



Group  
press kit

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2017



“Our customer-centric transformation strategy aims to deliver profitable growth over the long term”

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To pursue a long-term strategy is basic to Air Liquide's business model. In a world of expanding and accelerating change—markets, customers, geographies... anticipating these changes and knowing where we want to go is imperative. Our vision is fed by the world. We interpret the changes and future opportunities for our company by listening to our customers, suppliers and partners. Our vision defines our organization and businesses and guides us to create value for our stakeholders - today and tomorrow.

**Benoît Potier, Chairman and CEO**

# The world leader in gases, technologies and services for Industry and Health

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The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 65,000 employees and serves more than 3 million customers and patients. Oxygen, nitrogen and hydrogen are essential small molecules for life, matter and energy. They embody Air Liquide's scientific territory and have been at the core of the company's activities since its creation in 1902.

Air Liquide's ambition is to lead its industry, deliver long term performance and contribute to sustainability. The company's customer-centric transformation strategy aims at profitable growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

Air Liquide's revenue amounted to €18.1 billion in 2016 and its solutions that protect life and the environment represented more than 40% of sales.

Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.





# Key figures

## 18,135

REVENUE IN 2016

in million euros

## 1,844

NET PROFIT IN 2016

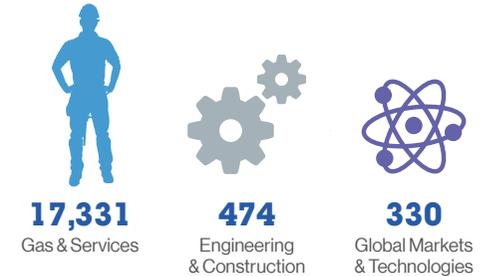
in million euros

more than

## 3 million

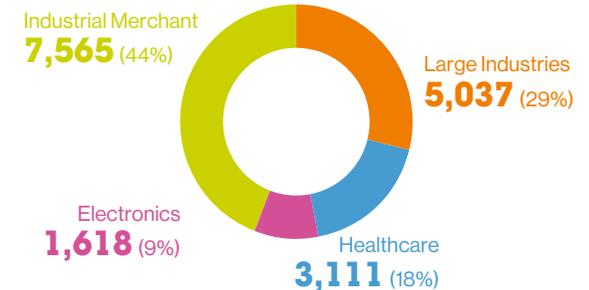
CONSUMERS AND PATIENTS

### GROUP REVENUE IN MILLION EUROS

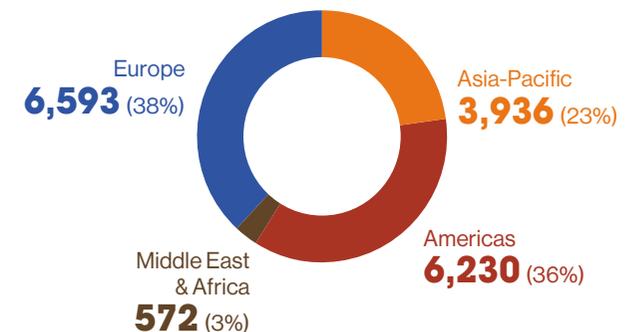


### GAS & SERVICES REVENUE

BY WORLD BUSINESS LINE  
IN MILLION EUROS



BY GEOGRAPHY  
IN MILLION EUROS



# Key figures

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## Responsibility

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### ENVIRONMENT AND HEALTH

More than **60%**  
of innovation expenses  
related to air quality, health and environmental  
footprint

### DIVERSITY

**30%**  
are women  
of the Group's engineers and managers

## Innovation

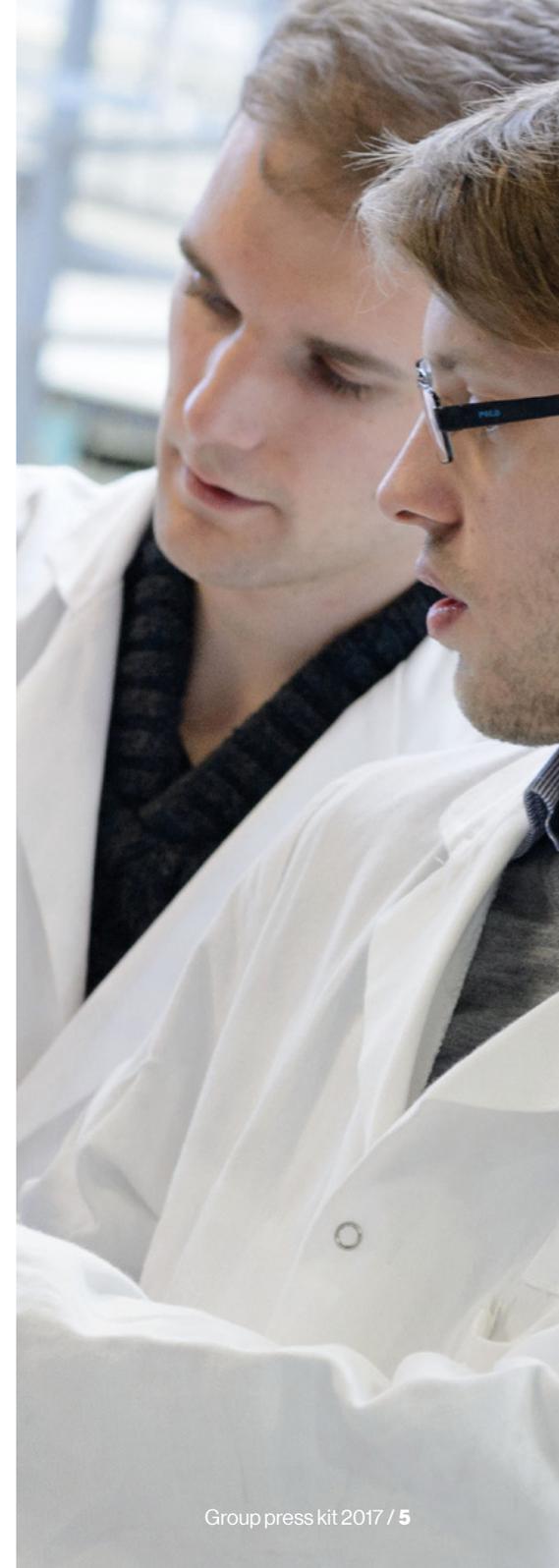
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almost **6,000**  
**employees**  
contribute to innovation

**9**  
**research centers**  
worldwide

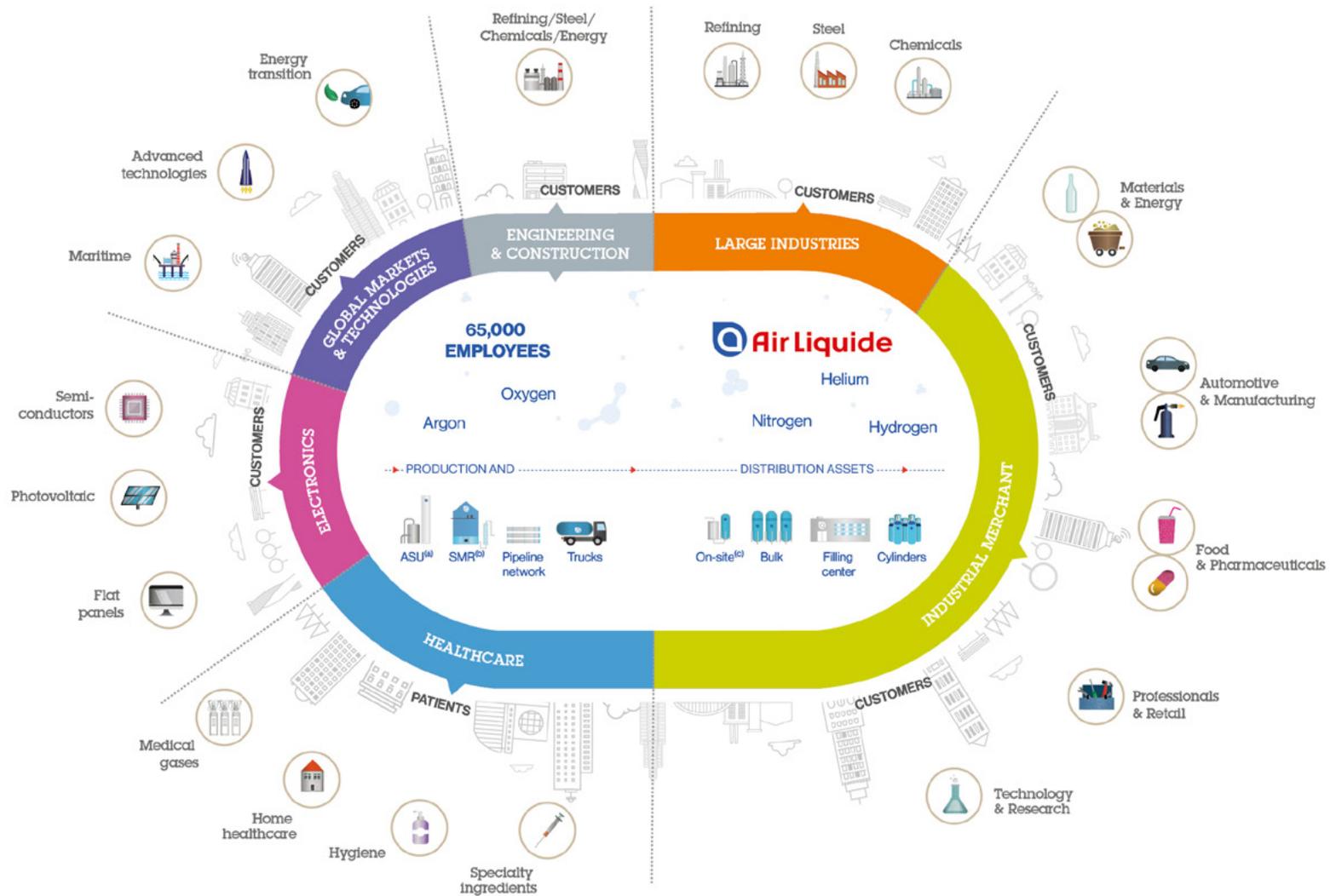
**€288 M**  
**spent on innovation**  
in 2016

Nearly **300**  
**patents filed**  
each year



# Businesses of Air Liquide

Oxygen, nitrogen and hydrogen: these small molecules essential to life, matter and energy are at the heart of the Group's expertise. Thanks to them and to Air Liquide's international presence its employees deliver innovative solutions to more than three million customers and patients worldwide.



## INDUSTRIAL MERCHANT

**44%**  
of 2016 Gas &  
Services revenue

From independent craftsmen to large industrial companies, we offer to our customers solutions adapted to every stage of the production process: industrial and specialty gases, application technologies, welding and safety equipment, and related services. Increasingly, we leverage digital capabilities to provide a simple and reliable experience to our customers. Inventiveness, strong customer proximity and relationships guide our teams' commitment to moving industries forward. The applications are infinite - inerting, weld cutting, food cryogenics, oxy-combustion, water treatment ... - with permanent development.

## LARGE INDUSTRIES

**29%**  
of 2016 Gas &  
Services revenue

We provide our customers with industrial gas solutions essential to their own production, as well as technologies that deliver performance and energy efficiency. Our unmatched networks of production units linked to pipelines worldwide enable us to supply gases to the world's major industrial basins and guarantee customers a high level of reliability and uninterrupted supply of gas over the long term.

## HEALTHCARE

**18%**  
of 2016 Gas &  
Services revenue

As a recognized leader in medical gases, home healthcare, hygiene products and healthcare specialty ingredients, we provide to healthcare professionals and patients customized and effective products and services, which contribute to protect vulnerable lives. Present in the continuum of care from hospital to home, we accompany 1.4 million patients in the world and we strive to constantly improve our offer in order to better respond to the needs of patients and healthcare professionals.

## ELECTRONICS

**9%**  
of 2016 Gas &  
Services revenue

A world reference in molecule design, manufacturing and delivery, we contribute to the innovation of the world's most advanced companies in the electronics industry. Present in the markets of semiconductors, photovoltaics and flat panel displays, our 3,000 employees continuously share our customers' ambition to push the boundaries of what is possible. Working closely with each customer, we engineer innovative and cost-effective solutions and keep improving our products and processes to move nanotechnology forward. By designing the infinitely small, we enable our customers to think amazingly big.

## ENGINEERING & CONSTRUCTION

Partner of choice for the design, engineering and construction of state-of-the-art production units worldwide, for Air Liquide and third-party customers, we deliver innovative technologies and create durable solutions that respond to the challenges of our customers. Our industrial gas production, energy conversion and gas purification technologies enable customers to benefit from a wide range of industrial process operations and optimize the use of natural resources.

## GLOBAL MARKETS & TECHNOLOGIES

The «Global Markets & Technologies» activity, created in 2015, focuses on new markets requiring a global approach – those relating to the energy transition, such as hydrogen energy; markets with high technology content (aerospace, space); and those relating to the maritime sector, such as offshore platforms or maritime transport of high value-added molecules. We incubate new activities, relying on science, technologies, business models and digital usages.

## OUR ACTIVITIES

# Industrial Merchant

The wide coverage of Industrial Merchant's geographic network enables it to provide its customers with solutions that are tailor-made to their specific production processes. Gases are either produced directly at the customer's site or delivered by cryogenic trailers or cylinders, depending on the volumes required. Following the Airgas acquisition, the business can now offer its expertise in multi-channel sales and a wider portfolio of products, including equipment. More than 600,000 visitors per month connect to Airgas.com to make purchases, check orders and obtain information on products and safety standards

€7,565 M  
Revenue in 2016

44%  
of Gas & Services  
revenue in 2016

### DID YOU KNOW?

Gases such as nitrogen and carbon dioxide are used in wine-making to prevent oxidation.



With the acquisition of Airgas, finalized on May 23, 2016, the largest in Air Liquide's history, the Group has grown in size with **1 million new customers.**

## OUR ACTIVITIES

# Large Industries

The Large Industries Business Line supplies large quantities of industrial gases to its customers in the metals, chemicals, refining and energy industries. Due to their substantial gas consumption and their need for highly reliable continuous supply, delivery must be ensured through a dedicated plant or via the Air Liquide pipeline network. It also offers technologies and solutions that enhance customer performance through improved energy efficiency. Large Industries also supplies the Group's other business lines.

€**5,037** M  
Revenue in 2016

**29%**  
of Gas & Services  
revenue in 2016

### DID YOU KNOW?

Air Liquide's worldwide pipeline network is more than 9,000 km long.



In Argentina, Air Liquide expands its relationship with Axion Energy, investing around €55 million in **a second hydrogen production unit.**

## OUR ACTIVITIES

# Healthcare

In the continuum of care from hospital to home, Air Liquide provides the quality products and services caregivers and patients need, backed by optimal support. Today, Air Liquide is a recognized leader in medical gases, home healthcare, hygiene products (hospital disinfectants) and healthcare specialty ingredients (polymers, human and veterinary adjuvant vaccines). Healthcare teams deliver medically prescribed home and hospital treatments for patients suffering from chronic illnesses that include COPD (chronic obstructive pulmonary disease), sleep apnea and diabetes.

€3,111 M

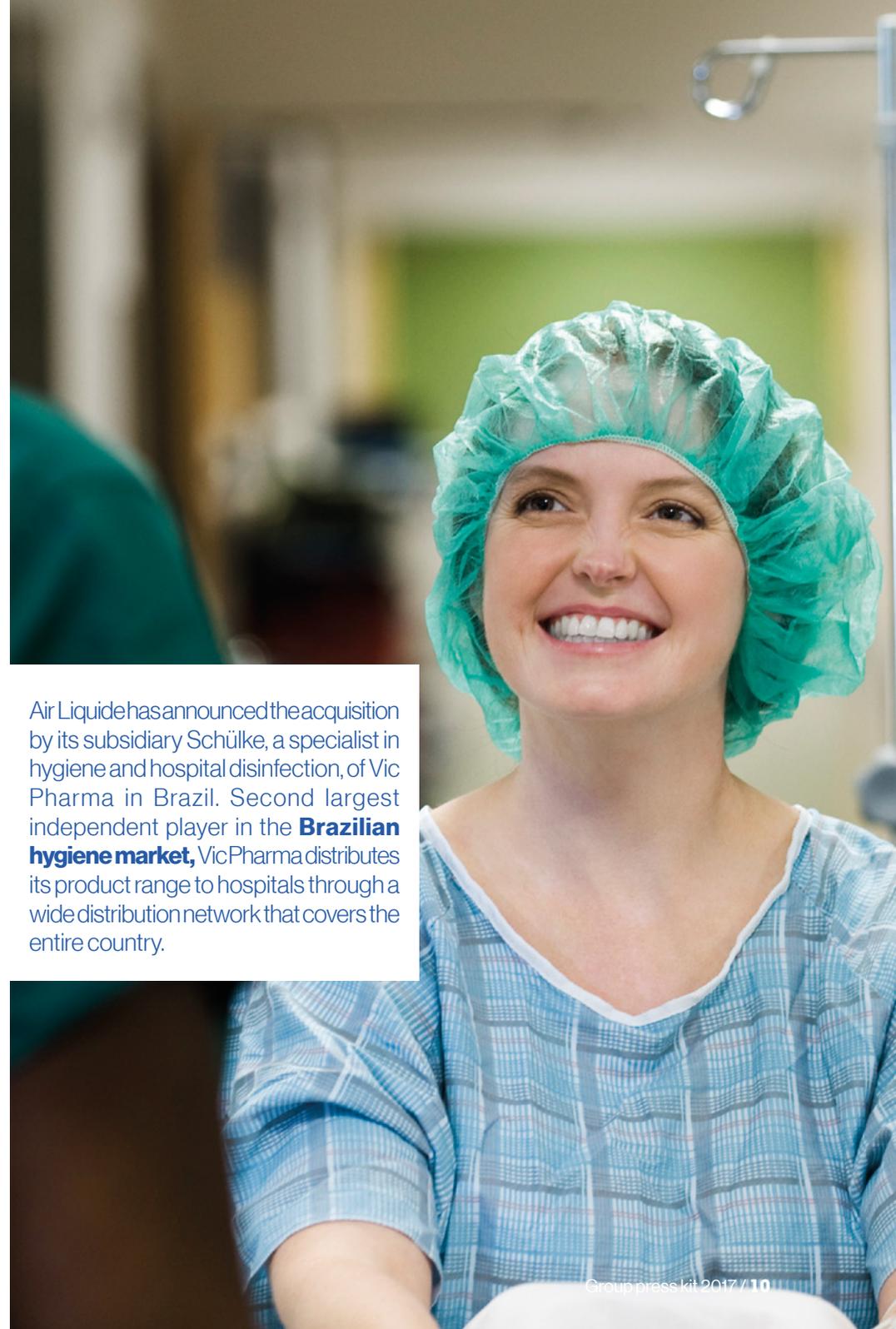
Revenue in 2016

18%

of Gas & Services  
revenue in 2016

### DID YOU KNOW?

Air Liquide serves over 15,000 hospitals and more than 1.4 million patients at home over the world



Air Liquide has announced the acquisition by its subsidiary Schülke, a specialist in hygiene and hospital disinfection, of Vic Pharma in Brazil. Second largest independent player in the **Brazilian hygiene market**, Vic Pharma distributes its product range to hospitals through a wide distribution network that covers the entire country.

## OUR ACTIVITIES

# Electronics

Air Liquide serves major manufacturers of semiconductors, flat panel displays and solar cells, leveraging its expertise, global infrastructure and strategic proximity to manufacturers worldwide. Its innovative materials respond to increasingly challenging customer demands for improved mobility, connectivity, computing power and energy consumption. Its offers include ultra-pure carrier gases, a wide range of specialty gases and advanced precursor molecules, enabling equipment for safe distribution, purification and online purity control. Onsite, manufacturers rely on its expertise in providing full management of these products and equipment and in helping to continuously improve their production processes.

€1,618 M  
Revenue in 2016

9%  
of Gas & Services  
revenue in 2016

### DID YOU KNOW?

The manufacture of a smartphone requires the use of ultra-pure specialty gases supplied by Air Liquide, which are used to etch the complex structures of microelectronic chips on the nanometer scale.



Almost 300 million of **smartphones** use **Air Liquide molecules and materials**, 20% of the global production.

## OUR ACTIVITIES

# Engineering & Construction

€474 M

Revenue in 2016

The Engineering and Construction activity develops and builds state-of-the-art production units for Air Liquide's Large Industries Business Line or third-party customers that prefer not to outsource their gas production. These solutions – production of industrial gases, energy conversion, gas purification – enable to optimize the use of natural resources.

### DID YOU KNOW?

The technologies used to purify and liquefy helium at very low temperature ( $-269^{\circ}\text{C}$ ) in the world's largest helium purification and liquefaction unit, located in Ras Laffan (Qatar), are Air Liquide patented technologies.



Air Liquide Engineering & Construction teams have built to date **6,000 plants** in more than 100 countries.

## OUR ACTIVITIES

# Global Markets & Technologies

€330 M  
Revenue in 2016

The new activity “Global Markets & Technologies” focuses on new markets requiring a global approach, leveraging science, technologies, business models and digital usages. It is composed of:

- advanced Business & Technologies (aB&T), in charge of opening new markets relating to the energy transition, such as hydrogen energy, clean transportation with the use of bio-NGV (Natural Gas for Vehicles) and mobile refrigeration with nitrogen, processing and injection of biogas into the natural gas network, and of developing Space, Aerospace, extreme cryogenics businesses, based on its core technologies.
- Air Liquide Maritime, in charge of developing the gas usages by the actors in the maritime sector, namely, offshore oil and gas platforms (construction and maintenance, inerting, support to drilling, analytical services, diving gases), offshore wind turbines, and cryogenic transportation by sea of high value-added molecules, such as helium.





# Strategy and major trends

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Air Liquide's **customer-centric transformation** strategy aims to deliver profitable growth over the long term. To achieve this, it relies on:

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

This strategy is shaped by three major leading trends:

- The energy and environment transition
- The changes in healthcare
- The digitization



# Our innovation approach

Innovation is one of the three pillars of the Group's strategy. Innovating enables Air Liquide to open up new markets and to create new growth opportunities. Air Liquide's scientific and technological expertise is represented by its Research & Development department, its Engineering & Construction business unit, as well as by structures like advanced Business & Technologies, the i-Lab (innovation lab) and ALIAD the Group's capital investment subsidiary.

## Digitization

The digital transformation is inscribed in Air Liquide's innovation strategy. The introduction, in 2016, of teams dedicated to the digital transformation provided all of the Group's World Business Lines with transversal expertise to help improve the customer experience. The aim is to transform Air Liquide's offerings in its core business through new services, and to create new offerings. The Group's digital transformation aims to transform the way in which Air Liquide manages its assets notably. "Connect", the plant of the future project, illustrates this approach.

## Open innovation

The Group's innovation ecosystem is backed by an «open innovation» approach: the Group cultivated outside collaboration around the world with customers, universities, research institutes, SMEs and start-ups.



The i-Lab helps **accelerate the pace of the Group's innovation** and explore new markets, based on new usages. Both a think-tank and a venue for experimentation, the i-Lab co-builds new offers with the Innovation entities and the Group's World Business Lines.



ALIAD's role is to take **minority stakes in start-ups** in order to promote the Group's access to technological innovations developed outside the Group.

## Connect

In 2017, Air Liquide inaugurated today in France, in the frame of the Connect project, an operation center that is unique in the industrial gas sector. It enables the remote management of production for 22 of the Group's units in France, optimizing their energy consumption and improving their reliability. With "technological showcase" certification from the Industry of the Future Alliance, Connect is part of Air Liquide's open innovation approach between production sites teams, i-Lab, the innovation lab of Air Liquide, and the French ecosystem of technology start-ups.



# Contribute to a more sustainable world

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As part of our Company Program NEOS, the Group has reaffirmed that sustainability lies at the heart of its ambition; along with performance. For the period 2016-2020, the Group will strengthen its efforts to improve air quality for better environment and health and will continue to be engaged in an active dialogue with all its stakeholders to contribute to sustainability.

## Improving air quality for better environment and health

Air Liquide acts responsibly to preserve environment and public health, with the objective of improving air quality and fight against global warming. The Group works through its operations, with its R&D and technology teams and by relying on a network of international experts in the fields of industry, transportation and energy.

## Being engaged in an active dialogue with all stakeholders

It is by talking continuously and extensively with our stakeholders and collaborating and working together with them we can contribute to a more sustainable world. Our stakeholders are our employees, our customers, our suppliers, our shareholders and investors, governments, NGOs.



The Foundation supports research programs on the environment and health, as well as micro-initiatives that contribute to local development.

Since its creation in 2008, the Air Liquide Foundation has supported **263 projects in 50 countries** all over the world, thanks to the dedication of 330 employees. During the first Air Liquide's Foundation Awards ceremony held at the beginning of 2016, five projects connected with Foundation's missions of scientific research and societal innovation were awarded in France but also in Guyana, in Senegal and Brazil.



## OUR SHAREHOLDING POLICY

# Sharing more than just a share

One of the defining features of Air Liquide's shareholding model is the balance between individual and institutional shareholders. The bond of trust the Group has built with the investment community is based on its long-term financial performance and its willingness of transparency.

Direct relationship with individual and institutional shareholders is a top priority for Air Liquide, which meets regularly with them in the world's principal financial marketplaces, through site tours or during information group meetings for individual shareholders. The Shareholder Services department provides an array of resources for engaging individual shareholders - who own 33% of the Group's total capital - through daily opportunities for dialogue and interaction. The Shareholder Lounge at Air Liquide's Paris headquarters welcomes them, listens to them and answers their questions.

**410,000**

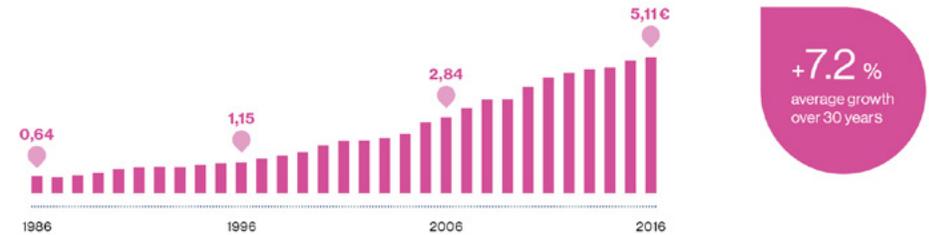
individual shareholders

**236,000**

shareholders hold registered shares

## ADJUSTED NET EARNINGS<sup>(a)</sup> PER SHARE

in million euros



(a) Adjusted to take into account the 2007 stock split, the attribution of free shares and the capital increase linked to the acquisition of Airgas.

## THE SERVICES DEDICATED TO SHAREHOLDERS



SHAREHOLDERS MEETINGS



THE SHAREHOLDERS LOUNGE AND MINI-EXHIBITIONS in Paris all year



TOLL-FREE NUMBER



SHAREHOLDER'S CODE, INTERACTIONS NEWSLETTER, ANNUAL REPORTS

TOOLS AND SERVICES AVAILABLE TO SHAREHOLDERS



ELECTRONIC INVITATION AND VOTE AT THE ANNUAL GENERAL MEETING



SHAREHOLDER APP



SHAREHOLDER ONLINE ACCOUNT



THEMATIC WEBCONFERENCES, DIGITAL & PRINT VERSIONS

# Governance



## Benoît Potier Chairman and CEO

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Born in 1957 – French citizenship

- A graduate of Ecole Centrale des Arts et Manufactures Paris (CentraleSupélec)
- Officier de la Légion d'honneur (Officer of the Legion of Honor)
- Officier de l'Ordre National du Mérite (Officer of the National Order of Merit)
- Management programs: INSEAD (European Institute of Business Administration) Wharton International Forum

Since he joined Air Liquide in 1981, Benoît Potier has handled many aspects of the Group's business.

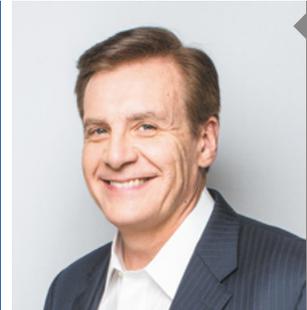
When he was appointed Air Liquide Senior Executive Vice-President in 1997, he assumed global responsibility for operations and development.

Since 2006, Benoît Potier has been Chairman and CEO.

### Memberships

- Chairman, ERT (European Round Table of Industrialists)
- Director, Danone Group
- Director, CentraleSupélec
- Member, INSEAD French Council

# Executive Committee

	<p><b>BENOÎT POTIER</b> Chairman and CEO Born in 1957 French</p>		<p><b>MICHAEL J. GRAFF</b> Executive Vice President Americas Hub Executive Vice President based in Houston Chairman of the Airgas board Supervising the Electronics business line, Safety and Industrial Systems. Born in 1955 American</p>		<p><b>FABIENNE LECORVAISIER</b> Executive Vice President in charge of Finance Operations Control and General Secretariat Born in 1962 French</p>
<p><b>GUY SALZGEBER</b> Executive Vice President Europe Industries Hub Executive Vice President based in Frankfurt Supervising Group Procurement Born in 1958 French</p>	<p><b>FRANÇOIS DARCHIS</b> Senior Vice President Innovation and Development Vice President Supervising IT, Industrial Merchant business line and the Group's Sustainable Development program Born in 1956 French</p>		<p><b>FRANÇOIS JACKOW</b> Senior Vice President In charge of the Healthcare activities and supervises the Africa, Middle East and India Hub located in Dubai, as well as the Customer Experience program Born in 1969 French</p>	<p><b>FRANÇOIS VENET</b> Senior Vice President Strategy Vice President Supervising the Large Industries business line and Engineering &amp; Construction. Born in 1962 French</p>	
		<p><b>JEAN-MARC DE ROYERE</b> Senior Vice-President In charge of International, Governance, and the Group's Sustainable Development program Chairman of the Air Liquide Foundation Born in 1965 French</p>			
	<p><b>FRANÇOIS ABRIAL</b> Asia Pacific Hub Executive Vice President based in Shanghai Born in 1962 French</p>		<p><b>PASCAL VINET</b> CEO of Airgas Born in 1962 French</p>		<p><b>ARMELLE LEVIEUX</b> Vice President Group Human Resources Born in 1973 French</p>

# Board of Directors

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**BENOÎT POTIER**  
Chairman and CEO



**JEAN-PAUL AGON**  
Lead Director,  
Chairman of the Remuneration  
Committee  
Chairman of the Appointments and  
Governance Committee



**PIERRE DUFOUR**  
Chairman of the Environment and  
Society Committee



**KAREN KATEN**  
Member of the Appointments  
and Governance Committee



**SIÂN HERBERT-JONES**  
Chairwoman of the Audit  
and Accounts Committee



**THIERRY PEUGEOT**  
Member of the Audit  
and Accounts Committee



**SIN LENG LOW**  
Member of the Audit  
and Accounts Committee



**ANNETTE WINKLER**  
Member of the Remuneration  
Committee  
Member of the Appointments and  
Governance Committee



**GENEVIÈVE BERGER**  
Member of the Environment and  
Society Committee



**BRIAN GILVARY**  
Member of the Audit and Accounts  
Committee



**XAVIER HUIILLARD**  
Member of the Remuneration  
Committee



**PHILIPPE DUBRULLE**  
Member of the Environment  
and Society Committee

## FOR FURTHER INFORMATION

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