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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.

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### Group sales and profit again on record levels

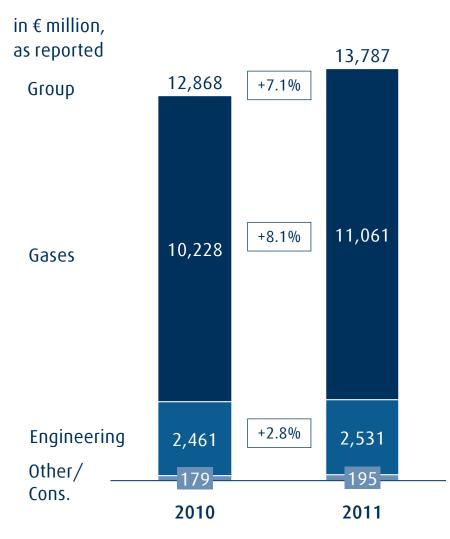
Group sales increased by 7.1% to € 13.787 bn Operating profit grew at a faster pace by 9.7% and came to € 3.210 bn Group operating margin has further improved by 60 bp to 23.3% Gases operating margin increased by 50 bp to 27.5% Adjusted\* EPS increased by 11.9% to € 7.71 Adjusted\* ROCE is up by 50 bp 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

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### **Gases Division**

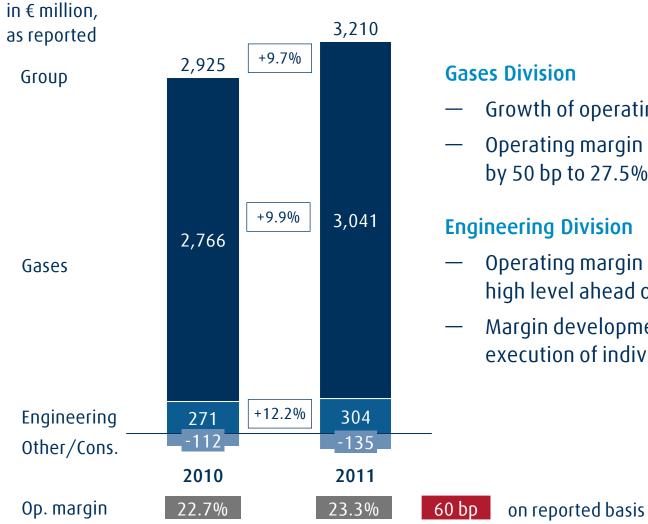
- Growth track continued in 2011 in all regions led by Asia/Pacific
- Growth in all product areas led by Tonnage and Bulk

### **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

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### **Gases Division**

- Growth of operating profit\* continued
- Operating margin further improved by 50 bp to 27.5%

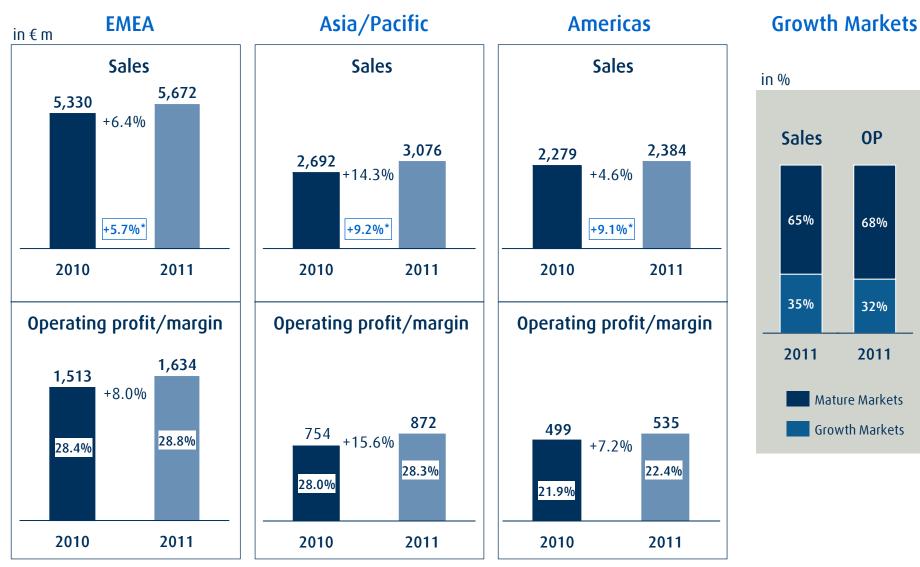
### **Engineering Division**

- Operating margin of 12.0% on exceptional high level ahead of mid-term target of 8%
- Margin development driven by successful execution of individual projects

\*EBITDA incl. share of net income from associates and joint ventures

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

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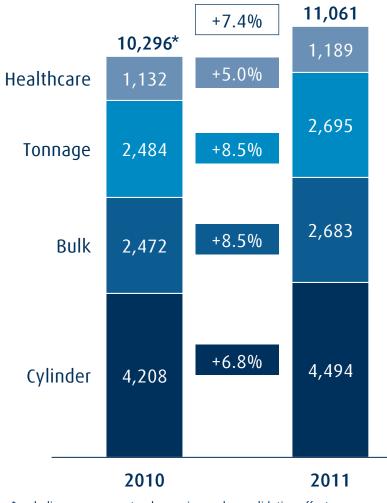


\* excluding currency, natural gas price and consolidation effect

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

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### 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

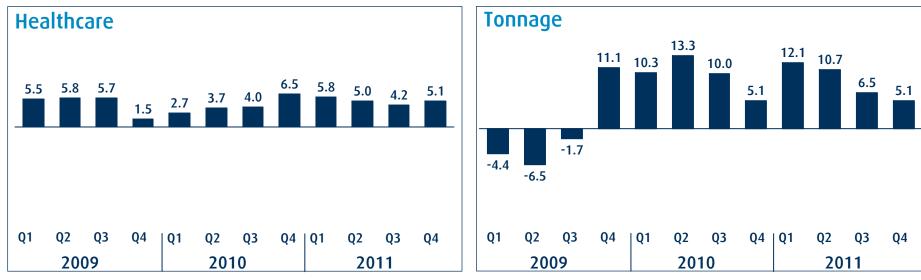
- Increased contribution from Growth Markets in 2011
- Numerous important take-or-pay contract wins in Growth Markets
- Continuous contribution from project ramp-ups

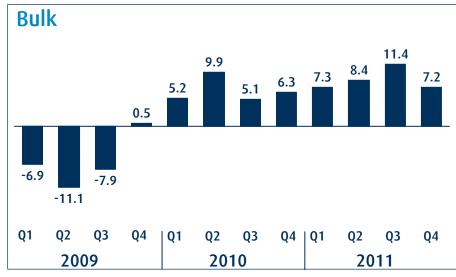
### Positive performance of the merchant business

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

## **Gases Division, product areas** Comparable\* year-on-year growth in percent







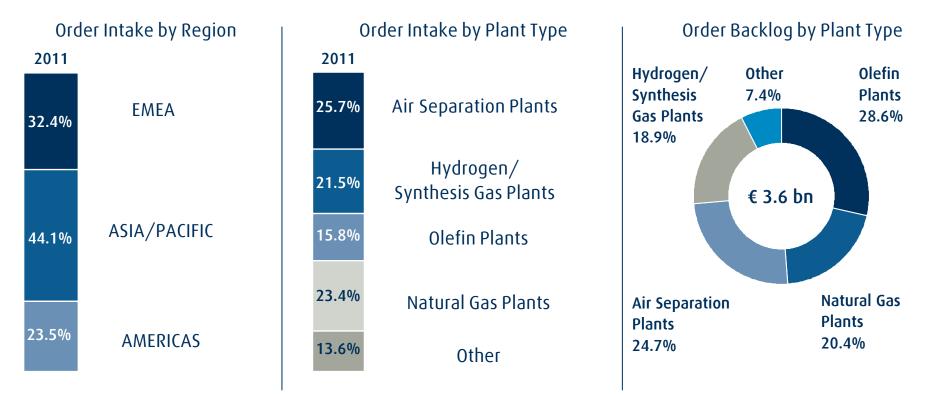


\*excluding currency, natural gas price and consolidation effect

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

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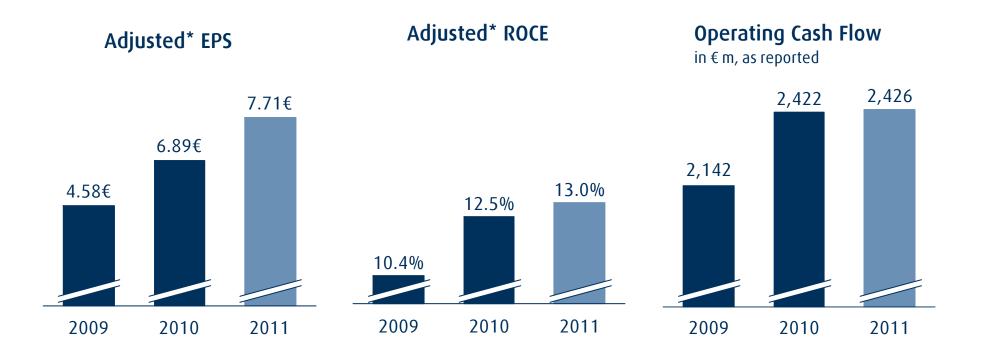
- Order intake increased by 3.5% to € 2.235 bn
- Order backlog stays strong at € 3.600 bn (year-end 2010: € 3.965 bn)
- Exceptional operating profit\* margin in 2011 of 12.0%
- Operating profit margin in 2012 of at least 10% due to continuation of positive effects from successful execution of individual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



### **Group** Financial key indicators again on record levels

### Profitable growth for our shareholders

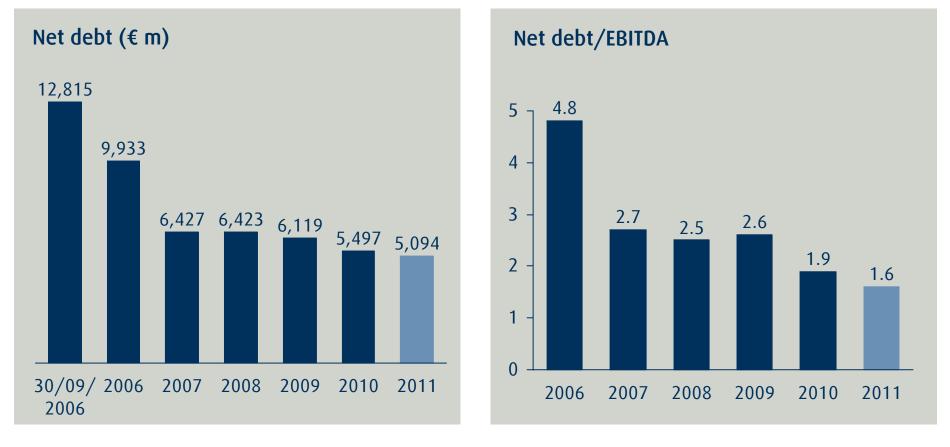
- adjusted EPS up by 11.9%
- adjusted ROCE further improved by 50 bp



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





### **Credit Ratings**

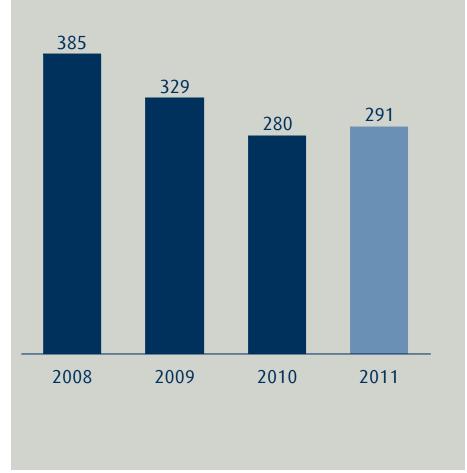
- Standard&Poor's:
- Moody's:

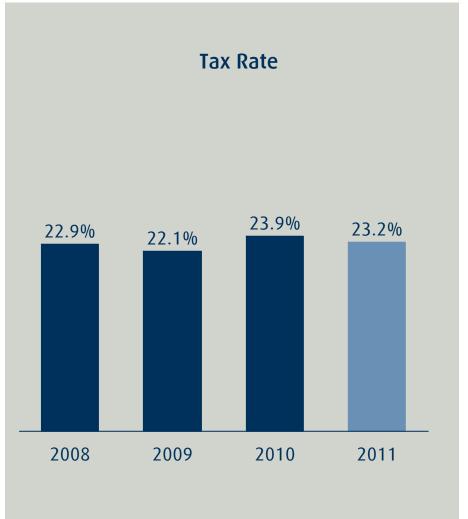
A-/A-2 with stable outlook  $(27/10/2011^*)$ A3/P-2 with stable outlook  $(15/03/2012^*)$ 

### **Group** Financial Result and Tax Rate



Financial Result (in € million)





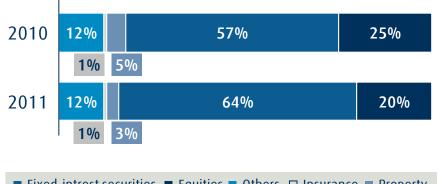
## Group, Pensions Performance and key figures 2011



### Net obligation

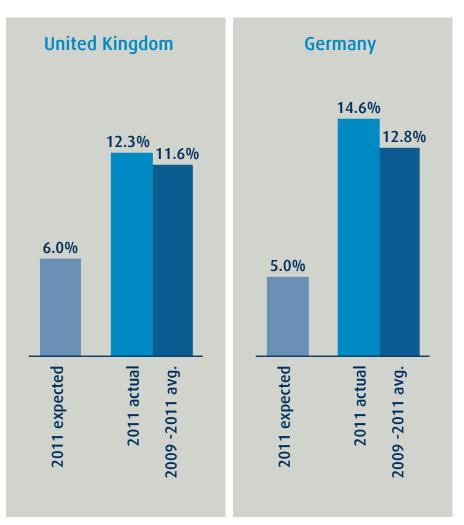
in € million	DBO	Plan asset	Net obligation
01/01/2011	4,971	4,467	504
Service costs	88		88
Net financing	253	254	-1
Actuarial losses/gains	335	153	182
Contributions/payments	-213	-13	-200
Other	-33	-19	-14
31/12/2011	5,401	4,842	559

### Pension plan assets portfolio structure



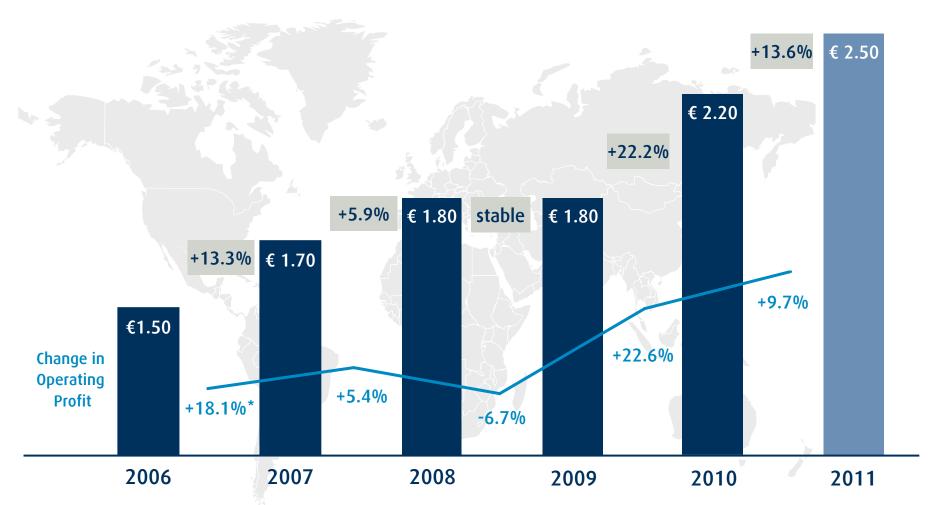
■ Fixed-intrest securities ■ Equities ■ Others □ Insurance ■ Property

### Performance of major pension plans



## **Group, dividends** Proposed dividend increased by 13.6% to € 2.50

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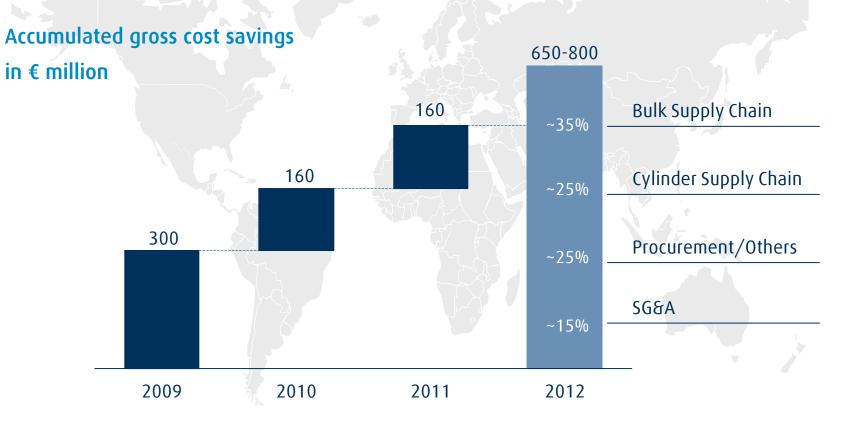


\* Comparable change: prior year figures including twelve months of BOC

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

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- 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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- 2. Strategic Focus:
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  - Energy / Environment
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### Appendix

## **Mega-trends** Leveraging growth with our Gas & Engineering set-up

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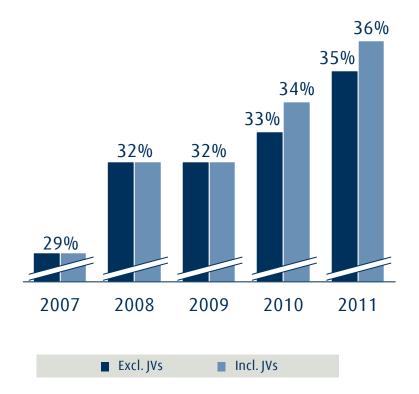


Leveraging Gases & Engineering business synergies

## 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

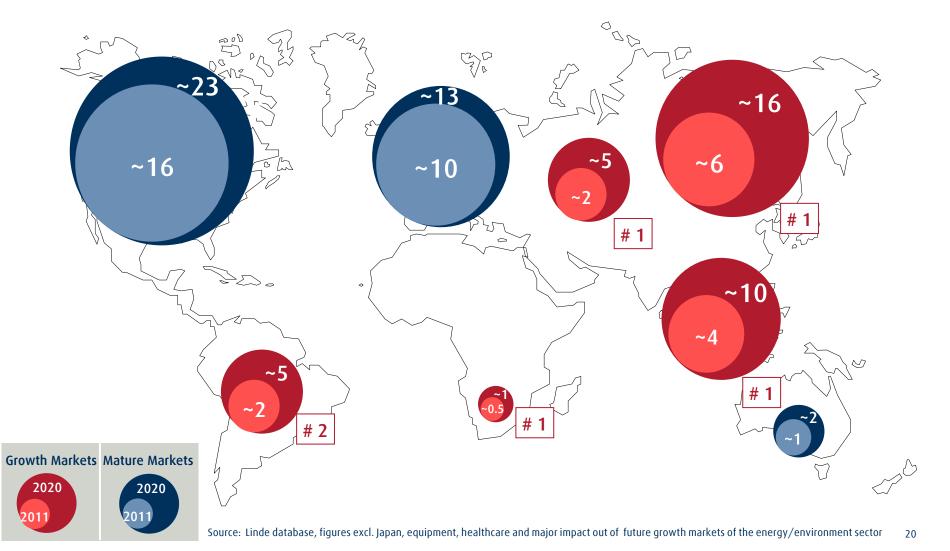
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## Mega-trend Growth Markets Industrial gases market 2011 vs. 2020 in € bn

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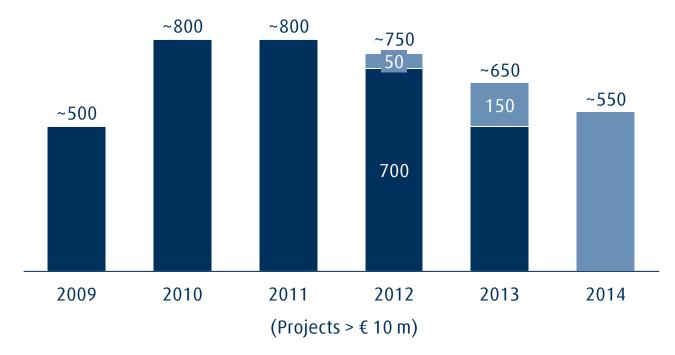
#### Market leader in 4 out of 5 Growth Markets



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

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- € 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



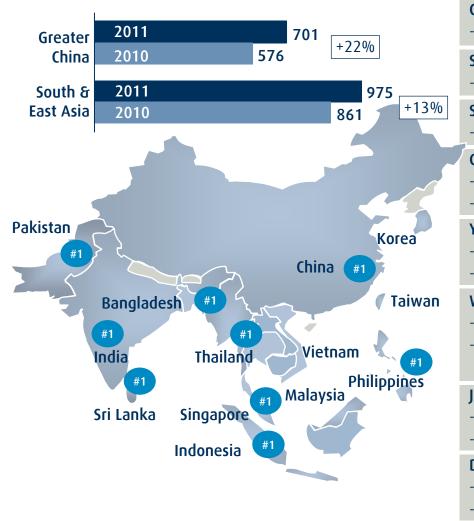
#### Project amount by on-stream date (incl. JVs) in € m

## 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*
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## Mega-trend Energy/Environment

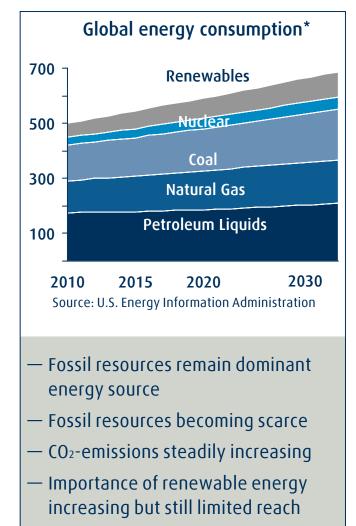
LeadIng joint capabilities & access to Energy/Environment sector



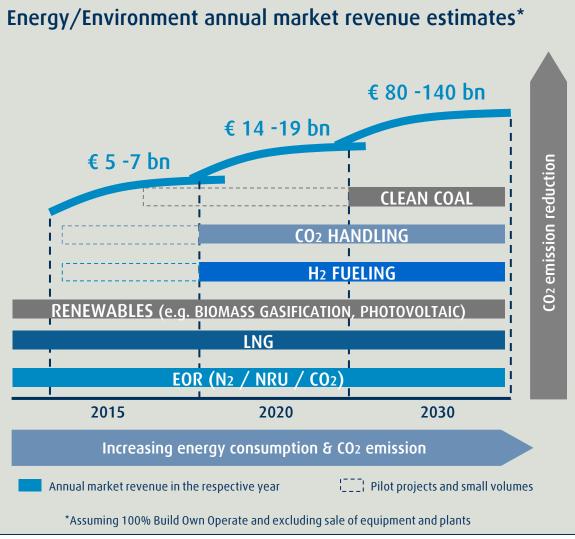
Engineering Divis	ion	Gases Division			
Mega-projects					
	Proven technolog	gy and project execution			
	Proven long-term	operations track record			
	Τe	echnology Know-How			
Energy:	LNG (Merchant/F	Floating), EOR/EGR, Coal-to-X, Gas-to-X, Bio-to-X, Geothermal			
Environment:	Environment: OxyFuel, Post-combustion CO2-capture and handling, H2-fueling				
Efficiency & Applicatio	Efficiency & Applications: Higher energy efficiency of plants, REBOX® oxy-fuel, WASTOX®				
Long-term Customer Relations					
Competitive Products and Services					
Plant Sales for captive customer		Commodity Customers with focus on price/energy efficiency (TCO) and reliability			

### **Mega-trend Energy/Environment** Importance of new technologies & industrial gases applications

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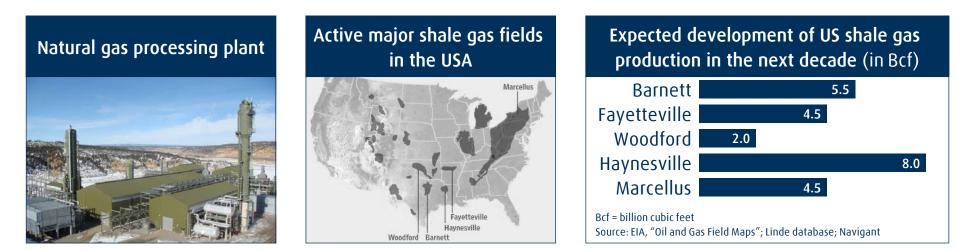
\* in quadrillion British Thermal Units (equals around 10<sup>27</sup> Joules)



(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

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### Market environment

Increasing and ageing population

Increasing wealth in Growth Markets

Healthcare budget pressure and regulation

### **Drivers of development**

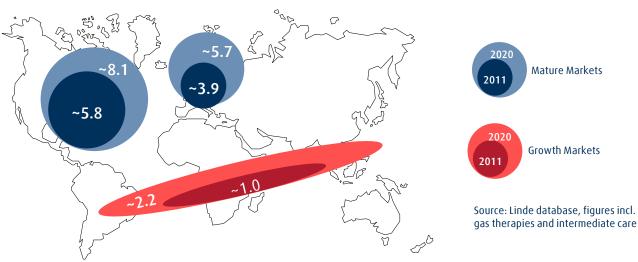
New and innovative pharmaceutical gases and services

Quality and optimum care for patients

Value creation by cost-effective and reliable products and services

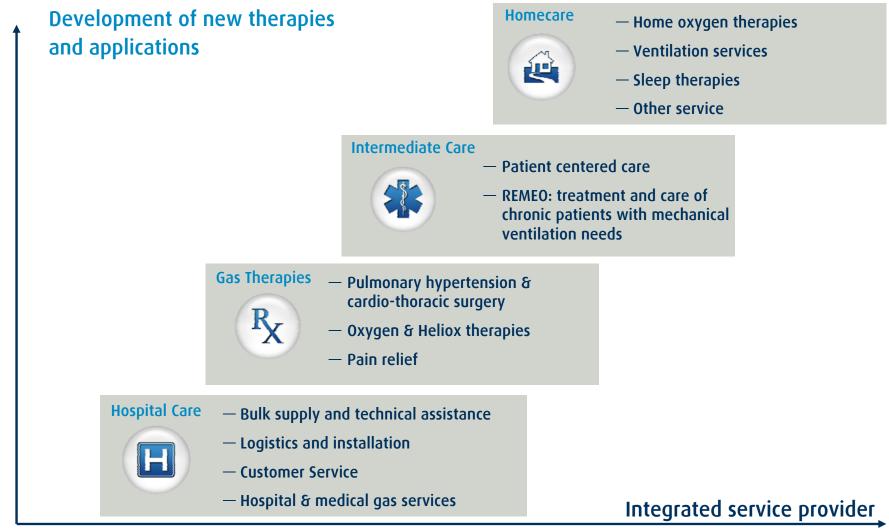
**Regional expansion** 

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



## **Mega-trend Healthcare** From medical gas provider to solutions & service provider

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care center, adherence programme, technology development

## Agenda

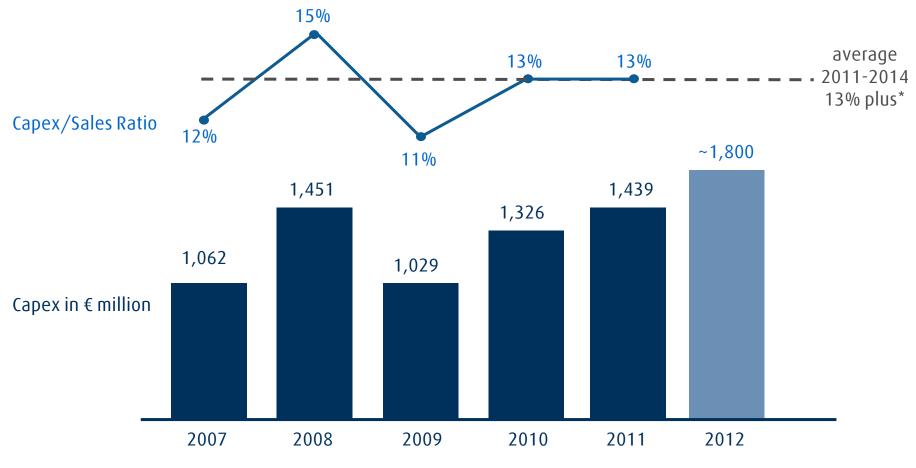
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- 1. Operational and Financial Performance
- 2. Strategic Focus:
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### Appendix

### **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>

## Agenda



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### Appendix

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



in € million	2010	2011	Δ in %
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	Δin %
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

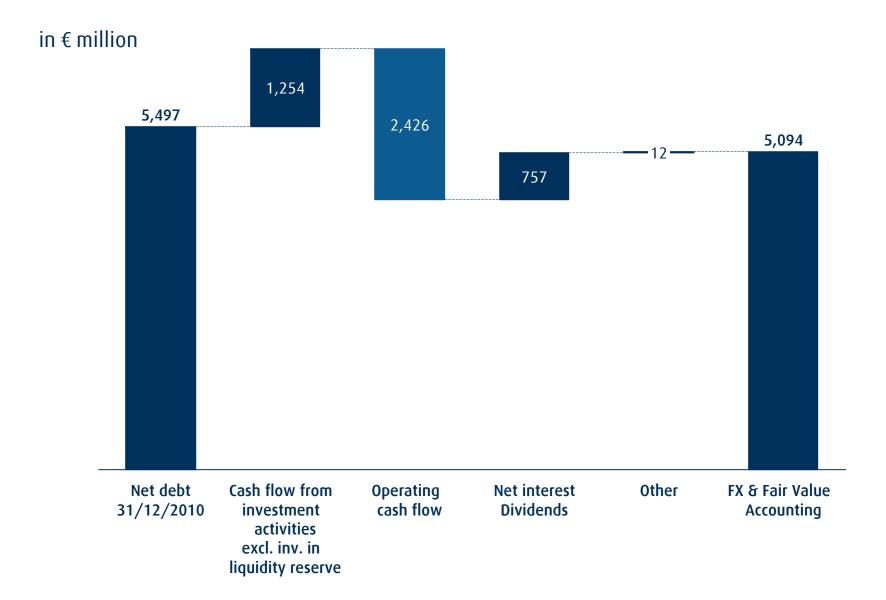


in € million	Q1 11	Q2 11	Q3 11*	Q4 11*	2011*	2010
Operating profit	761	798	804	847	3,210	2,925
Change in Working Capital	-180	6	60	39	-75	84
Other changes	-141	-267	-142	-159	-709	-587
Operating Cash Flow	440	537	722	727	2,426	2,422
Investments in tangibles/intangibles	-237	-310	-346	-452	-1,345	-1,192
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

\* excluding investments in securities of  $\in$  600 m in Q3 and  $\in$  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

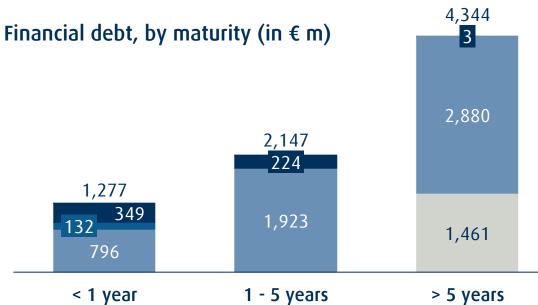
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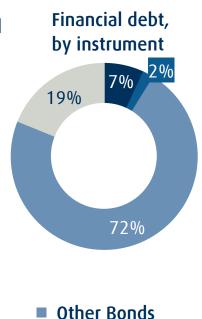
#### Continuous efforts to extend the Group's maturity profile

- ~€ 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





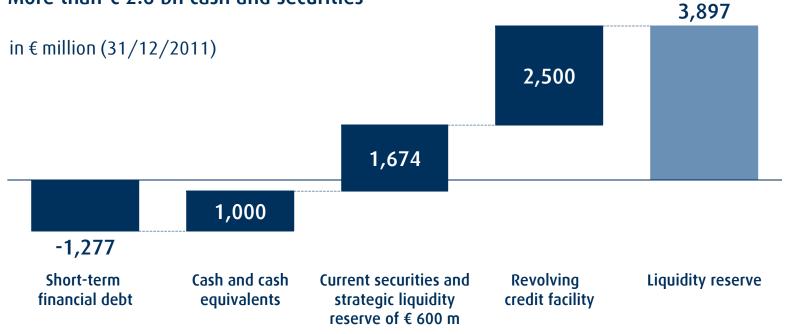
- Subordinated Bonds (\*callable in 2013/2016)
- Commercial Paper
- Bank Loans

#### **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

#### More than € 2.6 bn cash and securities



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#### **Group** PPA – Expected Depreciation & Amortisation

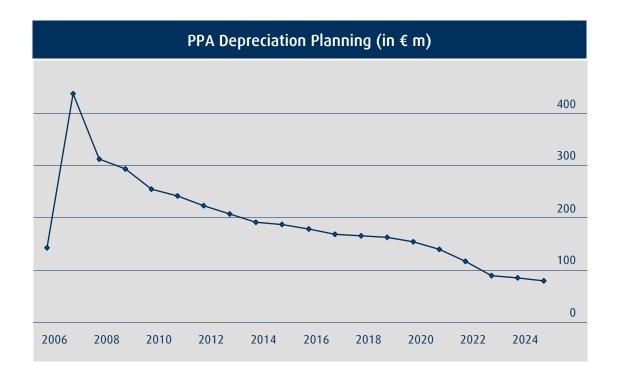
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— Development of depreciation and amortisation (in € million)

— Impact in 2011: € 242 million

#### Expected range

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

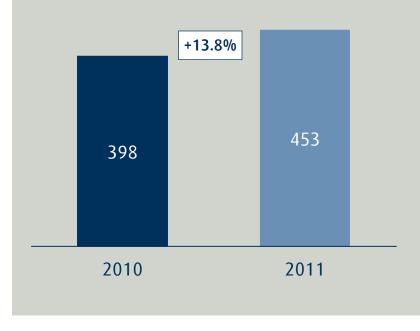


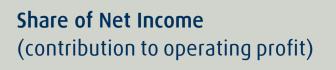
### Gases Division Joint ventures

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#### in € million

## **Proportionate Sales\*** (not incl. in the Group top-line)





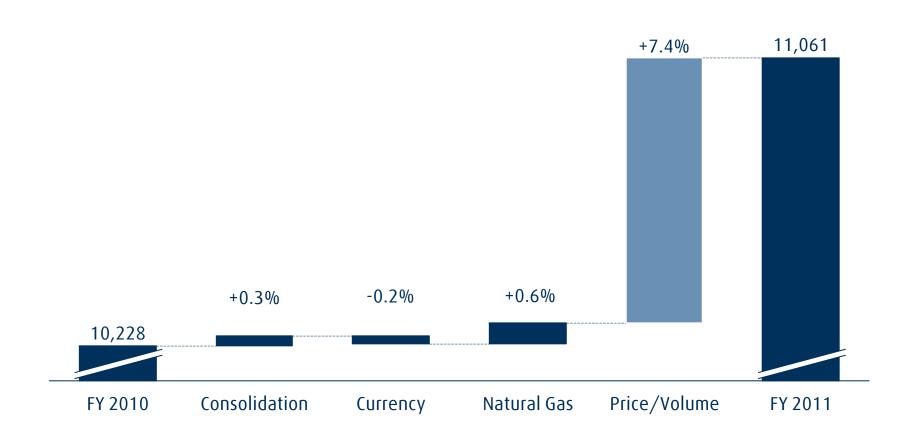


\* Adjusted for local accounted joint ventures

## **Division Gases, sales bridge** FY 2011 sales increased by 7.4% on comparable basis

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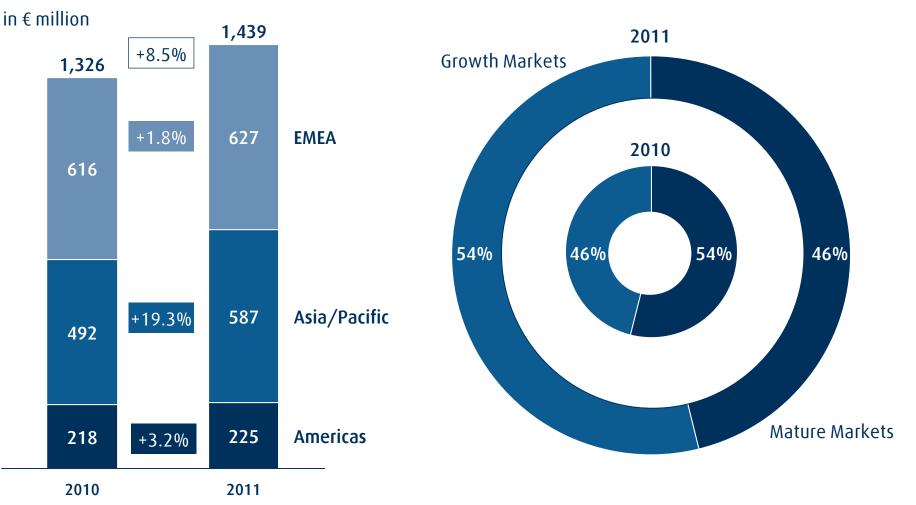
#### in € million



### **Gases Division, Split of Capex** Growth Markets Capex increased to above 50 percent

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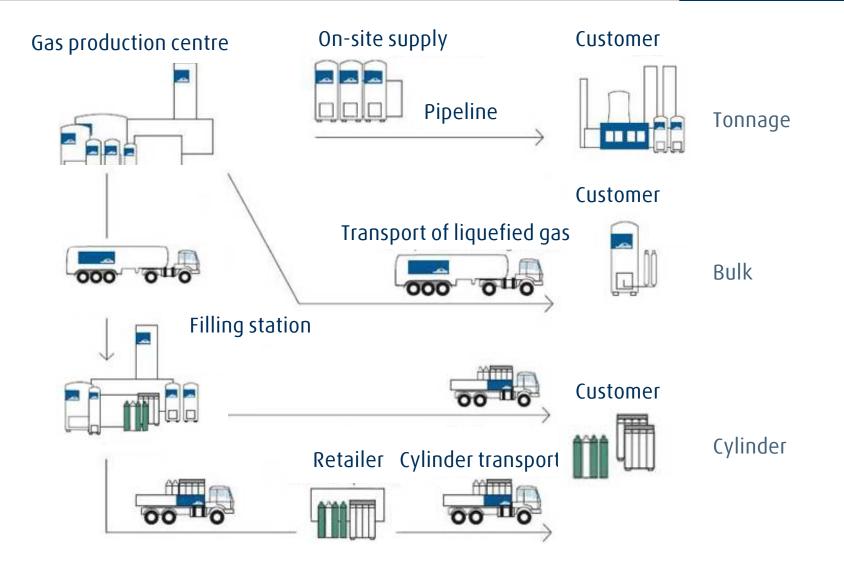
#### Split Capex by operating segments



Split Capex by markets

### **Gases Division** From source to customer

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### **Gases Division** Various distribution mix served from one product source

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



Multi-year contractsApplication-driven





- Hospital care & HomecareBulk & cylinder gases
- Structural growth

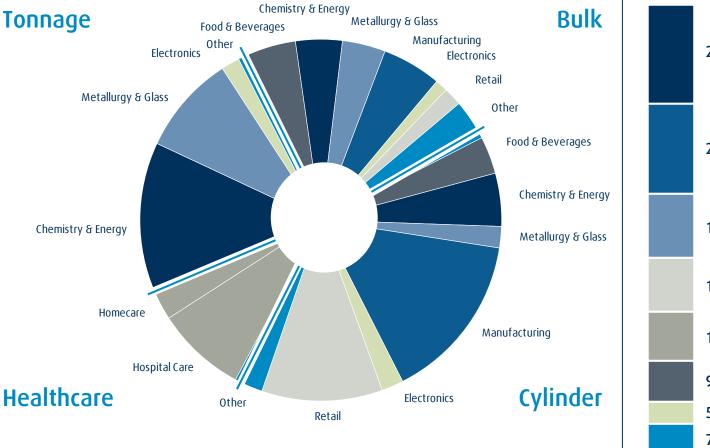


- High customer loyalty
- Includes specialty gases
- Cylinder rentals

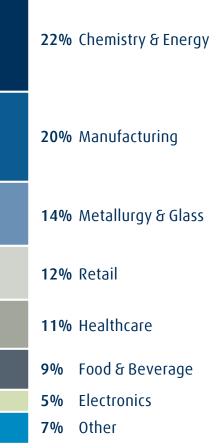
## **Gases Division** Stability driven by a broad customer base

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

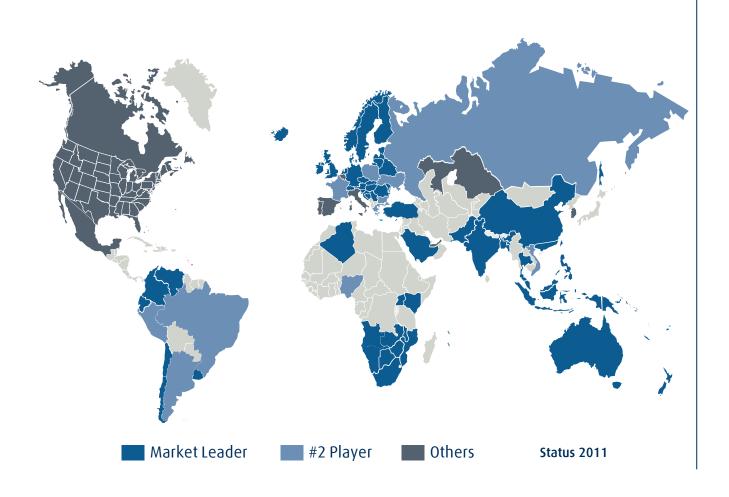


## 2011: Split of sales by major end-customer groups



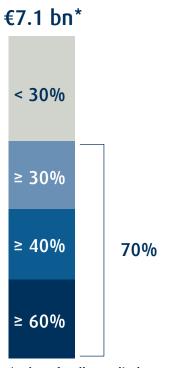
### **Gases Division, local business model** 70% of revenues come from a leading market position

Market leader in 48 of the 75 major countries, #2 Player in another 13

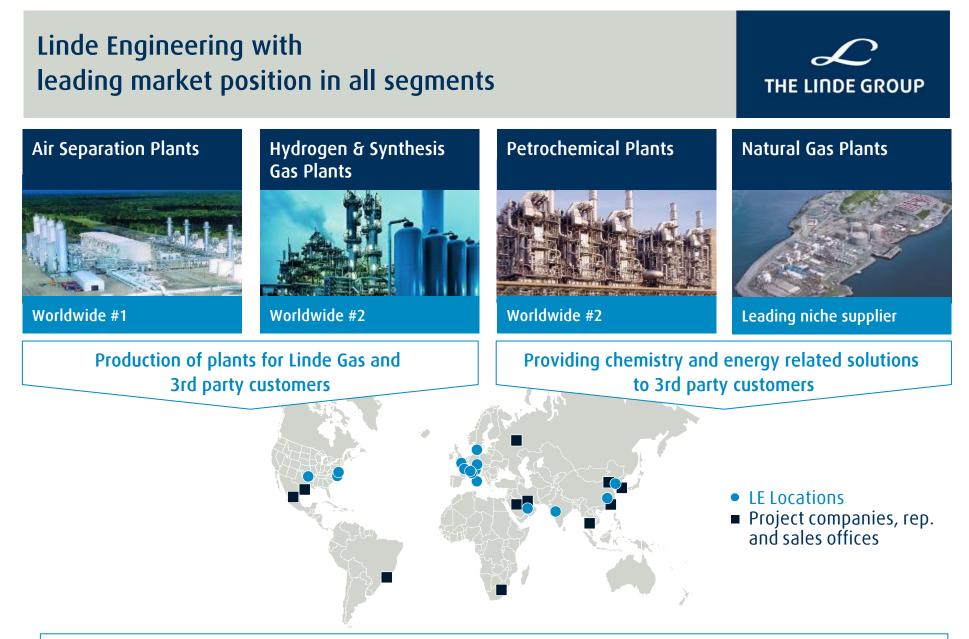


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Sales split by market share Bulk & Cylinder



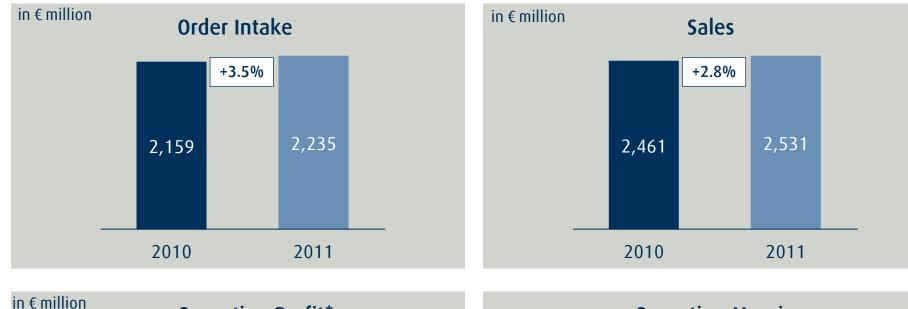
\*Sales of Bulk & Cylinder FY 2011



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

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







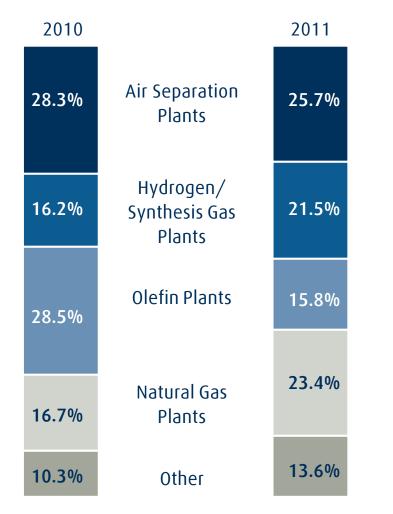


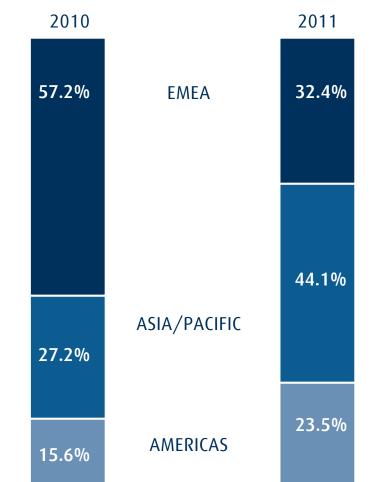
\*EBITDA incl. share of net income from associates and joint ventures

### **Engineering Division** FY 2011 order intake by plant type and region

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#### Order Intake by Plant Type





#### Order Intake by Region

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

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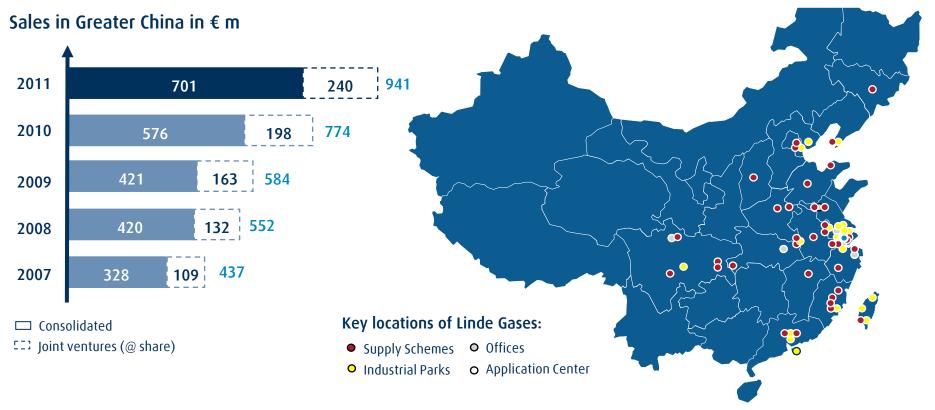
Order backlog by plant type (31/12/2011)

**Other: 7.4%** (2010: 4.6%) **Olefin Plants: 28.6%** Synthesis Gas Plants: 18.9% (2010: 43.5%) (2010: 14.7%) Natural Gas Plants: 20.4% Air Separation Plants: 24.7% (2010:24.7%) (2010: 12.5%)



## Mega-trend Growth Markets Leading player in Greater China

## C THE LINDE GROUP



- 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

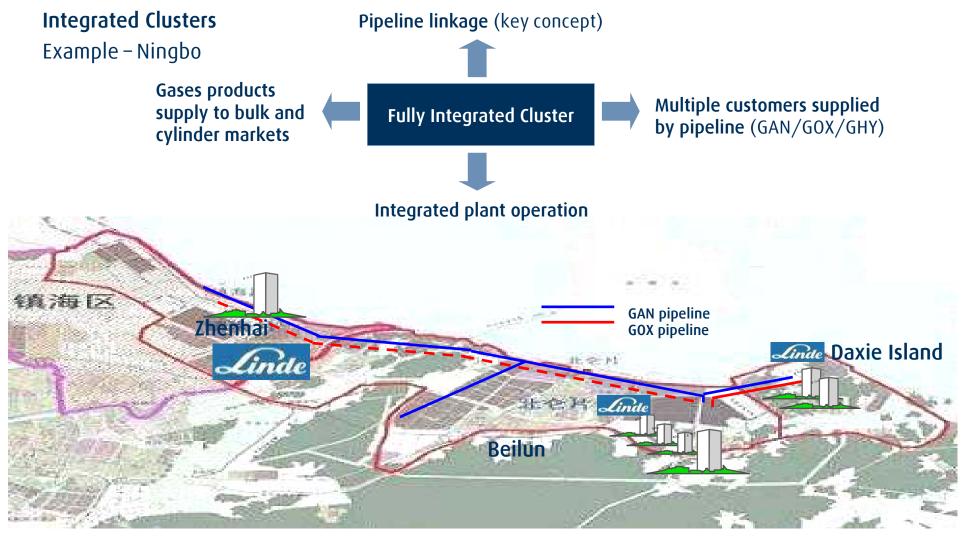
## **Growing with leading companies in key industries** A diverse customer portfolio to match an integrated business

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### Gases Division in China Integrated offer in selected industrial poles

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# Clean Energy market estimation 2020 & 2030 top down



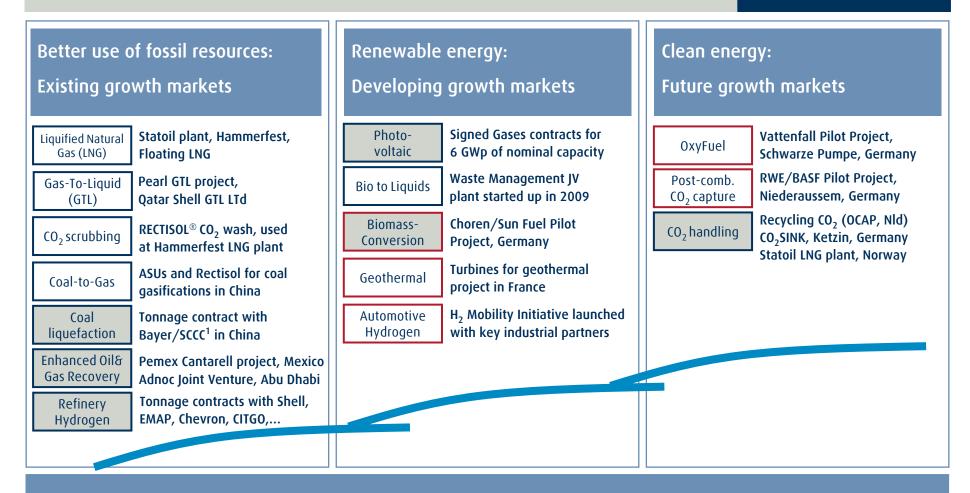
Market size in € bn	2015	2020	2030	Assumptions for 2030
Clean Coal			20 - 40	<ul> <li>Triple-digit number of 1 GW Carbon Capture (1.5 Gt/a CO<sub>2</sub> at EUR25-40/t)</li> </ul>
CO <sub>2</sub> networks	small	1	15 - 25	<ul> <li>Installation of significant pipeline network and corresponding compression         <ul> <li>(1.5 Gt/a handling fee CO<sub>2</sub> at EUR 10-15/t)</li> </ul> </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	<ul> <li>Includes mainly gases used for manufacturing of photovoltaic cells</li> </ul>
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

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**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\*

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#### 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

\* 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

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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 Return EPS		earnings after tax and minority interests + depreciation/amortization from purchase price allocation +/- special items	
	Shares	average outstanding shares	

#### **Investor Relations**

## THE LINDE GROUP

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#### **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