2019 Key figures

~67,000 EMPLOYEES

PRESENT IN 80 COUNTRIES

MORE THAN 3.7 MILLION CUSTOMERS & PATIENTS

REVENUE € 21.9 bn

NET PROFIT (GROUP SHARE) € 2.24 bn

INVESTMENT DECISIONS € 3.7 bn
Safety: a prerequisite to action

2019 Lost-time accident frequency rate = 1.2 (-3.9% vs. 2018)

Lowest frequency rate the Group achieved in more than 20 years
Corporate Governance in 2020

- 82% of Board members are independent Directors
- 55% of Board members are women
- 55% of Board members are non-French
Executive Committee: 5 women, 3 nationalities

Benoît Potier
(born in 1957, French)
Chairman and Chief Executive Officer

Michael J. Graff
(born in 1955, American)
Executive Vice President
Americas and Asia Pacific hubs, Electronics world business line
Chairman of the Board of Airgas

François Jackow
(born in 1969, French)
Executive Vice President,
Europe Industries,
Europe Healthcare,
Africa, Middle East & India hub, Healthcare business line,
Customer Experience

Fabienne Lecorvaisier
(born in 1962, French)
Executive Vice President
Finance, Operations Control & General Secretariat

Guy Salzgeber
(born in 1958, French)
Executive Vice President, Industrial Merchant and Hydrogen Energy world business lines, Global Markets & Technologies, Innovation, Digital & IT, Safety, Procurement, Public Affairs and Sustainable Development,

Jean-Marc de Royere
(born in 1965, French)
Senior Vice President
Inclusive business, Air Liquide Foundation

François Venet
(born in 1962, French)
Senior Vice President,
Strategy, Large Industries business line and Engineering & Construction.

François Abrial
(born in 1962, French)
Vice President, Asia Pacific hub

Susan Ellerbusch
(born in 1967, American)
Vice President,
US Large Industries,
Electronics and Hydrogen Energy businesses,
Canada’s Large Industries, Industrial Merchant and Healthcare businesses

Matthieu Giard
(born in 1974, French)
Vice President, Industrial Merchant world business line,
Procurement and Efficiency programs

Armelle Levieux
(born in 1973, French)
Vice President
Group Human Resources

Émilie Mouren-Renouard
(born in 1979, French)
Vice President,
Innovation, Digital & IT, Intellectual Property,
Global Markets & Technologies

Diana Schillag
(born in 1971, German)
Vice President, in charge of Healthcare activities in Europe

Pascal Vinet
(born in 1962, French)
Vice President,
Chief Executive Officer of Airgas
Sustainability embedded in Group's strategy

**AMBITION**
To be a leader in its industry - Deliver long-term performance - Contribute to sustainability.

**MAJOR TRENDS ARE SHAPING OUR MARKETS**

- Energy transition
- Changes in Healthcare
- Digitization

**OUR STRATEGY RELIES ON 4 PILLARS**

- Operational excellence
- Open innovation
- Selective investments
- Network organisation

**FINANCIAL OBJECTIVES**

- > 10% ROCE in 2021-2022
- Maintain “A” range rating
- +6 to 8% CAGR revenue growth
- € 300M efficiency gains on average per year (increased to > € 400M starting in 2019)
- > US$ 300M Airgas synergies

**SUSTAINABILITY OBJECTIVES**

- Prevent global warming and improve air quality
- Strengthen dialog with stakeholders
Our Sustainability Approach is recognized externally

Commitments

Sustainable development index

FTSE4Good

Winner of the 2019 Sustainable Procurement: Best Value Chain Engagement

Extra-financial rating agencies

CDP

2019

2018

Water A
Climate A

MSCI

2019

2018

A
AAA

ECOVADIS

2019

2018

68
67

ISS-climate

2019

2018

C
A

Air Liquide
AIR LIQUIDE & CLIMATE CHANGE
Our solutions addressing carbon emissions and air quality

- **Emissions related to transport**
  - 1970: Pipelines
  - 1990: On-sites
  - 2010: Lighter cylinders
  - 2030: Clean mobility

- **Air quality**
  - 1970: Oxy-combustion
  - 1990: H₂ for sulfur removal in fossil fuels

- **Emissions related to energy consumption**
  - 1970: Continuous supply chain improvement
  - 2030: Smart Innovative Operations

**Emissions related to transport**
- **Emissions related to energy consumption**
- **Air quality**
Why this focus on global warming?

Global CO₂ emissions

- Buildings, Agriculture and others: 3,300 Mt
- Transport: 7,400 Mt
- Power: 13,600 Mt
- Industry: 8,400 Mt

Total: 32,700 Mt

Industry answer:
- Reduction of its own emissions
- Innovation and development of cleaner solutions to other emitting sectors

Source: Energy Technology Perspective 2017, IEA, Direct CO₂ emissions in 2014
Greenhouse gas emissions within Air Liquide

**Direct emissions:**
- 9.6 Mt from hydrogen production units
- 5.1 Mt from cogenerations
- 0.7 Mt from transportation activities

Total direct emissions:
- **15.6 Mt**

**Indirect emissions:**
- 12.2 Mt
- 93% for the supply of air separation units (11.4 Mt)

Total indirect emissions:
- **27.8 Mt**

**Avoided emissions:**
- 4.5 Mt avoided in total
- 12.3 Mt avoided mainly by customers using oxygen for oxy-combustion process (12.1 Mt)

Notes:
(a) In kg CO₂ equivalent/euro of operating income recurring before depreciation and amortization at 2015 exchange rate and excluding IFRS16 for greenhouse gas emissions scopes 1 and 2.
(b) Includes 0.2 Mt CO₂-eq. due to the Group's other activities.

2019 figures
A Global Approach to engage the organization

Climate Objectives

**ASSETS**
Reduce our carbon intensity in 2025 vs. 2015 by -30%

**CUSTOMERS**
Act for clean industry by developing low-carbon solutions

**ECOSYSTEMS**
Contribute to a new low-carbon society
Carbon intensity

Objective: Reduce our carbon intensity by -30% by 2025, based on 2015 emissions levels (from 6.3 to 4.4 kg CO$_2$ / € EBITDA)

* -27% reduction in carbon intensity compared with the 2015 carbon intensity.
**Assets: 3 main levers**

1. **INCREASE**
   - by +67% renewable electricity purchase
     - voluntary action (PPA)
     - supplier arbitration
     - energy mix improvement

2. **REDUCE**
   - energy consumption per volume of production by -5%
     - new plants
     - modernization/renewal
     - step change performance (SIO...)

3. **REDUCE**
   - carbon footprint of bulk & packaged gases by -10%
     - production
     - distribution
     - trucks conversion to alternative fuels

**PERFORMANCE 2019**

- **+24%** for Air Gases
- **-1.2%** reduction for the delivery of bulk products
- **-1.9%**
Act for clean industry

1. Low-carbon solutions & offers
   - mutualization of assets
   - offers limiting transport-related emissions (on-sites, light cylinders)
   - oxy-combustion

2. Breakthrough manufacturing routes
   - to limit customers’ emissions (H₂ injection in steel process; EnScribe...)
   - to capture CO₂ for usage in IM/LI business or storage (CCS/EOR)

PERFORMANCE 2019

16.8 Mt CO₂ emissions avoided

3. major pilots to reduce the carbon footprint of customers
Contribute to a **new low-carbon society**

1. **Circular economy**
   - Biomethane

2. **Clean cold logistics**
   - Blueze
   - Cryocity

3. **Hydrogen clean mobility**
   - Large invest. in the US
   - 120 stations WW

4. **Hydrogen global economy**

**PERFORMANCE 2019**

1.1TWh
   - Biomethane production capacity

>300
   - Cryogenic trucks

>102
   - H2 stations

81
   - Companies into the Hydrogen council
Develop circular economy with biomethane...

Build new units
- Air Liquide contributes to biogas purification thanks to its membrane technology
- 2 main geographies
  - Europe
  - USA
- Capacity: 1.1 TWh/year in 2019 - 5 TWh/year in 2025

Expansion of uses
- **Users**: Industry and transport
- **Injection into the natural gas system**
... and build a global hydrogen economy

H₂ is a clean and safe polyvalent energy vector

Enable the renewable energy system

1. Enable large-scale renewables integration and power generation
2. Distribute energy across sectors and regions
3. Act as a buffer to increase system resilience

Decarbonize end uses

4. Decarbonize transportation
5. Decarbonize industry energy use
6. Help decarbonize building heating and power
7. Serve as feedstock, using captured carbon

Air Liquide focus

New Markets for gas & solutions
New Offers in LI & IM markets
New Offers in LI & IM markets

2050 vision

18% of the total energy demand
6 Gt of CO₂ emission reduction
$2.5tn of annual sales
30m jobs creation

(1) Source: Hydrogen Council
2 OTHER SUSTAINABILITY TOPICS
Employee Diversity

Objectives: Increase the number of women among managers and professionals to 35%
Hire 33% of young graduates among managers and professionals by 2025

In 2019, Air Liquide had 29% of women among engineers and managers and young graduates represented 28% of the recruited engineers and managers.

~67,000 employees

Diversity of nationalities, training, expertise

Geographical diversity

<table>
<thead>
<tr>
<th>Region</th>
<th>2019 employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Americas</td>
<td>40%</td>
</tr>
<tr>
<td>Europe</td>
<td>38%</td>
</tr>
<tr>
<td>Asia-Pacific</td>
<td>18%</td>
</tr>
<tr>
<td>Middle East &amp; Africa</td>
<td>4%</td>
</tr>
</tbody>
</table>

2019 figures
A relationship with shareholders built on trust and loyalty...

24 shareholders invest in the company

Air Liquide is listed on the Paris Stock Exchange

Capital increase for Airgas acquisition

Setting of the +10% loyalty bonus on dividends and free share attributions

14th capital increase reserved for employees

30th free share attribution

2018

1902

1913

1996

2016

2019

Air Liquide share ownership

FRENCH INSTITUTIONAL INVESTORS
17%

FOREIGN INSTITUTIONAL INVESTORS
51%

INDIVIDUAL SHAREHOLDERS
32%

420,000 individual shareholders

FOREIGN INSTITUTIONAL INVESTORS
51%

INDIVIDUAL SHAREHOLDERS
32%

2019 figures
Air Liquide societal commitment

A Foundation serving science and local communities

RESEARCH AND SCIENCE EDUCATION
Support fundamental research and science education on air quality and on respiratory function

LOCAL DEVELOPMENT
Support local communities through professional integration and inclusive projects recommended by employees
Other main actions for the environment

- **Water**
  Better reporting and management - Focus on hydric stress areas

- **Air quality**
  Desulfurization of oil-based fuels through hydrogen

- **Biodiversity**
  (low impact)
  Preservation via the Foundation actions
3

INNOVATION @ AIR LIQUIDE
An Innovative Group

Innovation is at the heart of the Group’s customer-centric transformation strategy

- Research & Development
- Global Markets & Technologies and Hydrogen Energy
- Digital & IT (including La Digital Factory and ALIZENT), i-Lab and ALIAD
- Engineering & Construction
- Other entities
- Innovation Campus

(1) 2019 Figures OECD Definition

330 New Patents filed

4,300 Employees (1)

€317m Innovation expenses (1)
Our innovation approach

Air Liquide Group’s innovation and development division brings together:

- **R&D**
- **DIGITAL & IT**
- **NEW MARKETS**
- **ALIAD(1)**

### 5 Innovation Campuses

- **Labs**
  - Focused on usages to test and accelerate new growth opportunities

- **La Factory**
  - Focused on data, design, user research and software engineering

- **m-Lab**
  - Focused on molecules to link science to business

- **d2Lab**
  - Focused on data science and decision science

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(1) Air Liquide Group’s venture capital investor.
We leverage an open ecosystem

+200
Academic and industrial partners

100
Startups working with the Group

Including 30 startups accelerated by
ALIAD Venture Capital by Air Liquide

Partnering with startups incubators and accelerators

The Air Liquide deeptech startup accelerator
CLIMATE OBJECTIVES

Taking Actions in our company with our customers for the planet