

Q3 2019 Activity

Robust Sales Growth
Despite Softening Environment

Very Active Business Development

Paris, 24 October 2019



Q3 Highlights

- Robust sales growth at +3.5% despite a softening environment
- Performance improvement plans continue to deliver
- Strong cash flow
- Sustained business development with high levels of opportunities and decisions

Markets Softening Through Q4 2019



Chemicals
Oil & gas
Steel



Metal Fab.
Construction
Energy
Food & Pharma
Techno & Research



Integrated Circuit



Medical gases
Home Healthcare



- **Softening Chemicals** in all regions
- **High** demand from **Refining** in Northern Europe
- Active **projects signing**

- **Continued softening** in U.S.
- **Growth in consumption related** sectors
- Contrasted dynamics in **China**

- **Memory market** driving sales growth
- Back to **normalized level** of customers **capex**

- **Healthcare strong fundamentals**

Robust Sales Growth

Sales in €m	Q3 18	Q3 19	Q3 19/18 Comparable	Q3 19/18 As published	YTD 19 Comparable
Gas & Services	5,066	5,242	+3.5%	+3.5%	+4.4%
Engineering & Construction	105	81	-24.6%	-22.9%	-11.5%
Global Markets & Technologies	100	131	+29.7%	+31.4%	+16.8%
Group Total	5,271	5,454	+3.5%	+3.5%	+4.4%

Q3 Group sales: ▪ +2.1% FX Impact ▪ +0.6% Scope ▪ -2.7% Energy Impact

HC and EL, Key Growth Drivers in Q3

— G&S comparable sales growth

WBLs

Large Industries



+3%

Industrial Merchant



+2%

Healthcare



+6%

Electronics



+6%

Main Geographies contributing



Asia, H₂ in Europe



Europe, Asia, Middle East



Europe, Americas



Asia

Resilient Base Business Activity

— G&S quarterly growth analysis

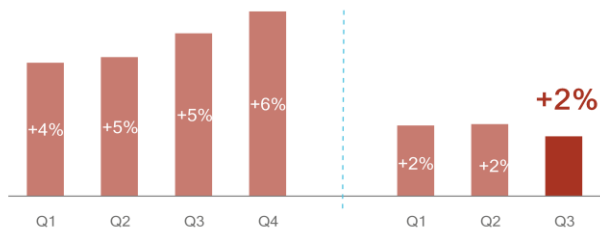


(1) Comparable growth based on 2016 adjusted sales

Q3 – Robust Europe, Solid Americas

— G&S comparable sales growth

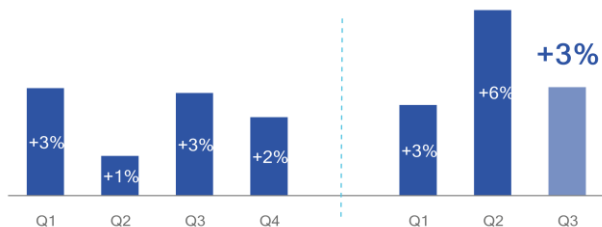
Americas – Solid HC, Resilient IM



Sales
Q3 2019
€2,137m

- LI - several **turnarounds**
- IM - **resilient** despite softening in Construction and Metal Fab
 - **sustained pricing**
- HC - **growing medical gases** in U.S.
 - **high HHC** in **Latin America**
- EL - strong **Carrier Gases**

Europe – IM and HC Driving Growth



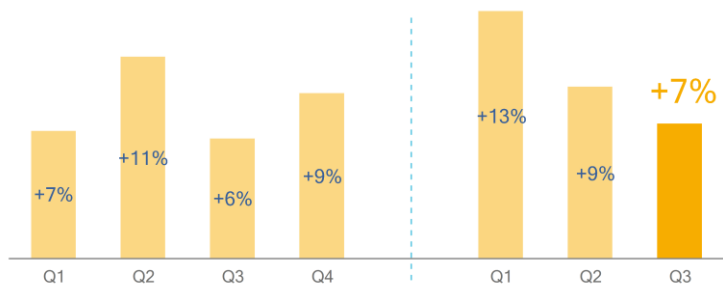
Sales
Q3 2019
€1,742m

- LI - **strong H₂** for refining in Benelux
 - **slow activity** in **Germany & Italy**
- IM - **+4.6%**: **sustained pricing**
 - **solid Food & Pharma** markets
- HC - pursued **high organic growth** in HHC

Q3 – High Asia, Solid Middle East and Africa

— G&S comparable sales growth

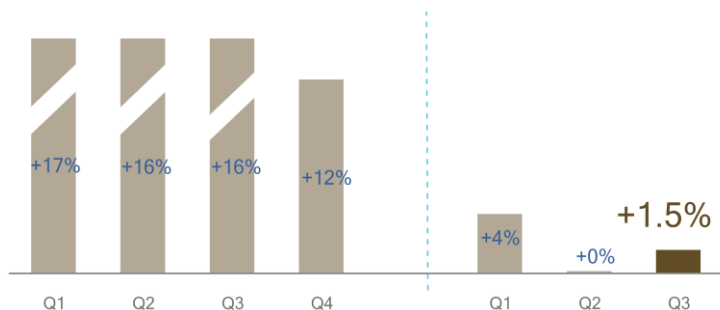
Asia – LI and EL driving Growth



Sales
Q3 2019
€1,207m

- **LI** - O₂ Ramp-Ups in China for Chemicals
- **IM** - strong cylinder volumes, lower bulk pricing in China
 - solid SE Asia
 - high helium volumes and pricing
- **EL** - >+10% growth excluding E&I

Middle East and Africa – Dynamic IM



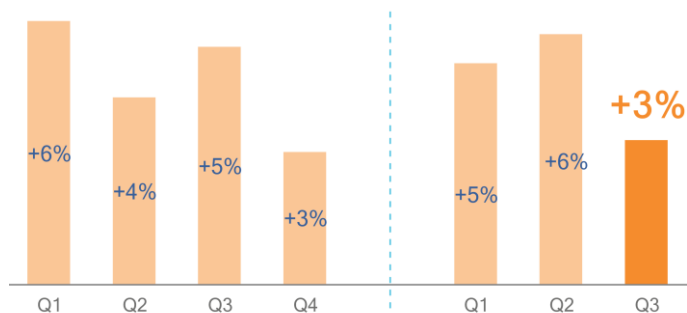
Sales
Q3 2019
€156m

- **LI** - stable base business
- **IM** - continuous high growth in Middle East, Egypt and India
 - high sales of helium

Q3 – Solid Growth in LI, Resilient IM

— G&S comparable sales growth

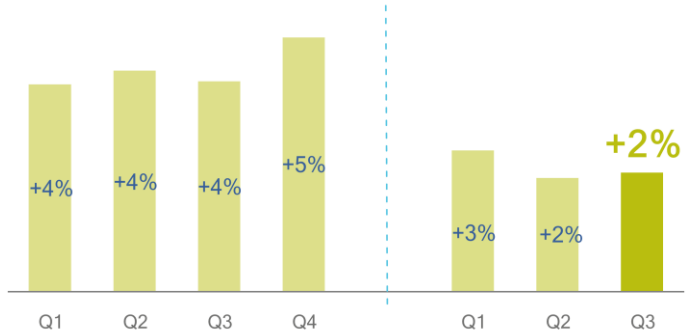
Large Industries – Asia Driving Growth



Sales
Q3 2019
€1,374m

- strong **Oil & gas** in **Benelux** with high H₂ volumes
- **Ramp-ups** in China & Europe
- **softening Chemicals & low Metals**

Industrial Merchant – Solid Growth in Europe & Asia



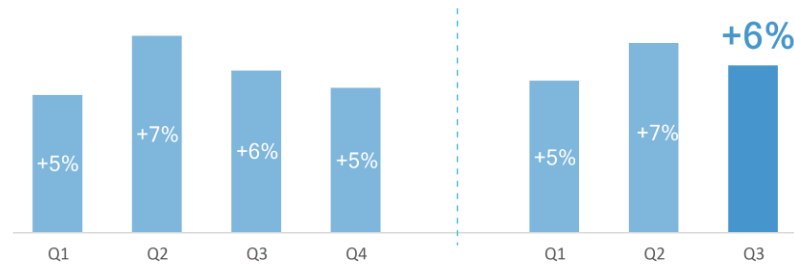
Sales
Q3 2019
€2,471m

- **successful pricing management at +3.8%**, including helium
- **softening** end markets:
 - positive Food & Pharma, Research
 - slowing Automotive, Construction and Metal Fab
- **favorable working day**

Q3 – Strong HC, High EL

— G&S comparable sales growth

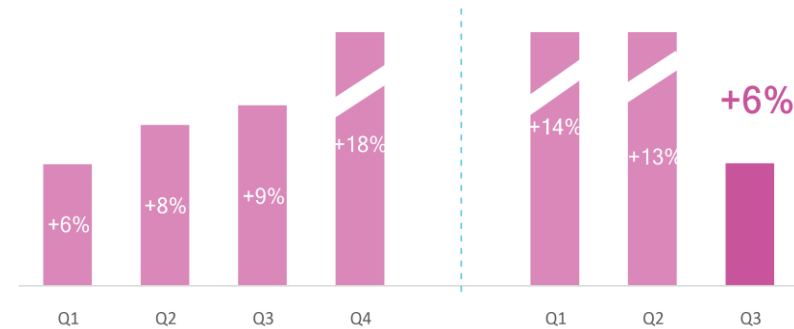
Healthcare – Organic Growth



Sales
Q3 2019
€915m

- **strong** HHC in Europe especially with diabetes and sleep therapies
- **solid medical gases** in U.S.
- **strong** activity in **Latin America**

Electronics – +8.6% Growth excluding E&I

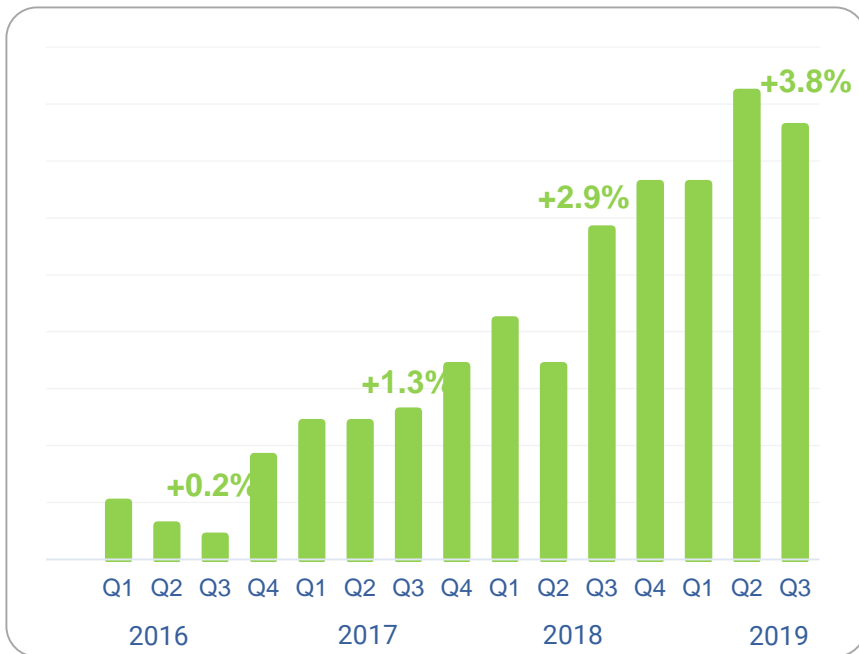


Sales
Q3 2019
€482m

- **>+10% growth** in Carrier Gases;
3 Start-Ups
- **high sales** to Memory market
- **strong Flat Panel Display** in China

Pursued Management of Pricing and Product Mix

IM pricing momentum

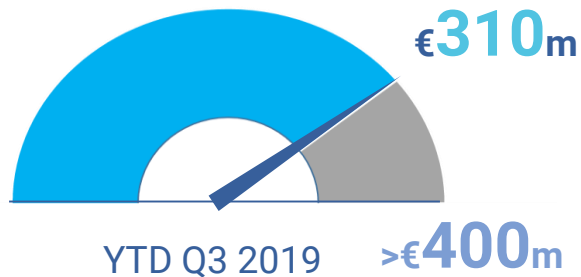


Q3 Product Mix

- **Positive mix effect** contributing to **higher margin**:
 - ✓ **less E&I** in EL and **hardgoods** in IM
 - ✓ **higher Cylinder growth** compared to bulk in IM
 - ✓ local **review** of activities and customers **portfolio** in IM

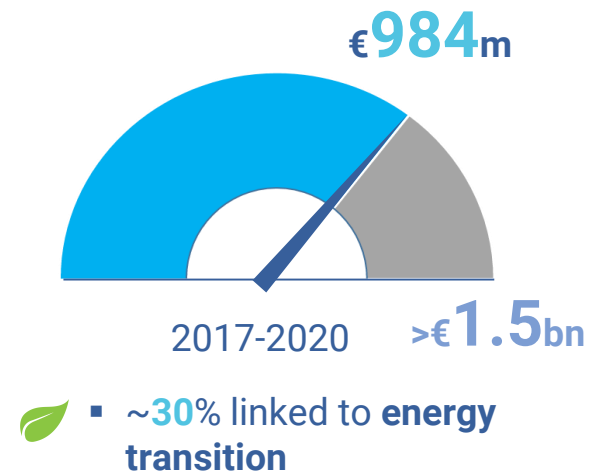
Strengthened Efficiency Program Ramping-Up

2019
efficiencies



- Accelerated **Airgas** delivery
- Increased efficiencies from **digital** deployment
- Launch of **European Support Center**
- Bulk **supply chain renewal** in Asia
- Streamlining of **O₂ supply network** in HHC

Cumulated
efficiencies



Continuous Portfolio Management

➤ Focus on **Core business**

New Divestitures in Q3



2 in Europe

- non-core activity in Hygiene
- hospital piping business in Germany



1 in Asia: Fujian

✓ **6 divestitures YTD** (incl. Fujian)

➤ **Densification** of operations

New Acquisitions in Q3



- 2 at Airgas
- 1 in Canada
- 1 in Italy

✓ **21 acquisitions YTD** (incl. Tech Air)

Strong Cash Flow

Cash Flow⁽¹⁾

- €**3.5**bn
- **21.1**% of sales⁽²⁾

Net Capex

- €**1.8**bn
- **11**% of sales

Net Debt⁽³⁾

- €**13.2**bn
- **67**% gearing⁽⁴⁾

YTD 2019 figures

(1) Operating Cash Flows before changes in Working Capital requirements

(2) 19.9% excluding IFRS 16

(3) Excluding IFRS 16

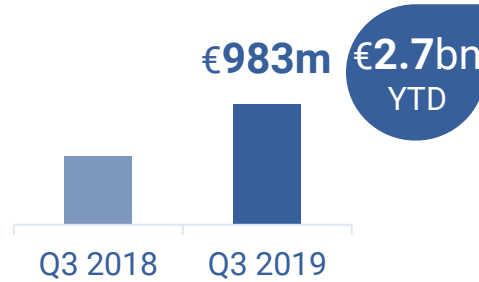
(4) Adjusted for dividend seasonality

Very Active Business Development

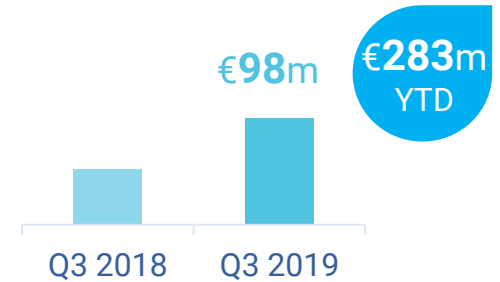
Investment Opportunities⁽¹⁾ 12-month portfolio



Investment Decisions⁽¹⁾



Start-up/Ramp-up Sales Growth Contribution



- well-balanced by **geography**
- mostly **Chemicals, Oil & gas, IC**
- ~25% projects linked to **climate objectives**

- **High level of signings**
 - 2 large LI projects in U.S.
 - pursued investments in EL
 - >10%⁽²⁾ in efficiency projects

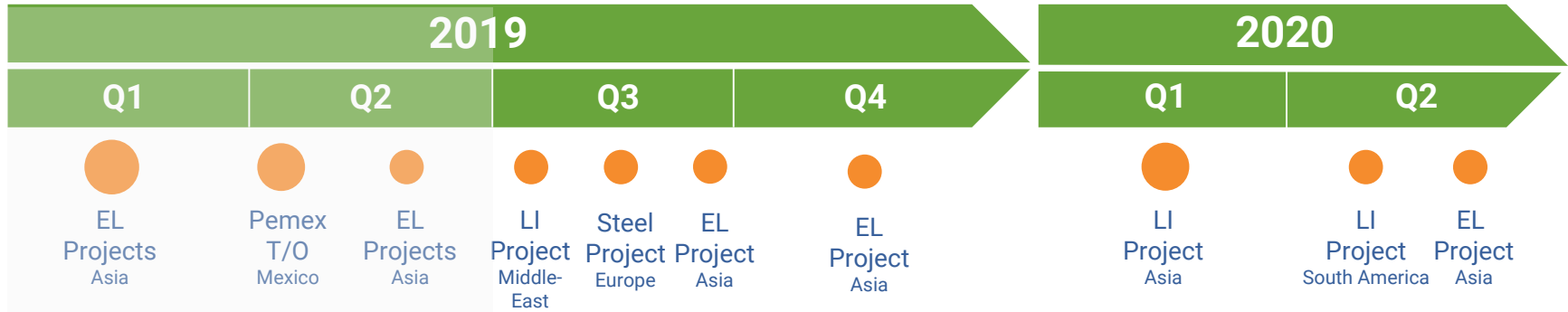
- **5 Start-Ups**
 - **2 in LI:** Saudi Arabia and Benelux
 - **3 in EL:** China and Taiwan

(1) See definitions in appendix

(2) of industrial decisions

Contribution from 2019 Start-Ups Slightly Faster than Expected

Major Start-Ups



Sales growth contribution - FY 2019

~€320m

Increased Backlog €2.5bn

€0.9bn

Yearly Sales Backlog after full Ramp-ups

Note: T/O = Take Over

2019 Outlook

Performance Read
Through

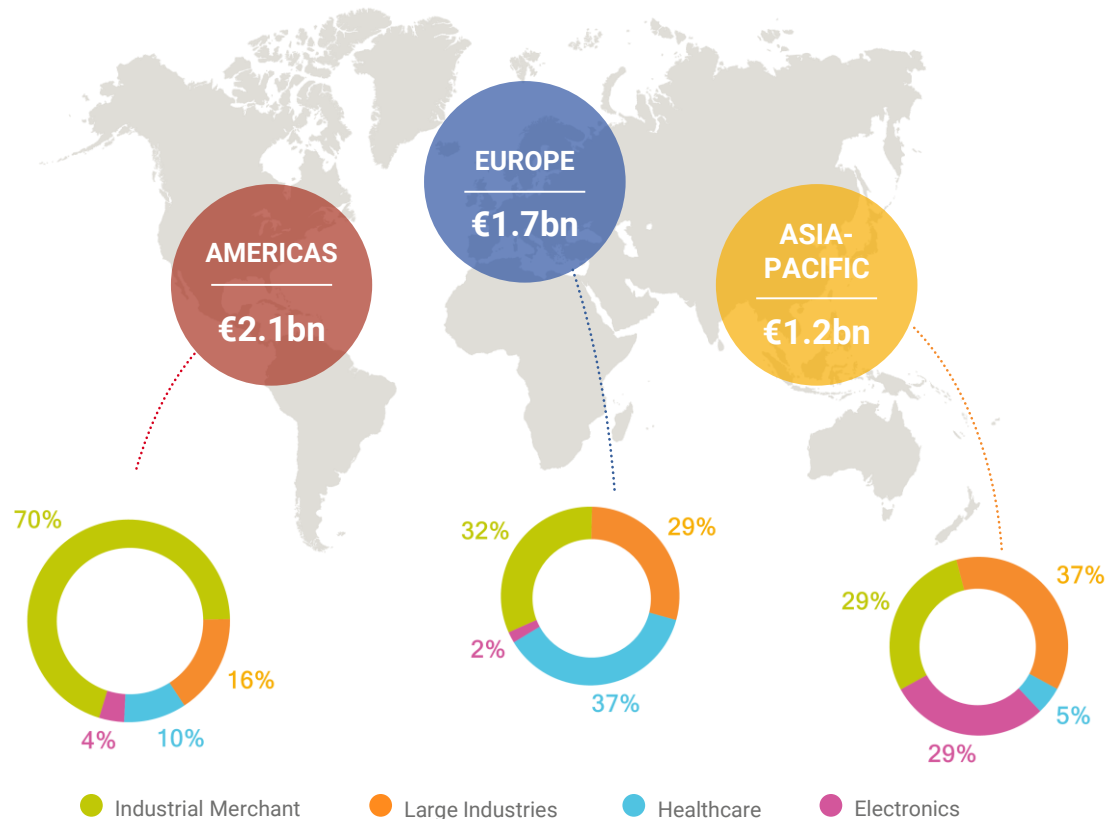
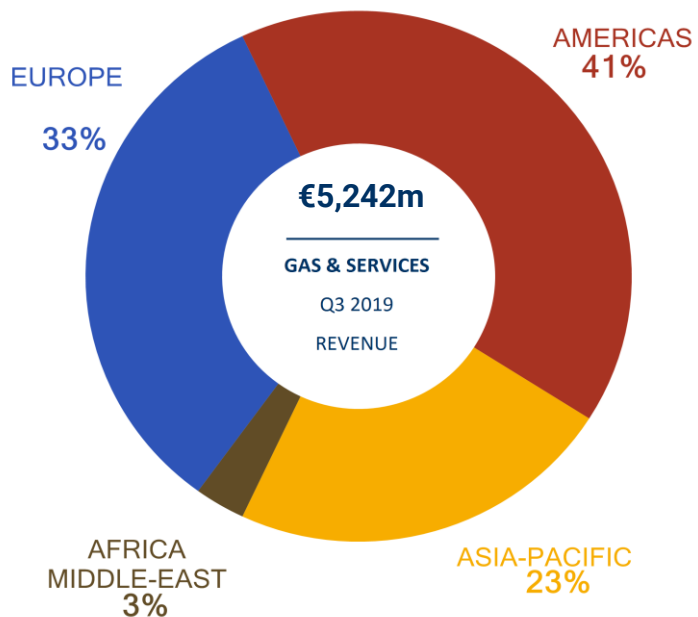
2019



“Assuming a comparable environment, Air Liquide is confident in its ability to deliver net profit growth in 2019, calculated at constant exchange rate”

Q3 2019 Appendix

Q3 2019 G&S Revenue Breakdown by Region



Americas

Q3 Gas & Services Sales: €2,137m

Industrial Merchant

- **Resilient activity** with positive Food & Pharma and Research markets
- Softening Construction and Metal fab.
- **Successful pricing management**
+4.7%

Large Industries

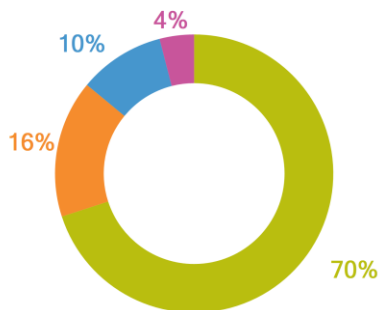
- Several **Customer turnarounds** in U.S. in O₂ and H₂
- **Solid cogen** in U.S.
- **Dynamic Latin America**
- New signings and **high bidding activity**

Healthcare

- **Growing Medical gases** in the U.S. with Proximity care
- **High HHC** and Medical gases in Latin America
- **Limited bolt-on acquisitions**

Electronics

- **Strong Carrier Gases**



Q3 19/18 Comparable growth : **+2.0%**



Europe

Q3 Gas & Services Sales: €1,742m

Industrial Merchant

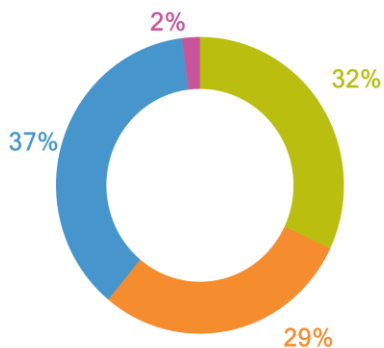
- Solid **Food and Pharma** markets in all countries
- **Sustained** pricing: **+3.3%**
- +0.9 working days

Large Industries

- **High refining demand** in H₂ (Benelux)
- **Slow Steel and Chemicals** in Germany and Italy
- **Ramp-Ups** in Eastern Europe

Healthcare

- **High steady organic growth**
- **Strong HHC**, especially diabetes in Nordics & France and sleep apnea in France
- **Robust sales in Hygiene**



Q3 19/18 Comparable growth : **+3.3%**



Asia-Pacific

Q3 Gas & Services Sales: €1,207m

Industrial Merchant

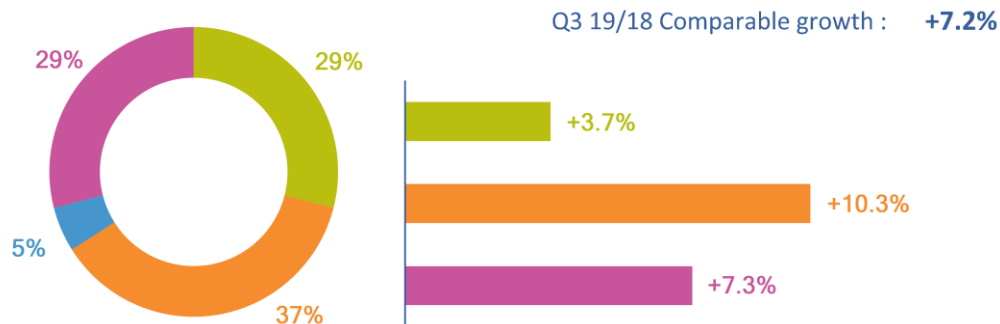
- China: strong cylinder volumes, lower bulk pricing
- Solid South East Asia
- High Helium across the zone
- Contrasted end-markets by country

Large Industries

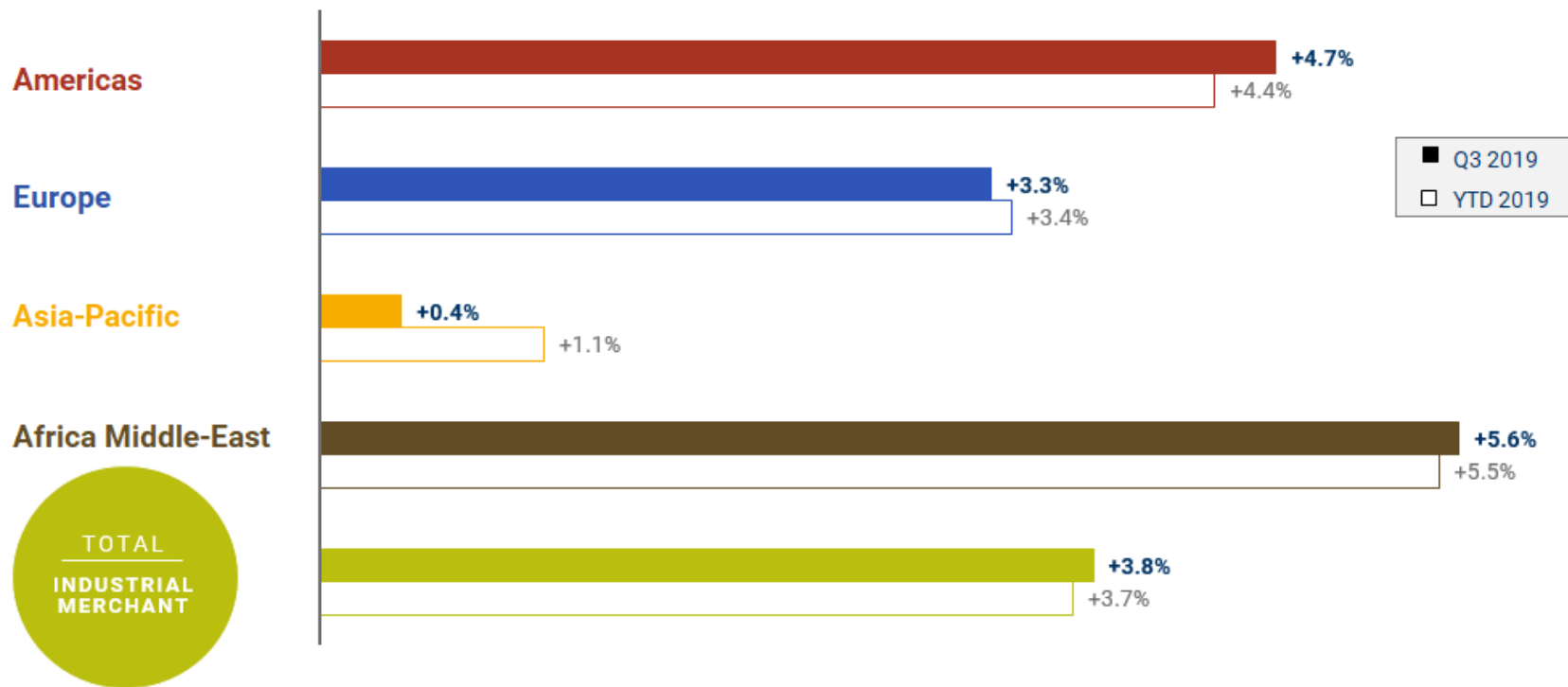
- Ramp-Ups in China, including Fujian for 2 months
- Strong H₂ in Singapore

Electronics

- >+10% growth excluding E&I
- High Carrier Gases growth in China, Taiwan, Singapore, Japan and Korea
- Dynamic Advanced Materials in Korea and China
- Lower E&I sales vs. high level in Q3 18



Industrial Merchant Pricing



YTD 2019 – E&C and GM&T Activities

Engineering & Construction

€257m

-11%

Sales to third parties⁽¹⁾

Total Sales: +20%

€500m

-24%

Order Intake

Global Markets & Technologies

€371m

+17%

Sales⁽¹⁾

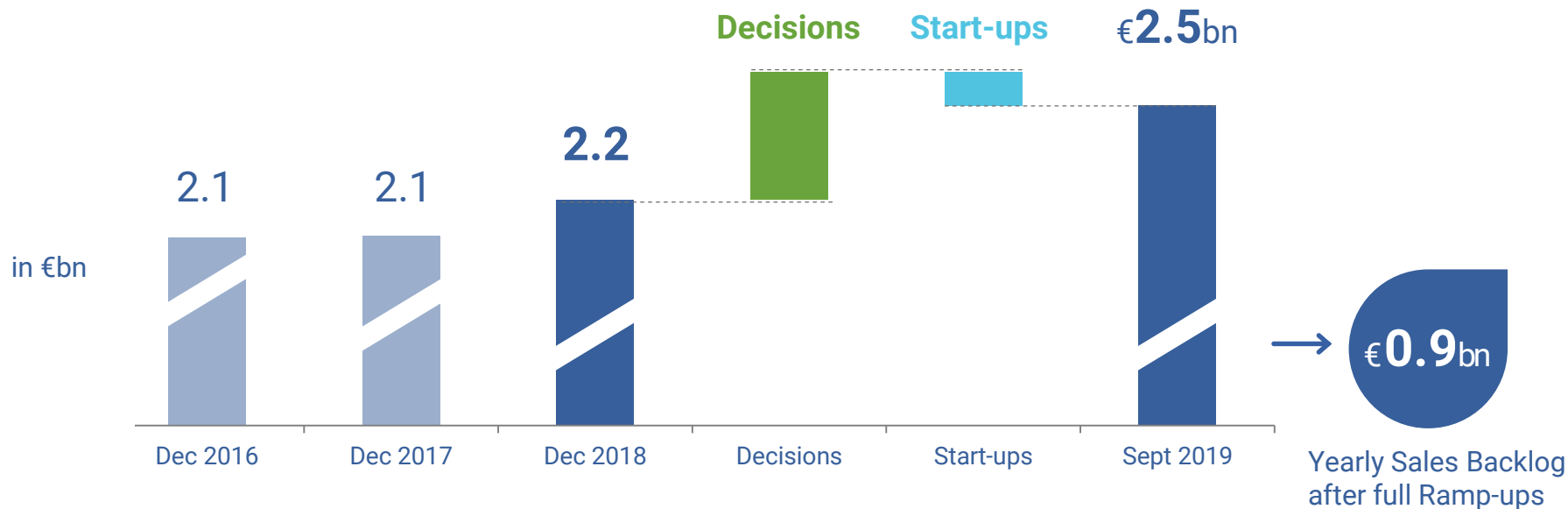
€362m

+9%

Order Intake

(1) Comparable growth

Increasing Backlog to €2.5bn



See definitions in appendix

Impact of Currency and Energy on G&S Revenue

Currency	In €m	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19
€/USD		(258)	(147)	+15	+55	+138	+107	+81
€/CNY		(26)	(4)	(5)	(7)	+10	(5)	+7
€/JP¥		(24)	(17)	+1	+8	+16	+14	+22
Others		(105)	(90)	(72)	(57)	(23)	(13)	(3)
Total currency impact		(413)	(258)	(61)	(1)	+141	+103	+107
	Average rate	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19
€/USD		1.23	1.19	1.16	1.14	1.14	1.12	1.11
€/CNY		7.81	7.60	7.92	7.89	7.66	7.67	7.80
€/JP¥		133.1	130.1	129.6	128.8	125.1	123.5	119.3
Natural Gas	In €m							
Natural Gas Impact		(14)	+30	+82	+87	+5	(36)	(134)
Electricity	In €m							
Electricity Impact		(2)	+21	+36	+38	+27	+7	(12)

Revenue Analysis by Quarter and by Business Line

Sales in €m	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19	Q3 19/18 as published	Q3 19/18 comparable
Large Industries	1,365	1,353	1,454	1,513	1,490	1,414	1,374	-5.6%	+3.3%
Industrial Merchant	2,208	2,293	2,312	2,368	2,365	2,462	2,471	+6.9%	+2.4%
Healthcare	850	864	862	910	897	924	915	+6.1%	+5.9%
Electronics	408	428	438	481	485	499	482	+10.2%	+5.8%
Gas & Services	4,831	4,938	5,066	5,272	5,237	5,299	5,242	+3.5%	+3.5%
Engineering & Construction	85	95	105	145	93	83	81	-22.9%	-24.6%
Global Markets & Technologies	94	119	100	161	111	129	131	+31.4%	+29.7%
Group Total	5,010	5,152	5,271	5,578	5,441	5,511	5,454	+3.5%	+3.5%

Revenue Analysis by Quarter and by Geography

Sales in €m	Q1 18	Q2 18	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19	Q3 19/18 as published	Q3 19/18 comparable
Americas	1,901	1,973	2,017	2,091	2,069	2,148	2,137	+5.9%	+2.0%
Europe	1,753	1,711	1,779	1,868	1,829	1,782	1,742	-2.0%	+3.3%
Asia-Pacific	1,016	1,091	1,099	1,153	1,194	1,211	1,207	+9.9%	+7.2%
Middle-East, Africa	161	163	171	160	145	158	156	-9.1%	+1.5%
Gas & Services	4,831	4,938	5,066	5,272	5,237	5,299	5,242	+3.5%	+3.5%
Engineering & Construction	85	95	105	145	93	83	81	-22.9%	-24.6%
Global Markets & Technologies	94	119	100	161	111	129	131	+31.4%	+29.7%
Group Total	5,010	5,152	5,271	5,578	5,441	5,511	5,454	+3.5%	+3.5%

G&S Revenue Growth by Quarter and by Impact

	Growth as published	Natural Gas	Electricity	Currency	Significant perimeter	Comparable growth
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%
Q3 2018	+5.8%	+1.7%	+0.7%	-1.3%	-0.5%	+5.2%
Q4 2018	+8.1%	+1.8%	+0.7%	+0.0%	+0.0%	+5.6%
Q1 2019	+8.4%	+0.1%	+0.6%	+2.9%	+0.0%	+4.8%
Q2 2019	+7.3%	-0.7%	+0.1%	+2.1%	+0.8%	+5.0%
Q3 2019	+3.5%	-2.7%	-0.2%	+2.2%	+0.7%	+3.5%

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.

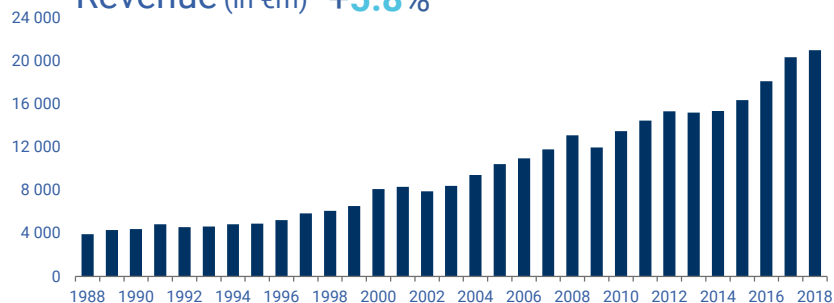
• Decisions of the period

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

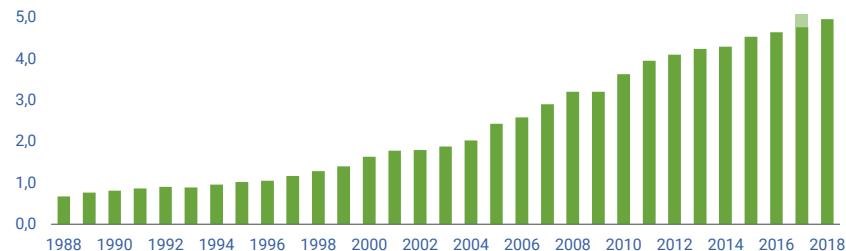
Regular and Sustained Performance

— CAGR over 30 years⁽¹⁾

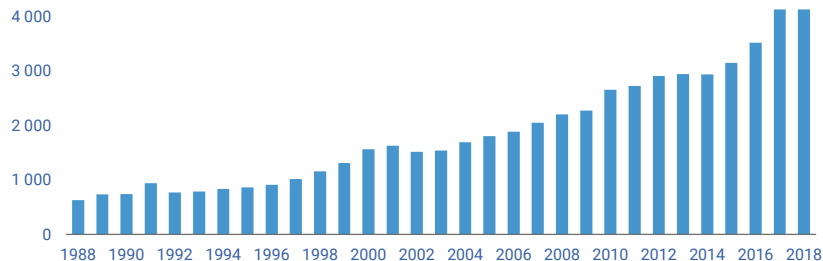
Revenue (in €m) **+5.8%**



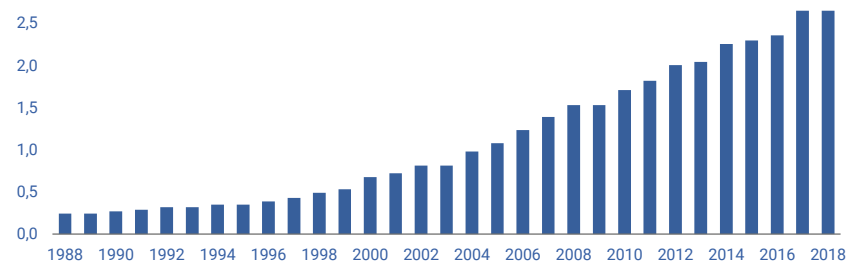
EPS⁽²⁾ (in €) **+6.9%**



Cashflow (in €m) **+6.5%**



Dividend⁽²⁾ (in € per share) **+8.3%**



(1) Calculated according to prevailing accounting rules over 30 years.

(2) 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.

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