#### **Air** Liquide

# ADVANCE

#### **CAPITAL MARKETS DAY** 2022 22 MARCH 2022



### **Air** Liquide

## ADVANCE

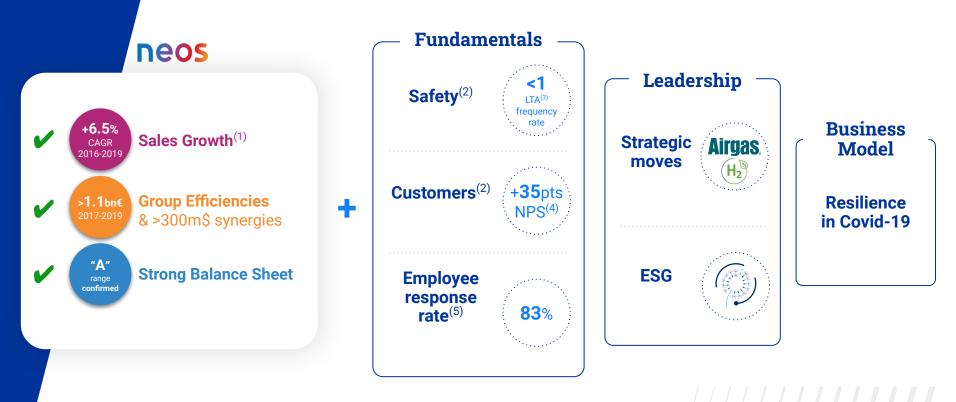
**CAPITAL MARKETS DAY** 2022

DELIVERING STRONG FINANCIALS, CREATING VALUE AND GROWTH

> Benoît Potier François Jackow Jérôme Pelletan

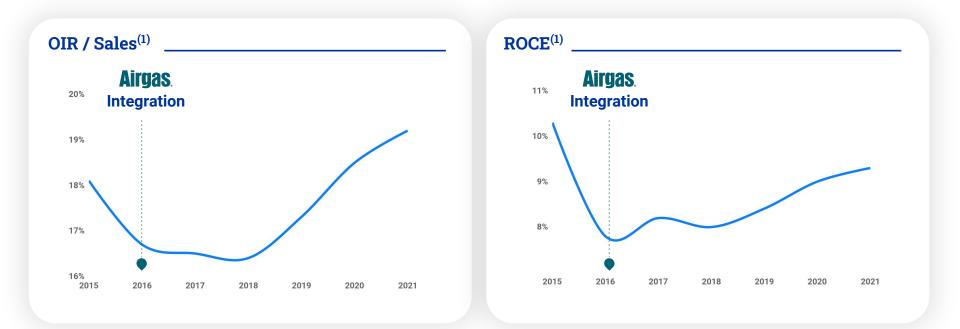
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#### //// Major Achievements over the Past 5 Years



(1) Incl. scope impact from Airgas acquisition
 (2) 2020 figure
 (3) Lost-Time Accident
 (4) Net Promoter Score in 2020 vs 2015
 (5) 2021 Employee engagement survey; 83%, above benchmark

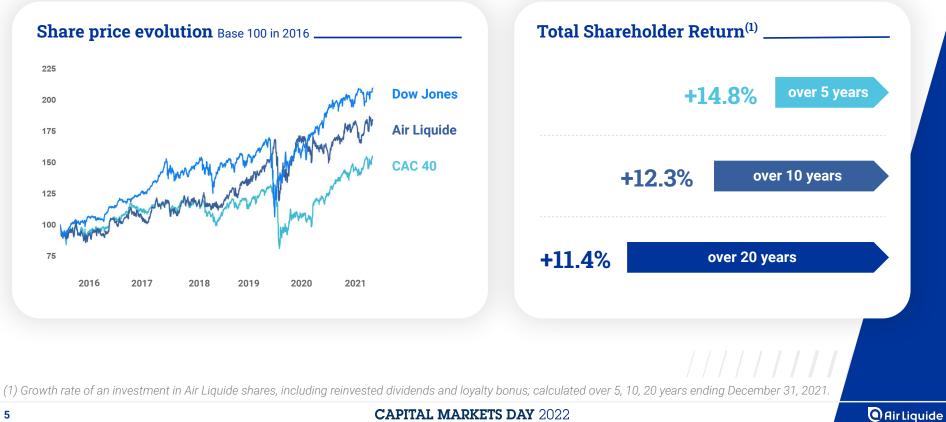
#### / / / Sharp Profitability Improvement



Leveraging pricing, efficiencies, portfolio management

(1) As published ratios until 2020; 2021 OIR/sales at the energy price of 2020

#### **Delivering Shareholder Value**





Tech

#### Many Opportunities in Post Covid World

#### **Climate urgency awareness**

#### Localisation of industrial footprint

Digital

#### Healthcare availability

#### **Opportunities**

#### **Reinvent Manufacturing**

- Low-carbon
- Semiconductors
- Productivity by digital

#### **Healthcare**

- Home Healthcare
- Access Oxygen

#### Hydrogen

Space

Air Liquide

#### / / New Rules of the Game

#### **Pre-Covid**

- Growth from industrial capacity
- Industrial Gases market consolidation
- Leaner and leaner organisation
- Geographical expansion in emerging economies
- Low inflation

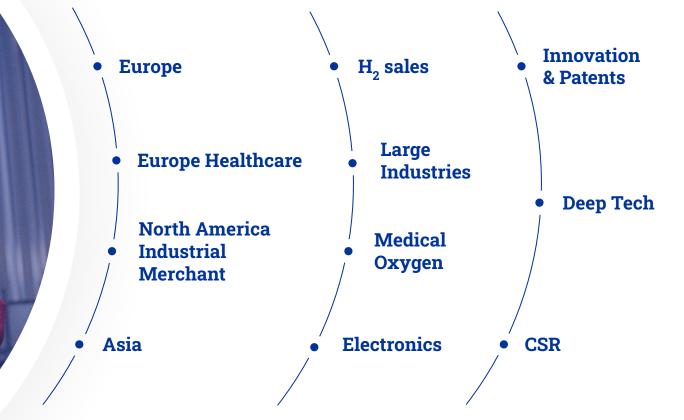
## Post-Covid and geopolitical reconfiguration

- Growth from capturing new markets & supporting Energy Transition roadmaps of customers / countries
- New competitors
- Innovation, attract talents
- Mature geographies leading transformation

- Inflationary environment
- Digital everywhere
- Sovereignty

#### Ideally Positioned to Capture Growth

1n



#### Setting A New Standard



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## **ADVANCE**

**Delivering financial performance** 

And beyond,

Decarbonizing the planet

Unlocking progress via technologies

Acting for all



#### **/// ADVANCE** Performance Objectives

Sales growth +5-6% CAGR<sup>(1)</sup>

**ROCE** >10% by 2023 and forward<sup>(2)</sup>





CO<sub>2</sub> emissions inflection around 2025

(1) Group comparable sales growth 2021-2025 CAGR (2) Recurring ROCE based on Recurring Net Profit

#### / Focusing on 2 Enablers Supporting ROCE Objective **ADVANCE**





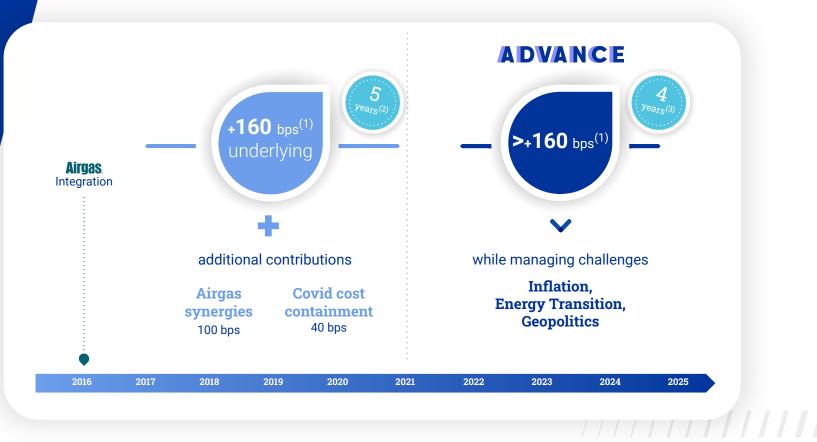
Capital Efficiency >+160 bps margin improvement over 4 years<sup>(1)</sup>

111

**Air Liquide** 

(1) Calculated as the sum of yearly OIR margin improvements at the energy price of the previous year; over the period 2022-2025

#### **//////**Stepping up Margin Improvement

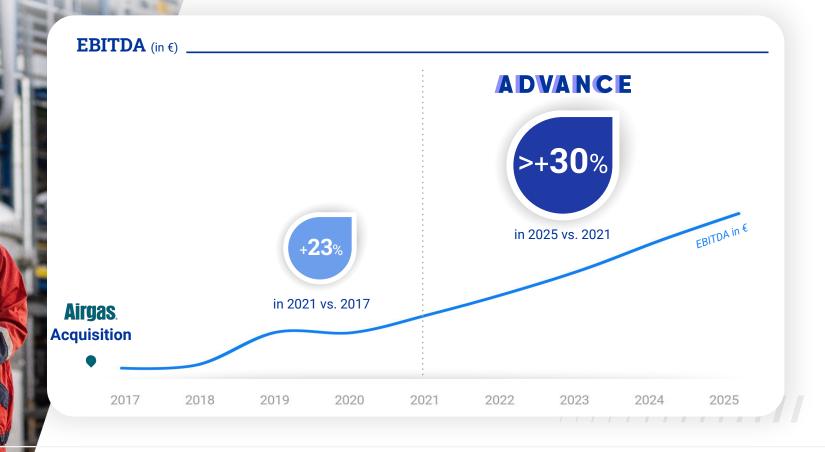


(1) Calculated as the sum of yearly OIR margin improvements at the energy price of the previous year (2) 2017-2021 (3) 2022-2025

#### **Accelerating Growth**



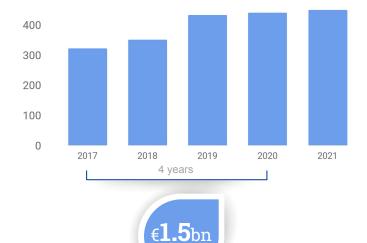
#### A Step Change in EBITDA Generation



#### **CAPITAL MARKETS DAY** 2022

#### **Enhanced Efficiencies Through Strong Execution**

#### From €300m to **€400m** per year



ADVANCE



## Cumulated efficiencies

over 4 years 2022-2025



#### / / / Efficiencies, Harvesting the Seeds of NEOS



#### Tackle cost base in an inflationary environment

(1) SIO: Smart Innovative Operations, leveraging data for remote operations, best economical performance and predictive maintenance

#### **Pursue Active Portfolio Management**

#### Selected transactions over 2016-2020 **Deos**

#### **132 Acquisitions**

# ~ +€0.8bn<sup>(1)</sup>

#### 28 Divestitures

~ -€1.5bn<sup>(2)</sup>

## ADVANCE

#### Supplement margin improvement by:

#### Leveraging on our **basins**

#### Increasing geographical density

#### Focusing on added-value **businesses**



Air Liquide

(1) Additional sales from acquisitions, excluding Airgas (2) Sales removed due to divestitures

/////Supported by Increased Investment Decisions

~+**45**%

**NEOS** €2.6bn average yearly industrial investment decisions

12% Industrial Capex / Sales

## **A D V A N C E**

# **€3.8bn** average yearly industrial investment decisions

**13-15%** Industrial Capex / Sales

**Air Liquide** 

(1) Average yearly industrial investment decisions over the period 2022-2025 compared with the average amount over 2016-2019

#### /// Investments Driven by Energy Transition and Electronics



(1) Cumulated industrial and financial investments decisions over 4 years 2022-2025

#### **Cash Flexibility to Finance Growth and Reward Shareholders**



(1) Cumulated cash flow from operating activities before changes in working capital requirements on sales over 2022-2025

 $\square$ 

**Priority** 

focus on

Capex



## **ADVANCE**

#### **Financial performance**

And beyond,

**Decarbonizing the planet** 

Unlocking progress via technologies

Acting for all

# 02

#### DECARBONIZING THE PLANET

Leading: Decarbonization of manufacturing Energy Transition Hydrogen solutions

> Mike Graff Pascal Vinet François Venet



## ADVANCE

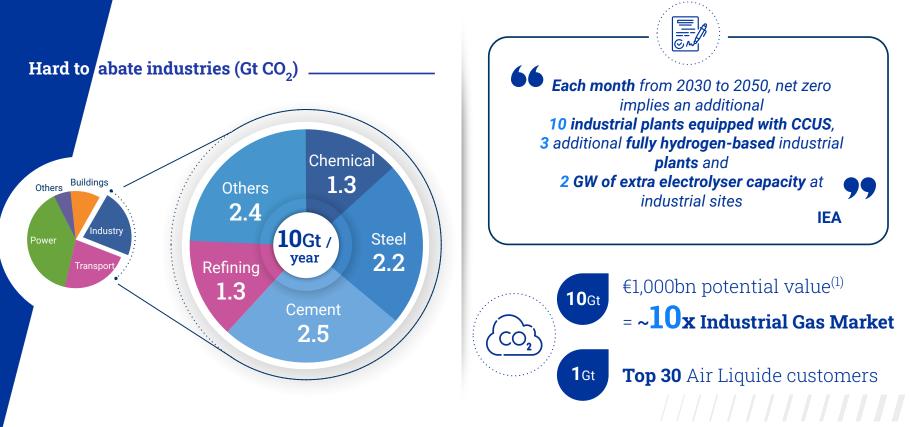
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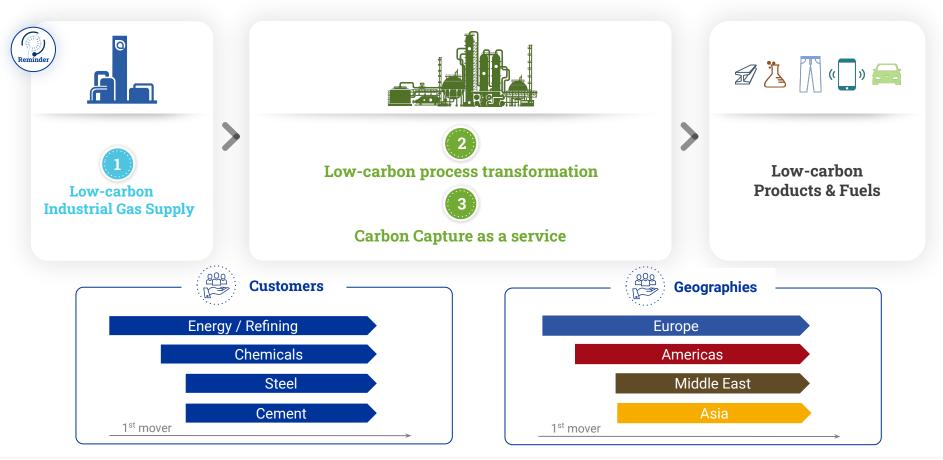
(1) @ 100 €/t CO<sub>2</sub> 10 Gt \* 100 €/t = €1,000bn/y



#### / / / Air Liquide Solutions along the Low Carbon Chain



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#### Quick Start from Refining towards Sustainable Fuels



**Air** Liquide



to be voted by European Parliament
 HVO Hydrotreated Vegetable Oil
 source IEA: biofuels consumption triples by 2030 to reach 12% of global transport fuel demand

## // 1 Air Liquide, Solutions Provider for Refining Decarbonization

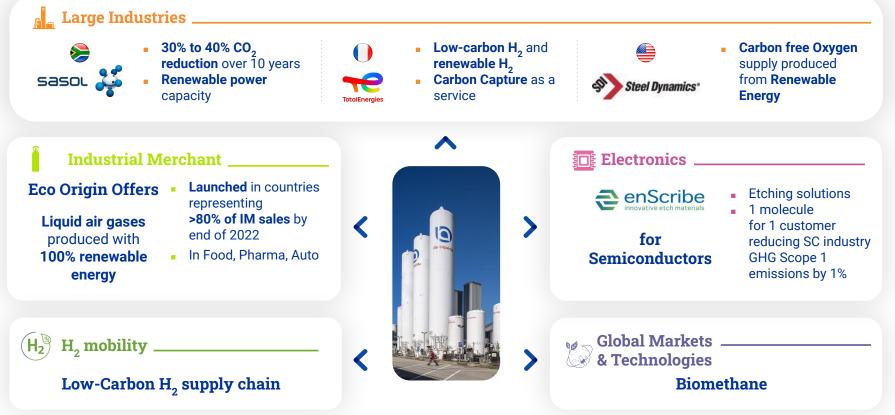




#### Accompany Neste in its journey towards renewable fuels production

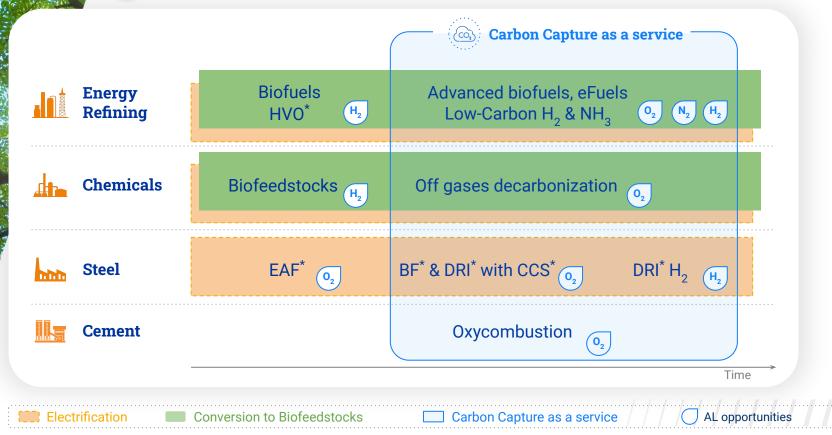
- Act as a **partner** and understand customer's needs
- Supply low-carbon H<sub>2</sub>
- Continuously adjust volumes to Neste requirements

## Beyond Refining, all Markets and Activities Onboarded in Decarbonization



#### A Unique Position to Decarbonize Customers' Processes...





\* EAF: Electric Arc Furnace; BF: Blast Furnace; DRI: Direct Reduced Iron; CCS: Carbon Capture Sequestration; HVO: Hydrotreated Vegetable Oil

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#### ... and to Accompany Customers in New Energy Transition Markets

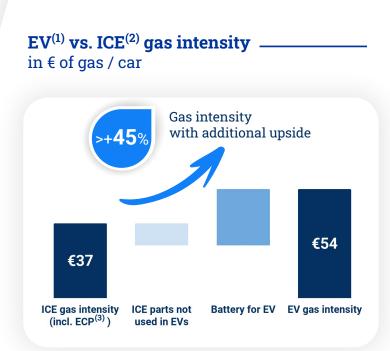
Example Battery manufacturing

A rapidly expanding market...

- +19% CAGR 2020-30 for battery production
- **30** EV battery **gigafactories** planned **in Europe**

#### ... with mid term gases potential

- ► >€1bn potential for gases by 2030
- $\rm N_{2}$  (inerting),  $\rm O_{2}$  (oxidation),  $\rm CO_{2}$ , He
- Advanced Materials innovation to enhance Battery Performance



**Air Liquide** 

(1) Electric Vehicle (2) Internal Combustion Engine (3) Electronic Component Products

Sustainable Battery Production for Electric Vehicles, a New Growing Market



#### **Jürgen Fuchs** Chairman of the Management Board, BASF Schwarzheide GmbH

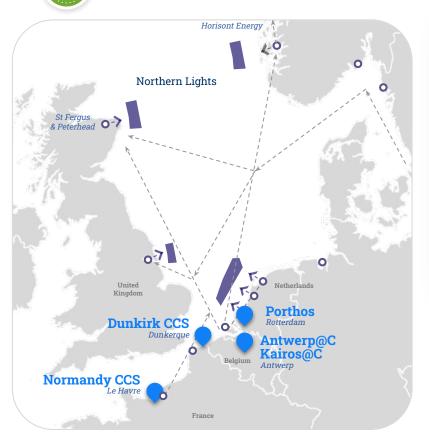




Supplying additional air gases to new BASF state-of-the-art battery material plant in Germany

- Capturing growth linked to electrical vehicles expansion
- Build a new state-of-the-art, safe, efficient and reliable
   ASU unit, start-up expected in 2023

#### Carbon Capture as a Service Becoming a Reality



Large-scale Carbon Capture projects in Europe \_\_\_\_\_ First mover in flagship Carbon Capture projects

For Air Liquide but also Customers' assets

Strongly supported by European fundings

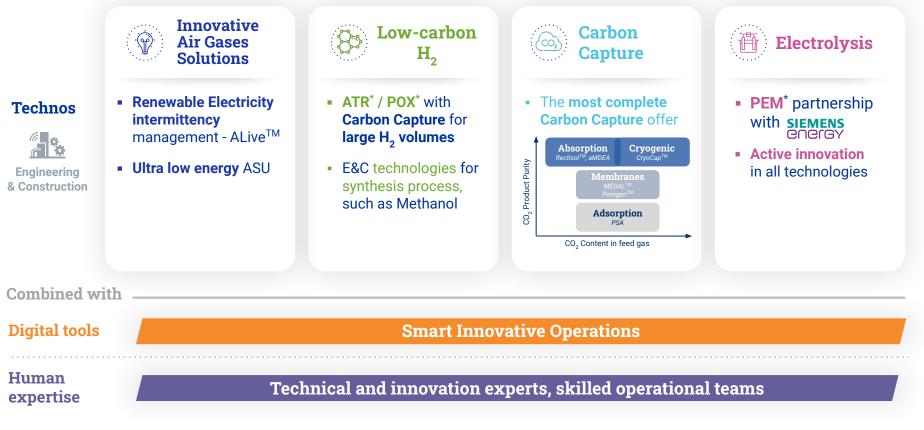
Similar dynamics starting in other geographies

U.S. Middle-East Asia



#### /// Leveraging our Technologies: the Backbone of Air Liquide Solutions





\* ATR: AutoThermal Reforming; POX: Partial Oxidation; PEM: Proton Exchange Membrane

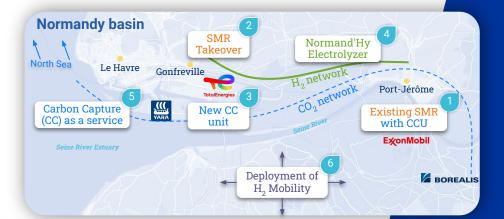
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#### / / / Building Synergies at Scale in Key Basins

#### Example Normandy Basin

#### **First Worldwide Low-Carbon H**<sub>2</sub> **Network and Carbon Capture as a service** leveraging on:

- Innovative technologies
- Availability of CO<sub>2</sub> storage
- Renewable energy sourcing
- Refineries needs for renewable & low-carbon products
- Needs for carbon capture on customers assets





#### Value for the customer

- Over-The-Fence benefits / Energy saving
- Reduction of Scope 1, avoid ETS cost
- Monetization of low-carbon products to end-customers



#### Value for Air Liquide

- Extension of LI business model
- Reduction of Scope 1 when CO<sub>2</sub> is captured
- Leverage existing assets for mobility





CC: Carbon Capture; CCU: Carbon Capture and Usage

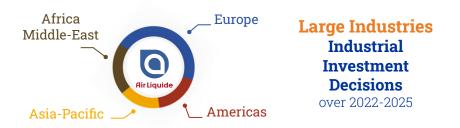
## // Large Industries, Deliver Growth and Prepare for the Acceleration in Energy Transition



## ADVANCE

**Comparable Sales growth and projects signing** 





#### Leverage on Business Fundamentals

- Execute flawlessly backlog of projects
- Pursue operational excellence

Take **early positions** in **Energy Transition** 

- First contribution to sales by 2025
- High level of signings and partnerships

Meet **inflection point in CO**<sub>2</sub> **emissions** in absolute value **around 2025** 

(1) Large Industries comparable sales growth 2021-2025 - 4 year CAGR

### **Air** Liquide

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## TECH TO UNLOCK NEW MARKETS

Matthieu Giard Emilie Mouren-Renouard Diana Schillag Marcelo Fioranelli

03



### Innovation and Technologies Will Create New Markets

#### Focusing on



**Electronics** 



Healthcare



#### Industrial Merchant

E

Deep tech / Innovation

• Air Liquide



#### Innovation and Technologies Will Create New Markets

### Focusing on



Mobility

**Electronics** 

Healthcare



Industria Merchan

Deep tech / Innovation

• Air Liquide

### ///H<sub>2</sub> Mobility: a Pillar in Air Liquide H<sub>2</sub> Strategy



**Air Liquide** 



### / / / Remaining the Clear Leader in $H_2$ for Mobility



Build on H<sub>2</sub> industrial legacy



Leverage H<sub>2</sub> Technology leadership

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#### Develop a **robust business model**

- Large Industries strategic basins
- Industrial Merchant supply chain
- Deep H<sub>2</sub> industrial know-how
- Ability to offer any type of low-carbon H<sub>2</sub>
- Full portfolio of low-carbon H<sub>2</sub> production technologies
- Liquid H<sub>2</sub>, essential for supply chain mobility
- H<sub>2</sub> refueling technologies
- Bringing value as a strong midstream player
- Strategic partnerships
  - Energy players
  - Mobility players

#1 2021 KEY FIGURES 1.2m tonnes/year >2,000 km H<sub>2</sub> pipeline **60** filling centers **5** liquefaction centers 1,300 trailers ~200 H<sub>2</sub> refueling stations sold

**37** strategic partnerships

Unique synergies to bring value and move faster



### /// Walking the Talk

#### Market development



### Accelerate H<sub>2</sub> road mobility

Partnerships with retailers in

Partnerships with automotive players



#### Activate H<sub>2</sub> Aviation, Maritime and Rail

Partnership with industry leaders First commercial projects

Hydrogen Council

HYSETCO

#### A leader in the $\rm H_{2}$ ecosystem

**Advocacy:** H<sub>2</sub> Council **Financing:** First dedicated H<sub>2</sub> Infra fund **Market activation** through startups & innovative business models Leveraging on existing footprint . and 15 priority basins



**Air Liquide** 

### /// Develop a Complete Ecosystem for Hydrogen Trucks





HyAMMED France

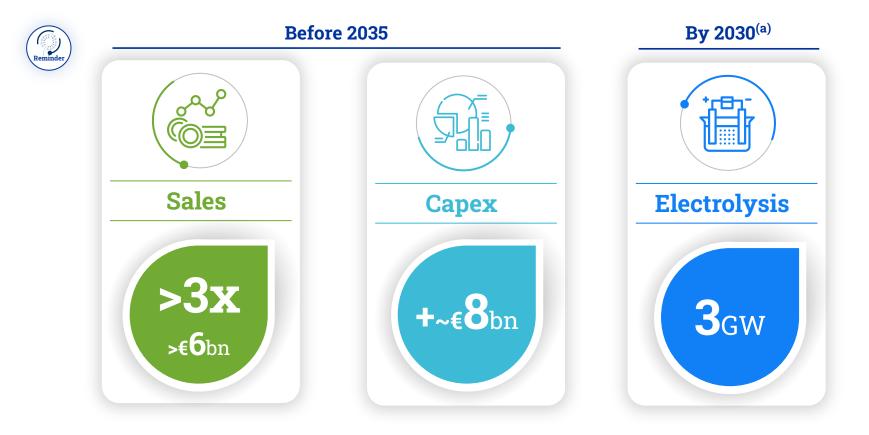


# First high pressure hydrogen refueling station for long haul trucks in Europe

- 20 refuelings per day of trucks with low-carbon hydrogen
- Reduce CO<sub>2</sub> emissions by >1,500 tons per year
- Partnerships with industrial actors, carriers and large retailers
- Fundings from local communities and Europe

### / / / Confirmed Hydrogen Ambition for Industry and Mobility





(a) Including 1 GW decided still under construction





### Innovation and Technologies Will Create New Markets

### Focusing on



**Electronics** 

Healthcare



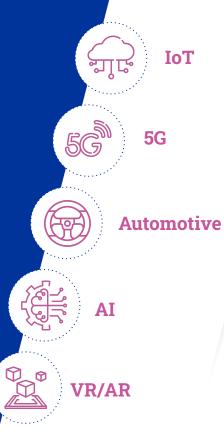
Industria Merchan Ċ

Deep tech / Innovation

• Air Liquide

### / Digital Acceleration Driving Significant Opportunities





#### **Buoyant IC market**

- Chips needed everywhere
- Race for improved chip performance
- \$700bn investments announced in new mega-fabs
- Need to secure supply chains

### A growth driver for Air Liquide

- Volume and Advanced Materials
- New molecules for improved performance
- New energy efficient on-site gas generators
- New projects in US & Europe

### /// Leveraging Leading Position to Capture Growth



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Specialty Gases



Services



#### Equipment & Installations

A complete portfolio of solutions



#### **Advanced Materials**

**Carrier Gases** 

excellence

- Build on unique technology
- Leverage industrial expertise from pilot scale to manufacturing

Accelerate investments in new technologies:

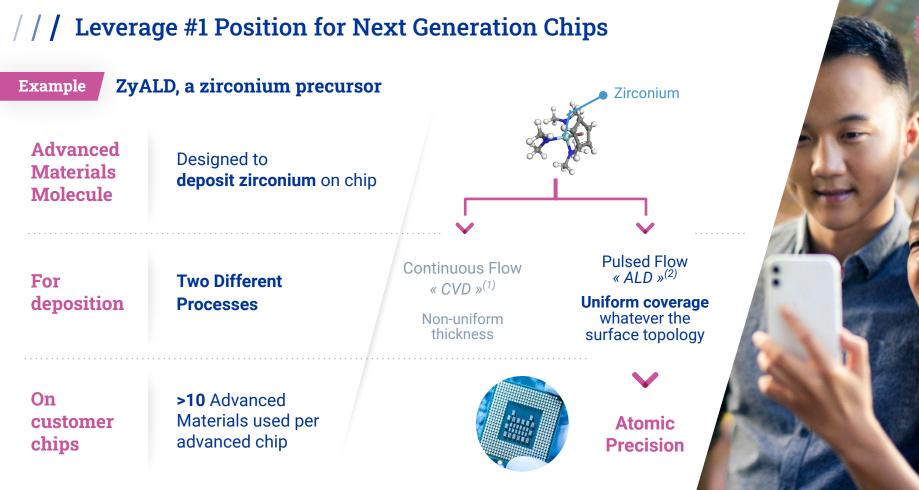
Finalize SIO<sup>(1)</sup> deployment for operational

Energy efficient on-site gas generators Low-carbon on-site hydrogen generators

**Reinforce** positions in **key basins** 

- Reinforce global manufacturing footprint
- Develop new environmentally friendly solutions

(1) SIO: Smart Innovative Operations, leveraging data for remote operations, best economical performance and predictive maintenance



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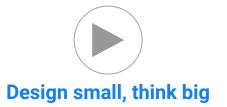
AirLiquide

(1) Chemical Vapor Deposition (2) Atomic Layer Deposition

### /// How Air Liquide Helps Electronics Customer to Grow



Advanced Materials

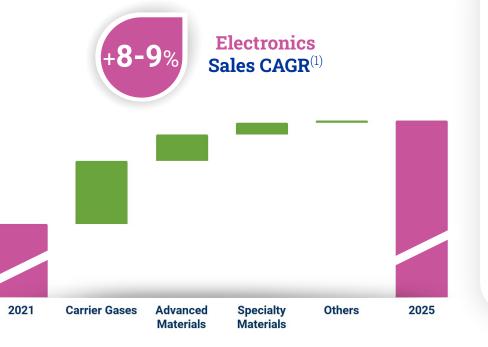


- "To innovate you have to **work as a team** and the team includes your **customer**"
- "What we do best is shaking the periodic table to come up with innovative new materials"
- "One of our key focus is operational excellence"

### /// Outstanding Growth over ADVANCE and Beyond

### ADVANCE

#### **Comparable Sales growth and projects signing**





# Contribute to Group margin improvement

#### Leverage **long term customer relationships**

Air Liquide

(1) Electronics comparable sales growth 2021-2025 - 4 year CAGR



#### Innovation and Technologies Will Create New Markets

### Focusing on



Mobility

**Electronics** 



Healthcare



Industria Merchan Eð

Deep tech / Innovation

• Air Liquide



### **Transforming Home Healthcare**

#### Drivers

- Rising chronic diseases with aging populations and changing lifestyles
- Patients actors of their health, empowered by digital
- Need for value transformation for better budget allocation and resilient healthcare systems

#### Opportunities

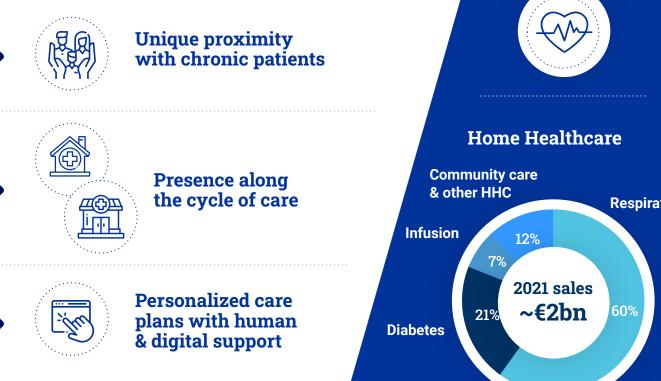
- More patient-centric and cost-efficient places of care, including home
- Treat severe pathologies in specialized locations
- New healthcare pathways enabled by digital

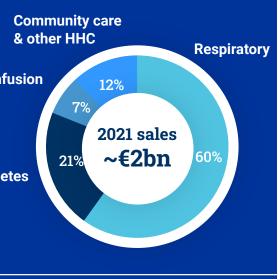




### /// Air Liquide Unique Positioning in Healthcare









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**1.8m** 

patients

15,000

hospitals



### /// Air Liquide Value Transformation - Illustrations



#### Optimizing patient outcomes \_\_\_\_\_

#### **Personalizing care pathways**



#### Technology as a key enabler \_\_\_\_\_

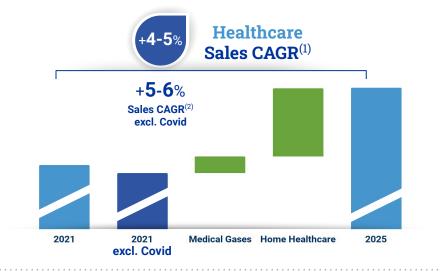
#### **Optimizing operational excellence**





### // Sustained Sales Growth and Value Transformation





Sources of HHC sales growth Organic Neos **Drive strong organic growth** with Home Healthcare

#### **Pioneer in Value-based Healthcare** to generate future growth

# Consolidate our **geographic positions**

Boost **operational excellence** through digital

(1) Healthcare comparable sales growth 2021-2025 - 4 year CAGR (2) Healthcare comparable sales growth 2021-2025 - 4 year CAGR, excluding Covid-19 impact in 20





#### Innovation and Technologies Will Create New Markets

Focusing on



Electronics

Healthcare



#### Industrial Merchant

Eð

Deep tech / Innovation

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**Sustainability** and **Societal** trends are shaping the future IM **innovation** is driving **Growth** 

(1) By 2030

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### // Operating Digitally at Scale to Deliver Growth and Performance

#### Perfect playground for data & digital

# customers

**# transactions** 

# assets

# markets

**# geographies** 

#### Growth

- Manage churn and pricing
- Deliver an outstanding customer
- experience by making every interaction valuable
- New data-enabled offers & services

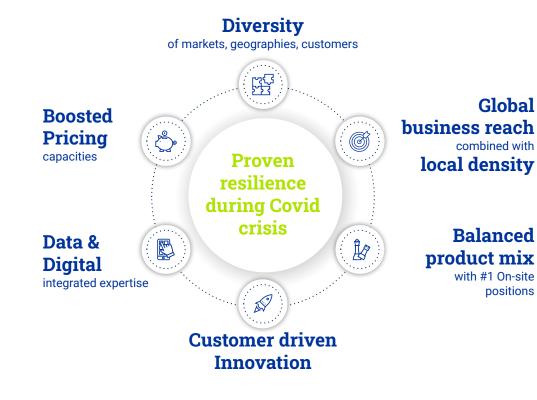
#### **Major ongoing programs**



#### Performance

- Boost productivity
- End-to-end optimization
- Unlock efficiency potential

### /// IM Solid Fundamentals Support Air Liquide Performance



Solidity of business model

Long term market vision to capture **new growth** potentials

**Leadership** positions in the **U.S.** and **China** 

**Strong Free Cash Flow** generation for the Group

**O** Air Liquide

### /// IM Growth Acceleration over Advance Period

### ADVANCE

#### **Comparable Sales growth**

	+4-5%		Industrial Merchant Sales CAGR <sup>(1)</sup> by 2025		
2021	Volume	Pricing	Bolt-on acquisitions / divestitures	2025	

#### Growth

- Seize volume in new markets
- Enhance and sustain pricing

#### Performance

- Continuously improve operational excellence
- Optimize end-to-end supply chain
- Contribute to margin improvement

#### GeoMix

- Increase density in key industrial basins
- Leverage leadership positions in **China** and in **U.S.**
- Bolt-on acquisitions to increase density

#### Transformation

Activate data & Digital in the operations

(1) Comparable growth 2021-2025 - 4 year CAGR



### Innovation and Technologies Will Create New Markets

### Focusing on



Electronics



Healthcare



#### Industria Merchan

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Deep tech / Innovation

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### / Space: Supporting the Way to More Sustainable Solutions





#### The new Space shift

Exponential need for connectivity

Renewed interest in **environment** and space **exploration** 

Reducing launchers and satellite carbon footprint



#### Launchers

- All Cryo propellants, equipment, services
- From micro to heavy launchers

#### **Satellites**

 Solutions for instruments and propulsion

#### **Space exploration**

 Advanced techno for life support and energy production in space

€**1.7**bn



#### Legacy and **pioneering** spirit

Recognized **cryogenic** 

developments

expertise and technological

**Air Liquide strengths** 

Strong connections to the New Space ecosystem



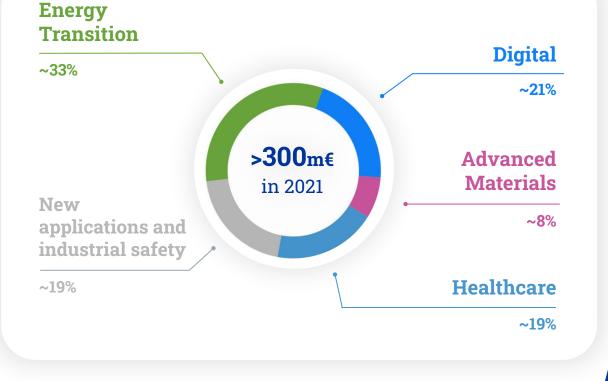
Accessible market

by 2030



Air Liquide

### / / Leading in Innovation to Support Business and Operations





>50% of Innovation expenses dedicated to Energy Transition and Digital

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### **Air** Liquide

# ADVANCE

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# **ACTING FOR ALL**

Fabienne Lecorvaisier Armelle Levieux

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### /// An ESG Commitment Structured around 3 Main Priorities

### **A**batement > of $CO_2$ emissions

**C**are > for patients



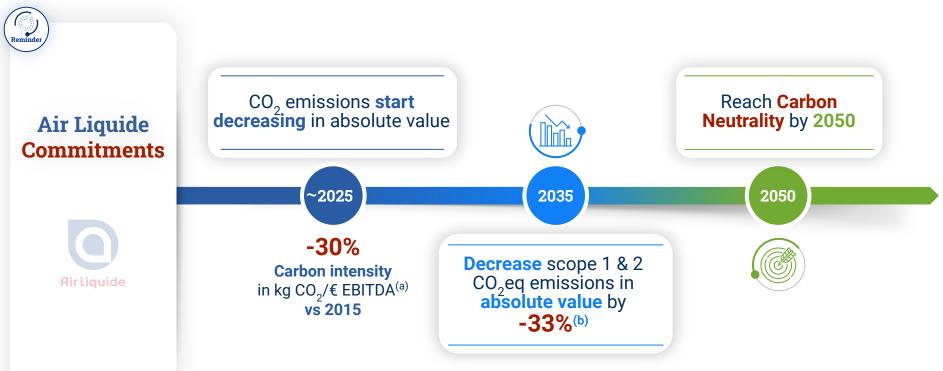
# $\mathbf{T}_{rust}$ > as the base

> to engage with our employees

> to build a best-in-class governance

**Air Liquide** 

### /// Abatement of CO<sub>2</sub> Setting a Trajectory to Reach Carbon Neutrality



(a) at 2015 exchange rate and excluding IFRS16 for greenhouse gas emissions scopes 1 and 2 (b) from 2020 Market based emissions of 32.5 million tonnes CO<sub>2</sub>eq (Scope 1+2)

### /// Decarbonizing the Planet

### ADVANCE



(1) among industrial investment decisions for projects >€5m



### **Acting For Customers**



From **Neos** Customer-centric transformation... \_\_



Acting upon the Voice of Customer



Improving Customer's Journey



Building a Customer-centric **Mindset** 

#### ... To **ADVANCE** Customer-engraved DNA



Customer insights-driven



Effortless & valuable customer interactions by design



**Empowered** employees to take action

Creating value through Loyalty



### /// Offer Tangible Daily Support



### Joel McLeod

Corporate Welding Specialist





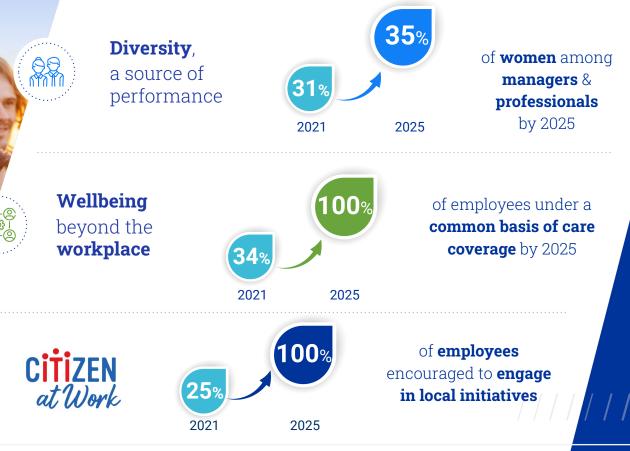
#### Airgas as key supplier for 25 years

- Attentive listening to customer's needs
- Immediate and efficient responsiveness on daily basis
- Products, experts and digital solutions to improve customer's process



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### **Commitments** to Engage With Our Employees **ADVANCE**





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### /// Develop Technical Expertise to Support **ADVANCE**Ambitions



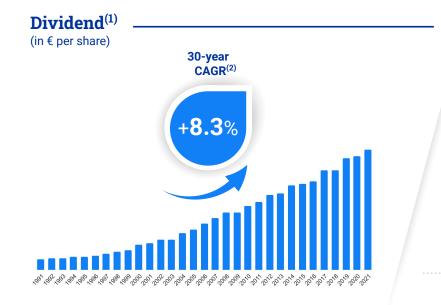
#### Technical Community Leaders program \_\_

A dedicated Human Resources program to support core business

- Identify and develop experts in technical fields sustaining our technical leadership
- Dynamic program, evolving to serve the business strategy
- >3,000 local technical experts
   900 international technical experts

• Air Liquide

### / / / Committed To Create Value For Shareholders



#### A diversified shareholder base



Free share attribution every other year<sup>(3)</sup>

**10% loyalty bonus** after 2 years on dividends and free share attribution

#### **Best-In-Class governance**



(1) Adjusted for the 2-for-1 share split in 2007, for free shares attributions and for the capital increase completed in October 2016
(2) Calculated according to prevailing accounting rules over 30 years
(3) On average since 1962

### / / / Acting For Global Society

#### Close relationships built with key stakeholders \_



#### **Taking action**

#### With the Air Liquide Foundation

- Research and Jobs-integration
- Drawing on Air Liquide **expertise** and **teams**
- With **30** partner organizations
- One-off programs: Covid-19, Ukraine refugees...

# With greater access to oxygen in low & middle income countries

- Pilot Program in Senegal and South Africa
- Support to international development organizations

### **O** Air Liquide

# ADVANCE

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CONCLUSION

François Jackow Benoît Potier

05

### Setting A New Standard



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# **ADVANCE**

**Delivering financial performance** 

And beyond,

Decarbonizing the planet

Unlocking progress via technologies

Acting for all



### Delivering Financial Performance while Reducing CO<sub>2</sub> Emissions





### **ADVANCE** Management's Priorities

#### **Deliver and invest**

Allocate resources

• Talents • Capital

Onboard all stakeholders

### Act now and invent the future



### **Air** Liquide

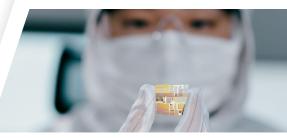
# ADVANCE

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### **Air** Liquide

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**CAPITAL MARKETS DAY** 2022



APPENDICES

06

06

### /// Assumptions for ADVANCE Ambitions Over 2022-2025

#### Extra-financial \_\_\_\_\_

- Competitive access to low-carbon electricity
- CO<sub>2</sub> storage availability
- Supporting regulations

#### Inflation & Forex \_\_\_\_\_

- +2-3% average yearly inflation
- 1.18 USD for 1€

#### Industrial Production \_\_\_\_\_

• ~+2% CAGR

#### Energy Price \_\_\_\_\_

2021 average market prices

#### **Geopolitical stability**



## Disclaimer

This presentation may contain forward-looking statements (including objectives and trends) about Air Liquide's financial situation, operating results, business activities and strategy.

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.

Please refer to the most recent Universal Registration Document filed by Air Liquide with the French Autorité des marchés financiers for additional information in relation to such risks and uncertainties.

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**Air Liquide**