



H1 2018 Activity

Strong Growth in Line
with NEOS

Solid Performance

Business Development
Acceleration

Paris, 30 July 2018



Agenda

1. Strong growth in line with NEOS
2. Solid performance and strong cash flow
3. Business development acceleration and quality investment opportunities
4. Confirmed 2018 guidance

Strong Growth in Line with NEOS

Benoît Potier
Chairman & Chief Executive Officer

Strong Growth and Solid Performance in H1 2018



Sales⁽¹⁾

Growth in **all Business Lines**



G&S Operating Margin⁽²⁾

Driven by **efficiencies and synergies**



Net Profit

As **published**



Cash Flow⁽³⁾

From **operations**

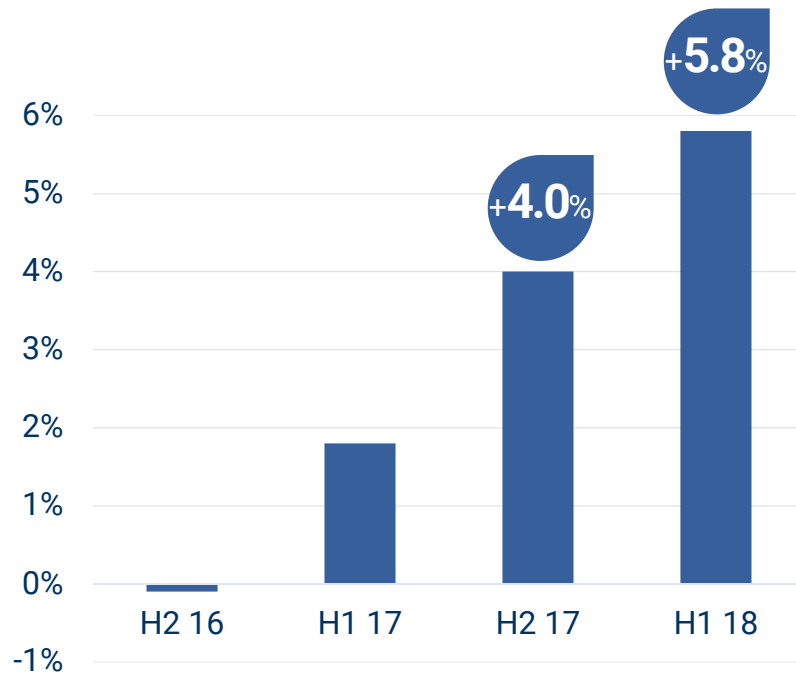
(1) Comparable growth

(2) Excluding energy impact

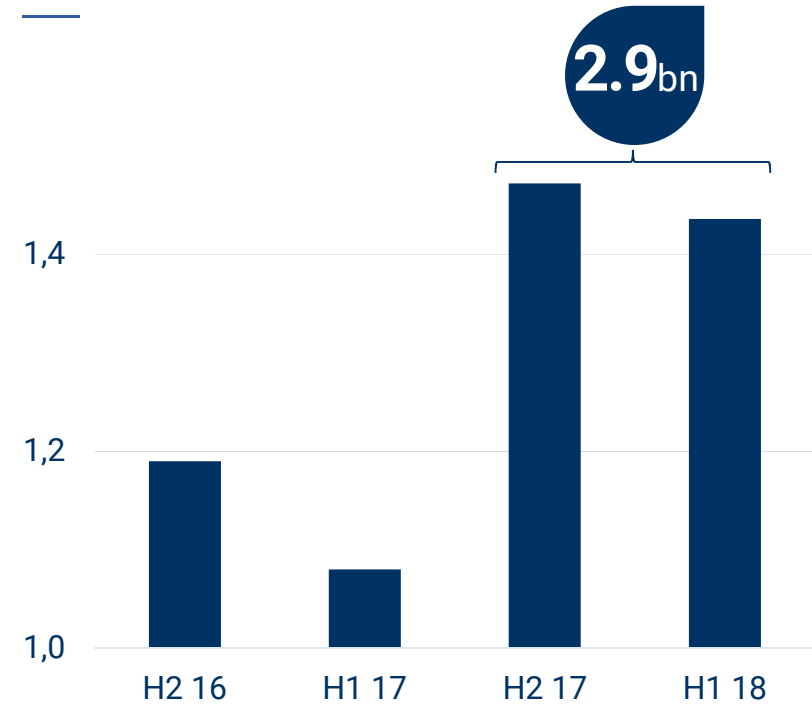
(3) After change in Working Capital Requirements

Business Development Acceleration...

Group Sales Comparable Growth



Investment Decisions - in €bn



... While Deploying Key Strategic Initiatives ...

Large Industries

- ✓ Digital operations in 3 zones
- ✓ New investments in key basins

Healthcare

- ✓ e-Health running solutions
- ✓ Entry in new countries
Colombia and Saudi Arabia



Industrial Merchant

- ✓ Web portals in place
- ✓ Increased density acquisitions in China
- ✓ Airgas fully integrated

Electronics

- ✓ Ramp up of etching gases
- ✓ New contracts
Japan and Taiwan

... Supported by

- Customer-centric initiatives
- Integrated digital solutions
- Sustained innovation strategy



Solid Performance and Strong Cash Flow

Fabienne Lecorvaisier
Executive Vice President &
Chief Financial Officer

Highlights

- Group sales up ~+6%
 - ✓ Strong momentum in all activities
 - ✓ High base business growth
- Improved G&S OIR margin
- Strong operating cash flow and improved ROCE
- Quality investment opportunities

Growth at the Top of NEOS Range

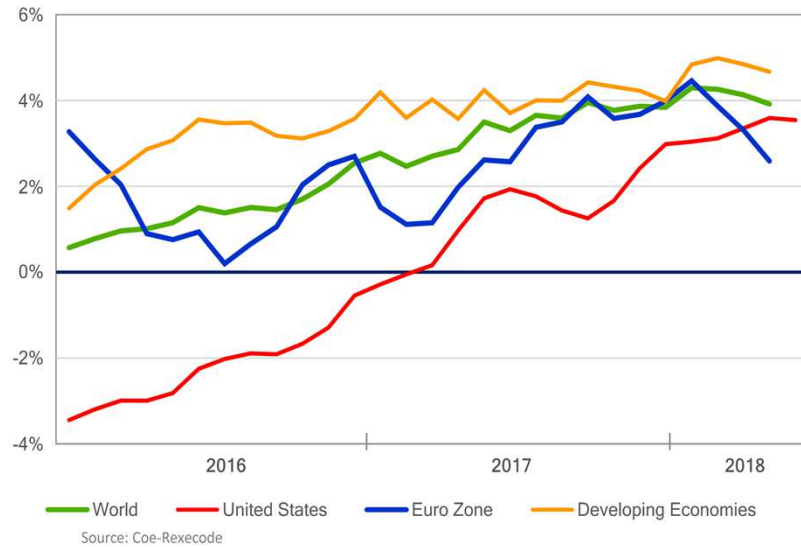
Sales in €m	H1 17	H1 18	H1 18/17 Comparable	H1 18/17 As published	Q2 18/17 Comparable
Gas & Services	9,978	9,769	+5.0%	-2.1%	+5.1%
Engineering & Construction	146	180	+29.8%	+23.6%	+4.3%
Global Markets & Technologies	169	213	+29.2%	+26.3%	+33.2%
Group Total	10,293	10,162	+5.8%	-1.3%	+5.6%

Note: NEOS sales growth objective between +6% and +8% CAGR 2016-2020, including Airgas scope effect in 2017 contributing +2% to the CAGR

Favorable Global Environment, Softening FX Headwind

High Industrial Production Level

Industrial Production Year on Year in % (3-month rolling average)



Lower Negative FX Impact⁽¹⁾ in Q2

-6.8%

H1 2018

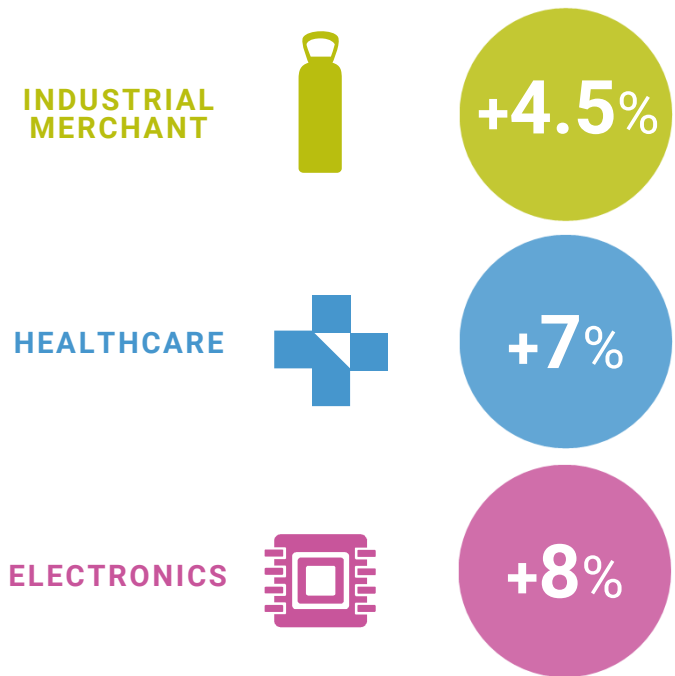
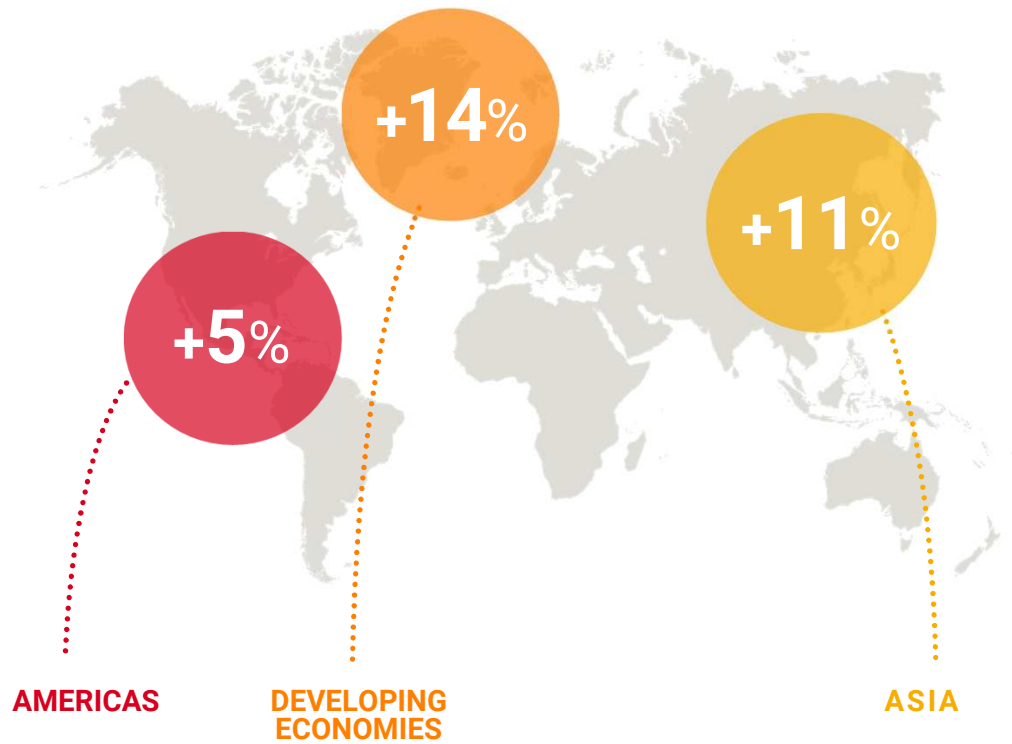
-3 to -4%⁽²⁾

Estimated
FY 2018

(1) On Group sales

(2) With an annual average EUR/USD exchange rate estimated at 1.19

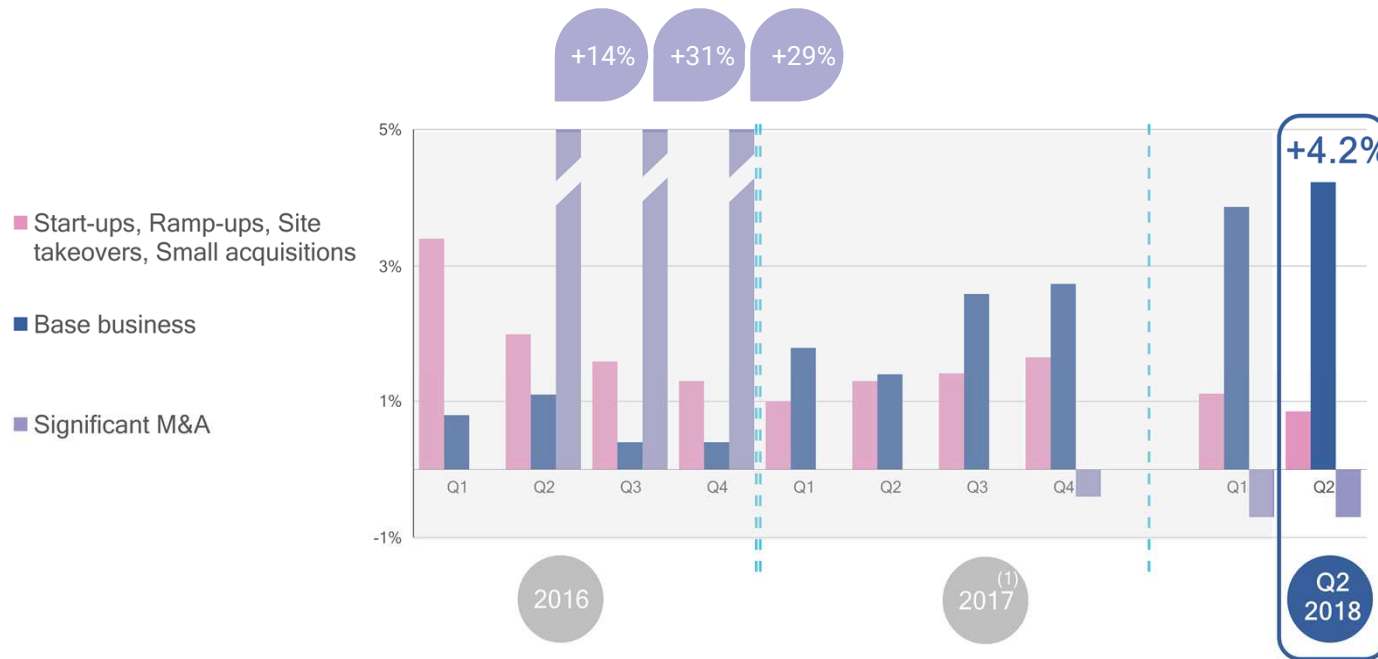
Accelerating Growth Drivers in Q2



Comparable G&S sales growth

Confirmed High Base Business Growth

G&S Quarterly Growth Analysis



Strongest
base business
since
Q2 11

(1) Comparable growth based on 2016 adjusted sales

Q2 - Very Robust Growth in Americas, Solid Europe



G&S Comparable Sales Growth

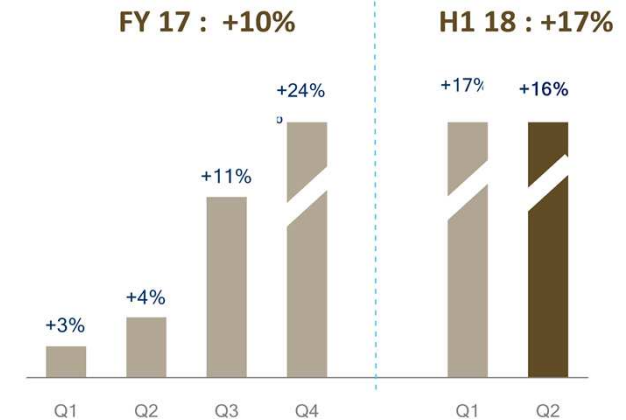
Dynamic IM and HC, high EL

- ▶ **LI:** H₂ customer **turnarounds** in the U.S.
- ▲ **IM: high growth**, broad-based end market contribution
- ▲ **HC: dynamic** in the U.S., Canada and South America
- ▲ **EL: thriving E&I**, high carrier gases

Very high organic HC and solid IM

- ▼ **LI:** numerous H₂ customer **turnarounds**
- ▶ **IM: solid** despite CO₂ shortage; improving pricing
- ▲ **HC: strong** in Germany, South Europe and Scandinavia
- ▲ **Dynamic Developing Europe**

Q2 - Booming Asia, Major Start-Up in South Africa



G&S Comparable Sales Growth

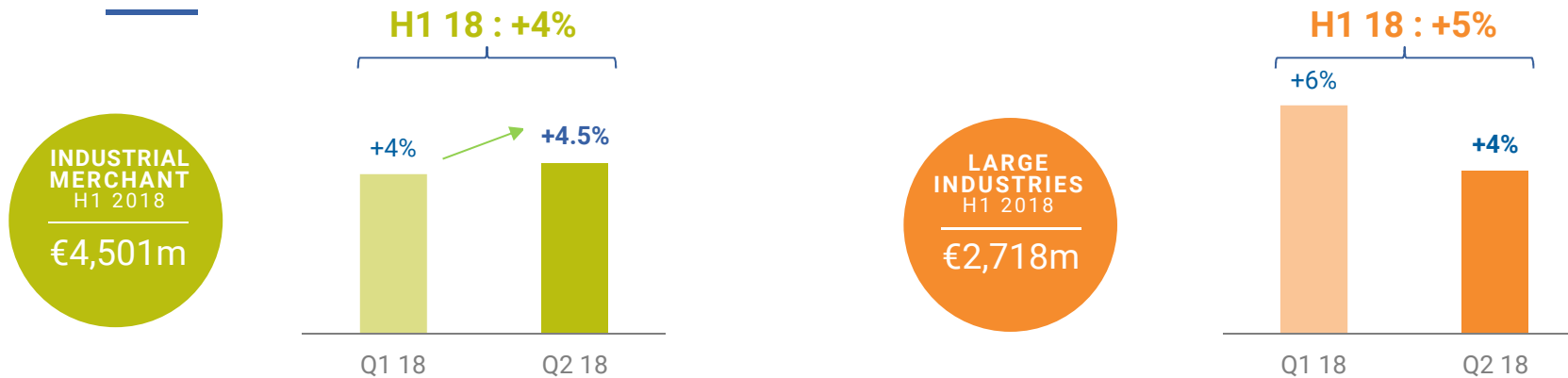
Very strong momentum in all activities

- ▲ **LI: high volumes** in China, Singapore, South Korea and Australia
- ▲ **IM: China** driving growth with **strong pricing and volumes**; improving Australia
- ▲ **EL: buoyant** activity in all segments, **very high E&I**

Full impact of major start-up in LI

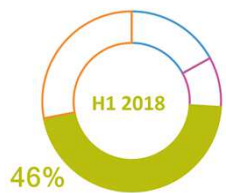
- ▲ **LI: Sasol start-up in South Africa** in Q4 17
- ▶ **IM: solid growth** in South Africa and Egypt
- ▲ **HC: strong**; contribution from acquisition in Saudi Arabia

Q2 - Solid IM, Turnarounds in LI



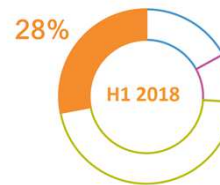
G&S Comparable Sales Growth

Robust activity



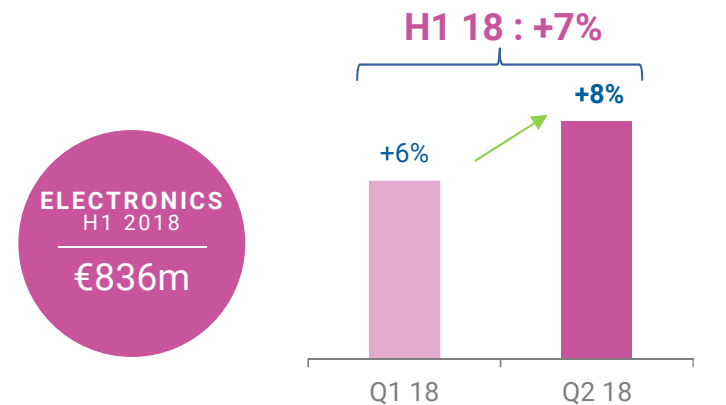
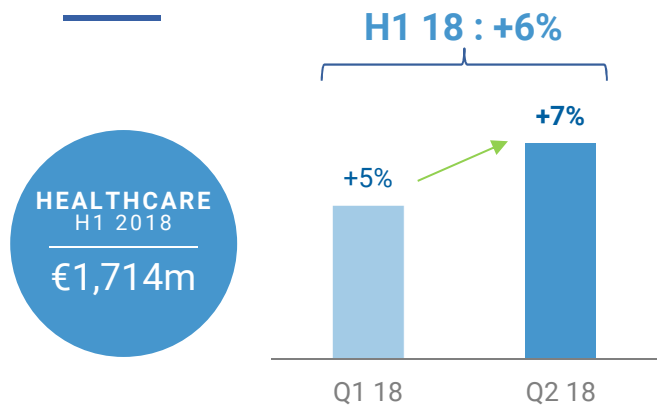
- ▲ Strong **Manufacturing and Metal Fabrication** markets
- ▼ **CO₂ shortage** in Europe
- ▲ Pricing **+1.7%**

Strong contribution from SU/RU



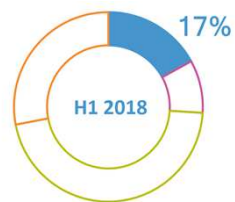
- ▲ **Ramp-ups** in South Africa and China
- ▲ Strong **air gases** volumes to **Chemicals** market
- ▼ **H₂ customer turnarounds** in Europe and the U.S.

Q2 - Very Dynamic HC and EL



G&S Comparable Sales Growth

Very strong organic activity



- ▲ **Dynamic HHC** despite pricing pressure
- ▲ **High Medical Gases**
- ▲ **Strong Hygiene and Specialty Ingredients**

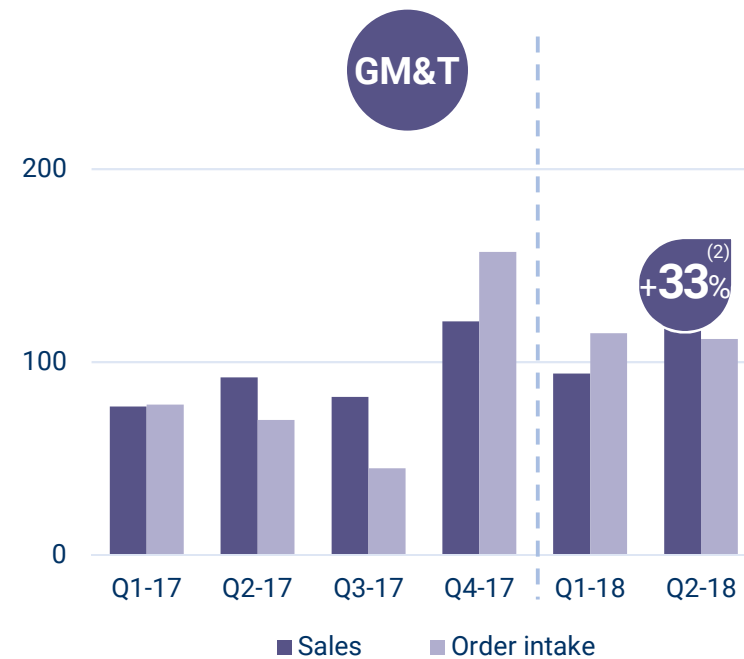
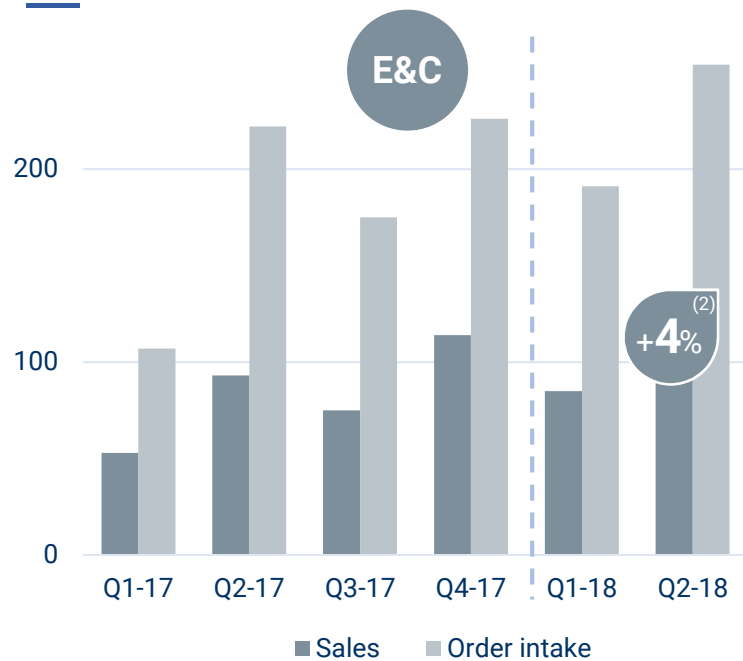
Double-digit growth in Asia



- ▲ **Very strong IC and FPD** markets
- ▲ **Booming E&I**
- ▲ **High growth** of gases and materials

Stronger Order Intake in E&C, Very Dynamic GM&T

Sales and Order intake⁽¹⁾ – in €m



(1) Group and third-party order intake

(2) Comparable growth

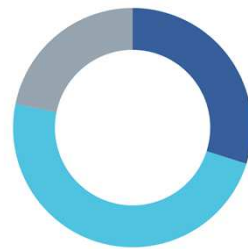
Improved G&S OIR Margin

In €m	H1 17	H1 18	H1 18/17	H1 18/17 Excl. Forex	H1 18/17 Comparable
Revenue	10,293	10,162	-1.3%	+5.5%	+5.8%
Purchases	(3,908)	(3,949)	+1.1%		
Personnel expenses	(2,098)	(2,041)	-2.9%		
Other net income and expenses	(1,730)	(1,676)			
Operating profit before depreciation	2,557	2,496	-2.4%		
Depreciation and amortization	(900)	(879)	-2.4%		
Operating Income Recurring	1,656	1,617	-2.3%	+4.8%	
OIR Margin	16.1%	15.9%			
OIR margin excluding energy effect		16.0%		-10bps	
G&S OIR Margin	17.6%	17.8%			
G&S OIR margin excluding energy effect		17.9%		+30bps	

Efficiencies above NEOS Target

H1 18 Efficiencies

€174m

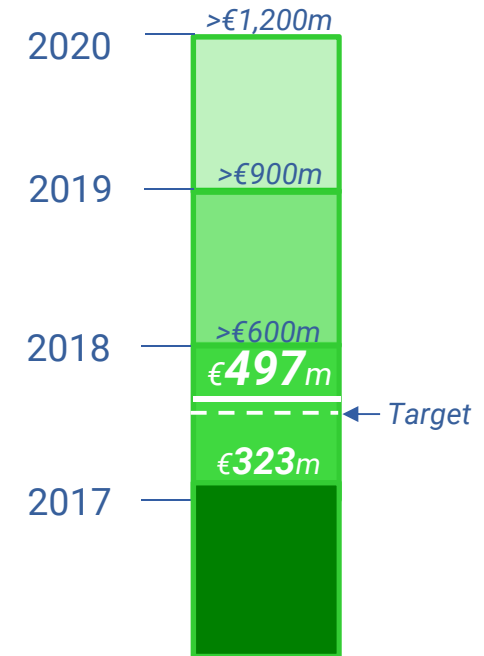


- Procurement
- Industrial
- Others



- Industrial Merchant
- Large Industries
- Healthcare
- Electronics
- E&C, GMT, Corporate

NEOS Cumulated Efficiencies

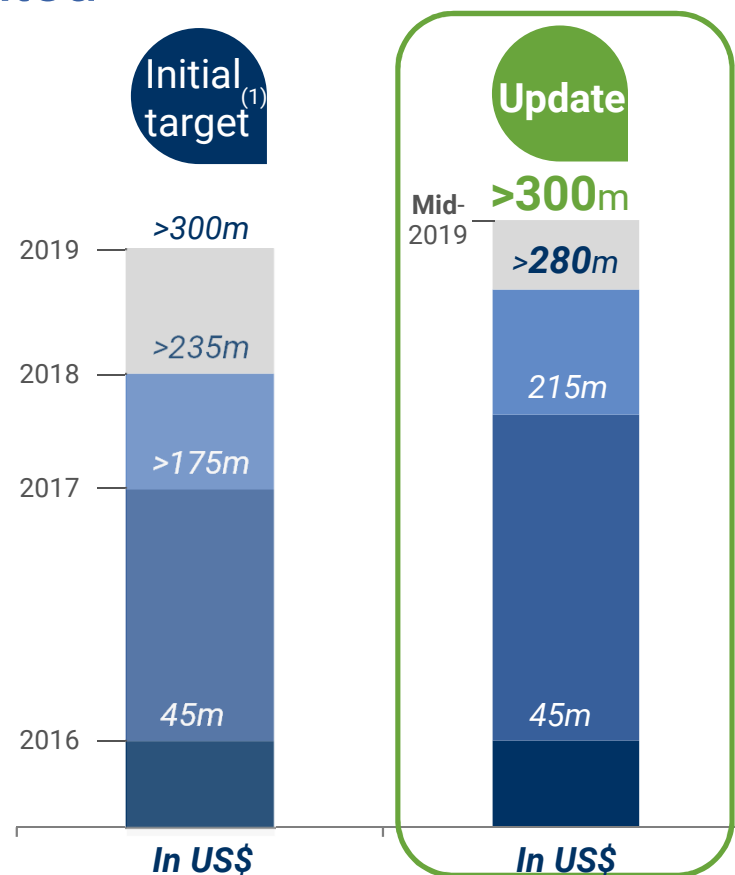


Airgas Synergies Further Accelerated US\$300m now by mid-2019

US\$
260m

- Costs ~US\$215m
- Revenue ~US\$45m

- H1 2018 synergies = **US\$45m**

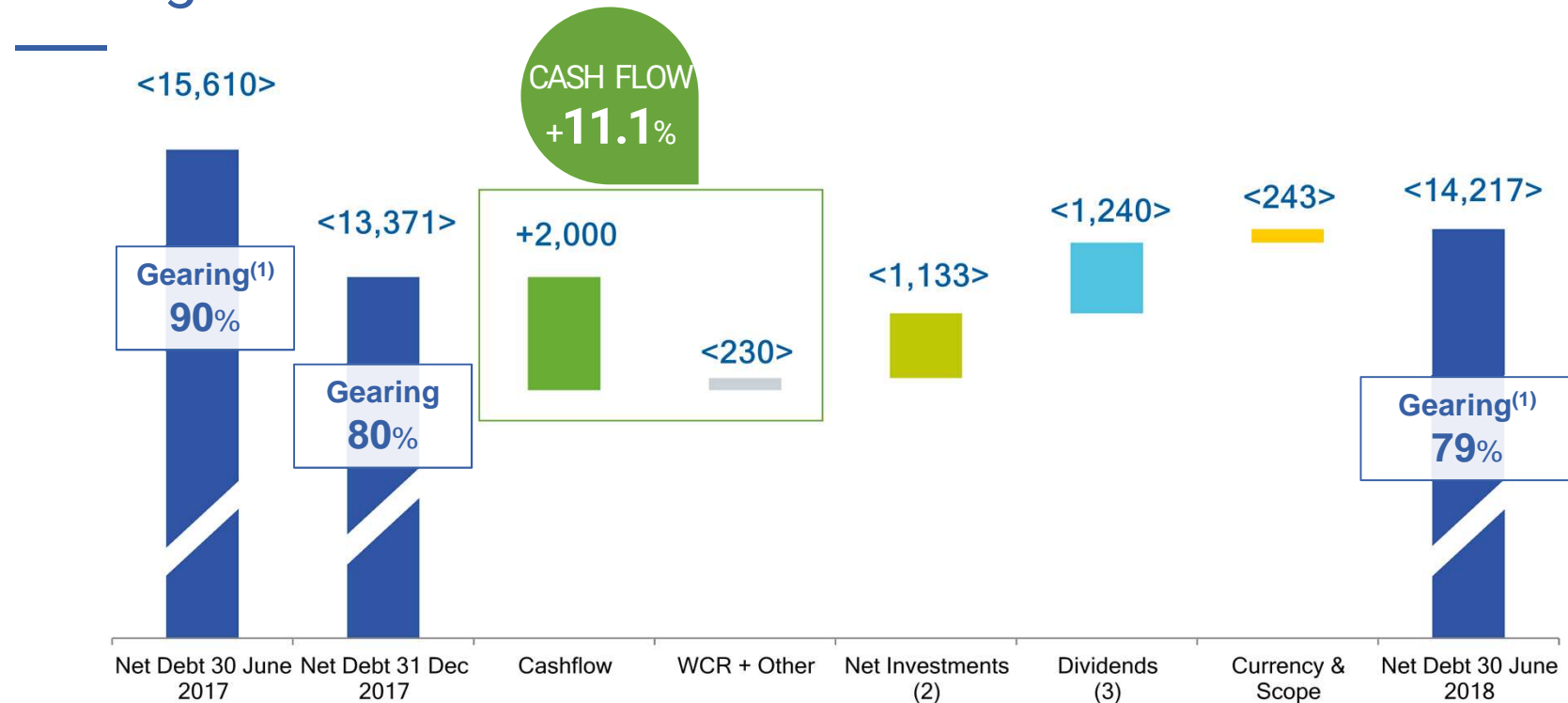


(1) Defined in 2016

Net Profit +12%

In €m	H1 17	H1 18	H1 18/17
Revenue	10,293	10,162	-1.3%
Operating Income Recurring	1,656	1,617	-2.3%
Other non-recurring operating income & expenses	(2)	(30)	
Operating income	1,654	1,587	
Net financial costs and other net financial expenses	(259)	(145)	
Income taxes	(389)	(360)	
Tax rate	27.9%	24.9%	
Share of profit of associates	1	3	
Minority interests	(49)	(46)	
Net result from discontinued operations	(30)	0	
Net profit (Group share)	928	1,040	+12.1%
Earnings per share (in €)	2.18	2.44	+12.1%

Strong Cash Flow

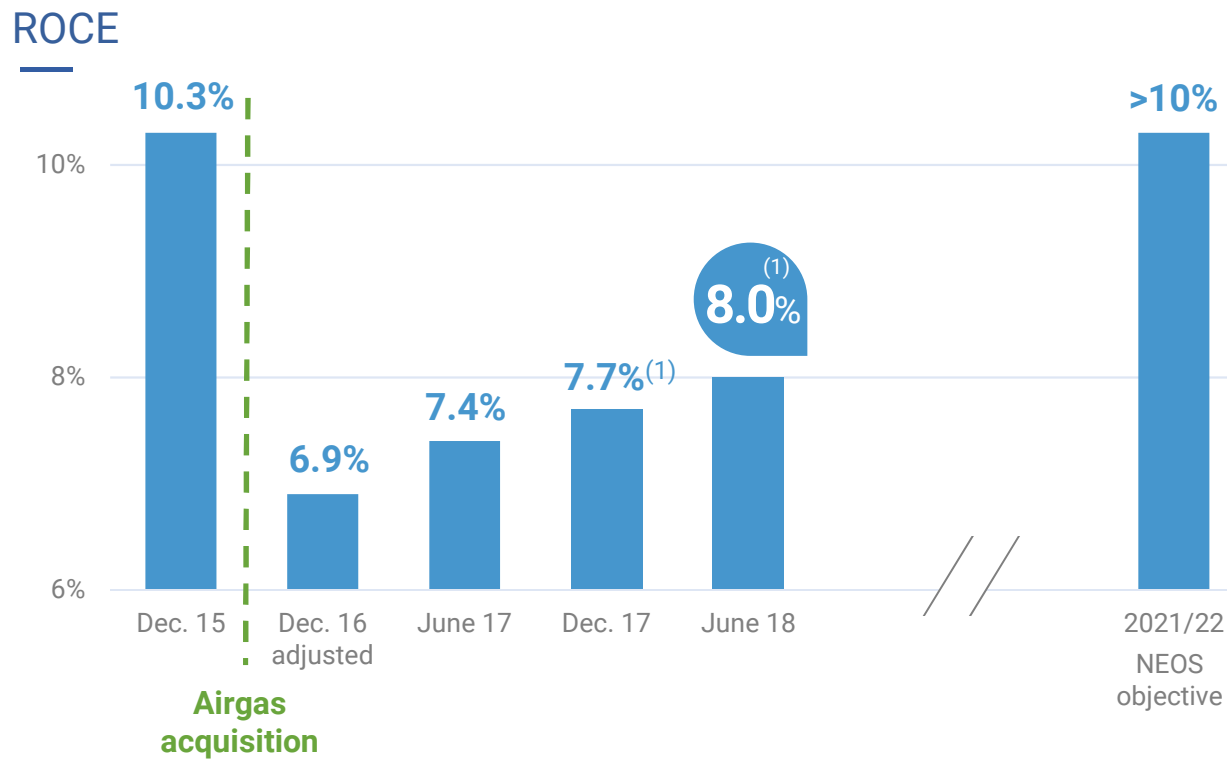


(1) June 30 gearings adjusted for dividend seasonality.

(2) Including acquisitions, transactions with minority shareholders, net of divestitures.

(3) Including share purchases and capital increases.

Continued Improvement in ROCE



(1) Excluding 2017 positive impact on net profit of non-cash one-off items.

Business Development Acceleration and Quality Investment Opportunities

Fabienne Lecorvaisier

Executive Vice President &
Chief Financial Officer

Increasing Opportunities

Investment Opportunities⁽¹⁾ 12-month portfolio



- **Thriving bidding activity**
- **Medium-size opportunities**

H1 2018 Investment Decisions⁽¹⁾



- **Major long-term contracts** in LI, EL Carrier Gas contracts in Asia
- 500th acquisition for **Airgas**
- **Increased capex for efficiencies**

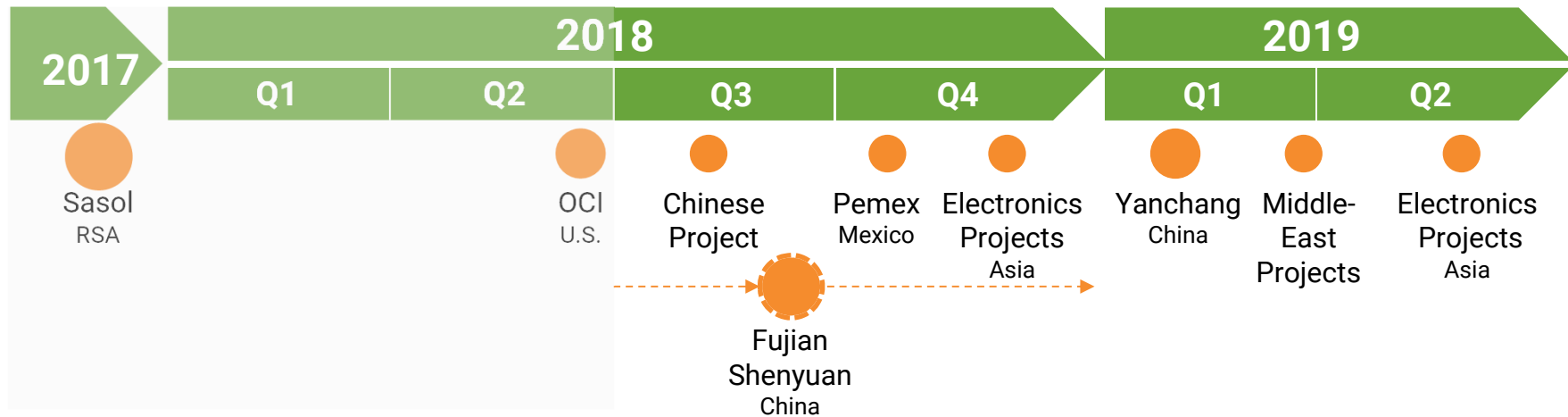
H1 2018 Start-up/Ramp-up Sales Growth Contribution



- **Asia and Africa Middle-East**
- **7 start-ups**

(1) See definitions in appendix

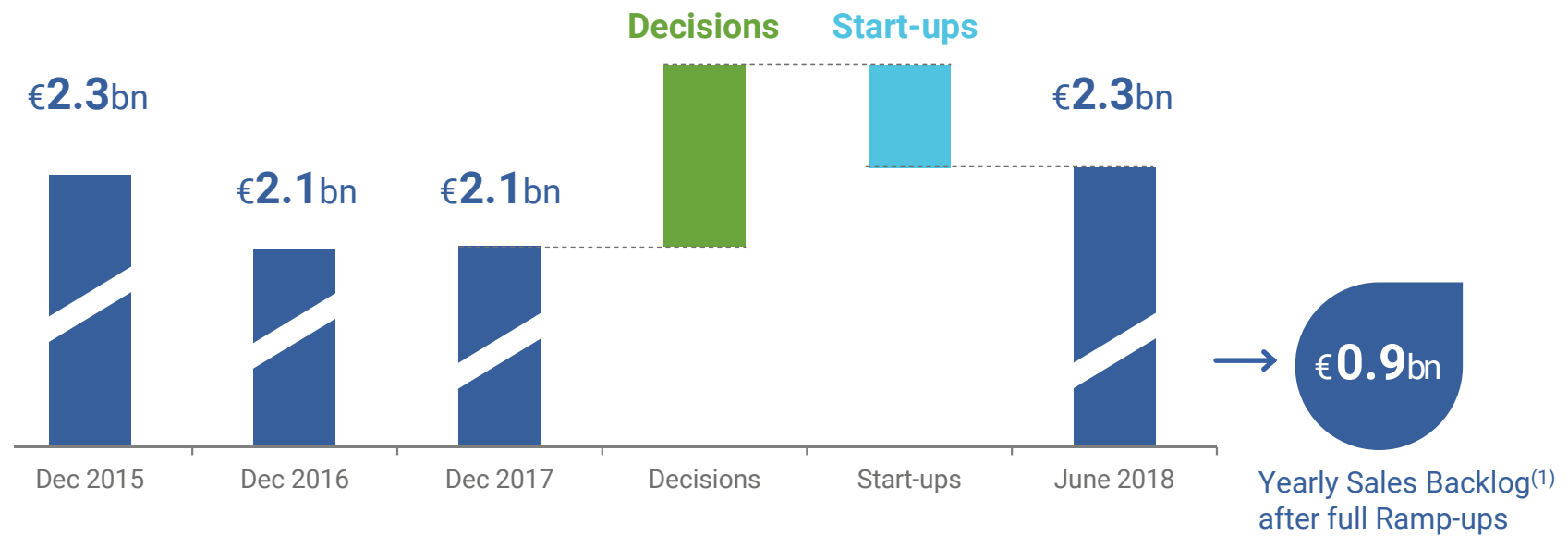
Updated Start-Up Timeline



- OCI started end Q2
- 2018 forecasted additional sales between €250 and €300 million depending on Fujian start-up date
- Strong start-up pace to continue in 2019

Increased Backlog

Investment Backlog⁽¹⁾ in €bn



(1) See definitions in appendix

2018 Outlook

H1
2018

- Strong growth with Group sales up ~+6%
- Performance well on track
- Accelerating business development

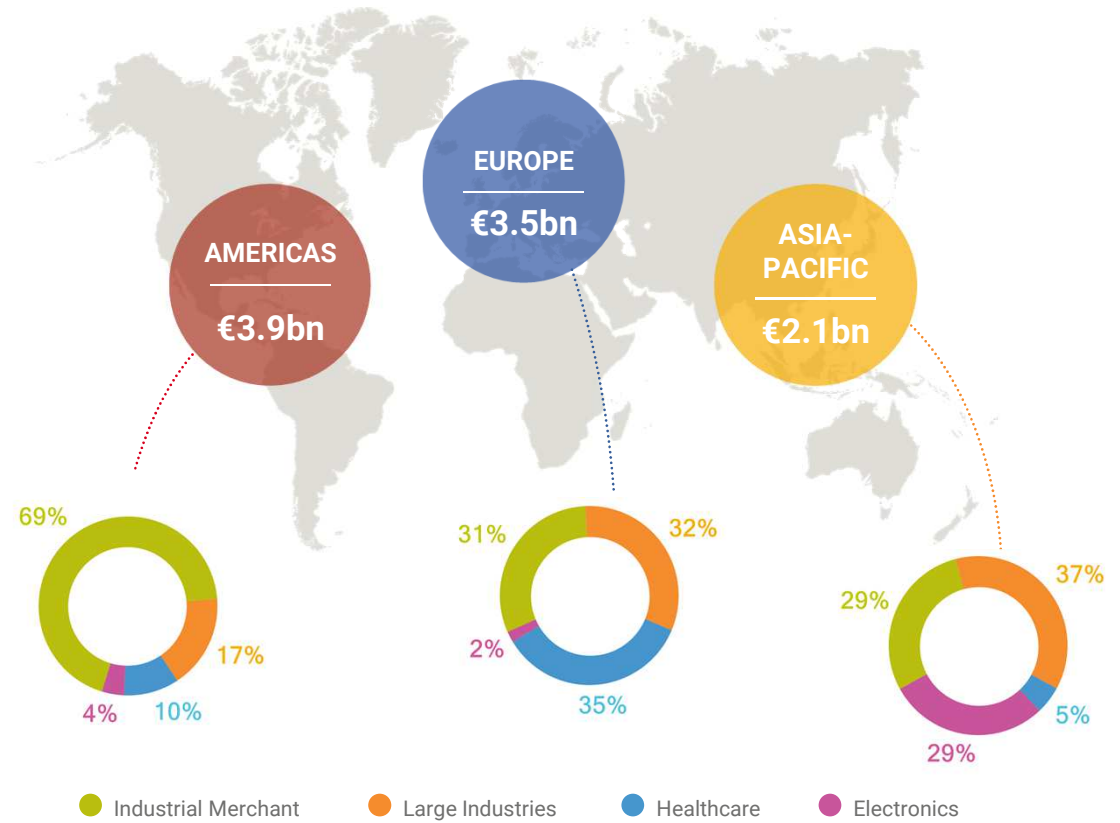
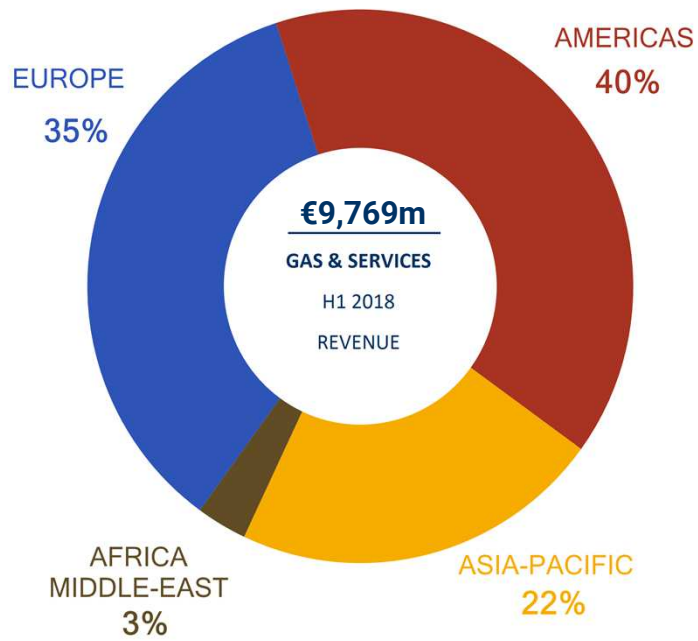
2018

“Assuming a comparable environment, Air Liquide is confident in its ability to deliver net profit growth in 2018, calculated at constant exchange rate and excluding 2017 exceptionals⁽¹⁾.”

(1) Exceptional non-cash items having a net positive impact on 2017 net profit

H1 2018 Appendix

H1 2018 G&S Revenue Breakdown by Region



Americas

Q2 Gas & Services Sales: €1,973m

INDUSTRIAL MERCHANT

- **Very solid demand** for cylinders and hardgoods in the U.S.
- **Positive pricing** +1.8%
- **All end-markets positive**, particularly manufacturing, metal fabrication and construction in the U.S.

LARGE INDUSTRIES

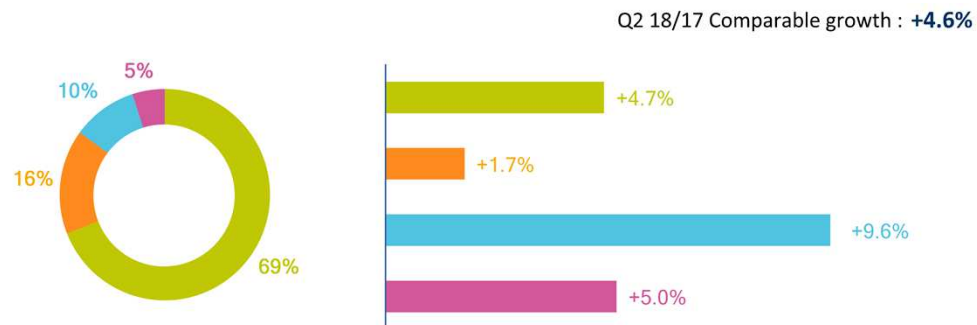
- **Several customer turnarounds** in the U.S. for **cogen** and **H₂**
- **Strong volumes** of **O₂** for Chemicals

HEALTHCARE

- **Dynamic growth** in the U.S. for medical gases and in Canada for HHC
- **Limited contribution** from bolt-on acquisitions
- **Strong momentum** in Latin America

ELECTRONICS

- **Better Q2 at +5%**
- **Very high Equipment & Installation** sales



In €m	H1 2018	Growth as published	Comparable growth ⁽¹⁾
Sales	3,874	-8.9%	+4.6%
OIR	636	-5.2%	
OIR/Sales	16.4%	+60bps	+60bps ⁽²⁾

(1) Refer to appendix for definitions

(2) Excluding impact of energy

Europe

Q2 Gas & Services Sales: €1,711m

INDUSTRIAL MERCHANT

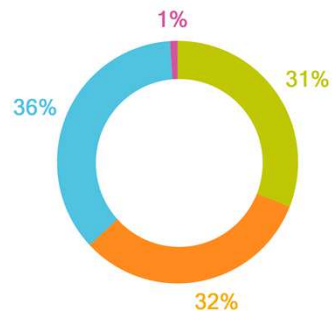
- **Strong growth** in Germany, Italy and Eastern Europe
- Dynamic **manufacturing and craftsman** markets
- **Price** continued to strengthen at +1.1%
- **CO₂ shortage** in France and Benelux

LARGE INDUSTRIES

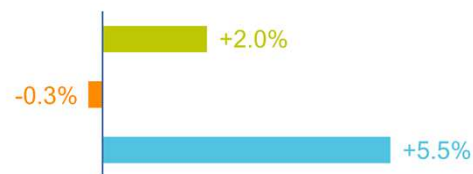
- High number of **customer turnarounds** in H₂
- **Strong growth** in Eastern Europe and in Turkey

HEALTHCARE

- **Accelerating growth**
- **Limited** bolt-on acquisitions
- **Increased number of patients**, especially in Northern Europe



Q2 18/17 Comparable growth : **+1.2%**



In €m	H1 2018	Growth as published	Comparable growth ⁽¹⁾
Sales	3,464	+2.8%	+2.3%
OIR	651	+2.3%	
OIR/Sales	18.8%	-10bps	+20bps ⁽²⁾

(1) Refer to appendix for definitions

(2) Excluding impact of energy

Asia-Pacific

Q2 Gas & Services Sales: €1,091m

INDUSTRIAL MERCHANT

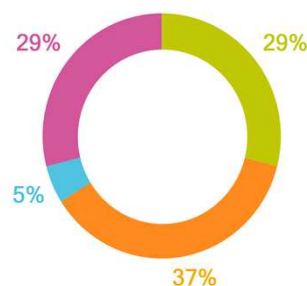
- **China again >+15%**, strong volume increase in cylinders and in liquid argon ; higher prices
- **Improving Australia**
- **Nearly flat Japan**

LARGE INDUSTRIES

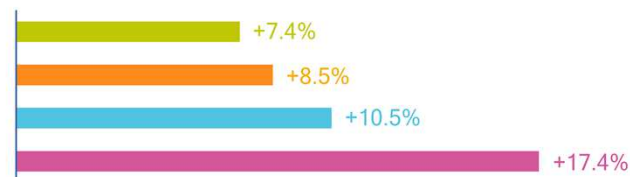
- Several **ramp-ups in China**
- **High demand in China** (chemical and steel), **South Korea, Singapore** (refining) and **Australia** (mining)

ELECTRONICS

- **Strong demand for new molecules** particularly in Taiwan and South Korea
- **Ramp-ups in carrier gases**
- Exceptionally high level of **E&I sales**



Q2 18/17 Comparable growth : **+10.8%**

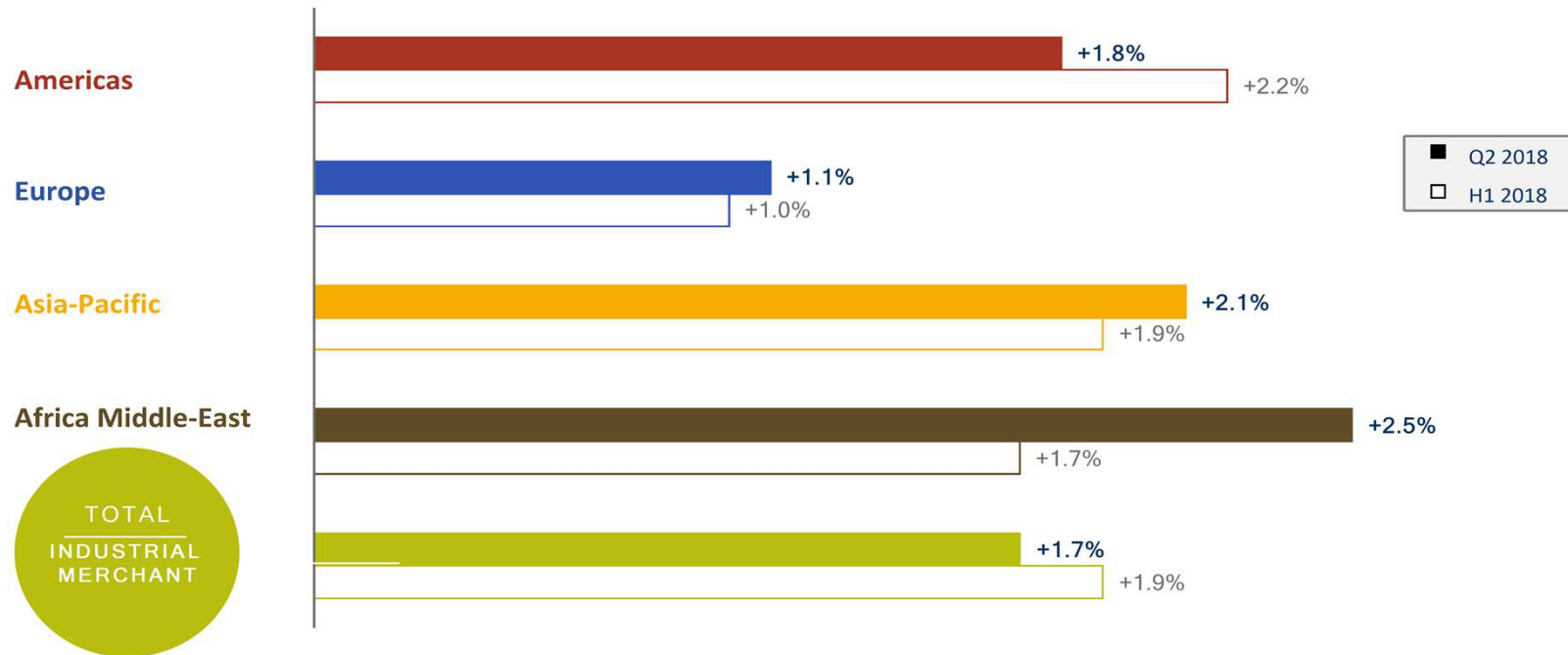


In €m	H1 2018	Growth as published	Comparable growth ⁽¹⁾
Sales	2,107	+3.7%	+8.8%
OIR	407	+1.6%	
OIR/Sales	19.3%	-40bps	-20bps ⁽²⁾

(1) Refer to appendix for definitions

(2) Excluding impact of energy

Industrial Merchant Pricing



Consolidated P&L

In €m	H1 2017	H1 2018
Revenue	10,293	10,162
Cost of goods	(7,737)	(7,666)
Operating income recurring before depreciation	2,556	2,496
Depreciation and amortization expense	(900)	(879)
Operating Income Recurring	1,656	1,617
Net non-recurring operating income	(2)	(30)
Operating income	1,654	1,587
Net finance costs & other net financial expenses	(259)	(145)
Income taxes	(389)	(359)
Share of profit of associates	1	3
Net profit from discontinued operations	(30)	0
Profit for the period	977	1,086
- Minority Interest	49	46
- Net Profit (Group share)	928	1,040
Basic earnings per share (in €) (1)	2.18	2.44

(1) H1 2017 Basic earnings per share adjusted for the free share attribution of October 2, 2017

Operating Margin (OIR/Revenue)

		H1 2017	2017
2017	Group	16.1%	16.5%
	Gas & Services	17.6%	18.3%
		As published	Excl. Energy
H1 2018	Group	15.9%	16.0%
	Gas & Services	17.8%	17.9%

H1 2018 G&S operating margin excluding energy **improved +30bps** compared to H1 2017

Cash Flow Statement

In €m	H1 2017	H1 2018
Funds provided by operations	1,947	2,000
Changes in Working Capital	(317)	(196)
Other items	(37)	(34)
Net cash from operating activities	1,593	1,770
Purchase of PPE* and intangible assets	(1,108)	(1,096)
Purchase of financial assets and the impact of changes in scope	(86)	(75)
Proceeds from sale of PPE*, intangible and financial assets	36	38
Net cash in investing activities	(1,158)	(1,133)
Distribution	(1,103)	(1,213)
Increase in capital stock	27	36
Purchase of treasury shares	(158)	(63)
Transactions with minority shareholders	(4)	0
Impact of Exchange rate changes and net indebtedness of newly consolidated companies & others	561	(243)
Change in net indebtedness	(242)	(846)

* PPE: Property, plant and equipment.

Impact of Currency and Energy on G&S Revenue

Currency	In €m	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18
€/USD		+64	+49	(89)	(161)	(258)	(147)
€/CNY		(7)	(8)	(20)	(23)	(26)	(4)
€/JP¥		+13	(1)	(34)	(30)	(24)	(17)
Others		+46	+10	(51)	(59)	(105)	(90)
Total currency impact		+116	+50	(194)	(273)	(413)	(258)
Average rate		Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18
€/USD		1.07	1.10	1.17	1.18	1.23	1.19
€/CNY		7.33	7.55	7.83	7.79	7.81	7.60
€/JP¥		121.0	122.2	130.4	132.9	133.1	130.1
Natural Gas	In €m					Q1 18	Q2 18
Natural Gas Impact		+104	+75	+41	+23	(14)	+30
Electricity	In €m					Q1 18	Q2 18
Electricity Impact		+25	+17	+9	(0)	(2)	+21

Revenue Analysis by Quarter and by Business Line

Sales in €m	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q2 18/17 as published	Q2 18/17 comparable
Large Industries	1,392	1,302	1,286	1,356	1,365	1,353	+4.0%	+4.3%
Industrial Merchant	2,384	2,373	2,265	2,239	2,208	2,293	-3.4%	+4.5%
Healthcare	850	840	833	878	850	864	+2.9%	+6.9%
Electronics	420	417	403	404	408	428	+2.7%	+7.6%
Gas & Services	5,046	4,932	4,787	4,877	4,831	4,938	+0.1%	+5.1%
Engineering & Construction	53	93	75	114	85	95	+1.4%	+4.3%
Global Markets & Technologies	77	92	82	121	94	119	+30.5%	+33.2%
Group Total	5,176	5,117	4,944	5,112	5,010	5,152	+0.7%	+5.6%

Revenue Analysis by Quarter and by Geography

Sales in €m	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18	Q2 18/17 as published	Q2 18/17 comparable
Americas	2,142	2,109	1,968	1,931	1,901	1,973	-6.5%	+4.6%
Europe	1,710	1,661	1,657	1,748	1,753	1,711	+3.0%	+1.2%
Asia-Pacific	1,024	1,008	1,010	1,039	1,016	1,091	+8.3%	+10.8%
Middle-East, Africa	170	154	152	159	161	163	+5.9%	+16.3%
Gas & Services	5,046	4,932	4,787	4,877	4,831	4,938	+0.1%	+5.1%
Engineering & Construction	53	93	75	114	85	95	+1.4%	+4.3%
Global Markets & Technologies	77	92	82	121	94	119	+30.5%	+33.2%
Group Total	5,176	5,117	4,944	5,112	5,010	5,152	+0.7%	+5.6%

G&S Revenue Growth by Quarter and by Impact

	Growth as published	Natural Gas	Electricity	Currency	Significant perimeter	Comparable growth
Q1 2017	+42.2%	+2.2%	+0.6%	+2.5%	N/A	+2.8%
Q2 2017	+21.2%	+1.6%	+0.4%	+1.1%	N/A	+2.7%
Q3 2017	+0.1%	+0.8%	+0.2%	-4.1%	N/A	+4.0%
Q4 2017	-1.1%	+0.5%	+0.0%	-5.6%	-0.4%	+4.4%
Q1 2018	-4.3%	-0.3%	-0.0%	-8.3%	-0.7%	+5.0%
Q2 2018	+0.1%	+0.6%	+0.4%	-5.3%	-0.7%	+5.1%

Investment Cycle – Definitions

• Investment opportunities at end of the period

- Investment opportunities under consideration by the Group for decision within 12 months.
- Industrial projects with investment value > €5m for Large Industries and > €3m for other business lines.
- Includes asset replacements or efficiency projects. Excludes maintenance and safety.

• Investment backlog at end of the period

- Cumulated industrial investment value of projects decided but not yet started.
- Industrial projects with value > €10m, including asset replacements or efficiency projects, excluding maintenance and safety.

• Sales backlog

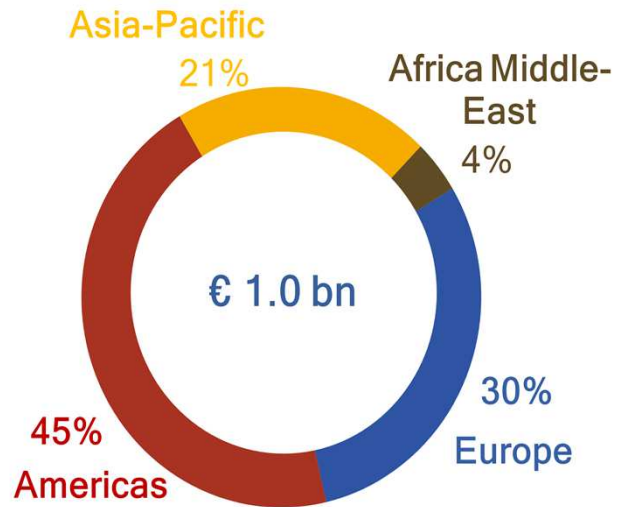
- Cumulated expected sales per year generated by the current investment backlog after full ramp-up.

• Decisions of the period

- Cumulated value of industrial and financial investment decisions.
- Industrial, growth and non-growth projects including asset replacements, efficiency, maintenance and safety.
- Financial decisions (acquisitions).

Gas & Services Industrial Capex by Geography

G&S H1 2018 capex⁽¹⁾



G&S capex⁽¹⁾ / sales

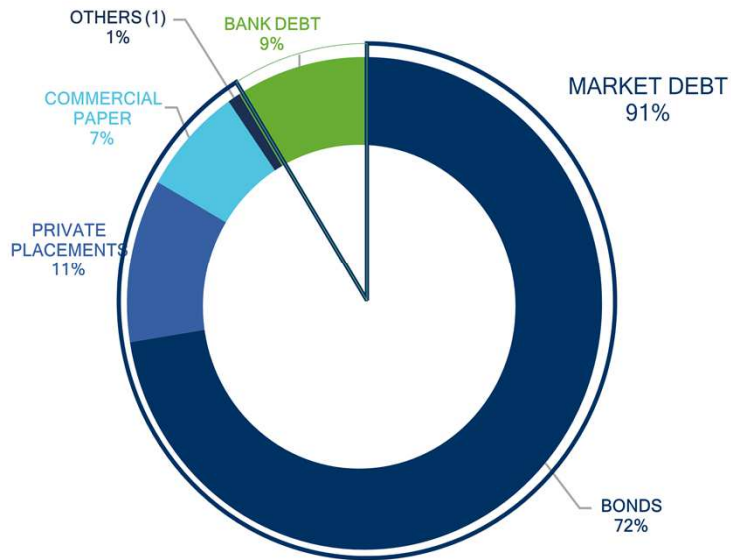
	H1 2017	H1 2018
Europe	8.4%	8.5%
Americas	8.4%	11.4%
Asia-Pacific	13.4%	9.7%
Africa Middle-East	27.8%	12.4%
Total	10.1%	10.1%

(1) Gross industrial investments.

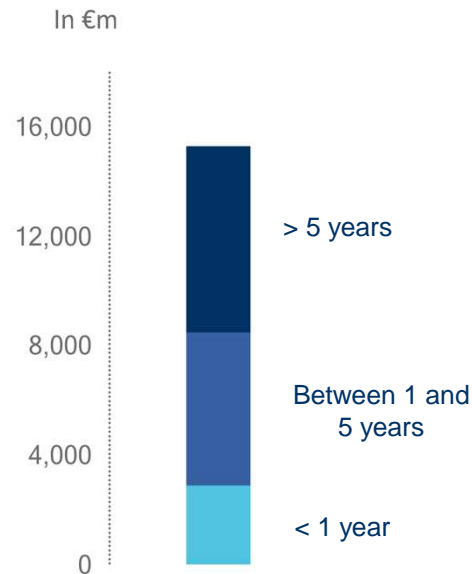
Financing Structure

As of June 30, 2018

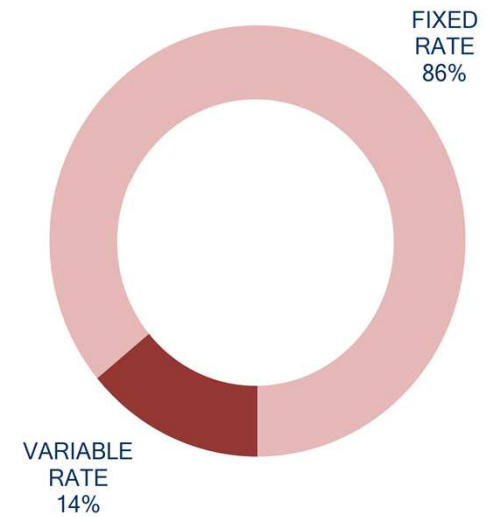
Sources



Maturity

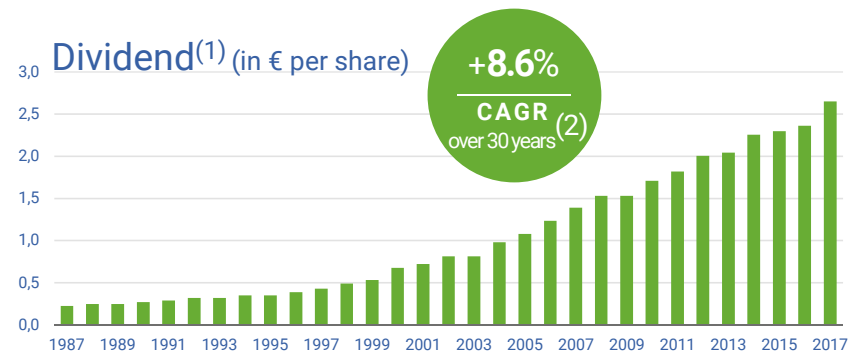
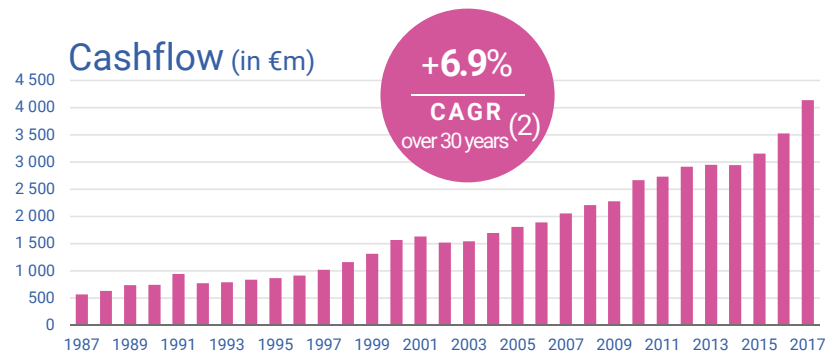
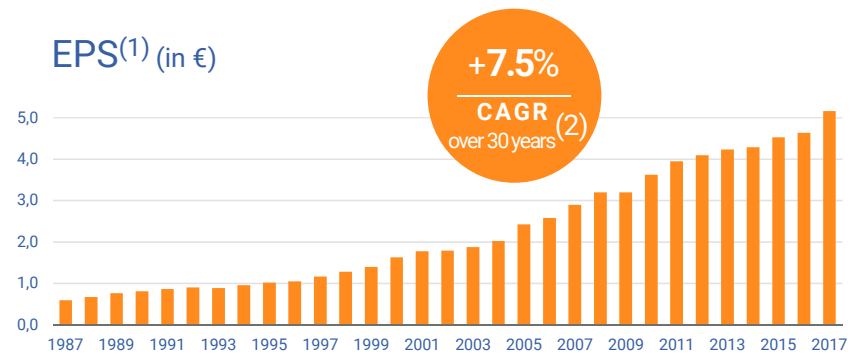
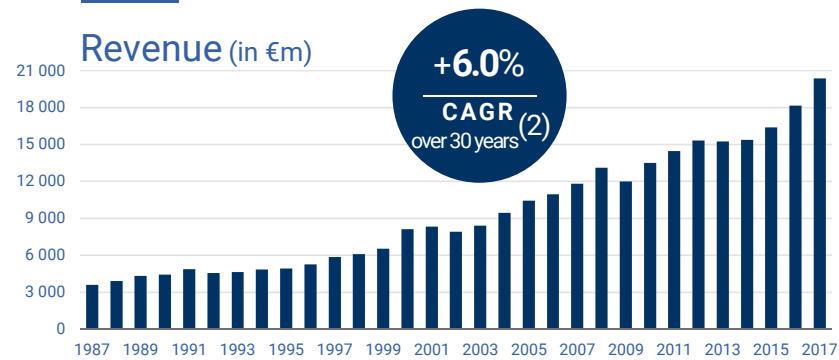


Fixed / Variable Rates (gross debt)



(1) Others: Finance leases and put options granted to minority shareholders.

Regular and Sustained Performance



(1) Adjusted for the 2-for-1 share split in 2007, for attributions of free shares and for a factor of 0.974 reflecting the value of the rights of the capital increase completed in October 2016. (2) Calculated according to prevailing accounting rules over 30 years.

For further information, please contact:

Investor Relations

Aude Rodriguez ☎ + 33 (0)1 40 62 57 08

Louis Laffont ☎ + 33 (0)1 40 62 57 18

Ludmilla Binet ☎ + 33 (0)1 40 62 57 37

Jérôme Zaman ☎ + 33 (0)1 40 62 59 38

Joseph Marczely ☎ + 1 610 263 8277

www.airliquide.com

Communication

Alexandra Rocca ☎ + 33 (0)1 40 62 50 93

Annie Fournier ☎ + 33 (0)1 40 62 51 31

Follow us on Twitter @AirLiquideGroup

L'Air Liquide S.A.

Corporation for the study and application of processes developed by Georges Claude

with registered capital of 2,356,439,277.50 euros

Corporate Headquarters:

75, Quai d'Orsay

75321 Paris Cedex 07

Tel : +33 (0)1 40 62 55 55

RCS Paris 552 096 281