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# Agenda



- 1. Operational and Financial Performance
- 2. Strategic Focus:
  - Growth Markets
  - Energy / Environment
  - Healthcare
- 3. Outlook

**Appendix** 

# **Highlights 2011**Profitable Growth.



#### Group sales and profit again on record levels

Group sales increased by 7.1% to € 13.787 bn

Operating profit grew at a faster pace by 9.7% and came to € 3.210 bn

Group operating margin has further improved by 60 bp to 23.3%

Gases operating margin increased by 50 bp to 27.5%

Adjusted\* EPS increased by 11.9% to € 7.71

Adjusted\* ROCE is up by 50 bp to 13.0%

Net debt down by € 403 m to € 5.094 bn

#### Resilient business model and implementation of HPO initiatives drive profitable growth

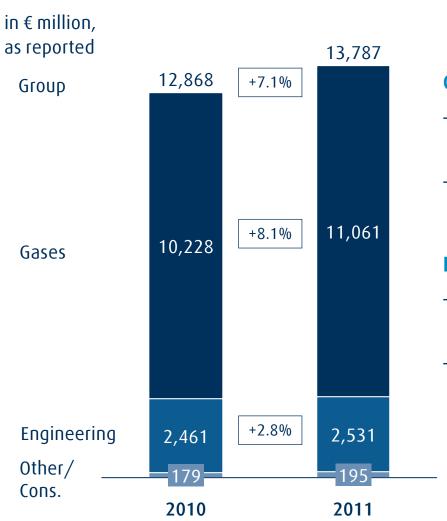
Solid contribution from Mature Markets and further increased share from Growth Markets Improvement of Gases operating margin in all operating segments supported by HPO

#### **Outlook**

Mid-term targets for 2014 confirmed

# **Group, sales by Divisions**Continued growth in all areas





#### **Gases Division**

- Growth track continued in 2011 in all regions led by Asia/Pacific
- Growth in all product areas led by Tonnage and Bulk

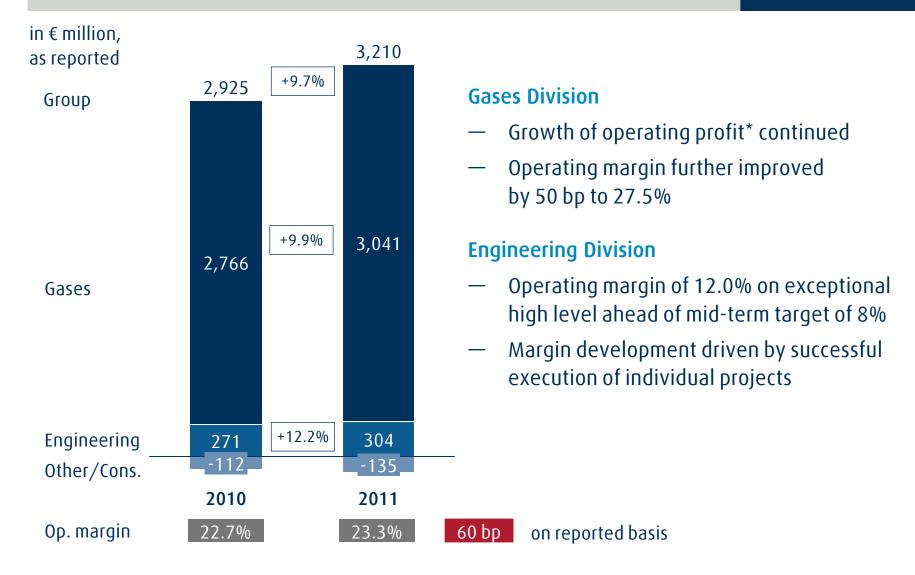
#### **Engineering Division**

- Order intake well balanced between Growth Markets and Mature Markets
- Order backlog remains on solid level

# Group, operating profit by Divisions



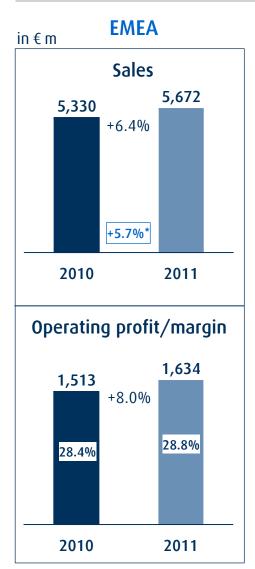
Profitable Growth. - Group margin further improved

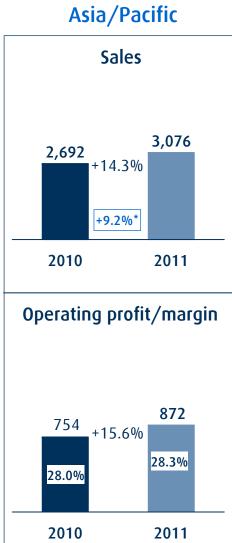


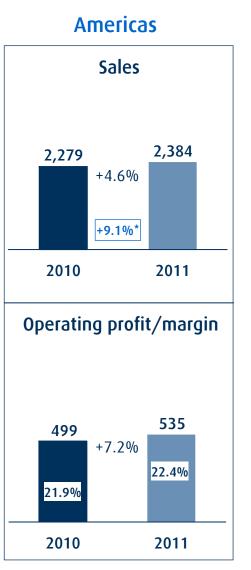
<sup>\*</sup>EBITDA incl. share of net income from associates and joint ventures

# **Gases Division, operating profit by operating segment**Profitable Growth continued in 2011

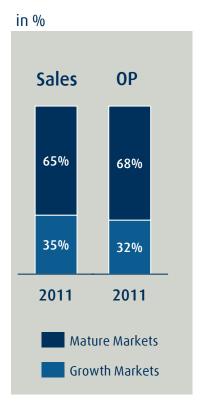








#### **Growth Markets**

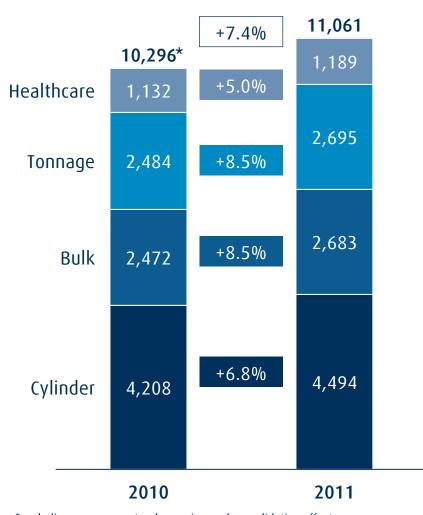


<sup>\*</sup> excluding currency, natural gas price and consolidation effect

# **Gases Division, sales by product areas**Balanced mix as basis for profitable growth



#### in € million, comparable\* (consolidated)



#### Solid growth in Healthcare

- The Mega-trend growth opportunities continue
- Acquisition will strengthen Homecare portfolio

# Continuous growth in Tonnage again above previous record level

- Increased contribution from Growth Markets in 2011
- Numerous important take-or-pay contract wins in Growth Markets
- Continuous contribution from project ramp-ups

#### Positive performance of the merchant business

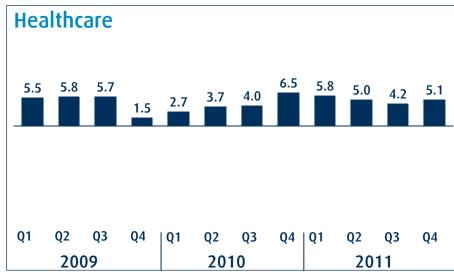
- Strong growth in Bulk supported by merchant LNG
- Recovery of late cyclical cylinder business in H1 2011

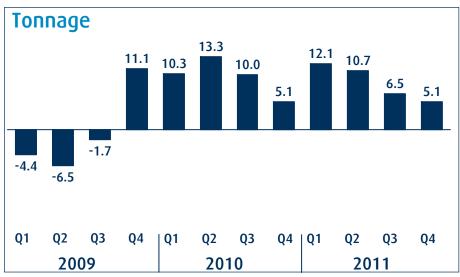
<sup>\*</sup>excluding currency, natural gas price and consolidation effect

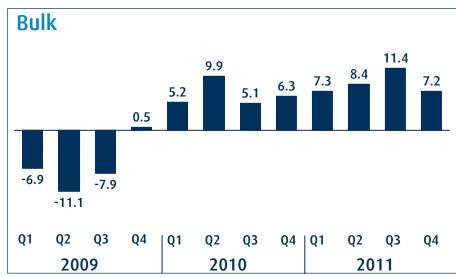
## Gases Division, product areas

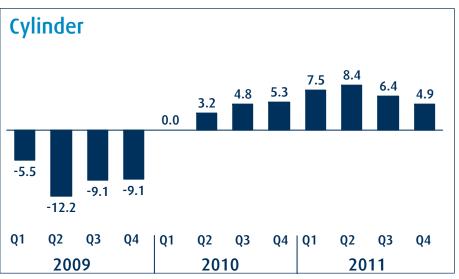
# Comparable\* year-on-year growth in percent









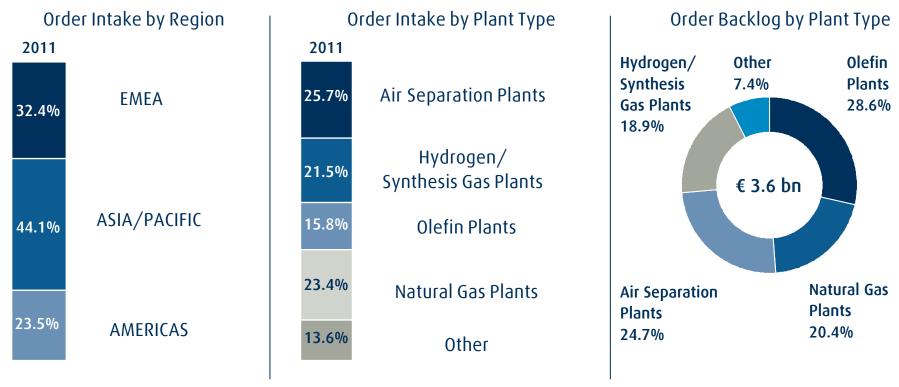


<sup>\*</sup>excluding currency, natural gas price and consolidation effect

# **Engineering Division, key figures**Order intake well balanced



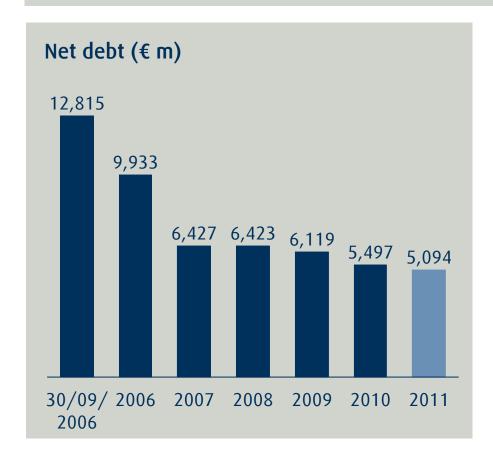
- Order intake increased by 3.5% to € 2.235 bn
- Order backlog stays strong at € 3.600 bn (year-end 2010: € 3.965 bn)
- Exceptional operating profit\* margin in 2011 of 12.0%
- Operating profit margin in 2012 of at least 10% due to continuation of positive effects from successful execution of individual projects

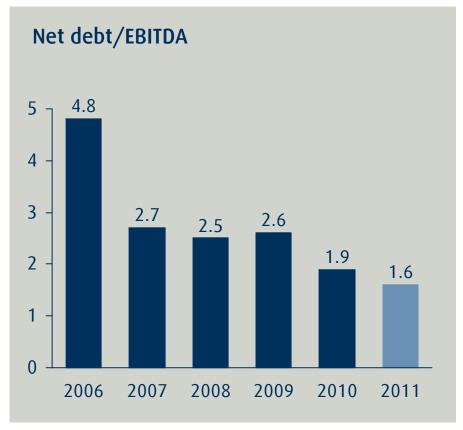


<sup>\*</sup>EBITDA incl. share of net income from associates and joint ventures

# **Group, solid financial position**Sound financial strategy







## **Credit Ratings**

— Standard&Poor's: A-/A-2 with stable outlook (27/10/2011\*)

— Moody's: A3/P-2 with stable outlook (15/03/2012\*)

\* Date of latest rating report

# Group, dividends

# Proposed dividend increased by 13.6% to € 2.50



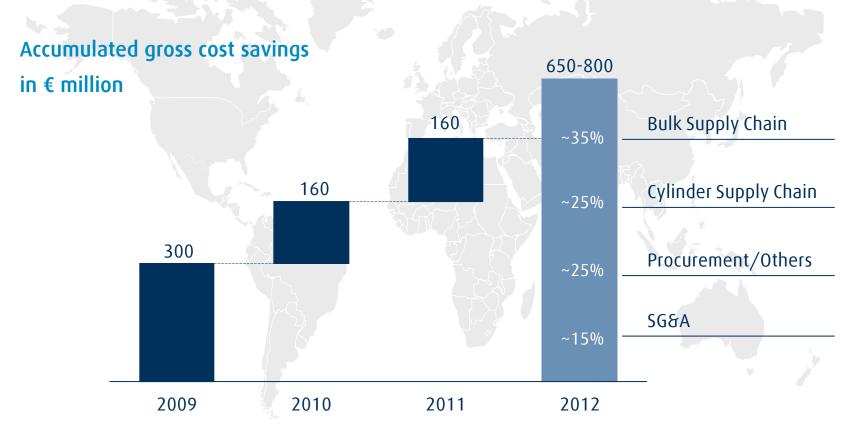


<sup>\*</sup> Comparable change: prior year figures including twelve months of BOC

# **HPO (High Performance Organisation)**Covering the full value chain in all regions



- HPO is fully on track with savings additional savings of ~ € 160 m
- Initiatives have been launched and rolled out in all relevant areas
- Contribution expected also in 2013 ff.
- Gross cost savings increased to € 620 m



# Agenda



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**Appendix** 

# **Mega-trends**

# Leveraging growth with our Gas & Engineering set-up



**Growth Markets** 



**Energy/Environment** 



Healthcare



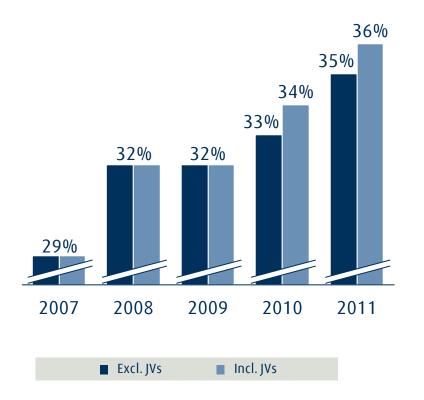
Leveraging Gases & Engineering business synergies

# Mega-trend Growth Markets Strong investments in future growth



Growth Markets exposure further increased

Growth Market sales (% of Gases sales)



54% of Capex 2011 invested in Growth Markets

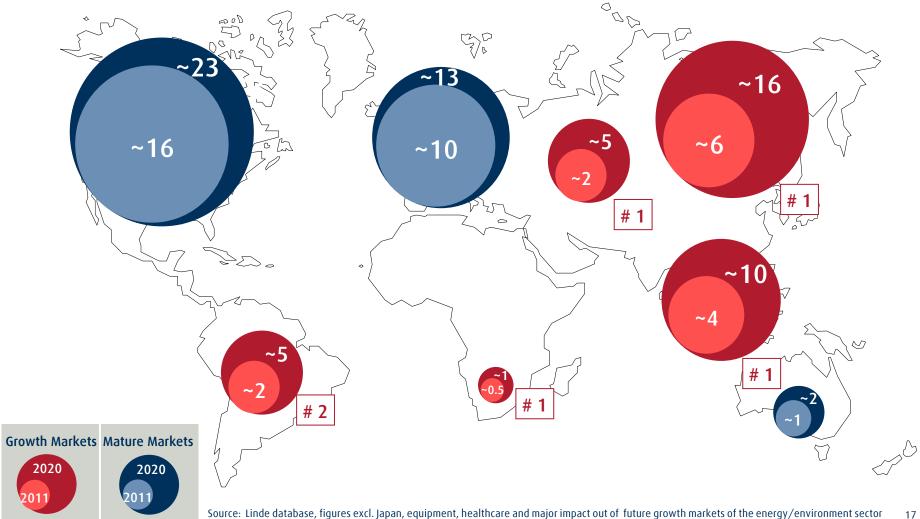
Gases Capex 2007 – 2011 in € bn



# **Mega-trend Growth Markets** Industrial gases market 2011 vs. 2020 in € bn



#### Market leader in 4 out of 5 Growth Markets



# **Gases Division, project pipeline**Good basis for sustainable growth



- € 4.1 bn investments between 2009-2013 (thereof € 0.6 bn in JVs @ share)
- Project amount for 2012 and 2013 further increased by around € 200 m
- 2014 project amount already at around € 550 m
- Around 70% of total project-Capex allocated to Growth Markets
- Amount of project opportunities remains with € 4.3 bn on a high level

#### Project amount by on-stream date (incl. JVs) in € m



## Mega-trend Growth Markets

## Comprehensive strategy to capture growth potential in Asia



## Consolidates sales in Asia in € m



#### Major investment commitments in 2011

#### Construction of ASU in Map Ta Phut, Thailand (largest ASU)

- Investment ~ € 78 m, on-stream date 2013\*

#### Signed contract with PT Krakatau POSCO, Indonesia (largest ASU)

- Investment ~€ 80 m, on-stream date 2013\*

#### Second ASU in Giheung, Korea

- Investment ~€ 120 m for Samsung; largest investment in Korea

#### Chongqing, China (Q2/2011)

- On-site supply contracts with CCPHC and BASF
- Large scale HYCO plant: ~€ 200 m capex, on stream date 2014\*

#### Yantai, China (Q3/2011)

- On-site supply contract with Wanhua Polyurethanes Co., Ltd.
- Two large scale ASUs: ~€ 130 m capex, on stream date 2013/2014\*

#### Wu'an, China (Q4/2011)

- On-site supply contract with Hebei Puyang Iron and Steel Ltd.
- Decaptivation of 7 ASUs with energy efficiency upgrade and construction of a new ASU: ~ € 120 m capex, on stream date 2014\*

#### Jilin, China (Q4/2011)

- On-site supply contract with Evonik Industries and Jilshen
- Hydrogen plant (SMR): ~€ 42 m capex, on stream date 2013/2014\*

#### Dalian, China (Q1/2012):

- On-site supply contract with chemical producer Dahua Group
- Decaptivation of 2 ASUs: investment ~ € 70 m, on stream date 2014'

\* to be expected

## Mega-trend Energy/Environment



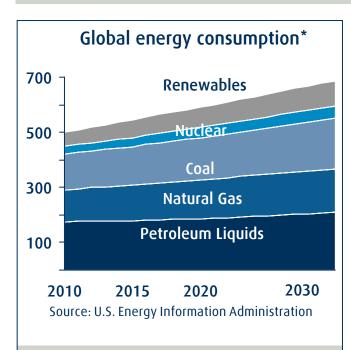


# **Engineering Division Gases Division** Mega-projects Proven technology and project execution Proven long-term operations track record Technology Know-How LNG (Merchant/Floating), EOR/EGR, Coal-to-X, Gas-to-X, Bio-to-X, Geothermal Energy: OxyFuel, Post-combustion CO<sub>2</sub>-capture and handling, H<sub>2</sub>-fueling **Environment: Efficiency & Applications:** Higher energy efficiency of plants, REBOX® oxy-fuel, WASTOX® **Long-term Customer Relations Competitive Products and Services Plant Sales Commodity Customers** for with focus on price/energy efficiency (TCO) and reliability captive customer

## Mega-trend Energy/Environment

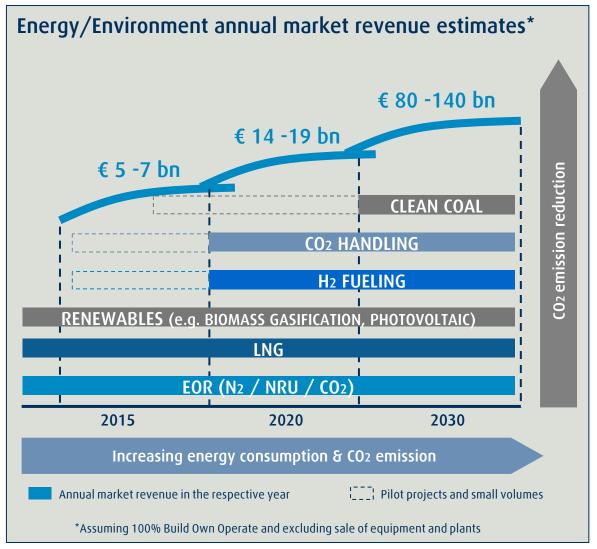
## Importance of new technologies & industrial gases applications





- Fossil resources remain dominant energy source
- Fossil resources becoming scarce
- CO<sub>2</sub>-emissions steadily increasing
- Importance of renewable energy increasing but still limited reach

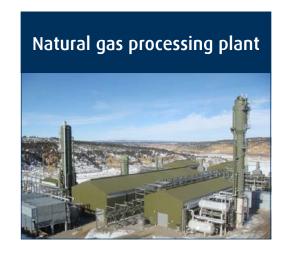
\* in quadrillion British Thermal Units (equals around 10<sup>27</sup> Joules)

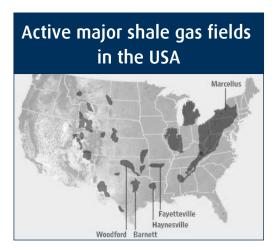


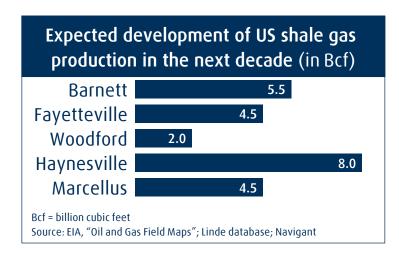
(Please find assumptions for estimates on page 55)

# Mega-trend Energy/Environment Opportunities in shale gas business: Example US









#### **Engineering**

- Total order intake since 2010 > € 400 m
- Opportunities within the field of shale gas:
  - Natural gas processing plants: driven by the necessity of gas treatment for pipeline and bulk use
  - Small-mid-scale LNG plants: driven by increasing demand for merchant LNG
  - Ethane cracker: feasible for gas fields without petrochemical clusters

#### Gases

- Potential leverage of our operation experience into the area of shale gas
- Based on shale gas new chemical clusters develop with the need for industrial gases supply

# **Mega-trend Healthcare**Market environment and drivers



#### Market environment

Increasing and ageing population

Increasing wealth in Growth Markets

Healthcare budget pressure and regulation

#### **Drivers of development**

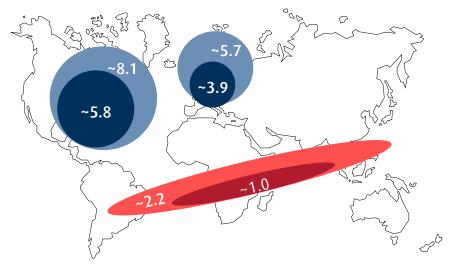
New and innovative pharmaceutical gases and services

Quality and optimum care for patients

Value creation by cost-effective and reliable products and services

**Regional expansion** 

#### Relevant Healthcare markets 2011 vs. 2020 in € bn







Source: Linde database, figures incl. gas therapies and intermediate care

# Cost ease to Healthcare budgets

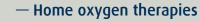
# Mega-trend Healthcare

# From medical gas provider to solutions & service provider



Development of new therapies and applications







- Ventilation services
- Sleep therapies
- Other service

#### **Intermediate Care**



- Patient centered care
- REMEO: treatment and care of chronic patients with mechanical ventilation needs

#### **Gas Therapies**

 Pulmonary hypertension & cardio-thoracic surgery



- Oxygen & Heliox therapies
- Pain relief

#### **Hospital Care**

Bulk supply and technical assistance



- Logistics and installation
- Customer Service
- Hospital & medical gas services

Integrated service provider

## Mega-trend Healthcare

Homecare: growth through innovation and regional expansion



Linde Homecare sales by operating segments 2011 **EMEA** AMERICAS

78%

18%

ASIA/
PACIFIC

Home Oxygen Therapy



Chronic respiratory diseases, patients need oxygen (COPD, Asthma)

**Products:** LOX, GOX and Concentrators

**Sleep Therapy** 



Obstructive Sleep Apnea, patients need positive air pressure during sleep

**Products**: Positive Airway
Pressure Devices, Masks

**Ventilation Services** 



Advanced respiratory diseases
patients need mechanical
ventilation support

**Products:** Mechanical Ventilators, Equipment

Synergies: sales & marketing, logistics, integrated patient management, care center, adherence programme, technology development

# Agenda

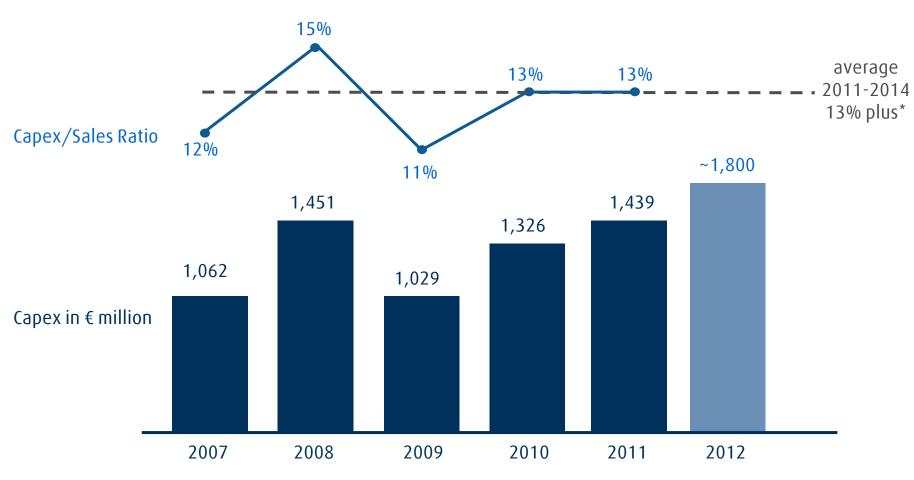


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**Appendix** 

# Gases, Capex Development Capex Sales Ratio 2007 - 2011





Data 2007-2011 @ actual average fx rates at the end of the respective year

\* plus: additional potential for mega-projects

# Outlook Profitable Growth.



2012	Group	<ul> <li>— Growth in sales and operating profit vs. 2011</li> <li>— Confirmation of HPO-programme: € 650-800 m of gross cost savings in 2009-2012</li> </ul>
	Gases	<ul> <li>— Sales increase vs. 2011</li> <li>— Continuous improvement of productivity</li> </ul>
	Engineering	<ul> <li>— Sales at the same level as in 2011</li> <li>— Operating margin of at least 10%</li> </ul>
2014	Group	<ul> <li>Operating profit of at least € 4 bn</li> <li>Adjusted* ROCE of 14% or above</li> </ul>
	Gases	<ul> <li>Average capex/sales ratio 13% plus</li> <li>Revenue increase above market growth</li> <li>Further increase in productivity</li> </ul>

\*please see definitions on page 58

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**Appendix** 

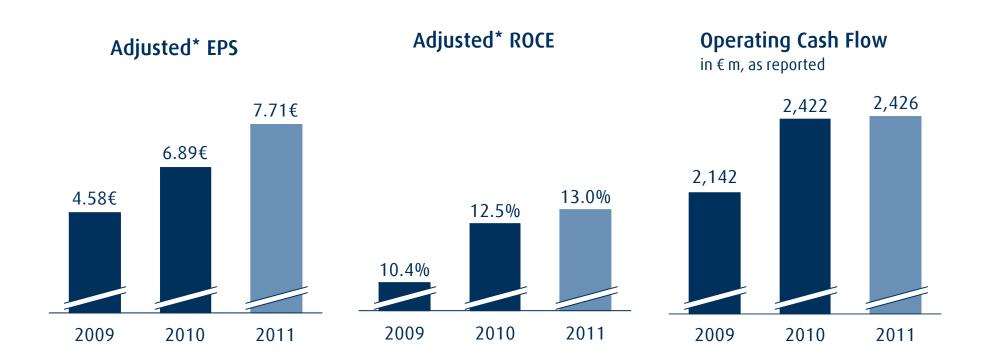
## Group

# Financial key indicators again on record levels



#### Profitable growth for our shareholders

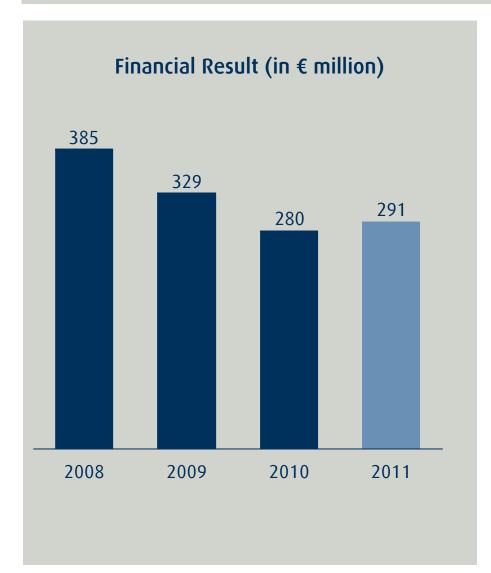
- adjusted EPS up by 11.9%
- adjusted ROCE further improved by 50 bp

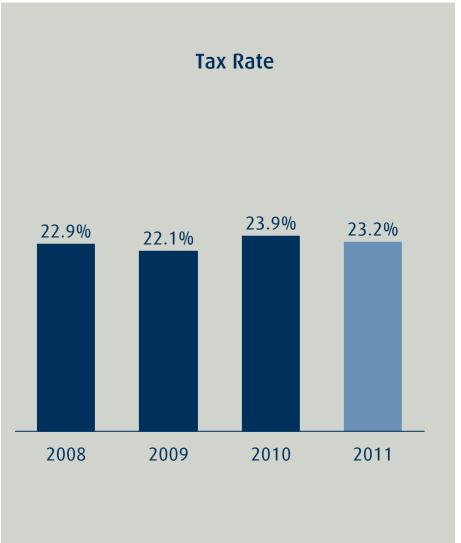


## Group

## Financial Result and Tax Rate







## Group, Pensions

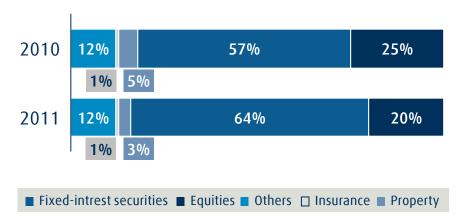
## Performance and key figures 2011



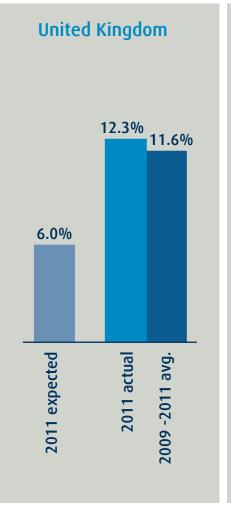
### **Net obligation**

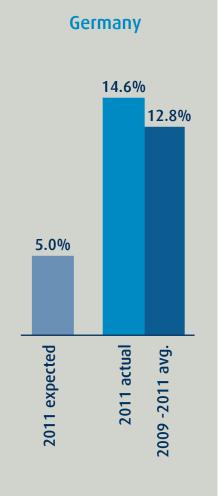
in € million	DBO	Plan asset	Net obligation
01/01/2011	4,971	4,467	504
Service costs	88		88
Net financing	253	254	-1
Actuarial losses/gains	335	153	182
Contributions/payments	-213	-13	-200
Other	-33	-19	-14
31/12/2011	5,401	4,842	559

## Pension plan assets portfolio structure



## Performance of major pension plans





# **Group, FY 2011**Key P&L items



in € million	2010	2011	Δin %
Sales	12,868	13,787	7.1
Operating Profit	2,925	3,210	9.7
Margin	22.7%	23.3%	+60 bp
EBIT before PPA depreciation	1,933	2,152	11.3
PPA depreciation	-254	-242	-5.0
EBIT	1,679	1,910	13.8
Financial Results	-280	-291	3.9
Taxes	-335	-375	11.9
Net income	1,064	1,244	16.9
Net income – Part of shareholders Linde AG	1,005	1,174	16.8
EPS in €	5.94	6.88	15.8
Adjusted EPS in €	6.89	7.71	11.9

# **Group, Q4 2011** Key P&L items



in € million	Q4/2010	Q4/2011	Δ in %
Sales	3,463	3,578	3.3
Operating Profit	780	847	8.6
Margin	22.5%	23.7%	+120 bp
EBIT before PPA depreciation	509	572	12.4
PPA depreciation	-63	-61	-3.2
EBIT	446	511	14.6
Financial Results	-50	-76	52.0
Taxes	-80	-94	17.5
Net income	316	341	7.9
Net income – Part of shareholders Linde AG	307	318	3.6
EPS in €	1.81	1.86	2.8
Adjusted EPS in €	2.01	2.03	1.0

# **Group, FY 2011**Cash Flow Statement

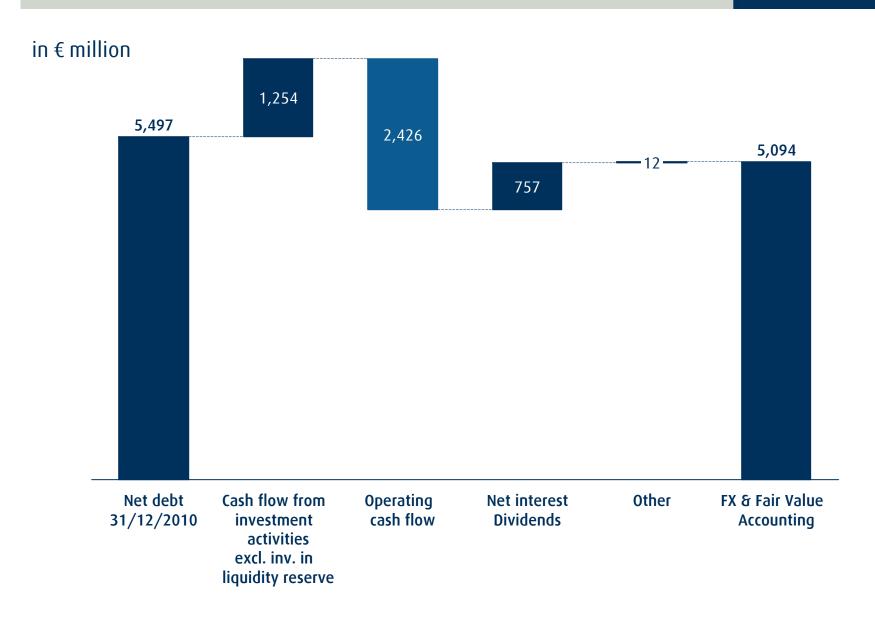


in € million	Q1 11	Q2 11	Q3 11*	Q4 11*	2011*	2010
Operating profit	761	798	804	847	3,210	2,925
Change in Working Capital	-180	6	60	39	-75	84
Other changes	-141	-267	-142	-159	-709	-587
Operating Cash Flow	440	537	722	727	2,426	2,422
Investments in tangibles/intangibles	-237	-310	-346	-452	-1,345	-1,192
Acquisitions/Financial investments	-13	-1	-41	-23	-78	-68
Other	43	33	40	53	169	195
Investment Cash Flow	-207	-278	-347	-422	-1,254	-1,065
Free Cash Flow before Financing	233	259	375	305	1,172	1,357
Interests and swaps	-45	-114	-123	-56	-338	-298
Dividends and other changes	-2	-385	-7	-11	-405	-280
Net debt increase (+)/decrease (-)	-186	240	-245	-238	-429	-779

<sup>\*</sup> excluding investments in securities of € 600 m in Q3 and € 1,052 m in Q4

# **Group, solid financial position**Net debt reduction of € 403 million





## **Group, solid financial position**Early refinancing of existing financial debt

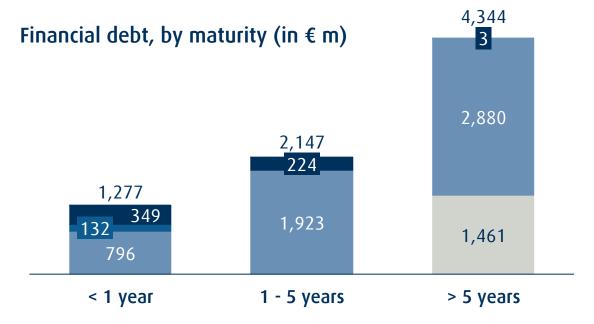
# THE LINDE GROUP

#### Continuous efforts to extend the Group's maturity profile

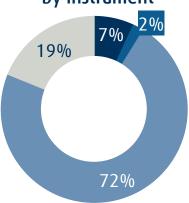
- ~€ 360 m partial bond buyback and issuance of € 600 m notes due in 2021
- Issuance of € 750 m senior notes due in 2018
- More than 80% of total financial debt is due beyond 2012
- Approx. 56% of total financial debt has a longer maturity than 5 years

### Balanced mix of various financing instruments

- Strong focus on long-term bond financing
- Strategic funding in EUR, GBP, USD and AUD



## Financial debt, by instrument



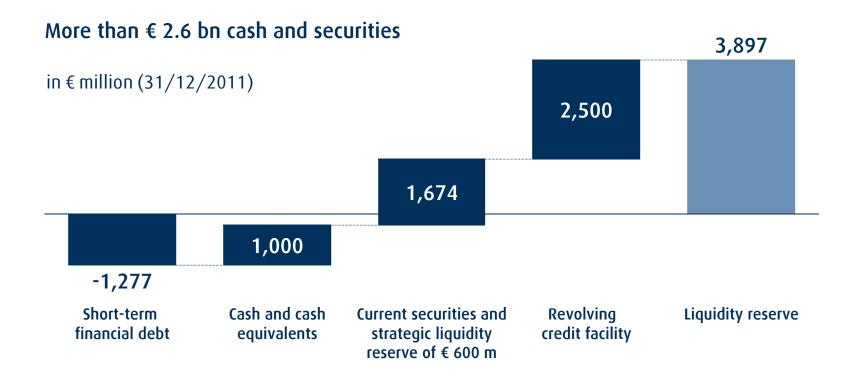
- Other Bonds
- Subordinated Bonds (callable in 2013/2016)
- Commercial Paper
- Bank Loans

# **Group, solid financial position**Liquidity reserve again further strengthened



#### € 2.5 bn committed revolving credit facility

- Arranged in May 2010 with 25 national and international banks
- Maturing in 2015
- No financial covenants
- Fully undrawn



### Group

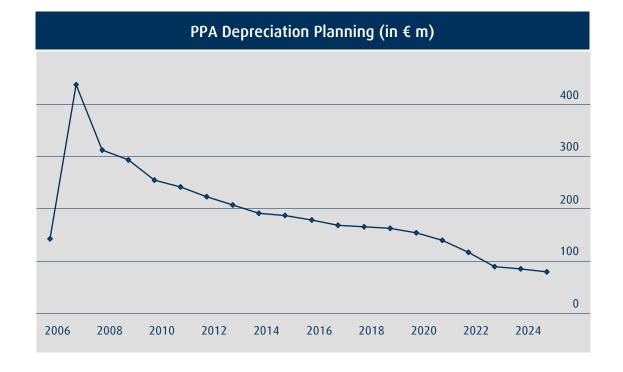
## PPA – Expected Depreciation & Amortisation



- Development of depreciation and amortisation (in € million)
- Impact in 2011: € 242 million

### **Expected range**

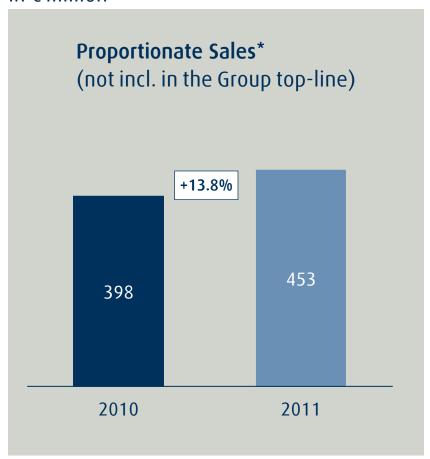
2012	> 175 – 225		
2013	> 190 - 210		
•••			
2022	< 125		

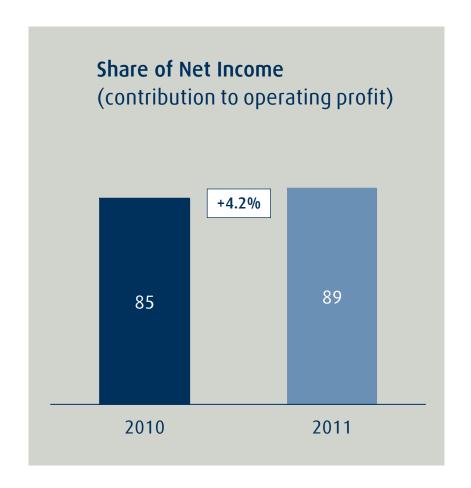


# **Gases Division**Joint ventures



### in € million





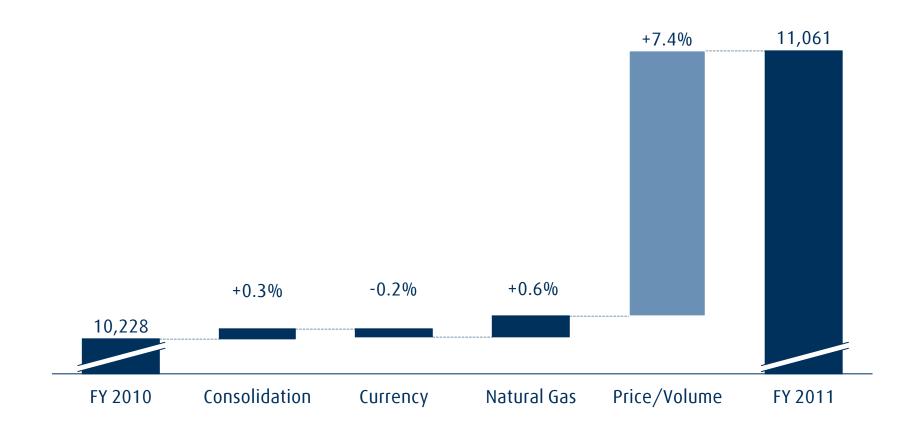
<sup>\*</sup> Adjusted for local accounted joint ventures

## Division Gases, sales bridge





in € million

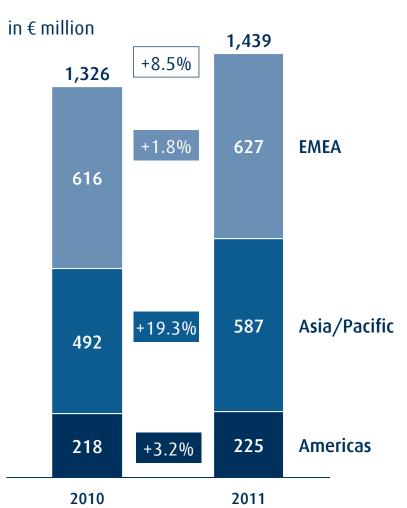


## Gases Division, Split of Capex

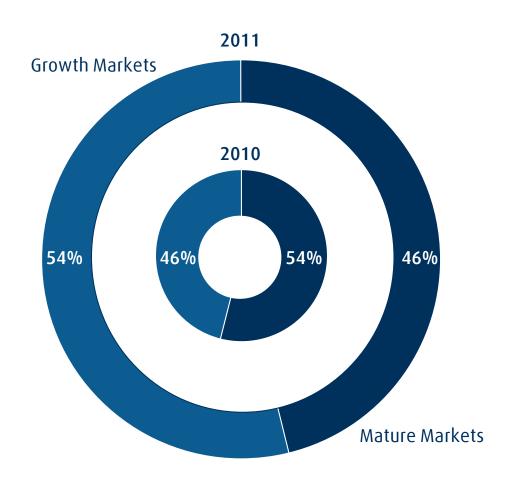
## Growth Markets Capex increased to above 50 percent



### **Split Capex by operating segments**



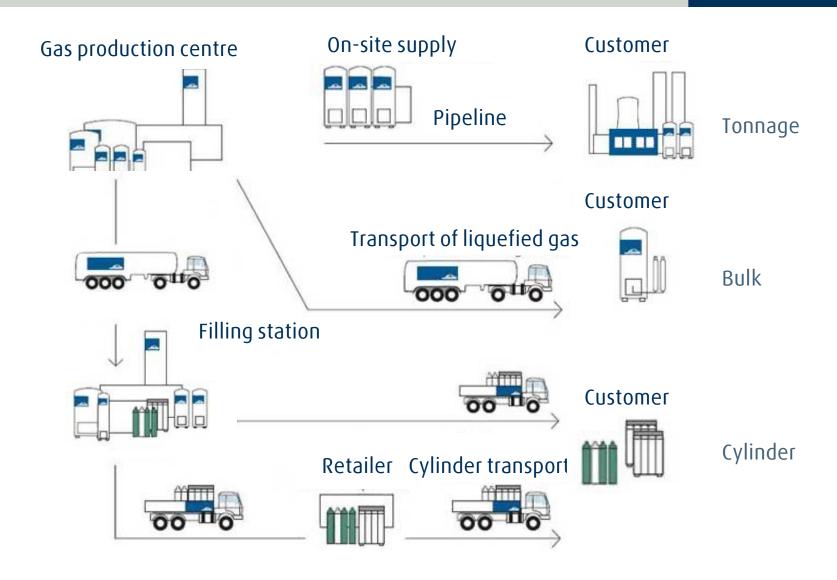
### **Split Capex by markets**



### **Gases Division**

#### From source to customer





### **Gases Division**

### Various distribution mix served from one product source





- 15-year take-or-pay contracts (incl. base facility fees)
- Add. growth in JVs & Embedded Finance Lease projects



- Multi-year contracts
- Application-driven





- Hospital care & Homecare
- Bulk & cylinder gases
- Structural growth



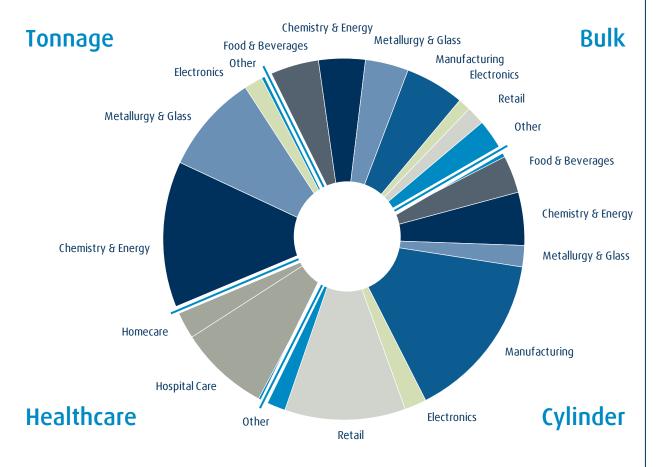
- High customer loyalty
- Includes specialty gases
- Cylinder rentals

### **Gases Division**

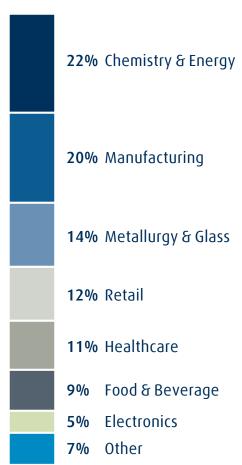
### Stability driven by a broad customer base



### 2011: Split of product areas by major end-customer groups



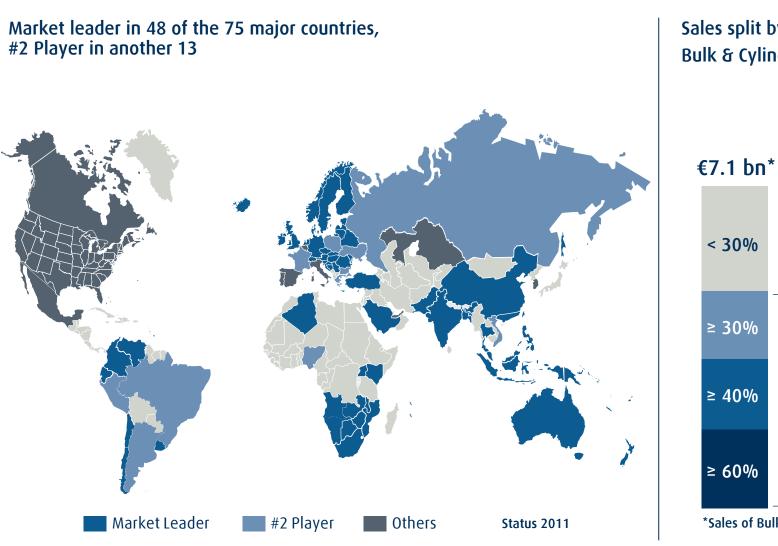
## 2011: Split of sales by major end-customer groups



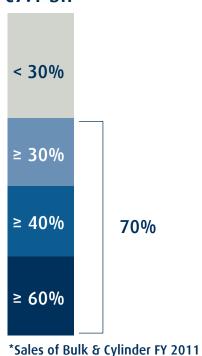
### Gases Division, local business model







Sales split by market share Bulk & Cylinder



# Linde Engineering with leading market position in all segments







Hydrogen & Synthesis Gas Plants



Worldwide #2

**Petrochemical Plants** 



Worldwide #2

#### **Natural Gas Plants**



Leading niche supplier

Production of plants for Linde Gas and 3rd party customers

Providing chemistry and energy related solutions to 3rd party customers

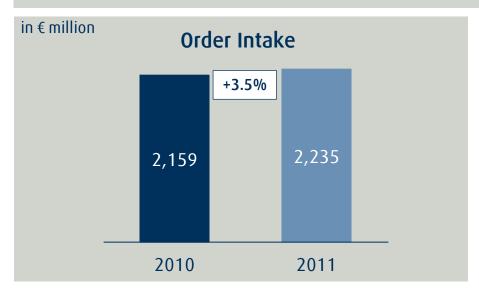


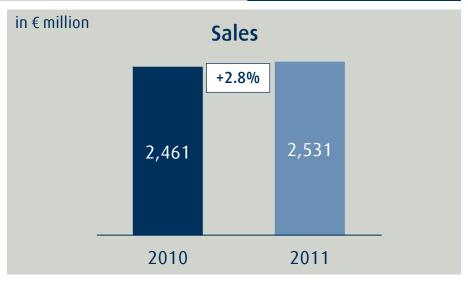
- LE Locations
- Project companies, rep. and sales offices

Supporting the energy/environmental mega-trend and leveraging customer relations for gas projects

# **Engineering Division, key figures**Order intake up by 3.5%





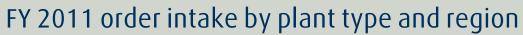




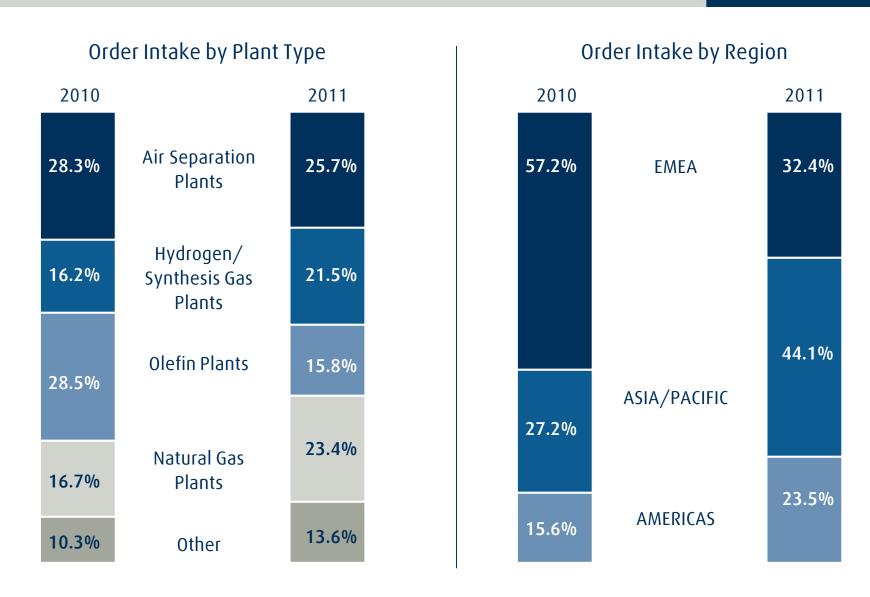


<sup>\*</sup>EBITDA incl. share of net income from associates and joint ventures

### **Engineering Division**



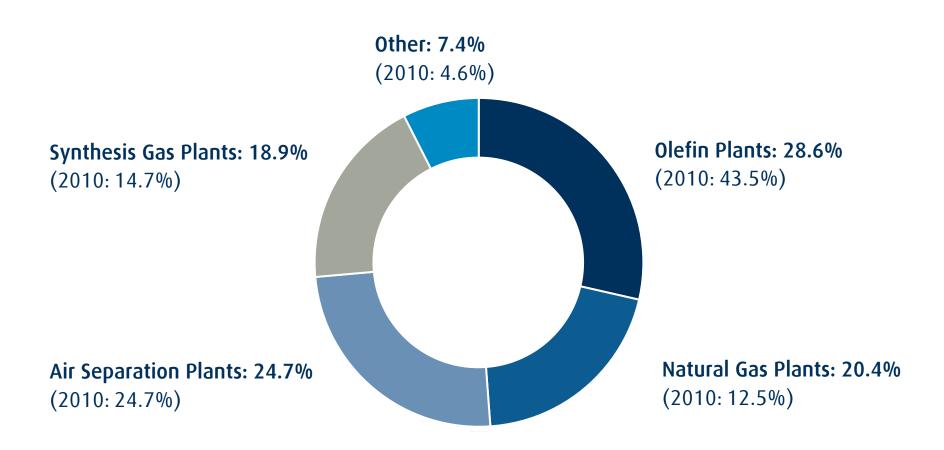




# **Engineering Division**Solid and diversified order backlog

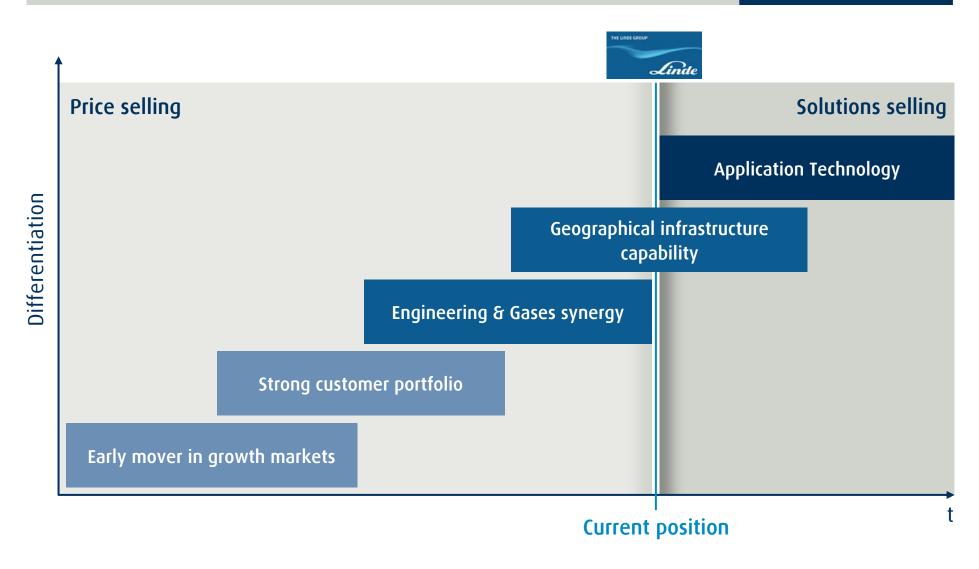


### Order backlog by plant type (31/12/2011)



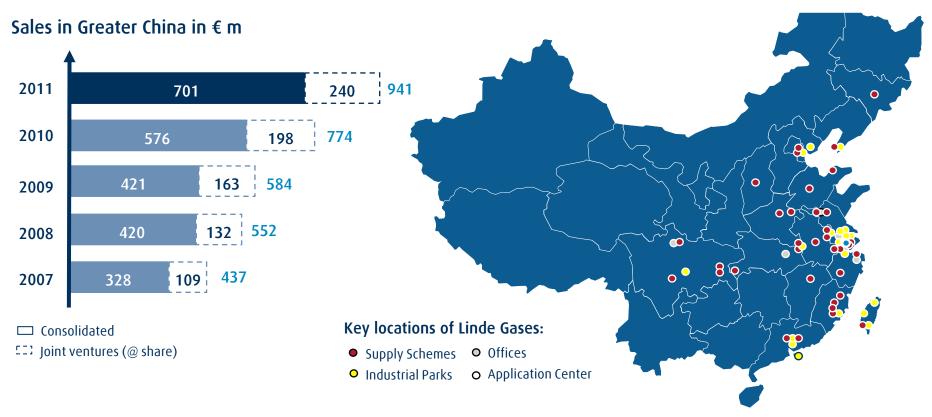
# Mega-trend Growth Markets Business approach in Growth Markets





# Mega-trend Growth Markets Leading player in Greater China





- First international gases company in China in the 1980s
- Around 4,000 employees / around 50 wholly-owned companies and JVs / around 150 operational plants
- Serving pillar industries chemical, oil & petrochemicals, metallurgy, manufacturing, electronics
- Industry-leading remote operations center, nation wide monitoring capabilities based in Shanghai

## Growing with leading companies in key industries A diverse customer portfolio to match an integrated business



Oil/Petrochemicals



扬子石化一巴斯夫有限责任公司 **BASF-YPC Company Limited** 



(B) BAOSTEEL







**Chemicals** 











Metallurgy











**Electronics** 



























Healthcare













Others







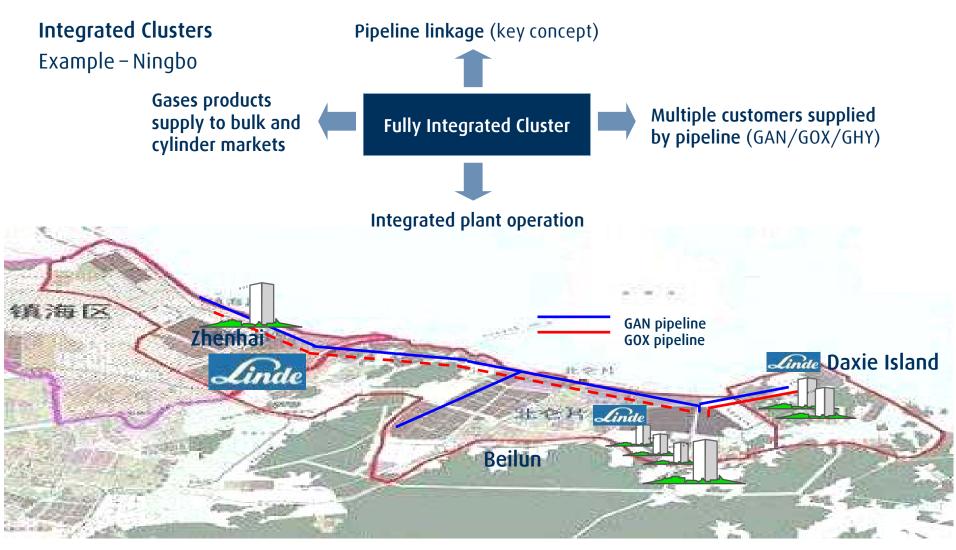






# Gases Division in China Integrated offer in selected industrial poles





# Clean Energy market estimation 2020 & 2030 top down



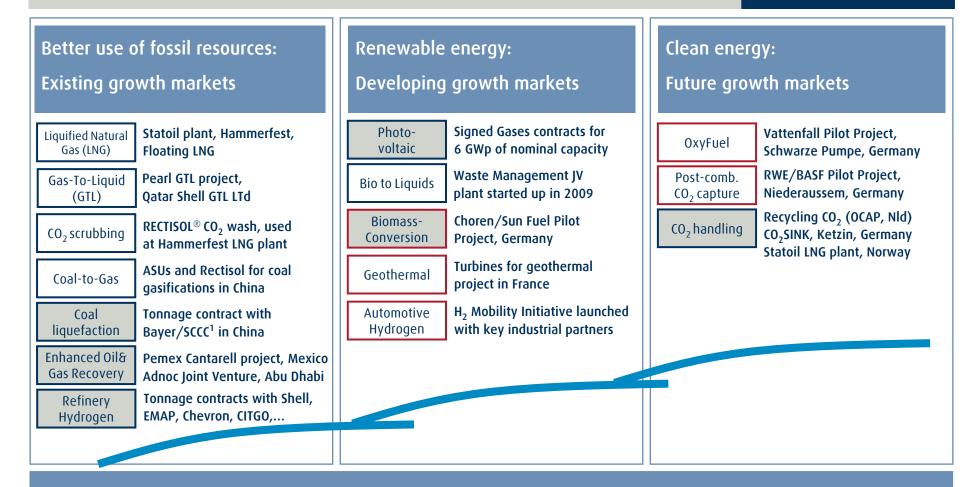
Market size in € bn	2015	2020	2030	Assumptions for 2030
Clean Coal			20 - 40	- Triple-digit number of 1 GW Carbon Capture (1.5 Gt/a CO <sub>2</sub> at EUR25-40/t)
CO <sub>2</sub> networks	small	1	15 - 25	<ul> <li>Installation of significant pipeline network and corresponding compression</li> <li>(1.5 Gt/a handling fee CO<sub>2</sub> at EUR 10-15/t)</li> </ul>
H <sub>2</sub> fueling	small	1	10 - 15	<ul> <li>Installation of a significant fuel station infrastructure</li> <li>Corresponding annual H<sub>2</sub> consumption of some bn tons p.a.</li> </ul>
EOR/EGR*	1.5	4 - 5	18 - 35	<ul> <li>Single to double digit number of large N<sub>2</sub> EOR/NRU projects</li> <li>Double digit number of large CO<sub>2</sub> EOR projects including industrial CO<sub>2</sub> capture and pipeline (overlapping w/CCS)</li> </ul>
LNG	3 - 4	6 - 10	11 - 23	<ul> <li>Based on penetration rate of LNG replacing existing fuels</li> <li>Merchant LNG projects based on geographical set up and existing infrastructure</li> <li>Floating LNG projects</li> </ul>
Renewables	1	2	3	Includes mainly gases used for manufacturing of photovoltaic cells
Range	5 - 7	14 - 19	18-140	* Assuming 100% Build Own Operate and excluding sale of equipment and plants.

#### **General assumptions:**

- Market numbers are directional only and w/o inflation or currency
- Oil price development at 80-100 USD/bll
- Outsourced gases market only (excl. captive market or equipment sales)

## Mega-trend Energy/Environment Current and future growth markets for Gases & Engineering





Higher efficiency in energy use: Sustained growth in traditional end markets REBOX® oxy-fuel (steel), WASTOX® (aluminium), Oxygen burner (glass), Water Treatment, ...

<sup>1</sup> Shanghai Cooking & Chemical Corporation

### Mega-trend Healthcare

#### Acquisition of Continental-European homecare business from Air Products\*



#### Main Rationale

Strategic acquisition supporting sustainable growth in the mega-trend Healthcare
Step up to a strong number 2 position in the European respiratory homecare market
Scaling-up our product and service offerings
Enhanced competencies support continuous innovations and development of new services
Increased exposure to stable healthcare business
Contribution to the Group's profitable growth strategy

#### **Key Parameters**

Enterprise Value of € 590 m

Sales in the last twelve months of 09/2011 of around € 210 m in Spain, Portugal, Germany, France and Belgium Approximately 850 employees deliver quality care to around additional 260,000 patients

#### **Financing**

Transaction financed out of strategic cash reserves

<sup>\*</sup> The completion of the transaction is subject to approval by the antitrust authorities, relevant works counsel consultation and fulfilment of other usual closing conditions.

## Group, Definition of financial key figures



Operating Profit	Return	EBITDA (incl. IFRIC 4 adjustment) excl. finance costs for pensions excl. special items incl. share of net income from associates and joint ventures
adjusted ROCE	Return	Operating profit - depreciation / amortisation excl. depreciation/amortization from purchase price allocation
	Average Capital Employed	equity (incl. minorities) + financial debt + liabilities from financial leases + net pension obligations - cash, cash equivalents and securities - receivables from financial leases
adjusted EPS	Return	earnings after tax and minority interests + depreciation/amortization from purchase price allocation +/- special items
	Shares	average outstanding shares

### **Investor Relations**



#### Contact

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Internet: www.linde.com

#### Financial Calendar

Interim Report January to March: 4 May 2012

Annual General Meeting: 4 May 2012

Interim Report January to June: 27 July 2012

Interim Report January to September: 29 October 2012