whom were working in the Gases Division and 117 in the Engineering Division. To protect its innovations from the competition, Linde filed 360 new patents across the Group over the course of the past financial year. On 31 December 2016, 3,607 patents protected various Linde technologies. Many of them feature sustainability aspects, with more than 500 patents relating to chemicals and the environment, clean energy and hydrogen technology. More than half of research and development projects in the year under review were also aimed at achieving environmental advantages.

In the Gases Division, Linde invested EUR 76 m in research and development in 2016 (2015: EUR 83 m), focusing its activities on four customer segments of particular importance: chemicals & energy, metal-lurgy & glass, food & beverages, and manufacturing.

In the 2016 financial year, the Engineering Division spent a total of EUR 45 m on research and development activities (2015: EUR 48 m). This money was primarily allocated to the development of new and existing technologies in the product lines of natural gas plants, air separation plants, olefin plants, and hydrogen and synthesis gas plants. Linde is always looking for ways to make further improvements in the energy efficiency and environmental credentials of its plants.

By drawing on the findings of its research, the Group is continuously tapping into new ways of using its gases and is making constant improvements to its existing processes, plant technologies and applications. Development is almost always set in the context of commissions and therefore involves close liaison with customers, taking into account their requirements. In order to involve leading external institutions and companies, Linde enters into targeted cooperation initiatives, allowing it to rely on a network of more than 90 partners in more than 20 countries.

The Corporate & Support Function Technology & Innovation was set up in 2015 to further boost the effectiveness and intensity of R&D projects. In 2016, this Corporate & Support Function developed an integrated innovation strategy focusing on five key areas: advanced materials, efficiency, environment & resources, quality of life and the overarching topic of digitalisation.

### *Digitalisation*

Digitalisation will result in long-term changes to the business and methods of working in the gas industry and the plant construction business. Networking existing and new data sources opens up a whole number of additional opportunities for Linde and its customers. In the future, products connected to the Internet that collect and exchange data on an automated basis – often referred to as the Internet of Things (IoT) – will form the basis for business information that will prove relevant to entrepreneurial success. In order to respond to this development, Linde has set up a centre of competence in Pullach, where digitalisation experts working on an interdisciplinary basis are using data from customer, engineering, operations and logistics interactions to develop prototypes and services. Within this context, Linde is looking at the topic of process automation using artificial intelligence, for example.

In all of these endeavours, Linde attaches a great deal of importance to entrepreneurial thinking and agility, which is why it has established an internal process that ensures that specific ideas are developed into prototypes internally in a period of three months at the most. These prototypes are tested in collaboration with customers. This process allows Linde to assess and evaluate a large number of different approaches in a very short space of time. Proximity to the customer is crucial in this regard. This is why projects are executed exclusively in collaboration with customers. This not only guarantees a solution that meets the customer's needs, but also has an ongoing learning effect for Linde.

The digital EVOS™ DCi cylinder valve, which entered the field testing stage in December 2015, was further enhanced by Linde in 2016. The cylinder valve records key data such as the filling level and location independently and sends this information to a data storage facility on the Internet. Before the product's official launch on the pilot markets, the UK and Germany, the controls were revamped to make the valve easier to use.

A further digitalisation project relates to the development of a variable, customer-specific supply management system. The new system uses artificial intelligence to ensure that customers are always supplied with the cylinders they need. The software developed actively learns from customers' previous ordering behaviour and uses this information to automatically calculate the number of gas cylinders required for the next delivery/ the next ideal delivery date.

### *Advanced materials*

In the “advanced materials” area, Linde is focusing on the impact that industrial gases have on material characteristics and production processes.

Linde is playing a pioneering role in researching the role that industrial gases can play in additive manufacturing – also known as 3D printing. A Global Development Centre has been set up for this purpose in Unterschleissheim near Munich. This is where Linde developed ADDvance™ O<sub>2</sub> precision, the first technology that enables the exact analysis and control of oxygen and humidity levels within the printer chamber when metal powder is used in 3D printing. The application was realised in collaboration with the aerospace company Airbus Group Innovations. In the future, the ADDvance™ name is to be used for a whole product family covering a range of different gases and applications that play a decisive role, for example, in the production and storage of metal printing powder, but also in the production process itself (3D printing).

In the autumn of 2016, Linde opened a research and development centre for electronics in Taichung (Taiwan). The company invested around EUR 5 m in the state-of-the-art laboratory for analysis and product development, which is designed to support local customers and development partners in Asia-Pacific, in particular. Linde promotes the ongoing technical advancement of its customers in the electronics industry by supplying high-purity tailor-made products and helping them to develop new high-tech materials. The company is also strengthening its local research network by entering into a cooperation agreement with the Industry Technology Research Institute (ITRI) in Taiwan.

### *Efficiency*

In a market environment that is characterised by ever tougher competition, boosting the efficiency of even established procedures will prove key to generating customer value in the long run. Welding and cutting processes have traditionally been one of the main areas of application for Linde gases. This area, too, still offers a large number of opportunities for efficiency improvements. In 2016, Linde unveiled AVANTO™, an innovative process management system that significantly improves the efficiency and quality of welding operations. AVANTO™ is a low-cost, cloud-based solution for recording, monitoring and analysing welding parameters that are relevant from a quality perspective. The information, which is stored centrally, can be accessed using a PC or directly using a mobile device.

In connection with the Amur Gas Processing Plant (Amur GPP, ► [SEE ENGINEERING DIVISION, PAGE 56](#)) project in Russia, a new procedure developed by Linde is saving the customer several hundreds of millions of euros. The natural gas produced on the Russian-Chinese border is contaminated by relatively high levels of

carbon dioxide (CO<sub>2</sub>), namely a level of 3,000 ppm (0.3 percent). This composition of natural gas usually requires a complex amine scrubbing step to stop the plant from being blocked by the formation of dry ice. Linde’s solution, on the other hand, keeps the diluted carbon dioxide consistently within a sufficiently high temperature range, preventing the freezing process and saving the customer the cost of investing in an entire process step.

### *Environment & resources*

In engineering processes, energy efficiency, cost-effectiveness and environmental compatibility are often interrelated. This is why the lion’s share of the R & D activities pursued by The Linde Group are aimed at further optimising this interplay. The company is also on the lookout for partners to help it achieve its objectives. Linde is a member of a partnership comprising 17 companies and institutions from industry and academia which came together in 2016 under the umbrella of the climate protection research project “Carbon2Chem”. The project, which is set to run for a period of ten years, is to look into ways of using smelting gases from steelworks to produce chemical raw materials. The coke oven gas produced by steelworks contains more than 60 percent hydrogen by volume and is a resource that has hardly been tapped into at all to date. New approaches and methods for the catalytic and physical purification of the hydrogen are being tested, with Linde’s next-generation pressure swing adsorption (PSA) technology being used as part of this process.

Together with the US company Siluria Technologies, Linde has been working on the further development of ethylene technology since 2014 now. The aim of this cooperation is to make Siluria’s innovative process for the direct production of ethylene from natural gas, using the method known as the oxidative coupling of methane (OMC), available for industrial-scale use. In 2016, the first natural gas-based process route of this kind for ethylene production was tested successfully and is now ready for commercialisation.

Coal-fired power plants are still being used across the globe to generate energy. They emit carbon dioxide (CO<sub>2</sub>), which is harmful to our climate. In 2016, Linde successfully completed a pilot project in collaboration with BASF which resulted in the development of an even more energy-efficient and lower-cost CO<sub>2</sub> capture procedure. The procedure was tested at the National Carbon Capture Center in Wilsonville, Alabama. BASF and Linde are now aiming to test the improved technology on a bigger scale and forge ahead with the marketing of the technology.

Linde is also committed to the integration of renewable energy. By way of example, Linde is involved in two Copernicus projects subsidised by the German federal government: “Power-to-X” on the use of renewable

electricity to produce synthetic fuels and basic chemicals, and “SynErgie” to make industrial facilities requiring electricity, such as air separation plants, more flexible.

The company has already been supporting the further development of hydrogen mobility for years now. For demonstration purposes and to collect practical experience, Linde set up the car-sharing company BeeZero, with a fleet of 50 hydrogen-powered fuel-cell vehicles, in Munich in 2016.

### Quality of life

In 2016, Linde Healthcare developed a data platform together with Hospital IQ that builds on the benefits offered by the new generation of medical oxygen

cylinders (LIV® IQ). The LIV® IQ cylinders can be centrally monitored by a hospital employee using a PC or another device with access to the Internet. This significantly reduces the need for time-consuming checks to be performed on each individual cylinder, giving staff more time to spend on patients. The new cylinder offers even more advantages.

Instead of a simple pressure indicator, a digital display shows the oxygen supply time remaining. LIV® IQ calculates this automatically based on the amount of oxygen left in the cylinder and the flow rate that has been set. Visual and acoustic alarm functions, for example when cylinders are almost empty, provide an extra helping hand to hospital and nursing staff.

### RESEARCH AND DEVELOPMENT

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	Expenditure (in EUR m)		Number of employees	
	2015	2016	2015	2016
Gases Division	83	76	221	228
Engineering Division	48	45	127	117
<b>GROUP</b>	<b>131</b>	<b>121</b>	<b>348</b>	<b>345</b>

## Linde AG

In the 2016 financial year, Linde AG spent a total of EUR 117 m (2015: EUR 129 m) on research and development (R & D). Where subsidiaries conduct research and development, they charge their costs to Linde AG on a cost-plus basis. This mark-up is eliminated at Group level. Licence fees paid to subsidiaries are also eliminated at Group level.

R & D expenditure in the Linde Gas Division came to EUR 94 m in 2016 (2015: EUR 103 m). In the Linde Engineering Division, Linde AG invested EUR 23 m (2015: EUR 26 m) in the development of new and existing technologies for all the main types of plant.

As at 31 December 2016, Linde AG employed a total of 209 staff in research and development (2015: 220 employees). 115 of these employees (2015: 118) were in the Linde Gas Division and 94 employees (2015: 102 employees) were in the Linde Engineering Division.

# EMPLOYEES

Qualified and committed employees are crucial to Linde's long-term success. The Group's personnel strategy therefore focuses on winning and promoting talent and on providing attractive working conditions.

At 31 December 2016, The Linde Group employed 59,715 staff (2015: 59,774). During the financial year, 12.1 percent of employees left the Group at their own request (2015: 10.7 percent). This turnover rate varied by region, from 2.0 percent in Southern Europe to 26.9 percent in North America. The overall staff turnover rate, which includes employees retiring and being dismissed as well as employees reaching the end of temporary contracts, was 20.8 percent (2015: 18.4 percent).

## EMPLOYEES BY SEGMENT

	2015	2016
Gases Division	52,395	52,907
EMEA	21,067	20,309
Asia/Pacific	11,533	11,343
Americas	19,795	21,255
Engineering Division	7,038	6,432
Other Activities	341	376
<b>GROUP</b>	<b>59,774</b>	<b>59,715</b>

## Winning talent

Linde works with universities and research institutions around the world to attract qualified students and graduates and to retain them long term. The Group also provides training opportunities in various technical and commercial areas as well as programmes for trainees. In Germany, Linde offers training in 25 (2015: 21) different professions. In 2016, 36 percent (2015: 50 percent) of one year's cohort of apprentices and trainees in Germany were taken on as permanent employees at the end of their vocational training and a further 51 percent (2015: 47 percent) were offered a fixed-term contract. Most of the apprentices and trainees who left the Group after completing their training with Linde are pursuing further studies at school, college or university. The number of apprentices and trainees as a proportion of the total number of employees in the Group was 0.8 percent in 2016 (2015: 0.9 percent), of which 54.7 percent (2015: 52.3 percent) were in non-German companies. In Germany, 103 apprentices and trainees were recruited during the reporting year (2015: 82).

In 2016, Linde invested around EUR 8.5 m (2015: EUR 13.5 m) in the professional development of its staff. Group-wide professional development programmes are provided through Linde University. These cover such subject areas as personnel management, intercultural communications and diversity. As part of the Group-wide Lean Six Sigma programme, Linde provides its employees with training to enable them to tap into improvement potential in all areas of the Group. In 2016, training courses for Lean Six Sigma Black Belts were provided in both Europe and Asia. In addition, two methodology training programmes were delivered in Europe for the first time to innovation project managers.

During the year, the Group also continued to apply its globally standardised succession planning process. In the course of this process, discussions take place about the performance and potential of employees. Individual development plans are also agreed. This is how Linde seeks to ensure that vacancies for the most important positions are duly filled.

## Diversity

As a group with global operations, Linde relies on employees who understand local markets and customers, and who are able to apply their experience and their different perspectives to enrich the work of their team. At 31 December 2016, the Group's workforce comprised employees from 135 countries (2015: 134), while 67 nations were represented in the German companies alone (2015: 64). The proportion of senior managers from countries other than Germany in The Linde Group was 67.5 percent in 2016 (2015: 67.3 percent). During the reporting year around 190 Linde employees were sent on secondment to subsidiaries abroad (2015: 200).

Diversity is one of four values set out in The Linde Spirit, which applies to all employees around the world. The Linde Competency Model, which is based on it, is used in most countries in the evaluation and training of managers.

An important priority for Linde in its actions to promote diversity is to increase the proportion of women in management positions. Its target is to increase the proportion of women in the first management tier below the Executive Board to 14 percent by 30 June 2017 and 18 percent by 30 June 2022. At 31 December 2016, the proportion of female senior managers in this tier was around 16 percent (2015: 11 percent). In the second management tier below the Executive Board, Linde wants the proportion of women to be at least 17 percent by 30 June 2017 and 22 percent by 30 June 2022. This figure was around 18 percent at 31 December 2016 (2015: 16 percent). In order to meet these targets, the Linde Executive Board is supporting various measures promoting women, including employee initiatives. In Europe, Asia and Australia, for example, numerous activities were undertaken in 2016 by networks created by employees. Among other things, those networks

seek to encourage potential female executives. In accordance with statutory regulation, the Group has also set itself targets for the proportion of women on the Supervisory Board and Executive Board. ► [SEE CORPORATE GOVERNANCE DECLARATION AND CORPORATE GOVERNANCE REPORT ON PAGE 100.](#)

### **Work-life balance**

Linde helps its employees achieve a better work-life balance by providing a variety of opportunities worldwide. In particular, these include flexible working models such as flexitime, part-time work and teleworking. Flexible working and teleworking were introduced for example in Middle Eastern countries and in Singapore during the reporting year. In Germany, a total of 454 employees took parental leave during the year (2015: 434), 42 percent of which were men (2015: 42 percent). In the same period, 158 employees in Germany returned to Linde after a period of parental leave (2015: 209).

The Group also focuses on supporting employees who are reliant on childcare or have a family member requiring care, and on providing assistance to employees during periods of poor health or social hardship. The measures taken by Linde are designed to suit the specific local situation and demands on the Group.

Linde promotes the physical and mental health of its employees in many countries: for example, by providing advice on coping with family crises and addiction problems and by introducing initiatives designed to prevent illness. One such instance was in countries in the Middle East region, where 2016 saw the introduction of regular medical check-ups, additional health insurance and in-house sports activities.

### **Involving employees**

Linde encourages its employees to contribute their knowledge and ideas to the Group to support improvements and innovations. It has already conducted a number of global employee surveys. In many countries around the world, Linde confers awards on employees and teams who have demonstrated particular commitment to corporate objectives and values. Against this background, prizes were awarded, for example, to employees in Southern Europe, North America, Central America and South America in the financial year. In addition, the first Linde Global Innovation Challenge took place in 2016. The Group called upon all its employees worldwide to submit their ideas for innovations – especially ideas which will improve the quality of life, the environment and resources, and process efficiency. Those employees who did not submit ideas themselves could take part in online polls and discussions and contribute their expertise. In total, 1,350 suggestions were submitted. The teams of finalists presented their projects at the Linde Technology Day to around 200 company

experts from around the world, who then voted to select the winning team. The theme of the 2016 Linde Technology Day was entrepreneurial spirit.

The Group strives to work together with employee representatives and trade unions based on partnership and trust, aiming to reconcile the interests of the Group and the workforce. Linde's system of employee representation in Germany is two-tiered, consisting of a central works council for the Group as a whole and works councils in the decentralised units. Cross-border issues are dealt with by the European Works Council, which currently has 28 members and protects the rights of employees in Europe to information, consultation and advice. In many other countries, there are regional-level works councils or employee interest groups, with which Linde cooperates constructively.

### **Remuneration and social benefits**

The remuneration package of Linde employees comprises a salary in line with the market as well as variable remuneration components depending on the position of the employee within the Group. Linde also offers its staff various additional benefits such as occupational pensions and contributions towards health insurance or medical screening. These benefits reflect regional conditions and local competition. Personnel expenses in 2016 totalled EUR 3.724 bn (2015: EUR 3.829 bn), with EUR 3.185 bn (2015: EUR 3.177 bn) attributable to salaries (including social security contributions) and EUR 248 m (2015: EUR 278 m) to pensions.

Linde uses a Group-wide performance evaluation system to support fair staff appraisals. This system includes for example performance evaluations which are binding for managers. Training is provided to managers to enable them to deliver fair and transparent appraisals. Managers' pay is based in part on the extent to which Group targets and the employees' individual targets have been achieved. Depending on the business area, sustainability targets such as safety and diversity may also be relevant to the calculation. Senior managers also participate directly in the company's growth in value through share option schemes. In the 2016 financial year, managers below Executive Board level invested in 25,371 Linde shares via the schemes (2015: 21,134 shares). For each of these shares, the participants are entitled to an additional Linde share on the expiry of a four-year qualifying period.

Employees in more than 50 countries had access to occupational pensions and healthcare benefits in 2016. Around 80 percent of Linde employees were members of occupational pension schemes. In 2016, 25,116 employees had a claim to an occupational pension from defined benefit plans (2015: 26,088). A further 16,459 former employees had a vested claim to a company pension (2015: 16,416). In total, 28,722 pensioners drew

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an occupational pension from the Group (2015: 29,116). At Linde, globally binding rules apply to the modification, introduction or closure of pension plans. Any such measure must be agreed with the Global Pension Committee, which is composed of the Chief Executive Officer, the Chief Financial Officer and experts in accounting, finance and human resources.

### Labour standards and human rights

Linde commits to the principles of the UN Human Rights Charter, the core labour standards of the International Labour Organisation (ILO) and other international obligations and industry standards. The Group conducts regular reviews of the processes in place in the regions which are designed to ensure compliance with labour standards. Human rights are covered by the Group's

central guidelines, which include the Code of Ethics, purchasing guidelines and purchasing agreements, the Integrity Line policy and Group risk management. In The Linde Group Position on Human Rights, the company confirms its support for human rights and describes the processes underlying this commitment.

In 2016, more than 80 audits were conducted at the Group's business locations which covered social topics such as the provision of safe, fair working conditions and the avoidance of child labour. To detect potential weaknesses, Linde also evaluates the information provided to the Integrity Line. This is a service which employees and external stakeholders can use to report any breaches of the Group's commitment. In 2016, around 31 percent of the reports received by the service line related to human resources issues (2015: 26 percent).

### ADDITIONAL KEY FIGURES ON EMPLOYEES

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		2015	2016
Age structure of the staff			
Staff up to 30 years old	in %	17.5	17.1
Staff between 31 and 50 years old	in %	58.3	57.9
Staff over 50 years old	in %	24.2	25.0
Temporary staff	in %	8.8	8.4
Part-time employees	in %	1.7	2.5
Employees in Germany		8,014	7,842
Employees on parental leave in Germany (at 31 December)		434	454
Apprentices and trainees in total workforce	in %	0.9	0.8
Apprentices and trainees in Germany	in %	3.0	3.4
Proportion of female employees			
in total workforce	in %	30.7	32.5
in Germany	in %	25.4	23.8
in senior management positions	in %	14.5	16.2
Nationalities of employees in Germany		64	67
Non-German nationalities in senior management positions	in %	67.3	67.5
Severely disabled employees in Germany	in %	3.6	3.4
Staff covered by collective wage agreements	in %	41.2	42.3
Number of new hires		10,290	9,513
of which women	in %	49.2	50.5
Staff turnover rate <sup>1</sup>	in %	10.7	12.1
Average length of service	in years	9.1	9.1
Employees who have taken up training opportunities	in %	61.0	38.2
Average training days (per employee)		2.9	3.7
Average expenditure on training programmes (per employee)	in €	368.6	372.4

<sup>1</sup> The staff turnover rate relates to employees who have left the Group voluntarily during the financial year.

## SOCIAL COMMITMENT

Linde participates in numerous projects near its business locations. The focus is on education and research. In addition, the Group supports a variety of initiatives relating to safety, environmental protection, health, and social and cultural affairs. Cross-regional involvement in such projects is managed by the Group's Corporate Centre, while local measures are coordinated by employees in the region concerned. In 2016, Linde provided funding of around EUR 7.8 m for projects and initiatives worldwide, of which around EUR 2.7 m was donated by the Group. As a result of its social commitment during the year under review, Linde was able to reach more than one million children, school pupils and students. The Group supports the voluntary work of its employees in various ways, which include granting staff time off work and in some regions matching employees' donations. In 2016, over 750 of the Group's employees who volunteered around the world were supported in such ways by Linde.

### *Education and research*

In 2016, for the sixth time in succession, Linde sponsored the Shell Eco-marathon, a competition for young engineers which takes place every year in Europe, the Americas and Asia and promotes energy-efficient mobility. Once again, the Group assumed responsibility for supplying the hydrogen to fill the fuel cell vehicles used in the competition. Linde engineers supported the event organisers and participants through their technical expertise.

In 2004, the Group provided foundation capital of more than EUR 8 m to set up the Carl von Linde Academy at the Technical University of Munich. This institution offers engineering and science students the opportunity to acquire key skills which complement their academic subjects. By the end of 2016, around 22,000 students had taken part in courses provided by the Academy.

### *Safety and environmental protection*

During the financial year, Linde was involved in road safety initiatives in several countries. For example since 2004, when it was one of the founding members of a road safety initiative in Australia and New Zealand, the Group has provided safety training for over 400,000 young people in those countries learning to drive. In 2016,

around 50,000 school pupils took part in the scheme. In various countries, Linde and its employees are active in environmental protection, taking part for example in reforestation projects in Asia.

### *Health, social and cultural issues*

As a producer of medical gases, Linde is particularly committed to the issue of health. The Group therefore supports a selection of scientific and medical institutions and charitable organisations in various countries.

In Linde's Corporate Centre, one area of focus in 2016 was the promotion of projects supporting refugees fleeing war and crisis zones. Linde also organised 54 internships for refugees in Germany. Four of these interns were taken on as trainees. These traineeships were created in addition to the 99 regular traineeships.

Moreover, Linde acts as a partner for a variety of cultural events and cultural institutions. In Munich, home to the Group's Corporate Centre, Linde is a founding member of the Deutsches Museum Future Initiative, the aim of which is to modernise the largest technology museum in the world. By 2018, the Group will have provided financial backing of EUR 5 m for this cause.



# SAFETY

Linde operates a safety management system based on standards and guidelines which apply worldwide. The focus is on eliminating risks for employees, business partners and neighbours as far as possible.

The Group conducts audits to verify compliance with the prescribed standards at its locations around the world. Linde records incidents which have particular relevance for safety in order to identify areas of weakness. In addition, near misses from which Linde can learn lessons are documented. The Group prepares for events which might occur, such as natural disasters, serious crime and pandemics, by drawing up risk management plans.

In 2016, the Executive Board of The Linde Group revised its safety strategy, introducing measures for improvement covering the years 2017 to 2020. Linde also continued to engage during the financial year in numerous activities to support its safety culture. Again in 2016, safety targets were set for all executives in the operating business units. These targets were linked to salaries, so as to increase the sense of personal responsibility of those executives for safety at work. Furthermore, the Group held workshops during the year for around 190 managers in all regions and divisions to teach them how to promote safety-conscious behaviour through the application of recognition and coaching principles. It is planned that all managers will have received this training by the end of 2017. In addition, many other safety improvement programmes and awareness-raising activities with a regional focus were implemented, in order to continue to reduce the number of accidents in the workplace and traffic accidents occurring in the course of the Group's business operations.

## *Occupational safety and health protection*

Linde has set out global guidelines governing occupational safety and health protection to protect its employees, business partners, neighbours and other third parties. It carries out risk assessments and audits to ascertain whether the right conditions are in place to ensure safety at work. In 2016, audits were conducted at 48.9 percent of its operating sites (2015: 51.7 percent).

The Group's aim is to continue to reduce the number of workplace accidents resulting in at least one lost working day per million hours worked by employees by 2020. The base year is 2012. In 2016, the rate of

workplace accidents at Linde sites around the world per million hours worked was 2.2 (2015: 2.9). The equivalent figure for contractors during 2016 was 2.2, the same as in 2015. It is with the deepest regret that the Group must report that one Linde employee and one contractor's employee lost their lives while working for the Group in 2016 in Germany and Algeria.

In order to prevent severe injuries and fatalities, the Group made improvements during the reporting year to its global reporting process for incidents. Since then, Linde has recorded and investigated thoroughly not only actual incidents but also potential incidents with a high risk. The Group also provided training in 2016 for managers and employees to improve how they identify, report and investigate incidents. Potential risks together with preventive measures implemented and references to safety standards are communicated worldwide on a quarterly basis, so that lessons can be learned.

During the reporting year, numerous measures were launched as part of the global safety initiative. One of these was the first global Linde Safety Day which took place in virtually all countries with Linde locations and at most Linde Engineering project construction sites. This involved hundreds of events for employees and contractors on various aspects of safety.

## *Production*

Risks that may arise from production are identified and evaluated by Linde experts at locations around the world. In addition, the Group uses its Major Hazards Review Programme (MHRP) to conduct a systematic assessment of process risks which might result in accidents or damage to property or to the environment. This programme is constantly being refined to ensure that Linde is in a position to react to new potential risks. By the end of 2016, the Group had audited more than 95 percent of the relevant plants in accordance with the MHRP process. In the course of the reporting year, Linde also continued to introduce a global standard for quantitative risk analyses on sites with an increased safety risk.

In 2016, around 1,300 environment, safety and health protection audits were carried out on the Group's sites by Linde itself or by third parties. The Group's internal audits are conducted in accordance with the provisions of the international certification processes for quality and occupational health and safety, ISO 9001 and OHSAS 18001. All the Group's plants supplying CO<sub>2</sub> to the food industry for the production of carbonated drinks are certified under the food safety system certification system FSSC 22000.

## *Transport*

The Group's global safety management also covers the transportation of products. Linde has set itself the target of minimising the number of transport incidents.

In 2016, the Linde Executive Board set a more specific target. Incidents previously classified as non-preventable are included in the new target. By the end of 2020, Linde wants to reduce the number of serious transport incidents per million kilometres travelled by 20 percent in comparison with the year 2015. In 2016, the Group was able to reduce the frequency of serious transport incidents based on this expanded definition by around 9 percent.

During the reporting year, Linde continued to train more than 70 employees worldwide as in-house incident investigators and 13 employees as transport auditors. The aim is to conduct incident investigations and transport audits consistently throughout the Group, in order to obtain information vital to the improvement of transport safety. This will enable the company to learn from root causes and avoid similar risks in future. In addition, Linde continued to deliver driver theory and practical training courses. These included information on defensive driving techniques and on how to recognise and avoid situations that could result in a commercial vehicle rollover. These courses are mandatory at least once every three years for Linde drivers and its contractors. Moreover, Linde has invested in transport safety technology. One example of this is that from 2016 onwards, the Group has decided that in the United States and Europe it will only purchase new vehicles which have integrated emergency brake assistance. During the financial year, Linde also worked on ensuring that it was possible to compare the safety performance of its contractors worldwide.

### **Product stewardship**

Linde monitors product safety along the entire product value chain based on global standards which relate not only to the manufacture of products and their transportation but also to the use of those products. The Group conducts a systematic review of potential risks which might arise from established products, products which are used in new applications or products which have been recently launched onto the market. Crucial aspects to consider when the Group conducts risk assessments are the quantities of products sold and the properties of products, such as toxicity. For locations where particularly sensitive chemicals are produced or used, standardised product safety risk assessments apply. The Group holds around 25,000 safety data sheets for its products in a variety of languages. Linde has also brought together all existing provisions relating to the handling of products in a global guideline on product stewardship. An in-house programme was used in 2016 to deliver training on the safe handling of gases to more than 5,800 participants in seven European countries alone. Linde's customers also take part in the training programme. During the

reporting year, the Group continued to implement its initiative relating to the safe handling of acetylene gas cylinders.

### **International standards**

Linde continuously checks that it is complying with legal regulations. In the financial year, the Group prepared for the third registration phase of REACH (the EU Regulation on Chemicals) in 2018. Only a small number of the substances produced by Linde are required to be registered under REACH. The Group provides clear information on an Internet platform about how it complies with the provisions of REACH and which substances are registered. To ensure the successful implementation of the provisions, Linde engages with customers and suppliers and cooperates with the European Industrial Gases Association.

As the manufacturer of medical devices, Linde implements the European RoHS Directive (Restriction of Hazardous Substances) in its Healthcare business around the world. When operating production plants for medical gases, the Group complies worldwide with Good Manufacturing Practice for pharmaceutical products.

Through its product stewardship programme, Linde also supports the Global Product Strategy (GPS) devised by the International Council of Chemical Associations for the safe handling of chemical substances and the United Nations' Globally Harmonized System (GHS) of Classification and Labelling of Chemicals.

### **Suppliers**

Linde works together with suppliers in more than 100 countries. When selecting suppliers, the Group considers not only commercial criteria such as quality, price and availability, but also aspects such as safety and environmental protection. In the United States and South Africa in particular, the Group also continued to implement measures to foster diversity in the company's supply chain during the reporting year. In its global Code of Conduct for Suppliers, Linde set out minimum requirements in the areas of safety, environmental protection, labour rights and human rights, and corporate integrity. Since 2013, these have formed a mandatory part of agreements with new suppliers. At the same time, there has been a continual process of ensuring that suppliers with whom contracts were signed prior to 2013 also sign up to the Code. By the end of 2016, around 80 percent of Linde's strategic suppliers had signed up to the Code of Conduct.

### **Evaluation of suppliers**

Linde conducts random checks to ensure that its suppliers are complying with the guidelines set out in its Code of Conduct, focusing on suppliers in higher-risk areas in terms of sustainability, such as environmental

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protection, safety and social responsibility. In 2016, the Group assessed more than 900 suppliers with regard to environmental, safety or other sustainability issues. It investigates any breaches of its requirements. During the year, eleven cases were reported via the Group's Integrity Line which related to supplier relationships. In two cases, the supplier relationship was terminated.

The Group also involves suppliers in its safety and environmental management. During the reporting year, it expanded the programme it launched in 2015

to encourage safe practice on construction sites to include all construction sites managed by Linde Engineering. This programme reached around 6,400 employees of Linde contractors. Contractors' drivers also participate on a regular basis in the Group's driver education programmes and training. Measures such as these are designed to build good relationships with Linde's suppliers and to ensure that suppliers comply with the Group's requirements and that Linde helps its suppliers improve their performance.

## SAFETY

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		2015	2016
Workplace accidents with at least one day of absence	<i>per million hours worked</i>	2.9	2.2
Workplace accidents with at least one day of absence		358	269
Fatal industrial accidents of employees		2	1
Fatal industrial accidents of contractors		1	1
Number of days sick leave ( <i>per employee</i> )		5.5	5.4
Sites where occupational health and safety audits have been conducted	<i>in %</i>	51.7	48.9
Production sites certified to OHSAS 18001	<i>in %</i>	16.5	17.1
Severe transport incidents involving trucks	<i>per million km</i>	0.115	0.105

# ENVIRONMENTAL PROTECTION

Linde's products and services support its customers' efforts to make their business processes more efficient and more environmentally friendly. The Group also takes care to reduce the environmental impact from its own activities and to use energy, resources and materials as efficiently as possible. To ensure that this is the case, Linde has established a global management system for environmental protection based on standards and guidelines which apply worldwide. In 2016, four Linde locations in Asia and Africa were certified in accordance with the updated environmental management standard ISO 14001 which had been revised in 2015. The Group conducts audits to verify that it is complying with the standards laid down. A global process is used to record and evaluate incidents and near misses which have particular relevance for environmental protection. Linde also sets itself targets in those areas in which environmental protection is most relevant.

**PRODUCTION SITES WITH ENVIRONMENTAL AND QUALITY MANAGEMENT SYSTEMS**

in %	2015	2016
ISO 14001 certification	31.7	31.7
ISO 9001 certification	67.1	63.0

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## Raw materials

Efficient use of resources enables Linde to reduce its environmental impact and cut costs. Air is the most important raw material used by the Group in the production of its gases. More than 80 percent of the weight of gases sold by Linde in 2016 was derived from this raw material. Another of the Group's main products is carbon dioxide. Around 80 percent of the raw material required is recovered from recycling processes, of which about 10 percent comes from purely organic processes. Carbon dioxide is, for example, a by-product from the fermentation of renewable raw materials. Natural gas is another major raw material used by Linde. When manufacturing products, the Group's other principal input is energy. The main packaging material used by Linde is gas cylinders. A typical Linde cylinder has a lifespan of many years and is refilled on average four times a year. At the end of 2016, there were more than 25 million Linde cylinders in circulation. In addition,

key materials processed by the Group include steel and aluminium, which are used in particular for the manufacture of components in plant construction.

Linde examines its supply chain for conflict minerals listed in the US Dodd-Frank Act. Against this background, all Linde Electronics suppliers for instance are required to confirm that their products are conflict-free. Linde checks that this is the case in the course of its supplier audits.

The use of renewable energy and renewable raw materials is underpinned by Linde technologies. For example, the Group is participating in a pilot project in Mainz, Germany. In what is currently the largest polymer electrolyte membrane electrolysis plant in the world, renewable energy has been used to produce hydrogen since 2015. The plant is designed to produce 200 tonnes of hydrogen per annum. In 2016, inspection and certification provider TÜV SÜD confirmed that greenhouse gas emissions from sustainable production of green hydrogen in this plant are 75 percent lower than for hydrogen produced from fossil fuels. In Sweden, Linde generated around 450 tonnes of hydrogen entirely from water power in 2016. Fuel cell vehicles can fill their tanks with this green hydrogen at the hydrogen filling stations at Stockholm's Arlanda Airport and in Sandviken. Since 2012, green hydrogen has also been produced using steam reforming technology from biomethane instead of natural gas at Linde's Leuna site in Germany.

## Energy and climate protection

Linde is constantly working on ensuring the efficient use of energy and on reducing greenhouse gas emissions. To do so, it relies on global energy management of plants and processes around the world. The Group controls its energy consumption and greenhouse gas emissions worldwide and reports thereon, complying for example with the standards set out in the Greenhouse Gas Protocol. Linde offers its customers gases and technologies which reduce the consumption of natural resources and promote the use of renewable energy. To make the CO<sub>2</sub> balance sheet of the main air gases produced transparent for its customers, Linde uses a standardised method which has been externally certified.

## Global targets

Most of the electricity required by Linde is used for the operation of the Group's air separation plants. Around 60 percent of the Group's total CO<sub>2</sub> emissions are the by-product of electricity generation by energy providers and are reported by Linde as indirect emissions. Direct emissions at Linde stem mainly from the operation of the Group's hydrogen and synthesis gas plants (HyCO plants).

By 2020, Linde is seeking to avoid a total of 6 million tonnes of CO<sub>2</sub> emissions compared to the year 2009. To

meet this target, Linde is focusing on technical improvements in plant design and more efficient production processes in HyCO and air separation plants. By the end of 2016, the Group had avoided a total of 3.3 million tonnes of CO<sub>2</sub> emissions, of which 0.8 million tonnes were direct emissions and 2.5 million tonnes indirect emissions. In 2016, Linde identified more than 200 projects worldwide that helped reduce the Group's energy consumption and CO<sub>2</sub> emissions – for example by using more efficient compressors and exchanging valves. Implementing these projects generated cost savings for the Group of over EUR 30 m in 2016. Around 220,000 tonnes of CO<sub>2</sub> emissions were avoided as a result.

Another focus of Linde's climate protection measures is the transportation of products. Around 900 million kilometres were covered by Linde's own transport fleet and transport service providers carrying Linde goods in 2016. Optimised routes, better use of transport capacity and defensive driving training help the Group reduce the number of kilometres travelled, cut the amount of fuel consumed and bring down the level of transport emissions.

### Energy consumption

As an energy-intensive company, Linde requires a reliable and competitively priced energy supply and is constantly optimising the energy efficiency of its production processes. The Group's energy consumption increased by around 2 percent in the reporting year compared with the prior year. In 2016, Linde took part in the European Union's Emissions Trading System at ten of its hydrogen and synthesis gas production sites. There were around 1.2 million tonnes of CO<sub>2</sub> emissions from these plants during the year. Linde was allocated emissions allowances for around 0.9 million tonnes of CO<sub>2</sub> in 2016. The remaining certificates were purchased by the Group.

### Products

Linde offers its customers a variety of solutions to make production and energy generation processes more efficient and more environmentally friendly. The Group's gases and technologies help its customers reduce emissions to a large extent. A particularly high proportion of this reduction in emissions is generated by the use of oxygen in a special combustion process and the use of hydrogen in the desulphurisation of fuel. In oxyfuel plants, which are used for example by the glass and steel industries, the combustion air is enriched with oxygen, resulting in much more efficient combustion than if ambient air were used. Hydrogen produced by Linde is utilised by the oil industry in fuel desulphurisation. Combining desulphurised fuel with a filter significantly cuts emissions of soot particles, which like CO<sub>2</sub> contribute to the greenhouse effect.

The Group's products are also deployed in other parts of the mobility sector to reduce environmental

pollution. The use of liquefied natural gas (LNG) or hydrogen significantly reduces emissions from cars, buses, trucks and ships. Linde is not only investing in the development of efficient hydrogen refuelling technology but also cooperating with partners to set up a supply infrastructure.

In addition, Linde is researching ways to recycle and store CO<sub>2</sub>. Since 2015, the Group has been testing new processes for the production of synthesis gas using CO<sub>2</sub> at its own pilot facility on the Pullach site in Germany. In both Germany and the United States, the Group is working together with energy suppliers on devising ways of reducing the CO<sub>2</sub> in flue gases arising from energy production in coal-fired power plants. ► [SEE RESEARCH AND DEVELOPMENT, PAGE 69.](#)

### Air

Linde monitors emissions worldwide not only of greenhouse gases but also of air pollutants in accordance with relevant local legislation. The operation of the Group's air separation plants results in hardly any direct emissions to air. Other production processes, for example in hydrogen plants and steam boilers, may give rise to emissions of inorganic gases such as carbon monoxide (CO), sulphur oxides (SO<sub>x</sub>) and nitrogen oxides (NO<sub>x</sub>). Volatile organic compounds (VOCs) are mainly released during the coating and cleaning of metals used for example in gas cylinders, storage tanks and plant components.

The Group works together with its customers and with scientific and research partners to devise solutions which will minimise emissions to air. Linde's LoTox™ technology is being used, for example, to capture and store nitrogen oxides from waste gases arising from combustion processes. By the end of 2016, Linde had installed more than 30 such systems in customers' plants around the world, especially in the United States and China. With these systems, the company enables its customers to avoid more than 17,000 tonnes of NO<sub>x</sub> emissions per year.

### **Water**

Linde uses water as efficiently as possible and works to ensure that its emissions to water are constantly being reduced. More than 90 percent of the Group's annual water requirement is used in cooling processes. Most of this cooling water is just heated, and can subsequently be fed back into the water system without the need for treatment. Linde takes care to ensure that the temperature reached does not pose any risk to the surrounding ecosystem. The rest of the water used by the company is applied to production or used as a source of steam or in office buildings. Linde employs closed-loop systems as a means of reducing its water consumption, as these enable water to be used several times.

Total water use in 2016 was 716 million cubic metres (2015: 681 million cubic metres). Of this amount, water consumption excluding once-through water was 54.8 million cubic metres (2015: 52.6 million cubic metres). The amount of waste water at all the Group's locations worldwide in 2016 was 13.1 million cubic metres (2015: 13.8 million cubic metres). Linde measures emissions of phosphates, nitrates and organic compounds to water in accordance with local regulatory requirements.

#### **Initiatives for efficient use of water**

In 2016, the Group reviewed water supplies at its key production sites worldwide for the first time on the basis of the criteria set out by the World Resources Institute. Based on these criteria, 9 percent of the sites are in regions which experience water scarcity. The measures being taken to optimise the use of water and cooling water systems focus in particular on those regions. At four sites in Eastern Europe, Asia and South America, potential savings were identified in 2016 of around 440,000 cubic metres of water, which would lead to cost savings of around EUR 70,000 per annum. Furthermore, during the reporting year, Linde conducted information campaigns in Africa and in the Middle East on the economical use of water, which reached more than 3,000 of its employees.

#### **Products for water protection**

Linde gases and technologies are used to eliminate harmful substances in drinking water and bodies of water and to treat waste water. They also enable the Group to support its industrial customers in meeting demanding environmental regulations. With the help of the Solvcarb® process, Linde customers were able to bring around 850 million cubic metres of water in just six countries up to drinking water quality in 2016. During the reporting year, Linde's Solvox® process was used in Australia to enrich the water of the Canning River in Perth with 260,000 cubic metres of oxygen, thus contributing significantly to the conservation of the surrounding ecosystems. The process is also being used successfully in the desalination of rivers.

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### Waste

Linde keeps its consumption of resources as low as possible and is constantly reviewing how waste can be avoided. The Group's most common waste products are oil and oleaginous materials, waste which contains metal, and gas cylinders which have reached the end of their useful life. By using closed-loop systems for products, Linde increases both material efficiency and resource efficiency and cuts the volume of waste produced. One example is lime slurry, a by-product of acetylene production, which can be used in other industries without any treatment being required. Any waste which cannot be recycled is disposed of in an environmentally sound manner. The Group complies with local regulations and classifies its waste

as hazardous or non-hazardous in accordance with relevant legislation in the country in which it is operating. Linde focuses in particular on hazardous waste when devising measures to achieve further reductions in waste. As the amount of waste at different sites depends on the type of business operations being carried out there, Linde's waste management objectives are based on regional requirements. The overall amount of waste fell in 2016 compared with 2015, as less non-hazardous waste was produced. During the reporting year, the Group achieved a recycling rate of about 33 percent (2015: 39 percent) for the waste it produced around the world. Linde also offers its customers solutions to help them avoid or recycle waste.

### USE OF RESOURCES

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		2015	2016
Electricity consumption	<i>in million MWh</i>	26.8	27.5
of which by air separation plants	<i>in million MWh</i>	23.9	24.8
Natural gas consumption	<i>in million MWh</i>	39.5	39.4
of which by HyCO plants	<i>in million MWh</i>	25.4	29.3
Consumption of other energy sources <sup>1</sup>	<i>in million MWh</i>	12.1	12.8
Water consumption <sup>2</sup>	<i>in million m<sup>3</sup></i>	52.6	54.8

<sup>1</sup> Other energy sources include for example heating oil, biofuel energy, propane, butane, thermal energy and diesel fuel.

<sup>2</sup> Water consumption relates to used drinking water and industrial water. Once-through water is drawn from natural sources. It is only warmed and then piped back into the original source at a temperature posing no risk to the surrounding ecosystem.

### EMISSIONS

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		2015	2016
Direct CO <sub>2</sub> emissions	<i>in million t</i>	7.1	7.0
of which by HyCO plants	<i>in million t</i>	4.0	4.7
Transport fleet	<i>in million t CO<sub>2</sub> equivalents</i>	0.78	0.80
Indirect CO <sub>2</sub> emissions	<i>in million t</i>	15.4	16.2
of which by air separation plants	<i>in million t</i>	13.7	14.7
Emissions of other greenhouse gases <sup>1</sup>	<i>in million t CO<sub>2</sub> equivalents</i>	1.7	1.8
Total greenhouse gas emissions	<i>in million t CO<sub>2</sub> equivalents</i>	25.0	25.8
Waste	<i>in thousand t</i>	66.1	63.6
Non-hazardous waste	<i>in %</i>	66	63
Hazardous waste	<i>in %</i>	34	37
Waste water	<i>in million m<sup>3</sup></i>	13.8	13.1

<sup>1</sup> Includes greenhouse gases specified in the Kyoto Protocol: methane (CH<sub>4</sub>), nitrous oxide (laughing gas, N<sub>2</sub>O), perfluorocarbons (PFCs), hydrofluorocarbons (HFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>).

# OPPORTUNITY AND RISK REPORT

## Opportunity management

As a group with a global footprint, Linde operates in a dynamic environment in which new market opportunities are constantly emerging. To achieve sustainable profitable growth, the Group must be able to recognise such opportunities when they arise and exploit them effectively, while at the same time properly evaluating risks. In the course of strategic discussions between the Executive Board and those personnel responsible for the operating units, which take place on a regular basis, opportunities and potential investments are identified, evaluated, managed and controlled. The development of the strategy of The Linde Group is based to a large extent on the results of these meetings. In turn, this strategy and the corporate goals derived therefrom are also the starting point for Linde's risk management process. ► [SEE RISK REPORT, PAGES 84 TO 95.](#)

Fundamentally, Linde is seeking to achieve a good balance between opportunities and risks. Its overriding objective is to increase the value of the Group for all stakeholders by tapping into new market opportunities.

To the extent that it is probable that such opportunities will arise, their expected impact has already been recognised in the Group's strategy and goals and in its outlook for 2017, as explained in this report. The following section therefore focuses on potential future developments which might lead to a positive variance from the Group's short-term outlook.

## Opportunity areas

### *Opportunities which might arise if the performance of the global economy were better than expected*

Linde operates in more than 100 countries worldwide and supplies almost all industry sectors. Particularly in the faster-growing economies, Linde holds significant market shares in the relevant market areas. Global economic growth and worldwide industrial production have a decisive influence on growth in the Group's revenue and earnings. Economists are forecasting a 2.6 per cent increase in global real gross domestic product in 2017. Global industrial production is also expected to

increase, namely by 2.5 percent. ► [SEE OUTLOOK, PAGES 96 TO 99.](#) If the economy as a whole were to grow at a faster rate than that originally forecast, this could have a positive impact on revenue and earnings trends in The Linde Group and the earnings trend in Linde AG.

### *Opportunities arising from the growing importance of natural gas as a fuel*

Modern society still depends on energy supplies which are affordable, reliable and environmentally friendly. Achieving a balanced energy economy also necessitates the use of new technologies to ensure that finite resources are utilised in the most environmentally friendly way possible. Linde has the technical skills required to benefit from the market opportunities in this area.

It is well equipped for the rising demand for natural gas. Linde masters technologies covering the entire value added chain, from the liquefaction and transport of natural gas to its safe delivery to the end user. Linde also boasts extensive expertise in the efficient exploitation of oil and natural gas reserves (Enhanced Oil and Gas Recovery: EOR and EGR) through the use of industrial gases such as nitrogen.

### *Opportunities arising from increased climate protection efforts*

The global demand for energy is continuing to rise, and this is also posing a threat to the climate and the environment. Ongoing measures to expand renewable energies and develop applications and solutions to recycle waste gases, for example, or to reduce harmful greenhouse gas emissions are a key step towards achieving balanced environmental outcomes.

Linde is continually developing new procedures and techniques that make a considerable contribution to climate protection. In the context of climate change, the greenhouse gas carbon dioxide (CO<sub>2</sub>) has a particular role to play. Linde offers various CO<sub>2</sub> reduction and recycling solutions. By way of example, it is developing plants for the purification of waste gases and capture of carbon dioxide in power stations. Linde is also involved in a research initiative that has developed a competitive system for converting waste gases from furnaces into hydrogen and synthesis gas.

Hydrogen may assume a key function in the supply of energy in future, not only as a fuel but also as storage for electricity generated from renewable energy sources. Linde is a pioneer in the ongoing development of hydrogen technology and is supporting the breakthrough of this ecofriendly fuel in a wide variety of fields.



### *Opportunities which might arise as a result of regulatory changes in the healthcare sector*

The global growth area healthcare is driven by demographic trends and improvements in diagnostics and therapies, especially in the case of chronic respiratory disorders. In addition, increasing numbers of people are gaining access to healthcare, especially in the emerging economies. What is more, rising pressure on healthcare budgets is providing private companies with the opportunity to create new offerings that are both cost and benefit effective. As a result of the targeted acquisitions and investments it has made in the past few years, Linde is now a globally leading gases healthcare company specialising along an integrated respiratory care path.

The healthcare market is largely state-regulated and is governed by specific authorisation and licensing rules. If the relevant reimbursement policy enables more people to be offered access to wide-ranging medical services, especially in the emerging economies, this could have a positive impact on revenue and earnings trends in The Linde Group and the earnings trend in Linde AG. Infrastructure investment, progress in medical diagnostic procedures and increasing wealth in the emerging economies might also have a positive impact on revenue and earnings trends.

### *M & A opportunities*

The consolidation of the global gas industry comes hand-in-hand with opportunities for mergers and acquisitions. The planned merger of equals with the US company Praxair would prove highly advantageous to both companies. A merger would considerably strengthen the position on all key markets. The two companies would complement each other well in terms of their regional focus, allowing them to embrace macroeconomic trends. The product and solutions portfolio resulting from the potential merger would be broader and more balanced, and would allow significant synergy effects to be exploited.

### *Opportunities arising from organisational and process-related improvements*

Constant improvements in Linde's business processes and strict cost management help to ensure that the Group's profitability and competitiveness continue to be strengthened. Linde has established an ongoing system designed to achieve sustainable efficiency gains and has enshrined the concept in the company ethos. What is more, it has launched two programmes, Focus and LIFT, to implement additional organisational adjustments, both of which are linked to measurable targets. Linde believes that the greatest potential for further optimisation lies in strengthening regional responsibility so that the company can react to market and customer requirements in a much more agile manner in the future.

### *Opportunities resulting from innovation, research and development*

A key element in Linde's long-term business success is its ability to bring innovations to the market which offer sustainable value added. Therefore, the Group is constantly working on improving the quality of its research and development activities and increasing the extent of its cooperation with customers and partners. If even greater progress is made in this area than is currently anticipated, this could mean that more new or improved products and services will be launched onto the market or will become available sooner than expected. This might lead to an increase in the revenue and earnings of The Linde Group and a more positive earnings trend in Linde AG.

Additional information about future R & D opportunities can be found in ► [RESEARCH AND DEVELOPMENT, PAGES 68 TO 70.](#)

### *Financial opportunities*

Movements in interest rates have an impact on Linde's financial result and pension obligations. The Group keeps a close eye on events in the international financial markets, in order to identify and respond swiftly to any opportunities arising.

Exchange rates also have an impact on Group revenue and Group operating profit. Currency differences arise as a result of the translation of various local currencies into the euro (the reporting currency). This is subject to the following: The greater the volatility of the euro in relation to other currencies, the more significant the impact of currency translation on Linde's revenue and earnings.

If movements in interest rates and exchange rates prove more favourable to the Group than is currently being forecast, this could have a more positive impact on the financial result and/or the reported revenue and the operating profit of The Linde Group and the earnings of Linde AG than is currently being projected.

### *Opportunities in purchasing*

Purchase prices also have an impact on the profitability of the Group. This applies particularly to material groups which are dependent on raw materials such as steel, aluminium and brass as well as on energy costs. Linde pursues a portfolio purchasing strategy across the entire Group. Within the framework of its High Performance Organisation concept, designed to achieve sustainable efficiency gains, the Group has taken organisational measures and has introduced improved processes in order to continue to improve its purchasing performance and to make controls in this area even more transparent.

## Risk management and internal control system

### *Risk policy*

Linde, a technology company with global operations, is exposed to a great variety of risks in the course of its international business. A willingness to take entrepreneurial risks enables the Group to exploit opportunities as they arise. Therefore, Linde deliberately accepts risks, as long as they are reasonable and can be managed and controlled, if they are expected to provide opportunities to create a sustainable increase in shareholder value.

In this context, the purpose of risk management is to make it more certain that growth and earnings targets as well as strategic objectives are met. Linde uses an ERM (Enterprise Risk Management) system, the general principles of which are laid down in Group guidelines and which is reviewed internally and externally in terms of effectiveness and efficiency at regular intervals.

### *Enterprise Risk Management (ERM) system*

The ERM system is based on the Three Lines of Defence Model (TL0D), proposed in the recommendation issued by the FERMA (Federation of European Risk Management Associations) and the ECIA (European Confederation of Institutes of Internal Auditing) on the implementation of Article 41 of the 8th EU Directive, which seeks to provide a structured account of the interaction between the various actors in compliance management, risk management, internal control and internal audit.

### *Risk management*

The risk management system focuses on the identification and handling of risks. It seeks to address not only those risks that might affect the viability of the Group as a going concern, as required by the German Law on Control and Transparency in Business (KonTraG), but also all significant risks for the Group. The international standard ISO 31000/2009, which sets out best practice for risk management, forms the framework around which Linde's risk management system is built.

### *Internal control system (ICS)*

The aim of the internal control system is to prevent risks arising in the course of operations by adopting appropriate controls, especially with regard to conformity with the law, compliance with strategy, the quality of accounting and reporting, the quality of processes and the protection of assets. Linde does not limit itself to risks that might have a direct impact on the net assets, financial position or results of operations of the Group, but also includes risks which might have an indirect impact on key financial figures, such as risks to the Group's reputation. The internal control system comprises all the controls which are embedded in the Group's business operations. The structure of the internal control system is based around the globally recognised framework published in 2013 by COSO (the Committee of Sponsoring Organisations of the Treadway Commission) and entitled "Internal Control – Integrated Framework".

### *Compliance management*

The Linde Group's Compliance Management System (CMS) encompasses the six elements of a modern CMS, including a binding risk analysis process (compliance risk assessment [CRA]), covering the issues of general compliance, antitrust law and corruption. The CRA is closely linked to the compliance monitoring process, which involves monitoring adherence to processes and controls in the risk areas, and, where certain risk values are reached, is coordinated with The Linde Group's risk management system. One key component of the CMS relates to the face-to-face and e-learning training sessions on the compliance guidelines (guidelines on antitrust law compliance, anti-corruption compliance and business partner compliance).

The "Integrity Line" also allows both internal and external stakeholders to report any doubts or suspicions they may have, which are then investigated internally. Appropriate sanctions are imposed in cases where reports prove to be justified.

### *Internal Audit and external auditors*

KPMG AG Wirtschaftsprüfungsgesellschaft, an independent external auditing firm, assesses the effectiveness of the early recognition system for risks and submits regular reports about the outcome of their reviews to the Group Executive Board and Supervisory Board. Alongside the external auditors, the Internal Audit department is also involved in the testing of subsystems of the operating units which are relevant to accounting and reporting, and in the effectiveness and efficiency of the ERM system.

## Risk management system

### Structure and reporting

Linde distinguishes between risks which relate to the entire Group (Group risks and corporate risks) and risks arising from the activities of the operating segments whose impact and risk management is limited to certain operating segments (business risks).

The central risk management department is responsible for devising a standardised Group-wide risk management process and for risk reporting. Those with local responsibility for risk in the operating units are responsible for the implementation of the centrally devised risk management process. Business risks are managed by those responsible for the operating segments in the divisions. Group risks and corporate risks are identified by members of the Executive Board and/or heads of the Corporate & Support Functions and Global Governance Centres, and are managed by the personnel to whom the responsibility for those risks has been allocated.

As part of the reporting process, the Executive Board is presented with a risk report prepared by the central risk management department every quarter, which is then discussed at an Executive Board meeting. The Executive Board presents a report on the risk situation of the Group at the quarterly meetings of the Audit Committee.

The risk report submitted to the Executive Board comprises a description of the significant Group, corporate and business risks, as well as the corresponding risk assessments and setting of priorities. Moreover, any risks which arise unexpectedly or which have repercussions for the whole Group are communicated directly to the appropriate Group personnel, irrespective of the normal reporting channels.

The units included in the risk reporting process differ from those included in the consolidation for accounting purposes in accordance with the IFRS to the extent that risk reporting applies to all operating units which are either fully consolidated or included in the Group financial statements on a line-by-line basis, and for which the annual revenue exceeds a certain figure determined internally. In addition, other operating units which do not meet the aforementioned criteria may be included in the risk reporting process on the basis of specific risk assessments. Uniform standards apply throughout the Group to the reporting of the status of any significant risks and any changes in those risks. Local units make their risk reports using Group-wide web-based reporting tools.

### Risk management process

At the very heart of all risk management is a cyclical risk management process, involving a series of steps from the identification of a risk, to the analysis, evaluation and management of the risk.

Risk workshops involving the management teams of the operating units are an important tool for Linde when identifying and evaluating risks and determining the measures to be taken to manage those risks. When identifying risks, a great variety of areas which might entail risk, both within and outside the Group, are taken into consideration. The areas covered by the risk assessments include not only internal processes and resources as well as the economic, financial, legal and regulatory environment, but also social and ecological aspects. The executives in the various units categorise each risk they have identified and evaluate it in terms of criteria determined centrally, including the potential impact of the risk on the Group and the expected probability of its occurrence.

When analysing the impact of the risk, Linde considers not only the impact on the results of operations, but also the impact on non-monetary aspects such as safety, reputation and strategy.

When evaluating the potential impact of risks and the expected probability of their occurrence, the operating units use a standard scale devised by the central risk management department. This scale has four different risk ratings ranging from low risk to very high risk. Each risk is awarded a risk rating on this standard scale based on its potential impact and a risk rating based on the expected probability of its occurrence.

For each risk, the next step for those in charge is to plan the measures which can be taken to manage the risk, so that the risk may be reduced to an acceptable level. The management of the risk comprises a selection or a combination of measures to avoid risk, transfer risk, reduce risk and control risk. For each risk, responsibility for the risk is assumed by an individual appointed by management. This person then assesses the risk on a regular basis and monitors any measures taken to manage the risk.

The operating units record the information gathered by the risk management process in risk registers. These registers are updated at least every quarter.

One particular tool which is designed to transfer risk is insurance. Linde has taken out appropriate insurance against potential losses and liability risks to ensure that the potential financial consequences of any risks which have arisen are eliminated or limited. The Group constantly ensures that its insurance is at the optimum level, based on the specific requirements of the business units.

### Accounting-related internal control system

As part of the harmonisation of business processes over the last few years, "global controls" have been defined that have to be implemented by all operating units as a mandatory requirement. These global controls are assessed to check that they have been put in place and are effective, and are centrally reported, once a year as part of a self-assessment completed

### RISK MANAGEMENT PROCESS

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by the individual units. This process is supported by a workflow-based system. If deviations are identified, the individuals responsible for the controls locally have to take measures to restore their effectiveness. This process is monitored by the central ICS department.

The Group accounting-related controls, in particular, help to ensure the proper preparation and reliability of the accounting records. Within this context, we make a distinction between automated controls, such as reconciliation routines relating to the figures and systems access controls based on the authorisation concept, and manual controls, such as variance and trend analyses based on defined key figures and comparisons with budget figures, as well as plausibility checks. The reliability of the accounting procedures is also underpinned by monthly discussions with the operating units about the principal key figures.

This process is supported by accounting and reporting guidelines which apply across the Group and set out the minimum requirements for the local units and ensure compliance with legal regulations and the articles of association.

Accounting transactions are recorded by the local subsidiaries of The Linde Group. In connection with the outsourcing of parts of accounting to what are known as shared service centres, the pre-existing controls were also transferred and additional controls put in place to ensure the proper accounting.

This information, recorded either locally or at the shared service centres, is combined with supplementary information into a Group reporting package and submitted by the local units using a standardised Group-wide reporting system.

The reporting and consolidation system is a fully integrated system which not only collects data for the preparation of the quarterly financial statements and Group financial statements on a systematic basis, but also provides data for the monthly management accounts, budget data and data which is relevant to Financial Control and other central departments. All the consolidation procedures are carried out centrally. In particular cases, such as the measurement of pension obligations, external experts are used.

The internal control system procedures, which are geared towards the proper preparation and reliability of the Group accounting records, ensure that business transactions are recorded on a timely basis in accordance with legal regulations and the articles of association and that the records of these transactions are complete. They also ensure that inventories are properly drawn up, and that assets and liabilities are appropriately recognised, measured and disclosed. The separation of administration, implementation, execution and authorisation functions reduces the chance of fraud.

The accounting-related internal control system ensures that the accounting and reporting process complies with International Financial Reporting Standards

(IFRS) as adopted in the European Union, the German Commercial Code (HGB) and other relevant regulations and laws.

### *Continuous improvement*

Linde's risk management system is forward-looking. It is continuously being improved in order to enhance its effectiveness.

The accounting-related internal controls, in particular, are reviewed and optimised on a regular basis to ensure an efficient, functional accounting process.

## Risk areas

Given the current developments in connection with the planned merger among equals with the company Praxair, the main risks associated with this transaction are set out separately at the beginning of this "Risk areas" chapter in the interests of clarity. The assessment of these key risks resulting from the planned merger is included in the "Strategic risks" risk area set out further below.

In the main, the transaction exposes Linde to risks relating, among other things, to the expected timing and likelihood of the conclusion/execution of the planned merger. These risks relate to the granting of any required official or regulatory approval for the planned merger, as well as requirements associated with such approval, as these could reduce the advantages that the merger is expected to bring or prompt the parties not to conclude the transaction. Other risks include the risk of Linde being faced with unfavourable antitrust law requirements as a result of the merger, or with a negative impact in a legal, regulatory or contractual sense, and the risk that qualified employees in key positions cannot be hired or retained.

Risks which Linde considers significant and which might have a relevant adverse impact on The Linde Group and on its net assets, financial position and results of operations, were they to occur, are described below.

These comprise, firstly, individual Group & corporate risks or business risks, which, irrespective of the probability of their occurrence, have been allocated the highest of the four ratings in the rating scale in terms of their potential impact. Secondly, they comprise clusters of individual business risks with the same cause which are not significant to The Linde Group in terms of their individual rating for the potential impact of the risk, but might have a significant adverse impact if viewed as a risk cluster and aggregated.

To provide a better overview, the risks are summarised below by risk area. Each risk area highlights the main direct cause of the risk. A description is given not only of the potential impact of the risk but also of the principal strategies currently being employed to

manage the risk (from a net perspective). Unless otherwise stated, the risks relate to all segments, although the extent to which they do so may vary.

The order in which the following risk areas are shown is based on the Group's current estimate of the relative overall importance of the risk area compared with the other risk areas, starting with the risk area with the greatest relative importance. This does not apply to the description of the risks within a risk area. The estimate of the relative importance of a risk area is based on a comprehensive assessment of the total number of all the individual risks included in the risk area and the ratings of those risks for their potential impact.

### *Economic risks*

Under economic risks, Linde includes risks arising from uncertainty in the global economy as well as customer and sales risks which relate to specific customer or product segments or sales markets.

#### **Risks associated with the global economy**

As a company with global operations, Linde is dependent on cyclical trends in the global economy. A number of risk factors are currently responsible for the uncertainty regarding the future development of the global economy. While the ongoing high level of sovereign debt in key European economies, as well as in the US and major emerging markets, has faded somewhat into the background thanks to extensive intervention on the part of the central banks, the political uncertainty has increased. 2017 is a special election year, with elections due to be held in countries including the Netherlands, France and Germany. The uncertainty surrounding the possible course charted out by new governments on both this and the other side of the Atlantic could, among other things, put a damper on the investment climate and pose a threat to the forecast growth outlook in the medium term. This could materialise, in particular, when the current special effects on global economic growth, and the expected future special effects, are unwound. These include the general low interest rate level, expansive fiscal policy and, for many sectors, the low oil price. The uncertain future contractual relationship between the United Kingdom and the European Union, as well as the related economic consequences, could also have a negative impact on the investment climate and the growth prospects for Europe.

The uncertainty regarding the stability of the positive growth outlook for the US and the future monetary policy pursued by the US Federal Reserve, as well as its impact on the currencies and economies of the emerging markets, are risk factors for the global economy. Following the renewed key rate hike implemented by the Federal Reserve in December of last year, it is not yet clear whether or not, and to what extent, central banks in other countries will also raise their interest

rates this year in order to prevent large-scale capital outflows. Interest rate policy measures could put the economies of these countries under pressure and result in increased volatility on the financial markets, with a potential negative impact on the global economy.

The risk of a more pronounced growth slowdown than expected on the Asian and other high-growth markets, as well as the possibility of a continued weak economic environment in the South Pacific region, could have a negative impact on the global economy.

Further economic risks could arise from the uncertain political development of the world's geopolitical crisis spots.

Should the global economy weaken significantly, there would be the threat of lost sales, a potential lack of new business and an increase in the risk of bad debts in the operating business due to the increasing inability of customers to make payments.

In its function as the parent company of The Linde Group, Linde AG holds investments in Group companies. The carrying amounts of these investments run the risk of a diminution in value should the economic situation or exchange rates of these Group companies change for the worse. This scenario might have an adverse impact on the net income for the year of Linde AG.

Linde operates in many countries and regions, supplying almost all industry sectors. Because of the high level of diversification of its end customers, both in terms of sector and geographical situation, Linde is not exposed to the volatility of a single end customer market. The impact of individual risks on the Group is reduced as a result of Linde's dual focus on its gases business (which comprises a wide variety of application areas) and plant construction (with its diversified product lines). These two sectors may be affected differently in terms of revenue and earnings when there are changes in certain economic conditions.

### Risks associated with competition

The competitive pressure facing Linde is mounting both on markets that offer significant growth potential and on more mature markets. This is being fuelled, in particular, by weak growth prospects, excess capacity and the migration of existing industries. Global competition means that the Group is exposed to the risk of losing market share in all product areas, which may in turn result in a fall in revenue and profit.

Linde is responding to these risks associated with competition by taking measures that help to improve the company's competitive position by allowing it to offer products and services tailored to suit the needs of the market and by putting optimised processes in place.

In the case of industrial gases, for example, Linde is able to stand out from the competition as a result of its technical expertise with gases applications and its profile as an integrated provider of gases and engineering services which can offer various construction and operating models.

In plant construction, stringent standardisation and modularisation are helping to enhance the competitiveness of the plant portfolio.

In the cylinder gas business, a modular, scalable plant programme for filling plants has been developed, allowing the company to offer filling plants that have been adapted to suit a variety of market conditions, do not require much space, achieve increased productivity and provide optimal occupational safety.

Moreover, Linde is continuing with the rigorous implementation of its schemes to reduce costs and improve the efficiency of its processes, with the aim of enhancing its competitiveness.

### Sales risks in the Healthcare product area

In the Healthcare product area, cost pressure in the healthcare sector, the current trend towards outsourcing by government agencies and health insurance funds and possible defaults mean there is a greater risk that the planned growth and profitability targets cannot be met. These factors are especially evident in sales markets in the United States and in Europe.

In order to counter these risks, Linde is focusing on the development of innovative products and services which take account of the increasing downward pressure on costs. These include, for example, new forms of treatment which reduce the length of time patients spend in hospital, and the use of new technologies which make it possible to treat homecare patients more efficiently. Linde has also used targeted acquisitions to improve its cost structure.

### Customer and sales risks associated with the commercialisation of new customer projects and existing projects

Customer and sales risks associated with both the commercialisation of new customer projects or follow-up projects and existing projects cannot be eliminated, especially in the growth markets. There might be technical or economic reasons on the customer side or in the sales markets which could require changes being made to the project or contract, as a result of which it may not be possible to produce the quantities originally assumed in the business plan in full or it may only be possible to produce such quantities behind schedule. This might give rise not only to uneconomic production processes, but also to significant adverse variances from budgeted cash flow, thereby jeopardising the revenue and earnings targets attached to the investment. To ensure that critical shortfalls are identified and remedied at an early stage, Linde has introduced project prioritisation and additional project management measures. Moreover, the Group has taken steps to ensure that all relevant parties are involved in the risk assessment before the project commences. Close customer relationships and market observation, including during the project term, help ensure that any problems can be solved in partnership with the customer early on.

### Risks associated with the setting of prices

Risks associated with the setting of prices generally arise in areas where certain cost increases cannot be passed onto the customer through price indexing included in the contract. Here, the high level of volatility in energy prices and the price of raw materials means that there is a risk that targets for revenue and earnings might not be met if the resulting increase in costs is either not taken into consideration at all when agreeing contracts and setting prices, not taken into consideration in good time, or taken into consideration only to suffer a loss in market share. In order to counter this risk, processes are being rolled out in the regions to ensure that energy market developments are reflected in price policies in a structured manner and early on.

### Risks associated with the provision of services

Risks associated with the provision of services comprise all those risks arising from processes taking place at the operating sites of Linde's divisions, including the distribution of products and related logistics services. These include safety risks during the production process, production risks such as machinery failure, plant breakdowns and capacity bottlenecks, project risks in plant construction and risks associated with products and services.

### Safety risks

The manufacturing of products and construction of plants by the Group may entail risks associated with the production, filling, storage and transport of raw materials, goods or waste. These risks, if not handled appropriately, might lead to personal injury, damage to property or environmental damage, which in turn might result in business interruptions, monetary penalties, compensation payments or environmental clean-up costs. The reputation of The Linde Group could also suffer if any such event were to occur.

One of the Group's main preventive strategies is ensuring high safety standards. By applying clearly structured management standards, the Group ensures, on the basis of the systematic evaluation of risks which might lead to accidents or damage to property or to the environment, that stringent safety requirements are planned, implemented and monitored for processes with a particularly high exposure to risk. A risk to Linde's employees and to the net assets, financial position and results of operations of the Group is also posed by natural disasters, pandemics and terrorist or other criminal attacks. These risks may also have an indirect impact on Linde if the Group's customers are significantly affected by any of them.

Linde addresses these risks, which are covered in some cases by insurance, by taking local risk reduction measures and putting contingency plans in place. The aim is to minimise as far as possible the potential consequences of serious events and to ensure the fastest possible return to normal operations, even in the case of highly improbable events or losses of a grave nature.

### Production risks

A business interruption at one of Linde's main plants or at a customer's on-site plant could adversely affect the results of operations and reputation of the Group. This would be particularly true if the interruption to the business were to be caused by an accident which also resulted in personal injury or damage to the environment.

Therefore, Linde gives high priority to measures designed to prevent business interruptions. These include, in particular, the monitoring and maintenance of plants so that such incidents may be avoided and the provision of spare parts of strategic importance, the modular construction of the filling plants and their fitting out with abundant and versatile filling systems, and strict compliance with quality and safety standards and environmental protection standards during the manufacture, storage, transport and use of the products. If, despite these preventive measures, a business interruption should occur, the Group has supply networks operating between its production plants so that any business interruption would have less of an effect or no effect at all on its customers.

### Project risks in plant construction

Complex major plant construction projects pose particular problems for risk management. The Group's Engineering Division handles significant contracts which may be worth several hundred million euros and where construction may take a number of years.

Typically, the division is involved in the design and construction of turnkey plants. Potential risks may arise as a result of the costings and execution of such complex projects which are subject to uncertainty. Risks may include unexpected technical problems, supply bottlenecks and quality problems with suppliers of major components, unforeseen developments during on-site assembly and problems with partners or subcontractors. Such risks may cause project delays and cost overruns. To manage the risks in plant construction, Linde employs tried and tested methods, even in the tendering phase, to assess the impact on the profitability of a large-scale project of potential variances from budgeted cost for individual components. The Group conducts simulations of the opportunities and risks associated with each project using numerical methods of analysis. By continually monitoring changes in parameters alongside the progress of the project, Linde is able to identify potential project risks at an early stage and to take appropriate measures to counter them. These risk management tools are constantly being updated and modified to meet the increasing demands of the market.

### Risks associated with products and services

Risks associated with products and services may in extreme cases result in consequences such as potential liability claims, the loss of customers or damage to the Group's reputation. Principal possible causes of risks associated with products and services are product defects or an inadequate level of customer care when Linde is providing services, especially in the Gist division or Healthcare product area.

Linde counters such risks by maintaining the safety and high quality of its products, product information and services. To ensure that products are safe, risk management is based on the concept of product stewardship. The potential hazards and risks that might arise for human beings and the environment from a product during its life-cycle are analysed and the relevant potential risk is determined. Linde takes the measures which are necessary to avoid the risks which have been identified or, if that is not possible, to reduce the risks to an acceptable level.

To ensure the highest possible levels of safety for patients over the entire life-cycle of Linde's pharmaceutical products, such products are monitored on a continuous basis using a Vigilance Signal Detection System. Regular analysis is performed on the safety of pharmaceutical products in Periodic Safety Update Reports (PSURs).

## *Financial market risks and country risk*

### Financial market risks

Due to its global operations, Linde is exposed to a number of financial market risks. In particular, these include counterparty risk, liquidity risk and risks arising from movements in interest rates, share prices and exchange rates. These risks are monitored and managed on an ongoing basis.

The basic strategies for the management of interest rate risk, currency risk and liquidity risk and the objectives and principles governing Linde's financing are determined by the Treasury Committee, led by the Chief Financial Officer. This committee usually meets once a month and comprises representatives from Corporate & Support Functions Treasury and Accounting & Reporting.

Financing and hedging decisions are based on the financial information obtained from the Group's treasury management system and its financial and liquidity forecasts. These are embedded in the general financial reporting system, which is also used in the areas of Financial Control and Accounting & Reporting.

With regard to the organisation of the Treasury department, the principle of segregation of duties between the front, middle and back offices is rigorously observed and monitored throughout the risk management process. This means that there is a strict personal and organisational separation between the dealing, the processing and the verification of a financial transaction. Linde uses a treasury management system to implement, record and evaluate transactions. The treasury management system is subject to regular internal and external audits, generally once a year.

One of the main criteria for the management of counterparty risk is the credit rating of the counterparty. The Group also monitors changes in other relevant capital market parameters, such as movements in credit default swaps or in the market capitalisation of counterparties. Trading and position limits are defined on this basis. Regular reviews of these limits are performed by a supervisory unit which is independent of the trading entity. Both Linde AG and Linde Finance B.V. also conclude Credit Support Annexes (or CSAs) with their principal banks. Under these agreements, the positive and negative fair values of derivatives are collateralised with cash on a regular basis by the contracting parties. This significantly reduces counterparty risk.

With regard to the management of liquidity risk, Linde pursues a prudent and conservative policy of safeguarding liquidity. It continued to have access to the capital markets in the 2016 financial year. In addition, Linde has access to an agreed syndicated credit facility of EUR 2.5 bn provided by an international banking group, which is available until 2020 and has not been used to date.

Interest rate risk arises as a result of fluctuations in interest rates caused by the markets. These fluctuations affect both interest expense and the fair value of financial instruments. Interest rate risk is centrally managed. On the basis of sensitivity and scenario analyses, the Treasury Committee determines ranges for the fixed-floating ratio of the financial liabilities. The focus is on the main financing currencies: the euro (EUR) and the US dollar (USD). Group Treasury manages the rates within the agreed ranges and submits reports to the Treasury Committee about the measures implemented. Methods of hedging exposure to the risk include entering into interest rate hedging transactions with banks and using long-term fixed-interest bonds and loans. In 2016, on average 68 percent of the exposure of the Group was financed at fixed rates, while at year-end the figure was 64 percent.

In the case of exchange rate risk, it is important to differentiate between operational transaction risks (currency risks resulting from business and financing activities between different currency zones) and translation risks (currency risks arising from the currency translation of the financial statements of subsidiaries where those subsidiaries have a functional currency other than the Group reporting currency). The Group guideline states that individual business units must monitor transaction risks themselves and agree appropriate hedging transactions with Group Treasury, based on predetermined minimum hedging rates, provided there are no other reasons not to hedge the exposure in this way.

As far as translation risks are concerned, only currency-related fluctuations in net asset values at Group level are hedged selectively within the framework of authorised ranges. Hedging decisions are made according to the risk strategies of the Treasury Committee. Forward exchange transactions, cross-currency interest rate swaps, currency options and foreign currency loans are all used here. The main currencies are US dollars (USD), British pounds (GBP), Australian dollars (AUD) and some Eastern European, South American and Asian currencies. In the Gases Division, the Group also uses financial instruments, especially to hedge against exposure to changes in the price of electricity, natural gas and propane gas.

In the project business in the Engineering Division, foreign currency risks are reduced as much as possible by natural hedges: for example, by purchasing supplies and services in the currency of the contract. Any foreign currency amounts over and above this are fully hedged as soon as they arise, generally by entering into forward exchange transactions.

In certain countries, companies in The Linde Group have defined benefit commitments to their employees under occupational pension schemes. Depending on the structure of the schemes, one-off payments may be



made or the employees may be entitled to a pension for life with an annual increase which may be variable or inflation-linked. The amount of the obligation is the actuarial present value of all pension commitments and is expressed as the Defined Benefit Obligation (DBO) under IFRS.

In most pension schemes, the obligation is covered by assets which are maintained separately.

The risks relating to the pension obligations (interest rate, inflation, longevity risks) on the one hand, and those relating to the pension assets (interest rate, spread, exchange rate, equity and other financial market risks) on the other are quantified and evaluated by Linde on a regular basis. There is a natural conflict between a significant reduction of the risk and the achievement in the long term of the return on assets required to keep pace with the potential increase in the obligation.

As a guideline, the Executive Board defines risk tolerance at Group level. Measures designed to modify scheme structure are coordinated by the Global Pension Committee and implemented in the local pension schemes. The Group Investment Panel for Pension Assets assesses the long-term opportunities and risks associated with various asset classes and makes decisions or recommendations regarding the investment strategy of the major pension schemes. The investment panel is chaired by the Chief Financial Officer and receives advice from external experts.

### Country risks

Potential risks that Linde might encounter in different countries as a global corporation include the nationalisation or expropriation of assets, legal risks, the prohibition of capital transfers, bad debts with government institutions, war, terrorist attacks and other unrest. Political unrest and wars may also be the cause of indirect risks (economic risks, project risks and risks associated with commercialisation), as a result for example of political and economic sanctions which may extend beyond the borders of the actual region in crisis. For example, the conflict between Russia and Ukraine might have an impact on Linde's plant construction in Russia, leading to delays or cancellations relating to the implementation of existing projects. There could also be an indirect negative impact on Linde companies in other countries in the Gases Division and in other markets in the Engineering Division if Linde customers were to change their plans as a result of the unrest or due to the potential escalation of sanctions.

There is the fundamental risk that embargoes are agreed for certain countries in which Linde operates, which could have an adverse impact on existing trading relations or investment plans which are in place even before the embargo comes into force. To manage these risks, Linde has established a system that

evaluates the Group's risk situation in terms of the impact of risk on its net assets, financial position and results of operations, sets out risk limits and ensures capital adequacy and cross-border financing at optimal levels of risk. At the same time, individual capital expenditure projects are evaluated for political risk, and target returns on investment are set accordingly. On the basis of this evaluation, the risks are covered, if appropriate, by German government guarantees for direct foreign investment, tailored insurance solutions or similar financial instruments available in the market. Counterparty risk for export business is also assessed, and limited if necessary by hedging instruments such as Hermes guarantees.

### Strategic risks

Linde's long-term growth targets are based inter alia on the growth areas of energy, the environment and health, as well as on dynamic trends in the fast-growing economies.

Achieving the growth targets entails risks both within and outside the Group. Risks arise on the one hand from uncertainty about the future evolution of these growth areas, which are influenced by political, social, legal and economic factors.

On the other hand, there are also risks associated with the internal measures adopted by the Group to achieve its targets. These include not only acquisition and investment projects, but also strategic initiatives in areas such as digital transformation, improving customer satisfaction or sustainability performance. The risks associated with such projects are principally the result of the uncertainty attached to assumptions about the future development of the underlying business model and to the amount of the net investment in an acquisition project or the net cash inflow from an investment project.

Investments in tangible assets, acquisitions and sales are discussed and approved by the investment committee or at meetings of the Executive Board. At the beginning of the project, careful consideration is given to the assumptions about the project, the feasibility of the project and the specific risks attached to that project. The Group evaluates, for example, country risk and currency risk, the credit ratings of individual customers and trends in the local (gases) markets, as well as the underlying terms and conditions of the contract and the cost of the investment.

In addition, the Executive Board, the Supervisory Board and Group management personnel hold regular meetings to evaluate the extent to which targets associated with strategic initiatives have been achieved and then implement any corrective measures required.

Overexposure to a single region, customer segment or a particular technology might, for example, have an adverse impact on Linde's net assets, financial position

and results of operations and on its future growth prospects if the assumed overall circumstances change, i.e. in a situation where economic conditions worsen or customers fail to extend their contracts. To counter this risk, the Group applies portfolio management to define and monitor target ranges for its investments. In addition, Linde's integrated business model means that it is in a position to offer its customers different construction and operator models and thus to manage its concentration risk.

Linde's good reputation is a key prerequisite for achieving the long-term growth targets. By expanding its crisis management and crisis communication standards, Linde counters the risk of reputational losses resulting from the mismanagement of crises or insufficient communication on relevant events.

#### **Purchasing and supply chain risks**

A key element in the success of the business units is the ready availability of products and services purchased by Linde, which must be of suitable quality, and obtainable in appropriate quantities at prices in line with market conditions. This applies not only to certain gases which Linde does not produce itself, but also in particular to material groups which are dependent on raw materials such as steel, aluminium and brass as well as energy.

To reduce risk, Linde pursues a portfolio strategy across the entire Group. This strategy is organised on the basis of defined groups of materials, which are used to categorise all products and services.

In addition to adopting purchasing strategies based on groups of materials, Linde is continuing to optimise its supplier portfolio and the contract status of its suppliers so as to minimise purchasing risks. For products and services where the price depends to a great extent on volatile primary markets, the cost risks are minimised by using time-optimised agreements. On the purchasing side, for example, the impact of price volatility risks relating to the procurement of electricity and natural gas is cushioned by long-term purchasing strategies in the deregulated energy markets. Linde's procurement activities in the relevant wholesale energy markets are governed by a global risk guideline which determines the ranges for price hedging over the next few years. Compliance with the guideline is monitored by a global committee. Data transparency is established by means of a professional IT tool for the energy trade. Furthermore, on the sales side, due to the amount of energy consumed in industrial gases production, fluctuations in the price of electricity and natural gas are passed through to customers using appropriate price formulas.

When Linde purchases gases, it counters procurement risks and price risks by means of strict technical apportionment (purchase, own production or purification of gases) and geographical distribution. Unforeseen fluctuations in sales volumes can thus be offset.

Risks may arise for The Linde Group if long-term procurement contracts are not matched by sales contracts covering a similarly long period. The risks of fluctuations in demand and prices on the sales side are therefore considered by Linde before it enters into long-term purchase contracts.

#### **Regulatory and legal risks**

##### **Regulatory risks**

Changes in the regulatory environment might have a negative impact on Linde's costs and international competitiveness. Examples of this are the design of the EU Emissions Trading Scheme and the extra burden being placed on energy-intensive industrial gases production by the increase in electricity prices as a result of additional statutory levies.

In the Healthcare product area, which is largely state-regulated, regulatory changes might also pose risks to Linde which have been described in the section on economic risks above.

The Group is also affected by measures being taken to regulate the international financial markets. In a variety of jurisdictions, Linde must comply with comprehensive rules and reporting requirements when processing financial transactions. Breaches of these rules and requirements may incur significant penalties from the relevant supervisory authorities. Examples which could be quoted here are the Dodd Frank Act in the United States and European Market Infrastructure Regulation (EMIR).

Linde counters these risks by conducting a continuous forward-looking observation and analysis of the legal environment in the various business units and by developing the systems required. In addition, the measures described in the section on risks associated with competition (which are designed to ensure constant customer contact and the development of innovative products and services) contribute towards a reduction in the potential adverse impact of changes in the regulatory environment.

### Legal risks

With its international operations, The Linde Group is exposed to numerous legal risks. These may include, in particular, risks relating to product liability, competition and antitrust law, export control, data protection, patent law, procurement law, tax legislation and environmental protection. The outcome of any currently pending or future proceedings can often not be predicted with any certainty. Legal or regulatory judgements or agreed settlements might give rise to expenses which are not covered, or are not fully covered, by insurance benefits. These expenses might have an impact on the Group's business and its earnings.

Certain companies in The Linde Group are party to various legal proceedings in the ordinary course of business. The outcome of the litigation to which Linde Group companies are party cannot be readily foreseen, but Linde believes that such litigation should be disposed of without material adverse effect on its financial position or results of operations.

Prior to the current accounting period, the Brazilian competition authority CADE imposed fines on a number of gases companies, including Linde's Brazilian subsidiary, on the grounds of alleged anti-competitive business conduct in the years 1998 to 2004. Seen from today's perspective, Linde assumes that this decision will not stand up to judicial review.

Certain subsidiaries in The Linde Group are party to lawsuits in the United States, including some in which claims for damages in high amounts have been asserted. The lawsuits relate to a number of issues including cost reimbursements by the national healthcare system or alleged injuries arising from exposure to manganese, asbestos and/or toxic fumes in connection with the welding process. In these cases, the subsidiaries are typically one of several or many other defendants. Based on the litigation experience to date, together with current assessments of the claims being asserted and applicable insurance, Linde believes that the continued defence and resolution of the welding fumes litigation will not have a material adverse effect on the financial position or results of operations of the Group. Nonetheless, the outcome of these cases is inherently uncertain and difficult to predict. The subsidiaries have insurance that covers most or part of the costs and any judgements associated with these claims. The legal actions described above are those currently considered to involve major legal risks. They do not necessarily represent an exhaustive list.

### IT risks

Many processes in the Linde organisation are dependent on the reliability of the IT infrastructure, software applications and data. Therefore, breakdowns or interruptions in the relevant systems or data loss generally have a negative impact on business processes or production. Longer-term shutdowns or critical data loss could adversely affect the net assets, financial position and results of operations of the Group. Breaches of data protection rules, unauthorised data retrieval or the loss of personal data or sensitive corporate data might result in compensation claims, penalty charges, competitive losses and long-term damage to reputation and a loss of confidence in the company.

The current state of the existing security measures is monitored via a Security Reporting process and is reviewed by the IT internal audit department and external IT auditors. These regular assessments and audits identify any amendments and improvements that might be required, thus contributing to continuous, sustainable improvement in the effectiveness of the security measures. The protective measures have been combined to form a multi-stage defence of the systems and data against attacks from outside (malware infection, cyber attacks, invasion attempts). To counter the risk that insufficient resources and expertise will be available to maintain company-specific application software developed in-house (which might mean, in the worst-case scenario, that business-critical processes were inadequately supported), Linde has devised a standardised process for the development, testing and use of application software.

### Personnel risks

The success of the Group is dependent on the commitment, motivation and skills of its employees and executives. The principal risk factors associated with attracting well-qualified staff and ensuring their long-term loyalty to the Group are the ever-increasing shortage of skilled personnel and fierce competition in the labour market. Competition for employees of the right calibre is now becoming even more intense, especially in the Asian markets.

To address these risk factors, the Group is adopting a holistic approach towards attracting and supporting its employees. Staff development, the cornerstone of long-term employee loyalty, enhances the skills of management personnel and fosters their commitment to the Group. Key aspects of Linde's management development programme are the variety of opportunities on offer for professional development, the provision of support and advice to target groups, mentoring and coaching programmes, the early identification and advancement of high achievers and those with potential, and attractive remuneration packages in line with market rates.

Linde's staff development schemes are supplemented by extensive opportunities for gaining qualifications and for professional development. This comprehensive programme strengthens its position as an attractive employer in the competitive market for skilled workers. The Group is drawing up new professional development schemes for engineering in particular, further enhancing its attractiveness as an employer.

Linde also trains graduate engineers on university courses with a work experience element and is dealing with the shortage of engineers by continuing to develop its own in-house training schemes. By applying these measures and collaborating more closely with selected higher education institutions, the Group is able to offer skilled employees excellent professional prospects.

The volatile and demanding market environment means that Linde needs to have the ability to make constant improvements in its processes and to act swiftly to adapt its organisational structure to keep up with rapidly changing industry requirements. Each individual employee has to be ready and willing to embrace change. This attitude is an essential prerequisite for the successful implementation of the processes of change. For Linde, maintaining a relationship with employee representatives and trade unions which is based on mutual trust and constructive cooperation plays a particularly significant role here.

### ***Tax risks***

As a group with global operations, Linde is governed by the tax rules and regulations applicable in each country in which it operates. When tax rules change, this may result in a higher tax expense and the need to make higher tax payments. In addition, changes in tax legislation may have a significant impact on the Group's tax receivables and tax liabilities as well as on its deferred tax assets and deferred tax liabilities. Moreover, uncertainty about the tax environment in some regions may restrict the Group's opportunities to enforce its rights under the law. Linde also operates in countries with complex tax regulations which could be interpreted in different ways. Future interpretations of these regulations and/or changes in the tax system might have an impact on the tax liabilities, profitability and business operations of the Group. Linde is regularly audited by the tax authorities in various jurisdictions. Tax risks which might arise from the issues discussed above are identified and evaluated on an ongoing basis by the Group.

### ***Environmental risks***

Linde's operating processes, in particular, are associated with risks which might lead to environmental damage. Linde understands and knows about the environmental impact of its processes and is therefore in a position to develop and implement plans to limit and control such effects. Linde is involved, for instance, in improving the energy efficiency of its production plants and in increasing the performance of its transport fleet. However, the possibility that the Group's activities might lead to environmental damage or that remediation works might cost more than originally budgeted cannot be completely ruled out.

### ***Research and development risks***

The capacity to innovate is key to Linde's success. The Group's research and development activities focus, for one, on new technologies and gases applications which may form the basis for future business success. Another key area for innovation is the development of new business models, i.e. the way in which Linde will do business with its customers using innovative products and services in the future, and how new technologies such as digitalisation can be used to further boost efficiency and customer focus, allowing Linde to set itself apart from the competition.

Despite the great opportunities for growth which may be presented by the activities of Linde's research departments, there is a risk that, due to the high level of complexity of the technologies and markets and the fast rate of change associated with them, projects might be postponed, or might not be able to proceed for technological, economic, legal or safety reasons. The collaboration with research and development partners can give rise to additional risks to the project's success, e.g. the risk that a partner might become insolvent. On the other hand, there is also the risk that competitors might develop new technologies faster or in a more sustainable manner and then launch them onto the market and of this presenting a threat to Linde's core technologies. In order to be able to combat these risks throughout the entire innovation process, the Technology & Innovation (T&I) Corporate & Support Function monitors the relevant technological trends, checking continually whether ideas for innovation within the Group are a good fit with Linde's overall strategy and have the potential to generate profitable growth. This work is supported by cooperation with leading companies and universities and by strategies to protect the Group's intellectual property. The Group is also actively involved in the development of future standards, for example in the field of hydrogen technologies, as the marketing of innovations may depend on compliance with those standards.

### *Executive Board summary of the risk situation*

The three major risk areas for the Group continue to be economic risks, risks associated with the provision of services and financial market and country risks. As far as the risk categories of moderate relative significance are concerned, strategic risks and purchasing and supply chain risks have moved up the rankings by one position in each case in a year-on-year comparison. By contrast, regulatory and legal risks have moved down two positions the rankings, overtaking IT risks.

When it comes to the risk categories at the lower end of the ranking, tax-related risks have moved up two notches since the previous year, while research and development risks have fallen to the very bottom of the rankings. Since the risk categories in the middle and at the bottom of the rankings are very close to each other in terms of their ranking, the risk situation for Linde on the whole has not changed to any considerable degree compared with the previous year.

Given the risk management procedures in place, the Executive Board has not identified any risks in the 2016 financial year which might, individually or in total, have an adverse impact on Linde's net assets, financial position and results of operations and thereby on the viability of Linde as a going concern.

If there were to be a change in circumstances, risks which are currently unknown or deemed to be immaterial might gain in importance. Linde has made the organisational arrangements necessary to ensure that it becomes aware at an early stage of any apparent changes in risk situations and makes an appropriate response to such changes.

# OUTLOOK

## Macroeconomic trends

As at February 2017, economists are expecting stronger growth in the global economy in 2017 as was achieved in 2016. At the same time, uncertainty will be a central theme running through the current year. First of all, there is the start made by the new US government. Then, there is additional uncertainty surrounding both the upcoming negotiations on the United Kingdom's exit from the European Union (Brexit), the imminent elections in other European countries and further economic developments in China, all of which could also have a major impact on the global economy. Improved developments in Brazil and Russia are expected to deliver slightly positive impetus. The success of the new US government hinges primarily on whether or not, and to what extent, the plans announced during the election campaign, mainly in areas such as fiscal and foreign trade policy, as well as infrastructure investments, can be put into practice. As far as Brexit is concerned, Theresa May is still expected to officially declare her country's exit in the spring of 2017, signalling the start of a two-year period of negotiations. If this process is hit by further delays and an increase in tactical manoeuvring on the part of the parties involved, this could have a negative impact on investor and consumer confidence in the United Kingdom and the EU alike. Additional surprising outcomes of the upcoming elections in other European countries could have a similar effect. Although the continuation of China's expansive monetary and fiscal policy will provide a boost to economic development in the short term, this policy will prove virtually impossible to sustain in the long term, meaning that it poses considerable risks to the global economy. Recently, however, the central government hinted at the prospect of a move towards a more stability-oriented economic policy. After years of recession, a return to growth is back on the cards in 2017 for the first time in both Brazil and Russia. Over and above the factors set out above and as in previous years, existing geopolitical tensions, as well as potential new trouble spots, could put even more pressure on macroeconomic developments.

Against this background, Oxford Economics (OE) is currently predicting growth in global real gross domestic product (GDP) of 2.6 percent in 2017, following a rise of

2.2 percent in 2016. Global industrial production (IP) is forecast to grow by 2.5 percent in 2017 as a whole, a much faster rate than that seen in 2016 (1.5 percent).

In the EMEA<sup>1</sup> (Europe, Middle East, Africa) region, economists are predicting growth in economic output of 1.7 percent in 2017, similar to the level seen in 2016. Industrial production is expected to rise by 1.4 percent (2016: 1.2 percent).

In Western Europe, the economy is expected to continue on its path of fragile recovery. Oxford Economics is forecasting GDP growth of 1.5 percent for Western Europe in 2017, which is slightly lower than the growth seen in 2016 (1.7 percent). Industrial production, on the other hand, is expected to pick up speed slightly year-on-year, with growth tipped to come in at 1.3 percent (2016: 1.1 percent). The moderately positive economic trend in Germany is expected to continue in 2017 as well: here, GDP growth of 1.5 percent is expected (2016: 1.8 percent), with growth in industrial production expected to come in at 1.0 percent compared with the most recent figure of 1.1 percent.

In the Middle East & Eastern Europe region, developments are once again expected to paint a disparate picture in 2017. In the Middle East, economists expect to see GDP growth of 1.3 percent, a figure that is once again down on the prior year (1.8 percent). In Eastern Europe, on the other hand, GDP is expected to show more of an increase, with the growth rate forecast to come to 1.9 percent (2016: 1.1 percent). In Russia, economic output is expected to grow by 1.2 percent in 2017 after two years of recession (industrial production: 1.1 percent). Looking at South Africa, Oxford Economics is expecting an improvement in the economic climate with a GDP growth rate of 1.2 percent (2016: 0.4 percent).

As in previous years, the strongest growth rates in 2017 are once again expected in the Asia/Pacific region. OE is forecasting that economic output in this region will rise by 5.3 percent (2016: 5.5 percent). Industrial production is expected to increase by 4.3 percent (2016: 4.0 percent). GDP in China is expected to grow by 6.3 percent in 2017, marking another year of slow deceleration (2016: 6.7 percent). Industrial production is forecast to increase by 5.7 percent (2016: 6.1 percent). As far as India is concerned, Oxford Economics is expecting a GDP growth rate of 6.7 percent (2016: 7.1 percent), with growth in industrial production expected to come in at 1.7 percent compared with the most recent figure of 0.0 percent in 2016.

Australian GDP is expected to increase by 1.8 percent in 2017 (2016: 2.2 percent). Industrial production is expected to grow by 3.0 percent, a figure that is up considerably on 2016 (1.7 percent). As in the previous years, the main growth driver is likely to be the mining industry.

Growth in the Americas region is expected to come to 2.0 percent (2016: 0.9 percent), mainly driven by

<sup>1</sup> The growth values set out below for individual regions correspond to the average values, weighted based on economic output, for the countries in which Linde operates ("Linde regions").

more positive development in the United States and Brazil. Oxford Economics is predicting a GDP growth rate of 2.3 percent in the United States in 2017 (2016: 1.6 percent), with Brazil expected to report growth of 0.4 percent (2016: -3.4 percent). Industrial production is to rise substantially in both countries, amounting to 1.3 percent in the United States (2016: -1 percent) and 1.7 percent in Brazil (2016: -6.7 percent).

The economic forecasts presented here are based on the dataset from Oxford Economics as of 03 February 2017.

## Industry sector outlook

### *Gases industry*

The forecasts for global economic development suggest that growth rates on the global gases market in 2017 will be roughly on a par with 2016. They are characterised by uncertainty and risks relating to global and regional crises. The healthcare sector remains characterised by considerable growth potential, although price pressure continues to mount.

### *Plant construction*

Rising oil and gas prices could drive the willingness to invest in the international large-scale plant construction business in 2017, according to industry experts. After OPEC and other oil-producing countries announced that they would be reducing their production levels, oil prices have been rising since December 2016. This improves the outlook for the oil-producing countries in the Middle East, Russia and the US. The sustainability of this trend, however, is questionable. First, providers of unconventional extraction methods like shale oil can react to rising oil prices very quickly. Second, the rising oil prices are being achieved almost exclusively by cutting production volumes. In general, the competitive and cost pressure will continue to rise due to what is a smaller market volume on the whole – we can expect to see further consolidation on the competitive landscape.

The trends seen in recent years will continue in 2017. These include the global increase in energy requirements, the constant rise in the demand for environmentally friendly technologies and the increased focus on unconventional sources of energy. In addition, new opportunities are opening up thanks to the growing need for automation and digitalisation in the plant construction business. Differentiation based on innovation and technology leadership still give the German engineering sector a strong unique selling point compared with the rest of the market.

## Outlook – Group

Looking ahead to the 2017 financial year, Linde had set itself the objective, as part of its mid-term targets, of generating Group operating profit of between EUR 4.2 bn and EUR 4.5 bn and a return on capital employed (ROCE) of between 9 and 10 percent, depending on economic trends and based on the exchange rates that applied in November 2015. Based on the exchange rates that applied on balance sheet date of 31 December 2016, this also corresponds to a Group operating profit of between EUR 4.2 bn and EUR 4.5 bn.

These mid-term targets have now become the company's short-term targets, meaning that they form the basis for the 2017 forecast. Due to the high degree of uncertainty surrounding exchange rates and as these are outside of the company's sphere of control, Linde made the decision back in last year's Annual Report to express its forecasts in the form of percentage ranges, allowing for exchange rate adjustments.

This means that, for the current 2017 financial year, Linde expects to see Group revenue development of somewhere in the range of -3 percent to +3 percent after adjustments for exchange rate effects. The Group operating profit, after adjustments to reflect exchange rate effects, is to be on a par with the previous year in 2017 and could increase by up to 7 percent.

Linde is still seeking to achieve a return on capital employed (ROCE) of between 9 percent and 10 percent in the 2017 financial year.

Like the return on capital employed, the Group operating profit is based on the EBITDA/EBIT after adjustments for special items (for information on how the core financial performance indicators are defined and calculated, ► [SEE PAGE 43](#)). In 2017, Linde expects to incur further restructuring costs and expenses in connection with the intended merger with Praxair in the amount of around EUR 300 m in total. As in previous reporting periods, these costs will be reported as special items.

The forecasts relate exclusively to continuing operations.

### Outlook – Gases Division

The development of the product areas within the Gases Division depends on various factors. Linde's solid on-site project pipeline will make a positive contribution to revenue and earnings in the 2017 financial year. In the liquefied gases and cylinder gas product areas, overall developments depend primarily on the macroeconomic trends. In the Healthcare business, the revenue and earnings contribution in 2017 will be lower than in 2016 due to state price cuts for US healthcare services. Price reductions came into effect here at the beginning of the financial year due to government tenders. While these cuts were supposed to be stepped up further with effect from 1 July 2016, they were partly postponed until the beginning of January of this year, meaning that they will have an impact on revenue and earnings in this product area in 2017.

Depending on the overall framework as already described, and on economic developments, Linde is looking to achieve the following targets in the Gases Division in the 2017 financial year: Revenue is expected to come in at between –2 percent and +3 percent after exchange rate adjustments. The change in Group operating profit, after adjustments to reflect exchange rate effects, is to be on a par with the previous year, and could increase by up to 6 percent.

Margins in the EMEA and Asia/Pacific segments are expected to be around the same as those achieved in the 2016 financial year. In the Americas, the margin is expected to dip slightly due to the overall conditions described above.

### Outlook – Engineering Division

The market environment in the international market for large-scale plant construction is expected to remain extremely volatile in 2017. Although Linde can fall back on a solid order backlog, the positive revenue contributions from these orders will not yet have a full impact in 2017 due to the project structure.

Linde therefore expects the Engineering Division to achieve revenue of between EUR 2.0 bn and EUR 2.4 bn in the 2017 financial year. The Group continues to expect to achieve an operating margin of around 8 percent.

## Capital expenditure

Linde's investment strategy targets opportunities which offer above-average growth rates. The Group will continue to pursue the same approach in the 2017 financial year.

Based on the investment decisions it has already made and the large number of investment opportunities still available, Linde expects its investment ratio in the Gases Division in 2017 to correspond to between 11 percent and 12 percent of the revenue generated in this area, i.e. on a par with the level seen in 2016 (investment ratio in 2016: 11.1 percent).

## Financing

In the 2017 financial year, Linde will continue to apply its strategy of safeguarding liquidity and maintaining long-term financing. Depending on developments in the financial markets and the growth opportunities available, Linde continues to regard 2.5 as the upper limit for its dynamic indebtedness factor (net financial debt to operating profit).

The profitable growth defined by the Group's mid-term targets should continue to be financed mainly by the cash flow from operating activities. Linde intends to use the cash flow remaining after deducting capital expenditure to cover its financing costs, future rises in dividend payments expected at the current time and the systematic repayment of its financial debt.

## Dividend

Continuity and prudence will remain the most important criteria for Linde's dividend policy in future. The company will base the amount of the dividend for the 2017 financial year on the operating profit trend and the further business developments that are expected in the long term as a general rule. The cash flow from operating activities and capital expenditure will be taken into account as well.

## Outlook – Linde AG

For Linde AG, the parent company of The Linde Group, net income for the year is the core performance indicator. ► [SEE NET ASSETS, FINANCIAL POSITION AND RESULTS OF OPERATIONS OF LINDE AG, PAGES 65 TO 67.](#) Investment income for the year is the figure which has the greatest influence on this performance indicator.

Based on the profit for the year reported by Linde AG in 2016, which was much higher than originally planned, Linde does not expect to see another increase on this scale in 2017. The company expects to achieve a profit for the year and an unappropriated profit ranging from EUR 700 m to EUR 800 m.



## Statements relating to the future

The combined management report contains statements relating to the future which are based on the management's current estimates about future developments. These statements are not to be understood as guarantees that these expectations will prove to be true. The future development and the results actually achieved by The Linde Group and its affiliated companies are dependent on a number of risks and uncertainties and may therefore deviate significantly from the statements relating to the future. Linde has no plans to update its statements relating to the future, nor does it accept any obligation to do so.

# DECLARATION ON CORPORATE GOVERNANCE IN ACCORDANCE WITH § 289a OF THE GERMAN COMMERCIAL CODE (HGB)

The Executive Board and Supervisory Board of Linde AG have approved the prescribed declaration pursuant to § 161 of the German Stock Corporation Act (AktG) on the recommendations of the German Corporate Governance Code and made it accessible to the shareholders on a permanent basis. The Declaration of Compliance has been published on the Internet at ► [WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE](http://WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE).

The Declaration on Corporate Governance can be found on the Internet at ► [WWW.LINDE.COM/CORPORATEGOVERNANCE](http://WWW.LINDE.COM/CORPORATEGOVERNANCE).

More information about corporate governance at Linde is given in the section entitled Corporate Governance on ► [PAGES 14 TO 21](#) of the Annual Report.

# TAKEOVER-RELATED DISCLOSURES

## *Composition of capital subscribed*

Information about the composition of share capital is given in ► [NOTE \[20\]](#) of the Notes to the Group financial statements.

## *Shareholdings exceeding 10 percent of voting rights*

Linde AG is not aware of any direct or indirect shareholdings which reach or exceed 10 percent of the voting rights.

## *Shares with special rights*

There are no shares with special rights which confer powers of control on the holder.

## *Method of controlling voting rights if employees hold shares and do not exercise their control rights directly*

Employees who hold shares in Linde AG exercise their control rights directly like other shareholders in accordance with legal regulations and the rules set out in the articles of association.

## *Legal regulations and rules set out in the articles of association governing the appointment and removal of members of the Executive Board and changes to the articles of association*

The members of the Executive Board are appointed and removed by the Supervisory Board in accordance with §§ 84 and 85 of the German Stock Corporation Act (AktG) and § 31 of the German Co-Determination Act (MitbestG). Appointments are for a maximum term of five years. It is permissible for members of the Executive Board to be reappointed or for their term of office to be extended, although in each case for a maximum period of five years. Pursuant to § 31 of the German Co-Determination Act (MitbestG), the appointment of a member of the Executive Board requires at least a two-thirds majority of the members of the Supervisory Board.

According to Article 5.1 of the articles of association, the Executive Board consists of several members. The Supervisory Board determines the number of Executive Board members. According to Article 5.2 of the articles of association, the Supervisory Board can nominate one

of the members of the Executive Board as Chairman of the Executive Board and one as Deputy Chairman. The Supervisory Board may revoke the appointment of a member of the Executive Board or the nomination of one of the members of the Executive Board as Chairman of the Executive Board if there is good cause to do so pursuant to § 84 (3) of the German Stock Corporation Law (AktG).

Changes to the articles of association require a resolution to be passed at the Annual General Meeting in accordance with § 119 (1) No. 5 and § 179 AktG. Resolutions at the Annual General Meeting require a simple majority of the votes cast, as set out in Article 13.2 of the articles of association and, if a majority of shares is required, a simple majority of the capital subscribed represented at the vote, as long as mandatory legal rules do not require a different majority. According to Article 9.5 of the articles of association, the Supervisory Board is authorised to make amendments to the articles of association concerning only the form of words used.

## *Powers of the Executive Board to issue and repurchase shares*

### *Authorised capital*

Based on a resolution passed at the Annual General Meeting held on 29 May 2013, the Executive Board was authorised, with the approval of the Supervisory Board, to increase the share capital by up to EUR 47,000,000.00 until 28 May 2018 against cash and/or non-cash contributions by issuing, on one or more occasions, a total of up to 18,359,375 new bearer shares at a notional par value of EUR 2.56 (Authorised Capital I).

The Executive Board is further authorised, with the approval of the Supervisory Board, to exclude subscription rights for an amount of up to EUR 3,500,000.00 to the extent necessary to issue shares to the employees of Linde AG and/or its affiliated companies while excluding the subscription rights of shareholders.

Based on a resolution passed at the Annual General Meeting held on 3 May 2016, the Executive Board was authorised, with the approval of the Supervisory Board, to increase capital subscribed by up to EUR 47,000,000 until 2 May 2021 against cash or non-cash contributions by issuing, on one or more occasions, a total of up to 18,359,375 new bearer shares at a notional par value of EUR 2.56 (Authorised Capital II).

The following applies to Authorised Capital I and Authorised Capital II:

The new shares must be offered for subscription to the shareholders. However, the Executive Board is entitled, with the approval of the Supervisory Board, to exclude the subscription rights of shareholders for the residual amounts, and to exclude subscription rights to the extent that holders of option rights and/or conversion rights or conversion obligations issued by Linde AG or by any of its direct or indirect subsidiaries may be granted the subscription rights to new

shares to which they are entitled when they exercise their option rights and/or conversion rights or settle the conversion obligation.

Moreover, the Executive Board is authorised, with the approval of the Supervisory Board, to exclude the subscription rights of shareholders, provided the issue price of the new shares arising from a capital increase against cash contributions is not significantly lower than the price of shares of the same type traded on the stock exchange at the time the issue price is finally determined, which should be as soon as possible after the placement of the shares, and the proportion of the capital subscribed constituted by the shares issued does not exceed 10 percent of the capital subscribed either when this authorisation becomes effective or when it is exercised. In determining the capital limit, account must be taken of that part of capital subscribed which relates to those shares which are used to service options and/or convertible bonds. This is only the case if the options and/or convertible bonds are issued in accordance with § 186 (3), sentence 4, of the German Stock Corporation Act (AktG) while excluding the subscription rights of shareholders during the lifetime of this authorisation. Account must also be taken of that part of the capital subscribed which relates to those shares which are issued on the basis of the authorised capital, or sold after repurchase as own shares, during the lifetime of this authorisation in accordance or compliance with § 186 (3), sentence 4, of the German Stock Corporation Act (AktG).

The Executive Board is also authorised, with the approval of the Supervisory Board, to exclude subscription rights in the case of capital increases against non-cash contributions, especially in the course of the acquisition of companies, businesses or investments in companies, or on the formation of business combinations.

The Executive Board is authorised to determine the remaining details of the capital increase and its implementation with the approval of the Supervisory Board. The new shares can also be transferred to certain banks specified by the Executive Board, which assume the responsibility of offering them to shareholders (indirect subscription rights).

#### Conditionally authorised capital

The share capital can be increased by up to EUR 10,240,000 by the issue of up to 4,000,000 new bearer shares with a notional par value of EUR 2.56 if certain conditions are met (2012 conditionally authorised capital). The conditionally authorised increase in capital is approved solely for the purpose of granting subscription rights (share options) to members of the Executive Board of the company, members of the executive bodies of affiliated companies within Germany and outside Germany and to selected executives in the company and in affiliated companies within Germany and outside

Germany in accordance with the provisions set out in the authorisation agreed at the Annual General Meeting on 4 May 2012 (Long Term Incentive Plan 2012). The conditionally authorised share capital will only be issued if subscription rights are exercised in accordance with the authorisation granted and the company does not meet its obligation in cash or with own shares. The new shares issued as a result of the exercise of options are first entitled to a dividend in the financial year in which, at the date of their issue, a resolution has not yet been passed at the Annual General Meeting regarding the appropriation of profit.

The share capital can also be increased by up to EUR 47,000,000.00 by the issue of up to 18,359,375 new bearer shares with a notional par value of EUR 2.56 if certain conditions are met (2013 conditionally authorised capital). The increase in share capital will only take place if (i) the holders and/or creditors of the convertible bonds or warrant-linked bonds, both existing bonds and in addition convertible and/or warrant-linked bonds to be issued by the company or by Group companies controlled by the company by 28 May 2018, as a result of the authorisation granted to the Executive Board by the resolution passed at the Annual General Meeting on 29 May 2013, exercise their conversion or option rights or if (ii) the holders and/or creditors of convertible bonds to be issued by the company or by Group companies controlled by the company by 28 May 2018, as a result of the authorisation granted to the Executive Board by the resolution passed at the Annual General Meeting on 29 May 2013, settle their conversion obligation, although in cases (i) and (ii) only insofar as own shares are not used for this purpose. The new shares are issued at the option or conversion price to be determined in each case in accordance with the resolution regarding authorisation referred to above. The new shares participate in profit from the beginning of the financial year in which they are issued as a result of the exercise of conversion or option rights or settlement of the conversion obligation. The Executive Board is authorised to determine the remaining details of the conditionally authorised capital increase and its implementation with the approval of the Supervisory Board.

#### Authorisation to purchase own shares

The Executive Board is authorised until 2 May 2021 by a resolution passed at the Annual General Meeting on 3 May 2016 to acquire own shares up to 10 percent of share capital at the date of the resolution or, if lower, of the share capital at the date the relevant authorisation is exercised. These shares may be purchased on the stock exchange, by way of a public purchase offer addressed to all shareholders or by way of a public invitation to all shareholders to submit sale offers. The own shares acquired under this authorisation may:

- be sold via the stock exchange or by an offer to all shareholders,
- with the approval of the Supervisory Board, also be sold otherwise,
- with the approval of the Supervisory Board, be offered and transferred in the context of the direct or indirect acquisition of companies, businesses or investments in companies, and in the context of the formation of business combinations,
- be appropriated to settle option and/or convertible bonds which the company or a direct or indirect subsidiary of the company has issued or will issue,
- be granted, in the case of a sale of acquired own shares by an offer to all shareholders or a capital increase with subscription rights, to holders of option and/or conversion rights issued by the company or a direct or indirect subsidiary of the company in the same amount as that to which they would be entitled after exercising the option and/or conversion rights or after settlement of a conversion obligation,
- be granted in fulfilment of the company's obligations under the Linde Performance Share Programme following the resolution passed at the Annual General Meeting on 4 May 2012 (agenda item 8),
- be issued to members of the Executive Board and to persons currently or formerly employed by the company, and to members of executive bodies of Linde's affiliated companies, or be used to service the rights or obligations to purchase own shares attributable to the persons named heretofore, or
- be redeemed, with the approval of the Supervisory Board.

The Company holds a total of 95,109 own shares. This corresponds to a share of EUR 243,479.04, or 0.05 percent, of the capital subscribed. The shares are being used to fulfil the rights to transfer shares of the company under the Matching Share Plan to all participants in the plan, including the members of the Executive Board.

#### Authorisation to use derivatives in connection with the repurchase of own shares

Supplementary to the resolution passed at the Annual General Meeting on 3 May 2016 on the authorisation to repurchase own shares, the Executive Board is authorised, on the basis of a further resolution passed at the Annual General Meeting on 3 May 2016, also to use equity derivatives in order to repurchase own shares in the period leading up to 2 May 2021.

The Executive Board is authorised:

- to purchase options that entitle the company to acquire shares in the company upon exercise ("call options"),
- to sell options whereby the company takes on the obligation to acquire own shares in the company upon exercise by their holders ("put options"),
- to conclude forward purchases that entitle the company to purchase shares in the company at a set date in the future, and
- to combine the purchase using put and call options with forward purchases (all of the abovementioned structures shall hereinafter be referred to as "derivatives").

Share purchases using derivatives must relate to a number of shares corresponding, at the most, to 5 percent of the company's current capital subscribed or, in the event that this value is lower, of the capital subscribed at the time the authorisation is exercised. The shares acquired as a result of this authorisation being exercised shall count towards the acquisition limit for the abovementioned authorisation to repurchase own shares.

#### Significant agreements relating to a change of control subsequent to a takeover bid

In the financial years 2007 to 2016, Linde AG issued benchmark bonds under its EUR 10 bn Debt Issuance Programme, either itself or via Linde Finance B.V. Under the terms and conditions of the bond issues, in the event of a change of control, the bond creditor may demand immediate repayment if the change of control leads to withdrawal of the rating or to a reduction in the rating to or below certain rating levels for unsecured unsecured liabilities.

There are also other significant financing agreements in place, each of which includes specific rules which apply in the event of a change in control. These rules set out, in particular, the duty to provide information to the contracting party, as well as the cancellation rights of the contracting party.

There are customer contracts with clauses which grant the customer special cancellation rights in the event of a change of control. If these special cancellation rights are exercised, the contracts provide for appropriate compensation.

Under the terms and conditions of the Linde Long Term Incentive Plan 2012 (LTIP 2012) for Executive Board members and lower tiers of management, in the event of a change of control, special rules may be adopted. The special rules which apply to the share options issued in 2012 to 2016 are that, in the event of a change of control, cancellation rights apply, which means that option/matching shares rights may be settled in cash in an amount to be determined.

***Compensation arrangements made by the company with members of the Executive Board or with employees which will apply in the event of a takeover bid***

If there is a takeover of Linde AG and the employment contracts of the members of the Executive Board are terminated, the members of the Executive Board may be entitled to certain compensation payments based on their contractual emoluments. These compensation payments have an upper limit. A more detailed description of the effect of the rules on change of control on Executive Board members is given in the Remuneration report.

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# Group Financial Statements

## SECTION 3

# GROUP STATEMENT OF PROFIT OR LOSS

## GROUP STATEMENT OF PROFIT OR LOSS

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<i>in EUR m</i>	Note	2015	2016
Revenue	[6]	17,345	16,948
Cost of sales		11,166	10,847
<b>GROSS PROFIT</b>		<b>6,179</b>	<b>6,101</b>
Marketing and selling expenses		2,546	2,387
Research and development costs		131	121
Administration expenses		1,653	1,720
Other operating income	[7]	419	467
Other operating expenses	[7]	251	278
Share of profit or loss from associates and joint ventures (at equity)		12	13
EBIT from continuing operations		2,029	2,075
Financial income	[9]	42	29
Financial expenses	[9]	439	353
<b>PROFIT BEFORE TAX FROM CONTINUING OPERATIONS</b>		<b>1,632</b>	<b>1,751</b>
Income tax expense	[10]	396	424
<b>PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS</b>		<b>1,236</b>	<b>1,327</b>
<b>PROFIT FOR THE YEAR FROM DISCONTINUED OPERATIONS</b>		<b>16</b>	<b>-52</b>
<b>PROFIT FOR THE YEAR</b>		<b>1,252</b>	<b>1,275</b>
attributable to Linde AG shareholders		1,149	1,154
attributable to non-controlling interests		103	121
<b>EARNINGS PER SHARE – CONTINUING OPERATIONS</b>	[11]		
Earnings per share <i>in EUR</i> – undiluted		6.10	6.50
Earnings per share <i>in EUR</i> – diluted		6.09	6.48
<b>EARNINGS PER SHARE – DISCONTINUED OPERATIONS</b>	[11]		
Earnings per share <i>in EUR</i> – undiluted		0.09	-0.28
Earnings per share <i>in EUR</i> – diluted		0.09	-0.28



# GROUP STATEMENT OF COMPREHENSIVE INCOME

## GROUP STATEMENT OF COMPREHENSIVE INCOME

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in EUR m, ► SEE NOTE [20]

	2015	2016
<b>PROFIT FOR THE YEAR</b>	<b>1,252</b>	<b>1,275</b>
<b>OTHER COMPREHENSIVE INCOME (NET OF TAX)</b>	<b>622</b>	<b>-509</b>
<b>ITEMS THAT WILL BE RECLASSIFIED SUBSEQUENTLY TO PROFIT OR LOSS</b>	<b>609</b>	<b>-91</b>
Unrealised gains/losses on available-for-sale financial assets	-7	1
Unrealised gains/losses on hedging instruments	-477	40
Currency translation differences	1,093	-132
<b>ITEMS THAT WILL NOT BE RECLASSIFIED SUBSEQUENTLY TO PROFIT OR LOSS</b>	<b>13</b>	<b>-418</b>
Remeasurement of defined benefit plans	13	-418
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>1,874</b>	<b>766</b>
attributable to Linde AG shareholders	1,747	629
attributable to non-controlling interests	127	137

# GROUP STATEMENT OF FINANCIAL POSITION

## GROUP STATEMENT OF FINANCIAL POSITION

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<i>in EUR m</i>	Note	31.12.2015	31.12.2016
<b>Assets</b>			
Goodwill	[12]	11,604	11,405
Other intangible assets	[12]	2,760	2,440
Tangible assets	[13]	12,782	12,756
Investments in associates and joint ventures (at equity)	[14]	242	239
Other financial assets	[14]	57	71
Receivables from finance leases	[16]	217	165
Trade receivables	[16]	2	2
Other receivables and other assets	[16]	426	378
Income tax receivables	[16]	9	7
Deferred tax assets	[10]	327	500
<b>NON-CURRENT ASSETS</b>		<b>28,426</b>	<b>27,963</b>
Inventories	[15]	1,241	1,231
Receivables from finance leases	[16]	52	49
Trade receivables	[16]	2,724	2,755
Other receivables and other assets	[16]	778	788
Income tax receivables	[16]	277	199
Securities	[17]	421	131
Cash and cash equivalents	[18]	1,417	1,463
Non-current assets classified as held for sale and disposal groups	[19]	11	610
<b>CURRENT ASSETS</b>		<b>6,921</b>	<b>7,226</b>
<b>TOTAL ASSETS</b>		<b>35,347</b>	<b>35,189</b>

GROUP STATEMENT OF  
FINANCIAL POSITION

## GROUP STATEMENT OF FINANCIAL POSITION

42

<i>in EUR m</i>	Note	31.12.2015	31.12.2016
<b>Equity and liabilities</b>			
Capital subscribed		475	475
Conditionally authorised capital of EUR 57 m (2015: EUR 57 m)			
Capital reserve		6,736	6,745
Revenue reserves		7,146	7,244
Cumulative changes in equity not recognised through the statement of profit or loss		221	113
<b>TOTAL EQUITY ATTRIBUTABLE TO LINDE AG SHAREHOLDERS</b>	<b>[20]</b>	<b>14,578</b>	<b>14,577</b>
Non-controlling interests	[20]	871	903
<b>TOTAL EQUITY</b>		<b>15,449</b>	<b>15,480</b>
Provisions for pensions and similar obligations	[21]	1,068	1,564
Other non-current provisions	[22]	530	526
Deferred tax liabilities	[10]	1,750	1,683
Financial debt	[23]	8,460	6,674
Liabilities from finance leases	[24]	55	53
Trade payables	[25]	3	1
Other non-current liabilities	[25]	847	725
<b>NON-CURRENT LIABILITIES</b>		<b>12,713</b>	<b>11,226</b>
Current provisions	[22]	1,089	1,140
Financial debt	[23]	1,023	1,854
Liabilities from finance leases	[24]	23	21
Trade payables	[25]	3,223	3,570
Other current liabilities	[25]	1,255	1,208
Income tax liabilities	[25]	568	549
Liabilities in connection with non-current assets classified as held for sale and disposal groups	[19]	4	141
<b>CURRENT LIABILITIES</b>		<b>7,185</b>	<b>8,483</b>
<b>TOTAL EQUITY AND LIABILITIES</b>		<b>35,347</b>	<b>35,189</b>

# GROUP STATEMENT OF CASH FLOWS

## GROUP STATEMENT OF CASH FLOWS

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<i>in EUR m, ► SEE NOTE [28]</i>	Note	2015	2016
Profit before tax from continuing operations		1,632	1,751
<i>Adjustments to profit before tax to calculate cash flow from operating activities – continuing operations</i>			
Amortisation of intangible assets/depreciation of tangible assets	[12], [13]	1,866	1,897
Impairments of financial assets	[14]	16	8
Profit/loss on disposal of non-current assets		-18	-36
Net interest	[9]	366	307
Finance income arising from embedded finance leases in accordance with IFRIC 4/IAS 17	[9]	18	14
Share of profit or loss from associates and joint ventures (at equity)	[14]	-12	-13
Distributions/dividends received from associates and joint ventures	[14]	22	22
Income taxes paid	[10]	-532	-446
<i>Changes in assets and liabilities</i>			
Change in inventories	[15]	-45	21
Change in trade receivables	[16]	293	-91
Change in provisions	[21], [22]	-26	-64
Change in trade payables	[25]	-189	349
Change in other assets and liabilities		192	-319
<b>CASH FLOW FROM OPERATING ACTIVITIES – CONTINUING OPERATIONS</b>		<b>3,583</b>	<b>3,400</b>
<b>CASH FLOW FROM OPERATING ACTIVITIES – DISCONTINUED OPERATIONS</b>		<b>10</b>	<b>40</b>
<b>CASH FLOW FROM OPERATING ACTIVITIES – CONTINUING AND DISCONTINUED OPERATIONS</b>		<b>3,593</b>	<b>3,440</b>
Payments for tangible and intangible assets and plants held under finance leases in accordance with IFRIC 4/IAS 17		-1,876	-1,761
Payments for investments in consolidated companies	[2]	-113	-250
Payments for investments in financial assets		-76	-75
Payments for investments in securities	[17]	-953	-1,240
Proceeds on disposal of securities	[17]	1,052	1,531
Proceeds on disposal of tangible and intangible assets and amortisation of receivables from finance leases in accordance with IFRIC 4/IAS 17		85	173
Proceeds on disposal of consolidated companies and from purchase price repayment claims		1	116
Proceeds on disposal of non-current assets held for sale and disposal groups	[19]	12	-
Proceeds on disposal of financial assets		88	34
<b>CASH FLOW FROM INVESTING ACTIVITIES – CONTINUING OPERATIONS</b>		<b>-1,780</b>	<b>-1,472</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES – DISCONTINUED OPERATIONS</b>		<b>-15</b>	<b>-19</b>
<b>CASH FLOW FROM INVESTING ACTIVITIES – CONTINUING AND DISCONTINUED OPERATIONS</b>		<b>-1,795</b>	<b>-1,491</b>

GROUP STATEMENT OF  
CASH FLOWS

## GROUP STATEMENT OF CASH FLOWS

44

<i>in EUR m, ► SEE NOTE [28]</i>	Note	2015	2016
Dividend payments to Linde AG shareholders and non-controlling interests	[31]	-701	-765
Cash inflows from interest rate derivatives	[10]	182	149
Interest paid for debt and cash outflows for interest rate derivatives	[10]	-546	-496
Proceeds of loans and capital market debt	[23]	3,150	5,322
Cash outflows for the repayment of loans and capital market debt	[9]	-3,584	-6,085
Cash outflows for the repayment of liabilities from finance leases	[23]	-24	-21
<b>CASH FLOW FROM FINANCING ACTIVITIES – CONTINUING OPERATIONS</b>		<b>-1,523</b>	<b>-1,896</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES – DISCONTINUED OPERATIONS</b>		<b>4</b>	<b>-21</b>
<b>CASH FLOW FROM FINANCING ACTIVITIES – CONTINUING AND DISCONTINUED OPERATIONS</b>		<b>-1,519</b>	<b>-1,917</b>
CHANGE IN CASH AND CASH EQUIVALENTS		279	32
OPENING BALANCE OF CASH AND CASH EQUIVALENTS	[18]	1,137	1,417
Effects of currency translation		3	18
Cash and cash equivalents reported as non-current assets classified as held for sale and disposal groups	[19]	-2	-4
CLOSING BALANCE OF CASH AND CASH EQUIVALENTS	[18]	1,417	1,463

# STATEMENT OF CHANGES IN GROUP EQUITY

STATEMENT OF CHANGES IN GROUP EQUITY

<i>in EUR m, ► SEE NOTE [20]</i>	<i>Capital subscribed</i>	<i>Capital reserve</i>
<b>AT 01.01.2015</b>	<b>475</b>	<b>6,730</b>
Profit for the year	-	-
Other comprehensive income (net of tax)	-	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>-</b>	<b>-</b>
Dividend payments	-	-
Changes as a result of share option schemes	-	6
<b>TOTAL CONTRIBUTIONS BY AND DISTRIBUTIONS TO OWNERS OF THE COMPANY</b>	<b>-</b>	<b>6</b>
<b>OTHER CHANGES</b>	<b>-</b>	<b>-</b>
<b>AT 31.12.2015/01.01.2016</b>	<b>475</b>	<b>6,736</b>
Profit for the year	-	-
Other comprehensive income (net of tax)	-	-
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>-</b>	<b>-</b>
Dividend payments	-	-
Changes as a result of share option schemes	-	9
<b>TOTAL CONTRIBUTIONS BY AND DISTRIBUTIONS TO OWNERS OF THE COMPANY</b>	<b>-</b>	<b>9</b>
Acquisition/disposal of a subsidiary with non-controlling interests	-	-
<b>CHANGES IN OWNERSHIP INTERESTS IN SUBSIDIARIES</b>	<b>-</b>	<b>-</b>
<b>OTHER CHANGES</b>	<b>-</b>	<b>-</b>
<b>AT 31.12.2016</b>	<b>475</b>	<b>6,745</b>

STATEMENT OF  
CHANGES IN GROUP EQUITY

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<i>Revenue reserves</i>		<i>Cumulative changes in equity not recognised through the statement of profit or loss</i>					<i>Total equity attributable to Linde AG shareholders</i>	<i>Non-controlling interests</i>	<i>Total equity</i>
<i>Remeasurement of defined benefit plans</i>	<i>Retained earnings</i>	<i>Currency translation differences</i>	<i>Available-for-sale financial assets</i>	<i>Hedging instruments</i>					
-980	7,544	61	5	-429		13,406	861	14,267	
-	1,149	-	-	-		1,149	103	1,252	
14	-	1,066	-6	-476		598	24	622	
14	1,149	1,066	-6	-476		1,747	127	1,874	
-	-585	-	-	-		-585	-116	-701	
-	-	-	-	-		6	-	6	
-	-585	-	-	-		-579	-116	-695	
-	4	-	-	-		4	-1	3	
-966	8,112	1,127	-1	-905		14,578	871	15,449	
-	1,154	-	-	-		1,154	121	1,275	
-417	-	-148	-	40		-525	16	-509	
-417	1,154	-148	-	40		629	137	766	
-	-640	-	-	-		-640	-125	-765	
-	-	-	-	-		9	-	9	
-	-640	-	-	-		-631	-125	-756	
-	-	-	-	-		-	23	23	
-	-	-	-	-		-	23	23	
-	1	-	-	-		1	-3	-2	
-1,383	8,627	979	-1	-865		14,577	903	15,480	

# SEGMENT INFORMATION

(PART OF THE NOTES TO THE GROUP FINANCIAL STATEMENTS)

## SEGMENT INFORMATION

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	Segments									
	Gases Division		Engineering Division		Other Activities (discontinued operations)		Reconciliation		Group	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
<i>in EUR m, ► SEE NOTE [29]</i>										
Revenue from third parties	15,157	14,882	2,188	2,066	599	587	-	-	17,944	17,535
Revenue from other segments	11	10	406	285	8	15	-425	-310	-	-
<b>TOTAL REVENUE FROM THE REPORTABLE SEGMENTS</b>	<b>15,168</b>	<b>14,892</b>	<b>2,594</b>	<b>2,351</b>	<b>607</b>	<b>602</b>	<b>-425</b>	<b>-310</b>	<b>17,944</b>	<b>17,535</b>
<b>OPERATING PROFIT</b>	<b>4,151</b>	<b>4,210</b>	<b>216</b>	<b>196</b>	<b>44</b>	<b>44</b>	<b>-280</b>	<b>-308</b>	<b>4,131</b>	<b>4,142</b>
Restructuring and merger costs (special items)	160	101	30	12	-	-	2	13	192	126
Amortisation of intangible assets/ depreciation of tangible assets	1,863	1,893	41	44	30	99	-38	-40	1,896	1,996
thereof write-downs and impairments	7	17	4	7	-	-	-	-	11	24
thereof write-downs and impairments in connection with non-current assets classified as held for sale and disposal groups	-	6	-	-	-	75	-	-	-	81
<b>EBIT</b>	<b>2,128</b>	<b>2,216</b>	<b>145</b>	<b>140</b>	<b>14</b>	<b>-55</b>	<b>-244</b>	<b>-281</b>	<b>2,043</b>	<b>2,020</b>
Capital expenditure (excluding financial assets)	1,881	1,660	32	30	20	17	3	22	1,936	1,729

	Segments							
	Gases Division							
	EMEA		Asia/Pacific		Americas		Total Gases Division	
	2015	2016	2015	2016	2015	2016	2015	2016
<i>in EUR m</i>								
Revenue from third parties	5,984	5,721	4,130	4,084	5,043	5,077	15,157	14,882
Revenue from other segments	26	15	27	25	140	155	11	10
<b>TOTAL REVENUE FROM THE REPORTABLE SEGMENTS</b>	<b>6,010</b>	<b>5,736</b>	<b>4,157</b>	<b>4,109</b>	<b>5,183</b>	<b>5,232</b>	<b>15,168</b>	<b>14,892</b>
<b>OPERATING PROFIT</b>	<b>1,790</b>	<b>1,807</b>	<b>1,063</b>	<b>1,084</b>	<b>1,298</b>	<b>1,319</b>	<b>4,151</b>	<b>4,210</b>
Restructuring and merger costs (special items)	87	49	40	42	33	10	160	101
Amortisation of intangible assets/ depreciation of tangible assets	688	703	584	569	591	621	1,863	1,893
thereof write-downs and impairments	2	4	4	10	1	3	7	17
thereof write-downs and impairments in connection with non-current assets classified as held for sale and disposal groups	-	6	-	-	-	-	-	6
<b>EBIT</b>	<b>1,015</b>	<b>1,055</b>	<b>439</b>	<b>473</b>	<b>674</b>	<b>688</b>	<b>2,128</b>	<b>2,216</b>
Capital expenditure (excluding financial assets)	895	753	386	375	600	532	1,881	1,660



## SEGMENT INFORMATION

## REVENUE BY LOCATION OF CUSTOMER

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<i>in EUR m</i>	2015	2016
Europe	6,574	6,564
Germany	1,305	1,229
UK	1,698	1,447
Asia/Pacific	4,950	4,875
China	1,199	1,241
Australia	1,121	1,040
North America	5,218	5,063
USA	4,691	4,519
South America	663	573
Africa	539	460
Gist (discontinued operations)	-599	-587
<b>GROUP REVENUE</b>	<b>17,345</b>	<b>16,948</b>

## Non-current assets by location of company

48

<i>in EUR m</i>	2015	2016
Europe	10,840	10,035
Germany	1,262	1,276
UK	1,585	1,177
Asia/Pacific	8,135	7,958
China	1,641	1,421
Australia	1,246	1,192
North America	7,161	7,532
USA	2,749	2,858
South America	417	434
Africa	593	642
<b>NON-CURRENT SEGMENT ASSETS</b>	<b>27,146</b>	<b>26,601</b>

The information disclosed by country excludes goodwill.

# NOTES TO THE GROUP FINANCIAL STATEMENTS

## GENERAL PRINCIPLES

### [1] Basis of preparation

The Linde Group is an international technology group which operates across the globe. The parent company of The Linde Group is Linde Aktiengesellschaft. The registered office of Linde AG is in Munich, Germany (Munich Commercial Register, ref. HRB 169850).

### [2] Acquisitions

The major acquisitions in 2016 relate to:

#### MAJOR ACQUISITIONS

	Group's interest in percent (at 31.12.2016)	Acquisition costs in EUR m	Date of acquisition
AHOM	100	174	01.02.2016
Air Liquide Korea	100	54	15.12.2016

#### *American HomePatient, Inc.*

The Linde Group acquired 100 percent of the shares in the US company American HomePatient, Inc. with effect from 1 February 2016. From that date, the business has been included in full in the consolidated financial statements of The Linde Group. The company specialises in respiratory therapy for patients suffering from chronic obstructive pulmonary disease and sleep apnea. Linde intends to use the acquisition to expand its market position in the healthcare services sector and to generate synergy potential with the existing business.

A cash payment of around EUR 210 m was made in connection with the transaction. Following deductions for the repayment of financial debt in the amount of EUR 24 m and provisions for employee remuneration in the amount of EUR 1, and taking into account a

The consolidated financial statements of Linde Aktiengesellschaft for the year ended 31 December 2016 have been prepared in accordance with International Financial Reporting Standards (IFRS) issued by the International Accounting Standards Board (IASB) as adopted by the European Union pursuant to EU Regulation No. 1606/2002 of the European Parliament and the Council on the application of International Accounting Standards in the European Union. The consolidated financial statements also comply with the additional requirements set out in § 315a (1) of the German Commercial Code (HGB).

The reporting currency is the euro. All amounts are shown in millions of euro (EUR m), unless stated otherwise.

The Group statement of profit or loss has been prepared using the cost of sales method.

The financial statements of the main operating entities which are included in the consolidated financial statements have been audited by KPMG AG Wirtschaftsprüfungsgesellschaft. The annual financial statements of companies included in the consolidation are drawn up at the same balance sheet date as the annual financial statements of Linde Aktiengesellschaft.

conditional purchase price repayment claim with an expected value of EUR 11 m, the acquisition costs within the meaning of IFRS 3 amount to EUR 174 m. The conditional purchase price repayment claim will fall due within two years. The scope of the repayment claim is uncertain and ranges from EUR 1 m to EUR 36 m.

In the course of the acquisition, Linde will acquire non-current assets, as well as inventories and other current assets. These also include deferred tax assets from loss carryforwards. The main components of the provisional goodwill amounting to EUR 114 m relate primarily to expected synergies with the existing Healthcare business and going concern synergies. The purchase price allocation resulted in fair value adjustments in the amount of EUR 31 m. These relate to the corporate brand, customer relationships and tangible assets. The tax-deductible goodwill comes to EUR 0 m.

NOTES TO THE  
GROUP FINANCIAL STATEMENTS  
GENERAL PRINCIPLES

The transaction involved the acquisition of 100 per cent of the shares in American HomePatient, Inc. The non-controlling interests recognised in the opening balance sheet result from pre-consolidated units with shares of other non-controlling shareholders. The receivables acquired have a fair value of EUR 30 m and relate exclusively to trade receivables.

The profit for the year is hit, in particular, by the amortisation resulting from the purchase price allocation.

#### *Air Liquide Korea Co., Ltd.*

On 15 December 2016, The Linde Group acquired the assets and liabilities of Air Liquide Korea Co., Ltd. as part of an asset deal. The aim of the transaction was to expand the customer network on the South Korean market and generate cost savings in the process. The acquired business comprises the production and sale of industrial gases in the liquefied gases and on-site segments. The purchase price came to EUR 54 m and was paid in cash.

The acquisition saw The Linde Group acquire tangible assets and current assets in the amount of EUR 41 m. The liabilities assumed amounted to EUR 1 m at the time of acquisition. The purchase price allocation resulted in fair value adjustments in the amount of EUR 8 m. The receivables acquired have a fair value of EUR 4 m. This corresponds to the gross value of the receivables. The transaction gives rise to goodwill in the amount of EUR 14 m. This can be attributed primarily to cost synergies relating to production and administration. The goodwill of EUR 14 m is expected to be tax-deductible.

Since the acquisition date is so close to the balance sheet date, the purchase price allocation is still to be considered provisional.

#### *Other acquisitions*

In order to expand its business in the Industrial Gases and Healthcare product areas, Linde made further acquisitions in the EMEA, Americas and Asia/Pacific segments in the year under review. The total purchase price for these acquisitions was EUR 25 m, of which EUR 21 m was paid in cash. The total purchase price includes deferred purchase price payments and contingent consideration. In addition, EUR 2 m was offset against existing receivables of a seller. Sometimes separate transactions were agreed with former owners and employees transferred as part of the transaction. In the course of acquisitions achieved in stages, a loss of EUR 1 m from the remeasurement of previously held shares (EUR 2 m) at fair value was recognised in the operating profit.

In the course of these corporate acquisitions, Linde has acquired non-current assets, inventories, liquid funds and other current assets. The goodwill came to EUR 18 m in total. Purchase price allocations resulted in fair value adjustments in the amount of EUR 1 m. The goodwill is tax-deductible in the amount of EUR 18 m. Key components of the goodwill relate to synergy potential and access to new sales markets, as well as the expansion of the sales network. The acquisitions resulted in the transfer of receivables totalling EUR 0 m. The fair value of the receivables corresponds to the gross value of the receivables.

#### IMPACT OF ACQUISITIONS ON THE NET ASSETS OF THE LINDE GROUP

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Opening balance upon initial consolidation in EUR m	Fair value		
	AHOM	Air Liquide Korea	Other
Non-current assets	148	37	5
Inventories	4	-	1
Other current assets	34	4	-
Cash and cash equivalents	7	-	5
Equity (attributable to Linde AG)	60	40	8
Non-controlling interests	10	-	-
Liabilities	123	1	3

#### IMPACT OF ACQUISITIONS ON THE PROFIT FOR THE YEAR OF THE LINDE GROUP

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in EUR m	Profit for the year since the acquisition date	Profit for the year since the beginning of the financial year 01.01.2016 <sup>1</sup>
AHOM	6	4
Air Liquide Korea	-	6
Other	1	2

#### IMPACT OF ACQUISITIONS ON THE REVENUE OF THE LINDE GROUP

52

in EUR m	Revenue since the acquisition date	Revenue since the beginning of the financial year on 01.01.2016
AHOM	252	275
Air Liquide Korea	1	19
Other	7	20

<sup>1</sup> When these amounts were calculated, the fair value adjustments were assumed to be the same as those at the acquisition date.

### [3] Scope of consolidation

#### STRUCTURE OF COMPANIES INCLUDED IN THE CONSOLIDATED FINANCIAL STATEMENTS

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	At 31.12.2015	Additions	Disposals	At 31.12.2016
<b>CONSOLIDATED SUBSIDIARIES</b>	<b>528</b>	<b>47</b>	<b>19</b>	<b>556</b>
of which within Germany	18	2	-	20
of which outside Germany	510	45	19	536
<b>COMPANIES ACCOUNTED FOR USING THE LINE-BY-LINE METHOD</b>	<b>5</b>	<b>-</b>	<b>-</b>	<b>5</b>
of which within Germany	-	-	-	-
of which outside Germany	5	-	-	5
<b>COMPANIES ACCOUNTED FOR USING THE EQUITY METHOD</b>	<b>37</b>	<b>4</b>	<b>5</b>	<b>36</b>
of which within Germany	5	1	4	2
of which outside Germany	32	3	1	34
<b>NON-CONSOLIDATED SUBSIDIARIES</b>	<b>50</b>	<b>9</b>	<b>6</b>	<b>53</b>
of which within Germany	-	4	-	4
of which outside Germany	50	5	6	49

Changes in the scope of the consolidation may arise as a result of acquisitions, sales, mergers or closures, or as a result of changes in the assessment as to whether Linde AG exercises control or joint control over a company.

In 2016, 40.1 percent of the shares in Linde-Huayi (Chongqing) Gases Co., Ltd, which were held in the Asia/Pacific segment, were sold to the former minority shareholder. Following the disposal, Linde holds a stake of 19.9 and can still exercise significant influence as defined by IAS 28. The sale of the interests in ownership resulted, at the level of the Group as a whole and following the reversal of consolidation items in profit or loss, in a total profit on deconsolidation of EUR 25 m, which is included in other operating income. The proportion of profit resulting from the valuation of the remaining shares at fair value at the time of the loss of control comes to EUR 0 m.

The other main disposals in the financial year are shown in ► [NOTE \[19\]](#). Most of the other disposals were mergers and liquidations.

In the 2016 financial year, there were no effects on the equity of The Linde Group from changes in ownership interests in subsidiaries which did not result in either a loss of control or the acquisition of control.

#### COMPANIES EXEMPT FROM THE DISCLOSURE OBLIGATIONS

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<i>Name</i>	<i>Registered office</i>
Bomin Linde LNG GmbH & Co. KG	Hamburg
Commercium Immobilien- und Beteiligungs-GmbH	Munich
Gas & More GmbH	Pullach
Hydromotive GmbH & Co. KG	Leuna
Linde Electronics GmbH & Co. KG	Pullach
Linde Gas Produktionsgesellschaft mbH & Co. KG	Pullach
Linde Gas Therapeutics GmbH	Oberschleissheim
Linde Hydrogen Concepts GmbH	Pullach
Linde Remeo Deutschland GmbH	Blankenfelde-Mahlow
Linde Schweißtechnik GmbH	Pullach
Linde Welding GmbH	Pullach
MTA GmbH Medizin-Technischer-Anlagenbau	Mainhausen
Selas-Linde GmbH	Pullach
Tega-Technische Gase und Gasetechnik Gesellschaft mit beschränkter Haftung	Würzburg
Unterbichler Gase GmbH	Munich

A list of the shareholdings of The Linde Group is given in ► [NOTE \[39\]](#).

## [4] Foreign currency translation

Transactions in foreign currency are translated into the relevant functional currency of the individual entity on the transaction date. After initial recognition, foreign currency fluctuations relating to monetary items are recognised in profit or loss. For non-monetary items, historical translation rates continue to form the measurement basis.

Translation differences arising from the translation of items into the reporting currency continue to be recognised in other comprehensive income. The financial statements of foreign subsidiaries, including any fair value adjustments identified in the course of a purchase price allocation, are translated in accordance with the functional currency concept set out in IAS 21 The Effects of Changes in Foreign Exchange Rates.

Assets and liabilities, contingent liabilities and other financial commitments are translated at the mid-rate on the balance sheet date (closing rate method). Items in the statement of profit or loss and the net income for

the year are translated at a rate which approximates to the translation rate on the date of the transaction (the average rate).

Differences arising from the translation of equity are recognised in other comprehensive income.

The financial statements of foreign companies accounted for using the equity method are translated using the same principles for the adjustment of equity as are applied to consolidated subsidiaries.

The financial statements of subsidiaries outside Germany which report in a functional currency which is the currency of a hyperinflationary economy are adjusted for the change in purchasing power arising from the inflation.

Since 1 January 2010, Linde's activities in Venezuela, which is classified as a hyperinflationary economy in accordance with IAS 29 Financial Reporting in Hyperinflationary Economies, have been reported after adjustment for the effects of inflation. The rate of inflation is calculated using an inflation index derived from exchange rate movements.

### PRINCIPAL EXCHANGE RATES

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Exchange rate EUR 1 =	ISO code	Exchange rates on balance sheet date		Average rates for the year	
		31.12.2015	31.12.2016	2015	2016
Australia	AUD	1.49183	1.45732	1.47802	1.48859
China	CNY	7.05243	7.30336	6.97578	7.35307
South Africa	ZAR	16.80825	14.44751	14.16740	16.26524
UK	GBP	0.73685	0.85229	0.72610	0.81950
USA	USD	1.08605	1.05160	1.11003	1.10700

## [5] Accounting policies

The financial statements of companies included in the consolidated financial statements of The Linde Group have been prepared using uniform accounting policies in accordance with IFRS 10 Consolidated Financial Statements.

The preparation of the Group financial statements in accordance with IFRS requires discretionary decisions and estimates for some items, which might have an effect on their recognition and measurement in the statement of financial position and statement of profit or loss. The actual amounts realised may differ from these estimates.

The main accounting and valuation policies, as well as the estimates and discretionary decisions associated with them, are explained below:

### *Principles of consolidation* Consolidation

Companies are consolidated using the acquisition method. Where non-controlling interests are acquired, any remaining balance between the acquisition cost and the share of net assets acquired is offset directly in equity. Intra-Group sales, income and expenses and accounts receivable and payable are eliminated. Intra-Group profits and losses arising from intra-Group deliveries of non-current assets and inventories are eliminated.

The cost of an acquisition is measured at the fair value of the assets acquired, and liabilities assumed, in order to gain control, on the date of acquisition. The identifiable assets, liabilities and contingent liabilities acquired as a result of a business combination are recognised for the first time at their fair values at the date of acquisition, irrespective of the scope of any non-controlling interests. Non-controlling interests are measured at the pro rata fair value of the assets acquired and the liabilities assumed (partial goodwill method).

### Control

The Group financial statements comprise Linde AG and all the companies over which Linde AG is able to exercise control as defined by IFRS 10. If Linde AG holds a majority of the voting rights in a company, this generally indicates that it exercises control over the company in the absence of any other restrictive contractual agreements.

Companies for which the principal object is the construction and operation of gas production plants, and yet in which Linde holds less than 100 percent of the voting rights, are fully consolidated if Linde holds the advantage in terms of know-how. In these cases, The Linde Group has assumed responsibility for the operation of the companies plants and the companies are therefore dependent on Linde technology. This is

also reflected in the licensing agreements in force and by the integration of production into the processes of The Linde Group and/or the interrelationships between the various decision-makers. The operation of the plants is the principal driver of variable returns from the companies.

In addition, companies are fully consolidated if Linde exerts increased management authority in those companies and is able to exercise, on the basis of individual contracts, the most extensive decision-making powers over major portions of the operating activities of the entities.

### Joint control

Companies over which Linde AG may exercise joint control, as defined by IFRS 11, are either included in the Group financial statements on the basis of the interest (line-by-line method) or using the equity method, depending on the characteristics of the company. If Linde AG holds the same number of voting rights as another company, this generally indicates joint control, unless other (contractual) rights result in control being exercised by one of the shareholders.

If joint control exists, Linde needs to distinguish whether the investment is a joint operation or a joint venture. This distinction is dependent on whether Linde has rights to the assets and obligations for the liabilities of the arrangement or whether it has rights to the net assets of the arrangement. To make the distinction, Linde must consider the structure and legal form of the company, any contractual agreements which might apply and any other relevant circumstances.

Joint ventures are accounted for under the equity method at cost at the date of acquisition. In subsequent periods, the carrying amount is adjusted up or down to reflect Linde's share of the comprehensive income of the investee. Any distributions received from the investee and other changes in the investee's equity reduce or increase the carrying amount of the investment. If the losses of an associate or joint venture attributable to The Linde Group equal or exceed the value of the interest held in this associate or joint venture, no further losses are recognised unless the Group incurs an obligation or makes payments on behalf of the associate or joint venture. The same principles apply to the consolidation of companies accounted for using the equity method as for the consolidation of subsidiaries.

**Significant influence**

Associates over which Linde AG can exercise significant influence as defined by IAS 28 are also accounted for using the equity method. Significant influence is presumed if Linde AG holds (directly or indirectly) 20 percent or more of the voting rights in an investee, unless it can be clearly demonstrated that this is not the case.

**Non-consolidated subsidiaries**

Non-consolidated subsidiaries, when taken individually and together, are immaterial from the Group's point of view in terms of total assets, revenue and profit or loss for the year and do not have a significant impact on the net assets, financial position and results of operations of the Group.

**Discretionary decisions**

When assessing whether Linde exercises control, joint control or significant influence over companies in which it holds less than 100 percent of the voting rights, discretionary decisions may have to be made. Above all in cases where Linde holds 50 percent of the voting rights, a decision has to be taken as to whether there are rights or circumstances which might mean that Linde has power over the potential subsidiary or that joint control exists.

Changes to contractual agreements or facts or circumstances are monitored on an ongoing basis and are evaluated to determine whether they have an impact on the assessment as to whether Linde is exercising control or joint control over its investment.

Business combinations require estimates to be made when determining fair values. When discounted cash flow methods are used, discretionary aspects include in particular the time period and amount of the cash flow and the determination of an appropriate discount rate. When making discretionary decisions about purchase price allocations in the case of business combinations where the total assets acquired including goodwill exceed EUR 100 m, Linde takes advice from experts in the field, who assist in arriving at the decisions and provide reports backing their opinions.

**Intangible assets**

Purchased and internally generated intangible assets are stated at acquisition cost or manufacturing cost less accumulated amortisation and any impairment losses. An internally generated intangible asset is recognised if it can be identified as an asset, if it is probable that the future economic benefits that are attributable to the asset will flow to Linde, and if the cost of the asset can be measured reliably. It is important to determine whether the intangible assets have finite or indefinite useful lives. The estimated useful life of customer relationships purchased is calculated on the basis of the term of the contractual relationship underlying the customer relationship, or on the basis of expected customer behaviour. Goodwill, intangible assets with indefinite useful lives and intangible assets not yet ready for use are not amortised, but are subject instead to an impairment test once a year, or more often if there is any indication that an asset may be impaired.

The cash-generating unit (CGU) applied in impairment reviews of goodwill corresponds to the operating reportable segments EMEA, Americas and Asia/Pacific, as well as the Engineering Division und Other Activities. The impairment test involves initially comparing the value in use of the cash-generating unit with its carrying amount. If the carrying amount of the cash-generating unit exceeds the value in use, a test is performed to determine whether the fair value of the asset less costs to sell is higher than the carrying amount. To calculate the value in use of the cash-generating units, post-tax future cash inflows and outflows are derived from corporate financial budgets approved by management which cover a detailed planning period of five years. The calculation of the terminal value is based on the future net cash flows from the latest available detailed planning period. The post-tax interest rates used to discount the cash flows take into account industry-specific and country-specific risks relating to the particular cash-generating unit. When the terminal value is discounted, declining growth rates are used, which are lower than the growth rates calculated in the detailed planning period and which serve mainly to compensate for a general inflation rate.

If the reason for an impairment loss recognised in prior years no longer exists, the carrying amount of the intangible asset is increased to a maximum figure of the carrying amount that would have been determined had no impairment loss been recognised. This does not apply to goodwill.

Costs incurred in connection with the purchase for consideration and in-house development of software used internally, including the costs of bringing this software to an operational state, are capitalised and amortised on a straight-line basis over an estimated useful life of three to eight years.

### Tangible assets

Tangible assets are reported at acquisition cost or manufacturing cost less accumulated depreciation based on the estimated useful life of the asset and any impairment losses. Tangible assets are depreciated using the straight-line method and the depreciation expense is disclosed in the statement of profit or loss under the heading which corresponds to the functional features of the underlying asset. The depreciation method and the estimated useful lives of the assets are reviewed on an annual basis and adapted to prevailing conditions.

The following useful lives apply to the different types of tangible assets:

#### USEFUL LIVES OF TANGIBLE ASSETS

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Buildings	10–40 years
Technical equipment	6–15 years
Other equipment, furniture and fixtures	3–20 years

The useful lives are estimated based on past experience and set out in uniform Group guidelines. Assumptions also need to be made when Linde assesses whether an asset may be capitalised and which components of the cost of the asset may be capitalised. Estimates need to be made here, for example, of the expected future economic benefits of an asset or the expected future costs of the dismantling of plants. In addition, the capitalisation of costs which are incurred during the operating phase of an asset, such as the costs of upgrades to plants or their complete overhaul, depends on whether these costs will lead to better or higher output or whether they extend the estimated useful life of the asset.

If significant events or market developments indicate an impairment in the value of the tangible asset, Linde reviews the recoverability of the carrying amount of the asset by testing for impairment. The scope of the cash-generating unit is determined by external, independent cash flows. Special local market-related circumstances determine the combination of cash flows from different product segments. To determine the recoverable amount on the basis of value in use, estimated future cash flows are discounted at a rate which reflects the risk specific to the asset. When estimating future cash flows, current and expected future inflows as well as segment-specific, technological, economic and general developments are taken into account. If the reason for an impairment loss recognised in prior years no longer exists, the carrying amount of the tangible asset is increased to a maximum figure of the carrying amount that would have been determined had no impairment loss been recognised.

### Inventories

Inventories are reported at the lower of acquisition or manufacturing cost and net realisable value. Inventories are generally measured on a moving average basis or using the FIFO (first in, first out) method.

### Non-current assets held for sale and disposal groups and discontinued operations

Non-current assets and disposal groups, as well as liabilities directly related to these, are classified separately in the balance sheet as held for sale if they are available for sale in their present condition and the sale within the next twelve months is highly probable.

Non-current assets classified as held for sale and disposal groups are measured at the lower of carrying amount and fair value less costs to sell. Amortisation and depreciation has been discontinued. The process involved in determining the fair value less costs to sell involves estimates and assumptions that are subject to uncertainty.

Discontinued operations are reported as soon as a part of the business is classified as held for sale, or has already been disposed of, and the business area in question represents either a separate major line of business or a geographical area of operations and is part of a single coordinated plan to dispose of a separate major line of business or geographical area of operations. The profit/loss from discontinued operations is reported separately from the expenses and income from continuing operations in the Group statement of profit or loss; prior-year figures are shown on a like-for-like basis. In the Group statement of cash flows, the cash flows from discontinued operations are shown separately from the cash flows from continuing operations; prior-year figures are shown on a like-for-like basis. The information provided in the Notes to the Group financial statements (with the exception of ► [NOTE \[19\] NON-CURRENT ASSETS CLASSIFIED AS HELD FOR SALE AND DISPOSAL GROUPS](#)) – insofar as they relate to the Group statement of profit or loss and the Group statement of cash flows – relates to continuing operations. If the information relates exclusively to discontinued operations, this is highlighted accordingly. The prior-year values were adjusted accordingly.



### *Provisions for pensions and similar obligations*

The valuation of pension provisions is based on the projected unit credit method set out in IAS 19 Employee Benefits for defined benefit obligations. This method takes into account not only vested future benefits and known pensions at the balance sheet date, but also expected future increases in salaries and pensions. The calculation of the provisions is determined using actuarial reports based on biometric assumptions.

The fair value of the plan assets (adjusted if necessary to comply with the rules relating to the asset ceiling set out in IAS 19.64) is deducted from the present value of the pension obligations (gross pension obligation) to give the net pension obligation or net pension asset in respect of defined benefit pension plans. According to IAS 19.64, a net pension asset may only be disclosed if The Linde Group, under its obligation as an employer, has the right to receive a refund of the surplus or to reduce future contributions.

The net interest expense for the financial year is calculated by multiplying the net pension obligation or net pension asset at the beginning of the period by the interest rate underlying the discounting of the gross defined benefit obligation at the beginning of the period.

The discount rate is calculated on the basis of the returns achieved on the relevant call date for high quality fixed-interest corporate bonds in the market. The currency and period to maturity of the underlying bonds correspond to the currency and probable period to maturity of the post-employment benefit obligations. If such returns are not available, the discount rates are based on market returns for government bonds.

Remeasurements comprise on the one hand the actuarial gains and losses on the remeasurement of the gross defined benefit obligation and on the other hand the difference between the return on plan assets actually realised and the return assumed at the beginning of the period, which is based on the discount rate of the corresponding gross defined benefit obligation. If a pension plan is overfunded and the asset ceiling applies, remeasurements also comprise the change in the net asset from the application of the asset ceiling rules to the extent that this has not been accounted for in net interest.

Actuarial gains and losses arise from changes in actuarial assumptions or from variations between earlier actuarial assumptions and actual events.

All remeasurements (i.e. actuarial gains and losses, the cumulative effect of an asset ceiling and the effects of an increase in the pension obligation in accordance with IFRIC 14 The Limit on a Defined Benefit Asset, Minimum Funding Requirements and their Interaction) are offset immediately in other comprehensive income.

The expense arising from additions to the pension provisions is allocated to functional costs. The net

interest expense or net interest income from defined benefit plans is disclosed in the financial result. For each pension plan, it is established whether the net figure is a net interest expense or net interest income and the amounts are disclosed accordingly in the financial result.

### *Other provisions*

In accordance with IAS 37 Provisions, Contingent Liabilities and Contingent Assets, other provisions are recognised when a present obligation to a third party exists as a result of a past event, it is probable that an outflow of resources will be required to settle the obligation and a reliable estimate can be made of the amount of the obligation.

Other provisions are recognised for all identifiable risks and liabilities of uncertain timing or amount. The amounts provided are the best estimate of the probable expenditure required to settle the obligation and are not offset against recourse claims. The settlement amount is calculated based on the assessment of the probability of an outflow of resources, and on past experience and the circumstances known at the balance sheet date. This also includes any cost increases which need to be taken into account at the balance sheet date. The actual outflow of resources at a future date may therefore vary from the figure included in other provisions. Provisions which relate to periods of more than twelve months are discounted.

Provisions for warranties and onerous contracts include provisions for warranties and provisions for litigation. Assumptions are made here about the probability of occurrence of the risk and the expected future outflow of resources. The uncertainty associated with the measurement of warranty provisions is relatively moderate, as Linde has recourse to historical warranty cost ratios when determining the amounts to be set aside.

Litigation is associated with great uncertainty. A degree of discretion is required to assess whether a present obligation to a third party exists at the balance sheet date as a result of a past event, whether it is probable that an outflow of resources will be required in future to settle the obligation and whether a reliable estimate can be made of the amount of the obligation. The current status of outstanding litigation is regularly reviewed and updated by the Group's legal department and lawyers appointed by the Group. Changes to this status as a result of new information may result in adjustments being made to the provision.

Provisions for other obligations include provisions for costs which are expected to arise on the completion of major projects. There is an increased level of uncertainty associated with the measurement of these provisions.

Provisions for warranty claims are recognised taking current or estimated future claims experience into account.

Site restoration obligations are capitalised when they arise, at the discounted value of the obligation, and a provision for the same amount is established at the same time. An estimate is made, based on past experience, of future costs expected to be incurred to dismantle plants and restore the land on which the plant was built to its original condition. The expected costs are reassessed on an annual basis and the amount of the provision is adjusted if required. The depreciation charged on the asset and the unwinding of interest applied to the provision are both allocated as an expense to the periods of use of the asset.

Provisions for restructuring are recognised if a formal, detailed restructuring plan has been drawn up and communicated to the relevant parties.

Income tax provisions are disclosed in income tax liabilities.

### **Revenue recognition**

Revenue comprises sales of products and services as well as lease and rental income, less discounts and rebates.

Revenue from the sale of goods is recognised, in accordance with IAS 18 Revenue, when the risks of ownership have been transferred to the customer, the consideration can be reliably determined and it is probable that the associated receivables will be collected. If the customer is to take delivery of the goods, the relevant sale will not be recognised until the customer has accepted delivery. In the case of long-term service contracts, revenue is recorded on a straight-line basis over the period of the contract.

### **Long-term construction contracts**

Revenue from long-term customer-specific construction contracts is recognised, in accordance with IAS 11 Construction Contracts, based on the stage of completion of the contract (percentage of completion method, or PoC method). The stage of completion of each contract is determined by the ratio of the costs incurred to the expected total cost (cost-to-cost method). For major projects, the calculation and analysis of the stage of completion of the project takes into account in particular contract costs incurred by subcontractors. External experts are sometimes used to assist with the calculation of these costs. When the outcome of a construction contract cannot be estimated reliably, revenue is recognised only to the extent of the contract costs incurred which can probably be covered, and the contract costs in the period in which they are incurred are recognised as an expense (zero profit method). If the cumulative contract output (costs incurred plus profits disclosed) exceeds payments on account on an individual contract, the construction

contract is disclosed under Trade receivables. If there is a negative balance after deducting payments on account, the amount is disclosed under Trade payables. Anticipated losses on contracts are recognised in full, based on an assessment of identifiable risks.

The financial income from long-term construction contracts is disclosed in other operating income as a result of its clear relationship with the Group's operating business.

### **Cost of sales**

Cost of sales comprises the cost of goods and services sold and the cost of merchandise sold. It includes not only the cost of direct materials and direct manufacturing expenses, but also overheads including depreciation of production plants, amortisation of certain intangible assets and inventory write-downs.

### **Research and development costs**

Research costs and development costs which cannot be capitalised are recognised immediately in profit or loss.

### **Financial result**

The financial result includes:

- interest expenses on liabilities,
- dividends received,
- interest income on receivables,
- gains and losses on financial instruments recognised in profit or loss,
- the net interest expense and net interest income from defined benefit plans,
- the interest expense and income from finance leases and
- the expense and income relating to the measurement of certain embedded derivatives

Interest income and interest expenses are recognised in profit or loss on the basis of the effective interest rate method.

Dividends are recognised in profit or loss when they have been declared. Dividend payments made by operating companies which are reported at cost or at fair value in which Linde holds more than 10 percent of the voting rights and which have a clear connection to Linde's core operating business are recognised in other operating income. Core businesses are defined as those business areas which make a material contribution to the revenue of a division. A material contribution is deemed to be one of around 20 percent.

### *Financial instruments*

Financial assets and liabilities are only recognised in the Group statement of financial position when Linde becomes bound by the contractual provisions of the financial instrument. In the normal course of events, purchases and sales of financial assets are accounted for on settlement day. The same does not apply to derivatives, which are accounted for on the trading day.

According to IAS 39 Financial Instruments: Recognition and Measurement, financial instruments must be categorised as financial instruments held for trading or at fair value through profit or loss, available-for-sale financial assets, held-to-maturity financial investments, or loans and receivables. The Linde Group does not avail itself of the fair value option, whereby financial assets or financial liabilities are classified as at fair value through profit or loss when they are first recognised.

Available-for-sale financial assets include equity instruments and debt instruments. If equity instruments are not held for trading or measured at fair value through profit or loss, they are classified as available-for-sale financial assets. Debt instruments are included in this category if they are held for an unspecified period and can be sold depending on the market situation.

Financial instruments are initially recognised at fair value. Transaction expenses which are directly attributable to the acquisition or issue of financial instruments are only included in the determination of the carrying amount if the financial instruments are not recognised at fair value through profit or loss.

The subsequent measurement of available-for-sale financial assets is based on the separate recognition in equity as other comprehensive income of unrealised gains and losses, inclusive of deferred tax, until they are realised. Equity instruments for which no price is quoted in an active market and for which the fair value cannot be reliably determined are reported at cost. If the fair value of available-for-sale financial assets falls below cost and if there is objective evidence that the asset is impaired, the cumulative loss recognised directly in equity is transferred to profit or loss. Impairment reversals are recognised in equity for equity instruments and in profit or loss for debt instruments.

Loans and receivables and held-to-maturity financial investments are measured at amortised cost using the effective interest rate method. Where there is objective evidence that the asset is impaired, it is recognised at the present value of expected future cash flows if this is lower than amortised cost. The present value of expected future cash flows is calculated using the original effective interest rate of the financial asset.

The Linde Group conducts regular impairment reviews of the following categories of financial assets: loans and receivables, available-for-sale financial assets and held-to-maturity financial investments. The following criteria are applied:

- [a] significant financial difficulty of the issuer or obligor,
- [b] breach of contract, such as a default or delinquency in payments of interest or principal,
- [c] the lender, for economic or legal reasons relating to the borrowers financial difficulty, granting to the borrower a concession that would not otherwise be considered,
- [d] it becoming probable that the borrower will enter bankruptcy or other financial reorganisation,
- [e] the disappearance of an active market for that asset because of financial difficulties,
- [f] a recommendation based on observable data from the capital market,
- [g] information about significant changes with an adverse effect that have taken place in the technological, economic or legal environment of a contracting party,
- [h] a significant or prolonged decline in the fair value of the financial instrument.

A financial asset is derecognised if Linde loses its contractual entitlement to cash flows from such an asset or if it transfers virtually all the risks and opportunities associated with that financial asset. In the 2016 financial year, no financial assets that would qualify for elimination were transferred by Linde.

All derivative financial instruments are reported at fair value, irrespective of their purpose or the reason for which they were acquired.

Embedded derivatives (i.e. derivatives which are included in host contracts) are separated from the host contract and accounted for as derivative financial instruments, if certain requirements are met.

For more information about risk management and the impact on the balance sheet of derivative financial instruments, see ► [NOTE \[27\]](#).

Receivables and liabilities from finance leases, trade receivables and trade payables, financial debt, as well as other receivables and assets and other liabilities, are reported at amortised cost as long as they are not derivative financial instruments. Differences between historical cost and the repayment amount are accounted for using the effective interest rate method. Appropriate impairment losses are recognised if specific risks are identified. Establishing provisions for bad debts is based to a large extent on making estimates and assessments about individual amounts receivable. These estimates and assessments are founded on the creditworthiness of that particular customer, prevailing economic trends and an analysis of historical bad debts on a portfolio basis. Individual provisions for bad debts take account of both customer-specific and country-specific risks. The carrying amount of the financial debt which comprises the hedged item in a fair value hedge is adjusted for the corresponding gain or loss with respect to the hedged risk.

Financial instruments which contain both an equity portion and a liability portion are classified in accordance with IAS 32 Financial Instruments: Presentation. The financial instruments issued by The Linde Group are classified entirely as financial liabilities and reported at amortised cost. No part thereof is classified separately as an equity instrument.

### *Deferred taxes*

Deferred tax assets and liabilities are accounted for in accordance with IAS 12 Income Taxes under the liability method in respect of all temporary differences between the carrying amounts of the assets and liabilities under IFRS and the corresponding tax base used in the computation of taxable profit, and in respect of all consolidation adjustments affecting net income and unused tax loss carryforwards.

Deferred tax assets are only recognised for unused tax losses to the extent that it is probable that taxable profits will be available in future years against which the tax losses can be utilised. Deferred taxes are calculated at the tax rates that apply to the period when the asset is realised or the liability is settled, using tax rates set out in laws that have been enacted or substantively enacted in the individual countries by the balance sheet date.

### *Accounting for leases*

According to IFRIC 4 Determining whether an Arrangement contains a Lease, if specific criteria are met, certain arrangements should be accounted for as leases that do not take the legal form of a lease. In particular, in the Gases Division, certain gas supply contracts are classified as embedded leases if the fulfilment of the arrangement depends upon a specific asset and if customer's revenue share accounts for an overwhelming proportion of the production capacity of the asset. If an embedded lease exists, the criteria set out in IAS 17 Leases are used to examine in each individual case whether, under the gas supply contract, substantially all the risks and rewards incidental to ownership of the plant have been transferred to the customer, meaning that this constitutes an embedded finance lease. This involves separating that portion of the gas supply contract which relates to the embedded lease from the rest of the contract. Then it is established whether the minimum lease payments thus identified amount to substantially all the fair value of the plant and whether the minimum lease term is for the major part of the plant's economic life.

When classifying procurement lease agreements, Linde must also make assumptions: e.g. to determine the appropriate interest rate or the residual value or estimated useful lives of the underlying assets. If Linde is the lessee under a finance lease agreement, the assets are disclosed at the beginning of the lease under tangible assets at the fair value of the leased asset or, if lower, at the present value of the future lease payments. Corresponding liabilities from finance leases are set up.

Rental and lease payments under operating leases are recognised in functional costs in the statement of profit or loss on a straight-line basis over the lease term.

### *Recently issued accounting standards*

The IASB and IFRIC have revised numerous standards and have issued many new ones in the course of their projects to develop IFRS and achieve convergence with US GAAP. Of these, the following standards are mandatory in the consolidated financial statements of The Linde Group for the year ended 31 December 2016:

- Amendments to IFRS 11 Joint Arrangements: Accounting for Acquisitions of Interests in Joint Operations
- Amendments to IAS 16 Property, Plant and Equipment and IAS 38 Intangible Assets: Clarification of acceptable methods of depreciation/amortisation
- Annual improvements to the IFRS (2012–2014)
- Amendment to IAS 1: Disclosure Initiative
- Amendments to IAS 19: Defined Benefit Plans: Employees' contributions
- Annual improvements to the IFRS (2010–2012)

***Recently issued accounting standards which have not yet been applied***

The following standards have been issued by the IASB, but have not been applied in the consolidated financial statements of The Linde Group for the year ended 31 December 2016, as they are either not yet effective and/or have not yet been adopted by the European Union:

- IFRS 15 Revenue from Contracts with Customers including Amendments to IFRS 15 (first-time application according to IASB in financial years beginning on or after 1 January 2018)
- Clarifications relating to IFRS 15 Revenue from Contracts with Customers (first-time application according to IASB in financial years beginning on or after 1 January 2018)
- IFRS 9 Financial Instruments (first-time application according to IASB in financial years beginning on or after 1 January 2018)
- Amendments to IFRS 10 and IAS 28: Sale or Contribution of Assets between an Investor and its Associate or Joint Venture (first-time application deferred indefinitely by the IASB)
- IFRS 16 Leases (first-time application according to IASB in financial years beginning on or after 1 January 2019)
- Amendments to IAS 12: Recognition of Deferred Tax Assets for Unrealised Losses (first-time application according to IASB in financial years beginning on or after 1 January 2017)
- Amendments to IAS 7: Disclosure Initiative (first-time application according to IASB in financial years beginning on or after 1 January 2017)
- Amendments to IFRS 2 Share-based Payment (first-time application according to IASB in financial years beginning on or after 1 January 2018)
- Annual improvements to the IFRSs (2014–2016), (first-time application according to IASB in financial years beginning on or after 1 January 2017/1 January 2018)
- IFRIC 22 Foreign Currency Transactions and Advance Consideration (first-time application according to IASB in financial years beginning on or after 1 January 2018)

**IFRS 15**

The new standard on revenue recognition seeks to create a framework which brings together the multiplicity of rules which have until now been set out in a number of different standards and interpretations. According to IFRS 15, revenue is to be recognised when control over the goods or services in question has passed to the customer. This means that the principle of the transfer of control replaces the principle of the transfer of risks and rewards.

In future, companies preparing their financial statements in accordance with IFRS will determine when to recognise revenue (at what time or over which period) and how much revenue to recognise by applying five steps. The new provisions (with the exception of the amendments to IFRS 15) were endorsed by the European Union in 2016 and are mandatory for financial years beginning on or after 1 January 2018. Earlier application is permitted. IFRS 15 replaces IAS 11 Construction Contracts and IAS 18 Revenue, as well as the corresponding interpretations.

Linde has launched a Group-wide project on the introduction of IFRS 15 that comprises two phases (analysis and implementation phase). The analysis phase involves analysing the main types of contract in respect of the IFRS 15 provisions. This analysis had largely been completed on the balance sheet date. The next step, the implementation phase, will involve implementing the necessary adjustments that have been identified in the IT processes/systems, and training the Group companies on the IFRS 15 provisions and – where necessary – on the new processes. Linde has identified the performance obligations for the Gases Division, Engineering Division and the logistics services company Gist from the Other Activities segment based on the five-step model pursuant to IFRS 15 and has assessed the impact on potential changes in revenue recognition for these performance obligations in accordance with IFRS 15.

To date, the IFRS 15 analysis has not revealed any significant changes relating to the changeover to, and future application of, IFRS 15. The construction contracts in the Engineering Division that are measured using the PoC method still meet the requirements for the period-related recognition of revenue under IFRS 15.

The IFRS 15 requirements will change the presentation in the annual financial statements with regard to the information provided in the Notes. In the future, quantitative and qualitative information will be provided on contract assets and liabilities from contracts with customers, in particular. If one of the parties has fulfilled its contractual obligations, then the company has to report the contract as a contract asset or contract liability depending on whether the company has rendered its service or the customer has made payment. All unconditional entitlements to the receipt of a consideration are to be reported separately by a company as a receivable.

Linde will apply the standard for the first time for the 2018 financial year, applying the modified retrospective method.

**IFRS 9**

IFRS 9 “Financial Instruments”, which was published in July 2014, replaces the existing guidelines in IAS 39 “Financial Instruments: Recognition and Measurement”. The new provisions were endorsed by the European Union in 2016 and are mandatory for financial years beginning on or after 1 January 2018. In the future, financial assets will be classified and valued based on the business model on which the portfolio is based and the nature of the cash flows generated by the financial instrument. The provisions for financial liabilities were largely taken over from IAS 39. IFRS 9 also contains new provisions on the impairment of financial instruments, which is now based on the expected credit losses, and provisions on hedge accounting, which aim to bring accounting closer into line with risk management. In the 2016 financial year, The Linde Group took a full inventory of its financial instruments, allocated them to the business models and, as a result, set the measurement categories pursuant to IFRS 9. Compared with IAS 39, the categorisation of the financial instruments does not result in any major changes in measurement. Suitable models are being developed in order to implement the new provisions on impairments, in particular to determine the default rates of trade receivables. At the moment, the effects cannot yet be reliably quantified. An analysis of the currently designated hedging relationships revealed that they will, in all likelihood, comply with the provisions set out in IFRS 9, although the documentation and effectiveness requirements will need to be adjusted when IFRS 9 comes into force.

Linde will apply the standard for the first time for the 2018 financial year. Changes to accounting methods are generally applied using the retrospective method with the exception of the scenarios set out below:

- No adjustment of comparative information for prior periods with regard to changes in classification and measurement (including impairments). Differences between the carrying amounts of financial assets and financial liabilities due to the first-time application of IFRS 9 will be recognised under revenue reserves and cumulative changes in equity as at 1 January 2018 as a general rule.
- The new provisions on hedge accounting will be applied prospectively.

**IFRS 16**

IFRS 16 specifies how an IFRS reporter will recognise, measure, present and disclose leases. The new standard now provides a single lessee accounting model requiring lessees to recognise assets and liabilities for all leases unless the lease term is twelve months or less or the underlying asset has a low value (option in each case). Lessors continue to classify leases as operating or finance, with IFRS 16’s approach to lessor accounting substantially unchanged from its predecessor, IAS 17.

Linde enters into lease agreements principally as the lessee. The number of operating leases is much higher than the number of finance leases. As a result, the application of IFRS 16 will result in an increase in both assets and financial liabilities at Linde. No significant impact on finance leases is expected. Linde is likely to make use of the options relating to short-term and low-value leases. As far as the transitional provisions are concerned, Linde is likely to apply the modified retrospective method. At the present time, the Group plans to apply IFRS 16 for the first time as at 1 January 2019. The quantitative impact of IFRS 16 is currently still being analysed.

The remaining standards have no significant impact on the net assets, financial position and results of operations of The Linde Group.

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## [6] Revenue

Revenue is analysed by activity in the segment information in the Group financial statements. In 2016, there were no customers from whom the Group derived over 10 percent of its revenue. For a detailed analysis of revenue by product in the Gases Division and by plant type in the Engineering Division, see ► [PAGES 52 TO 58](#) of the combined management report.

## REVENUE

<i>in EUR m</i>	2015	2016
Revenue from the sale of goods and services	15,519	15,260
Revenue from long-term construction contracts	1,826	1,688
<b>TOTAL</b>	<b>17,345</b>	<b>16,948</b>

[7] Other operating income  
and expenses

## OTHER OPERATING INCOME

<i>in EUR m</i>	2015	2016
Exchange gains	117	60
Profit on disposal of non-current assets	36	150
Compensation payments received	18	28
Income arising from changes to pension schemes	42	45
Ancillary revenue	13	15
Income from release of provisions	24	27
Financial income from long-term construction contracts	18	14
Income from free-standing foreign currency hedges	15	20
Miscellaneous operating income	136	108
<b>TOTAL</b>	<b>419</b>	<b>467</b>

The increase in other operating income of EUR 48 m was largely the result of the increase in the profit on disposal of non-current assets. This also includes the profit from the scheduled disposal of non-current assets classified as held for sale and disposal groups.

## OTHER OPERATING EXPENSES

<i>in EUR m</i>	2015	2016
Exchange losses	101	72
Expenses from free-standing foreign currency hedges	9	9
Loss on disposal of non-current assets	21	25
Expenses related to pre-retirement part-time work schemes	3	2
Taxes	23	27
Miscellaneous operating expenses	94	143
<b>TOTAL</b>	<b>251</b>	<b>278</b>

The increase in operating expenses of EUR 27 m was primarily attributable to the increase in miscellaneous operating expenses.

## [8] Other information on the Group statement of profit or loss

During the 2016 financial year, personnel expenses from continuing operations of EUR 3.724 bn (2015: EUR 3.829 bn) were recognised in functional costs. The drop in the expenses was due mainly to the fact that restructuring costs were lower than in the previous year and to positive exchange rate effects. The figures for amortisation and depreciation are given in the segment information.

## [9] Financial income and expenses

### FINANCIAL INCOME

<i>in EUR m</i>	2015	2016
Net interest income from defined benefit plans, see ► <a href="#">NOTE [21]</a>	7	7
Finance income from finance leases in accordance with IFRIC 4/IAS 17	19	15
Income from investments	-	1
Other interest and similar income	16	6
<b>TOTAL</b>	<b>42</b>	<b>29</b>

The drop in financial income is largely due to the reduction in other interest and similar income, because the interest rates to be applied in the 2016 financial year were lower than in the previous year.

### FINANCIAL EXPENSES

<i>in EUR m</i>	2015	2016
Net interest expense from defined benefit plans, see ► <a href="#">NOTE [21]</a>	31	30
Impairment of financial assets	1	4
Other interest and similar charges	407	319
<b>TOTAL</b>	<b>439</b>	<b>353</b>

The drop in other interest and similar charges can be attributed primarily to the early redemption of two hybrid bonds in the amount of EUR 700 m and GBP 250 m, which bore interest at a rate of 7.375 percent and 8.125 percent respectively.

In interest income and interest expenses, gains and losses from fair value hedge accounting are offset against each other, in order to give a fair presentation of the economic effect of the underlying hedging relationship. Interest income and interest expenses relating to derivatives were also disclosed net.

## [10] Taxes on income

### INCOME TAX EXPENSE

<i>in EUR m</i>	2015	2016
Current tax expense (+) and income (-)	464	499
Tax expense (+) and income (-) relating to prior periods	13	23
Deferred tax expense (+) and deferred tax income (-)	-81	-98
<b>TOTAL</b>	<b>396</b>	<b>424</b>

In the period under review, the tax expense and income relating to prior periods includes current tax expense of EUR 15 m (2015: current tax expense of EUR 43 m) and deferred tax expense of EUR 8 m (2015: deferred tax income of EUR 30 m). Included in tax income and expense relating to prior periods are the positive and negative effects of facts established by external tax audits in various countries. Of the total amount of deferred tax income, EUR 75 m (2015: EUR 76 m) relates to the change in temporary differences.

The income tax expense disclosed for the 2016 financial year of EUR 424 m is EUR 56 m lower than the expected income tax expense of EUR 480 m, a theoretical figure arrived at by applying the German tax rate of 27.4 percent (2015: 27.4 percent) to Group profit before tax. Tax effects recognised directly in equity are shown in detail in ► [NOTE \[20\]](#).

The difference between the expected income tax expense and the figure disclosed is explained below:



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## EXPECTED AND DISCLOSED TAX EXPENSE

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<i>in EUR m</i>	2015	2016
Profit before tax	1,632	1,751
Income tax rate of Linde AG (including trade tax, (in %))	27.4	27.4
<b>EXPECTED INCOME TAX EXPENSE</b>	<b>447</b>	<b>480</b>
Foreign tax rate differential	-3	-54
Effect of associates	-3	-4
Reduction in tax due to tax-free income	-147	-96
Increase in tax due to non-tax-deductible expenses	63	43
Tax expense and income relating to prior periods	13	23
Effect of changes in tax rate	-7	-9
Change in other permanent differences	-14	30
Other	47	11
<b>INCOME TAX EXPENSE DISCLOSED</b>	<b>396</b>	<b>424</b>
Effective tax rate (in %)	24.3	24.2

In the 2016 financial year, the corporate income tax rate in Germany was 15.0 percent (2015: 15.0 percent). Taking into account an average rate for trade earnings tax of 11.6 percent (2015: 11.6 percent) and the solidarity surcharge (0.8 percent in both 2016 and 2015), this gives a tax rate for German companies of 27.4 percent (2015: 27.4 percent). This tax rate is also used to calculate deferred tax at German companies.

Income tax rates for companies outside Germany vary between 12.5 percent and 40.0 percent.

Temporary differences relating to investments in subsidiaries of EUR 128 m (2015: EUR 120 m) have not led to the recognition of deferred tax, either because the differences are not expected to reverse in the near future as a result of their realisation (due to distributions or the disposal of the company) or the profits are not subject to taxation.

In the reporting period, other deviations consisted of income arising from a change in the valuation allowance of EUR 3 m (2015: expense of EUR 47 m). As in the previous year, the recognition of a deferred tax asset in respect of losses brought forward not previously recognised and temporary differences did not have any positive impact. The positive impact of the utilisation of loss carryforwards in respect of which no deferred tax asset had yet been recognised came to EUR 4 m, as in 2015.

## DEFERRED TAX ASSETS AND LIABILITIES

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<i>in EUR m</i>	2015		2016	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Intangible assets	5	763	5	702
Tangible assets	266	1,213	153	1,156
Financial assets	109	144	121	152
Current assets	465	855	381	589
Provisions	334	199	447	205
Liabilities	950	476	1,076	674
Tax loss carryforwards and tax credits	98	-	112	-
Amounts offset	-1,900	-1,900	-1,795	-1,795
<b>TOTAL</b>	<b>327</b>	<b>1,750</b>	<b>500</b>	<b>1,683</b>

The tax credits in the 2016 financial year related mainly to investment incentives, as in the prior year.

Movements in the deferred tax asset and the deferred tax liability were not solely due to movements which have been recognised in profit or loss, but also to movements which have been recognised in other comprehensive income not affecting profit or loss, exchange rate movements in respect of deferred tax recognised in a foreign currency, and movements in deferred tax as a result of the purchase and sale of subsidiaries.

Deferred tax disclosed in other comprehensive income not affecting profit or loss totalled EUR 486 m (2015: EUR 362 m). Of this amount, deferred tax assets of EUR 419 m (2015: EUR 294 m) were attributable to provisions and deferred tax assets of EUR 67 m (2015: EUR 68 m) were attributable to current assets.

The carrying amount of deferred tax assets is reduced to the extent that it is no longer probable that the deferred tax asset will be realised. The carrying amount of deferred tax assets which relate to potential reductions in the tax base of EUR 993 m (2015: EUR 1.020 bn) was therefore reduced by EUR 220 m (2015: EUR 225 m), as it is not probable that the underlying tax loss carryforwards and tax credits of EUR 929 m (2015: EUR 864 m) and deductible temporary differences of EUR 64 m (2015: EUR 156 m) will be utilised. Of the revised figure for total potential reductions in the tax base of EUR 929 m (2015: EUR 864 m) which relate to adjusted tax carryforwards and tax credits, EUR 191 m (2015: EUR 276 m) may be carried forward for up to ten years and EUR 738 m (2015: EUR 588 m) may be carried forward for longer than ten years.

Deferred tax assets relating to tax loss carryforwards and tax credits of EUR 112 m (2015: EUR 98 m) were recognised mainly because it is projected that there will be taxable profit against which the unused tax losses and tax credits may be offset.

#### TAX LOSS CARRYFORWARDS NOT YET USED

<i>in EUR m</i>	2015	2016
May be carried forward for up to 10 years	323	282
May be carried forward for longer than 10 years	39	75
May be carried forward indefinitely	650	735
<b>TOTAL</b>	<b>1,012</b>	<b>1,092</b>

The movement in tax loss carryforwards is mainly due to additions in Brazil, Canada, Finland, Hong Kong, and India, as well as reductions in Germany and Russia. There were also tax loss carryforwards relating to US state tax of EUR 782 m (2015: EUR 416 m).

Distributions to Linde AG shareholders do not have any impact on taxes on income at the level of Linde AG.

## [11] Earnings per share

### EARNINGS PER SHARE

<i>in EUR m</i>	2015	2016
Profit for the year from continuing operations – attributable to Linde AG shareholders	1,133	1,206
<i>Shares in thousand units</i>		
Weighted average number of shares outstanding	185,638	185,636
Dilution as a result of share option schemes	417	360
Weighted average number of shares outstanding – diluted	186,055	185,996
<b>EARNINGS PER SHARE FROM CONTINUING OPERATIONS</b>		
<i>in EUR – UNDILUTED</i>	<b>6.10</b>	<b>6.50</b>
<b>EARNINGS PER SHARE FROM CONTINUING OPERATIONS</b>		
<i>in EUR – DILUTED</i>	<b>6.09</b>	<b>6.48</b>

Included in the figure for diluted earnings per share is the issue of shares relating to the employee share option schemes, to the extent that these have not already been exercised. Options issued are also included in the calculation of the weighted average number of shares outstanding (fully diluted), on a weighted basis until the date they are exercised.

Further information about the option schemes is given in ► [NOTE \[26\]](#).

# NOTES TO THE GROUP STATEMENT OF FINANCIAL POSITION

## [12] Goodwill/other intangible assets

### MOVEMENT SCHEDULE INTANGIBLE ASSETS – ACQUISITION COST

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<i>in EUR m</i>	<i>Goodwill</i>	<i>Customer relationships</i>	<i>Brands</i>	<i>Other intangible assets</i>	<i>Total</i>
<b>AT 01.01.2015</b>	<b>11,062</b>	<b>3,607</b>	<b>516</b>	<b>1,354</b>	<b>16,539</b>
Currency adjustments	506	119	17	34	676
Additions due to acquisitions	45	7	2	-	54
Additions	-	1	-	46	47
Disposals	-	61	-	18	79
Reclassifications	-	2	-	14	16
Reclassification as assets held for sale	-2	-	-	-	-2
<b>AT 31.12.2015/01.01.2016</b>	<b>11,611</b>	<b>3,675</b>	<b>535</b>	<b>1,430</b>	<b>17,251</b>
Currency adjustments	-7	-63	-2	1	-71
Additions due to acquisitions	146	29	7	-	182
Additions	-	-	-	52	52
Disposals	2	-	28	94	124
Reclassifications	-	-	-	29	29
Reclassification as assets held for sale	-336	-146	-2	-21	-505
<b>AT 31.12.2016</b>	<b>11,412</b>	<b>3,495</b>	<b>510</b>	<b>1,397</b>	<b>16,814</b>

## SCHEDULE OF INTANGIBLE ASSETS – CUMULATIVE AMORTISATION

68

<i>in EUR m</i>	<i>Goodwill</i>	<i>Customer relationships</i>	<i>Brands</i>	<i>Other intangible assets</i>	<i>Total</i>
<b>AT 01.01.2015</b>	<b>7</b>	<b>1,444</b>	<b>202</b>	<b>909</b>	<b>2,562</b>
Currency adjustments	-	51	6	21	78
Amortisation	-	182	26	109	317
Impairments	-	-	-	2	2
Disposals	-	54	-	18	72
Reclassifications	-	2	-	-2	-
<b>AT 31.12.2015/01.01.2016</b>	<b>7</b>	<b>1,625</b>	<b>234</b>	<b>1,021</b>	<b>2,887</b>
Currency adjustments	1	-13	-1	-	-13
Amortisation	-	162	20	116	298
Impairments	-	-	-	7	7
Disposals	1	-	28	80	109
Reclassifications	-	-	-	11	11
Reclassification as assets held for sale	-	-94	-	-18	-112
<b>AT 31.12.2016</b>	<b>7</b>	<b>1,680</b>	<b>225</b>	<b>1,057</b>	<b>2,969</b>
<b>NET CARRYING AMOUNT AT 31.12.2015</b>	<b>11,604</b>	<b>2,050</b>	<b>301</b>	<b>409</b>	<b>14,364</b>
<b>NET CARRYING AMOUNT AT 31.12.2016</b>	<b>11,405</b>	<b>1,815</b>	<b>285</b>	<b>340</b>	<b>13,845</b>

In the statement of financial position at 31 December 2016, the total figure for goodwill is EUR 11.405 bn (2015: EUR 11.604 bn). Goodwill arising on acquisitions made in the 2016 financial year was EUR 146 m (2015: EUR 45 m).

The total net carrying amount of trademarks acquired in the course of acquisitions was EUR 285 m (2015: EUR 301 m) at the balance sheet date. The brand names acquired in the course of the BOC acquisition and other acquisitions have been classified as intangible assets with finite useful lives since the 2011 financial year as a long-term rebranding programme for the relevant brands has begun. These brand names are amortised on a straight-line basis over a period of ten to twelve years. At 31 December 2016, their net carrying amount was EUR 169 m (2015: EUR 187 m).

The brand names acquired in the course of Lincare acquisition have indefinite useful lives and are included in the North America region. These were the subject of an impairment test in 2016, based on assumptions of a pre-tax interest rate of 12.4 percent and growth in the terminal value of 1.0 percent. The carrying amount at 31 December 2016 was EUR 116 m (2015: EUR 114 m).

The amortisation expense for intangible assets with finite useful lives of EUR 298 m (2015: EUR 317 m) was disclosed in functional costs, principally in marketing and selling expenses.

Software solutions are the main component of other intangible assets.

An impairment test of goodwill was carried out at 30 September 2016. No impairment losses were recognised as a result. The recoverable amount of goodwill was determined as its value in use, as in the previous

year. To calculate its value in use, a discounted cash flow method was used. A detailed five-year plan was used as the basis for the calculation of cash flows. The economic growth rates and overall conditions assumed for the detailed planning period were based on the latest estimates from international economic research institute Oxford Economics. The operating margin in the individual segments was assumed to remain largely stable at the level seen in 2016 throughout the detailed planning period. The inflation assumption for the period extending beyond the planning period is 0.5 percent for all cash-generating units.

The cost of capital increased as at 31 December 2016 due to a higher interest rate level in general. Sensitivity calculations performed on this basis did not result in any impairments. It would have taken an isolated increase of 1.9 percentage points in the cost of capital to result in the value in use equalling the carrying amount at the level of the Americas cash-generating unit. In the remaining CGUs, if this increase in the cost of capital had been applied, the value in use would still have exceeded the carrying amount.

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## ASSUMPTIONS FOR THE IMPAIRMENT TEST OF GOODWILL

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	Carrying amount of allocated goodwill		Pre-tax WACC based on region-specific premiums and discounts at impairment test date		Post-tax WACC based on region-specific premiums and discounts at impairment test date		Average annual growth rate in gross domestic product in planning period		Average annual growth rate in industrial production in planning period		Long-term growth rate	
	in EUR m		in percent		in percent		in percent		in percent		in percent	
	31.12. 2015	31.12. 2016	31.12. 2015	30.09. 2016	31.12. 2015	30.09. 2016	2015	2016	2015	2016	2015	2016
EMEA	5,098	4,986	8.1	6.9	6.4	5.6	2.0	1.9	1.9	1.6	0.5	0.5
Asia/Pacific	1,967	1,992	8.2	7.0	6.4	5.5	4.1	4.2	3.9	3.7	0.8	0.8
Americas	3,916	4,150	9.4	8.0	6.2	5.4	2.5	2.0	2.7	1.8	0.8	0.8
Engineering Division	277	277	8.6	7.6	6.6	5.7	3.2	3.2	3.0	2.7	0.8	0.8
Other Activities	346	-	5.1	-	4.2	-	2.5	-	1.2	-	0.8	-
<b>GROUP</b>	<b>11,604</b>	<b>11,405</b>										

## [13] Tangible assets

## SCHEDULE OF TANGIBLE ASSETS – ACQUISITION COST

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in EUR m	Land, land rights and buildings	Technical equipment and machinery	Other equipment, furniture and fixtures	Plants under construction	Total
<b>AT 01.01.2015</b>	<b>3,017</b>	<b>23,125</b>	<b>1,567</b>	<b>2,087</b>	<b>29,796</b>
Currency adjustments	47	674	-7	-4	710
Additions due to acquisitions	6	29	-	5	40
Additions	38	538	95	1,218	1,889
Disposals	24	288	71	2	385
Reclassifications	42	1,333	30	-1,380	25
Reclassification as assets held for sale	-2	-4	-	-	-6
<b>AT 31.12.2015/01.01.2016</b>	<b>3,124</b>	<b>25,407</b>	<b>1,614</b>	<b>1,924</b>	<b>32,069</b>
Currency adjustments	-37	110	12	22	107
Additions due to acquisitions	5	80	6	1	92
Additions	29	902	96	650	1,677
Disposals	62	451	64	115	692
Reclassifications	61	1,096	38	-1,194	1
Reclassification as assets held for sale	-160	-207	-26	-1	-394
<b>AT 31.12.2016</b>	<b>2,960</b>	<b>26,937</b>	<b>1,676</b>	<b>1,287</b>	<b>32,860</b>

## SCHEDULE OF TANGIBLE ASSETS – CUMULATIVE DEPRECIATION

71

<i>in EUR m</i>	<i>Land, land rights and buildings</i>	<i>Technical equipment and machinery</i>	<i>Other equipment, furniture and fixtures</i>	<i>Plants under construction</i>	<i>Total</i>
<b>AT 01.01.2015</b>	<b>1,406</b>	<b>14,980</b>	<b>1,125</b>	<b>134</b>	<b>17,645</b>
Currency adjustments	27	378	-6	8	407
Depreciation	92	1,365	111	-	1,568
Impairments	1	6	1	1	9
Disposals	20	276	70	1	367
Reclassifications	-	64	-14	-21	29
Reclassification as assets held for sale	-1	-3	-	-	-4
<b>AT 31.12.2015/01.01.2016</b>	<b>1,505</b>	<b>16,514</b>	<b>1,147</b>	<b>121</b>	<b>19,287</b>
Currency adjustments	-26	26	8	-2	6
Depreciation	89	1,383	121	-	1,593
Impairments	-	17	-	-	17
Disposals	33	372	58	114	577
Reclassifications	1	26	-14	-	13
Reclassification as assets held for sale	-91	-125	-19	-	-235
<b>AT 31.12.2016</b>	<b>1,445</b>	<b>17,469</b>	<b>1,185</b>	<b>5</b>	<b>20,104</b>
<b>NET CARRYING AMOUNT AT 31.12.2015</b>	<b>1,619</b>	<b>8,893</b>	<b>467</b>	<b>1,803</b>	<b>12,782</b>
<b>NET CARRYING AMOUNT AT 31.12.2016</b>	<b>1,515</b>	<b>9,468</b>	<b>491</b>	<b>1,282</b>	<b>12,756</b>

Tangible assets include leased buildings, technical equipment and machinery, and fixtures, with a carrying amount totalling EUR 77 m (2015: EUR 78 m). Due to the form of the underlying finance leases, these tangible assets are attributable to The Linde Group in its capacity as the economic owner of the assets. Of the total of EUR 77 m, EUR 22 m (2015: EUR 23 m) relates to land and buildings, EUR 12 m (2015: EUR 17 m) to technical equipment and machinery and EUR 42 m (2015: EUR 38 m) to vehicles.

Also included in tangible assets is technical equipment held under embedded operating leases on the sales side. Of the total minimum lease payments due in future from the customer from such embedded operating leases, EUR 75 m is due within one year (2015: EUR 64 m). EUR 309 m is due within one to five years (2015: EUR 309 m) and EUR 741 m is due in more than five years (2015: EUR 810 m).

Impairment tests were based on the recoverable amount of the assets examined, whereby generally the value in use was applied. The discount rates used (WACC) were based on those used in the impairment test for goodwill. Impairment losses of EUR 17 m were recognised in 2016 (2015: EUR 9 m). The impairment losses related mainly to production plants and were allocated to the following segments: EUR 4 m (2015: EUR 2 m) to EMEA, EUR 9 m (2015: EUR 4 m) to Asia/Pacific and EUR 3 m (2015: EUR 1 m) to the Americas segment. EUR 1 m (2015: EUR 2 m) was recognised in the Engineering Division. The impairment losses relating to tangible assets are largely included in cost of sales and in research and development costs.

There were no reversals of impairment losses in 2016 or in 2015.

Borrowing costs during the construction phase of EUR 24 m (2015: EUR 52 m) were capitalised, based on a pre-tax interest rate of 3.1 to 3.8 percent (2015: 3.6 to 3.8 percent).

The cost of tangible assets was reduced in the 2016 financial year by government grants of EUR 3 m (2015: EUR 7 m).

Tangible assets of EUR 48 m (2015: EUR 56 m) were pledged as security.

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## [14] Investments in associates and joint ventures/other financial assets

### SCHEDULE OF FINANCIAL INVESTMENTS – ACQUISITION COST

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<i>in EUR m</i>	<i>Investments in associates and joint ventures (at equity)</i>	<i>Other investments</i>	<i>Non-current loans<sup>1</sup></i>	<i>Total</i>
<b>AT 01.01.2015</b>	<b>251</b>	<b>73</b>	<b>30</b>	<b>354</b>
Currency adjustments	8	4	1	13
Additions	16	7	2	25
Disposals	22	29	2	53
Reclassifications	-	6	-1	5
<b>AT 31.12.2015/01.01.2016</b>	<b>253</b>	<b>61</b>	<b>30</b>	<b>344</b>
Currency adjustments	-1	-	-2	-3
Additions	19	21	11	51
Disposals	21	1	-	22
Reclassifications	-	-10	-2	-12
<b>AT 31.12.2016</b>	<b>250</b>	<b>71</b>	<b>37</b>	<b>358</b>

<sup>1</sup> EUR 18 m (2015: EUR 12 m) of the non-current loans relates to loans to associates and joint ventures.

### SCHEDULE OF FINANCIAL ASSETS – CUMULATIVE AMORTISATION

73

<i>in EUR m</i>	<i>Investments in associates and joint ventures (at equity)</i>	<i>Other investments</i>	<i>Non-current loans</i>	<i>Total</i>
<b>AT 01.01.2015</b>	<b>11</b>	<b>12</b>	<b>6</b>	<b>29</b>
Impairments	-	12	4	16
<b>AT 31.12.2015/01.01.2016</b>	<b>11</b>	<b>24</b>	<b>10</b>	<b>45</b>
Currency adjustments	-	1	-1	-
Impairments	-	6	2	8
Disposals	-	1	-	1
Reclassifications	-	-4	-	-4
<b>AT 31.12.2016</b>	<b>11</b>	<b>26</b>	<b>11</b>	<b>48</b>
<b>NET CARRYING AMOUNT AT 31.12.2015</b>	<b>242</b>	<b>37</b>	<b>20</b>	<b>299</b>
<b>NET CARRYING AMOUNT AT 31.12.2016</b>	<b>239</b>	<b>45</b>	<b>26</b>	<b>310</b>

The share of profit or loss from associates and joint ventures in the 2016 financial year was EUR 13 m (2015: EUR 12 m). Within the Gases Division, EUR 4 m of the total figure related to EMEA (2015: EUR 3 m) and EUR 9 m to the Asia/Pacific segment (2015: EUR 11 m).

Of the profit or loss from associates and joint ventures, there were unrecognised losses of EUR 1 m (2015: EUR 0 m) on the balance sheet date.

On the balance sheet date, there were no contingent liabilities relating to shares in associates or joint ventures (2015: EUR 0 m).

At 31 December 2016, there were open orders from joint ventures and associates of EUR 1 m (2015: EUR 0 m). As in the previous year, there were no significant restrictions on the ability of the associates and joint ventures to transfer dividends or funds to Linde or to repay loans to Linde.

More information about associates and joint ventures is given in ► [NOTE \[39\]](#).

**AGGREGATE FINANCIAL INFORMATION ABOUT JOINT VENTURES (AT EQUITY)**

74

<i>in EUR m</i>	2015	2016
Profit for the year	14	14
Other comprehensive income (net of tax)	5	-2
<b>TOTAL COMPREHENSIVE INCOME</b>	<b>19</b>	<b>12</b>

Aggregate financial information about associates based on the investment in those associates held by Linde is immaterial and is therefore not disclosed separately.

## [15] Inventories

**INVENTORIES**

75

<i>in EUR m</i>	31.12.2015	31.12.2016
Raw materials, consumables and supplies	116	106
Unfinished goods, services in progress	202	192
Finished goods	585	601
Merchandise	227	223
Prepayments	111	109
<b>TOTAL</b>	<b>1,241</b>	<b>1,231</b>

At 31 December 2016, the total inventory allowance was EUR 138 m (2015: EUR 122 m).



[16] Receivables from finance leases, trade receivables, other receivables and other assets and income tax receivables

## RECEIVABLES AND OTHER ASSETS

76

in EUR m	Current		Non-current		Total	
	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016
<b>RECEIVABLES FROM FINANCE LEASES</b>	<b>52</b>	<b>49</b>	<b>217</b>	<b>165</b>	<b>269</b>	<b>214</b>
Receivables from percentage of completion contracts	174	160	–	–	174	160
Other trade receivables	2,550	2,595	2	2	2,552	2,597
<b>TRADE RECEIVABLES</b>	<b>2,724</b>	<b>2,755</b>	<b>2</b>	<b>2</b>	<b>2,726</b>	<b>2,757</b>
Other tax receivables	226	198	19	21	245	219
Derivatives with positive fair values	160	119	156	95	316	214
Prepaid pension costs	–	–	118	115	118	115
Miscellaneous receivables and assets	392	471	133	147	525	618
<b>OTHER RECEIVABLES AND OTHER ASSETS</b>	<b>778</b>	<b>788</b>	<b>426</b>	<b>378</b>	<b>1,204</b>	<b>1,166</b>
<b>INCOME TAX RECEIVABLES</b>	<b>277</b>	<b>199</b>	<b>9</b>	<b>7</b>	<b>286</b>	<b>206</b>

*Receivables from finance leases*

Almost all the receivables from finance leases relate to agreements which are classified as embedded finance leases according to IFRIC 4/IAS 17. The counterparty risk arising from receivables from finance leases is covered by the air separation plants and other plants underlying the contracts.

## RECEIVABLES FROM FINANCE LEASES

77

in EUR m	31.12.2015	31.12.2016
<b>TOTAL FUTURE MINIMUM LEASE PAYMENTS (GROSS INVESTMENT)</b>	<b>336</b>	<b>252</b>
due within one year	71	61
due in one to five years	198	161
due in more than five years	67	30
<b>PRESENT VALUE OF MINIMUM LEASE PAYMENTS</b>	<b>269</b>	<b>214</b>
due within one year	52	49
due in one to five years	157	138
due in more than five years	60	27
<b>UNEARNED FINANCE INCOME INCLUDED IN THE MINIMUM LEASE PAYMENTS</b>	<b>67</b>	<b>38</b>

### Receivables from percentage of completion contracts

Receivables from percentage of completion (PoC) contracts comprise the aggregate amount of costs incurred and recognised profits, less advance payments received.

At the balance sheet date, costs incurred and profits recognised on long-term construction contracts amounted to EUR 5.035 bn (2015: EUR 4.987 bn), offset against advance payments of EUR 5.846 bn (2015: EUR 5.474 bn). This gave rise to receivables of EUR 160 m (2015: EUR 174 m) and liabilities of EUR 971 m (2015: EUR 661 m).

### Other trade receivables

Other trade receivables are due from a large number of customers in a wide variety of industry sectors and many different regions. To assess the recoverability of accounts receivable, the creditworthiness of customers is subject to constant review. Credit loss insurance is taken out if required.

#### FINANCIAL ASSETS PAST DUE BUT NOT IMPAIRED

78

2015, in EUR m	<30 days	30-60 days	60-90 days	90-180 days	>180 days
Trade receivables	319	50	32	1	1
Other receivables and assets	-	-	-	-	-
2016, in EUR m					
Trade receivables	353	48	29	18	-
Other receivables and assets	1	-	-	1	1

In the case of financial assets which are neither past due nor impaired, there were no indications at the balance sheet date of any potential impairment.

## [17] Securities

Short-term securities decreased during the 2016 financial year, namely by EUR 290 m to EUR 131 m (2015: EUR 421 m), mainly as a result of disposals.

There were held-to-maturity securities at 31 December 2016 of EUR 13 m (2015: EUR 13 m).

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## [18] Cash and cash equivalents

Cash and cash equivalents of EUR 1.463 bn (2015: EUR 1.417 bn) comprised mainly cash at banks and money market funds which have maturities of three months or less.

### CASH AND CASH EQUIVALENTS

<i>in EUR m</i>	31.12.2015	31.12.2016
Bank balances	739	884
Money market funds	200	99
Cheques	5	4
Cash	1	3
Cash equivalents	472	473
<b>TOTAL</b>	<b>1,417</b>	<b>1,463</b>

The cash equivalents include an amount of EUR 464 m (2015: EUR 371 m) for bilateral Credit Support Annexes (CSAs). Explanatory information on CSAs can be found in ► [NOTE \[27\] FINANCIAL INSTRUMENTS](#).

## [19] Non-current assets classified as held for sale and disposal groups

On 31 December 2016, assets in the amount of EUR 610 m and liabilities in the amount of EUR 141 m were reported as non-current assets classified as held for sale and disposal groups.

These mainly relate to the logistics services company Gist. Since December 2016, Gist's business, which is

included in the Other Activities segment, has been held for sale and reported as a discontinued operation. This means that assets with a carrying amount of EUR 585 m and liabilities with a carrying amount of EUR 139 m were reclassified within the Group statement of financial position. These mainly relate to goodwill (net carrying amount following amortisation: EUR 225 m), tangible assets (EUR 109 m) and trade receivables (EUR 110 m). The business is likely to be sold in the coming year on the basis of a purchase offer that has already been made. The valuation of the disposal group at fair value less costs to sell resulted in an impairment loss of EUR 75 m.

Furthermore, assets in the amount of EUR 18 m and liabilities in the amount of EUR 2 m were reported as non-current disposal groups held for sale. These relate to the gases business in Slovenia, Bosnia and Croatia. The sale agreement has already been signed and the business is set to be sold at the beginning of this year. The assets were subject to an impairment of EUR 6 m that was recognised under administration expenses.

A further EUR 7 m relates to the planned sale of vehicles in the Asia/Pacific segment. The vehicles were purchased during the reporting period and are to be sold again within the next twelve months as part of an operating sale and lease-back agreement.

In 2016 as a whole, non-current assets held for sale totalling EUR 95 m and liabilities totalling EUR 35 m were sold as planned. The profit on disposal came to EUR 46 m and is reported under other operating income.

The cumulative changes in equity not recognised in profit or loss contain expenses relating to the foreign currency valuation of the assets and liabilities reported as held for sale amounting to EUR 97 m on the balance sheet date.

### PROFIT FROM DISCONTINUED OPERATIONS

<i>in EUR m</i>	2015	2016
Revenue	607	602
Expenses	593	582
Loss resulting from valuation at fair value, less costs to sell	-	75
<b>PROFIT BEFORE TAX FROM DISCONTINUED OPERATIONS</b>	<b>14</b>	<b>-55</b>
Income tax income from ordinary activities	-2	-3
<b>PROFIT FOR THE YEAR FROM DISCONTINUED OPERATIONS</b>	<b>16</b>	<b>-52</b>
attributable to Linde AG shareholders	16	-52

## [20] Equity

## EQUITY

81

<i>in EUR</i>	31.12.2015	31.12.2016
<b>SHARE CAPITAL</b>	<b>475,476,940.80</b>	<b>475,476,940.80</b>
Nominal value of own shares	243,479.04	243,479.04
<b>ISSUED SHARE CAPITAL</b>	<b>475,233,461.76</b>	<b>475,233,461.76</b>
<b>AUTHORISED CAPITAL (TOTAL)</b>	<b>84,119,265.28</b>	<b>94,000,000.00</b>
Authorised Capital I	47,000,000.00	47,000,000.00
Authorised Capital II	37,119,265.28	47,000,000.00
<b>CONDITIONALLY AUTHORISED CAPITAL (TOTAL)</b>	<b>57,240,000.00</b>	<b>57,240,000.00</b>
2012 conditionally authorised capital	10,240,000.00	10,240,000.00
2013 conditionally authorised capital	47,000,000.00	47,000,000.00

*Share capital*

The company's share capital at the balance sheet date amounts to EUR 475,476,940.80 and is fully paid up. It is divided into 185,733,180 shares at a notional par value of EUR 2.56 per share. The shares are no-par value shares. Each share confers a voting right and is entitled to dividend. In accordance with § 71b of the German Stock Corporation Act (AktG), the company is not entitled to dividends or to voting rights in respect of the 95,109 own shares it holds at 31 December 2016.

No new no-par value shares were issued in the 2016 financial year. This means that the company's share capital did not change year-on-year.

## NUMBER OF SHARES

82

	2015	2016
<b>NUMBER OF SHARES AT 01.01.</b>	<b>185,733,180</b>	<b>185,733,180</b>
Number of shares at 31.12.	185,733,180	185,733,180
Own shares	95,109	95,109
<b>NUMBER OF SHARES OUTSTANDING AT 31.12.</b>	<b>185,638,071</b>	<b>185,638,071</b>
Number of shares Authorised Capital I	18,359,375	18,359,375
Number of shares Authorised Capital II	14,499,713	18,359,375

*Capital reserve*

The capital reserve comprises the premiums arising on the issue of shares and the expenses relating to the issue of option rights to employees in accordance with IFRS 2 Share-based Payments.

*Revenue reserves*

Included under this heading are the past earnings of the companies included in the Group financial statements, to the extent that these have not been distributed.

In addition, the effects of the remeasurement of defined benefit plans and the effects of the limit on a defined benefit asset (asset ceiling as set out in IAS 19.64) have been recognised in revenue reserves. This makes it quite clear that these amounts will not

be transferred to profit or loss in future periods. A deferred tax effect of EUR 125 m was recognised in the movement in revenue reserves as a result of actuarial gains and losses (2015: EUR -56 m).

*Cumulative changes in equity not recognised through the statement of profit or loss*

Disclosed under this heading are the differences arising on the translation of the financial statements of foreign subsidiaries and gains or losses on the remeasurement of securities and hedging instruments, accounted for in equity rather than being recognised in the statement of profit or loss.

Movements in cumulative changes in equity not recognised in profit or loss were as follows:

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MOVEMENT IN CUMULATIVE CHANGES IN EQUITY NOT RECOGNISED THROUGH THE STATEMENT OF PROFIT OR LOSS 83

in EUR m	2015			2016		
	Before tax	Tax effect	Net	Before tax	Tax effect	Net
MOVEMENT IN CURRENCY TRANSLATION DIFFERENCES	1,093	-	1,093	-132	-	-132
MOVEMENT IN UNREALISED GAINS/LOSSES ON AVAILABLE-FOR-SALE FINANCIAL ASSETS	-9	2	-7	1	-	1
Movement in accumulated unrealised gains/losses	-8	2	-6	1	-	1
Realised gains/losses	-1	-	-1	-	-	-
MOVEMENT IN UNREALISED GAINS/LOSSES ON HEDGING INSTRUMENTS	-484	7	-477	40	-	40
Movement in accumulated unrealised gains/losses	-466	2	-464	64	-7	57
Realised gains/losses	-18	5	-13	-24	7	-17

### Non-controlling interests

#### NON-CONTROLLING INTERESTS 84

in EUR m	31.12.2015	31.12.2016
LINDE LIENHWA INDUSTRIAL GASES CO. LTD., Taiwan	268	272
African Oxygen Limited, South Africa	73	94
BOC-TISCO GASES CO., Ltd., China	73	61
Shanghai HuaLin Industrial Gases Co. Ltd., China	50	47
Ma'anshan BOC-Ma Steel Gases Company Limited, China	49	47
LINDE INDIA LIMITED, India	47	46
MIG Production Company Limited, Thailand	35	35
Linde Gas Algeria S.p.A., Algeria	31	34
Saudi Industrial Gas Company, Saudi-Arabia	33	32
Linde Engineering (Dalian) Co. Ltd., China	24	23
Various other companies	188	212
<b>TOTAL</b>	<b>871</b>	<b>903</b>

The voting rights of non-controlling shareholders correspond to their share of the equity in the companies concerned in each case. Detailed information about individual subsidiaries which have non-controlling shareholders is not disclosed due to the individual figures not being material. Further information about the individual companies is given in the list of shareholdings on [PAGES 178 TO 193](#).

### Capital structure management

Linde's capital structure management is based on various financial performance indicators such as the equity ratio and the dynamic indebtedness factor. The aim of the capital structure management is to obtain unrestricted access to the capital market and to achieve a strong investment grade rating. Further information about this can be found in the [COMBINED MANAGEMENT REPORT ON PAGES 59 TO 61](#).

## [21] Provisions for pensions and similar obligations

### PROVISIONS FOR PENSIONS AND SIMILAR OBLIGATIONS

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<i>in EUR m</i>	31.12.2015	31.12.2016
Provisions for pensions	1,056	1,552
Provisions for similar obligations	12	12
<b>TOTAL PROVISIONS</b>	<b>1,068</b>	<b>1,564</b>
Net pension assets	118	115

Different countries have different pension systems, due to the variety of legal, economic and fiscal conditions applicable in each country. These are generally based on the remuneration and length of service of the employees.

The provisions for similar obligations include bridging payments in Germany as well as other obligations.

Occupational pension schemes can be either defined contribution or defined benefit schemes.

In the case of defined benefit plans, the company's obligation is to meet the defined benefit commitments to current and former employees. Two different methods can be distinguished: the recognition of provisions for pensions and the use of externally financed pension schemes. The Linde Group's main defined benefit plans are described below.

The defined benefit commitments in Germany relate to old age pensions, invalidity pensions and surviving dependants pensions. These commitments are based principally on defined contribution pension rules, whereby vested rights for periods of service prior to 1 January 2002 based on earlier final-salary pension scheme rules have to be taken into account. In addition, there are direct commitments in respect of the salary conversion scheme in the form of cash balance plans. The resulting pension payments are calculated on the basis of an interest guarantee and the performance

of the corresponding investment. There are no minimum funding requirements. The pension obligations in Germany are partly funded by a Contractual Trust Arrangement (CTA).

Defined benefit commitments in the UK agreed prior to 1 July 2003 are earnings-related and dependent on the period of service, and relate to old age pensions, invalidity pensions and surviving dependants pensions.

With effect from 1 April 2011, the amount of future increases in inflation-linked pensions and of increases in pensionable emoluments was restricted.

Legal, regulatory and contractual minimum funding requirements are in place. Pension obligations in the UK are to a great extent funded. Defined benefit pension plans were closed to new entrants from 1 July 2003.

Defined benefit commitments in the United States relate to old age pensions, invalidity pensions and surviving dependants pensions. The commitments are based on pension regulations which are dependent on the period of service and salary of the employee. Most of the pension plans take the form of cash balance plans. The plan participants have the option to take a lump-sum payment or annual pension payments. The cash balance plan was closed to new entrants with effect from 1 July 2016. For existing plan participants, the cash balance plan will come to an end in 2021. Legal and regulatory minimum funding requirements are in place. Pension obligations in the US are currently fully funded.

The amount of the pension obligation (actuarial present value of the defined benefit obligation, or DBO) was calculated using actuarial valuation methods, which require the use of estimates. In addition to assumptions about mortality and disability, the following assumptions which depend on the economic situation in that particular country are also relevant, so that for countries classed as "Other Europe" and "Other countries", weighted average figures based on the obligation are given:

### ASSUMPTIONS USED TO CALCULATE THE PROVISIONS FOR PENSIONS

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<i>in percent</i>	<i>Germany</i>		<i>UK</i>		<i>Other Europe</i>		<i>USA</i>		<i>Other countries</i>	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Discount rate	2.50	1.90	3.90	2.70	1.64	1.55	3.60	3.40	4.05	4.40
Growth in future benefits	2.50	2.53	2.50	2.50	1.84	1.64	–	–	3.98	3.71
Growth in pensions	1.63	1.65	3.28	3.40	1.05	1.09	1.96	1.88	1.41	1.51

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The growth in future benefits comprises expected future increases in salaries, which are estimated annually, taking inflation and the economic situation into account.

The sensitivity analysis below demonstrates the extent to which the present value of the defined benefit obligation changes when, in each case, just one of the actuarial assumptions changes while the other actuarial assumptions remain the same.

For the pension plans in Germany, an increase of one year in life expectancy would result in an increase in the defined benefit obligation of 5.4 percent. The sensitivity analysis of life expectancy in Germany is based on pension funds held at 31 December 2016.

For the pension plans in the UK, an increase of one year in life expectancy would result in an increase in the DBO of 4.0 percent (2015 3.0 percent). For the pension plans in the United States, no sensitivity analysis of life expectancy was prepared, as the plan participants generally avail themselves of the option to be paid a lump sum.

In Germany, life expectancy is calculated on the basis of the "2005 G mortality tables" produced by Professor Dr Klaus Heubeck. Pension plans in the UK use their own mortality tables and biometric assumptions. These are determined on the basis of actual experience in a pool of comparable pension plans. At the balance sheet date, the average life expectancy applicable to pension plans in the UK is 22.0 years for a male pensioner aged 65 (2015 22.0 years) and 23.6 years for a female pensioner aged 65 (2015 23.5 years), while the future average life expectancy at the pensionable age of 65 for active members of the pension plans is currently 23.9 years for men aged 45 (2015: 23.8 years) and 26.2 years for women aged 45 (2015: 26.1 years).

The weighted average duration of the defined benefit obligations in The Linde Group at 31 December 2016 is 17.8 years (2015: 16.8 years)

## SENSITIVITY ANALYSIS

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in EUR m	Change	Discount rate		Growth in future benefits		Growth in pensions	
		+50 bp	-50 bp	+50 bp	-50 bp	+50 bp	-50 bp
	31.12.2015	-111	125	10	-11	68	-62
Germany	31.12.2016	-133	151	72	-66	12	-13
	31.12.2015	-349	383	-	-	307	-284
UK	31.12.2016	-396	437	15	-15	353	-326
	31.12.2015	-35	39	9	-8	17	-27
Other Europe	31.12.2016	-48	54	6	-5	32	-28
	31.12.2015	-29	30	2	-2	-	-
USA	31.12.2016	-27	28	-	-	-	-
	31.12.2015	-11	16	4	-7	3	-3
Other countries	31.12.2016	-12	13	3	-7	3	-3
	31.12.2015	-535	593	25	-28	395	-376
<b>TOTAL</b>	31.12.2016	-616	683	96	-93	400	-370

## RECONCILIATION OF THE DBO AND OF THE PLAN ASSETS

<i>in EUR m</i>	<i>Germany</i>		<i>UK</i>	
	<i>Defined benefit obligation</i>	<i>Plan assets</i>	<i>Defined benefit obligation</i>	<i>Plan assets</i>
<b>AT 01.01.2015</b>	<b>1,432</b>	<b>-788</b>	<b>3,984</b>	<b>-3,838</b>
Service cost	42	-	52	-
Current service cost	42	-	52	-
Past service cost	-	-	-	-
Effects from plan curtailments	-	-	-	-
Effects from plan settlements	-	-	-	-
Interest expense (+)/interest income (-)	31	-17	152	-147
Remeasurements	-75	11	-234	167
Return on plan assets (excluding amounts included in interest expenses and income)	-	11	-	167
Actuarial gains (-)/losses (+)	-75	-	-234	-
Effects from changes in demographic assumptions	-	-	-	-
Effects from changes in financial assumptions	-70	-	-165	-
Effects from changes in experience assumptions	-5	-	-69	-
Employers' contributions	-	-2	-	-76
Employees' contributions	13	-13	1	-1
Pension payments made	-52	2	-143	143
Settlement payments	-	-	-	-
Effects of changes in exchange rates	-	-	218	-208
Changes in Group structure/other changes	-	-	-	3
<b>AT 31.12.2015/01.01.2016</b>	<b>1,391</b>	<b>-807</b>	<b>4,030</b>	<b>-3,957</b>
Service cost	34	-	13	-
Current service cost	34	-	24	-
Past service cost	-	-	-11	-
Effects from plan curtailments	-	-	-	-
Effects from plan settlements	-	-	-	-
Interest expense (+)/interest income (-)	34	-21	138	-133
Remeasurements	139	-50	905	-401
Return on plan assets (excluding amounts included in interest expenses and income)	-	-50	-	-401
Actuarial gains (-)/losses (+)	139	-	905	-
Effects from changes in demographic assumptions	-	-	-	-
Effects from changes in financial assumptions	151	-	936	-
Effects from changes in experience assumptions	-12	-	-31	-
Employers' contributions	-	-	-	-54
Employees' contributions	13	-13	1	-1
Pension payments made	-51	1	-160	160
Settlement payments	-	-	-	-
Effects of changes in exchange rates	-	-	-569	541
Changes in Group structure/other changes	-	-	-82	85
<b>AT 31.12.2016</b>	<b>1,560</b>	<b>-890</b>	<b>4,276</b>	<b>-3,760</b>



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<i>Other Europe</i>		<i>USA</i>		<i>Other countries</i>		<i>Total</i>	
<i>Defined benefit obligation</i>	<i>Plan assets</i>	<i>Defined benefit obligation</i>	<i>Plan assets</i>	<i>Defined benefit obligation</i>	<i>Plan assets</i>	<i>Defined benefit obligation</i>	<i>Plan assets</i>
894	-598	536	-553	298	-291	7,144	-6,068
-37	-	19	-	10	-	86	-
21	-	19	-	11	-	145	-
-4	-	-	-	-	-	-4	-
-24	-	-	-	-1	-	-25	-
-30	-	-	-	-	-	-30	-
14	-7	20	-21	13	-14	230	-206
5	-25	-2	41	-2	2	-308	196
-	-25	-	41	-	2	-	196
5	-	-2	-	-2	-	-308	-
-14	-	-4	-	-	-	-18	-
24	-	-1	-	1	-	-211	-
-5	-	3	-	-3	-	-79	-
-	-13	-	-	-	-9	-	-100
3	-3	-	-	1	-1	18	-18
-22	15	-36	33	-41	36	-294	229
-290	290	-	-	-	-	-290	290
20	-14	60	-62	-11	15	287	-269
3	2	-	-	2	1	5	6
590	-353	597	-562	270	-261	6,878	-5,940
-11	-	1	-	11	-	48	-
17	-	19	-	11	-	105	-
-20	-	-	-	-	-	-31	-
-1	-	-18	-	-	-	-19	-
-7	-	-	-	-	-	-7	-
11	-6	21	-20	12	-13	216	-193
25	-8	-	-15	-6	1	1,063	-473
-	-8	-	-15	-	1	-	-473
25	-	-	-	-6	-	1,063	-
2	-	-7	-	1	-	-4	-
24	-	7	-	-2	-	1,116	-
-1	-	-	-	-5	-	-49	-
-	-12	-	-	-	-9	-	-75
3	-3	-	-	1	-1	18	-18
-21	14	-33	29	-29	26	-294	230
-18	18	-	-	-2	2	-20	20
1	-6	19	-18	14	-16	-535	501
3	-3	-	-	-5	13	-84	95
583	-359	605	-586	266	-258	7,290	-5,853

In 2016, plan amendments to pension plans in Ireland and Switzerland had a positive impact on operating profit in the amount of EUR 19 m in total. In the US, the plan closure of the cash balance plan had a positive impact on the operating profit of EUR 18 m. The restructuring of a defined benefit plan in Norway resulted in a large part of the pension plan being transferred to an insurer. This had a positive effect on operating profit in the amount of EUR 7 m in total.

In the prior year, the transfer of a large part of the pension plans in the Netherlands to a pension fund had a positive impact on operating profit of EUR 42 m in total.

Actual income from plan assets in external pension funds in 2016 was EUR 666 m (2015: EUR 10 m). This was higher than the interest income from plan assets of EUR 193 m (2015: EUR 206 m) calculated at the corresponding DBO interest rate.

Employer's contributions in the 2016 financial year totalled EUR 75 m (2015: EUR 100 m).

Payments of employer's contributions to increase plan assets in external pension funds in the 2017 financial year are expected to amount to EUR 123 m. The year-on-year increase in the expected contributions (EUR 99 m) is mainly due to the higher expected special payments in the UK to close the ongoing shortfall in the UK pension plans in accordance with local valuation rules.

The expense for newly acquired pension entitlements in the financial year and the net interest cost for each respective financial year are determined each year on the basis of the prior years net obligation at the balance sheet date.

## PENSION EXPENSE RELATING TO DEFINED BENEFIT PLANS RECOGNISED IN THE INCOME STATEMENT

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in EUR m	Germany		UK		Other Europe		USA		Other countries		Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Service cost	42	34	52	13	-37	-11	19	1	10	11	86	48
Current service cost	42	34	52	24	21	17	19	19	11	11	145	105
Past service cost	-	-	-	-11	-4	-20	-	-	-	-	-4	-31
Gains (-)/losses (+) from plan curtailments	-	-	-	-	-24	-1	-	-18	-1	-	-25	-19
Gains (-)/losses (+) from plan settlements	-	-	-	-	-30	-7	-	-	-	-	-30	-7
Net interest expense (+)/income (-)	14	13	5	5	7	5	-1	1	-1	-1	24	23
Interest expense from DBO	31	34	152	138	14	11	20	21	13	12	230	216
Interest income from plan assets	-17	-21	-147	-133	-7	-6	-21	-20	-14	-13	-206	-193
Other effects recognised in the statement of profit or loss	-	-	3	3	-	1	-	-	1	1	4	5
Total net pension cost	56	47	60	21	-30	-5	18	2	10	11	114	76

For the external financing of defined benefit obligations, The Linde Group uses standard international models for the transfer of pension assets (e.g. pension funds and Contractual Trust Arrangements). Pension plans financed via external pension funds exist principally in Australia, Canada, Germany, Ireland, Norway, South Africa, Switzerland, the UK and the United States.

In some countries, Linde is obliged to make contributions to plan assets as a result of legal requirements or contractual agreements. In certain countries, however, these increases in plan assets will not lead to the recognition of an asset because of the asset ceiling described in IAS 19.64 (IFRIC 14). In 2016 and 2015, there was no asset ceiling.

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## FUNDING STATUS OF THE DEFINED BENEFIT OBLIGATION

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in EUR m	Germany		UK		Other Europe		USA		Other countries		Total	
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016
Actuarial present value of pension obligations (defined benefit obligation)	1,391	1,560	4,030	4,276	590	583	597	605	270	266	6,878	7,290
of which unfunded pension obligations	60	74	-	-	156	141	80	81	39	42	335	338
of which funded pension obligations	1,331	1,486	4,030	4,276	434	442	517	524	231	224	6,543	6,952
Fair value of plan assets	-807	-890	-3,957	-3,760	-353	-359	-562	-586	-261	-258	-5,940	-5,853
<b>NET OBLIGATION</b>	<b>584</b>	<b>670</b>	<b>73</b>	<b>516</b>	<b>237</b>	<b>224</b>	<b>35</b>	<b>19</b>	<b>9</b>	<b>8</b>	<b>938</b>	<b>1,437</b>
<b>AMOUNT AT 31.12.</b>	<b>584</b>	<b>670</b>	<b>73</b>	<b>516</b>	<b>237</b>	<b>224</b>	<b>35</b>	<b>19</b>	<b>9</b>	<b>8</b>	<b>938</b>	<b>1,437</b>
of which pension provision (+)	584	670	97	522	237	224	83	83	55	53	1,056	1,552
of which pension asset (-)	-	-	-24	-6	-	-	-48	-64	-46	-45	-118	-115

The Linde Group is exposed to various risks in relation to defined benefit pension schemes. In addition to general actuarial risks, the Group is exposed to currency risk and investment risk in respect of the plan assets.

► SEE OPPORTUNITY AND RISK REPORT, PAGES 82 TO 95.

Plan assets and the defined benefit obligation may fluctuate over time. To compensate for such fluctuations, potential fluctuations in the defined benefit obligation

are taken into account in the course of the investment management of the plan assets. In ideal circumstances, plan assets and pension obligations are influenced in the same way by external factors, which provides a natural protection against such factors (liability-driven investment). Moreover, the broadly-based portfolio structure of plan assets in The Linde Group results in diversification of capital market risk.

## PORTFOLIO STRUCTURE OF PENSION ASSETS

91

in EUR m	Germany		UK		Other Europe		USA		Other countries		Total			
	2015	2016	2015	2016	2015	2016	2015	2016	2015	2016	2015	In %	2016	In %
Shares	212	221	732	630	95	91	121	98	79	81	1,239	20.9	1,121	19.2
Fixed-interest securities	363	449	2,404	2,438	109	125	364	388	111	105	3,351	56.4	3,505	59.9
Property	46	49	126	88	42	45	-	-	11	10	225	3.8	192	3.3
Insurance	-	-	-	-	51	72	-	-	17	17	68	1.1	89	1.5
Others	186	171	695	604	56	26	77	100	43	45	1,057	17.8	946	16.1
<b>TOTAL</b>	<b>807</b>	<b>890</b>	<b>3,957</b>	<b>3,760</b>	<b>353</b>	<b>359</b>	<b>562</b>	<b>586</b>	<b>261</b>	<b>258</b>	<b>5,940</b>	<b>100.0</b>	<b>5,853</b>	<b>100.0</b>

Plan assets comprise mainly shares and fixed-interest securities. Prices quoted in an active market are not available in the case of property and insurance.

Financial instruments issued by companies in The Linde Group are not included in plan assets to a significant extent. Property which is used by Group companies is not included in plan assets.

**Defined contribution plans**

The total of all pension costs relating to defined contribution plans in 2016 was EUR 200 m (2015: EUR 210 m). Of this amount, contributions to state pension schemes in 2016 totalled EUR 124 m (2015: EUR 122 m).

## [22] Other provisions

## OTHER PROVISIONS

92

in EUR m	Current		Non-current		Total	
	2015	2016	2015	2016	2015	2016
<b>PROVISIONS FOR TAXES</b>	<b>23</b>	<b>27</b>	–	–	<b>23</b>	<b>27</b>
Obligations from delivery transactions	151	123	69	61	220	184
Warranty obligations and risks from transactions in course of completion	117	124	45	83	162	207
Obligations relating to personnel	511	546	83	63	594	609
Dismantling obligations	6	6	234	259	240	265
Other obligations	281	314	99	60	380	374
<b>OTHER PROVISIONS</b>	<b>1,066</b>	<b>1,113</b>	<b>530</b>	<b>526</b>	<b>1,596</b>	<b>1,639</b>
<b>TOTAL</b>	<b>1,089</b>	<b>1,140</b>	<b>530</b>	<b>526</b>	<b>1,619</b>	<b>1,666</b>

Provisions for taxes include only other taxes.

The provisions for warranty obligations and risks from transactions in course of completion consist principally of provisions for anticipated losses on transactions, for litigation and for guarantees and warranty obligations. The provisions for warranty obligations relate mainly to the Engineering Division and are generally utilised within three years.

The provisions for obligations relating to personnel comprise mainly provisions for pre-retirement part-time work, outstanding holidays, anniversaries, and wages and salaries not yet paid. The provision for obligations relating to pre-retirement part-time work is based on individual contractual agreements.

The provisions for dismantling obligations are stated at the discounted settlement amount on the date the plant comes on stream. A corresponding item is recognised in tangible assets and is subject to depreciation.

The provision is compounded over the duration of the underlying contracts. Due to the wide range of residual terms of the contracts, the residual term of the provision falls mainly in a range of between one and 20 years. Changes in estimates, where these involve a change in assumptions about future cost trends or changes in interest rates, are adjusted for in the carrying amount of the relevant plant without affecting profit or loss.

Other obligations mainly consist of provisions for miscellaneous expenses in the amount of EUR 130 m (2015: EUR 157 m), provisions for restructuring of EUR 97 m (2015: EUR 111 m) provisions for follow-up costs related to plant constructions of EUR 88 m (2015: EUR 55 m) and provisions for environmental obligations of EUR 48 m (2015: EUR 46 m).

The unwinding of interest applied to other long-term provisions amounted to EUR 4 m (2015: EUR 7 m).

## MOVEMENTS IN OTHER PROVISIONS

93

in EUR m	Opening balance at 01.01.2016	Changes in scope of consolidation <sup>1</sup>	Utilisation	Release	Addition	Transfer	Closing balance at 31.12.2016
<b>PROVISIONS FOR TAXES</b>	<b>23</b>	–4	21	14	43	–	<b>27</b>
Obligations from delivery transactions	220	–22	36	28	49	1	184
Warranty obligations and risks from transactions in course of completion	162	24	47	41	102	7	207
Obligations relating to personnel	594	–3	270	39	322	5	609
Dismantling obligations	240	3	3	1	26	–	265
Other obligations	380	6	143	56	200	–13	374
<b>OTHER PROVISIONS</b>	<b>1,596</b>	<b>8</b>	<b>499</b>	<b>165</b>	<b>699</b>	–	<b>1,639</b>
<b>TOTAL</b>	<b>1,619</b>	<b>4</b>	<b>520</b>	<b>179</b>	<b>742</b>	–	<b>1,666</b>

<sup>1</sup> Including currency differences.

## [23] Financial debt

Financial debt comprises interest-bearing obligations of The Linde Group.

## FINANCIAL DEBT

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in EUR m	Current		Non-current				Total	
	Due within one year		Due in one to five years		Due in more than five years		2015	2016
	2015	2016	2015	2016	2015	2016		
Subordinated bonds	–	–	–	–	1,050	–	1,050	–
Other bonds	383	1,242	4,460	3,852	2,321	2,397	7,164	7,491
Commercial papers (CP)	79	111	–	–	–	–	79	111
Bank loans and overdrafts	491	455	432	246	18	10	941	711
Other financial liabilities	70	46	142	131	37	38	249	215
<b>GROSS FINANCIAL DEBT</b>	<b>1,023</b>	<b>1,854</b>	<b>5,034</b>	<b>4,229</b>	<b>3,426</b>	<b>2,445</b>	<b>9,483</b>	<b>8,528</b>

Of the other bonds, EUR 2.825 bn (2015: EUR 2.397 bn) was in a fair value hedging relationship at 31 December 2016. If there had been no adjustment to the carrying amount as a result of fair value hedging relationships which had been agreed and were outstanding at the end of the year, the other bonds would be EUR 37 m (31 December 2015: EUR 65 m) lower.

Of the other bonds, EUR 641 m was in a cash flow hedging relationship at 31 December 2016 (2015: EUR 681 m).

The bank loans and overdrafts include an amount of EUR 41 m (2015: EUR 65 m) for bilateral Credit Support Annexes (CSAs). Explanatory information on CSAs can be found in ► [NOTE \[27\] FINANCIAL INSTRUMENTS](#).

In the 2016 and 2015 financial years, there were no defaults or breaches of loans payable.

## FIXED-INTEREST BONDS

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Issuer	Nominal volume in relevant currency (ISO code)	EUR m <sup>1</sup>	Weighted average residual term (in years)	Weighted average effective interest rate (in percent) <sup>2</sup>
Linde Finance B.V., Amsterdam/Linde AG, Munich	EUR 5,780 m	5,780	4.6	2.6
Linde Finance B.V., Amsterdam/Linde AG, Munich	USD 700 m	663	3.7	2.1
Linde Finance B.V., Amsterdam	GBP 300 m	358	6.3	5.9
Linde AG, Munich	NOK 2,000 m	220	0.7	2.8
Linde Finance B.V., Amsterdam	AUD 100 m	68	2.5	4.3
<b>TOTAL</b>		<b>7,089</b>		

<sup>1</sup> Includes adjustments relating to hedging transactions.

<sup>2</sup> Effective interest rate in the relevant currency.

## VARIABLE-INTEREST BONDS

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Issuer	Nominal volume in relevant currency (ISO code)	EUR m	Weighted average residual term (in years)	Weighted average coupon (in percent) <sup>1</sup>
Linde Finance B.V., Amsterdam	USD 370 m	352	2.4	1.5
Linde Finance B.V., Amsterdam	EUR 50 m	50	1.4	0.3
<b>TOTAL</b>		<b>402</b>		

<sup>1</sup> Current coupon in the relevant currency.

For further information about capital market activities in The Linde Group, please refer to the disclosures in the Group management report. ▶ [SEE NET ASSETS AND FINANCIAL POSITION OF THE LINDE GROUP ON PAGES 59 TO 61.](#)

### Financial covenants

No financial covenants are contained in the agreement relating to the EUR 2.5 bn syndicated credit facility. ▶ [SEE NET ASSETS AND FINANCIAL POSITION OF THE LINDE GROUP PAGE 60.](#)

The bank loans and overdrafts of African Oxygen Limited include various financial covenants relating to key financial figures in African Oxygen Limited. All the financial covenants relating to African Oxygen Limited were fulfilled in the 2016 and 2015 financial years.

## [24] Liabilities from finance leases

Liabilities from finance leases are repaid over the lease term. They have the following residual lease terms at the balance sheet date:

### LIABILITIES FROM FINANCE LEASES

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<i>in EUR m</i>	31.12.2015	31.12.2016
<b>TOTAL FUTURE MINIMUM LEASE PAYMENTS (GROSS INVESTMENT)</b>	<b>115</b>	<b>114</b>
due within one year	22	22
due in one to five years	43	40
due in more than five years	50	52
<b>PRESENT VALUE OF MINIMUM LEASE PAYMENTS</b>	<b>78</b>	<b>74</b>
due within one year	23	21
due in one to five years	35	33
due in more than five years	20	20
<b>FINANCE CHARGE INCLUDED IN THE MINIMUM LEASE PAYMENTS</b>	<b>37</b>	<b>40</b>

The carrying amounts of assets held under finance leases are disclosed principally under tangible assets. ▶ [SEE NOTE \[13\]](#). These assets comprise distribution equipment, vehicles and other fixtures and fittings. Buildings are also included here. Some of the lease agreements contain extension clauses, purchase options or price adjustment clauses customary in the market.

NOTES TO THE  
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NOTES TO THE GROUP  
STATEMENT OF FINANCIAL POSITION

[25] Trade payables, other  
liabilities, liabilities from  
income taxes

TRADE PAYABLES AND OTHER LIABILITIES

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in EUR m	Current		Non-current		Total	
	2015	2016	2015	2016	2015	2016
Percentage of completion (PoC)	661	971	–	–	661	971
Other	2,562	2,599	3	1	2,565	2,600
<b>TRADE PAYABLES</b>	<b>3,223</b>	<b>3,570</b>	<b>3</b>	<b>1</b>	<b>3,226</b>	<b>3,571</b>
Payments received on account of orders	223	150	9	4	232	154
Other taxes	207	176	4	6	211	182
Social security	62	60	1	2	63	62
Derivatives with negative fair values	189	239	486	403	675	642
Miscellaneous liabilities	574	583	347	310	921	893
<b>OTHER LIABILITIES</b>	<b>1,255</b>	<b>1,208</b>	<b>847</b>	<b>725</b>	<b>2,102</b>	<b>1,933</b>
<b>INCOME TAX LIABILITIES</b>	<b>568</b>	<b>549</b>	<b>–</b>	<b>–</b>	<b>568</b>	<b>549</b>
<b>TOTAL</b>	<b>5,046</b>	<b>5,327</b>	<b>850</b>	<b>726</b>	<b>5,896</b>	<b>6,053</b>

Percentage of completion trade payables of EUR 971 m (2015: EUR 661 m) relate to advance payments received on construction contracts, where these exceed the state of completion of the contract.

Income tax liabilities are disclosed as current in accordance with IAS 1.69 (d) as they are due with immediate effect and generally Linde has no option to defer them. Included in the income tax liabilities disclosed are amounts which may not fall due until more than twelve months after the balance sheet date.

Also included in income tax liabilities are liabilities relating to prior periods arising from external tax audits in various countries.

## OTHER INFORMATION

### [26] Share option schemes

#### *Linde Performance Share Programme 2012*

It was resolved at the Annual General Meeting of Linde AG held on 4 May 2012 to introduce a performance share programme for management (Long Term Incentive Plan 2012 – LTIP 2012), under which up to 4 million options can be issued over a total period of five years. For this purpose, the issued share capital can be increased by up to EUR 10,240,000 by the issue of up to 4 million bearer shares with a notional par value of EUR 2.56 if certain conditions are met (2012 conditionally authorised capital).

The options may be issued in annual tranches during the authorised period. Each option confers the right to purchase one share in Linde AG at the exercise price, which is equivalent in each case to the lowest issue price, currently EUR 2.56 per share. Linde AG may decide, at its own discretion, at any time until the beginning of the exercise period that the option entitlements of the option holders may be met by providing own shares or making a payment in cash instead of issuing new shares out of the share capital conditionally authorised for this purpose. The Linde Performance Share Programme 2012 is designed as share-based payment with compensation provided in the form of equity instruments. Each individual tranche may be issued within a period of 16 weeks after the Annual General Meeting of Linde AG. The options may not be exercised until a qualifying period has expired. The qualifying period begins on the issue date which has been determined and ends on the fourth anniversary of the issue date. If options are to be exercised, this must take place during a period of twelve months from the end of the relevant qualifying period (the exercise period).

#### *Performance targets*

Options may only be exercised if and to the extent that performance targets are reached. The performance targets for each individual tranche of options are based on movements in (i) earnings per share and (ii) relative total shareholder return. Within each individual tranche of options, equal weighting is given to the “earnings per share” performance target and the “relative total shareholder return” performance target. Within each

of these performance targets, a minimum target must be reached if the options are to become exercisable, and there is also a stretch target. If the stretch target for one of these performance targets is reached, all the options relating to that performance target become exercisable.

#### *“Earnings per share” performance target*

The minimum target for the “earnings per share” performance target is reached if the diluted earnings per share of the company adjusted for special items for the financial year ending before the expiry of the qualifying period achieves a compound average growth rate (CAGR) of 6 percent when compared with the diluted earnings per share of the company adjusted for special items for the financial year ending before the issue of the options. The stretch target for the “earnings per share” performance target is reached if the diluted earnings per share of the company adjusted for special items for the financial year ending before the expiry of the qualifying period achieves a CAGR of at least 11 percent when compared with the diluted earnings per share of the company adjusted for special items for the financial year ending before the issue of the options. The calculation of the “earnings per share” performance target is derived from the diluted earnings per share of the company adjusted for special items disclosed in the audited Group financial statements of The Linde Group for the appropriate financial year. If no adjustment for special items has been made in that financial year, the relevant figure is the diluted earnings per share disclosed in the Group financial statements. Special items are items which, due to their nature, frequency and/or scope, might have an adverse impact on the extent to which the diluted earnings per share figure provides an informative picture of the ability of The Linde Group to sustain its profitability in the capital market. Adjusting diluted earnings per share for special items is designed to increase transparency in respect of the Group’s ability to sustain profitability. If the minimum target is reached, 12.5 percent of all the options in the relevant tranche may be exercised. If the stretch target is reached, 50 percent of all the options in the relevant tranche may be exercised: i.e. all the options dependent on this performance target. If the minimum target is exceeded, but the stretch target is not reached, the number of options that may be exercised is determined on a straight-line basis and will lie between 12.5 percent and 50 percent of all options issued on the same issue date, depending on the extent by which the minimum target is exceeded and the proximity of the figure to the stretch target. If this calculation does not result in a round figure, the percentage should be rounded to one decimal point.

Details of the calculation of earnings per share are given in ► [NOTE \[11\]](#). The “earnings per share” performance target is regarded as a non-market performance condition as defined by IFRS 2.



***“Relative total shareholder return”  
performance target***

The minimum target for the “relative total shareholder return” performance target is reached if the total shareholder return of the Linde AG share exceeds the median of the values for total shareholder return in the control group (described below) in the period between the issue date and the beginning of the exercise period. If the control group contains an even number of values, the average of the two values lying in the middle is deemed to be the median. The stretch target for the “relative total shareholder return” performance target is reached if the total shareholder return of the Linde AG share is in the upper quartile (third quartile) of the values for total shareholder return in the control group in the period between the issue date and the beginning of the exercise period. The total shareholder return of the Linde AG share comprises (i) the absolute increase or decrease in the price of a Linde AG share when compared to its initial value and (ii) the dividend per share paid plus the value of any statutory subscription rights attributable to one Linde AG share (as a result of capital increases). In each case, the calculation relates to the period between (and inclusive of) the issue date and the third last stock exchange trading day in the Xetra trading system (or in a comparable successor system) of the Frankfurt Stock Exchange before the exercise period. The absolute increase or decrease in price of the Linde AG share corresponds to the difference between the average of the closing prices (or of equivalent successor prices) of Linde shares in the Xetra trading system (or in a comparable successor system) of the Frankfurt Stock Exchange over the period between (and inclusive of) the 62nd stock exchange trading day to the third last stock exchange trading day before the exercise period (the final value) and the initial value. The initial value of the share for the determination of the total shareholder return is the average of the closing prices (or of equivalent successor prices) of Linde shares on the last 60 stock exchange trading days in the Xetra trading system (or in a comparable successor system) of the Frankfurt Stock Exchange before the issue date of the subscription rights. For the purposes of the LTIP 2012, the value of one statutory subscription right is the volume-weighted average of the closing prices in that period in which the subscription rights are traded in the Xetra trading system (or a comparable successor system) of the Frankfurt Stock Exchange. The control group comprises companies in the DAX 30 at that time, with the exception of Linde itself. Companies which are either excluded from or included in the DAX 30 during the period on which the calculation of the total shareholder return is based are ignored for the purposes of the calculation. When determining the total shareholder return for shares in the control group, Linde may have recourse to data supplied by a recognised independent provider of financial data. If a

company in the control group trades different classes of share or shares with differing profit entitlements on the stock exchange, only the shares which form the basis for the determination of the DAX 30 value are taken into consideration. If the minimum target is reached, 12.5 percent of all the options in the relevant tranche may be exercised. If the stretch target is reached, 50 percent of all the options in the relevant tranche may be exercised: i.e. all the options dependent on this performance target. If the minimum target is exceeded, but the stretch target is not reached, the number of options that may be exercised is determined on a straight-line basis and will lie between 12.5 percent and 50 percent of all options issued on the same issue date, depending on the extent by which the minimum target is exceeded and the proximity of the figure to the stretch target. If this calculation does not result in a round figure, the percentage should be rounded to one decimal point.

The “relative total shareholder return” target is regarded as a market-based performance condition as defined by IFRS 2 and is included in the measurement of the option price.

In accordance with IFRS 2 Share-based Payment, the total value of share options granted to management is determined at the issue date using an option pricing model. The total value calculated of the share options at the issue date is allocated as a personnel expense over the period in which the company receives service in return from the employee. This period is generally the same as the agreed qualifying period. The other side of the entry is made directly in equity (capital reserve).

OPTIONS – LONG TERM INCENTIVE PLAN 2012

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	<i>LTIP – Number of options</i>
<b>AT 01.01.2015</b>	<b>1,003,836</b>
granted	322,456
forfeited	49,470
<b>AT 31.12.2015/01.01.2016</b>	<b>1,276,822</b>
of which exercisable at 31.12.2015	–
granted	349,874
forfeited	446,047
<b>AT 31.12.2016</b>	<b>1,180,649</b>
of which exercisable at 31.12.2016	–

The average remaining period in the LTIP 2012 is 25 months (2015: 23 months). The exercise price for all the tranches in the LTIP 2012 is EUR 2.56.

The calculation of the expense is based on the fair value of the options issued, using a Monte Carlo simulation for the fair value calculation. The following measurement parameters were used:

MONTE CARLO SIMULATION MODEL – LONG TERM INCENTIVE PLAN 2012

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	<i>1st tranche 2012</i>	<i>2nd tranche 2013</i>	<i>3rd tranche 2014</i>	<i>4th tranche 2015</i>	<i>5th tranche 2016</i>
<i>Date of valuation</i>	<i>02.07.2012</i>	<i>03.06.2013</i>	<i>02.06.2014</i>	<i>01.06.2015</i>	<i>01.06.2016</i>
Expected share volatility (in %)	22.54	21.08	19.95	16.65	21.70
Risk-free interest rate (in %)	0.44	0.36	0.24	–0.10	–0.47
Expected dividend yield (in %)	2.50	2.50	2.50	2.50	2.50
Initial value of Linde share (in €)	120.60	147.85	154.55	174.30	134.00
Exercise price (in €)	2.56	2.56	2.56	2.56	2.56
Number of participants	1,001	1,020	1,048	1,007	949

The volatility figure underlying the valuation is based on historical and implicit volatility, taking the remaining periods of the share options into account.

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## OPTIONS PER EXERCISE HURDLE – LONG TERM INCENTIVE PLAN 2012

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	<i>Option price</i>	<i>Weighting</i>	<i>Fair value</i>	<i>Probability</i>	<i>Calculated value at 31.12.</i>
	<i>in EUR</i>	<i>in percent</i>	<i>in EUR</i>	<i>in percent</i>	<i>in EUR</i>
<i>1st tranche 2012</i>					
Earnings per share	106.74	50	53.37	–	–
Relative total shareholder return	52.31	50	26.16		26.16
<b>TOTAL</b>		<b>100</b>	<b>79.53</b>		<b>26.16</b>
<i>2nd tranche 2013</i>					
Earnings per share	131.42	50	65.71	–	–
Relative total shareholder return	67.75	50	33.88		33.88
<b>TOTAL</b>		<b>100</b>	<b>99.59</b>		<b>33.88</b>
<i>3rd tranche 2014</i>					
Earnings per share	137.72	50	68.86	–	–
Relative total shareholder return	74.96	50	37.48		37.48
<b>TOTAL</b>		<b>100</b>	<b>106.34</b>		<b>37.48</b>
<i>4th tranche 2015</i>					
Earnings per share	155.34	50	77.67	40	31.07
Relative total shareholder return	72.08	50	36.04		36.04
<b>TOTAL</b>		<b>100</b>	<b>113.71</b>		<b>67.11</b>
<i>5th tranche 2016</i>					
Earnings per share	118.79	50	59.40	40	23.76
Relative total shareholder return	64.14	50	32.07		32.07
<b>TOTAL</b>		<b>100</b>	<b>91.47</b>		<b>55.83</b>

The probability that the “earnings per share” performance target will be reached is taken into account when calculating options that will be exercisable in future. In 2016, the probability that the “earnings per share” performance target would be reached in respect of the third tranche (allocated in the 2014 financial year) was adjusted from 40 percent to 0 percent. This results in a positive impact on earnings of EUR 3 m, which was recognised in functional costs. In the previous year, the probability that the “earnings per share” performance target would be reached in respect of the first tranche (allocated in the 2012 financial year) and the second tranche (allocated in the 2013 financial year) was adjusted from 40 percent to 0 percent. This resulted in a positive impact on earnings of EUR 9 m, which was recognised in functional costs. Otherwise, there were no changes from the previous year in the value of options per exercise hurdle.

The volatility figure underlying the valuation is based on the historical volatility of Linde shares. The expected volatility is calculated on the basis of the historical values in the three years preceding the issue date of the options.

### Personal investment, matching shares

A precondition of participation in the LTIP 2012 for plan participants in Band 5 or above in Linde's internal management structure is compulsory personal investment in shares of the company at the beginning of each tranche of the scheme. In the case of members of the Executive Board, the number of shares that each individual Board member must purchase as a personal investment is determined by the Supervisory Board. For other Linde executives in Band 5 or above, it is the Executive Board which determines the number of shares that must be purchased by each individual. For each share acquired by a scheme participant as a personal investment and held by the participant in respect of each tranche throughout the qualifying period for the options, one matching share in Linde AG will be granted at the end of the qualifying period at no cost to the participant. However, Linde is permitted to pay an amount in cash to those entitled to options instead of granting them matching shares. Conditions which apply to the granting of matching shares include: a personal investment in Linde AG shares by the scheme participant at the appropriate time, the unrestricted holding of such shares during the qualifying period of the corresponding tranche and, except in the event of the termination of the service or employment contract of the scheme participant before the end of the qualifying period (special cases) when different rules shall apply, the existence of a service or employment contract with the scheme participant at the end of the qualifying period in respect of which no notice has been given. Plan participants in Band 4 of Linde's internal management structure may make a voluntary personal investment in Linde AG shares and will be granted matching shares accordingly, subject to the aforementioned conditions.

### FAIR VALUES OF MATCHING SHARES

<i>in EUR</i>	<i>Fair value</i>
1st tranche (2012)	109.26
2nd tranche (2013)	133.95
3rd tranche (2014)	140.01
4th tranche (2015)	157.91
5th tranche (2016)	121.40

### MATCHING SHARES – LONG TERM INCENTIVE PLAN 2012

	<i>LTIP – Number of matching shares</i>
<b>AT 01.01.2015</b>	<b>92,264</b>
granted	33,030
forfeited	6,118
<b>AT 31.12.2015/01.01.2016</b>	<b>119,176</b>
granted	38,950
forfeited	14,954
allocated	32,330
<b>AT 31.12.2016</b>	<b>110,842</b>

In 2016, the matching shares relating to the 2012 tranche were allocated in the form of the payment of the equivalent value of the matching shares in cash. EUR 4.5 m was reclassified from the capital reserve to a liability that was settled as at the balance sheet date.

The effect on earnings of the recognition of the expense in the statement of profit or loss of The Linde Group is shown in the table below. The same amount was recognised in the capital reserve:

### PERSONNEL EXPENSES – LONG TERM INCENTIVE PLAN 2012

<i>in EUR m</i>	<i>2015</i>	<i>2016</i>
<b>TOTAL</b>	<b>6</b>	<b>13</b>

## [27] Financial instruments

## FINANCIAL ASSETS

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in EUR m	Fair value		Carrying amount		Balance sheet values			
	2015	2016	2015	2016	Financial instruments outside scope of IAS 39		Total	
					2015	2016	2015	2016
<b>AVAILABLE-FOR-SALE FINANCIAL ASSETS</b>								
Investments and securities	430	138	430	138	-	-	430	138
<b>LOANS AND RECEIVABLES</b>								
Investments and securities	6	6	6	6	-	-	6	6
Trade receivables	2,552	2,597	2,552	2,597	-	-	2,552	2,597
Receivables from percentage of completion contracts	174	160	174	160	-	-	174	160
Other receivables and assets	643	733	304	394	339	339	643	733
<b>HELD-TO-MATURITY FINANCIAL ASSETS</b>								
Investments and securities	15	15	15	15	-	-	15	15
<b>DERIVATIVES WITH POSITIVE FAIR VALUES</b>								
Freestanding derivatives	44	82	44	82	-	-	44	82
Derivatives designated as hedging instruments	272	132	272	132	-	-	272	132
<b>CASH AND CASH EQUIVALENTS</b>	<b>1,417</b>	<b>1,463</b>	<b>1,417</b>	<b>1,463</b>	-	-	<b>1,417</b>	<b>1,463</b>
<b>RECEIVABLES FROM FINANCE LEASES</b>	<b>321</b>	<b>242</b>	-	-	<b>269</b>	<b>214</b>	<b>269</b>	<b>214</b>
<b>TOTAL</b>	<b>5,874</b>	<b>5,568</b>	<b>5,214</b>	<b>4,987</b>	<b>608</b>	<b>553</b>	<b>5,822</b>	<b>5,540</b>

## FINANCIAL LIABILITIES

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in EUR m	Fair value		Carrying amount		Balance sheet values			
	2015	2016	2015	2016	Financial instruments outside scope of IAS 39		Total	
					2015	2016	2015	2016
<b>FINANCIAL LIABILITIES AT AMORTISED COST</b>								
Financial liabilities	9,987	9,059	9,483	8,528	-	-	9,483	8,528
Trade payables (excluding PoC)	2,567	2,601	2,565	2,600	-	-	2,565	2,600
Miscellaneous liabilities	921	893	572	542	349	351	921	893
<b>DERIVATIVES WITH NEGATIVE FAIR VALUES</b>								
Freestanding derivatives	90	42	90	42	-	-	90	42
Derivatives designated as hedging instruments	585	600	585	600	-	-	585	600
<b>LIABILITIES FROM FINANCE LEASES</b>	<b>64</b>	<b>67</b>	-	-	<b>78</b>	<b>74</b>	<b>78</b>	<b>74</b>
<b>TOTAL</b>	<b>14,214</b>	<b>13,262</b>	<b>13,295</b>	<b>12,312</b>	<b>427</b>	<b>425</b>	<b>13,722</b>	<b>12,737</b>

The fair value of financial instruments is generally determined using stock exchange prices. If stock exchange prices are not available, the fair value is determined using measurement methods customary in the market, based on market parameters specific to the instrument.

The fair value of derivative financial instruments is determined as follows: Options are valued using Black-Scholes models. Futures are measured with recourse to the quoted market price in the relevant market. All other derivative financial instruments are measured by discounting expected future cash flows using the net present value method. As far as possible, the entry parameters used in these models are relevant observable market prices and interest rates at the balance sheet date.

The following table shows the financial instruments in The Linde Group which are measured at fair value. Linde uses the following hierarchy to determine and disclose fair values based on the method used to ascertain their fair values:

- Level 1: Quoted prices (unadjusted) in active markets for identical assets and liabilities.
- Level 2: Inputs other than quoted market prices included within Level 1 that are observable for the asset or liability, either directly or indirectly.
- Level 3: Inputs for the asset or liability that are not based on observable market data.

**FINANCIAL ASSETS AND LIABILITIES MEASURED AT FAIR VALUE**

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in EUR m	Level 1		Level 2		Level 3	
	31.12.2015	31.12.2016	31.12.2015	31.12.2016	31.12.2015	31.12.2016
Investments and securities	415	121	-	-	-	-
Freestanding derivatives with positive fair values	-	-	44	82	-	-
Derivatives designated as hedging instruments with positive fair values	-	-	272	132	-	-
Freestanding derivatives with negative fair values	-	-	90	42	-	-
Derivatives designated as hedging instruments with negative fair values	-	-	585	600	-	-
Non-current assets classified as held for sale and disposal groups	-	462	-	-	-	-

During the reporting year, there were no transfers between Levels 1, 2 and 3 of the fair value hierarchy. The investments and securities category also included financial assets (available-for-sale financial assets) of EUR 17 m (2015: EUR 15 m) for which a fair value cannot be reliably determined. There is currently no intention to sell these assets.

The fair value of financial instruments in the "loans and receivables", "held-to-maturity financial assets" and "financial liabilities at amortised cost" categories is determined by discounting the expected cash flows. The interest rates applied are the same as those that would apply to new financial instruments with a similar risk structure, currency and maturity. Fair value is determined using the discounted cash flow method, taking into account individual credit ratings and other market circumstances in the form of credit and liquidity spreads generally applied in the market (Level 2). One exception to this relates to bonds issued by Linde AG and Linde Finance B.V., which are traded in the capital market (Level 1). The fair value of these instruments is determined using the current stock exchange price. In cases involving short-term financial instruments in the "loans and receivables", "held-to-maturity financial assets" and "financial liabilities at amortised cost" categories, it is assumed that the fair value corresponds to the carrying amount.

In the 2016 financial year, there were no differences between the fair value of a financial instrument when it was first recognised and the amount which would have been recognised at that time had the valuation methods described above been used.

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## NET FINANCIAL GAINS AND LOSSES

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in EUR m	2015	2016
From freestanding derivatives	180	-111
From loans and receivables	93	-248
From available-for-sale financial assets	-8	-
of which reported in the income statement	1	-
of which reported in cumulative changes in equity not recognised in the income statement	-9	-
From financial liabilities at amortised cost	-414	177
<b>TOTAL</b>	<b>-149</b>	<b>-182</b>

The net financial gains and losses on financial instruments arise from changes in fair value, the recognition and reversal of impairment losses, eliminations and exchange rate fluctuations. In the financial year under review, there was an increase in the impairment losses for trade receivables.

The net financial gains and losses correspond to the valuation gains and losses of the financial instruments, but exclude interest and dividends.

Free-standing derivatives comprise all those derivatives which are not designated as hedging instruments. They include those derivatives in economic hedging relationships not designated as hedges in respect of which gains and losses arising from the underlying transaction and the hedged item are recognised at the same time in the statement of profit or loss.

The financial result includes fees and other capital procurement costs of EUR 17 m (2015: EUR 15 m) relating to financial instruments not at fair value through profit or loss.

No interest income has been accrued which relates to impaired financial instruments, especially receivables.

## IMPAIRMENT LOSS ON FINANCIAL ASSETS AT 31.12.2016

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in EUR m	2015				2016			
	Carrying amount before impairment	Cumulative impairment loss	Carrying amount after impairment	Of which impairment loss for 2015 financial year	Carrying amount before impairment	Cumulative impairment loss	Carrying amount after impairment	Of which impairment loss for 2016 financial year
Investments and securities at fair value	442	12	430	12	157	19	138	7
Investments and securities at amortised cost	26	5	21	-	26	5	21	-
Receivables from finance leases	269	-	269	-	214	-	214	-
Trade receivables	2,878	326	2,552	139	2,968	371	2,597	163
Receivables from percentage of completion contracts	174	-	174	-	160	-	160	-
Derivatives with positive fair values	316	-	316	-	214	-	214	-
Other receivables and assets	646	3	643	-	737	4	733	1
Cash and cash equivalents	1,417	-	1,417	-	1,463	-	1,463	-

## IMPAIRMENT LOSS ON TRADE RECEIVABLES

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in EUR m	Cumulative impairment loss	
	2015	2016
<b>AT 01.01.</b>	<b>295</b>	<b>326</b>
Currency adjustments	12	10
Increase in impairment losses recorded in the statement of profit and loss	139	163
Write-offs charged against cumulative impairment losses	-120	-128
<b>AT 31.12.</b>	<b>326</b>	<b>371</b>

The carrying amounts of the financial assets recognised take into account the highest possible risk of default. A summary of financial assets past due but not impaired is presented in ► [NOTE \[16\]](#). The increase in impairments is primarily due to the increase in outstanding receivables and payment terms in the Healthcare segment.

**INTEREST INCOME/EXPENSE FROM FINANCIAL INSTRUMENTS NOT MEASURED AT FAIR VALUE**

<i>in EUR m</i>	2015	2016
Interest income	40	30
Interest expenses	350	245
<b>TOTAL</b>	<b>-310</b>	<b>-215</b>

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Not included here are the interest income and interest expense from derivatives or the interest income and interest expense from assets and liabilities outside the scope of IFRS 7.

**Risk positions and risk management**

The Linde Group is exposed to a variety of financial risks. These include in particular: counterparty risk, liquidity risk, interest rate risk, exchange rate risk and other market price risks. These are described below. For further information about risk management in The Linde Group, please refer to the disclosures in the combined management report. ► [SEE OPPORTUNITY AND RISK REPORT, PAGES 82 TO 95.](#)

**Counterparty risk**

Counterparty risk is the risk that a counterparty does not meet his or her contractual payment obligations and that this leads to a loss for The Linde Group.

The Linde Group deals in principle with counterparties who have a good credit rating. Regular reviews are performed on the creditworthiness of major counterparties, in particular, and clearly defined limits have been set. Experience during the economic crisis has shown that credit standings can change very quickly. It is therefore possible that, despite the Group's monitoring process, counterparties might delay payments or fail to make them at all. The Linde Group does not believe that it has any significant exposure to default risk arising from any individual counterparty. The concentration of the counterparty risk is limited due to the Group's broad and uncorrelated customer base. With the exception of Medicare, the federal health insurance programme within the US health system, the single largest debtor constitutes less than 2 percent of the total figure for trade receivables in The Linde Group. Medicare constitutes 10 percent of the Group's trade receivables.

The risk positions outstanding are subject to strict limits and are continually monitored. The carrying amounts of financial assets reported in the statement of

financial position taking into account impairment losses, represent the highest possible default risk, without including the value of any collateral.

A significant criterion for managing counterparty risk relating to financing and capital market transactions and setting corresponding limits is the credit rating of the relevant counterparty. Regular reviews are performed by a supervisory unit which is independent of the trading department to ensure compliance with all the limits set. The Linde Group has concluded bilateral Credit Support Annexes (CSAs) with the majority of the banks with which financial instruments are traded. On the basis of such agreements, the positive and negative fair values of derivatives held by Linde AG and Linde Finance B.V. for the purpose of interest rate and currency management are collateralised with cash on a regular basis. In this way, the default risk arising from these instruments is minimised. These transactions are subject to the rules of the framework agreement for financial derivative transactions, whereby the rights and obligations associated with the exchange of collateral do not qualify for netting in the balance sheet. A willingness to enter into CSAs with Linde AG and Linde Finance B.V. is an essential prerequisite to being accepted as a counterparty by Linde. In this connection, The Linde Group issued EUR 464 m (2015: EUR 371 m) as collateral for derivatives with negative fair values and received EUR 41 m (2015: EUR 65 m) as collateral for derivatives with positive fair values. In addition, a unilateral CSA was concluded with a trading platform for commodities derivatives in Sweden, and EUR 7 m (2015: EUR 2 m) was issued as collateral for negative market values. The Linde Group also has financial assets with a carrying amount of EUR 6 m (2015: EUR 5 m) which are pledged as collateral for liabilities or contingent liabilities. In the 2016 and 2015 financial years, no additional significant collateral was held by The Linde Group apart from the CSAs described above.



NOTES TO THE  
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## FINANCIAL ASSETS/LIABILITIES SUBJECT TO OFFSETTING OR ENFORCEABLE MASTER AGREEMENTS FOR FINANCIAL DERIVATIVE TRANSACTIONS

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	Gross amount of recognised financial assets/ liabilities	Gross amount of recognised financial assets/ liabilities set off in the balance sheet	Net amount of financial assets/ liabilities presented in the balance sheet	Financial instruments that qualify for netting	Net amount before collaterals	Cash collaterals received <sup>1</sup>	Cash collaterals pledged <sup>1</sup>	Net amount
<i>31.12.2015, in EUR m</i>								
Derivatives with positive fair values	316	-	316	-235	81	-62	27	46
Derivatives with negative fair values	-675	-	-675	235	-440	-3	346	-97
Trade receivables	9	-4	5	-	5	-	-	5
Trade payables	-6	4	-2	-	-2	-	-	-2
<b>TOTAL</b>	<b>-356</b>	<b>-</b>	<b>-356</b>	<b>-</b>	<b>-356</b>	<b>-65</b>	<b>373</b>	<b>-48</b>
<i>31.12.2016, in EUR m</i>								
Derivatives with positive fair values	214	-	214	-143	71	-25	34	80
Derivatives with negative fair values	-642	-	-642	143	-499	-16	437	-78
Trade receivables	10	-4	6	-	6	-	-	6
Trade payables	-6	4	-2	-	-2	-	-	-2
<b>TOTAL</b>	<b>-424</b>	<b>-</b>	<b>-424</b>	<b>-</b>	<b>-424</b>	<b>-41</b>	<b>471</b>	<b>6</b>

<sup>1</sup> The terms governing CSAs may result in the net fair value position per counterparty being over-secured.

**Liquidity risks**

Liquidity risk is the risk that the Group will no longer be able to meet its financial payment obligations. Contractual undiscounted expected future cash flows from financial liabilities are shown in the table below:

## FUTURE CASH FLOWS FROM FINANCIAL LIABILITIES

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<i>in EUR m</i>	<i>Due within one year</i>		<i>Due in one to five years</i>		<i>Due in more than five years</i>	
	2015	2016	2015	2016	2015	2016
Cash outflows from non-derivative financial liabilities	4,492	5,244	6,013	5,035	3,693	2,718
Cash outflows from derivative financial liabilities	196	855	1,406	1,065	1,092	1,009

Within this context, it is important to note that the cash outflows from derivative financial liabilities in the amount of EUR 2.929 bn (2015: EUR 2.694 bn) are offset by cash inflows from derivatives with gross settlement in the amount of EUR 2.116 bn (2015: EUR 1.819 bn).

### Interest rate risks

Interest rate risks arise from market fluctuations in interest rates. As a result of its financing activities, The Linde Group is exposed to a risk from interest rate changes. At 31 December 2016, The Linde Group held interest-bearing instruments (net, including interest rate derivatives/hedges) totalling EUR 7.190 bn (2015: EUR 7.829 bn). Of these, EUR 2.618 bn (2015: EUR 2.586 bn) related to instruments bearing interest at variable interest rates and EUR 4.572 bn (2015: EUR 5.243 bn) to instruments bearing interest at fixed rates. This is equivalent to a Group-wide fixed-rate ratio of 64 percent (2015: 67 percent).

Linde has used forward payer swaps to provide an element of hedging against exposure to rising interest rates with regard to future bond issues.

Based on instruments bearing interest at variable rates and financial instruments hedging interest rate risks which The Linde Group holds or has issued, a hypothetical change in the interest rates applicable to the respective instruments would have had the following effects (if exchange rates remained constant):

#### EFFECT OF CHANGES IN APPLICABLE INTEREST RATES

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Currency, in EUR m	Change	Recognised in profit or loss		Directly in equity	
		2015	2016	2015	2016
EUR	+100 bp	-22	-38	89	82
	-100 bp	22	38	-95	-87
GBP	+100 bp	1	12	-6	-3
	-100 bp	-1	-12	6	3
USD	+100 bp	-2	-3	68	52
	-100 bp	2	3	-69	-53
AUD	+100 bp	-3	-	8	11
	-100 bp	3	-	-8	-11
Other currencies	+100 bp	1	3	7	7
	-100 bp	-1	-3	-7	-7

### Exchange rate risks

Due to its activities as an international group, The Linde Group is exposed to exchange rate risks. Its broad spread of activities over many different currency areas and its local business model result in a low concentration of risk for the Group.

The Linde Group monitors and manages its exchange rate risk, a risk which has an impact on its operations. The gross exchange rate risk encompasses all the operating activities of the Group. This gross exchange rate risk is reduced by around 78 percent (2015: 82 percent). Therefore, The Linde Group is exposed at the balance sheet date to a net exchange rate risk from operating activities involving foreign currency corresponding to 22 percent (2015: 18 percent) of the original unsecured risk.

The risk of exchange rate movements is monitored for internal management purposes on the basis of a value-at-risk, which relates to positions in currencies other than the relevant functional currency.

The value-at-risk is calculated on the basis of historical data (250 working days) in accordance with international banking standards. The value-at-risk presents the maximum potential loss based on a probability of

97.5 percent for a holding period of twelve months. The calculation takes into account correlations between the transactions being considered; the risk of a portfolio is generally lower than the total of the respective individual risks.

At 31 December 2016, the value-at-risk was EUR 31 m (2015: EUR 26 m).

### Other market price risks

As a result of its energy purchases, The Linde Group is exposed to risks arising from changes in commodity prices. The Linde Group monitors and manages these commodity price risks arising from the purchase of electricity, natural gas and propane for use in production. These hedging operations are governed by strict risk management guidelines, compliance with which is constantly being monitored. Commodity price risks are hedged in the main by long-term supply contracts or limited by the form and structure of sales contracts. Derivatives are also used to a much lesser extent to hedge against the exposure to changes in the price of electricity, natural gas and propane gas. The commodity price risk from financial instruments is therefore not material.

## Hedge Accounting

### Cash flow hedges

The Linde Group hedges cash flows at both Group and company levels, based on agreed minimum hedging rates. At the company level, future transactions which are highly probable are hedged against foreign exchange risks. A rolling 15-month budget or the budgets for individual customer-specific projects are used for this purpose.

In general, these hedges are accounted for as cash flow hedges in accordance with IAS 39 Financial Instruments: Recognition and Measurement. The effective portion of the gain or loss on the hedging instruments is recognised directly in equity and released to the statement of profit or loss when the hedged cash flows are also recognised in the statement of profit or loss or if a hedged future transaction is no longer expected to occur. In addition, the risks associated with changes in interest rates relating to certain financial liabilities or future financing measures are hedged by derivative financial instruments and accounted for as cash flow hedges.

The Linde Group also hedges the exposure to commodity price risks which arise in the normal course of business from its procurement transactions and result in open risk positions. To reduce the extent of the risk, The Linde Group enters into a small number of

electricity, natural gas and propane gas derivatives. Usually, hedging relationships of this type are also designated as cash flow hedging relationships, if this accords with the facts.

If the hedged future transactions (forecast transactions as defined by IAS 39) result in the recognition of a non-financial asset or liability, the initial carrying amounts of these are adjusted for the amount recorded in equity. This is usually the case for non-current assets and inventories.

The following table presents a reconciliation of the reserve for cash flow hedges:

<i>in EUR m</i>	2015	2016
<b>OPENING BALANCE AT 01.01.</b>	<b>-259</b>	<b>-270</b>
Additions	7	-59
Transfers to the statement of profit or loss	-18	24
of which relating to revenue	-12	4
of which relating to cost of sales	-11	14
of which relating to financial income and expenses	5	6
<b>CLOSING BALANCE AT 31.12.</b>	<b>-270</b>	<b>-305</b>

No amounts were recognised in 2016 or 2015 as a result of ineffectiveness in cash flow hedges.

### EXPECTED CASH FLOWS, GAINS AND LOSSES FROM CASH FLOW HEDGES

<i>in EUR m</i>	<i>Within one year</i>		<i>In one to five years</i>		<i>In more than five years</i>		<i>Total</i>	
	2015	2016	2015	2016	2015	2016	2015	2016
Cash flows from hedging instruments	4	-51	-454	-323	-199	-201	-649	-575
Gain/loss	-4	1	-134	-134	-132	-172	-270	-305

### Fair value hedges

The Linde Group uses interest rate swaps to hedge the exposure to changes in the fair value of financial assets and financial liabilities as a result of interest rate changes. If the hedge is deemed to be effective, the carrying amount of the hedged item is adjusted for changes in the fair value attributable to the hedged risk.

The following table shows the changes in underlying transactions and hedging instruments in fair value hedging relationships recognised in profit or loss.

#### FAIR VALUE HEDGES

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<i>in EUR m</i>	2015	2016
From hedged transactions	35	21
From hedging instruments	-34	-20
<b>INEFFECTIVENESS</b>	<b>1</b>	<b>1</b>

### Hedges of a net investment in a foreign operation

The Linde Group hedges its exposure to translation risk by taking out loans in foreign currency and by entering into forward exchange contracts and cross-currency interest rate swaps. These hedges generally qualify as hedges of a net investment in a foreign operation (referred to below as net investment hedges) in accordance with IAS 39 Financial Instruments: Recognition and Measurement and hence the effective portion of the hedge is transferred to equity. If the foreign operation is subsequently sold or relinquished, the amount recognised in equity is released to the statement of profit or loss.

No amounts were recognised in 2016 or 2015 as a result of ineffectiveness in net investment hedges.

#### FAIR VALUE OF FINANCIAL INSTRUMENTS DESIGNATED AS HEDGES

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<i>in EUR m</i>	2015	2016
<b>Cash flow hedges</b>		
Forward exchange transactions	12	-
Interest rate/cross-currency interest rate swaps	-234	-329
Commodities	-22	6
Financial liabilities	240	244
<b>Fair value hedges</b>		
Interest rate swaps	90	12
<b>Net investment hedges</b>		
Forward exchange transactions	-60	-45
Cross-currency interest rate swaps	-99	-112
Financial liabilities in foreign currencies	1,435	1,017

## [28] Group statement of cash flows

The statement of cash flows shows the source and application of funds. In accordance with IAS 7 Cash Flow Statements, cash flows from operating activities are distinguished from cash flows from investing and financing activities.

The cash and cash equivalents disclosed in the statement of cash flows comprise all cash and cash equivalents disclosed in the statement of financial position: i.e. cash in hand, bank balances and money market funds with a maturity of three months or less. Cash and cash equivalents of EUR 5 m (2015: EUR 8 m) are subject to drawing restrictions as a result of currency export restrictions. The cash flows from investing and financing activities are calculated on the basis of payments, while the cash flow from operating activities is derived indirectly from profit before tax.

When the cash flow from operating activities is calculated, the changes in assets and liabilities are adjusted for the effects of currency translation and changes in Group structure. As a result, it is not possible to reconcile the figures to the differences between the headings in the published Group statement of financial position.

Distributions received and income taxes paid included in cash inflow from operating activities are disclosed separately. Cash inflows from associates and joint ventures are disclosed in cash inflow from operating activities. Finance income from embedded finance leases (IFRIC 4/IAS 17) has been included in cash inflow from operating activities, due to the fact that such income is clearly related to the operating business of The Linde Group, while capitalised borrowing costs of EUR 24 m (2015: EUR 52 m) are disclosed in cash flow from investing activities. All other interest payments are disclosed in cash flow from financing activities.

For cash outflows relating to newly consolidated companies, please refer to the Group statement of cash flows. ► [SEE TABLES 43 AND 44, PAGES 110 TO 111.](#) In the Group statement of financial position, EUR 2 m (2015: EUR 4 m) has been recognised as liabilities which are not included in the cash outflows for consolidated companies.

The total increase in cash and cash equivalents as a result of acquisitions was EUR 12 m (2015: EUR 0 m).

Investing activities comprise additions to and disposals of tangible assets, financial assets, intangible assets and consolidated companies. Additions and disposals in foreign currency have been translated at average rates.

## [29] Segment information

IFRS 8 Operating Segments requires information to be provided for each operating segment. The definition of operating segments and the scope of the information prepared for segment reporting is based, among other things, on the information made available on a regular basis to the full Executive Board and, as a result, on the internal management within the organisation. The full Executive Board is regularly provided with key profitability and revenue figures that are relevant from a decision-making perspective for the following areas:

- EMEA (Europe, Middle East and Africa)
- Asia/Pacific
- Americas
- Engineering Division
- Other Activities

In accordance with IFRS 8, The Linde Group therefore reports in five segments. The "Reconciliation" column comprises corporate activities and consolidation adjustments. ► [SEE TABLE 46, PAGE 114.](#)

A brief description of the segments is given below:

### **Gases Division** **(EMEA, Asia/Pacific and Americas):**

The activities of the Gases Division comprise the production, sale and distribution of gases for applications in industry, medicine, environmental protection and in research and development. In addition, this division offers technical application know-how, specialised services and the necessary hardware to use the gases. The business model in the three segments within the Gases Division (EMEA, Asia/Pacific and Americas) is largely identical in each segment.

### **Engineering Division:**

The activities of the Engineering Division comprise the design and realisation of turnkey olefin plants, plants for the production of hydrogen and synthesis gases and the processing of natural gas, and air separation plants. This division also develops and manufactures plant components and offers specialised services.

### **Other Activities:**

Other Activities comprises Gist, a leading supplier of logistics and supply chain solutions with business operations mainly in the UK. As this business area is to be sold, it has been reported as a discontinued operation in this Annual Report.

### Segment accounting policies

The same accounting policies apply as those set out in ► [NOTE \[5\]](#) apply to the segments. Exceptions apply to Group financing, which is allocated to Corporate. Pension obligations are allocated to the segment in which the relevant employees work. The provision for existing pension obligations arising from the BOC pension plan in respect of the legal entities in the UK is allocated to the EMEA segment. The service cost was charged to the EMEA and Corporate segments. Transactions between the reportable segments described above are conducted under the same conditions as for non-related third parties.

To arrive at the figure for the Gases Division as a whole from the figures for the three segments within the Gases Division, consolidation adjustments of EUR 185 m (2015: EUR 182 m) have been applied to revenue. This means that it is not possible to arrive at the figure for the Gases Division as a whole by merely adding together the segments in the Gases Division.

Segment profit is calculated on the basis of operating profit.

Capital expenditure per segment represents the amounts invested during the financial year from the point of view of the subsidiary. Included in the "Reconciliation" column are not only consolidation adjustments required from the Group's point of view, but also adjustments as a result of variances in Group acquisition and manufacturing costs as a result of supplies made by the Engineering Division to the Gases Division.

### RECONCILIATIONS OF SEGMENT REVENUE AND OF THE SEGMENT RESULT

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in EUR m	2015	2016
<b>Revenue</b>		
Total revenue from the segments	18,369	17,845
Revenue from discontinued operations	-599	-587
Consolidation	-425	-310
<b>GROUP REVENUE FROM CONTINUING OPERATIONS</b>	<b>17,345</b>	<b>16,948</b>
<b>Operating profit</b>		
Operating profit from segments	4,411	4,450
Operating profit from corporate activities	-288	-338
Operating profit from discontinued operations	-44	-44
Consolidation	8	30
Restructuring and merger costs (special items)	192	126
Amortisation and depreciation	1,866	1,897
Financial income	42	29
Financial expenses	439	353
<b>PROFIT BEFORE TAX FROM CONTINUING OPERATIONS</b>	<b>1,632</b>	<b>1,751</b>

### [30] Employees

#### AVERAGE NUMBER OF EMPLOYEES BY SEGMENT (CONTINUING ACTIVITIES)

120

	2015	2016
Gases Division	52,960	53,684
EMEA	21,449	20,508
Asia/Pacific	11,828	11,398
Americas	19,683	21,778
Engineering Division	7,186	6,580
Other Activities	333	371
<b>GROUP</b>	<b>60,479</b>	<b>60,635</b>

In 2016, the average number of employees in the companies included in the Group financial statements on a line-by-line basis was 169 (2015: 164). Part-time employees have been included on a pro rata basis. An average of 4,927 employees were employed at Gist (discontinued operation) in 2016 (2015: 4,571).

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## [31] Recommendation for the approval of the annual financial statements and appropriation of profit of Linde AG

The unappropriated profit of Linde AG at 31 December 2016 was EUR 686,860,862.70 (2015: EUR 640,451,344.95).

The annual financial statements of Linde AG prepared in accordance with the German Commercial Code (HGB) and the German Stock Corporation Act (AktG) are published and filed in the German Federal Gazette (Bundesanzeiger).

## BALANCE SHEET OF LINDE AG – ASSETS

<i>in EUR m</i>	31.12.2015	31.12.2016
Intangible assets	106	82
Tangible assets	433	458
Financial assets	17,499	17,553
<b>NON-CURRENT ASSETS</b>	<b>18,038</b>	<b>18,093</b>
Inventories	3,139	2,951
less advance payments received from customers	-3,139	-2,951
Receivables and other assets	1,985	2,110
Securities	400	107
Liquid assets	359	168
<b>CURRENT ASSETS</b>	<b>2,744</b>	<b>2,385</b>
Prepaid expenses	44	130
<b>TOTAL ASSETS</b>	<b>20,826</b>	<b>20,608</b>

BALANCE SHEET OF LINDE AG –  
EQUITY AND LIABILITIES

<i>in EUR m</i>	31.12.2015	31.12.2016
Capital subscribed	475	475
Conditionally authorised capital of EUR 57 m (2015: EUR 57 m)		
Capital reserve	6,563	6,563
Revenue reserves	2,167	2,167
Unappropriated profit	640	939
<b>EQUITY</b>	<b>9,845</b>	<b>10,144</b>
Provisions for pensions and similar obligations	274	188
Other provisions	796	819
<b>PROVISIONS</b>	<b>1,070</b>	<b>1,007</b>
Liabilities	9,911	9,451
Deferred charges	-	6
<b>TOTAL EQUITY AND LIABILITIES</b>	<b>20,826</b>	<b>20,608</b>

## INCOME STATEMENT OF LINDE AG

<i>in EUR m</i>	2015	2016
<b>REVENUE</b>	<b>2,097</b>	<b>2,917</b>
Cost of sales	1,382	2,120
<b>GROSS PROFIT</b>	<b>715</b>	<b>797</b>
Marketing and selling expenses	320	315
Research and development costs	129	117
General administration expenses	419	335
Other operating income	381	199
Other operating expenses	239	111
Investment income	901	871
Other interest and similar income	274	213
of which from affiliated companies EUR 158 m (2015: EUR 216 m)		
Amortisation of financial assets and securities held as current assets	30	30
Interest and similar charges	490	223
of which to affiliated companies EUR 109 m (2015: EUR 217 m)		
<b>PROFIT ON ORDINARY ACTIVITIES</b>	<b>644</b>	<b>949</b>
Income tax expense	-25	10
<b>PROFIT FOR THE YEAR</b>	<b>669</b>	<b>939</b>
Transfer to revenue reserves	-29	-252
<b>UNAPPROPRIATED PROFIT</b>	<b>640</b>	<b>687</b>

The Executive Board recommends that, when the annual financial statements of Linde AG are approved at the meeting of the Supervisory Board on 8 March 2017, the Supervisory Board proposes that the appropriation of profit of EUR 686,860,862.70 (2015: EUR 640,451,344.95) be voted on at the Annual General Meeting on 10 May 2017 as follows:

- payment of a dividend of EUR 3.70 (2015: EUR 3.45) per no-par value share entitled to dividend. The total dividend payout for 185,638,071 (2015: 185,638,071) no-par value shares entitled to dividend amounts to EUR 686,860,862.70 (2015: EUR 640,451,344.95).

The 95,109 treasury shares held by the company without any dividend entitlement at the time of the proposal are not included in the calculation of the amount to be distributed.

## [32] Related party transactions

In addition to the subsidiaries included in the Group financial statements, Linde AG is related, directly or indirectly, while carrying out its normal business activities to non-consolidated subsidiaries, joint ventures and associates. The business relationships with these companies are generally conducted under the same conditions as for non-related third parties. Related companies which are controlled by The Linde Group or over which The Linde Group may exercise significant influence are disclosed in the list of shareholdings, arranged by division.

The full list of Group shareholdings ► [NOTE \[39\]](#) has been filed in the electronic German Federal Gazette. The information about the remuneration of the Executive Board and the Supervisory Board is set out in ► [NOTE \[33\]](#).

### REVENUE WITH RELATED PARTIES

124

in EUR m	2015				2016			
	Non-consolidated subsidiaries	Associates and joint ventures	Other related parties	Total	Non-consolidated subsidiaries	Associates and joint ventures	Other related parties	Total
Sales of goods	-	14	-	14	-	18	-	18
Revenue based on PoC	-	7	-	7	-	40	-	40
Other revenue	-	-	-	-	-	2	-	2

### PURCHASED GOODS AND SERVICES FROM RELATED PARTIES

125

in EUR m	2015				2016			
	Non-consolidated subsidiaries	Associates and joint ventures	Other related parties	Total	Non-consolidated subsidiaries	Associates and joint ventures	Other related parties	Total
Goods and services purchased from related parties	4	110	-	114	2	88	-	90

Related persons are mainly the members of the Executive Board and Supervisory Board. In 2016, there were no significant transactions between The Linde Group and members of the Executive Board and Supervisory Board or their family members which are outside the bounds of existing employment, service or appointment agreements or remuneration contracts.



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Some members of Linde's Executive Board and Supervisory Board hold similar positions in other companies. Linde has normal business relationships with virtually all of these companies. The sale and purchase of goods and services to and from these companies take place under the usual market conditions.

RECEIVABLES FROM AND LIABILITIES TO RELATED PARTIES

126

in EUR m	31.12.2015				31.12.2016			
	Non-con- solidated subsidiaries	Associates and joint ventures	Other related parties	Total	Non-con- solidated subsidiaries	Associates and joint ventures	Other related parties	Total
Receivables from related parties	3	31	-	34	-	46	-	46
Liabilities to related parties	1	38	-	39	-	63	-	63

There were no charge-free guarantee agreements in place for associates and joint ventures on the balance sheet date (2015: EUR 0 m). The open orders from joint ventures came to EUR 1 m (2015: EUR 0 m).

### [33] Additional information about the Supervisory Board and Executive Board

Disclosed below are the total emoluments of the Executive Board and the Supervisory Board as required by § 315a (1) in conjunction with § 314 (1) No. 6 of the German Commercial Code (HGB). The information required by IAS 24.17 regarding the total emoluments of the Executive Board is also reported in this Note.

#### Supervisory Board

The total emoluments of the Supervisory Board shown in the table below are based on the cost incurred in the financial year in accordance with IAS 24.17.

In the reporting year, as in the year before, there were no advances or loans to members of the Supervisory Board.

EMOLUMENTS OF THE SUPERVISORY BOARD  
(INCL. VAT)

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in EUR	2015	2016
Fixed emoluments	2,891,700	2,886,433
Attendance fees	97,580	133,280
<b>TOTAL EMOLUMENTS</b>	<b>2,989,280</b>	<b>3,019,713</b>

#### Executive Board

The total emoluments of the Executive Board in accordance with the provisions of the German Commercial Code (HGB) and German Accounting Standard DRS 17 were as follows:

EMOLUMENTS OF THE EXECUTIVE BOARD  
IN ACCORDANCE WITH THE GERMAN  
COMMERCIAL CODE (HGB)

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in EUR	2015	2016
Fixed emoluments/ Benefits in kind/ Other benefits	4,295,945	3,772,668
Variable cash emoluments short-term	4,369,260	3,778,902
Variable cash emoluments long-term	2,912,840	2,519,268
<b>TOTAL CASH EMOLUMENTS</b>	<b>11,578,045</b>	<b>10,070,838</b>
Long Term Incentive Plan (value on the grant date)	3,374,969	2,875,045
<b>TOTAL EMOLUMENTS</b>	<b>14,953,014</b>	<b>12,945,883</b>
Service cost for pension obligation	1,590,875	736,174
<b>TOTAL EMOLUMENTS (HGB)</b>	<b>16,543,889</b>	<b>13,682,057</b>

SHARES GRANTED FROM SHARE-BASED PAYMENTS

129

	2015		2016	
	units	Value per unit when granted in EUR	units	Value per unit when granted in EUR
Options (LTIP 2012)	40,231	67.11	41,196	55.83
Matching shares (LTIP 2012)	4,275	157.91	4,737	121.40

In the reporting year as well as the in the year before, there were no advances or loans to members of the Executive Board.

Total remuneration paid to former members of the Executive Board and their surviving dependants amounted to EUR 10,202,212 (2015: EUR 2,214,936). A provision of EUR 59,710,818 (2015: EUR 58,771,380) has been made in The Linde Group for current pensions and future pension benefits in respect of former members of the Executive Board and their surviving dependants. Within Linde AG, the corresponding provision was EUR 46,747,736 (2015: EUR 50,381,450).

The emoluments of the Executive Board in accordance with IAS 24.17, based on the cost incurred in the financial year, were as follows:

**EMOLUMENTS OF THE EXECUTIVE BOARD IN ACCORDANCE WITH IFRS**

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in EUR	2015	2016
Short-term cash emoluments	8,665,205	7,551,570
Long-term cash emoluments	2,912,840	2,519,268
<b>TOTAL CASH EMOLUMENTS</b>	<b>11,578,045</b>	<b>10,070,838</b>
Change in value of virtual shares	65,644	-133,253
Cost Long Term Incentive Plan	1,122,133	-161,942
Service cost for pension obligation	2,105,419	953,525
<b>TOTAL EMOLUMENTS (IFRS)</b>	<b>14,871,241</b>	<b>10,729,168</b>

In addition, post-employment benefits of EUR 6,565,134 arose (2015: EUR 0).

The remuneration report presents the basic features and structure of the remuneration of the Executive Board. It is presented on ► [PAGES 22 TO 37](#) of the 2016 Financial Report as part of the combined management report.

**[34] Declaration on Corporate Governance in accordance with § 289a and § 315 (5) of the German Commercial Code (HGB)**

The Executive Board and Supervisory Board of Linde AG approved the prescribed declaration pursuant to § 161 of the German Stock Corporation Act (AktG) on the recommendations of the German Corporate Governance Code and made it accessible to the shareholders on a permanent basis. The Declaration of Compliance has been published on the Internet at ► [WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE](http://WWW.LINDE.COM/DECLARATIONOFCOMPLIANCE).

The Declaration on Corporate Governance can be found on the Internet at ► [WWW.LINDE.COM/CORPORATEGOVERNANCE](http://WWW.LINDE.COM/CORPORATEGOVERNANCE).

A detailed commentary on corporate governance at Linde is set out in the Corporate Governance section of the Financial Report.

## [35] Other Board memberships

[Disclosures regarding other Board memberships are as at 31 December 2016 or as at the date of retirement from the Supervisory Board]

### *Supervisory Board*

Members of the Supervisory Board of Linde Aktiengesellschaft are members of the following other German statutory supervisory boards and comparable German and foreign boards:

#### **PROFESSOR DR WOLFGANG REITZLE**

Chairman of the Supervisory Board of Linde AG, Former Chief Executive Officer of Linde AG (Member and Chairman of the Supervisory Board of Linde AG from 21 May 2016)

#### EXTERNAL OFFICES:

Axel Springer SE  
Continental AG (Chairman of the Supervisory Board)  
Hawesko Holding AG (until the AGM on 19 June 2017)  
Medical Park (Chairman of the Supervisory Board)

#### EXTERNAL OFFICES:

Ivoclar Vivadent AG  
(Member of the Administrative Board)

#### **HANS-DIETER KATTE**

Deputy Chairman of the Supervisory Board of Linde AG, Chairman of the Pullach Works Council, Engineering Division, Linde AG

#### **MICHAEL DIEKMANN**

Second Deputy Chairman of the Supervisory Board of Linde AG, Former Chairman of the Board of Management of Allianz SE

#### EXTERNAL OFFICES:

BASF SE (Deputy Chairman of the Supervisory Board)  
Fresenius Management SE  
Fresenius SE & Co. KGaA  
(Deputy Chairman of the Supervisory Board)  
Siemens AG

#### EXTERNAL OFFICES:

Allianz Australia Ltd. (Non-Executive Director)  
(until 31 December 2016)

#### **PROFESSOR DR ANN-KRISTIN ACHLEITNER**

Professor at the Technical University Munich (TUM)

#### EXTERNAL OFFICES:

Deutsche Börse Aktiengesellschaft  
METRO AG (until the AGM on 6 February 2017)  
Münchener Rückversicherungs-Gesellschaft  
Aktiengesellschaft, Munich

#### EXTERNAL OFFICES:

ENGIE SA (formerly GDF SUEZ SA)  
(Member of the Administrative Board)

#### **DR CLEMENS BÖRSIG**

Chairman of the Board of Directors of Deutsche Bank Foundation,  
Former Chairman of the Supervisory Board of Deutsche Bank AG

#### EXTERNAL OFFICES:

Bayer AG  
Daimler AG

#### EXTERNAL OFFICES:

Emerson Electric Company  
(Member of the Board of Directors)

#### **ANKE COUTURIER**

Head of Global Pensions, Linde AG

#### **FRANZ FEHRENBACH**

Chairman of the Supervisory Board of Robert Bosch GmbH, Managing Partner of Robert Bosch Industrietreuhand KG

#### EXTERNAL OFFICES:

BASF SE  
Robert Bosch GmbH (Chairman of the Supervisory Board)  
STIHL AG (Deputy Chairman of the Supervisory Board)

#### EXTERNAL OFFICES:

STIHL Holding AG & Co. KG  
(Member of the Advisory Board)

#### **GERNOT HAHL**

Chairman of the Worms Works Council, Gases Division, Linde AG

#### **DR MARTIN KIMMICH**

2nd Authorised Representative, IG Metall Munich

#### EXTERNAL OFFICES:

MTU Aero Engines AG  
Nokia Solutions and Networks Management GmbH

#### **DR VICTORIA OSSADNIK**

Vice President (VP) Enterprise Services Delivery of Microsoft Deutschland GmbH  
(Member of the Supervisory Board from 7 January 2016)

#### MEMBERSHIP OF OTHER GERMAN STATUTORY SUPERVISORY BOARDS

#### MEMBERSHIP OF COMPARABLE GERMAN AND FOREIGN BOARDS

**XAVER SCHMIDT**

Head of Department Chairman  
of IG Bergbau, Chemie, Energie, Hanover

**FRANK SONNTAG**

Chairman of the Dresden Works Council,  
Engineering Division, Linde AG

**The following member retired from  
the Supervisory Board in the 2016 financial year:**

**DR MANFRED SCHNEIDER**

Chairman of the Supervisory Board of Linde AG  
(until 20 May 2016),  
Former Chairman of the Supervisory Board of Bayer AG

***Executive Board***

In addition to their individual management functions in affiliated companies and in companies in which an investment is held, members of the Executive Board of Linde Aktiengesellschaft are members of the following German supervisory boards and and comparable German and foreign boards:

**PROFESSOR DR ALDO BELLONI**

Chief Executive Officer (from 8 December 2016)

**DR CHRISTIAN BRUCH**

Member of the Executive Board

**BERND EULITZ**

Member of the Executive Board

**SANJIV LAMBA**

Member of the Executive Board

→ **GROUP OFFICES:**

LINDE INDIA LIMITED  
(Chairman of the Board of Directors)

**The following members retired from  
the Executive Board in the 2016 financial year:**

**DR WOLFGANG BÜCHELE**

Chief Executive Officer (until 7 December 2016)

→ **EXTERNAL OFFICES:**

Merck KGaA (Chairman of the Supervisory Board)

→ **EXTERNAL OFFICES:**

E. Merck KG  
(Member of the Board of Partners)  
Kemira Oyj, Finland  
(Member of the Board of Directors)

**THOMAS BLADES**

Chief Executive Officer of Bilfinger SE  
Member of the Executive Board (until 30 June 2016)

**GEORG DENOKE**

Member of the Executive Board (until 13 September 2016)

→ **EXTERNAL OFFICES:**

SGL Carbon SE

→ **MEMBERSHIP OF OTHER GERMAN  
STATUTORY SUPERVISORY BOARDS**

→ **MEMBERSHIP OF COMPARABLE  
GERMAN AND FOREIGN BOARDS**

## [36] Contingent liabilities and other financial commitments

### CONTINGENT LIABILITIES

<i>in EUR m</i>	31.12.2015	31.12.2016
Guarantees	4	–
Warranties	8	1
Other contingent liabilities	54	73
<b>TOTAL</b>	<b>66</b>	<b>74</b>

### Warranties and guarantee agreements

Contingent liabilities arise in Linde primarily from warranties and guarantee agreements. In exceptional cases, Linde enters into guarantee agreements with banks to secure loans in non-consolidated subsidiaries.

### Other contingencies

The Engineering Division regularly enters into contracts with consortium partners to build turnkey industrial plants, under which the consortium partners assume joint and several liability to the customer for the total volume of the contract. There are clear internal rules here as to how the liability should be split between the partners. At present, there are plant construction orders with one of our consortium partners totalling EUR 773 m (2015: EUR 736 m). Linde currently anticipates that there will be no joint and several liability claim and has therefore not disclosed any contingent liability in respect of these contracts.

### Other financial commitments

Other financial commitments include lease commitments relating to operating leases and commitments relating to orders. Commitments relating to orders are in respect of open orders for which a contractual payment obligation has already been agreed.

### OTHER FINANCIAL COMMITMENTS

<i>in EUR m</i>	31.12.2015	31.12.2016
Obligations under non-cancellable operating leases	507	538
Capital expenditure commitment (tangible fixed assets)	335	247
Capital expenditure commitment (intangible assets)	9	3
<b>TOTAL</b>	<b>851</b>	<b>788</b>

### PROCUREMENT LEASES

<i>in EUR m</i>	31.12.2015	31.12.2016
Total minimum lease payments (gross investment)		
due within one year	131	131
due in one to five years	259	262
due in more than five years	117	145
<b>TOTAL</b>	<b>507</b>	<b>538</b>

The minimum lease payments relate to leased buildings, technical equipment, fixtures, furniture and equipment (procurement leases). They are in respect of a large number of individual contracts. In the 2016 financial year, costs arising from operating leases of EUR 297 m (2015: EUR 281 m) were recorded.

### Litigation

The Linde Group or one of its Group companies are involved in current or foreseeable legal or arbitration proceedings in the normal course of business.

In 2010, the Brazilian competition authority CADE imposed fines on a number of gases companies, including Linde's Brazilian subsidiary, on the grounds of alleged anti-competitive business conduct in the years 1998 to 2004. An amount of around BRL 188 m is attributable to The Linde Group in this respect. Based on the exchange rate on balance sheet date, this equates to around EUR 55 m. Seen from today's perspective and as a result of a positive judgment in the first instance, Linde assumes that this decision will not stand up to judicial review in the second instance either, and deems the possibility of an outflow of resources to be extremely unlikely. As a result, no provision has been set up as a liability and the matter is not reflected in the contingent liabilities either.

Linde is also party to various current or foreseeable legal or arbitration proceedings in respect of which the probability of a claim is unlikely or the impact on the economic situation of The Linde Group will be immaterial. Appropriate provisions for potential financial liabilities have been made in the relevant Group company for all other proceedings in which Linde is involved.

## [37] Auditors' fees and services

## AUDITORS' FEES AND SERVICES

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<i>in EUR m</i>	2015		2016	
	<i>Group</i>	<i>Thereof KPMG AG<sup>1</sup></i>	<i>Group</i>	<i>Thereof KPMG AG<sup>1</sup></i>
Audit (including expenses)	11	4	11	5
Other attestation services	1	-	1	-
Tax consultancy	1	-	1	-
Other services	1	-	-	-
<b>TOTAL</b>	<b>14</b>	<b>4</b>	<b>13</b>	<b>5</b>

<sup>1</sup> KPMG AG Wirtschaftsprüfungsgesellschaft.

The fees relating to the audit of the annual financial statements include not only the expenses for the audit of the Group financial statements of The Linde Group and the annual financial statements, which have to be prepared by law, of Linde AG and the subsidiaries included in the Group financial statements but also – as of this year – expenses for the quarterly audit reviews. The prior year has been adjusted accordingly.

Other attestation services mainly relate to the issue of a comfort letter, due diligence reviews, confirmation of compliance with specific contractual agreements and other review procedures.

Tax consultancy costs relate mainly to the preparation of tax returns, transfer pricing analyses and tax advice relating to current or proposed business transactions.

## [38] Reconciliation of key financial figures

The key financial figures relating to The Linde Group are presented below after adjusting for special items. Special items are items which, due to their nature, frequency and/or extent, are likely to have an adverse impact on how accurately the key financial figures reflect the sustainability of the earning capacity of The Linde Group in the capital market. In the 2016 financial year, restructuring costs and costs in connection with the planned merger with Praxair were classified as special items.

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## RECONCILIATION OF KEY FINANCIAL FIGURES

in EUR m	31.12.2015			31.12.2016		
	As reported	Special items	Key financial figures before special items	As reported	Special items	Key financial figures before special items
Revenue	17,345	-	17,345	16,948	-	16,948
Cost of sales	-11,166	35	-11,131	-10,847	27	-10,820
<b>GROSS PROFIT</b>	<b>6,179</b>	<b>35</b>	<b>6,214</b>	<b>6,101</b>	<b>27</b>	<b>6,128</b>
Research and development costs, marketing, selling and administration expenses	-4,330	157	-4,173	-4,228	99	-4,129
Other operating income and expenses	168	-	168	189	-	189
Share of profit or loss from associates and joint ventures (at equity)	12	-	12	13	-	13
<b>EBIT FROM CONTINUING OPERATIONS</b>	<b>2,029</b>	<b>192</b>	<b>2,221</b>	<b>2,075</b>	<b>126</b>	<b>2,201</b>
Financial result	-397	-	-397	-324	-	-324
Income tax expense	-396	-53	-449	-424	-31	-455
<b>PROFIT FOR THE YEAR FROM CONTINUING OPERATIONS</b>	<b>1,236</b>	<b>139</b>	<b>1,375</b>	<b>1,327</b>	<b>95</b>	<b>1,422</b>
<b>PROFIT FOR THE YEAR FROM DISCONTINUED OPERATIONS</b>	<b>16</b>		<b>16</b>	<b>-52</b>		<b>-52</b>
<b>PROFIT FOR THE YEAR</b>	<b>1,252</b>	<b>139</b>	<b>1,391</b>	<b>1,275</b>	<b>95</b>	<b>1,370</b>
attributable to Linde AG shareholders	1,149	133	1,282	1,154	94	1,248
attributable to non-controlling interests	103	6	109	121	1	122
Amortisation of intangible assets/depreciation of tangible assets	-1,866	-	-1,866	-1,897	-	-1,897
<b>OPERATING PROFIT FROM CONTINUING OPERATIONS</b>	<b>3,895</b>	<b>192</b>	<b>4,087</b>	<b>3,972</b>	<b>126</b>	<b>4,098</b>
Equity including non-controlling interests	15,449	139	15,588	15,480	95	15,575
Plus: financial debt	9,483	-	9,483	8,528	-	8,528
Plus: liabilities from finance leases	78	-	78	74	-	74
Less: receivables from finance leases	269	-	269	214	-	214
Less: cash, cash equivalents and securities	1,838	-	1,838	1,595	-	1,595
Plus: net pension obligations	950	-	950	1,467	-	1,467
<b>CAPITAL EMPLOYED</b>	<b>23,853</b>	<b>139</b>	<b>23,992</b>	<b>23,740</b>	<b>95</b>	<b>23,835</b>
<b>CAPITAL EMPLOYED FROM DISCONTINUED OPERATIONS</b>	<b>559</b>		<b>559</b>	<b>416</b>		<b>416</b>
<b>CAPITAL EMPLOYED FROM CONTINUING OPERATIONS</b>	<b>23,294</b>	<b>139</b>	<b>23,433</b>	<b>23,324</b>	<b>95</b>	<b>23,419</b>
<b>EARNINGS PER SHARE FROM CONTINUING OPERATIONS</b> <i>in EUR – UNDILUTED</i>	<b>6.10</b>	<b>0.72</b>	<b>6.82</b>	<b>6.50</b>	<b>0.50</b>	<b>7.00</b>
<b>EARNINGS PER SHARE FROM CONTINUING OPERATIONS</b> <i>in EUR – DILUTED</i>	<b>6.09</b>	<b>0.71</b>	<b>6.80</b>	<b>6.48</b>	<b>0.51</b>	<b>6.99</b>
<b>RETURN ON CAPITAL EMPLOYED (ROCE)</b> <i>in % – CONTINUING OPERATIONS</i>	<b>8.7</b>		<b>9.5</b>	<b>8.9</b>		<b>9.4</b>

[39] List of shareholdings of  
The Linde Group and Linde AG  
at 31 December 2016 in  
accordance with the provisions  
of § 313 (2) No. 4 of the German  
Commercial Code (HGB)

The results of companies acquired in 2016 are included as of the date of acquisition. The information about the equity and the net income or net loss of the companies is as at 31 December 2016 and complies with International Financial Reporting Standards, unless specifically disclosed below.

## COMPANIES INCLUDED IN THE GROUP FINANCIAL STATEMENTS (IN ACCORDANCE WITH IFRS 10)

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
<i>Gases Division</i>							
<i>EMEA</i>							
AFROX – África Oxigénio, Limitada	Luanda	AGO	100		2.0	0.3	
LINDE GAS MIDDLE EAST LLC	Abu Dhabi	ARE	49	49	6.7	-3.1	f
LINDE HEALTHCARE MIDDLE EAST LLC	Abu Dhabi	ARE	49	49	-7.4	-2.0	f
LINDE HELIUM M E FZCO	Jebel Ali	ARE	100		4.8	-	
Linde Electronics GmbH	Stadl-Paura	AUT	100		11.1	1.3	
Linde Gas GmbH	Stadl-Paura	AUT	100		274.9	21.1	
PROVISIS Gase & Service GmbH	Bad Wimsbach-Neydharting	AUT	100		1.2	0.4	
Linde Gas Belgium NV	Grimbergen	BEL	100		3.0	2.0	
Linde Homecare Belgium SPRL	Sclayn	BEL	100	100	5.7	1.2	
Linde Gas Bulgaria EOOD	Stara Zagora	BGR	100		7.9	-0.4	
Linde Gas BH d.o.o.	Zenica	BIH	85	85	2.6	-0.5	
"Linde Gaz Bel" LLC	Telmy	BLR	100	99	0.7	-0.1	
AFROX GAS & ENGINEERING SUPPLIES (BOTSWANA) (PTY) LIMITED	Gaborone	BWA	100		-	-	
BOTSWANA OXYGEN COMPANY (PTY) LIMITED	Gaborone	BWA	100		2.3	3.2	
BOTSWANA STEEL ENGINEERING (PTY) LIMITED	Gaborone	BWA	100		-	-	
HANDIGAS (BOTSWANA) (PTY) LIMITED	Gaborone	BWA	100		-	-	
HEAT GAS (PTY) LIMITED	Gaborone	BWA	100		-	-	
KIDDO INVESTMENTS (PTY) LIMITED	Gaborone	BWA	100		-0.2	0.1	
PanGas AG	Dagmersellen	CHE	100		107.8	36.1	
RDC GASES & WELDING (DRL) LIMITED	Lubumbashi	COD	100		-1.2	-0.6	
LINDE HADJIKYRIAKOS GAS LIMITED	Nicosia	CYP	51	51	9.8	1.4	
Linde Gas a.s.	Prague	CZE	100		184.7	61.9	
Linde Sokolovská s.r.o.	Prague	CZE	100		29.9	8.4	
Bomin Linde LNG Beteiligungs-GmbH	Hamburg	DEU	100	100	-	-	
Bomin Linde LNG GmbH & Co. KG	Hamburg	DEU	100	100	4.6	0.8	
Gas & More GmbH	Pullach	DEU	100		0.1	-	a
Hydromotive GmbH & Co. KG	Leuna	DEU	100	100	2.9	0.3	
Hydromotive Verwaltungs-GmbH	Leuna	DEU	100	100	0.1	-	
Linde Electronics GmbH & Co. KG	Pullach	DEU	100	100	24.7	-0.2	
Linde Electronics Verwaltungs GmbH	Pullach	DEU	100	100	11.6	2.4	
Linde Gas Produktionsgesellschaft mbH & Co. KG	Pullach	DEU	100	100	332.3	-8.6	



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## COMPANIES INCLUDED IN THE GROUP FINANCIAL STATEMENTS (IN ACCORDANCE WITH IFRS 10)

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	Registered office	Country	Participating interest in percent	Thereof Linde AG in percent	Equity in EUR m	Profit/loss for the year in EUR m	Note
Linde Gas Therapeutics GmbH	Oberschleißheim	DEU	100		45.4	-	a
Linde Gas Verwaltungs GmbH	Pullach	DEU	100	100	-	-	
Linde Remeo Deutschland GmbH	Blankenfelde-Mahlow	DEU	100		4.0	-	a
Linde Schweißtechnik GmbH	Pullach	DEU	100		1.2	-	a
Linde Welding GmbH	Pullach	DEU	100		0.5	-	a
MTA GmbH Medizin-Technischer-Anlagenbau	Mainhausen	DEU	100		0.1	-	a
Tega-Technische Gase und Gasetechnik Gesellschaft mit beschränkter Haftung	Würzburg	DEU	100	6	1.7	-	a
Unterbichler Gase GmbH	Munich	DEU	100		0.9	-	a
AGA A/S	Copenhagen	DNK	100		16.2	2.6	
GI/LINDE ALGERIE SPA	Algiers	DZA	100	40	10.3	1.7	
Linde Gas Algerie S.p.A.	Algiers	DZA	66	66	96.5	15.0	
Abelló Linde, S.A.	Barcelona	ESP	100	100	132.8	2.2	
LINDE ELECTRONICS, S.L.	Barcelona	ESP	100		-3.7	-	
Linde Médica, S.L.	Barcelona	ESP	100		131.3	14.3	
LINDE MEDICINAL, S.L.	Barcelona	ESP	100		263.8	3.2	
AS Eesti AGA	Tallinn	EST	100		31.9	2.8	
Kiinteistö Oy Karakaasu	Espoo	FIN	100		-2.1	-	c
Kiinteistö Oy Karaportti	Espoo	FIN	100		-3.4	-	c
Oy AGA Ab	Espoo	FIN	100		747.8	32.6	c
TK-Teollisuuskaasut Oy	Espoo	FIN	100		-0.4	-	c
LINDE ELECTRONICS SAS	Saint-Priest	FRA	100		2.8	0.1	
Linde France S.A.	Saint-Priest	FRA	100		149.4	21.5	
LINDE HOMECARE FRANCE SAS	Saint-Priest	FRA	100		27.7	-2.1	
ALLWELD INDUSTRIAL AND WELDING SUPPLIES LIMITED	Guildford	GBR	100		-0.3	-	c, d
BOC HEALTHCARE LIMITED	Guildford	GBR	100		0.7	0.1	
BOC TRUSTEES LIMITED	Guildford	GBR	100		-	-	c, d
EXPRESS INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	100		1.4	0.2	c, d
FLUOROGAS LIMITED	Guildford	GBR	100		0.1	-	
FUTURE INDUSTRIAL AND WELDING SUPPLIES LTD.	Guildford	GBR	100		0.9	0.3	c, d
GAFFNEY INDUSTRIAL & WELDING SUPPLIES LTD	Guildford	GBR	80		1.8	0.2	c, d
GAS & GEAR LIMITED	Guildford	GBR	100		-	-	c
GAS INSTRUMENT SERVICES LIMITED	Guildford	GBR	100		-	-	c, d
INDUSTRIAL & WELDING SUPPLIES (NORTH WEST) LIMITED	Guildford	GBR	100		-1.5	0.2	c, d
INDUSTRIAL AND WELDING MANAGEMENT LIMITED	Guildford	GBR	100		0.1	-	c, d
INDUSTRIAL SUPPLIES & SERVICES LIMITED	Guildford	GBR	100		11.1	0.4	c, d
IWS (INDUSTRIAL & WELDING SUPPLIES) LIMITED	Guildford	GBR	100		-0.6	-	c, d
LEEN GATE INDUSTRIAL & WELDING SUPPLIES (SCOTLAND) LIMITED	Guildford	GBR	100		1.0	0.2	c, d
LEENGATE HIRE & SERVICES LIMITED	Guildford	GBR	100		-	-	c, d
LEENGATE INDUSTRIAL & WELDING SUPPLIES (LINCOLN) LIMITED	Guildford	GBR	100		0.3	-	c, d
LEENGATE INDUSTRIAL & WELDING SUPPLIES (NORTH EAST) LIMITED	Guildford	GBR	100		1.0	0.1	c, d
LEENGATE INDUSTRIAL & WELDING SUPPLIES (NOTTINGHAM) LIMITED	Guildford	GBR	100		-0.6	-0.3	c, d
LEENGATE INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	100		0.5	0.1	c, d
LEENGATE WELDING LIMITED	Guildford	GBR	100		-	-	c, d
LINDE GAS HOLDINGS LIMITED	Guildford	GBR	100	100	-	4.7	c, d
LINDE HELIUM HOLDINGS LIMITED	Guildford	GBR	100		-	4.7	c, d
PENNINE INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	100		-	-0.1	c, d

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REMEO HEALTHCARE LIMITED	Guildford	GBR	100		-0.1	0.2	
ROCK INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	88		2.2	0.6	c, d
RYVAL GAS LIMITED	Nottingham	GBR	100		-	-	c, d
W & G SUPPLIES LIMITED	Guildford	GBR	100		0.2	-	c, d
WELDER EQUIPMENT SERVICES LIMITED	Guildford	GBR	99		5.2	0.1	c, d
WESSEX INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	100		-0.3	-	c, d
Linde Hellas Monoprosopi E.P.E.	Mandra	GRC	100	100	35.8	-1.9	
LINDE PLIN d.o.o.	Karlovac	HRV	100	100	3.7	0.2	
Linde Gáz Magyarország Zrt.	Répcelak	HUN	100		119.0	32.4	
BOC (TRADING) LIMITED	Dublin	IRL	100		-	-	c
BOC GASES IRELAND HOLDINGS LIMITED	Dublin	IRL	100		7.1	20.0	
BOC Gases Ireland Limited	Dublin	IRL	100		51.6	21.2	c
COOPER CRYOSERVICE LIMITED	Dublin	IRL	100		1.7	-	
ISAGA ehf.	Reykjavík	ISL	100		20.8	4.3	
Linde Gas Italia S.r.l.	Arluno	ITA	100		139.0	2.4	
LINDE MEDICALE Srl	Arluno	ITA	100		30.7	3.8	
TOO Linde Gaz Kazakhstan	Almaty	KAZ	100	100	0.7	-0.1	
BOC Kenya Limited	Nairobi	KEN	65		13.7	1.4	
AFROX (LESOTHO) (PTY) LTD	Maseru	LSO	100		1.3	0.4	
LESOTHO OXYGEN COMPANY (PTY) LIMITED	Maseru	LSO	100		-	-	
AGA UAB	Vilnius	LTU	100		5.5	0.2	
AGA SIA	Riga	LVA	100		23.2	2.0	
LINDE GAS BITOLA DOOEL Skopje	Skopje	MKD	100		0.5	-	
Afrox Moçambique, Limitada	Maputo	MOZ	100		0.8	0.1	
BOC GASES MOZAMBIQUE LIMITED	Maputo	MOZ	100		-	-	
Linde Gases Moçambique, Limitada	Maputo	MOZ	100		-	-	
AFROX INTERNATIONAL LIMITED	Port Louis	MUS	100		-	-	
Afrox Malawi Limited	Blantyre	MWI	79		2.2	0.8	
IGL (PTY) LIMITED	Windhoek	NAM	100		6.1	2.7	
IGL PROPERTIES (PTY) LIMITED	Windhoek	NAM	100		0.2	0.1	
NAMOX Namibia (PTY) LIMITED	Windhoek	NAM	100		0.1	-	
REPTILE INVESTMENT NINE (PTY) LIMITED	Windhoek	NAM	100		-	0.1	
REPTILE INVESTMENT TEN (PTY) LIMITED	Windhoek	NAM	100		-0.1	-	
BOC Gases Nigeria Plc	Lagos	NGA	60		6.6	0.3	
B.V. Nederlandse Pijpleidingmaatschappij	Rotterdam	NLD	100		6.5	-1.8	
Linde Electronics B.V.	Schiedam	NLD	100		7.6	2.6	
Linde Gas Benelux B.V.	Schiedam	NLD	100		137.7	35.0	
Linde Gas Cryoservices B.V.	Hedel	NLD	100		1.7	1.4	
Linde Gas Therapeutics Benelux B.V.	Eindhoven	NLD	100		34.4	2.9	
Linde Homecare Benelux B.V.	Nuland	NLD	100		3.0	-2.2	
Naamloze Vennootschap Linde Gas Benelux	Schiedam	NLD	100		286.8	31.7	
OCAP CO2 B.V.	Schiedam	NLD	100		8.7	7.3	
AGA AS	Oslo	NOR	100		51.8	31.8	
Eurogaz-Gdynia Sp. z o.o.	Gdynia	POL	99		4.7	0.5	
LINDE GAZ POLSKA Spółka z o.o.	Krakow	POL	100	100	118.8	11.5	
LINDE GLOBAL SERVICES PORTUGAL, UNIPessoal LDA	Maia	PRT	100		0.5	-	
LINDE PORTUGAL, LDA	Lisbon	PRT	100		86.6	2.1	

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			in percent	in percent	in EUR m	in EUR m	
LINDE SAÚDE, LDA	Maia	PRT	100		27.8	1.1	
LINDE GAZ ROMANIA S.R.L.	Timișoara	ROU	100		184.5	24.2	
AO "Linde Gas Rus"	Balashikha	RUS	100	100	48.6	-0.9	
ОАО "Linde Uraltechgaz"	Yekaterinburg	RUS	74	74	10.6	1.4	
Linde Jubail Industrial Gases Factory LLC	Al-Khobar	SAU	100	84	153.1	24.3	
Saudi Industrial Gas Company	Al-Khobar	SAU	51		68.2	-4.4	
LINDE GAS SRBIJA Industrija gasova a.d. Bečej	Bečej	SRB	87	87	7.6	1.2	
Aries 94 s.r.o.	Bratislava	SVK	100		2.3	0.5	
Linde Gas k.s.	Bratislava	SVK	100		21.1	5.2	
LINDE PLIN d.o.o.	Celje	SVN	100	100	10.3	1.1	
AB Held	Lidingö	SWE	100		-	-	
AGA Fastighet Göteborg AB	Lidingö	SWE	100		-	-	
AGA Gas Aktiebolag	Lidingö	SWE	100		-	-	
AGA Industrial Gas Engineering Aktiebolag	Lidingö	SWE	100		-	-	
AGA International Investment Aktiebolag	Lidingö	SWE	100		-	-	
AGA Medical Aktiebolag	Lidingö	SWE	100		-	-	
Agatronic AB	Lidingö	SWE	100		0.1	-	
CRYO Aktiebolag	Gothenburg	SWE	100		-	-	
Flaskgascentralen i Malmö Aktiebolag	Svedala	SWE	100		-	-	
Linde Healthcare AB	Lidingö	SWE	100		18.7	2.2	
NORLIC AB	Lidingö	SWE	90		16.4	1.1	
Svenska Aktiebolaget Gasaccumulator	Lidingö	SWE	100		0.1	-	
Svets Gas Aktiebolag	Lidingö	SWE	100		-	-	
HANDIGAS SWAZILAND (PTY) LIMITED	Mbabane	SWZ	100		-	-	
SWAZI OXYGEN (PTY) LIMITED	Mbabane	SWZ	100		1.6	1.2	
Linde Gas Tunisie S.A.	Ben Arous	TUN	60	60	5.0	-0.3	
İsdemir Linde Gaz Ortaklığı A.Ş.	Dörtüyl	TUR	50		-	-	f, i
Linde Gaz Anonim Şirketi	Istanbul	TUR	100	100	43.8	-4.3	
BOC Tanzania Limited	Dar es Salaam	TZA	100		0.5	-0.1	
BOC Uganda Limited	Kampala	UGA	100		0.9	-	
PJSC "Linde Gaz Ukraina"	Dnipropetrovsk	UKR	100	96	-12.7	-5.6	
African Oxygen Limited	Johannesburg	ZAF	56		248.0	24.6	
AFROX (PROPRIETARY) LIMITED	Johannesburg	ZAF	100		-	-	
AFROX AFRICAN INVESTMENTS (PTY) LIMITED	Johannesburg	ZAF	100		-13.4	1.9	
AFROX EDUCATIONAL SERVICES (PROPRIETARY) LTD	Johannesburg	ZAF	100		-	-	
AFROX PROPERTIES (PTY) LIMITED	Johannesburg	ZAF	100		2.7	0.9	
AMALGAMATED GAS AND WELDING (PTY) LIMITED	Johannesburg	ZAF	100		-	-	
AMALGAMATED WELDING AND CUTTING HOLDINGS (PROPRIETARY) LIMITED	Johannesburg	ZAF	100		-	-	
AWCE (PROPRIETARY) LIMITED	Johannesburg	ZAF	100		-	-	
HUMAN PERFORMANCE SYSTEMS (PTY) LIMITED	Johannesburg	ZAF	100		-	-	
INDUSTRIAL RESEARCH AND DEVELOPMENT (PTY) LIMITED	Johannesburg	ZAF	100		-0.2	-	
ISAS TRUST	Johannesburg	ZAF	100		15.9	11.1	
NASIONALE SWEISWARE (PTY) LTD	Johannesburg	ZAF	100		-	-	
NICOWELD (PTY) LIMITED	Sandton	ZAF	100		-	-	
PPE-ISIZO (PTY) LIMITED	Johannesburg	ZAF	100		-	-	
SAFETY GAS (PROPRIETARY) LIMITED	Johannesburg	ZAF	100		-	-	

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			in percent	in percent	in EUR m	in EUR m	
AFROX ZAMBIA LIMITED	Ndola	ZMB	70		6.6	0.8	
BOC Zimbabwe (Private) Limited	Harare	ZWE	100		29.7	3.1	
<i>Asia/Pacific</i>							
AUSCOM HOLDINGS PTY LIMITED	North Ryde	AUS	100		0.9	-	
BOC CUSTOMER ENGINEERING PTY LTD	North Ryde	AUS	100		8.6	-	
BOC GASES FINANCE LIMITED	North Ryde	AUS	100		18.0	67.2	
BOC GROUP PTY LIMITED	North Ryde	AUS	100		-3.0	-	
BOC Limited	North Ryde	AUS	100		305.4	90.7	
BOGGY CREEK PTY LIMITED	North Ryde	AUS	100		5.0	0.5	
ELGAS AUTOGAS PTY LIMITED	North Ryde	AUS	100		-11.3	-	
ELGAS LIMITED	North Ryde	AUS	100		223.4	70.0	
ELGAS RETICULATION PTY LIMITED	North Ryde	AUS	100		5.1	0.6	
FLEXIHIRE PTY. LTD.	North Ryde	AUS	100		19.2	1.0	
PACIFIC ENGINEERING SUPPLIES PTY LIMITED	North Ryde	AUS	100		-1.4	-	
SOUTH PACIFIC WELDING GROUP PTY LIMITED	North Ryde	AUS	100		20.5	0.3	
TIAMONT PTY LIMITED	North Ryde	AUS	100		5.7	0.6	
UNIGAS JOINT VENTURE PARTNERSHIP	Mulgrave	AUS	100		22.7	1.1	
UNIGAS TRANSPORT FUELS PTY LTD	North Ryde	AUS	100		0.2	-	
Linde Bangladesh Limited	Dhaka	BGD	60		38.3	10.4	
Anhui JuLan Industrial Gases Co., Ltd.	Lu'an	CHN	100		1.2	-0.5	
ASIA UNION (SHANGHAI) ELECTRONIC CHEMICAL COMPANY LIMITED	Shanghai	CHN	100		-	-	
AUECC Shanghai	Shanghai	CHN	100		2.3	-0.3	
AUECC Shanghai Co. Ltd.	Shanghai	CHN	100		14.4	-1.5	
BOC (China) Holdings Co., Ltd.	Shanghai	CHN	100		191.5	19.9	
BOC Gases (Nanjing) Company Limited	Nanjing	CHN	100		7.1	0.1	
BOC Gases (Suzhou) Co., Ltd.	Suzhou	CHN	100		53.5	0.6	
BOC Gases (Tianjin) Company Limited	Tianjin	CHN	100		7.3	-3.9	
BOCLH Industrial Gases (Chengdu) Co., Ltd	Chengdu	CHN	100		16.5	0.4	
BOCLH Industrial Gases (DaLian) Co., Ltd.	Dalian	CHN	100		22.7	9.4	
BOCLH Industrial Gases (Shanghai) Co., Ltd.	Shanghai	CHN	100		11.9	-0.7	
BOCLH Industrial Gases (Songjiang) Co., Ltd.	Shanghai	CHN	100		4.9	4.2	
BOCLH Industrial Gases (Suzhou) Co., Ltd.	Suzhou	CHN	100		36.1	3.1	
BOCLH Industrial Gases (Waigaoqiao) Co., Ltd.	Shanghai	CHN	100		1.5	0.8	
BOCLH Industrial Gases (Xiamen) Co., Ltd.	Xiamen	CHN	100		6.9	-1.2	
BOC-TISCO GASES CO., Ltd	Taiyuan	CHN	50		135.8	29.0	f, i
Dalian Xizhong Island Linde Industrial Gases Co., Ltd.	Dalian	CHN	70		0.1	-	
Fuzhou Linde Lienhwa Gases Co., Ltd	Fuqing	CHN	100		10.4	-0.4	
Guangkong Industrial Gases Company Limited	Guangzhou	CHN	50		36.9	-2.5	f, i
Guangzhou GISE Gases Co., Ltd.	Guangzhou	CHN	50		36.3	5.1	f, i
Guangzhou Pearl River Industrial Gases Company Limited	Guangzhou	CHN	50		6.9	-0.2	f, i
Jianyang Linde Medical Gases Company Limited	Jianyang	CHN	100		1.5	0.1	
Linde (Quanzhou) Carbon Dioxide Co. Ltd.	Quanzhou	CHN	100		1.2	-0.3	
Linde Carbonic (Wuhu) Company Ltd.	Wuhu	CHN	60		3.1	-0.7	i
Linde Carbonic Company Ltd., Shanghai	Shanghai	CHN	60	46	10.0	-1.0	i
Linde Dahua (Dalian) Gases Co., Ltd	Dalian	CHN	50		32.4	-0.2	f, i
Linde Electronics & Specialty Gases (Suzhou) Co Ltd.	Suzhou	CHN	100	100	3.6	-1.4	
Linde Gas Ningbo Ltd.	Ningbo	CHN	100		120.1	2.3	

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Linde Gas Shenzhen Ltd.	Shenzhen	CHN	100		4.6	-0.5	
Linde Gas Southeast (Xiamen) Ltd.	Xiamen	CHN	100		3.5	0.5	
Linde Gas Xiamen Ltd.	Xiamen	CHN	100	100	37.1	-0.6	
Linde Gas Zhenhai Ltd.	Ningbo	CHN	100		5.5	1.4	
Linde Gases (Changzhou) Company Limited	Changzhou	CHN	100		11.1	-2.4	
Linde Gases (Chengdu) Co., Ltd.	Chengdu	CHN	100		12.2	0.7	
Linde Gases (Fushun) Co., Ltd.	Fushun	CHN	100		1.6	-0.2	
Linde Gases (Hefei) Co., Ltd.	Hefei	CHN	100		7.0	-0.7	
Linde Gases (Huizhou) Co., Ltd.	Huizhou	CHN	100		1.1	-	
Linde Gases (Langfang) Co., Ltd.	Langfang	CHN	100		12.5	0.7	
Linde Gases (Meishan) Co., Ltd.	Meishan	CHN	100		-0.5	-12.0	
Linde Gases (Nanjing) Company Limited	Nanjing	CHN	100		-4.7	-1.7	
Linde Gases (Shanghai) Co., Ltd.	Shanghai	CHN	100		18.9	1.1	
Linde Gases (Suzhou) Company Limited	Suzhou	CHN	100		10.1	0.3	
Linde Gases (Xuzhou) Company Limited	Xuzhou	CHN	100		24.1	0.7	
Linde Gases (Yantai) Co., Ltd.	Yantai	CHN	90		40.5	-5.2	
Linde Gases (Zhangzhou) Co., Ltd.	Zhangzhou	CHN	100		17.8	1.9	
Linde Gases Daxie Company Limited	Ningbo	CHN	100		13.9	2.0	
Linde GISE Gas (Shenzhen) Co., Ltd	Shenzhen	CHN	50		12.4	1.1	f, i
Linde Huachang (Zhangjiagang) Gas Co. Ltd.	Zhangjiagang	CHN	75		5.7	0.9	i
Linde Lienhwa Gases (Beijing) Co., Ltd.	Beijing	CHN	100		16.0	1.1	
Linde Lienhwa Gases (Wuhan) Co., Ltd	Wuhan	CHN	100		0.7	-1.7	
Linde Nanjing Chemical Industrial Park Gases Co., Ltd.	Nanjing	CHN	100		7.7	-0.3	
Linde Qiangsheng Gases (Nanjing) Co., Ltd.	Nanjing	CHN	100		0.1	-0.3	
Ma'anshan BOC-Ma Steel Gases Company Limited	Ma'anshan	CHN	50		94.9	21.4	f, i
Shanghai BOC Huayang Carbon Dioxide Co., Ltd.	Shanghai	CHN	80		-0.1	-0.2	
Shanghai BOC Industrial Gases Company Limited	Shanghai	CHN	100		0.9	-2.5	
Shanghai HuaLin Industrial Gases Co. Ltd.	Shanghai	CHN	50		94.7	25.3	f, i
Shanghai Linhua Gas Transportation Co., Ltd.	Shanghai	CHN	100		0.7	-	
Shenzhen Feiyong Industrial Gases Company Limited	Shenzhen	CHN	90		1.0	-0.3	
Shenzhen South China Industrial Gases Co. Ltd.	Shenzhen	CHN	50		2.5	-1.2	f, i
ZHENJIANG XINHUA INDUSTRIAL GASES CO., LTD.	Zhenjiang	CHN	100		0.1	-0.1	
HKO DEVELOPMENT COMPANY LIMITED	Kowloon	HKG	100		-0.1	-	
LIEN HWA INDUSTRIAL GASES (HK) LIMITED	Wan Chai	HKG	100		-1.3	-	c
Linde Gas (H.K.) Limited	Hong Kong	HKG	100	100	418.7	-30.0	
Linde GISE Gases (Hong Kong) Company Limited	Hong Kong	HKG	50		-	-	f, i
Linde HKO Limited	Hong Kong	HKG	100		105.0	18.7	
NEW SINO GASES COMPANY LIMITED	Tai Po	HKG	100		1.3	1.0	
P.T. Gresik Gases Indonesia	Jakarta	IDN	93		11.3	-1.1	
P.T. Gresik Power Indonesia	Jakarta	IDN	92		0.6	-5.4	
P.T. Townsville Welding Supplies	Jakarta	IDN	100		-	-	
PT. LINDE INDONESIA	Jakarta	IDN	100		29.6	-3.9	
BELLARY OXYGEN COMPANY PRIVATE LIMITED	Bellary	IND	50		16.0	1.9	f, i
LINDE INDIA LIMITED	Kolkata	IND	75		186.0	-0.3	
Linde Korea Co., Ltd.	Pohang	KOR	100		341.5	31.6	
PS Chem Co., Ltd.	South Gyeongsang Province	KOR	100		7.1	0.9	
PSG Co., Ltd.	Busan	KOR	51		34.5	4.4	i

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			in percent	in percent	in EUR m	in EUR m	
Sam Kwang Gas Tech Co., Ltd.	Seoul	KOR	100		5.3	1.4	
Ceylon Oxygen Ltd.	Colombo	LKA	100	100	20.3	1.1	
DAYAMOX SDN BHD	Petaling Jaya	MYS	100		-	-	
Linde EOX Sdn. Bhd.	Petaling Jaya	MYS	100		20.4	-1.5	
Linde Gas Products Malaysia Sdn. Bhd.	Petaling Jaya	MYS	100	100	23.2	1.1	
LINDE INDUSTRIAL GASES (MALAYSIA) SDN. BHD.	Petaling Jaya	MYS	80	80	7.8	-	
LINDE MALAYSIA HOLDINGS BERHAD	Petaling Jaya	MYS	100		86.4	29.2	
LINDE MALAYSIA SDN. BHD.	Petaling Jaya	MYS	100		137.5	25.8	
LINDE ROC SDN. BHD.	Petaling Jaya	MYS	100		0.6	0.2	
LINDE WELDING PRODUCTS SDN. BHD.	Petaling Jaya	MYS	100		0.6	-	
BOC LIMITED	Auckland	NZL	100		54.3	25.6	
BOC NEW ZEALAND HOLDINGS LIMITED	Auckland	NZL	100		35.9	22.0	
ELGAS LIMITED	Auckland	NZL	100		22.4	3.8	
SOUTH PACIFIC WELDING GROUP (NZ) LIMITED	Auckland	NZL	100		0.1	-	
Linde Pakistan Limited	Karachi	PAK	60		16.5	1.9	
BATAAN INDUSTRIAL GASES INC	Pasig	PHL	100		0.7	-0.1	
BOC (PHILS.) HOLDINGS, INC.	Pasig	PHL	100		20.3	-	
CHATSWOOD INC	Makati	PHL	62		-	-	c, e
CIGC CORPORATION	Pasig	PHL	100		1.4	-0.2	
CRYO INDUSTRIAL GASES, INC	Pasig	PHL	100		0.5	-	
DAVAO OXYGEN CORPORATION	Mandaue	PHL	100		-	-	
GRANDPLAINS PROPERTIES, INC	Pasig	PHL	40		2.5	0.1	f, i
LINDE PHILIPPINES (SOUTH), INC.	Mandaue	PHL	100		26.9	3.2	
LINDE PHILIPPINES, INC.	Pasig	PHL	100		28.5	0.1	
ROYAL SOUTHMEADOWS, INC	Mandaue	PHL	40		1.0	0.1	f, i
BOC Papua New Guinea Limited	Lae	PNG	74		27.5	1.3	
Linde Gas Asia Pte Ltd	Singapore	SGP	100		-3.6	-13.4	
Linde Gas Singapore Pte. Ltd.	Singapore	SGP	100	100	34.2	6.4	
LINDE TREASURY ASIA PACIFIC PTE.LTD.	Singapore	SGP	100		0.5	0.1	
BOC GASES SOLOMON ISLANDS LIMITED	Honiara	SLB	100		3.9	0.2	
KTPV (THAILAND) LIMITED	Chachoengsao	THA	100		13.0	-	
Linde (Thailand) Public Company Limited	Samut Prakan	THA	100		256.0	28.1	
Linde Air Chemicals Limited	Samut Prakan	THA	99		39.7	9.1	
Linde HyCO Limited	Samut Prakan	THA	100		22.9	0.3	
MIG Production Company Limited	Samut Prakan	THA	54		69.4	10.2	
RAYONG ACETYLENE LIMITED	Samut Prakan	THA	87		2.9	-	
SKTY (Thailand) Limited	Chachoengsao	THA	100		-114.0	-1.0	
T.I.G. TRADING LIMITED	Samut Prakan	THA	100		5.2	0.1	
ASIA UNION ELECTRONIC CHEMICAL CORPORATION	Taipei	TWN	100		48.0	2.4	
CONFEDERATE TECHNOLOGY COMPANY LIMITED	Taichung	TWN	89		10.6	1.7	c
FAR EASTERN INDUSTRIAL GASES COMPANY LIMITED	Kaohsiung	TWN	55		9.8	1.2	c
LIEN CHIA INDUSTRIAL GASES COMPANY LIMITED	Chiayi	TWN	100		0.1	-	c
LIEN CHUAN INDUSTRIAL GASES COMPANY LIMITED	Zhongli	TWN	100		0.2	0.1	c
LIEN FUNG PRECISION TECHNOLOGY DEVELOPMENT CO., LTD	Taichung	TWN	100		4.0	0.4	c
LIEN HWA COMMONWEALTH CORPORATION	Taipei	TWN	100		2.5	1.3	c
LIEN HWA LOX CRYOGENIC EQUIPMENT CORPORATION	Taipei	TWN	89		3.0	0.5	c
LIEN JIAN LPG COMPANY LIMITED	Su'ao	TWN	60		0.3	-	c

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LIEN SHENG INDUSTRIAL GASES COMPANY LIMITED	Hsinchu	TWN	100		0.2	0.1	c
LIEN TONG GASES COMPANY LIMITED	Kaohsiung	TWN	55		0.1	-	c
LIEN YANG INDUSTRIAL GASES COMPANY LIMITED	Yilan	TWN	100		0.7	0.3	c
LIEN YI LPG COMPANY LIMITED	Taoyuan	TWN	60		2.1	0.1	c
LIENHWA UNITED LPG COMPANY LIMITED	Taipei	TWN	56		9.3	0.5	c
LINDE LIENHWA INDUSTRIAL GASES CO. LTD.	Taipei	TWN	50		306.2	68.0	c, f, i
LUCK STREAM Co., Ltd.	Kaohsiung	TWN	100	100	2.0	-0.2	
UNITED INDUSTRIAL GASES COMPANY LIMITED	Hsinchu	TWN	55		152.0	41.6	c
YUAN RONG INDUSTRIAL GASES COMPANY LIMITED	Taipei	TWN	60		12.6	1.3	c
AUECC (BVI) HOLDINGS LIMITED	Tortola	VGB	100		26.4	-0.3	d
BOC LIENHWA (BVI) HOLDING Co., Ltd.	Tortola	VGB	100		133.4	-0.2	
KEY PROOF INVESTMENTS LIMITED	Tortola	VGB	100		1.6	-	
PURE QUALITY TECHNOLOGY LIMITED	Tortola	VGB	100		-	-	c
SHINE SKY INTERNATIONAL COMPANY LIMITED	Tortola	VGB	100		26.4	-0.3	d
SKY WALKER GROUP LIMITED	Tortola	VGB	100		2.0	-	c
Linde Gas Vietnam Limited	Bà Rịa	VNM	100	100	3.6	0.3	
Linde Vietnam Limited Company	Bà Rịa	VNM	100		31.2	-0.1	
<i>Americas</i>							
BOC GASES ARUBA N.V.	Santa Cruz	ABW	100		3.6	0.1	
Grupo Linde Gas Argentina S.A.	Buenos Aires	ARG	100	70	29.3	4.3	
Linde Salud S.A.	Buenos Aires	ARG	100	90	1.5	0.4	
The Hydrogen Company of Paraguana Ltd.	Hamilton	BMU	100		35.8	5.7	
Linde Gases Ltda.	Barueri	BRA	100		164.2	-8.1	
LINDE-BOC GASES LIMITADA	Barueri	BRA	100		12.2	1.4	
Cen-Alta Welding Supplies Ltd.	Calgary	CAN	100		-	-	
BOC de Chile S.A.	Providencia	CHL	100		7.3	-0.3	
Linde Gas Chile S.A.	Santiago	CHL	100		134.9	1.1	
Spectra Gases (Shanghai) Trading Co., LTD.	Shanghai	CHN	100		4.3	2.1	
Linde Colombia S.A.	Bogotá	COL	100		81.8	-0.3	
REMEO Medical Services S.A.S.	Bogotá	COL	100		0.2	0.1	
Linde Gas Curaçao N.V.	Willemstad	CUW	100		3.5	0.4	
LINDE GAS DOMINICANA, S.R.L.	Santo Domingo	DOM	100		8.0	2.4	
Agua y Gas de Sillunchi S.A.	Quito	ECU	100		1.1	0.1	
Linde Ecuador S.A.	Quito	ECU	100		71.1	-4.9	
Spectra Gases Limited	Guildford	GBR	100		1.0	-	
BOC GASES DE MEXICO, S.A. DE C.V.	Mexico City	MEX	100		-	-	
Compañía de Nitrógeno de Cantarell, S.A. de C.V.	Santa Fe	MEX	100		-45.4	94.8	
Compania de Operaciones de Nitrogeno, S.A. de C.V.	Santa Fe	MEX	100		5.8	2.5	c
SERVICIOS DE OPERACIONES DE NITROGENO, S.A. DE C.V.	Santa Fe	MEX	100		1.3	-	c
Linde Gas Perú S.A.	Callao	PER	100		12.4	-0.4	
Linde Gas Puerto Rico, Inc.	Cataño	PRI	100		-2.0	-2.0	
AGA S.A.	Montevideo	URY	100		13.1	0.5	
East Coast Oxygen Company	Bethlehem	USA	50		7.9	-1.4	f, i
Holox Inc.	Norcross	USA	100		-	-	
LAG Methanol LLC	Wilmington	USA	100		-	-	

COMPANIES INCLUDED IN THE GROUP FINANCIAL STATEMENTS (IN ACCORDANCE WITH IFRS 10)

	Registered office	Country	Participating interest <i>in percent</i>	Thereof Linde AG <i>in percent</i>	Equity <i>in EUR m</i>	Profit/loss for the year <i>in EUR m</i>	Note
Lincare (Consolidated financial statements) including:					959.6	178.3	
1536502 Ontario Inc.	Hamilton	USA	100				h
AHP Alliance of Columbia	Columbia	USA	100				h
AHP Delmarva, LLP	Brentwood	USA	50				h
AHP Home Care Alliance of Gainesville	Gainesville	USA	100				h
AHP Home Care Alliance of Tennessee	Brentwood	USA	100				h
AHP Home Care Alliance of Virginia	Richmond	USA	100				h
AHP Home Medical Equipment Partnership of Texas	Dallas	USA	100				h
AHP Knoxville Partnership	Knoxville	USA	100				h
AHP-MHR Home Care, LLP	Omaha	USA	50				h
ALPHA RESPIRATORY INC.	Wilmington	USA	100				h
American HomePatient Arkansas Ventures, Inc.	Dover	USA	100				h
American HomePatient Consumer, Inc.	Wilmington	USA	100				h
American HomePatient Delaware Ventures, Inc.	Wilmington	USA	100				h
American HomePatient of Kingstree, LLC	Kingstree	USA	100				h
American HomePatient of New York, Inc.	Brentwood	USA	100				h
American HomePatient of Sanford, LLC	Sanford	USA	50				h
American HomePatient of Texas, LLC	Brentwood	USA	100				h
American HomePatient of Unifour, LLC	Hickory	USA	50				h
American HomePatient Tennessee Ventures, Inc.	Dover	USA	100				h
American HomePatient Ventures, Inc.	Brentwood	USA	100				h
AMERICAN HOMEPATIENT, INC.	Wilmington	USA	100				h
American HomePatient, Inc.	Brentwood	USA	100				h
American HomePatient, Inc. (f/k/a AHP NV Corp.)	Carson City	USA	100				h
Baptist Ventures – AHP Homecare Alliance of Montgomery	Brentwood	USA	50				h
Blue Ridge Home Care	Brentwood	USA	50				h
CARING RESPONDERS LLC	Wilmington	USA	100				h
Catholic Health Home Respiratory, LLC	Williamsville	USA	50				h
Coastal Home Care	Brentwood	USA	70				h
Colorado Home Medical Equipment Alliance, LLC	Denver	USA	100				h
Complete Infusion Services, LLC	Bingham Farms	USA	100				h
CONVACARE SERVICES, INC.	Bloomington	USA	100				h
CPAP SUPPLY USA LLC	Wilmington	USA	100				h
Designated Companies, Inc.	Albany	USA	100				h
DME Supply USA, LLC	Wilmington	USA	100				h
Gamma Acquisition Inc.	Wilmington	USA	100				h
HCS TENS Services LLC	Wilmington	USA	100				h
HEALTH CARE SOLUTIONS AT HOME INC.	Wilmington	USA	100				h
HealthCare Solutions IV LLC	Wilmington	USA	100				h
HOME-CARE EQUIPMENT NETWORK INC.	Plantation	USA	100				h
Homelink Home Health Care	Brentwood	USA	50				h
LINCARE EQUIPMENT LLC	Wilmington	USA	100				h
LINCARE HOLDINGS INC.	Wilmington	USA	100				h
LINCARE INC.	Wilmington	USA	100				h
LINCARE LEASING LLC	Wilmington	USA	100				h
LINCARE LICENSING INC.	Wilmington	USA	100				h
LINCARE OF CANADA ACQUISITIONS INC.	Wilmington	USA	100				h
LINCARE OF CANADA INC.	Toronto	USA	100				h
LINCARE OF NEW YORK, INC.	New York	USA	100				h



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LINCARE PHARMACY SERVICES INC.	Wilmington	USA	100				h
LINCARE PROCUREMENT INC.	Wilmington	USA	100				h
LINCARE PULMONARY REHAB MANAGEMENT, LLC	Wilmington	USA	100				h
Lincare Pulmonary Rehab Services of Missouri, LLC	Clayton	USA	100				h
LINCARE PULMONARY REHAB SERVICES OF OHIO, LLC	Cleveland	USA	100				h
Linde RSS LLC	Wilmington	USA	100				h
mdINR, LLC	Wilmington	USA	100				h
MED 4 HOME INC.	Wilmington	USA	100				h
MediLink HomeCare, Inc.	Trenton	USA	100				h
MEDIMATICS LLC	Wilmington	USA	100				h
MidSouth Distribution, Inc.	Texarkana	USA	100				h
MRB ACQUISITION CORP.	Plantation	USA	100				h
Northeast Pennsylvania Alliance, LLC	Hazleton	USA	100				h
Northwest Washington Alliance, LLC	Kirkland	USA	100				h
OCT Pharmacy, L.L.C.	Bingham Farms	USA	100				h
OPTIGEN, INC.	Plantation	USA	100				h
Patient Support Services, Inc.	Texarkana	USA	100				h
Piedmont Medical Equipment	Brentwood	USA	50				h
Promed Home Care	Brentwood	USA	70				h
PULMOREHAB LLC	Wilmington	USA	100				h
Raytel Cardiac Services, Inc.	Wilmington	USA	100				h
Shared Care – West Branch, LLC	West Branch	USA	50				h
Sleepcair, Inc.	Topeka	USA	100				h
The National Medical Rentals, Inc.	Little Rock	USA	100				h
Total Home Care of East Alabama, L.L.C.	Tuscaloosa	USA	100				h
Linde Canada Investments LLC	Wilmington	USA	100		14.9	0.3	
Linde Delaware Investments Inc.	Wilmington	USA	100		301.0	50.1	
Linde Energy Services, Inc	Wilmington	USA	100		-0.4	-	
Linde Gas North America LLC	Wilmington	USA	100		992.3	195.7	
Linde Merchant Production, Inc	Wilmington	USA	100		148.1	-0.7	
Linde North America, Inc.	Wilmington	USA	100	<0.1	-326.5	0.4	
AGA Gas C.A.	Caracas	VEN	100		1.4	-0.7	g
BOC GASES DE VENEZUELA, C.A.	Caracas	VEN	100		-0.2	-0.3	
PRODUCTORA DE GAS CARBONICO SA	Caracas	VEN	100		-0.1	-0.1	
General Gases of the Virgin Islands, Inc.	Saint Croix	VIR	100		5.4	0.2	
<b>Engineering Division</b>							
Linde Engineering Middle East LLC	Abu Dhabi	ARE	49	29	21.5	15.0	f
Linde (Australia) Pty. Ltd.	North Ryde	AUS	100	100	1.1	-	
Cryostar do Brasil Equipamentos Rotativos & Criogenicos Ltda.	Vinhedo	BRA	100	90	-0.9	0.2	
Linde Process Plants Canada Inc.	Calgary	CAN	100		-25.7	-16.3	
Arboliana Holding AG	Pfungen	CHE	100		4.4	-0.1	
Bertrams Heatec AG in Liquidation	Pratteln	CHE	100		1.7	-1.4	
Linde Kryotechnik AG	Pfungen	CHE	100		11.0	4.2	
Cryostar Cryogenic Equipments (Hangzhou) Co. Ltd.	Hangzhou	CHN	100	100	14.0	1.7	
Hangzhou Linde International Trading Co., Ltd.	Hangzhou	CHN	100		0.4	-	
Linde Engineering (Dalian) Co. Ltd.	Dalian	CHN	56	56	51.2	-0.9	
Linde Engineering (Hangzhou) Co. Ltd.	Hangzhou	CHN	75	75	42.3	10.2	

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
Selas-Linde GmbH	Pullach	DEU	100	100	10.5	-	a
CRYOSTAR SAS	Hésingue	FRA	100		50.3	27.9	
LINDE CRYOPLANTS LIMITED	Guildford	GBR	100		6.8	1.2	
Linde Engineering India Private Limited	New Delhi	IND	100	100	34.5	10.1	
LPM, S.A. de C.V.	Mexico City	MEX	100	90	8.8	-	
Linde Engineering (Malaysia) Sdn. Bhd.	Kuala Lumpur	MYS	100	100	1.6	-2.1	
OOO "Linde Engineering Rus"	Samara	RUS	100	100	5.1	4.6	
Linde Arabian Contracting Co., Ltd.	Riyadh	SAU	100	90	9.7	-16.0	
Cryostar Singapore Pte Ltd	Singapore	SGP	100	100	12.5	5.4	
Cryostar USA LLC	Wilmington	USA	100		-0.5	-1.9	
Linde Engineering North America Inc.	Wilmington	USA	100		2.6	-30.3	
Linde Engineering South Africa (Pty) Ltd.	Johannesburg	ZAF	100	100	15.7	0.4	
<b>Other Activities</b>							
BOC AIP Limited Partnership	North Ryde	AUS	100		895.7	97.2	
BOC Australia Pty Limited	North Ryde	AUS	100		66.0	17.9	
Gist Österreich GmbH	Wallern an der Trattnach	AUT	100		-0.1	-0.1	c
Linde Österreich Holding GmbH	Stadl-Paura	AUT	100	62	752.2	119.3	
Gist Belgium BVBA	Lochristi	BEL	100		-	-	c
PRIESTLEY COMPANY LIMITED	Hamilton	BMU	100		23.1	-	
Linde Canada Limited	Mississauga	CAN	100		446.6	25.9	
Linde Holding AG	Dagmersellen	CHE	100	100	30.1	10.4	
GISTRANS Czech Republic s.r.o.	Olomouc	CZE	100		5.5	1.4	
Commercium Immobilien- und Beteiligungs-GmbH	Munich	DEU	100	100	2,238.8	-	a
Linde Hydrogen Concepts GmbH	Pullach	DEU	100		8.3	-	a
Linde US Beteiligungs GmbH	Munich	DEU	100		505.5	28.4	
LINDE INVESTMENTS FINLAND OY	Helsinki	FIN	100		0.9	-0.1	
GIST FRANCE S.A.R.L.	Garges-lès-Gonesse	FRA	100		0.2	-	c
Linde Holdings SAS	Saint-Priest	FRA	100		101.7	37.8	
The Boc Group S.A.S.	Hésingue	FRA	100		66.4	34.9	
AIRCO COATING TECHNOLOGY LIMITED	Guildford	GBR	100		3.3	-	
BOC CHILE HOLDINGS LIMITED	Guildford	GBR	100		41.1	-	
BOC DISTRIBUTION SERVICES LIMITED	Guildford	GBR	100		0.1	-	
BOC DUTCH FINANCE	Guildford	GBR	100		0.6	-	
BOC GASES LIMITED	Guildford	GBR	100		39.1	0.1	
BOC HELEX	Guildford	GBR	100		5,686.1	173.3	
BOC HOLDINGS	Guildford	GBR	100		4,266.5	147.1	
BOC INVESTMENT HOLDINGS LIMITED	Guildford	GBR	100		711.9	77.3	
BOC INVESTMENTS (LUXEMBOURG) LIMITED	Guildford	GBR	100		-	-	
BOC INVESTMENTS NO.1 LIMITED	Guildford	GBR	100		178.2	19.4	
BOC INVESTMENTS NO.5	Guildford	GBR	100		74.7	59.5	
BOC INVESTMENTS NO.7	Guildford	GBR	100		-	-	
BOC JAPAN	Guildford	GBR	100		-	-	
BOC KOREA HOLDINGS LIMITED	Guildford	GBR	100		108.2	-0.8	
BOC LIMITED	Guildford	GBR	100		675.8	192.4	
BOC LUXEMBOURG FINANCE	Guildford	GBR	100		-	-	
BOC NETHERLANDS HOLDINGS LIMITED	Guildford	GBR	100		536.7	160.0	

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BOC NOMINEES LIMITED	Guildford	GBR	100		-	-	
BOC PENSION SCHEME TRUSTEES LIMITED	Guildford	GBR	100		-	-	
BOC PENSIONS LIMITED	Guildford	GBR	100		-	-	
BOC RSP TRUSTEES LIMITED	Guildford	GBR	100		-	-	
BOC SEPS TRUSTEES LIMITED	Guildford	GBR	100		-	-	
BOC SERVICES LIMITED	Guildford	GBR	100		-	-	
BRITISH INDUSTRIAL GASES LIMITED	Guildford	GBR	100		-	-	
CRYOSTAR LIMITED	Guildford	GBR	100		-	-	
EHVIL DISSENTIENTS LIMITED	Guildford	GBR	100		-	-	
G.L BAKER (TRANSPORT) LIMITED	Guildford	GBR	100		269.4	5.6	
GIST LIMITED	Guildford	GBR	100		149.2	20.9	
HANDIGAS LIMITED	Guildford	GBR	100		15.9	-	
HICK, HARGREAVES AND COMPANY LIMITED	Guildford	GBR	100		-	-	
INDONESIA POWER HOLDINGS LIMITED	Guildford	GBR	100		14.4	-	
LANSING GROUP LIMITED	Guildford	GBR	100	100	10.2	-	
LINDE CANADA HOLDINGS LIMITED	Guildford	GBR	100		-217.5	13.8	
LINDE CRYOGENICS LIMITED	Guildford	GBR	100		0.8	62.2	
LINDE FINANCE	Guildford	GBR	100		-	-	
LINDE INVESTMENTS No.1 LIMITED	Guildford	GBR	100		3,834.4	-	
LINDE NORTH AMERICA HOLDINGS LIMITED	Guildford	GBR	100		1,387.1	2.1	
LINDE UK HOLDINGS LIMITED	Guildford	GBR	100	85	14,779.1	327.0	
LINDE UK PRIVATE MEDICAL TRUSTEES LIMITED	Guildford	GBR	100		-	-	c
MEDISHIELD	Guildford	GBR	100		0.4	-	
MEDISPEED	Guildford	GBR	100		309.0	8.1	
RRS (FEBRUARY 2004) LIMITED	Guildford	GBR	100		-0.4	-	
SPALDING HAULAGE LIMITED	Guildford	GBR	100		3.7	0.7	
STORESHIELD LIMITED	Guildford	GBR	100		326.5	0.2	
THE BOC GROUP LIMITED	Guildford	GBR	100		9,748.8	642.4	
THE BRITISH OXYGEN COMPANY LIMITED	Guildford	GBR	100		0.1	-	
TRANSHIELD	Guildford	GBR	100		16.0	0.1	
WELDING PRODUCTS HOLDINGS LIMITED	Guildford	GBR	100		10.3	-	
BOC NO. 1 LIMITED	Saint Peter Port	GGY	100		1.2	-	
BOC NO. 2 LIMITED	Saint Peter Port	GGY	100		0.3	-	
BRITISH OXYGEN (HONG KONG) LIMITED	Hong Kong	HKG	100		9.8	-	
Linde Global Support Services Private Limited	Kolkata	IND	100		0.8	0.9	
BOC INVESTMENT HOLDING COMPANY (IRELAND) LIMITED	Dublin	IRL	100		14.3	-	
BOC Investments Ireland Unlimited Company	Dublin	IRL	100		3.2	-	
Gist Distribution Limited	Dublin	IRL	100		10.7	3.8	
PRIESTLEY DUBLIN REINSURANCE COMPANY LIMITED	Dublin	IRL	100		35.8	0.4	
ALBOC (JERSEY) LIMITED	Saint Helier	JEY	100		1.7	12.2	
BOC AUSTRALIAN FINANCE LIMITED	Saint Helier	JEY	100		3.6	-	
BOC PREFERENCE LIMITED	Saint Helier	JEY	100		64.8	-	
BOC Europe Holdings B.V.	Dongen	NLD	100		409.4	12.9	
Gist Containers B.V.	Bleiswijk	NLD	100		-2.1	0.1	c
Gist Forwarding B.V.	Bleiswijk	NLD	100		-	-	c
Gist Holding B.V.	Bleiswijk	NLD	100		-3.5	-2.3	c
Gist Nederland B.V.	Bleiswijk	NLD	100		-8.4	-0.5	c
Linde Finance B.V.	Amsterdam	NLD	100		292.9	103.4	

COMPANIES INCLUDED IN THE GROUP FINANCIAL STATEMENTS (IN ACCORDANCE WITH IFRS 10)

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
Linde Holdings Netherlands B.V.	Schiedam	NLD	100	100	1,112.0	54.8	
The BOC Group B.V.	Dongen	NLD	100		44.6	12.7	
Linde Holdings New Zealand Limited	Auckland	NZL	100		2.2	22.0	
BOC GIST INC	Makati	PHL	100		0.1	-	
Linde Global IT Services s.r.o.	Bratislava	SVK	100		0.8	0.1	
AGA Aktiebolag	Lidingö	SWE	100		1,460.6	-44.5	
BOC Intressenter AB	Helsingborg	SWE	100		35.7	-0.1	
LindeGas Holding Sweden AB	Lidingö	SWE	100	100	3,746.4	21.3	
DeVine Products, Inc.	Wilmington	USA	100		0.3	-1.0	
Gist USA LLC	Wilmington	USA	100		2.3	0.1	
Linde Holdings, LLC	Wilmington	USA	100		70.0	9.5	
LINDE INVESTMENTS LLC	Wilmington	USA	100		1,336.2	-	
Linde LLC	Wilmington	USA	100		669.0	162.4	

COMPANIES INCLUDED IN THE GROUP FINANCIAL STATEMENTS ON A LINE-BY-LINE BASIS (IN ACCORDANCE WITH IFRS 11)

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
<b>Gases Division</b>							
<b>EMEA</b>							
Adnoc Linde Industrial Gases Co.Limited (Elixir)	Abu Dhabi	ARE	49	49	245.7	39.7	
OOO "Linde Azot Togliatti"	Tolyatti	RUS	50		47.8	-0.9	
<b>Asia/Pacific</b>							
BOC-SPC Gases Co., Ltd.	Shanghai	CHN	50		19.5	3.5	
Chongqing Linde-SVW Gas Co., Ltd.	Chongqing	CHN	50		14.6	1.7	
Zibo BOC-QILU Gases Co., Ltd.	Zibo	CHN	50		28.5	7.1	

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## INVESTMENTS ACCOUNTED FOR USING THE EQUITY METHOD (IN ACCORDANCE WITH IAS 28)

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	Registered office	Country	Participating interest in percent	Thereof Linde AG in percent	Equity in EUR m	Profit/loss for the year in EUR m	Note
<b>Gases Division</b>							
<b>EMEA</b>							
Krakovská s.r.o.	Nový Malín	CZE	37		0.3	-	c, d
Plyny Jehlár s.r.o.	Břest	CZE	34		0.2	-	c, d
H <sub>2</sub> Mobility Deutschland GmbH & Co. KG	Berlin	DEU	28	28	25.6	-1.2	b, c
HELISON PRODUCTION S.p.A.	Skikda	DZA	51	51	33.0	-2.9	b, f
Messer Algeria SPA	Algiers	DZA	40		3.7	1.7	b, c
Oxígeno de Sagunto, S.L.	Barcelona	ESP	50		13.0	0.1	c, e
Oy Innogas Ab	Kulloo	FIN	50		1.3	-	b, c
Parhaat Yhdessä koulutusyhdistys ry	Vantaa	FIN	25		0.2	-	c, d
LIDA S.A.S.	Saint-Quentin-Fallavier	FRA	22		0.2	0.2	b, c, e
LIMES SAS	Saint-Herblain	FRA	50		4.4	0.1	b, c
Helison Marketing Limited	Saint Helier	GBR	51		17.9	5.9	b, f
Company for Production of Carbon Dioxide Geli DOO Skopje	Skopje	MKD	50	50	0.6	-	b
LES GAZ INDUSTRIELS LIMITED	Port Louis	MUS	38		6.4	0.3	e
ENERGY SOLUTIONS (PTY) LIMITED	Windhoek	NAM	26		-	-	e
Tjeldbergodden Luftgassfabrikk DA	Aure	NOR	38		9.8	5.0	b, c, d
<b>Asia/Pacific</b>							
Beijing Fudong Gas Products Co., Ltd.	Beijing	CHN	60		0.8	-	b, f
Dalian BOC Carbon Dioxide Co. Ltd.	Dalian	CHN	50		1.0	-	b
Fujian Linde-FPCL Gases Co., Ltd.	Quanzhou	CHN	50		80.6	9.4	b
Linde Carbonic Co. Ltd., Tangshan	Qian'an	CHN	80		0.4	-0.2	b, f
Linde-Huayi (Chongqing) Gases Co., Ltd.	Chongqing	CHN	20		-36.8	-3.5	
Nanjing BOC-YPG Gases CO., LTD.	Nanjing	CHN	50		75.8	13.8	b
INDUSTRIAL GASES SOLUTIONS SDN BHD	Petaling Jaya	MYS	50		2.6	0.9	b
Kulim Industrial Gases Sdn. Bhd.	Kuala Lumpur	MYS	50		23.9	3.5	b, c, e
PENGERANG GAS SOLUTIONS SDN. BHD.	Kuala Lumpur	MYS	49		8.7	-0.1	b
Map Ta Phut Industrial Gases Company Limited	Bangkok	THA	40		8.7	1.6	b, c
Blue Ocean Industrial Gases Co., Ltd.	Taipei	TWN	50		30.5	2.0	b, c, e
LIEN RUEY ENERGY CORPORATION LIMITED	Taipei	TWN	50		0.3	-	b, c
<b>Americas</b>							
CLIFFSIDE HELIUM, L.L.C.	Wilmington	USA	26		0.1	-	b
Cliffside Refiners, L.P.	Wilmington	USA	27		5.6	2.0	b
High Mountain Fuels, LLC	Wilmington	USA	50		10.2	0.1	b
Hydrochlor LLC	Wilmington	USA	50		10.0	-1.7	b
Spectra Investors, LLC	Branchburg	USA	49		2.2	-	b
<b>Other Activities</b>							
CAPTURE POWER LIMITED	London	GBR	33		-2.8	9.5	b

NON-CONSOLIDATED SUBSIDIARIES

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	Registered office	Country	Participating interest in percent	Thereof Linde AG in percent	Equity in EUR m	Profit/loss for the year in EUR m	Note
<b>Gases Division</b>							
<b>EMEA</b>							
AUTOGAS (BOTSWANA) (PROPRIETARY) LIMITED	Gaborone	BWA	100		N/A	N/A	
CUULSTICK VENTURES (PTY) LIMITED	Gaborone	BWA	100		N/A	N/A	
Linde Schweiz AG	Dagmersellen	CHE	100		0.1	-	c
Blue LNG Beteiligungsgesellschaft mbH	Hamburg	DEU	90		-	-	c
Blue LNG GmbH & Co. KG	Hamburg	DEU	90		-	-	c
Gasbus Beteiligungsgesellschaft mbH	Hamburg	DEU	100		-	-	c
Light Blue LNG GmbH	Munich	DEU	100		-	-	c
LINDE SPAIN SA	Barcelona	ESP	100	100	0.1	-	c
COTSWOLD INDUSTRIAL & WELDING SUPPLIES LIMITED	Guildford	GBR	100		-	-	c, d
ELECTROCHEM LIMITED	Guildford	GBR	100	100	-	-	c
GAS & EQUIPMENT LIMITED	Guildford	GBR	100		-1.8	-	c
HYDROGEN SUPPLIES LIMITED	Guildford	GBR	100	100	0.9	-	c, d
INTELLEMETRICS LIMITED	Glasgow	GBR	100		-	-	c, d
LEENGATE INDUSTRIAL & WELDING SUPPLIES (CANNOCK) LIMITED	Guildford	GBR	100		0.2	-	c, d
Linde Gas Jordan Ltd	Zarqa	JOR	100		0.5	-0.1	c
EAST AFRICAN OXYGEN LIMITED	Nairobi	KEN	100		-	-	c
KS Luftgassproduksjon	Oslo	NOR	100		-	-	c
Norgas AS	Oslo	NOR	100		0.1	-	c
OOO "Linde Gas Helium Rus"	Moscow	RUS	100	100	-	-	c
Linde Technické Plyny spol. s r.o.	Bratislava	SVK	100		0.1	-	c
Nynäshamns Gasterminal AB	Lidingö	SWE	100		-	-	c
<b>Asia/Pacific</b>							
BOC SOLUTIONS PTY LIMITED	North Ryde	AUS	100		-	-	c
ELGAS SUPERANNUATION PTY. LTD.	North Ryde	AUS	100		-	-	c
BANGLADESH OXYGEN LIMITED	Dhaka	BGD	100		-	-	d
BOC Bangladesh Limited	Dhaka	BGD	100		-	-	d
Guangzhou GNIG Industrial Gases Company Limited	Guangzhou	CHN	60		-	-	c
Linde Lienhwa China Holding Co., Ltd.	Shanghai	CHN	100		-	-	c
BOC PAKISTAN (PVT.) LIMITED	Karachi	PAK	100		-	-	d
CIGI PROPERTIES, INC.	Mandaluyong	PHL	100		-	-	c
LIEN XIANG ENERGY CORPORATION LIMITED	Tainan	TWN	50		0.9	-	c
<b>Americas</b>							
177470 CANADA INC.	Mississauga	CAN	100		1.0	-	c
177472 CANADA INC.	Mississauga	CAN	100		2.5	-	c
44001 ONTARIO LIMITED	Mississauga	CAN	100		1.2	-	c
<b>Engineering Division</b>							
Linde Engenharia Do Brasil Ltda.	Barueri	BRA	100	90	0.5	-0.7	c
Linde Engineering Korea Ltd.	Seoul	KOR	100	100	1.1	0.1	c
OOO "CRYOSTAR RUS"	Saint Petersburg	RUS	100	100	0.2	-	c
LINDE SAUDI ARABIA LLC	Jubail	SAU	65	65	0.3	-0.2	c
Linde Engineering Taiwan Ltd.	Taipei	TWN	100		0.8	-	c

NOTES TO THE  
GROUP FINANCIAL STATEMENTS  
OTHER INFORMATION

## NON-CONSOLIDATED SUBSIDIARIES

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
<b>Other Activities</b>							
Linde Australia Holdings Pty Limited	North Ryde	AUS	100	100	-	-	c
GLPS TRUSTEES LIMITED	Guildford	GBR	100		-	-	c
Hong Kong Oxygen & Acetylene Company Limited	Kowloon	HKG	100		0.7	-	c
AIRCO PROPERTIES INC	Wilmington	USA	100		N/A	N/A	
SELOX, INC	Nashville	USA	100		N/A	N/A	

## OTHER INVESTMENTS (NOT CONSOLIDATED)

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	Registered office	Country	Participating interest	Thereof Linde AG	Equity	Profit/loss for the year	Note
			in percent	in percent	in EUR m	in EUR m	
<b>Gases Division</b>							
<b>EMEA</b>							
Linde Vítkovice a.s.	Ostrava	CZE	50		8.7	-0.6	c, d
TKD TrockenEis und Kohlensäure Distribution GmbH	Fraunberg	DEU	50	50	0.4	0.1	c
AGA Føroyar Sp/f	Tórshavn	DNK	50		0.4	0.2	c, d
AGA HiQ Center Aps	Hillerød	DNK	50		0.5	0.1	c, d
Carbuero del Cinca S.A.	Barcelona	ESP	20		5.4	-0.9	c, d
Oxígeno de Andalucía, S.L.	San Roque	ESP	49		0.1	-	b, c, d
QUÍMICA BÁSICA, S. A.	Barcelona	ESP	33		1.4	-	b, c, d
Fuel Cell Boat B.V.	Amsterdam	NLD	20		-	-	c
TASCO ESTATES LIMITED	Dar es Salaam	TZA	20		N/A	N/A	
INDUSTRIAL GAS DISTRIBUTOR HOLDINGS (PTY) LIMITED	Johannesburg	ZAF	26		-	-	
<b>Asia/Pacific</b>							
Guangzhou GNC Carbon Dioxide Company Ltd.	Guangzhou	CHN	50		-	-	b, c
HON CHEN Enterprise Co., Ltd.	Kaohsiung	TWN	50		0.7	-	c
SUN HSIN LPG COMPANY LIMITED	Yunlin	TWN	50		0.5	0.2	c
TUNG BAO CORPORATION	New Taipei	TWN	33		24.7	-1.0	c
<b>Americas</b>							
TOMOE TRANSTECH SPECIALTY GASES PTE LTD	Singapore	SGP	25		6.9	0.5	b, c
<b>Other Activities</b>							
InfraLeuna GmbH	Leuna	DEU	25	25	344.9	4.8	c, d

## Key:

- a Profit and loss transfer agreement.  
b Joint venture  
c Local GAAP.  
d Figures from financial years prior to 2016.  
e Financial year differs from the calendar year due to local circumstances.  
f Consolidation method differs from percentage of shares held due to de facto control or a contractual agreement.  
g The distribution of dividend for 2008 is subject to foreign exchange restrictions.  
h No preparation of individual financial statements under commercial law.  
i Distribution of dividend is subject to the approval of non-controlling interests.  
N/A = No financial data available.

## [40] Events after the balance sheet date

No other significant events occurred for The Linde Group between the balance sheet date and 21 February 2017.

On 21 February 2017, the Executive Board of Linde AG released the consolidated financial statements for submission to the Supervisory Board. It is the responsibility of the Supervisory Board to examine the consolidated financial statements and to state whether it approves them. The Group financial statements, the statutory financial statements of Linde AG and the annual report are published on 9 March 2017 after they have been approved at the Supervisory Board meeting on 8 March 2017.

MUNICH, 21 FEBRUARY 2017

PROFESSOR DR ALDO BELLONI  
[CHIEF EXECUTIVE OFFICER]

BERND EULITZ  
[MEMBER OF THE EXECUTIVE  
BOARD]

DR CHRISTIAN BRUCH  
[MEMBER OF THE EXECUTIVE  
BOARD]

SANJIV LAMBA  
[MEMBER OF THE EXECUTIVE  
BOARD]



# INDEPENDENT AUDITOR'S REPORT

To Linde Aktiengesellschaft, Munich

## Report on the Audit of the Consolidated Financial Statements

### *Opinion on the Consolidated Financial Statements*

We have audited the consolidated financial statements of Linde Aktiengesellschaft, Munich, and its subsidiaries (the Group), which comprise the group statement of financial position as at December 31, 2016, group statement of profit or loss and group statement of comprehensive income, statement of changes in group equity and group statement of cash flows for the fiscal year from January 1, 2016, to December 31, 2016, and notes to the consolidated financial statements, including a summary of significant accounting policies.

Pursuant to Section 322 (3) sentence 1 half sentence 2 HGB ("Handelsgesetzbuch": German Commercial Code), we state that, in our opinion, based on our knowledge obtained in the audit, the accompanying consolidated financial statements comply in all material respects with IFRS as adopted by the EU and the supplementary requirements of German commercial law pursuant to Section 315a (1) of the German Commercial Code [HGB], and give a true and fair view of the net assets and financial position of the Group as at December 31, 2016 as well as the results of operations for the fiscal year from January 1, 2016, to December 31, 2016, in accordance with these requirements.

Pursuant to Section 322 (3) sentence 1 half sentence 1 HGB, we state that our audit of the consolidated financial statements has not led to any reservations with respect to the propriety of the consolidated financial statements.

### *Basis for Opinion on the Consolidated Financial Statements*

We conducted our audit in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors [IDW] as well

as in supplementary compliance with International Standards on Auditing (ISA). Our responsibilities under those standards and additional guidelines are further described in the "Auditor's Responsibilities for the Audit of the Consolidated Financial Statements" section of our report. We are independent of the Group in accordance with the requirements of German commercial law and the rules of professional conduct, and we have fulfilled our other ethical responsibilities applicable in Germany in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### *Key Audit Matters*

Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements for the fiscal year from January 1, 2016 to December 31, 2016. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, but we do not provide a separate opinion on these matters.

### *Recoverability of Goodwill*

With respect to the accounting policies applied, we refer to Note 5 in the notes to the consolidated financial statements. Information on the impairment test performed can be found in Note 12 of the notes to the consolidated financial statements. Information concerning the discontinued operation is provided in Note 19 of the notes to the consolidated financial statements.

### *The financial statements risk*

As of 31 December 2016, goodwill amounted to EUR 11,405 million (31 December 2015: EUR 11,604 million). The item represents a significant portion of Linde's total assets.

The recoverability of goodwill is monitored separately for the Engineering Division, the Other Activities segment as well as for the three reportable segments of the Gases Division (Europe Middle East Africa "EMEA", Asia Pacific "APAC" and America "Americas"). Overall, the monitoring of the recoverability of goodwill is performed at the level of the operating segments of Linde AG. The impairment test was carried out in the fourth quarter of 2016 based on the data as of 30 September 2016. The goodwill assigned to the Other Activities segment relates entirely to the "Gist" Division. As of 31 December 2016, the "Gist" Division was classified as a discontinued operation in accordance with IFRS 5 with the assets and liabilities of the disposal group presented separately.

The goodwill impairment test is complex and is based on a number of discretionary factors. These include especially the expected business development of the Linde Group for the next five years, which takes into consideration, among other aspects, the estimates

of the international economic research institutes for the sales markets and the planned order intake in the Engineering Division. Additional factors are the assumed long-term growth rates and the underlying individual segment and region-specific costs of capital. As a result of the impairment test on the basis of the data at 30 September 2016, an impairment loss was not identified. Due to an increased risk-free interest rate, the costs of capital changed as of 31 December 2016. Based on a sensitivity analysis, Linde determined that even with the changed costs of capital an impairment loss did not occur.

The disposal group as a whole was measured as of 31 December 2016 at fair value less costs to sell. Thus, an impairment loss in the amount of EUR 75 million was recognised for the goodwill assigned to the discontinued operation.

With respect to the "Gist" Division, the risk exists that the criteria for the classification as a discontinued operation (IFRS 5) are not fulfilled and also that the impairment in connection with the valuation at fair value less costs of disposal has not been estimated in an adequate amount.

Furthermore, it is necessary to ensure the completeness and appropriateness of the disclosures in the notes. This also includes the disclosures regarding sensitivities in connection with the change in significant assumptions which underlie the valuation.

### ***Our response***

We assessed the appropriateness of the significant assumptions and the discretionary decisions as well as the valuation method for the impairment test with the involvement of our valuation specialists. In connection with the assessment of the underlying corporate planning, we discussed the assumptions regarding the development of the sales markets with the individuals responsible for the planning. We analysed the adherence to the planning based on, among other data, the information from previous periods as well as current interim results. Since even small changes in the cost-of-capital rate can have significant effects on the result of the goodwill impairment test, we compared the cost of capital utilized with the discount rates of a group of comparable companies (peer group). In order to address the existing forecast uncertainty, we investigated the potential changes in the cost of capital and the long-term rate of growth respectively, on the relevant valuations (sensitivity analysis) in that we calculated alternative scenarios and compared these with valuations of Linde.

Finally, we assessed whether the disclosures regarding the recoverability of goodwill are appropriate. This also comprises the audit of the adequacy of the disclosures in the notes according to IAS 36.134 (f) regarding sensitivities in connection with changes to significant assumptions underlying the valuation.

With respect to the classification of the "Gist" Division as a discontinued operation, we audited the compliance with the conditions according to IFRS 5 and the resulting effects on the assets and liabilities as well as the appropriateness of the disclosures relating to the accounting as a discontinued operation.

### ***Our observations***

The assumptions and discretionary decisions underlying the impairment test of goodwill are within an acceptable range and are overall balanced. The disclosures are complete and appropriate.

The classification of the "Gist" Division as a discontinued operation and the impairment loss recognized on goodwill in connection with the accounting at fair value less costs of disposal are appropriate.

The disclosures regarding the discontinued operation are complete and appropriate.

### **Accounting for restructuring measures**

With respect to the accounting policies applied, we refer to Note 5 in the notes to the consolidated financial statements. Information on the restructuring measures can be found in the Group Management Report in the section "Business Review of the Linde Group".

### ***The financial statements risk***

In the reporting period, Linde initiated a group-wide efficiency program. Linde expects restructuring expenses for this program in the amount of approximately EUR 400 million until the end of 2017.

Up until 31 December 2016, group-wide restructuring expenses were recognised in the amount of EUR 116 million.

In our view, this matter is of particular importance since the recognition and measurement of the significant restructuring expenses are based to a large extent on estimates and assumptions of the legal representatives. Furthermore, the risk exists that provisions for restructuring measures are being recognised which do not fulfil or do not entirely fulfil the recognition criteria according to IAS 37.

**Our response**

For Group companies selected on a risk-oriented basis, we have assessed the recognition criteria of IAS 37 for initiated or already partially implemented restructuring measures. In particular, we have evaluated whether in each case a formal restructuring plan exists and, with respect to the affected employees, a valid expectation has been raised that the restructuring measures will be carried out by the start of implementation of the restructuring measures or the announcement of its main features to those affected by it. Regarding the valuation, we have assessed the most important assumptions (especially underlying personnel expenses and acceptance rates) underlying the valuation.

**Our observations**

The recognition criteria for restructuring provisions are fulfilled as of 31 December 2016. The estimates and assumptions made by the legal representatives in connection with the valuation are appropriate, adequately documented and substantiated.

**Recovery of trade receivables**

With respect to the accounting policies applied, we refer to Note 5 in the notes to the consolidated financial statements. Information on the aging structure can be found under Note 16 of the notes to the consolidated financial statements.

**The financial statements risk**

Trade receivables as of 31 December 2016 amount to EUR 2,757 million (31 December 2015: EUR 2,726 million).

The assessment of a valuation allowance is based above all on the aging structure of the trade receivables. In addition, estimates and assessments of the creditworthiness of the respective customers, country-specific risks and current economic developments, as well as an analysis of historical bad debts are considered.

Valuation allowances on trade receivables which result from sales from the healthcare business are not recognised in the Linde Group as allowances based on the aging structure. Instead, the valuation allowances are determined based on a retrospective review taking into consideration historical bad debts, respectively the rates of the actual recovery. The background for this relates to the special customer features of public and private health care providers and the processes for the billing and verification associated with these customers. Accordingly, features, for example whether receivables are undergoing a routine review by the customer (private and government health care providers), are taken into consideration.

The assessment of the recovery, especially in the case of trade receivables from sales in the healthcare business, is particularly subject to discretion and depends on the assessment and assumptions of the

management. Accordingly, the risk exists that valuation allowances on trade receivables were not recognised in an adequate amount.

**Our response**

We have evaluated significant assumptions and discretionary decisions in connection with the assessment of the recovery of trade receivables. The assessment of the Linde Group concerning the creditworthiness of the respective customers as well as the current economic development was evaluated at the level of the operating companies. In this context, we have also analysed the aging structure of the trade receivables. For the trade receivables that result from sales from the healthcare business, we have also analysed alternative scenarios in connection with the determination of a potential need for a valuation allowance. These alternatives related in particular to different periods in connection with the determination of the rates and the consideration of the receivables which are undergoing a review by the customer.

**Our observations**

The assumptions and discretionary decisions underlying the evaluation of the recovery of trade receivables are overall balanced.

The valuation allowances were recognised to an appropriate extent.

**Revenue recognition in the Engineering Division**

With respect to the accounting policies applied, we refer to Note 5 in the notes to the consolidated financial statements.

**The financial statements risk**

A significant portion of the revenues and results in the area of the Linde Engineering Division relates to long-term construction contracts and is recognised according to the stage of completion of the individual projects. In this context, in particular the determination of the respective percentage of completion requires estimates and discretionary decisions which, among other factors, are based on continually updated planning. For potential loss projects, expected cost overruns are also to be estimated and recognised as expected losses.

Due to the outlined estimation uncertainty, the risk exists that revenues and results from the long-term construction contracts are not appropriately assigned to the financial years and that expected losses are not identified on a timely basis.

***Our response***

We evaluated the appropriateness of the significant estimates and discretionary decisions which were made by the Linde Engineering Division with regard to the long-term construction contracts. Our focus, among other aspects, was on the assessment of the underlying cost reports of the contracts, the accounting system and the assessments of the individuals responsible for the projects. We audited the effectiveness of the internal controls for the long-term construction contracts and, based on risk considerations, performed test of details for selected projects. We discussed these with management of the Linde Engineering Division and satisfied ourselves as to the stage of completion in individual cases on site visits. For the technical engineering assessment of the stage of completion and project risks, we used the work of an external expert.

We further assessed whether the required disclosures are appropriate according to IAS 11.

***Our observations***

The assumptions and discretionary decisions underlying the long-term contract processing are overall balanced. We identified no material errors in connection with the determination of the revenues and results from the long-term construction.

The disclosures are complete and appropriate.

***Other Information***

The Executive Board is responsible for the other information. The other information comprises the Annual Report, except for the consolidated financial statements, the Group Management Report combined with the Management Report of Linde Aktiengesellschaft, Munich, and our auditor's report thereon.

Our audit opinion on the consolidated financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information, and doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

***Responsibilities of the Executive Board and the Supervisory Board for the Consolidated Financial Statements***

The Executive Board is responsible for the preparation of the consolidated financial statements which comply with IFRS as adopted by the EU and the supplementary requirements of German commercial law pursuant to Section 315a (1) HGB, and give a true and fair view of the net assets, financial position and results of operations of the Group in accordance with these requirements. Furthermore, the Executive Board is responsible for such internal control as it determines necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Executive Board is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Executive Board either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the consolidated financial statements.

***Auditor's Responsibilities for the Audit of the Consolidated Financial Statements***

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion on the consolidated financial statements. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors [IDW] as well as in supplementary compliance with ISA will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Section 317 HGB and German generally accepted standards for the audit of financial statements promulgated by the German Institute of Public Auditors [IDW] as well as in supplementary compliance with ISA, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Executive Board.
- Conclude on the appropriateness of the Executive Board's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or the Group Management Report or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that the consolidated financial statements give a true and fair view of the net assets and financial position as well as the results of operations of the Group in accordance with IFRS as adopted by the EU and the supplementary requirements of German commercial law pursuant to Section 315a (1) HGB.
- Obtain sufficient and appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Supervisory Board, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our report on the audit of the consolidated financial statements unless law or regulation precludes public disclosure about the matter.

## Other Legal and Regulatory Requirements

### *Report on the Audit of the Group Management Report* **Opinion on the Group Management Report**

We have audited the Group Management Report of Linde Aktiengesellschaft combined with the Management Report of the company ("Group Management Report") for the fiscal year from January 1, 2016 to December 31, 2016.

In our opinion, based on our knowledge obtained in the audit, the accompanying Group Management Report as a whole provides a suitable view of the Group's position. In all material respects, the Group Management Report is consistent with the consolidated financial statements, complies with the German statutory requirements and suitably presents the opportunities and risks of future development.

Our audit has not led to any reservations with respect to the propriety of the Group Management Report.

**Basis for Opinion on the Group Management Report**

We conducted our audit in accordance with Section 317 (2) HGB and German generally accepted standards for the audit of management reports promulgated by the German Institute of Public Auditors [IDW]. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

**Responsibilities of the Executive Board and the Supervisory Board for the Group Management Report**

The Executive Board is responsible for the preparation of the Group Management Report, which as a whole provides a suitable view of the Group's position, is consistent with the consolidated financial statements, complies with the German statutory requirements and suitably presents the opportunities and risks of future development. Furthermore, the Executive Board is responsible for such arrangements and measures (systems) as it determines are necessary to enable the preparation of the Group Management Report in compliance with the requirements of German commercial law applicable pursuant to Section 315a (1) HGB and for providing sufficient and appropriate evidence for the statements in the Group Management Report.

The Supervisory Board is responsible for overseeing the Group's financial reporting process for the preparation of the Group Management Report.

**Auditor's Responsibilities for the Audit of the Group Management Report**

Our objectives are to obtain reasonable assurance whether the Group Management Report as a whole provides a suitable view of the Group's position, as well as, in all material respects, is consistent with the consolidated financial statements and our knowledge obtained in the audit, complies with the German statutory requirements, and suitably presents the opportunities and risks of future development and to issue an auditor's report that includes our opinion on the Group Management Report.

As part of an audit, we examine the Group Management Report in accordance with Section 317 (2) HGB and German generally accepted standards for the audit of management reports promulgated by the IDW, we draw attention to the following:

- The audit of the Group Management Report is integrated into the audit of the consolidated financial statements.
- We obtain an understanding of the arrangements and measures (systems) relevant to the audit of the Group Management Report in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of these arrangements and measures (systems).

- We perform audit procedures on the prospective information presented by the Executive Board in the Group Management Report. Based on sufficient and appropriate audit evidence, we hereby, in particular, trace the significant assumptions used by the Executive Board as a basis for the prospective information and assess the reasonableness of these assumptions as well as the appropriate derivation of the prospective information from these assumptions. We are not issuing a separate opinion on the prospective information or the underlying assumptions. There is a significant, unavoidable risk that future events will deviate significantly from the prospective information.
- We are also not issuing a separate opinion on individual disclosures in the Group Management Report; our opinion covers the Group Management Report as a whole.

**Responsible Auditor**

The engagement partner on the audit resulting in this independent auditor's report is Harald v. Heynitz.

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K P M G A G  
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G E S E L L S C H A F T

[ O R I G I N A L G E R M A N V E R S I O N  
S I G N E D B Y : ]

B E C K E R W I R T S C H A F T S - P R Ü F E R [ G E R M A N P U B L I C A U D I T O R ]	V . H E Y N I T Z W I R T S C H A F T S - P R Ü F E R [ G E R M A N P U B L I C A U D I T O R ]
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# Further Information

## SECTION 4

# ABOUT THIS REPORT

(PART OF THE  
COMBINED MANAGEMENT REPORT)

## *Preparation of the management report*

This management report has been prepared in accordance with the rules set out in German Accounting Standards DRS 20 and DRS 17. DRS 20 governs the preparation of management reports for German capital market based holding companies which are required by § 315a of the German Commercial Code (HGB) to prepare a Group management report in accordance with § 315 HGB. DRS 17 governs the reporting of the remuneration of the members of executive bodies of groups. Linde also follows the German Corporate Governance Code presented by the "Government Commission on the German Corporate Governance Code" and as amended from time to time. Linde's Group management report has been combined with the management report of Linde AG in accordance with § 315 (3) HGB in conjunction with § 298 (3) HGB. The management report is therefore referred to as the combined management report. The annual financial statements of Linde AG, which are prepared in accordance with the provisions of the German Commercial Code (HGB), and the combined management report will be published simultaneously in the electronic German Federal Gazette (Bundesanzeiger). The information provided applies to both The Linde Group and Linde AG unless otherwise indicated. Sections containing information which relates only to Linde AG are clearly designated as such.

## *Sustainability reporting*

Linde publishes non-financial performance indicators and qualitative information on the subject of sustainable management in its Annual Report. The Corporate Responsibility (CR) Report provides supplementary detailed information on this topic. The Group complies with internationally recognised standards for sustainability reporting, such as the Global Reporting Initiative (GRI) guidelines and the requirements set out in the United Nations Global Compact. The current version of the Corporate Responsibility Report is available online at ► [WWW.LINDE.COM/CR-REPORT](http://WWW.LINDE.COM/CR-REPORT).



# RESPONSIBILITY STATEMENT

To the best of our knowledge, and in accordance with the applicable reporting principles, the consolidated financial statements give a true and fair view of the net assets, financial position and results of operations of the Group, and the combined management report includes a fair review of the development and performance of the business and the position of The Linde Group and of Linde AG, together with a description of the principal opportunities and risks associated with the expected development of The Linde Group and Linde AG.

MUNICH, 21 FEBRUARY 2017

LINDE AKTIENGESELLSCHAFT  
THE EXECUTIVE BOARD

PROFESSOR DR ALDO BELLONI  
[CHIEF EXECUTIVE OFFICER]

BERND EULITZ  
[MEMBER OF THE EXECUTIVE  
BOARD]

DR CHRISTIAN BRUCH  
[MEMBER OF THE EXECUTIVE  
BOARD]

SANJIV LAMBA  
[MEMBER OF THE EXECUTIVE  
BOARD]

# MANAGEMENT ORGANISATION

AS AT 14 FEBRUARY 2017

## MANAGEMENT ORGANISATION EXECUTIVE BOARD

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<i>Executive Board Member</i>	<i>Responsibilities</i>	<i>Corporate &amp; Support Functions</i>
Professor Dr Aldo Belloni, Chief Executive Office	Opportunity & Project Development, Americas segment, Global Governance Centre Healthcare, Gist, Finance/Controlling for the EMEA, Americas, Asia/Pacific segments <sup>1</sup>	Corporate Communications & Investor Relations, Corporate Internal Audit, Corporate Office, Corporate Strategy & Market Intelligence, Group Human Resources, Group Legal & Compliance, Group Information Services, Group Mergers & Acquisitions, SHEQ (Safety, Health, Environment, Quality), Group Accounting & Reporting <sup>1</sup> , Group Insurance <sup>1</sup> , Group Risk Management <sup>1</sup> , Group Tax <sup>1</sup> , Group Treasury <sup>1</sup> , Operational Finance <sup>1</sup> , Controlling & Investments <sup>1</sup> , Real Estate <sup>1</sup>
Dr Christian Bruch	Engineering Division	Technology & Innovation
Bernd Eulitz	EMEA segment, Global Governance Centres Deliver, Operations	Group Procurement
Sanjiv Lamba	Asia/Pacific segment, Global Governance Centres Merchant & Packaged Gases, Electronics, Global Gases Businesses Helium & Rare Gases	

<sup>1</sup> Led by Dr Sven Schneider as acting head.

## DIVISIONS

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<i>Gases Division</i>	<i>Engineering Division</i>	<i>Gist<sup>1</sup></i>
See diagram next page for organisation	Jürgen Nowicki	Martin Gwynn
	John van der Velden	
	Tilman Weide	

<sup>1</sup> Discontinued operation.

MANAGEMENT ORGANISATION

GASES DIVISION

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<i>EMEA segment (Europe, Middle East, Africa)</i>	<i>Americas segment</i>	<i>Asia/Pacific segment</i>
RBU Northern Europe Dr Andreas Opfermann	RBU Americas Pat Murphy	RBU East Asia Steven Fang
RBU Central Europe Olaf Reckenhofer	Finance/Financial Control Americas Jens Lühring	RBU South Asia & ASEAN Rob Hughes
RBU Southern Europe Arnold Coppin	Lincare Kristen Hoefer	RBU South Pacific John Evans
RBU Africa & UK Sue Graham Johnston		Finance/Financial Control Asia/Pacific Binod Patwari
RBU Middle East & Eastern Europe Elena Skvortsova		
RBU Healthcare Andrew Harvey		
Finance/Controlling EMEA Elisabeth Tyroller (acting)		

GLOBAL GOVERNANCE CENTRES

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GGC Merchant & Packaged Gases (liquefied gases & cylinder gas) Jens Waldeck	GGC Electronics (electronic gases) Andreas Weisheit	GGC Healthcare Urmi Richardson	GGC Operations Frank Gerhard Ruhland (acting)	GGC Deliver Andrew Smith (acting)
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GLOBAL FUNCTION

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Opportunity & Project Development Ernst Rost
Programme Manager Matthias von Plotho

CORPORATE & SUPPORT FUNCTIONS

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Corporate Communications & Investor Relations	Dr Harry Roegner
Corporate Internal Audit	Thomas Müller
Corporate Office	Andrea Reutershahn
Corporate Strategy & Market Intelligence	Holger Kirchner
Group Accounting & Reporting, Group Risk Management, Group Insurance, Real Estate	Björn Schneider
Group Human Resources	Werner Boekels
Group Information Services	Sandeep Sen
Group Legal & Compliance	Dr Christoph Hammerl
Group Mergers & Acquisitions	Christian Graf zu Ortenburg
Group Procurement	Christoph Clausen
Group Tax	Dr Wolfgang Salzberger
Group Treasury	Dr Sven Schneider
SHEQ (Safety, Health, Environment, Quality)	Solen Karavelioglu Hanisch
Operational Finance, Controlling & Investments	Michael Ullrich
Technology & Innovation	Dr Andreas Bröcker

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# FINANCIAL CALENDAR

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PRESS CONFERENCE ON  
THE ANNUAL RESULTS  
PUBLICATION OF THE GROUP  
FINANCIAL STATEMENTS  
9 March 2017  
Carl von Linde Haus, Munich,  
Germany

[ 2 ]  
INTERIM REPORT  
JANUARY TO MARCH 2017  
28 April 2017

[ 3 ]  
ANNUAL GENERAL MEETING  
2017  
10 May 2017, 10 a.m.  
International Congress Centre,  
Munich, Germany

[ 4 ]  
DIVIDEND PAYMENT  
15 May 2017

[ 5 ]  
ANNUAL GENERAL MEETING  
2018  
3 May 2018, 10 a.m.  
International Congress Centre,  
Munich, Germany

## STATEMENTS RELATING TO THE FUTURE

This Annual Report contains statements relating to the future which are based on the management's current estimates about future developments. These statements are not to be understood as guarantees that these expectations will prove to be true. The future development and the results actually achieved by The Linde Group and its affiliated companies are dependent on a number of risks and uncertainties and may therefore deviate significantly from the statements relating to the future. Linde has no plans to update its statements relating to the future, nor does it accept any obligation to do so.



### ***Additional information and where to find it***

Should Praxair, Inc. (“Praxair”) and Linde AG (“Linde”) proceed with the proposed business combination transaction, Praxair and Linde expect that a newly formed holding company (“New Holdco”) will file a Registration Statement on Form S-4 or Form F-4 with the U.S. Securities and Exchange Commission (“SEC”) that will include (1) a proxy statement of Praxair that will also constitute a prospectus for New Holdco and (2) an offering prospectus of New Holdco to be used in connection with New Holdco’s offer to acquire Linde shares held by U.S. holders. When available, Praxair will mail the proxy statement/prospectus to its stockholders in connection with the vote to approve the merger of Praxair and a wholly-owned subsidiary of New Holdco, and New Holdco will distribute the offering prospectus to Linde shareholders in the United States in connection with New Holdco’s offer to acquire all of the outstanding shares of Linde. Should Praxair and Linde proceed with the proposed business combination transaction, Praxair and Linde also expect that New Holdco will file an offer document with the German Federal Financial Supervisory Authority (Bundesanstalt fuer Finanzdienstleistungsaufsicht) (“BaFin”). There can be no assurance that a binding definitive agreement will be reached between Praxair and Linde, and the consummation of any binding transaction will be subject to regulatory approvals and other customary closing conditions.

**Investors and security holders are urged to read the proxy statement/prospectus and the offer document regarding the proposed business combination transaction and proposed offer if and when they become available because they will contain important information.**

You may obtain a free copy of the proxy statement/prospectus (if and when it becomes available) and other related documents filed by Praxair, Linde and New Holdco with the SEC on the SEC’s Web site at ► [WWW.SEC.GOV](http://WWW.SEC.GOV). The proxy statement/prospectus (if and when it becomes available) and other documents relating thereto may also be obtained for free by accessing Praxair’s Web site at ► [WWW.PRAXAIR.COM](http://WWW.PRAXAIR.COM). Following approval by the BaFin, the offer document will be made available at BaFin’s Web site at ► [WWW.BAFIN.DE](http://WWW.BAFIN.DE). The offer document (if and when it becomes available) and other documents relating thereto may also be obtained for free by accessing Linde’s Web site at ► [WWW.LINDE.COM](http://WWW.LINDE.COM).

This document is neither an offer to purchase nor a solicitation of an offer to sell shares of New Holdco, Praxair or Linde. The final terms and further provisions regarding the public offer will be disclosed in the offer document after the publication has been approved by the BaFin and in documents that will be filed with the

SEC. No money, securities or other consideration is being solicited, and, if sent in response to the information contained herein, will not be accepted. The information contained herein should not be considered as a recommendation that any person should subscribe for or purchase any securities.

No offering of securities shall be made except by means of a prospectus meeting the requirements of the U.S. Securities Act of 1933, as amended, and applicable European and German regulations. The distribution of this document may be restricted by law in certain jurisdictions and persons into whose possession any document or other information referred to herein come should inform themselves about and observe any such restrictions. Any failure to comply with these restrictions may constitute a violation of the securities laws of any such jurisdiction. No offering of securities will be made directly or indirectly, in or into any jurisdiction where to do so would be inconsistent with the laws of such jurisdiction.

### *Participants in solicitation*

Praxair, Linde, New Holdco and their respective directors and executive officers may be deemed to be participants in the solicitation of proxies from Praxair's stockholders in respect of the proposed business combination. Information regarding the persons who are, under the rules of the SEC, participants in the solicitation of the stockholders of Praxair in connection with the proposed transaction, including a description of their direct or indirect interests, by security holdings or otherwise, will be set forth in the proxy statement/prospectus if and when it is filed with the SEC. Information regarding the directors and executive officers of Praxair is contained in Praxair's Annual Report on Form 10-K for the year ended December 31, 2015 and its Proxy Statement on Schedule 14A, dated March 18, 2016, which are filed with the SEC and can be obtained free of charge from the sources indicated above.

### *Forward-looking statements*

This communication includes "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Forward-looking statements are based on our beliefs and assumptions on the basis of factors currently known to us. These forward-looking statements are identified by terms and phrases such as: anticipate, believe, intend, estimate, expect, continue, should, could, may, plan, project, predict, will, potential, forecast, and similar expressions. These forward-looking statements include, but are not limited to, statements regarding benefits of the proposed business combination, integration plans and expected synergies, and anticipated future growth, financial and operating performance and results. Forward-looking statements involve risks and uncertainties that may cause actual results to be materially different from the results predicted or expected. No assurance can be given that these forward-looking statements will prove accurate and correct, or that projected or anticipated future results will be achieved. Factors that could cause actual results to differ materially from those indicated in any forward-looking statement include, but are not limited to: the expected timing and likelihood of the entry into, or the completion of the contemplated business combination, including the timing, receipt and terms and conditions of any required governmental and regulatory approvals of the contemplated business combination that could reduce anticipated benefits or cause the parties not to enter into, or to abandon the transaction; the occurrence of any event, change or other circumstances that could give rise to the termination of the proposed business combination agreement; the ability to successfully complete the proposed business combination and the exchange offer; regulatory or other limitations imposed as a result of the proposed business combination; the success of the business following the

proposed business combination; the ability to successfully integrate the Praxair and Linde businesses; the possibility that Praxair stockholders may not approve the proposed business combination agreement or that the requisite number of Linde shares may not be tendered in the public offer; the risk that the parties may not be able to satisfy the conditions to closing of the proposed business combination in a timely manner or at all; risks related to disruption of management time from ongoing business operations due to the proposed business combination; the risk that the announcement or consummation of the proposed business combination could have adverse effects on the market price of Linde's or Praxair's common stock or the ability of Linde and Praxair to retain customers, retain or hire key personnel, maintain relationships with their respective suppliers and customers, and on their operating results and businesses generally; the risk that New Holdco may be unable to achieve expected synergies or that it may take longer or be more costly than expected to achieve those synergies; state, provincial, federal and foreign legislative and regulatory initiatives that affect cost and investment recovery, have an effect on rate structure, and affect the speed at and degree to which competition enters the industrial gas, engineering and healthcare industries; outcomes of litigation and regulatory investigations, proceedings or inquiries; the timing and extent of changes in commodity prices, interest rates and foreign currency exchange rates; general economic conditions, including the risk of a prolonged economic slowdown or decline, or the risk of delay in a recovery, which can affect the long-term demand for industrial gas, engineering and healthcare and related services; potential effects arising from terrorist attacks and any consequential or other hostilities; changes in environmental, safety and other laws and regulations; the development of alternative energy resources; results and costs of financing efforts, including the ability to obtain financing on favorable terms, which can be affected by various factors, including credit ratings and general market and economic conditions; increases in the cost of goods and services required to complete capital projects; the effects of accounting pronouncements issued periodically by accounting standard-setting bodies; conditions of the debt and capital markets; market acceptance of and continued demand for Linde's and Praxair's products and services; changes in tax laws, regulations or interpretations that could increase Praxair's, Linde's or New Holdco's consolidated tax liabilities; and such other factors as are set forth in Linde's annual and interim financial reports made publicly available and Praxair's and New Holdco's public filings made with the SEC from time to time, including but not limited to those described under the headings "Risk Factors" and "Forward-Looking Statements" in Praxair's Form 10-K for the fiscal year ended December 31, 2015, which are available via the

SEC's website at ► [WWW.SEC.GOV](http://WWW.SEC.GOV). The foregoing list of risk factors is not exhaustive. These risks, as well as other risks associated with the contemplated business combination, will be more fully discussed in the proxy statement/prospectus and the offering prospectus that will be included in the Registration Statement on Form S-4 or Form F-4 that will be filed with the SEC and in an offering document and/or any prospectuses or supplements to be filed with BaFin in connection with the contemplated business combination. In light of these risks, uncertainties and assumptions, the events described in the forward-looking statements might not occur or might occur to a different extent or at a different time than Linde, Praxair or New Holdco has described. All such factors are difficult to predict and beyond our control. All forward-looking statements included in this document are based upon information available to Linde, Praxair and New Holdco on the date hereof, and each of Linde, Praxair and New Holdco disclaims and does not undertake any obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

## FIVE-YEAR SUMMARY

		2012 adjusted <sup>1</sup>	2013	2014	2015	2016
<b>REVENUE FROM CONTINUING OPERATIONS</b>	<i>EUR m</i>	<b>15,833</b>	<b>16,655</b>	<b>17,047</b>	<b>17,345</b>	<b>16,948</b>
Germany	%	8.2	7.9	7.4	7.5	7.3
Abroad	%	91.8	92.1	92.6	92.5	92.7
<b>PROFIT FROM CONTINUING OPERATIONS</b>						
Operating profit <sup>2</sup>	<i>EUR m</i>	3,686	3,966	3,920	4,087	4,098
EBIT	<i>EUR m</i>	2,055	2,171	1,885	2,029	2,075
EBIT (before special items)	<i>EUR m</i>	2,055	2,171	2,180	2,221	2,201
Earnings before taxes (EBT)	<i>EUR m</i>	1,734	1,794	1,520	1,632	1,751
Profit for the year – attributable to Linde AG shareholders	<i>EUR m</i>	1,232	1,317	1,102	1,133	1,206
Earnings per share – diluted <sup>3</sup>	<i>EUR</i>	6.93	7.10	5.94	6.10	6.50
Earnings per share – diluted (before special items) <sup>3</sup>	<i>EUR</i>	6.93	7.10	7.13	6.82	7.00
Dividend	<i>EUR m</i>	500	500	585	640	687
Dividend per share	<i>EUR</i>	2.70	3.00	3.15	3.45	3.70
Number of shares outstanding (as at 31.12)	<i>in thou.</i>	185,189	185,588	185,638	185,638	185,638
<b>Asset structure</b>						
Intangible, tangible and financial assets	<i>EUR m</i>	25,971	25,184	26,453	27,445	26,911
Inventories	<i>EUR m</i>	1,112	1,088	1,155	1,241	1,231
Receivables <sup>4</sup>	<i>EUR m</i>	3,093	3,111	3,362	2,995	2,971
Cash, cash equivalents and securities	<i>EUR m</i>	2,108	1,348	1,658	1,838	1,594
Other assets	<i>EUR m</i>	2,013	2,018	1,797	1,828	2,482
Total assets	<i>EUR m</i>	34,297	32,749	34,425	35,347	35,189
<b>Capital structure</b>						
Equity	<i>EUR m</i>	13,658	13,586	14,267	15,449	15,480
Provisions	<i>EUR m</i>	2,613	2,381	2,769	2,687	3,230
Financial liabilities	<i>EUR m</i>	10,581	9,577	9,856	9,483	8,528
Other liabilities	<i>EUR m</i>	7,445	7,205	7,533	7,728	7,951
Total capital	<i>EUR m</i>	34,297	32,749	34,425	35,347	35,189
<b>STATEMENT OF CASH FLOWS (ONLY CONTINUING OPERATIONS)</b>						
Cash flow from operating activities	<i>EUR m</i>	2,664	3,144	3,001	3,583	3,400
<b>NUMBER OF EMPLOYEES AT 31.12. (ONLY CONTINUING OPERATIONS)</b>		<b>62,765</b>	<b>63,487</b>	<b>65,591</b>	<b>59,774</b>	<b>59,715</b>
Germany	%	12.1	12.3	12.3	13.4	13.1
Abroad	%	87.9	87.7	87.7	86.6	86.9
<b>KEY PERFORMANCE INDICATORS (ONLY CONTINUING OPERATIONS)</b>						
Capital expenditure	<i>EUR m</i>	2,038	2,268	1,954	2,036	2,004
Equity ratio	%	39.8	41.5	41.4	43.7	44.0
Return on capital employed (before special items)	%	10.2	9.7	9.5	9.5	9.4
EBIT return on sales	%	13.0	13.0	11.1	11.7	12.2
Cash flow from operating activities as a percentage of revenue	%	16.8	18.9	17.6	20.7	20.1

<sup>1</sup> Adjusted to reflect the effects of the first-time retrospective application of new/amended IFRS.

<sup>2</sup> EBIT (before special items) adjusted for the amortisation of intangible assets and the depreciation of tangible assets.

<sup>3</sup> Based on the weighted average number of shares outstanding.

<sup>4</sup> Incl. receivables from finance leases.

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## [ PUBLISHED BY ]

LINDE AG  
KLOSTERHOFSTRASSE 1  
80331 MUNICH  
GERMANY

## [ CONCEPT, DESIGN, PRODUCTION ]

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GERMANY

## [ TEXT ]

LINDE AG

## [ PHOTOGRAPHY, IMAGES ]

ANDREAS POHLMANN, MUNICH  
GERMANY

## [ CONTACT ]

LINDE AG  
KLOSTERHOFSTRASSE 1  
80331 MUNICH  
GERMANY

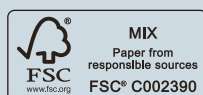
PHONE: +49.89.35757-01

FAX: +49.89.35757-1075

[WWW.LINDE.COM](http://WWW.LINDE.COM)

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COLORPLAN FABRIC  
WHITEFROST [COVER]

METAPAPER  
SMOOTH WHITE [CONTENT]

## [ COMMUNICATIONS ]

PHONE: +49.89.35757-1321

FAX: +49.89.35757-1398

[MEDIA@LINDE.COM](mailto:MEDIA@LINDE.COM)

## [ INVESTOR RELATIONS ]

PHONE: +49.89.35757-1321

FAX: +49.89.35757-1398

[INVESTORRELATIONS@LINDE.COM](mailto:INVESTORRELATIONS@LINDE.COM)

## [ CONTACT DETAILS FOR NOTIFICATION OF VOTING RIGHTS ]

FAX: +49.89.35757-1007

The Annual Report of the Linde Group is available in both German and English and can also be downloaded from our website at ► [WWW.LINDE.COM](http://WWW.LINDE.COM). Supplementary information about Linde can be obtained from us free of charge.

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Linde Aktiengesellschaft

Klosterhofstrasse 1

80331 Munich

Germany

Phone +49.89.35757-01

Fax +49.89.35757-1075

[www.linde.com](http://www.linde.com)