



H1 2022 Results

Strong performance
in a challenging environment

Growth and resilience

François Jackow, Chief Executive Officer
Jérôme Pelletan, Group Chief Financial Officer
Mike Graff, Executive Vice President
Pascal Vinet, Senior Vice President

Paris, July 28, 2022



01

Growth and Resilience Concrete Progress in Energy Transition

François Jackow - Chief Executive Officer

Delivering a Very Strong Performance in H1 2022

**Comparable
Growth**

+8%

**Group
OIR margin⁽¹⁾**

**+50
bps**

**Recurring
Net Profit⁽²⁾**

+20%

**Cash Flow/
Sales⁽³⁾**

>23%

Backlog

**€3.0
bn**

H1 2022 figures

(1) Operating Income Recurring on Sales excluding energy pass through impact

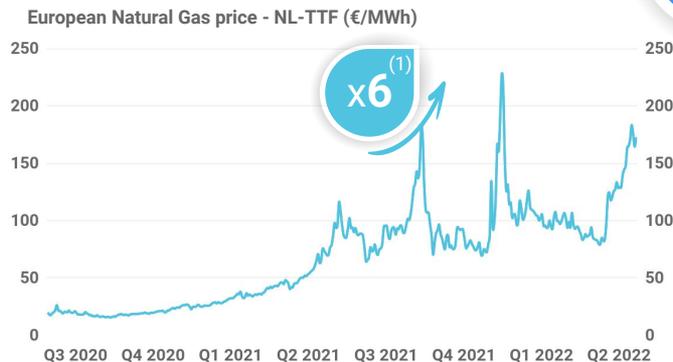
(3) Cash Flow from Operations before changes in WCR on Sales excluding energy passthrough impact

(2) At constant exchange rate and excluding exceptional and significant transactions that have no impact on the operating income recurring

While Facing a Very Challenging Environment

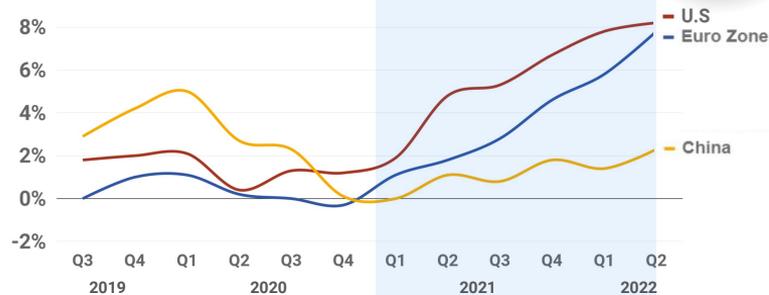
Spike in energy price

>€1.8bn
additional
En. impact
ytd⁽²⁾



Accelerating inflation

>€750m
of additional
costs ytd



Source Consensus Forecasts

- Covid-19 lockdowns in China
- Workforce shortage
- Supply chain disruptions
- War in Ukraine

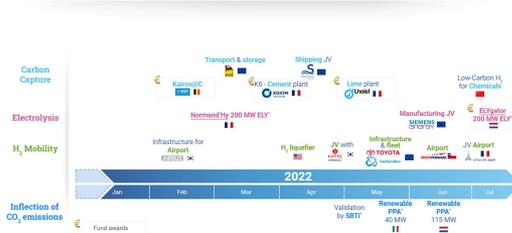
(1) Increase of European Natural Gas price - NL-TTF, calculated between July 1st 2021 and H1 2022 peak on March 7th 2022 (2) Energy passthrough impact on LI sales in H1 2022

Successful Launch of **ADVANCE**

Financial Performance



Decarbonizing the Planet



New Markets through Innovation

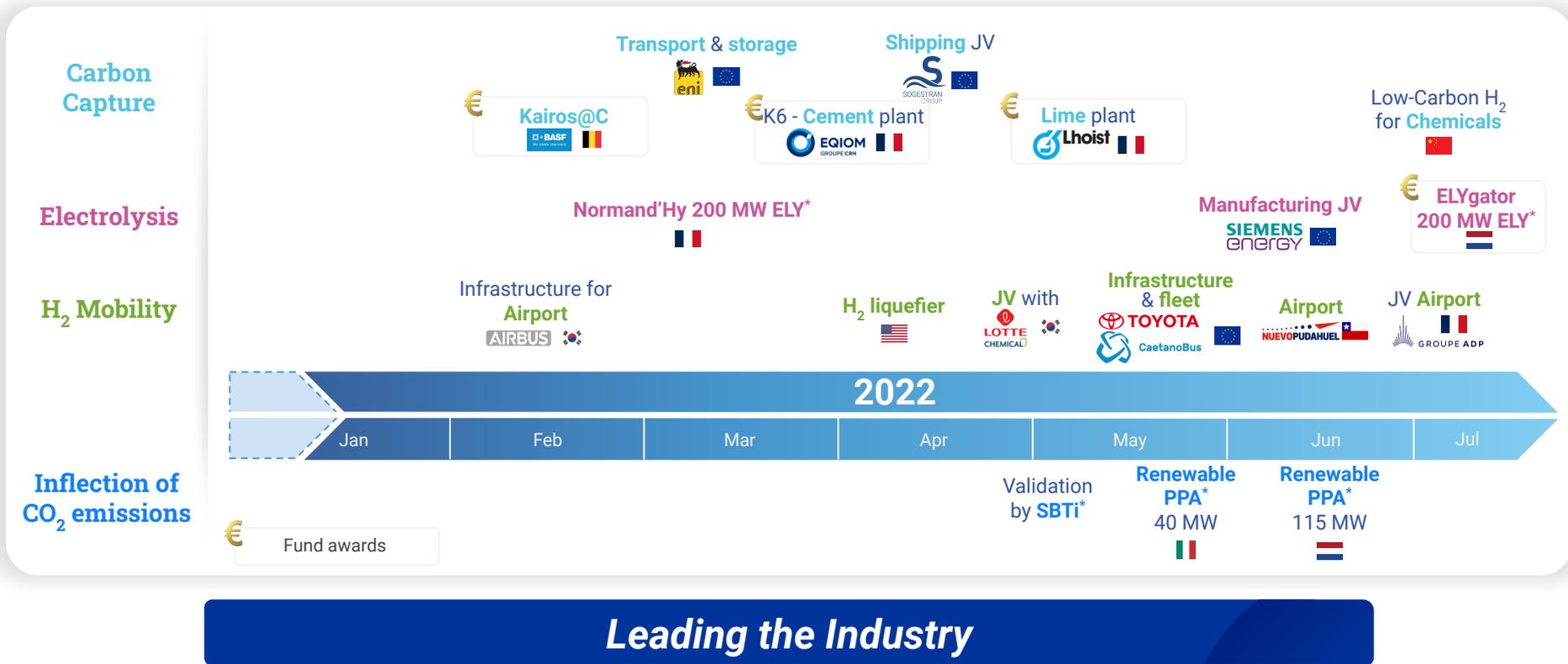
- Investments in **Electronics**
- Value-Based **Healthcare**

Acting for All

- Continued **engagement** in the fight against **COVID-19**
- SBTi*** validation of Group CO₂ emissions trajectory

*SBTi: Science Based Targets initiative

Concrete Progress in Energy Transition during H1 2022



Leading the Industry

*PPA=Power Purchase Agreement; ELY=Electrolyzer; SBTi=Science Based Targets initiative

A Reinforced Resilient Business Model

A strong Business Model

- Long-term contracts
- Take or Pay clauses
- Fixed revenues from rentals

Diversity of business reach

- Geographies
- Activities
- End-markets
- Customers



ADVANCE

Well positioned for resilient growth

- Energy transition
- Electronics
- Healthcare

ADVANCE

Performance focused organization

- Pricing
- Efficiencies
- Portfolio management

H1 2022 Key Takeaways

Reinforced resilience

- Focus on **performance**
- Positioning on **growth markets**

Growth

- **Strong delivery** of current business
- Concrete progress in **Energy Transition** and **EL** investments

Confirmed 2022 guidance

02

Strong H1 2022 Performance in a Challenging Environment

Jérôme Pelletan - Chief Financial Officer

Strong Sales Growth over H1 2022

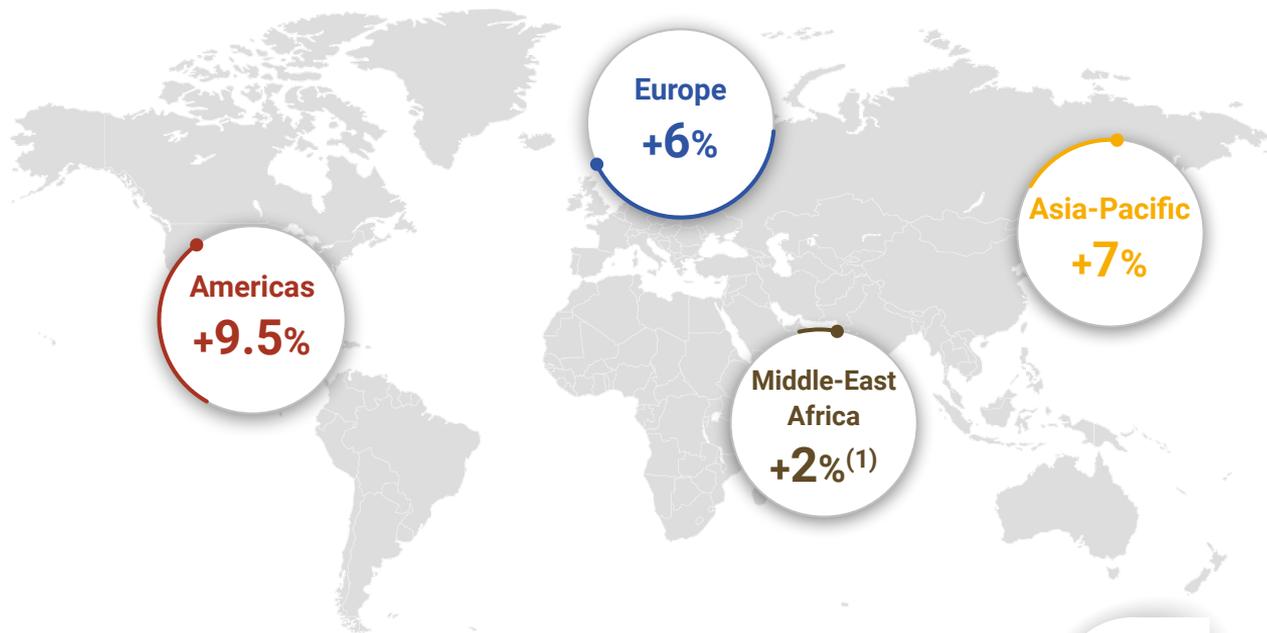
Sales in €m	H1 21	H1 22	H1 22/21 As published	H1 22/21 Comparable	Q2 22/21 Comparable
Gas & Services	10,350	13,600	+31.4%	+7.2%	+7.3%
Engineering & Construction	169	221	+31.1%	+29.0%	+19.8%
Global Markets & Technologies	327	386	+17.9%	+13.8%	+9.8%
Group Total	10,846	14,207	+31.0%	+7.7%	+7.5%

Impacts on H1 Group Sales: +5.8% FX | +16.8% Energy | +0.7% Significant Scope⁽¹⁾

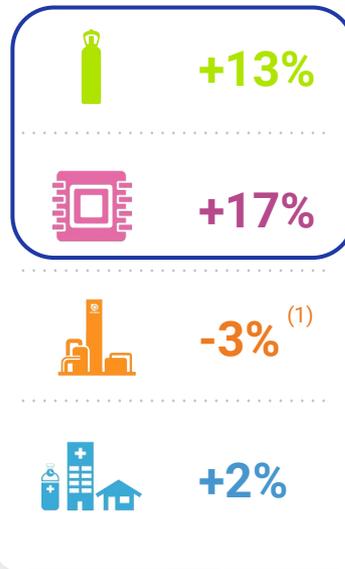
(1) Impact on sales of all acquisitions or divestitures of a significant size for the Group

High Growth in Main Geographies, yet Mixed Activities

Q2 2022 Gas & Services comparable sales growth



by Activities



Group Comparable sales growth

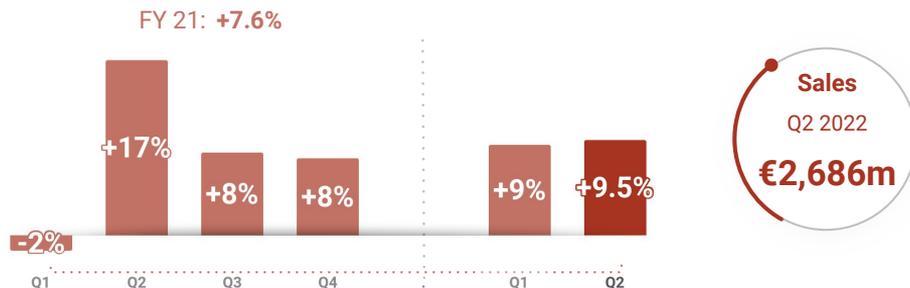
+8%

(1) excluding additional contribution from Sasol ASUs takeover accounted for in Significant Perimeter

Q2 – Strong Americas, High Europe yet Mixed

Americas

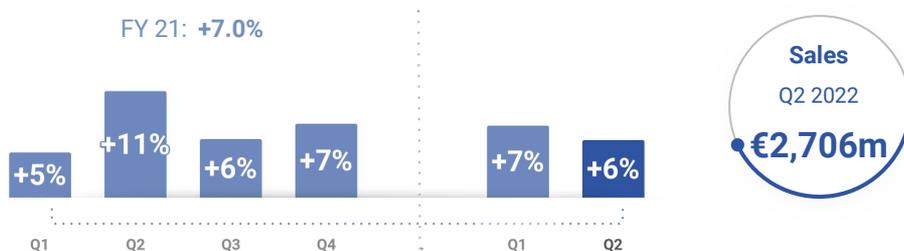
IM pricing driving growth, high underlying LI



- **LI**
 - High air gases volumes from Steel and Chemicals
 - Strong H₂ sales in Latam
 - Lower Cogen vs. high Q2 21, turnarounds in U.S.
- **IM**
 - Pricing >+13%
 - Volume growth excluding Helium
- **HC**
 - Strong O₂ volume & pricing for U.S. proximity care
 - Latam: solid HHC, lower O₂ for covid-19
- **EL**
 - All segments contributing to growth

Europe

Record high IM pricing, lower demand in LI



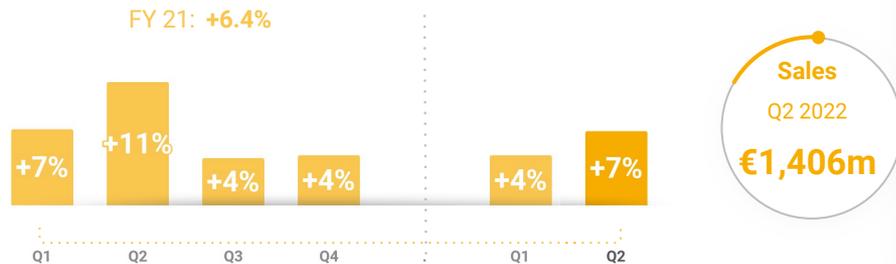
- **LI**
 - Lower demand overall
 - Customer turnarounds
 - Lower H₂ from Refineries using lighter crude oil
- **IM**
 - Accelerating pricing >+22%
 - Volumes slightly positive
- **HC**
 - Strong momentum in HHC driven by diabetes
 - Lower O₂ for covid-19

G&S comparable sales growth

Q2 – EL Driving Strong Growth in Asia, Solid AMEI

Asia

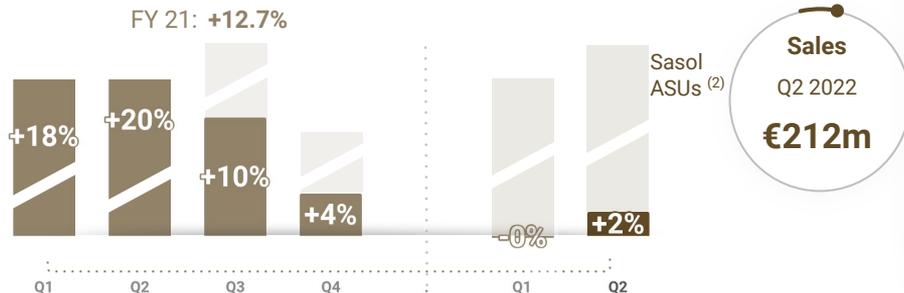
Buoyant EL, accelerating IM pricing over the region



- **LI**
 - **Soft China** from lockdowns, sequential **improvement**
 - **Low rest of Asia**
- **IM**
 - **Pricing +7%**
 - **Volumes in China resistant** to covid-19 lockdowns
 - Improved demand in Singapore
- **EL**
 - **>+17%** growth in **Carrier Gases, ESM⁽¹⁾** and **E&I**

AMEI

Strong LI offsetting low IM & HC



- **LI**
 - **Strong H₂ sales in KSA** and **O₂ for Steel in Egypt**
 - **Significant Sasol ASUs** contribution⁽²⁾
- **IM**
 - **Small divestitures** in Middle-East
- **HC**
 - **Reduced O₂ sales** for covid-19

G&S comparable sales growth

(1) Electronic Specialty Materials (2) Accounted for in Significant Perimeter, not included in Comparable growth

Q2 – Strong Momentum in IM, Contrasted LI

Industrial Merchant

Record high pricing, resilient volumes

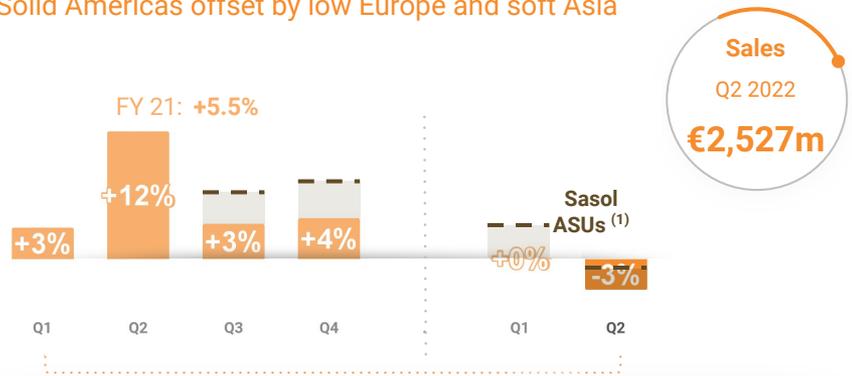


- **Accelerating +14.4% pricing**, successfully addressing unprecedented spike in energy cost
- **Stable volumes** excluding helium
- **Dynamic Fabrication** and **Electronics components**; soft Research and Craftsmen

G&S comparable sales growth

Large Industries

Solid Americas offset by low Europe and soft Asia



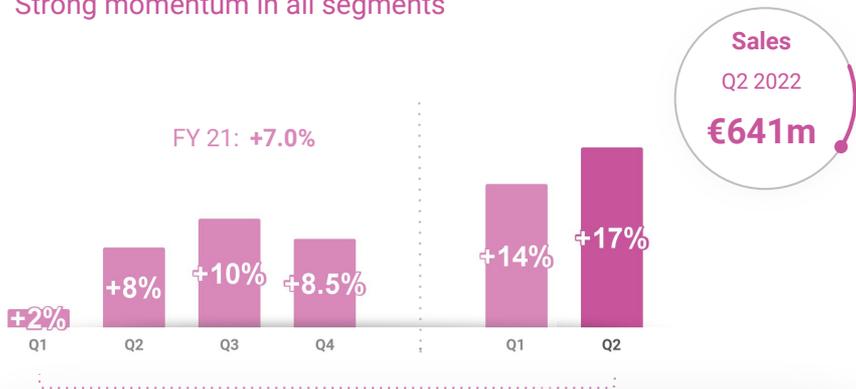
- **High air gases volumes** from Steel & Chemicals in U.S.
- **Lower demand overall** in Europe
- Customer **turnarounds** in Europe and U.S.
- **Lockdowns** impact in **China**
- **Sasol ASUs takeover⁽¹⁾** fully delivering

(1) Accounted for in Significant Perimeter, not included in Comparable growth

Q2 – Buoyant EL, High Comparison Basis in HC

Electronics

Strong momentum in all segments



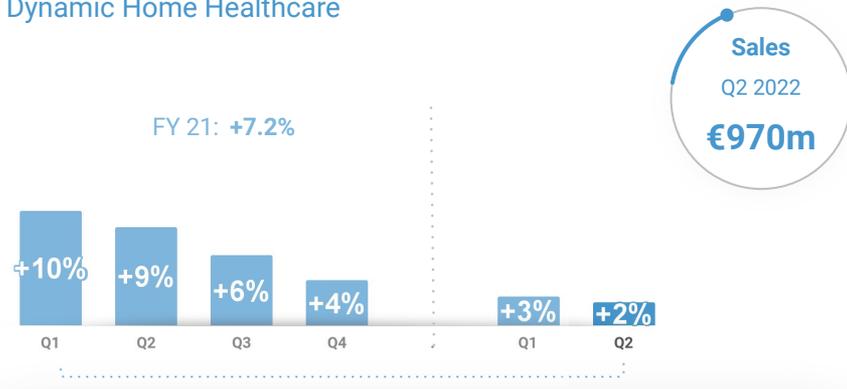
- **>+17%** growth in **Carrier Gases, ESM⁽¹⁾** and **E&I**
- Significant contribution from **start-ups** and **ramp-ups**
- High **pricing** in ESM⁽¹⁾ driven by **rare gases**

G&S comparable sales growth

(1) Electronic Specialty Materials

Healthcare

Dynamic Home Healthcare



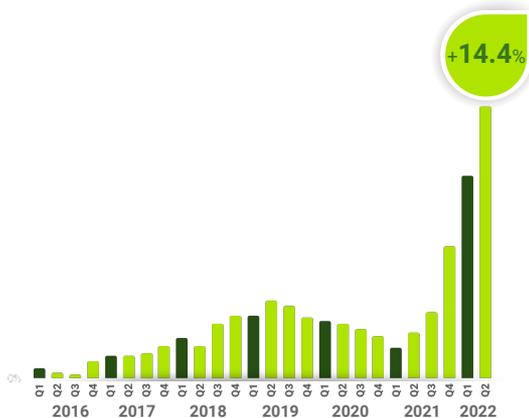
- **Normalizing Medical O₂** volumes after covid-19, **strong proximity care** in the U.S.
- **High** growth in **Home Healthcare** driven by **diabetes**
- Dynamic **Specialty Ingredients**
- **Positive pricing** in all regions

Significant OIR Margin Improvement Despite Inflation

In €m	H1 21	H1 22	H1 22/21 As published	H1 22/21 Comparable
Revenue	10,846	14,207	+31.0%	+7.7%
Purchases	(4,079)	(6,516)	+59.8%	
Personnel Expenses	(2,129)	(2,380)	+11.8%	
Other net income and expenses	(1,641)	(1,836)	+11.9%	
Operating profit before depreciation	2,997	3,475	+16.0%	
Depreciation and amortization	(1,049)	(1,189)	+13.3%	
Operating income recurring	1,948	2,286	+17.4%	+9.2%
Group OIR margin	18.0%	16.1%		
Group OIR margin excluding energy		18.5%		+50bps
G&S OIR margin	20.0%	17.7%		
G&S OIR margin excluding energy		20.5%		+50bps

Focus on Performance

IM Pricing



- **Record high pricing** in all regions
- **Slightly positive helium** pricing impact

Efficiencies



- **Higher industrial** efficiencies
- Negative impact of **inflation on procurement**

Portfolio Management

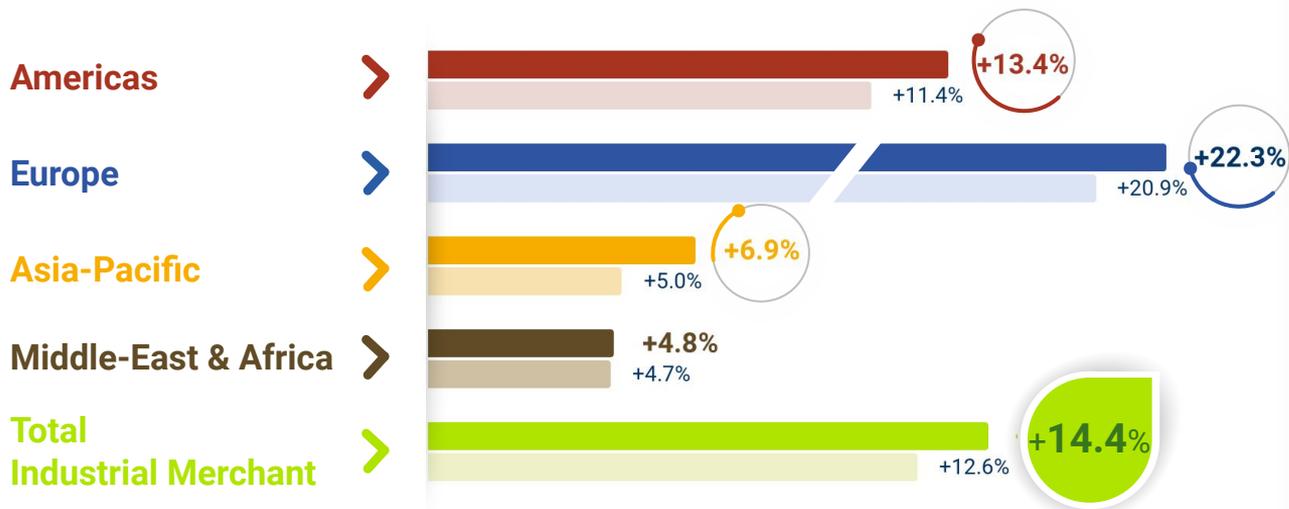
3 divestitures

- Middle-East
- Mexico

8 acquisitions

- China
- U.S., Netherlands, China

Accelerating IM Pricing, Effective Response to Spike in Energy Cost



Pricing Actions



Bulk

- Contractual indexations
- Strengthened price management to address high energy price and inflation



Cylinders

- Continued price campaigns to reflect inflationary environment

Q2 2022

H1 2022

Strong Leverage on Recurring Net Profit

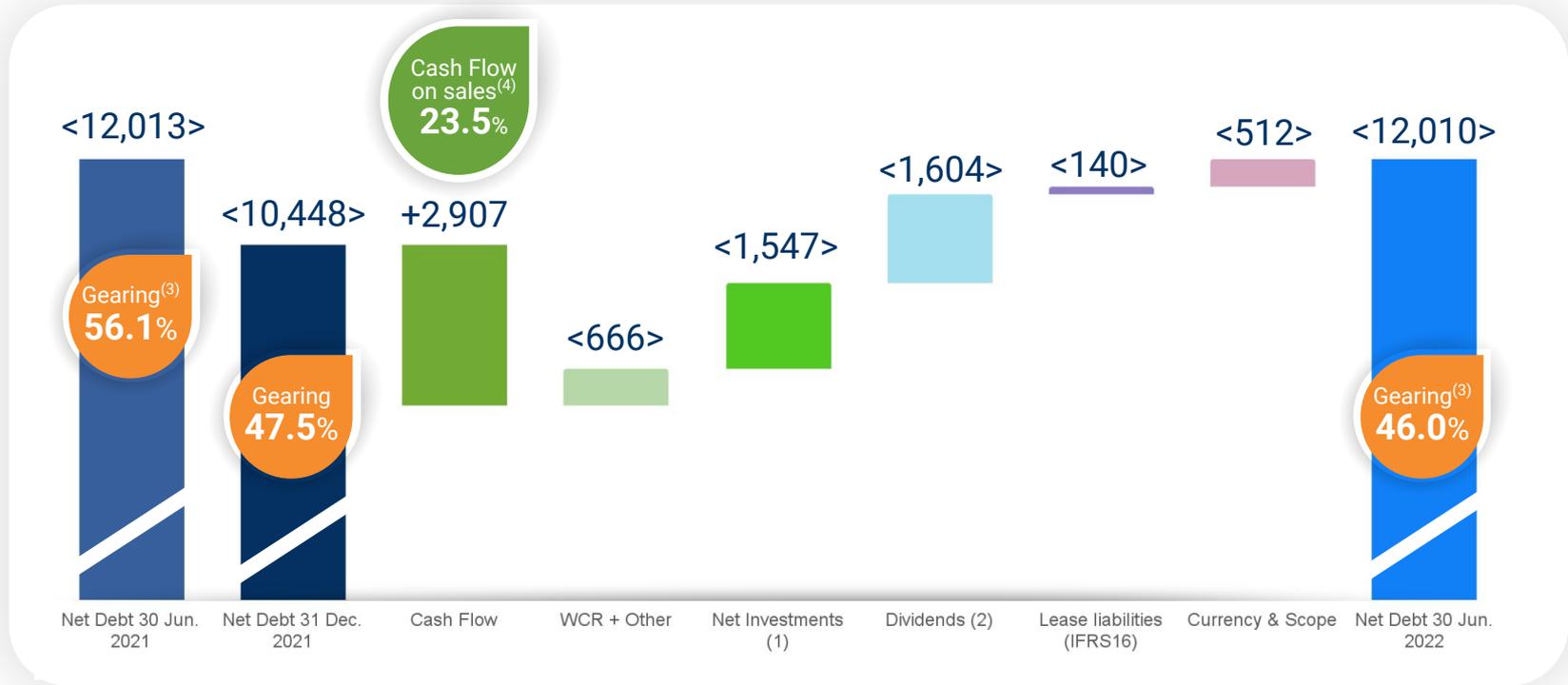
In €m	H1 21	H1 22	H1 22/21 As published	H1 22/21 Excl. FX
Revenue	10,846	14,207	+31.0%	+25.2%
Operating income recurring	1,948	2,286	+17.4%	
Other non-recurring operating income & expenses	(40)	(270)		
Operating income	1,908	2,016		
Net financial costs and other net financial expenses	(188)	(180)		
Income taxes	(425)	(459)		
Tax rate	24.7%	25.0%		
Share of profit of associates	(2)	1		
Minority interests	54	73		
Net profit (Group share)	1,239	1,305	+5.3%	
Earnings per share (in €)	2.38 ⁽¹⁾	2.50	+5.0%	
Recurring net profit⁽²⁾	1,239	1,551	+25.1%	+20.4%

+8.4%
excluding
energy
pass-through
impact

(1) Including the impact of the free share attribution performed on June 8, 2022

(2) Excluding exceptional and significant transactions that have no impact on the operating income recurring

Very Solid Cash Flow



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

(2) Including treasury shares and capital increase

(3) Adjusted for dividend seasonality

(4) Cash Flow from Operations before changes in WCR on Sales excluding energy passthrough impact

Continued Momentum in Business Activity and Signing

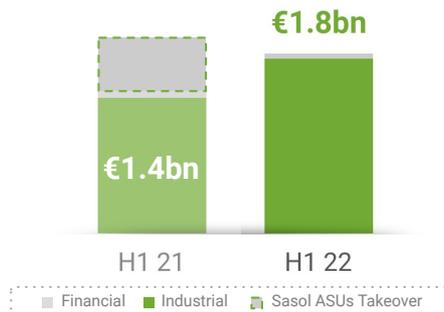
Investment Opportunities ⁽¹⁾



High level of investment opportunities:

- 🌱 ▪ >40% in **Energy Transition**
- Strong **EL**
- ~75% in **Europe & Asia**

Investment Decisions ⁽¹⁾



Active projects signing in Q2:

- 1 project in China in **EL** including **synergies** with IM & HC
- 🌱 ▪ H₂ pipeline for Steel customer in Europe

Investment Backlog ⁽¹⁾



Sustained strong Backlog:

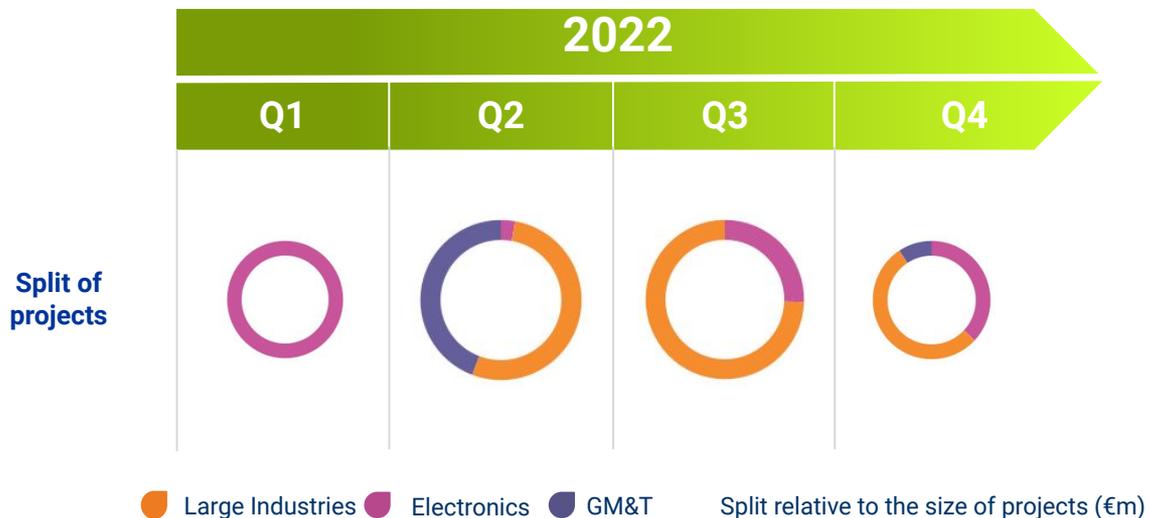
- 🌱 ▪ Many projects linked to **EL** and **Energy Transition**

€1.1bn of yearly **sales** after full ramp-up

(1) See definitions in appendix (2) Russian projects have been removed from H1 2022 Backlog

Significant SU and RU Contribution to Sales

Start-up date of major projects



Start-up/Ramp-up Sales Contribution⁽¹⁾

H1 2022

€213m

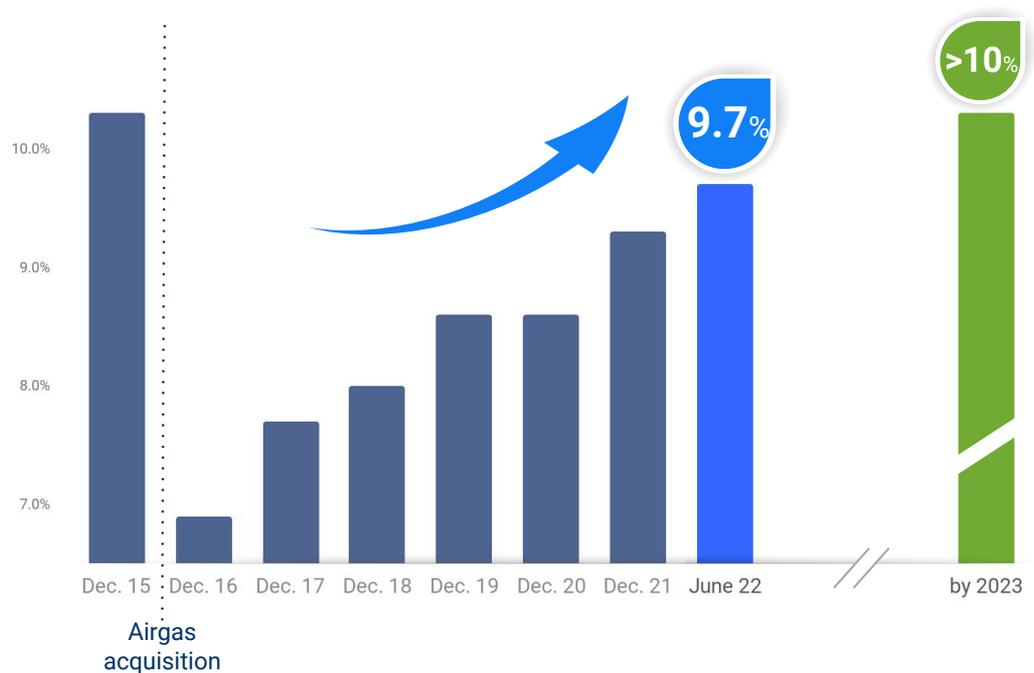
FY 2022
guidance

€410
435m

⁽¹⁾ Including the additional contributions from **Sasol ASUs takeover** accounted for in Significant Perimeter (€+72m in H1 2022; estimated at €+135m for FY 2022) and from ramp-ups in Russia (~€10m in H2 2022, under a continued operations scenario for H2 2022). At constant exchange rate and excl. energy passthrough impact

ROCE Well On-Track to Meet **ADVANCE** Objective

Recurring ROCE after tax ⁽¹⁾



Objective of
>10% ROCE
by **2023**

(1) Recurring ROCE based on Recurring Net Profit

Confirmed 2022 Guidance



“

Assuming no significant economic disruption, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates.⁽¹⁾

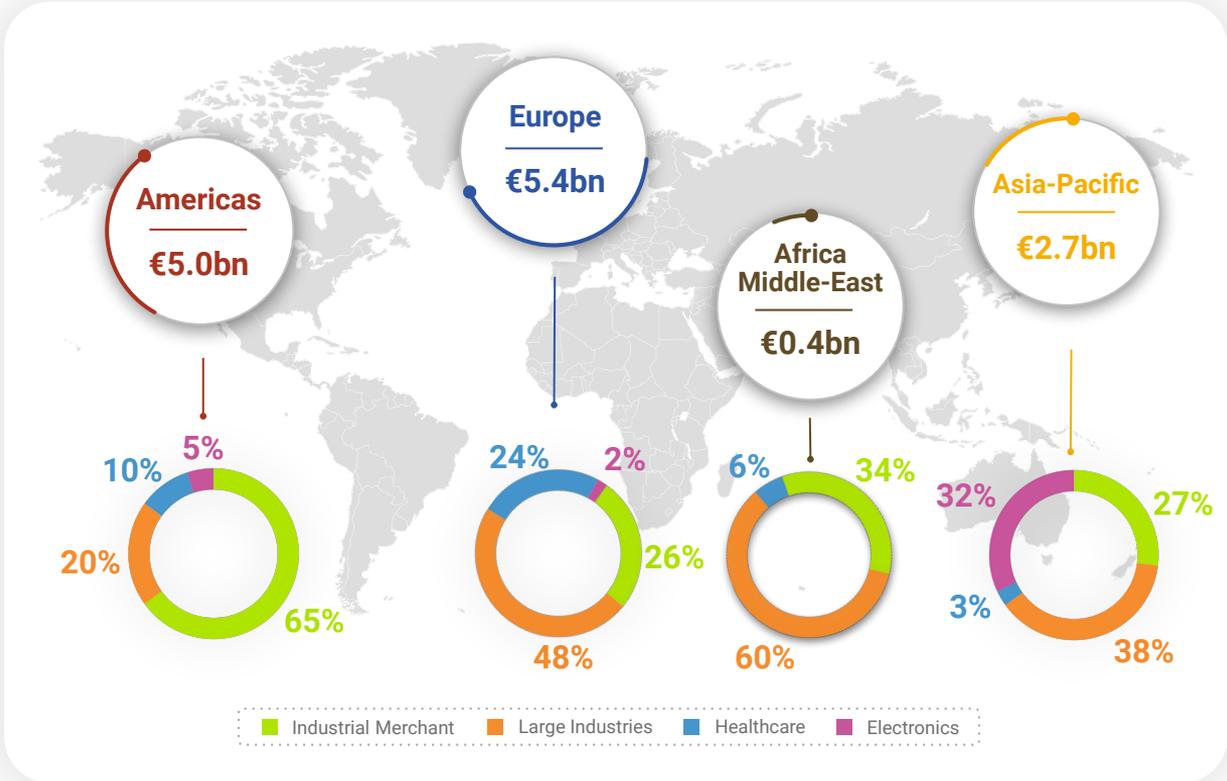
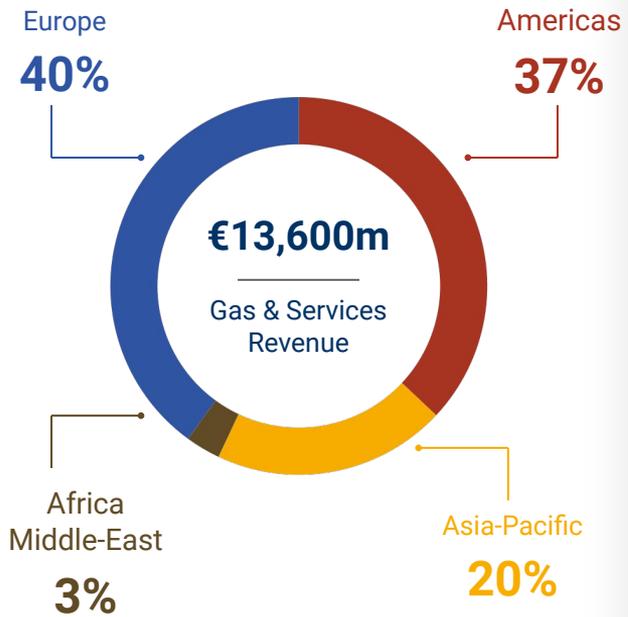
”

(1) Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant transactions that have no impact on the operating income recurring, and excluding the impact of any US tax reform in 2022

03

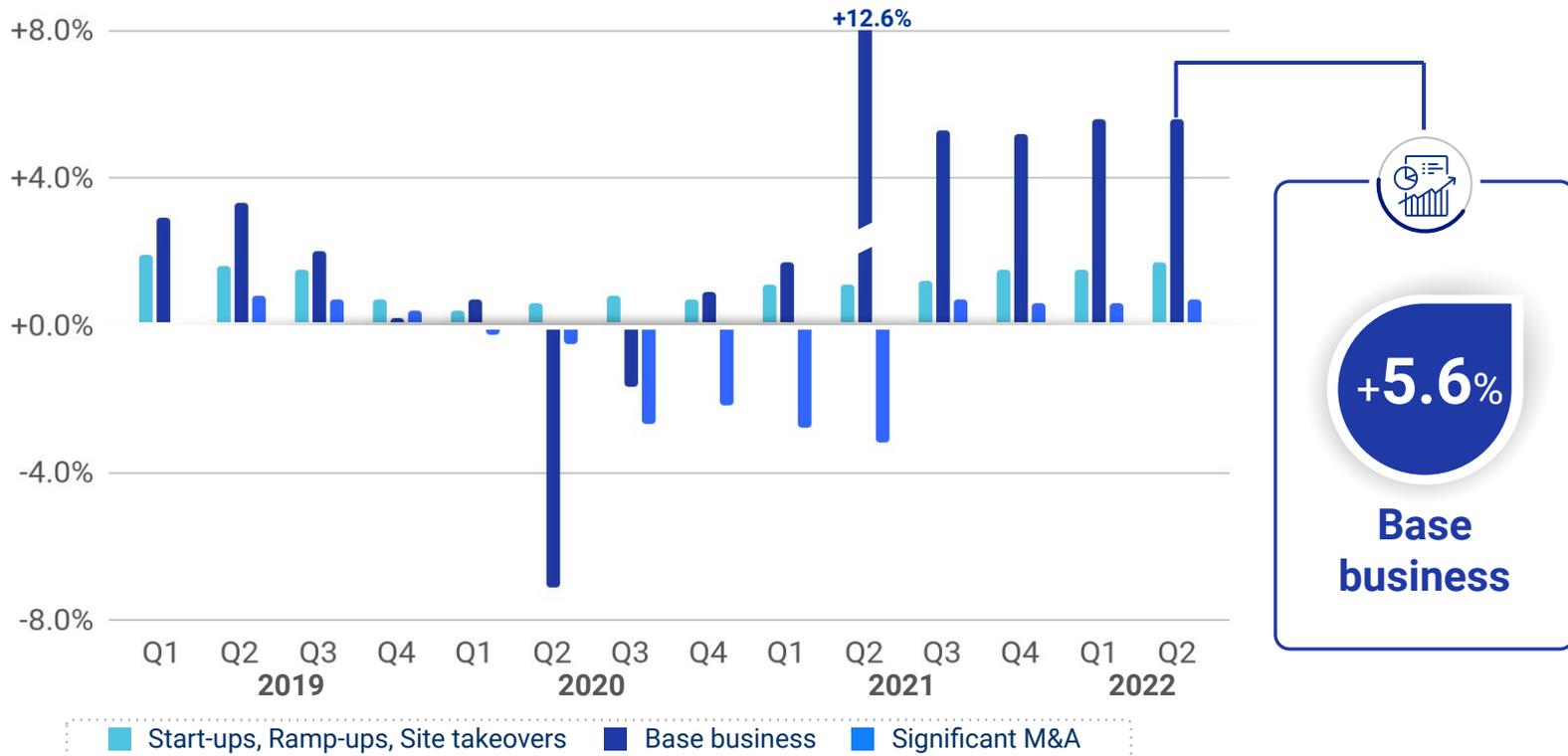
Appendix

H1 2022 G&S Revenue Breakdown by Region



Maintained Strong Base Business, Significant SU/RU Contribution

Breakdown of G&S Sales Growth



See definitions in appendix

Q2 - Americas

Industrial Merchant

- **Strong pricing +13.4%**
- **Volume growth** in **Bulk, on-site** and **Hardgoods**, softening in PG
- **End-markets well oriented**, improved Fabrication and Construction
- **Strong** Canada and Latam

Large Industries

- **High air gases** volumes from **Steel** and start-ups in **Chemicals** in U.S.
- **Strong H₂** sales from ramp-ups in Latam
- **Turnarounds** in U.S.
- **Lower Cogen** vs. high Q2 21 in U.S.

Healthcare

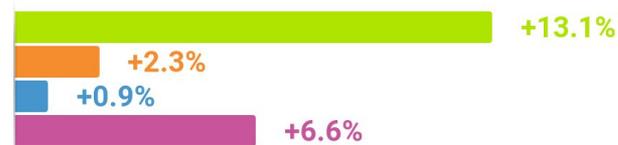
- **Lower O₂** volumes for covid-19
- **Strong** volume & pricing for U.S. **Proximity Care**
- **Strong sleep apnea** sales in **Latam**

Electronics

- Ramp-ups in **Carrier Gases**
- Very high **Specialty Materials** and E&I
- Solid **Advanced Materials**



Q2 22/21 Comparable Growth: **+9.5%**



in €m	H1 2022	Growth as published	Comparable growth
Sales	5,017	+23.6%	+9.2%
OIR	969	+20.9%	
OIR/Sales	19.3%	-40bps	+20bps ⁽¹⁾

(1) Excluding energy impact

Q2 - Europe

Industrial Merchant



- **+22.3% record pricing** to address Energy price increase
- **Volumes slightly positive**, resisting in cylinders, softening in bulk
- **Growth in all end-markets**

Large Industries



- **Lower demand overall**
- Customer **turnarounds**
- **Lower H₂ volumes** from Refineries, using lighter crude oil

Healthcare



- **Lower O₂ volumes** related to covid-19
- **Strong momentum in HHC**, driven by diabetes
- Dynamic **Specialty Ingredients**
- **Positive pricing** in Medical gases



Q2 22/21 Comparable Growth: **+5.7%**



in €m	H1 2022	Growth as published	Comparable growth
Sales	5,424	+48.3%	+6.4%
OIR	771	+11.4%	
OIR/Sales	14.2%	-470bps	+90bps⁽¹⁾

(1) Excluding energy impact

Q2 - Asia-Pacific

Industrial Merchant



- Accelerated **pricing +6.9% over the region**, notably in China, Japan, Australia and Singapore
- Low volumes in China**, especially bulk, impacted by lockdowns
- Improved demand in Singapore**

Large Industries



- Soft China** impacted by lockdowns
- Lower air gases in Japan and Singapore**
- Strong **cogen** activity in **Singapore**

Electronics



- >+17% growth in Carrier Gases, ESM⁽²⁾ and E&I**
- High **pricing in ESM⁽²⁾** driven by **rare gases**
- Strong E&I** in Singapore and China



Q2 22/21 Comparable Growth: **+6.5%**



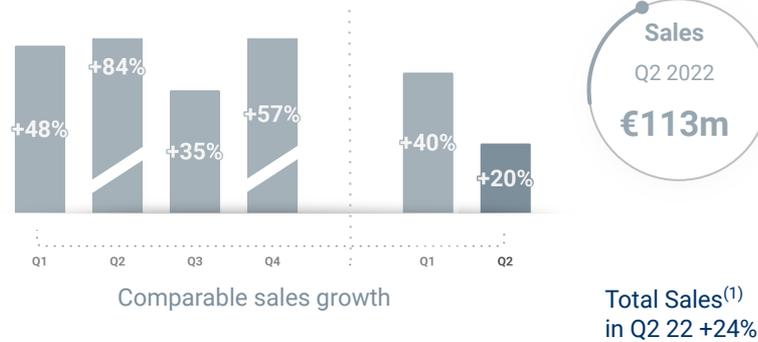
in €m	H1 2022	Growth as published	Comparable growth
Sales	2,746	+18.1%	+5.5%
OIR	567	+10.5%	
OIR/Sales	20.7%	-140bps	-20bps (1)

(1) Excluding energy impact

(2) Electronic Specialty Materials

Q2 - High Growth in E&C, Strong GM&T Driven by Biogas

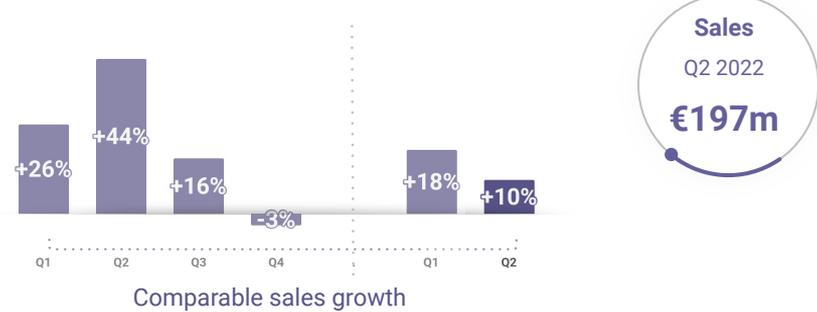
Engineering & Construction



Solid order intake €262m

+2%

Global Markets & Technologies



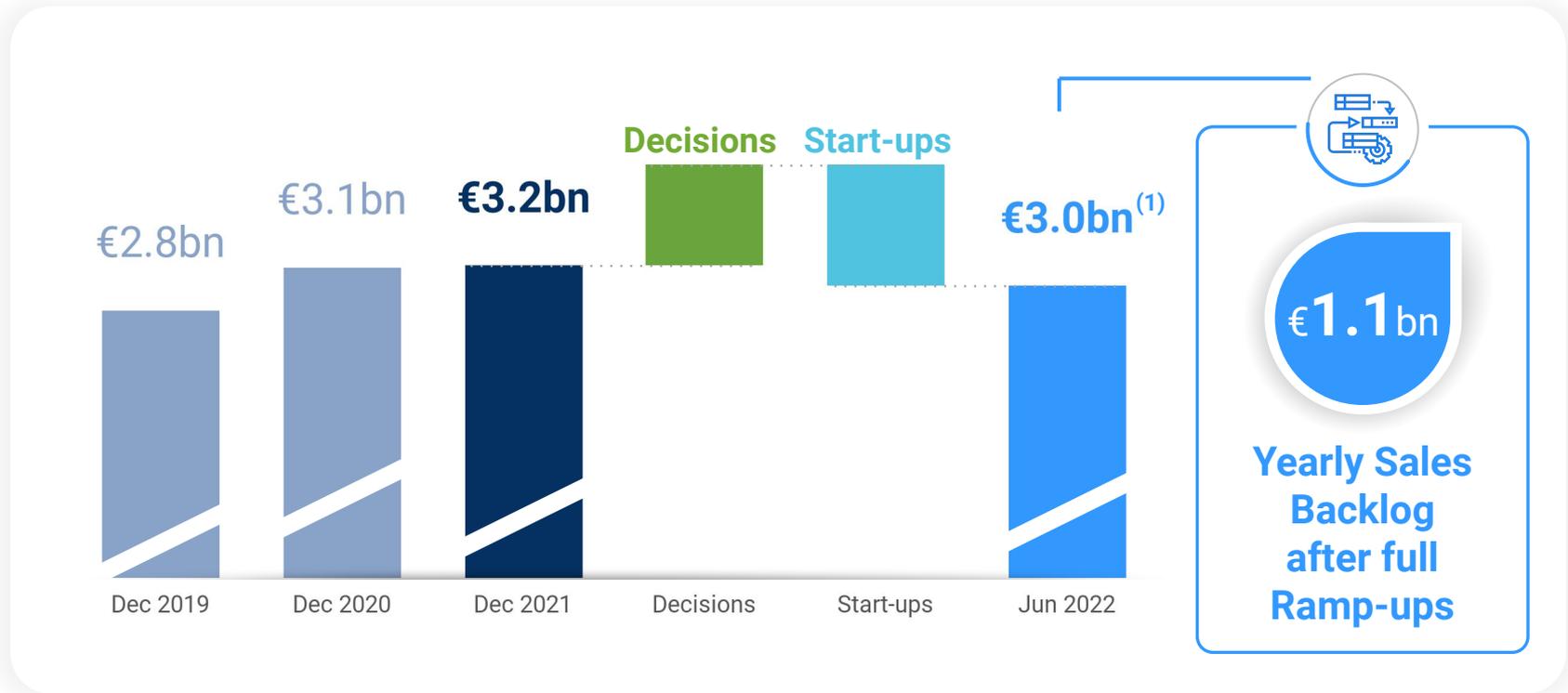
Strong order intake, momentum in Turbo Braytons

€189m

+3%

(1) Including internal sales

Sustained Strong Backlog at €3.0bn despite Start-Ups



See definitions in appendix (1) Russian projects have been removed from H1 2022 Backlog

Consolidated P&L

In €m	H1 21	H1 22
Revenue	10,846	14,207
Operating costs	(7,849)	(10,732)
Operating profit before depreciation	2,997	3,475
Depreciation and amortization	(1,049)	(1,189)
Operating income recurring	1,948	2,286
Other non-recurring operating income & expenses	(40)	(270)
Operating income	1,908	2,016
Net financial costs and other net financial expenses	(188)	(180)
Income taxes	(425)	(459)
Share of profit of associates	(2)	1
Profit for the period	1,293	1,378
- Minority interests	54	73
- Net profit (Group share)	1,239	1,305
Basic earnings per share (in €)	2.38 ⁽¹⁾	2.50

(1) Including the impact of the free share attribution performed on June 8, 2022

Consolidated Balance Sheet Simplified

ASSETS	31/12/2021	30/06/2022
Goodwill	13,992	14,864
Fixed assets	23,984	25,816
Other non-current assets *	1,216	1,340
Total non-current assets	39,192	42,020
Inventories & work in-progress	1,585	1,829
Trade receivables & other current assets	3,611	4,361
Cash and cash equivalents *	2,311	1,644
Total current assets	7,507	7,834
Assets held for sale	84	88
Total assets	46,783	49,942

	31/12/2021	30/06/2022
Net debt	10,448	12,010
Net debt to equity ratio	47.5%	46.0%⁽¹⁾

EQUITY AND LIABILITIES	31/12/2021	30/06/2022
Shareholders' equity	21,462	23,001
Minority interests	537	893
Total equity	21,999	23,894
Provisions & Deferred tax liabilities	4,419	4,389
Non-current borrowings	10,506	10,690
Non-current lease liabilities	1,033	1,085
Other non-current liabilities *	382	357
Total equity and non current liabilities	38,339	40,415
Provisions	309	310
Trade payables & other current liabilities	5,614	5,928
Current lease liabilities	228	238
Current borrowings *	2,256	3,007
Total current liabilities	8,407	9,483
Liabilities held for sale	37	44
Total equity and liabilities	46,783	49,942

* Including fair value of derivatives (1) Adjusted for dividend seasonality

Cash Flow Statement

In €m	H1 21	H1 22
Funds provided by operations	2,483	2,907
Changes in Working Capital	(267)	(634)
Other cash items	(26)	(32)
Net cash from operating activities	2,190	2,241
Purchases of PPE* and intangible assets	(1,439)	(1,574)
Purchases of financial assets and the impact of changes in scope	(569)	(54)
Proceeds from sale of PPE*, intangible and financial assets	132	81
Net cash in investing activities	(1,876)	(1,547)
Distribution	(1,366)	(1,428)
Increase in capital stock	23	17
Purchase of treasury shares	(40)	(193)
Transactions with minority shareholders	(37)	(0)
Change in borrowings and lease liabilities (incl. net interests)	593	182
Impact of Exchange rate changes and net debt of newly consolidated companies & others	61	(35)
Change in net cash and cash equivalents	(452)	(763)
Net cash and cash equivalents at the end of the period	1,266	1,376

* PPE: Property, plant and equipment

Impact of Currency and Energy on G&S Revenue

in €m	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22
€/USD	(165)	(169)	(19)	+74	+141	+271
€/JP¥	(14)	(25)	(10)	(10)	(5)	(10)
€/SGD	(7)	(5)	+1	+5	+10	+18
€/BRL	(23)	(6)	+1	+1	+9	+16
€/Rmb	(8)	+1	+29	+40	+52	+59
€/CAN	(5)	+5	+8	+13	+13	+17
€/TRY	(4)	(4)	(3)	(5)	(13)	(13)
Others	(40)	(17)	+15	+29	+11	+31
Currency Impact	(266)	(220)	+22	+147	+218	+389

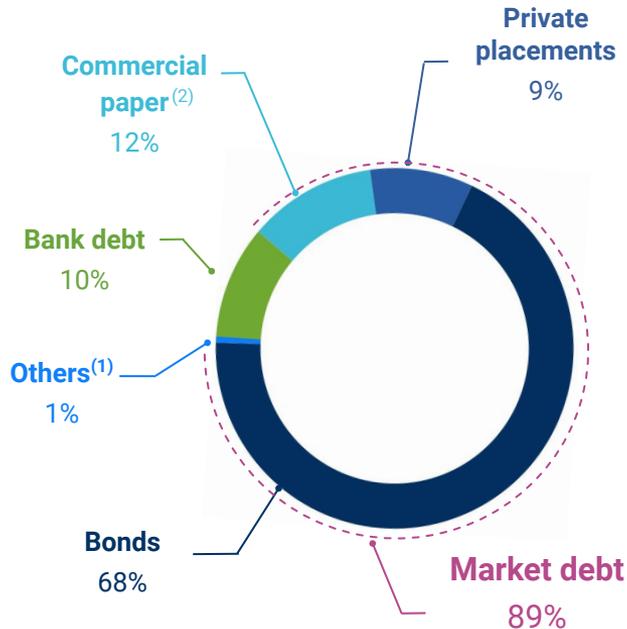
in €m	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22
Natural Gas Impact⁽¹⁾	+133	+171	+342	+609	+607	+690

in €m	Q1 21	Q2 21	Q3 21	Q4 21	Q1 22	Q2 22
Electricity Impact⁽¹⁾	+46	+68	+99	+254	+267	+267

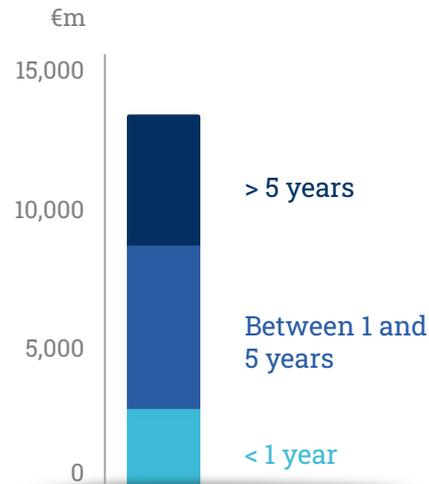
(1) At constant exchange rates

Financing Structure as of June 30, 2022

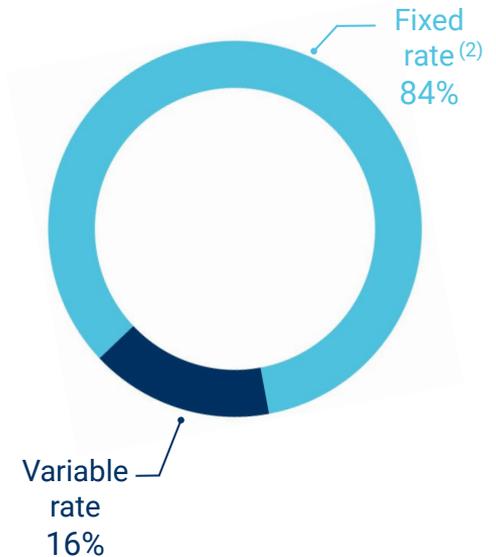
Sources



Maturity



Fixed / Variable rates (gross debt)



(1) Others: put options granted to minority shareholders (2) Higher commercial papers at variable rate: short term financing expected to be mostly reimbursed before year end 2022

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.

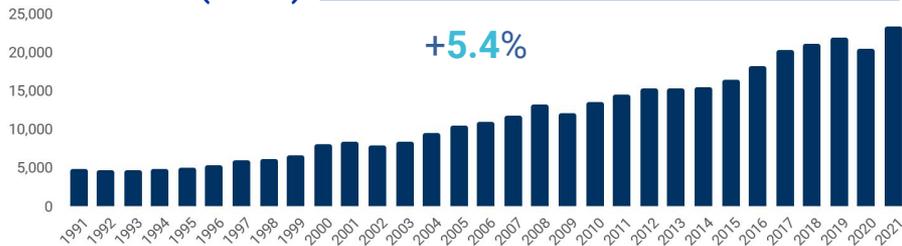
Decisions of the period

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

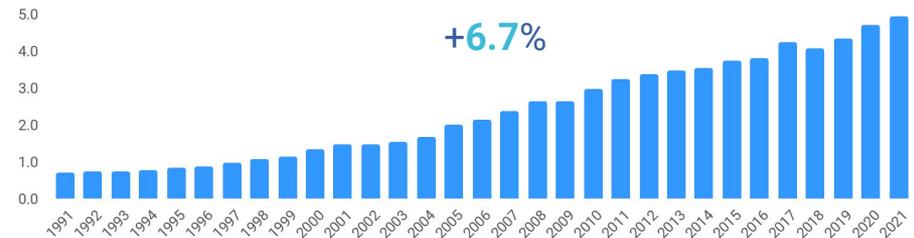
Regular and Sustained performance

CAGR over 30 years⁽¹⁾

Revenue (in €m)



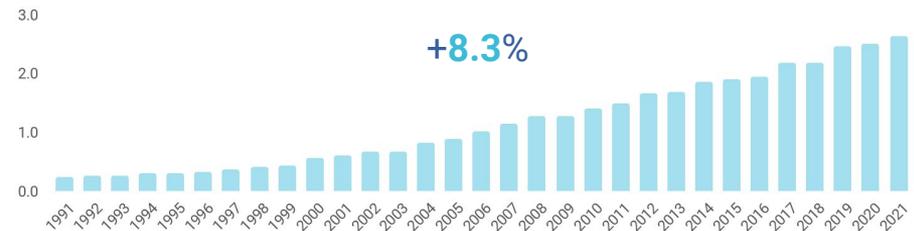
EPS⁽²⁾ (in €)



Cash Flow (in €m)



Dividend⁽²⁾ (in € per share)



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

(2) Adjusted for the 2-for-1 share split in 2007, for free share attributions and for the capital increase completed in October 2016

For further information, please contact:

Upcoming events

2022 Third Quarter Revenue: October 25, 2022



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L'Air Liquide S.A.

Corporation for the study and application of processes developed by
Georges Claude with registered capital of 2,884,069,820.50 euros

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Although Air Liquide believes that the expectation reflected in such forward-looking statements are reasonable, such statements are not guarantees of future performance. Actual results may differ materially from the forward-looking statements as a result of a number of risks and uncertainties, many of which are outside our control.

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