



Building
the future

together



2022 Shareholder's guide



Access
the enriched
digital version





Air Liquide's ambition is to contribute to a more sustainable world. The Group's growth model is now based on the principle of global performance that combines economic success and sustainable development. Our Shareholders have always been at the heart of our story, and it is thanks to you that we are able to build the future together. For us, building the future means creating and developing innovative solutions, based on technology and scientific expertise, that support industrial and healthcare progress. It means acting every day for our customers, our patients and, beyond them, being useful to society as a whole.

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Interview

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Interview with Benoît Potier

Chairman
and CEO of
Air Liquide

The year 2021 was characterized by the covid-19 pandemic, inflation and a sharp rise in energy prices. How would you describe Air Liquide's performance?

First of all, I would like to say a few words about the beginning of 2022, which has been so painfully marked by the conflict in Ukraine. My thoughts are naturally with our 14 employees who are still based there and we are monitoring their situation closely. Their safety is a constant concern. I am also thinking of the millions of refugees, mainly women and children, forced to flee their country. Faced with this real tragedy, the Group is organizing itself to contribute humanitarian aid, notably through the Air Liquide Foundation, but also through local initiatives, notably in Poland and Romania.

As for our performance in 2021, I would say that it was a very good year, given the complex environment in which we were operating. Indeed, we stepped up to the plate on all fronts. Throughout the world, Air Liquide teams demonstrated an incredible ability to both react and adapt to many challenges, whether in response to the covid-19 crisis, the significant acceleration in inflation or the energy transition challenge. The Group's resilience was thoroughly tested in 2021 and our success is due to our 66,400 employees who give their all to our customers and patients on a daily basis. I would like to give them my heartfelt thanks and once again express my great pride in them.

Could you tell us more regarding the Group's financial performance?

In 2021, Air Liquide delivered another year of profitable growth. The Group posted an 8.2%⁽¹⁾ increase in sales to reach 23.3 billion euros in revenue, and a 13.3%⁽²⁾ increase in recurring net profit. Growth was achieved across all activities, with Engineering & Construction and Global Markets & Technologies benefiting from projects relating to the energy transition. In the Gas & Services activity, which represents 95% of Group revenue, growth in all business lines and geographical areas are up significantly, particularly in Asia (+6%), Europe (+7%) and the Americas (+8%).

Our operating margin is increasing thanks to an inflation-adapted pricing policy, high efficiency gains reaching 430 million euros and strong business portfolio management. Amid a landscape of high energy prices, the Group was able to counter rising costs thanks to our strong business model. Finally, 2021 saw a high volume of investments that reached 3.6 billion euros. The Group's financial performance in 2021 was truly exceptional.

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“Our global presence, our inventor DNA and the soundness of our business model enable us to play a decisive role in the markets that will unlock the future.”

(1) On a comparable basis
(2) Excluding currency impact



François Jackow

François Jackow joined the Group in 1993 and has held a wide range of responsibilities throughout his international career.

In 2002, he was in charge of Innovation, before being appointed Chairman and CEO of Air Liquide Japan in 2007, then Group Vice President of the Large Industries business line in 2011. In 2014, he joined the Executive Committee and was appointed the Group's Vice President of Strategy. In 2019, he became Executive Vice President, notably supervising the Europe Industries, Europe Healthcare and Africa/Middle East/India hubs. François Jackow is French and has a scientific and managerial education, having studied in France and the United States. A graduate of the Paris-based École Normale Supérieure, he also holds a Masters degree in Chemistry from Harvard University in the United States and an MBA from the Collège des Ingénieurs.

In March 2021, Air Liquide announced ambitious sustainable development objectives. What has that changed for the Group?

These objectives represent an in-depth evolution of our business model. Our performance must not only take into account the interests of our employees, customers and shareholders, but also those of society as a whole. With these objectives, we have set out a very clear road map in terms of sustainable development. The Group is focused on global performance, which combines financial and extra-financial performance and now includes environmental, social and governance indicators.

Decarbonization is a key focus of your commitments. What are the key drivers in this field?

In practical terms, we have targeted two major areas of action to fight global warming. The first is to decarbonize industry. We are a leading player in this pursuit thanks to our wide range of technologies based on hydrogen, carbon capture and storage and biomethane. We implement these solutions for our customers, allowing them to significantly reduce their CO₂ emissions. We are also working to decarbonize our own operations through numerous initiatives, from the purchase of renewable energy - as we've done in the Netherlands and in Belgium - to the construction of more energy-efficient production plants that emit less CO₂. Our goal is to reduce our CO₂ emissions by 33% by 2035 and to become carbon neutral by 2050. Our second area of action is closely linked to the first, and is of course hydrogen, a major lever of the energy transition.

In terms of hydrogen, what are your major accomplishments?

There are so many, and we are extremely proud of them. These days, many companies are interested in hydrogen and its adoption is rapidly gaining momentum in the industrial and heavy transport sectors. We have already signed several partnerships with major global industrial brands in these domains, a sign of how our technologies have reached maturity. In the past four years, we have multiplied our annual expenditure on hydrogen technologies by a factor of 20, and the number of our employees working in this field has increased tenfold. And this is just the beginning; the outlook is extremely promising. By 2035, we will invest 8 billion euros in the low-carbon hydrogen value chain, with the goal of tripling sales from 2 billion to 6 billion euros in the same time frame.

On a more personal note, 2022 is a milestone year for you, with the announcement of a new governance organization and the launch of a new strategic program.

Indeed, on June 1, 2022, François Jackow will succeed me as Chief Executive Officer. I will remain Chairman of the Board of Directors, a role that I am familiar with, having already held it for around 15 years. We have planned this transition carefully with the entire Board of Directors, and I have complete faith in François, his leadership qualities, his experience and his unrivaled knowledge of the Group. I am confident that he will continue, in tandem with the Executive Committee team, the transformations that are already underway and will take them even further, notably through our new strategic plan ADVANCE.

Announced on March 22, 2022, this plan for 2025 marks an important step for the Group as we embark on a path of global performance that combines both financial and extra-financial indicators. We are convinced that growth only makes sense if it has a positive impact on the environment and society at large. Building the future means being financially efficient, ensuring continuity and the ability to invest in the future, acting as a leader of industry decarbonization, promoting progress through technological innovation and acting for everyone.

What is your vision for the Group's future?

We are at a very singular moment in the history of the world, marked by geopolitical, economic and environmental upheavals. The last two years have profoundly transformed our societies, and we have all lived it firsthand. More recently, the war in Ukraine and the terrible humanitarian and economic consequences that stem from it have changed the geopolitical situation and shaken up the world order. Despite these challenges, I think that the world must continue to move forward, and that we must always believe in the future and build it with conviction. From the Group's point of view, our resilience and our capacity to adapt are true assets. For over 120 years, Air Liquide has ceaselessly cultivated its key strength: the ability to perceive and even anticipate the profound changes impacting society, and to offer the necessary expertise.

We are also at a real turning point in the Group's history. Despite the current uncertain environment, I remain confident in Air Liquide's ability to face the challenges ahead. The opportunities for Air Liquide remain numerous. Our international

“The Group is focused on global performance. ... Growth only makes sense if it has a positive impact on the environment and society at large.”

presence, inventor DNA, technological expertise and the diversity of our business, supported by the strength of our model, will enable the continuation of our growth trajectory. We are having a truly decisive impact on the markets that are essential for the future: hydrogen, of course, which is part of a rapidly changing energy world, but also healthcare, electronics and high technologies. Few companies have such a wide range. We are pleased to be able to act in so many markets.

During a period defined by the global pandemic and physical distance, how has Air Liquide managed to maintain dialogue with its Shareholders?

Our Shareholders have always been at the heart of the Group's history. Today we have more than 500,000 Shareholders, and we will build the future together. To maintain communication during the pandemic, we had to reinvent our approach by fully mobilizing our Shareholder Services Department advisors, modernizing the online Shareholder Portal section and stepping up digital communication. After two entirely digital General Meetings that were held behind closed doors, our Shareholders will be invited to attend the General Meeting on May 4, 2022, which will combine the best of in-person and digital attendance to produce high-quality Shareholder dialogue. I will be delighted to see everyone there.

ADVANCE, the 2025 strategic plan

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Delivering strong financial performance

Air Liquide is taking action today while preparing the future. The Group is rising up to an ambitious challenge: continuing its growth dynamic and improving profitability all while meeting its commitments to reduce CO₂ emissions and investing in the markets of the future.



Decarbonizing the planet

The Group is affirming its leading role in the decarbonization of industry and the dawn of a low-carbon society in which hydrogen is today playing a decisive role. It is committed to decarbonizing its own operations while helping customers to do the same. Air Liquide plans to reach carbon neutrality by 2050, with the intermediate step of beginning to reduce its CO₂ emissions around 2025.

Our objectives

+5% to +6%

AVERAGE ANNUAL
SALES GROWTH⁽¹⁾

+10%

ROCE
FROM 2023

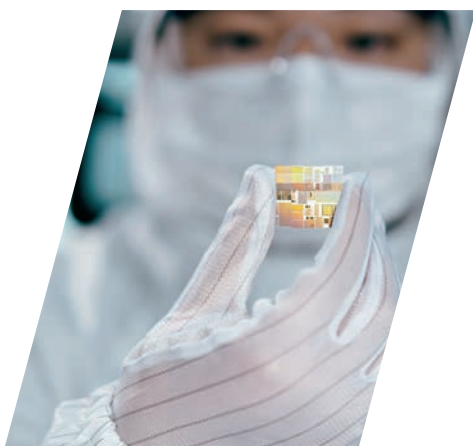
INITIATING THE
reduction

OF CO₂ EMISSIONS
AROUND 2025

(1) Compound annual growth rate (CAGR) of sales on a comparable basis over the 2021-2025 period.
(2) Sum of annual operating margin improvements in basis points, excluding energy pass-through impact.
(3) Industrial investment decisions above 5 million euros.

ADVANCE, Air Liquide's new strategic plan for 2025, is a milestone in the company's history. **It places sustainable development at the heart of the Group's strategy, firmly setting Air Liquide on course for global performance by combining financial and extra-financial performance.**

ADVANCE is structured around four priorities and integrates the Group's Sustainable Development objectives.



Unlocking progress via technology

Thanks to its capacity for innovation and its technological expertise, the Group is contributing to the development of five markets of the future: mobility, electronics, healthcare, industrial merchant and high technologies. With ADVANCE, it intends to strengthen its positioning in these sectors.



Acting for all

As a civic-minded company, Air Liquide strives to ensure that everything it does is in the interests of its employees, its customers and its patients, its shareholders and its partners and, beyond that, of society as a whole.

By relying on

>+ 160 bps

**OPERATING MARGIN
GROWTH OVER FOUR
YEARS (2022-2025) ⁽²⁾**

€16bn

**RECORD LEVEL OF INVESTMENT
DECISIONS; HALF OF THE
INDUSTRIAL INVESTMENTS⁽³⁾
WILL BE DEDICATED TO THE
ENERGY TRANSITION**

Board of Directors

as of 12.31.2021

The Board of Directors is composed of 13 members: 11 who are appointed at the Annual General Meeting and two who represent Air Liquide employees. The Board of Directors brings together a diverse range of profiles. Five nationalities are represented from Europe, America and Asia and 55% of elected members are women. They bring a wealth of skills (financial, managerial, digital, scientific, international development, etc.) and a diversity of experience in a variety of sectors (chemicals, consumer products, healthcare, research, services, construction, automotive, etc.).

The Board of Directors determines Air Liquide's objectives and ensures their implementation in line with its corporate interest, by taking into account the social and environmental stakes of its business. Accordingly, it examines and approves the Group's major strategic priorities.

In 2021, it focused in particular on **the impacts that the Covid-19 pandemic** had on the Group and notably the measures taken to protect the **health of employees**; performance analysis; the **Group's strategy** taking into account environmental and social issues; the continued application of the **Sustainable Development policy** and the establishment of **new ESG/Climate objectives**; the development of the new 2025 **ADVANCE** strategic plan; **industrial investment** decisions; the **energy transition** and the development of **hydrogen**; and **governance** matters, including the decision to **separate the roles of Chairman of the Board of Directors and of Chief Executive Officer**. In this context, the Board that will meet after the May 2022 Annual General Meeting will be asked to renew the mandate of Benoît Potier as Chairman of the Board of Directors and to appoint François Jackow as Chief Executive Officer, **effective June 1, 2022**.

a. Benoît Potier

Chairman and Chief Executive Officer
Born in 1957 – French

b. Jean-Paul Agon

Independent Director
Lead Director
Chairman of the Appointments and Governance Committee
Member of the Remuneration Committee
Born in 1956 – French

c. Siân Herbert-Jones

Independent Director
Chairman of the Audit and Accounts Committee
Born in 1960 – British

d. Sin Leng Low

Independent Director
Member of the Audit and Accounts Committee
Born in 1952 – Singaporean

e. Annette Winkler

Independent Director
Chairman of the Environment and Society Committee
Member of the Appointments and Governance Committee
Born in 1959 – German

f. Philippe Dubrulle

Director Representing Employees
Member of the Environment and Society Committee
Born in 1972 – French

g. Geneviève Berger

Independent Director
Member of the Environment and Society Committee
Born in 1955 – French

h. Xavier Huillard

Independent Director
Chairman of the Remuneration Committee
Member of the Appointments and Governance Committee
Born in 1954 – French

i. Anette Bronder

Independent Director
Member of the Audit and Accounts Committee
Born in 1967 – German

j. Kim Ann Mink

Independent Director
Member of the Remuneration Committee
Born in 1959 – American

k. Fatima Tighlaine

Director Representing Employees
Born in 1979 – French

l. Aïman Ezzat

Independent Director
Born in 1961 – French

m. Bertrand Dumazy

Independent Director
Born in 1971 – French



Executive Committee

as of 12.31.2021

The Executive Committee coordinates the Group's various programs and activities. It reviews the operational management of the business and oversees the implementation of transformation projects and business development.

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In 2021, the Executive Committee continued to lead initiatives in response to the public health crisis. Action plans were implemented to protect the safety of employees and partners through adapted work organization, and to guarantee continuity of service in essential sectors, especially healthcare.

Regarding strategy, the Executive Committee has been particularly focused on rolling out the Sustainable Development Objectives across the Group – including through a new internal governance framework for CO₂ emissions management – as well as developing the new ADVANCE strategic plan for 2025.



Benoît Potier
Chairman and Chief Executive Officer.
Born in 1957 – French



François Jackow
Executive Vice President supervising the Europe Industries, Europe Healthcare and Africa/Middle East/India hubs. He also supervises the Healthcare world business line and the Innovation, Technologies, Digital/IT functions and the Customer Experience program.
Born in 1969 – French



Michael J. Graff

Executive Vice President supervising the Americas and Asia Pacific hubs, he is also in charge of the Electronics world business line. Born in 1955 – American



Fabienne Lecorvaisier

Executive Vice President in charge of Sustainable Development, Public and International Affairs, Societal Programs and the Air Liquide Foundation. She is also in charge of the General Secretariat. Born in 1962 – French



Jean-Marc de Royere

Senior Vice President in charge of Societal Programs. He is also Chairman of the Air Liquide Foundation. Born in 1965 – French



François Venet

Senior Vice President in charge of Strategy. He also supervises the Large Industries world business line and Engineering & Construction. Born in 1962 – French



Pascal Vinet

Senior Vice President in charge of the Europe Industries and Africa/Middle East/India hubs. He also supervises the Safety and Industrial Systems function. Born in 1962 – French



François Abrial

Vice President in charge of the Asia Pacific hub. Born in 1962 – French



Marcelo Fioranelli

Chief Executive Officer of Airgas. Born in 1968 – Brazilian



Matthieu Giard

Vice President supervising Hydrogen activities and the Industrial Merchant world business line, the Procurement function and Efficiency programs. Born in 1974 – French



Armelle Levieux

Vice President, Group Human Resources. Born in 1973 – French



Émilie Mouren-Renouard

Vice President in charge of Innovation, Digital & IT, and Intellectual Property, as well as the Global Markets & Technologies activity. Born in 1979 – French



Jérôme Pelletan

Chief Financial Officer. Born in 1970 – French



Diana Schillag

Vice President in charge of Healthcare activities in Europe and the Healthcare world business line. Born in 1971 – German



At the heart of the future

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01. Building a low-carbon society

02. Improving patients' quality of life

03. Contributing to a more connected world

04. Helping industries meet the challenges of tomorrow

Leveraging its innovation capabilities and technological expertise, Air Liquide contributes to tackling the challenges that our societies are facing - whether they be related to industry decarbonization, healthcare transformation, digital acceleration or revolutionizing industry. We make a difference through our desire to have a positive impact on society, through our concrete achievements and our ability to invent sustainable solutions.

for a more
sustainable
world

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01_

Building
a *low-*
carbon
society

Tackling climate change challenges requires strong and collective action. Not only is Air Liquide committed to reducing CO₂ emissions from its own operations, but we are also helping customers decarbonize at the same time. In close collaboration with industrial partners, we are increasing our involvement in a variety of large-scale clean energy solutions, such as low-carbon hydrogen production and supply, carbon capture and storage technologies and biomethane solutions. Our ambition is to act as the leader of industrial decarbonization.

-33%

REDUCTION IN AIR LIQUIDE'S
ABSOLUTE-VALUE CARBON
EMISSIONS BY 2035

€8Bn

WILL BE INVESTED IN THE
LOW-CARBON HYDROGEN SUPPLY
CHAIN BY 2035



Matthieu Giard

Member of the Air Liquide Executive Committee and Vice President supervising Hydrogen and Industrial Merchant activities

What makes hydrogen a solution for decarbonizing industry and heavy transport?

Hydrogen plays a key role in the energy transition, particularly when it comes to decarbonizing industry and heavy transport, which represent 18% and 25% of worldwide CO₂ emissions respectively¹. Air Liquide has 50 years of expertise in hydrogen, and 20 years ago we banked on the molecule being used for clean mobility. Since 2021, things have rapidly accelerated. More than 30 governments have positioned hydrogen at the heart of their energy strategy, with 100 billion euros² pledged in support of its large-scale roll-out. By 2050, it is expected to account for more than 20% of global end-use energy demand³.

As a pioneering group in the hydrogen sector, how can Air Liquide accelerate this roll-out?

The entire hydrogen ecosystem is in development! We firmly believe that when it comes to tackling environmental challenges, we are all in this together. In this ramp-up phase, we are forging strategic partnerships with industry and transport stakeholders including TotalEnergies, Siemens Energy, BASF, Airbus and Faurecia⁴, to create industrial projects and infrastructures for the production and distribution of hydrogen. To accelerate our efforts alongside our industrial and financial partners, we have created the largest global fund fully dedicated to expanding hydrogen infrastructure, funded with 1.5 billion euros. In the face of climate change, it is crucial that we combine technologies, expertise, and industrial and financial capabilities to accelerate the production and use of low-carbon hydrogen.

What do you think the development of hydrogen will look like in 10 years?

The hydrogen revolution is already underway. Today, we need to boost its roll-out by leveraging the commitments made by public and private sector players to achieve carbon neutrality by 2050. We are going to invest 8 billion euros in the low-carbon hydrogen supply chain. Our strategic investments in large-scale electrolyzers, such as those we have already made in Canada, France and Germany, will bring our overall electrolysis capacity to 3 GW by 2030 for producing renewable hydrogen. The decade of hydrogen has begun, and it is our ambition to act as a hydrogen leader.

18 “Air Liquide is a leader in hydrogen and we are committed to investing €8 billion in the low-carbon hydrogen supply chain by 2035.”

(1) International Energy Agency – 2020
(2) 2021 reports from the Hydrogen Council
(3) *Idem.*
(4) Now known as Forvia

Cristina Ballester

Vice President Large Industries
Europe, Air Liquide

Why is carbon capture and storage (CCS) considered an essential lever to reach carbon neutrality by 2050?

While society is accelerating the usage of renewable energy to address climate urgency, we also need solutions that will support the transition by enabling the capture of large volumes of CO₂ emitted by industrial actors. This avoids emissions in the short term, particularly from industries whose emissions are hard to abate, such as cement, steel and chemicals. In these sectors, CCS is an effective and viable solution for industrial processes that don't yet have alternatives.

How is Air Liquide answering this challenge?

We have been developing carbon management solutions for 15 years. Our Cryocap™ CCS solution uses cryogenics technology to capture CO₂. The process is highly efficient compared to solvent-based technologies, recovering up to 98% of CO₂. Cryocap™ is part of a full carbon capture service offer we are currently developing that will include CO₂ capture, purification, liquefaction, storage and transport to the sequestration site. In some cases, we also recycle the CO₂ for other uses (carbonation of sparkling beverages, food preservation and freezing, etc.). The maturity of our solutions portfolio and our expertise give us legitimacy in this key growth area that is crucial to reducing industrial carbon footprints. Our customers know they can rely on us for performance, reliability, safety and supply continuity.

Do you have some recent concrete examples to illustrate this?

We have several projects underway in Europe. For example, in France, in the Dunkirk industrial basin, we've joined forces with ArcelorMittal to develop an ecosystem to sequester up to 3 million metric tons of CO₂ from the steel industry. In Normandy, France, and Zeeland, the Netherlands, we're implementing large-scale CCS solutions at hydrogen production units in collaboration with TotalEnergies. With BASF in Antwerp, Belgium, we're planning to develop the world's largest cross-border CCS value chain. The Kairos@C project (see p. 58) won support from the European Innovation Fund, confirming the efficiency of our technology, which an increasing amount of industries will need to reach carbon neutrality.



“The maturity of our portfolio of carbon capture and storage solutions and our expertise give us legitimacy in contributing to the decarbonization of industry.”



01_Hydrogen production unit in Normandy, France

Developing the world's first low-carbon hydrogen network in Normandy, one of Europe's largest industrial basins.

Air Liquide is working with TotalEnergies to decarbonize hydrogen production on its petrochemical platform. The Group will take over the existing production plant and supply TotalEnergies with low-carbon hydrogen, and the two companies will also join forces to deploy a CO₂ capture and storage solution (CCS). By 2025, an electrolyzer of at least 200 MW will be connected to the existing hydrogen network, making this the world's first low-carbon hydrogen network. The Group is also collaborating with TotalEnergies, Borealis, Esso and Yara to develop CCS infrastructure.



02_World's largest oxygen production site, South Africa

Reducing CO₂ emissions by 30% to 40% by 2030.

Since June 2021, Air Liquide has been running the 17 Air Separation Units (ASUs) at the oxygen production site owned by Sasol, a South African company specializing in energy and chemicals. It is now the world's largest oxygen production site. The Group is currently operating the ASUs and is also drawing up plans to modernize the units. The goal is to optimize the units' production capacity and energy consumption while reducing CO₂ emissions arising from oxygen production by 30% to 40%.



03_Largest PEM⁽¹⁾ electrolyzer in the world, Quebec, Canada

Producing renewable hydrogen on an industrial scale.

By inaugurating the world's largest PEM⁽¹⁾ electrolyzer in 2021, Air Liquide has reaffirmed its goal of achieving carbon neutrality by 2050. This next-generation electrolyzer is 99% powered by renewable hydraulic energy and produces up to 8.2 metric tons of hydrogen per day, which is enough to power more than 2,000 cars or 230 trucks. It will cut CO₂ emissions by 27,000 metric tons per year, which is equivalent to the emissions of 10,000 cars.

(1) PEM: Proton Exchange Membrane.



04_Low-carbon Air Separation Unit (ASU), China

Building the world's largest low-carbon ASU for the steel industry.

Air Liquide will build and operate a low-carbon Air Separation Unit in Zhangjiagang City, Jiangsu Province. Designed for Jiangsu Shagang Group, the biggest private steel company in China, this state-of-the-art unit, capable of producing 3,800 metric tons of oxygen per day, will significantly reduce CO₂ emissions. By becoming the Group's largest source of liquid oxygen and nitrogen in China, the unit will supply industrial customers and hospitals in the east of the country. It will also supply krypton and xenon to meet the growing demand of the local electronics industry.

Air Liquide firmly believes that hydrogen is the key to accelerating the energy transition. The Group is partnering with major players from various sectors who offer complementary skills to harness the full potential of hydrogen, from production to future distribution methods. This generates a reduction in industrial CO₂ emissions and an increase in the development of clean transportation.

Decarbonized *industry*

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Europe is taking a major step in furthering industry and mobility decarbonization.

Air Liquide and Siemens Energy have joined forces to create a European ecosystem of hydrogen production technologies by electrolysis, thereby promoting the emergence of a sustainable hydrogen economy in Europe. One of the large projects backed by the French and German authorities is the construction of a renewable hydrogen production unit with a capacity of 30 MW in Oberhausen, Germany. This industrial-sized unit will be the first of its kind to be connected to the existing Air Liquide pipeline network.



(1) Aéroports de Paris, a global leader in airport design, construction and operation.
(2) Now known as Forvia.



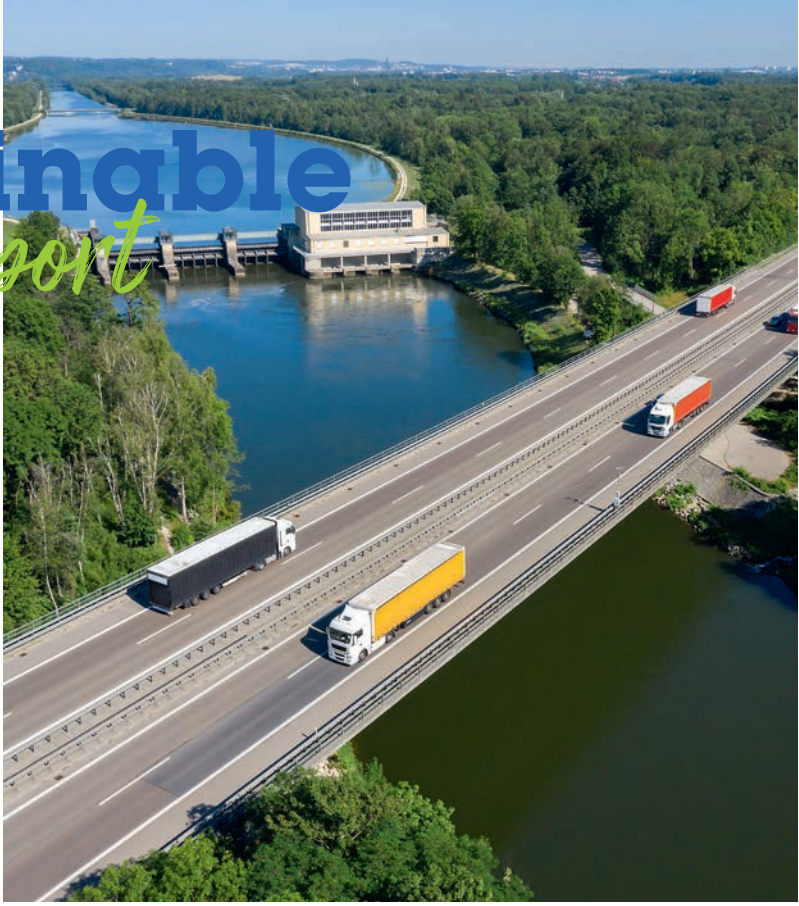
The future *of aviation*

What if the airplane of the future was powered by hydrogen? This is the ambition that Airbus has set for 2035. In preparation, Air Liquide is already collaborating with the aircraft manufacturer and Groupe ADP¹ to develop liquid hydrogen production and supply future infrastructure for Parisian airports. At Lyon-Saint Exupéry Airport, the pilot site, Air Liquide and Airbus

are working with VINCI Airports to develop the first hydrogen facilities by 2023. On the runway, buses, trucks and ground handling machines will run on hydrogen thanks to a distribution station. This station will also supply heavy trucks moving around the airport, thereby creating a local hydrogen hub.

Sustainable *transport*

Especially suitable for intense use by heavy trucks, hydrogen offers maximum range and fast refueling. With this goal in mind, Air Liquide has partnered with Faurecia⁽²⁾ to develop a liquid tank system that will double on-board hydrogen capacity compared to gaseous hydrogen. The Group is pairing its expertise with that of the vehicle systems specialist so that they can co-design and co-produce hydrogen tanks that will give trucks twice the range for the same payload.



02_

Improving
patients'
quality
of life

Because every patient experiences their illness differently, Air Liquide favors personalized care pathways. This is a virtuous approach that aims to improve both the patient's health and quality of life at the best cost for the healthcare system. Working daily with all healthcare professionals, the Group contributes to the transformation of healthcare at home, in hospitals and in other care settings by offering innovative solutions that create value for all healthcare stakeholders.

1.8M

PATIENTS AT HOME AROUND
THE WORLD IN 2021,

38%

OF WHOM ARE FOLLOWING
A PERSONALIZED CARE PATHWAY



Dolores Paredes
 Vice President of Markets,
 Strategy and Innovation at Air Liquide's
 Healthcare activity

You launched the transformation of Air Liquide's Home Healthcare business by implementing a Value-Based Healthcare approach. Could you please explain what this means?

This approach focuses on patients beyond their illness. We put them, as people, at the heart of the healthcare system, taking into account everything that makes them unique. By this I mean their relationship with their illness, their history, their lifestyle and even their family situation. We are moving from a service-based approach to an approach that focuses on the key benefits for patients to improve their quality of life in a more cost-effective way. It is a unique opportunity to organize the entire healthcare ecosystem around a common goal. Leading stakeholders are already implementing it in several countries (hospitals, clinics, healthcare systems), and the results are promising. International organizations⁽¹⁾ are taking part in this transformation and helping shape healthcare policies that promote the emergence of value-based initiatives.

In what way is this approach strategic for Air Liquide?

Around the world, healthcare systems are facing a two-fold challenge: ensuring their continuity and upholding quality of care. Value-Based Healthcare is now essential for Air Liquide, which is taking long-term action to meet this challenge. Today, Air Liquide takes care of 1.8 million patients with chronic diseases. Our combined human and digital approach allows us to offer them more personalized care pathways. Our proximity to our patients and our role as a major player in home healthcare alongside healthcare professionals allow us to contribute to the transformation of healthcare.

What challenges do you face in the coming months?

Although several European countries have begun this patient-centered transformation process, the challenge now is ensuring this initiative is adopted in all regions. We must fundamentally rethink care pathways, with the goal of making them more personalized in order to improve patients' health and quality of life. We need to prove the value we are generating with this approach, and this requires systematic measurement of the benefits to the patient. This is a complex but exciting task. It requires a coordinated approach from all healthcare professionals in order for the entire ecosystem to reap the benefits. This includes physicians, who can rely on our teams to ensure compliance with treatment, those responsible for covering the costs, who see the optimization of overall care costs, and hospitals, which can focus on critical procedures.

“The Value-Based Healthcare approach returns patients to the heart of the healthcare system, with the goal of improving their quality of life at the best cost for the healthcare system.”

(1) Including the OECD (Organization for Economic Cooperation and Development) and EIT Health (a network of actors working in the field of health innovation, supported by the European Union).

Louis-François Richard
Vice President of Medical Gases
at Air Liquide, Europe

Air Liquide has a major presence in hospitals with medical gases and related services. Accordingly, how can Value-Based Healthcare be adapted to healthcare institutions?

Value-Based Healthcare is a unique approach that encourages all stakeholders to jointly re-examine the benefits for patients and to be involved in the transformation of healthcare systems. We work in partnership with each stakeholder in the healthcare pathway (hospitals, urban medicine and emergency services) to help medical professionals concentrate on tasks with greater added value for patients, while securing the availability of the medical gases they need on a daily basis.

What does that mean specifically?

Today we are only in the early stages of using the Value-Based Healthcare approach to benefit hospitals. But we already have solutions in place that ease the work of caregivers and optimize costs for hospitals. Besides supplying medical gases, we offer services that account for all hospital needs. One example of this is Total Gas Management, which enables everything in the gas logistics process to be managed on the hospital site. Another example is our new line of cylinders for medical oxygen that facilitates the administration of medical oxygen, patient mobility and inventory management for hospital caregivers, who have been in extremely high demand during the pandemic.

Hospitals face a great many challenges. How are you responding to them?

All hospitals do indeed face sizable challenges: accommodating patients in greater and greater numbers, lowering costs without affecting quality of care and participating in regional care networks, all while remaining a hospital of choice. We are adapting to these challenges by redesigning our operational models. As an example, we want to offer a comprehensive care package per patient treated, rather than per products and services supply. Such a model lets us offer optimal quality of care to the benefit of the patient, the healthcare professionals and the healthcare system as a whole.



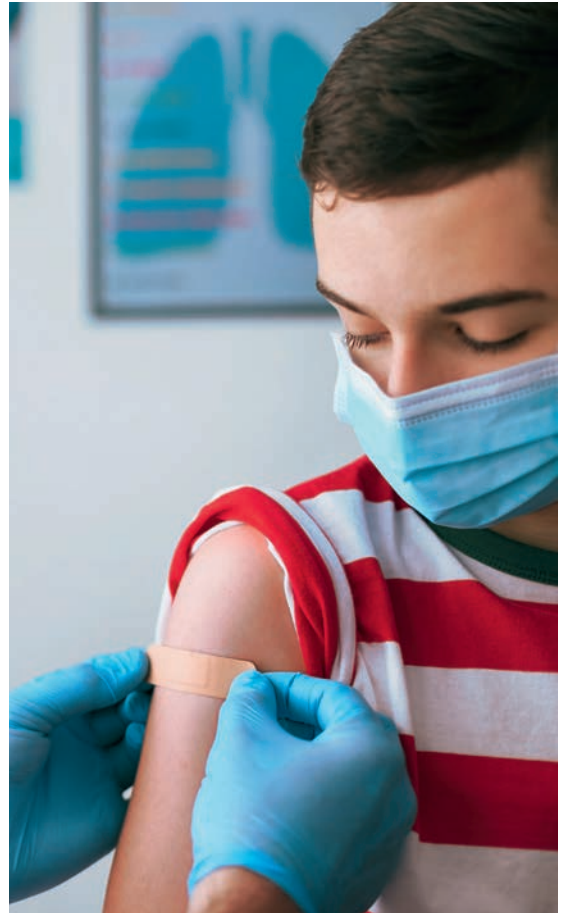
**“At hospitals,
we offer gases and
service *solutions*
that take into
account the *needs*
of all medical
professionals,
while optimizing
costs.”**



01_Covid-19: Producing and distributing more medical oxygen

Teams mobilized to meet the needs of hospitals.

All over the world, Air Liquide has stepped up in the face of the pandemic by supplying the medical oxygen needed to combat Covid-19. Our employees raced against the clock to offer help to caregivers by increasing production and adjusting the supply chain. In the hardest-hit areas, hospital demand for oxygen increased sixfold and even tenfold.



02_Supporting vaccine research

Contributing to global efforts to fight Covid-19 by opening access to a new adjuvant that increases the efficacy of vaccines.

Furthering vaccine research is one of our ambitions. Seppic, an Air Liquide subsidiary that manufactures specialty ingredients, stepped up in the face of the pandemic by making its Sepivac SWE™ adjuvant – which was developed in partnership with the Vaccine Formulation Institute⁽¹⁾ – available to the global scientific community. Available without a license, this adjuvant helps accelerate the development of vaccines to combat influenza and Covid-19.

(1) A not-for-profit body affiliated with the World Health Organization.



03_Acquisition of Betamed, a Polish leader in home healthcare

Building on the at-home support services we offer to patients in Europe with complicated illnesses.

The 2021 acquisition of Betamed, a Poland-based leader in home healthcare, was a turning point for Air Liquide, adding to its European presence in complex treatments. With expertise in long-term home care and mechanical ventilation, Betamed enables the Group to broaden its range of services and products across the entire care pathway for people with severe illnesses, either at home or in a specialized clinic.



04_Launch of the Making Diabetes Easier website

Enabling patients and their families to live with diabetes more comfortably, using a single information platform.

Living with diabetes requires an understanding of the condition and how to manage it on a daily basis. Harnessing 20 years of experience in treating diabetes, Air Liquide launched the website Making Diabetes Easier, which provides practical learning resources for diabetic patients (particularly those living with Type 1) to improve their daily lives. Available in Europe in six languages, this website deals with subjects as varied as diabetes management, nutrition, sports, school, sleep management and more.

Re-inventing the care pathway is a crucial factor in improving how the needs of patients are met. Playing a role along with caregivers in the transformation of the healthcare sector, Air Liquide has devised innovative, patient-centric solutions. These approaches foster personalized treatment, to both improve the follow-up care patients receive and their overall quality of life.

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Personalized *healthcare*

In partnership with healthcare professionals, Air Liquide has committed to rethinking home healthcare services by adapting them to patients' real needs and lifestyles. Since living with an illness is a different experience for each patient, the Group has set up a digital platform that connects the different stakeholders at each stage of the care pathway, enables follow-up care to be adapted and maximizes patient satisfaction thanks to innovative data-driven solutions.





Predictive *Science*

How can we leverage the potential of data to create more value in healthcare?

This can be demonstrated by two approaches developed by Air Liquide, which is investing in the field of artificial intelligence as a way to better support hospitals and patients. The Group perfected a system that can predict oxygen consumption patterns in hospitals by combining public Covid-19 data with internal data,

allowing for the adjustment of gas production and supply to hospitals. Using data acquired from tracking apnea patients with connected devices, another algorithm identifies the risk of patient non-compliance and therefore how their support can be better preventively adapted.

Vital *Molecule*

The pandemic has highlighted the crucial role of medical oxygen for treating patients in respiratory distress.

Air Liquide teams, with the help of physicians, are seeking to develop a new non-invasive, ventilation device that is easy to use and can be bulk manufactured. This device would enable to deliver very high rates of oxygen while optimizing consumption and can treat more patients than current devices. In a period of crisis, this is an effective solution when the time of medical professionals and oxygen are in high demand.



03_

Contributing
to a more
connected
world

Semiconductors lie at the heart of the digital revolution that is profoundly transforming society. In the ultra-competitive electronics sector, the innovation race encourages the design of increasingly smaller and more powerful components, all while reducing their environmental impact. As a strategic partner to major electronic customers, Air Liquide supports their geographic expansion and helps them face technological challenges, from supplying advanced materials to relocating production units.

157K

METRIC TONS OF CO₂ EMISSIONS AVOIDED IN THE ELECTRONICS INDUSTRY THANKS TO AIR LIQUIDE'S ENSCRIBE™ SOLUTIONS IN 2021

100%

OF LATEST-GENERATION SMARTPHONES CONTAIN CHIPS, MEMORY, SENSORS AND DISPLAYS MADE WITH AIR LIQUIDE'S GASES AND ADVANCED MATERIALS



Christian Dussarrat

Electronics R&D Program and
Scientific Director, Tokyo
Innovation Campus, Air Liquide

What role does Air Liquide play in the electronics industry?

As society becomes increasingly digital, the electronics industry is faced with growing demands for increased performance and production of semiconductors. Air Liquide helps the industry by providing the ultra-pure gases and innovative materials necessary for manufacturing chips. The Group's innovation capacity facilitates the development and manufacturing of the highest-quality, fastest and most powerful nanoscale devices.

What challenges are electronics players facing?

In roughly 15 years, the size of silicon transistors has already decreased from 65 to 5 nanometers. At this scale, flawless quality, product stability, safety and reliability are critical, which is why the electronics industry has specific and very stringent quality requirements for all gases and chemicals supplied to its production plants. In addition to these technological challenges, the industry is also committed to producing semiconductors with smaller environmental footprints, to contribute to low-carbon computing.

How is Air Liquide supporting customers to meet these challenges?

We are driven by our innovative mindset. Since the early 2000s, we have been working on materials called precursors, which deliver specific tailored solutions to customers in the memory and logic segments. More recently, enScribe™ range materials allow etching at a nanoscale with a minimized environmental impact. Over the years, we have ramped up our expertise and now we offer a unique portfolio of solutions and advanced materials backed by the best innovation capability in the industry.

“We offer a
unique range
of *solutions*
and advanced
materials for
the electronics
sector backed
by the best
innovation
capability in
the industry.”

Ken Liu

Strategic Account Director, Electronics activity at Air Liquide, Taiwan Island

In 2021, Air Liquide signed new contracts with a key Taiwanese electronics player. Can you tell us more?

Air Liquide's global presence and its unique product portfolio make it an attractive partner to electronics leaders around the world. We are proud to have signed new contracts with a key Taiwanese customer who is taking its geographical expansion up a notch. This customer will be opening a new manufacturing site in Arizona, U.S., with a monthly capacity of 20,000 wafers⁽¹⁾, and we will be supplying ultra high purity hydrogen, helium, and carbon dioxide to this facility. We are also in talks with them to partner on further expansion in Taiwan Island and Japan.

How does Air Liquide make the difference from its competitors in the electronics sector?

When it comes to overseas expansion, semiconductor manufacturers want to partner with suppliers they know and trust. We have been supporting this customer and most of the key electronics players for years. They are reassured by our international presence and ability to provide a single customer interface anywhere in the world. Additionally, our product portfolio is simply the most comprehensive on the market, from ultra-pure carrier gases to novel advanced materials.

There is currently strong demand for semiconductors, but an uncertain outlook in areas such as supply chains and international trade. Which challenges is Air Liquide facing as it supports customers expansion?

Sustaining the rapid growth of the industry is not easy. Our expertise and proximity with our customers around the world promote optimal responsiveness and strict quality control. Throughout the Covid-19 pandemic, we didn't have a single supply chain interruption. Our locations in key electronics hubs like Japan and China also allow us to secure the most cutting-edge solutions for our customers and to support them in their relocation and expansion plans.



“Our product portfolio is simply the most comprehensive on the market, from ultra-pure carrier gases to novel advanced materials.”

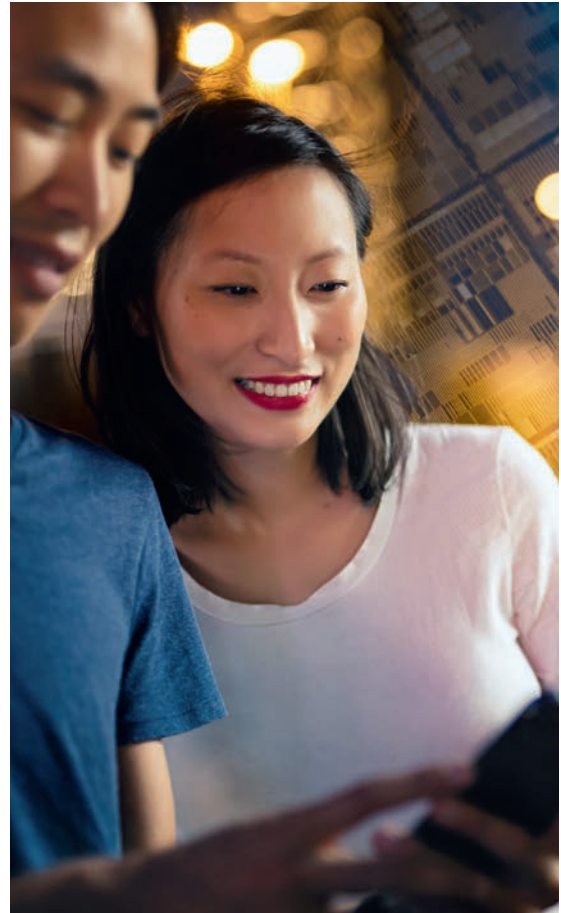
(1) Silicon wafers used for the manufacturing of integrated circuits.



01_A lasting carrier gas partnership in Virginia, U.S.

Supplying one of the world's largest semiconductor manufacturers with extensive carrier gas.

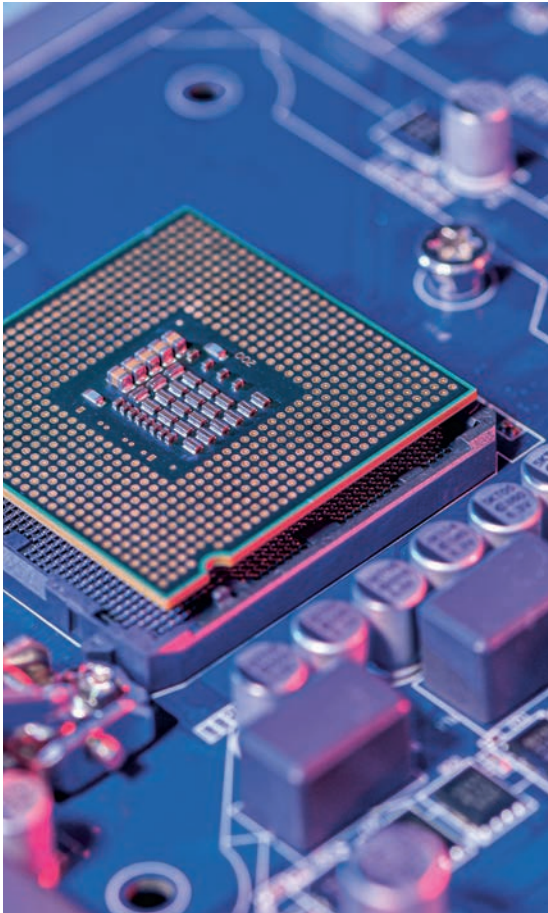
For over 30 years, Air Liquide has worked closely with a key manufacturer, a powerhouse of innovative memory solutions present in Asia and North America. Upon expanding their Manassas, Virginia site to meet growing demand for digital products, this customer agreed to a 15-year contract extension with Air Liquide, increasing the carrier gas supply requirements at its site. This partnership is now Air Liquide Electronics U.S.' single largest investment to date.



02_Ultra-high purity low-carbon hydrogen electrolyzers, Taiwan Island

Constructing low-carbon hydrogen electrolyzers at the Tainan and Hsinchu Science Parks.

To meet the growing demand for high-purity hydrogen in the electronics sector, Air Liquide is investing in production units at the Tainan and Hsinchu Science Parks, two of the most advanced semiconductor basins in the world. The first electrolyzer was successfully delivered in 2021. When completed, the production site will have a total capacity of 25 MW and will avoid 35,000 metric tons of CO₂ direct emissions annually. Those plants will allow the Group to supply low-carbon hydrogen to local semiconductor manufacturing plants.



03_ For a more sustainable semiconductor industry

Helping the electronics industry reduce its carbon emissions through more efficient semiconductors.

Air Liquide's Advanced Materials centers design cutting-edge technologies that enable the production of the smallest semiconductors yet. In turn, as devices shrink, they become better insulated and more energy efficient, which has allowed for energy savings even as global demand surges. Between 2010 and 2018 alone, data centers reduced their electricity consumption by -297 TWhr thanks in part to the continued performance improvement of semiconductors and Air Liquide's advanced materials.



04_ Localization of advanced materials production

Supporting customers as they relocate production closer to home for increased supply chain security.

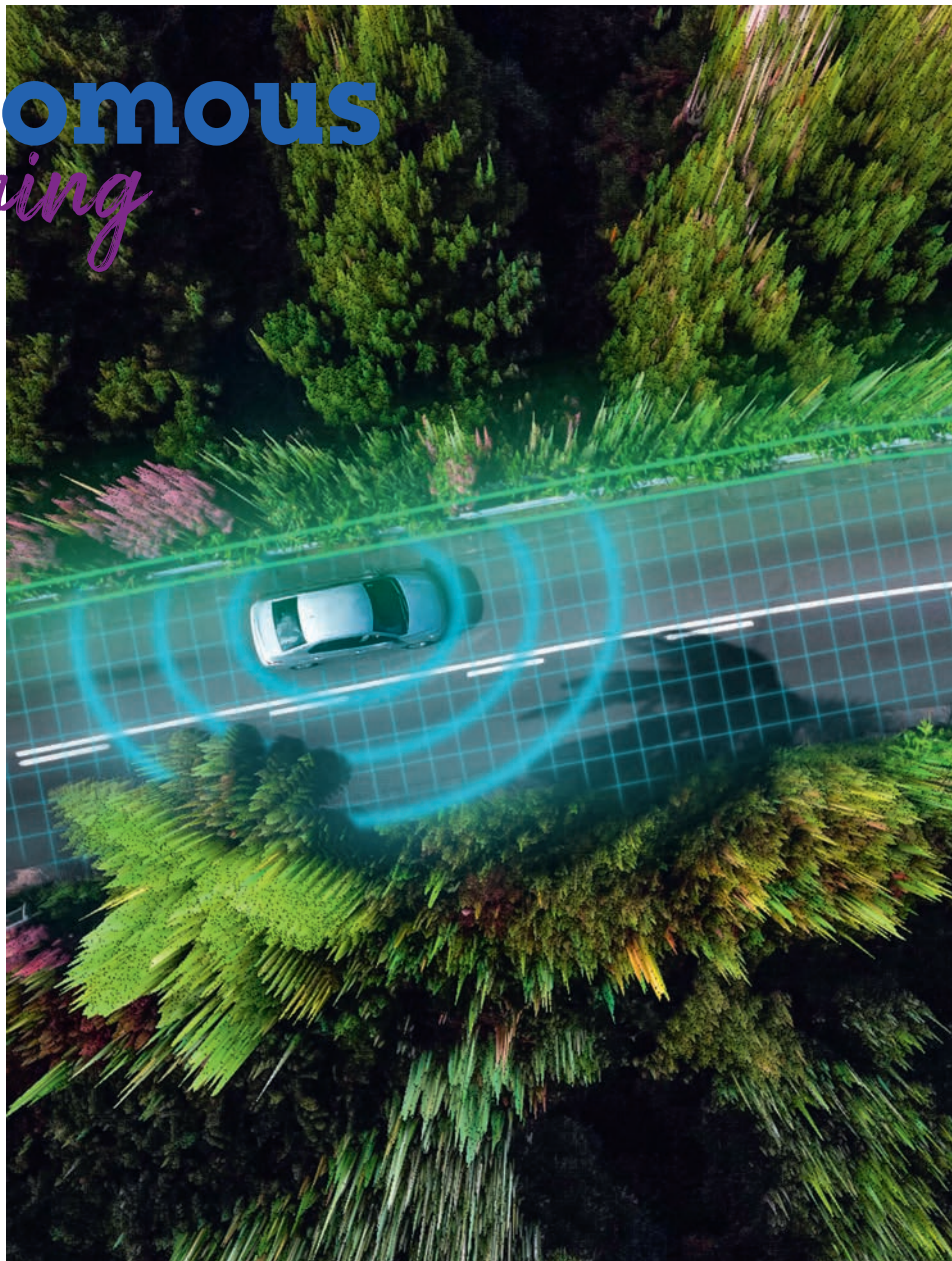
Microchip manufacturing sites are facing increased demand for advanced materials and growing risks related to complex global supply chains. This context is pushing them to localize their materials sourcing. Air Liquide invests alongside industry leaders in materials production facilities, allowing them to ensure the quality and the security of their supply. The recently commissioned facility in Singapore expands our existing network of centers, strategically located in electronics hubs in Japan, South Korea, Taiwan Island, the U.S. and Europe.

The acceleration of the digital transformation both inspires and tests the limits of the electronics industry. Air Liquide is leveraging its rich expertise, innovation capability and global presence to help industry leaders meet their challenges and make the most advanced technologies a reality in everyone's daily life.

Autonomous *driving*

38

The rapid growth of driver-assistance and car connectivity functions is bringing us closer and closer to self-driving cars. This progress is supported by smarter infrastructure, more powerful on-board processing and the miniaturization of real-time sensors, all of which require larger quantities of increasingly efficient semiconductors. Air Liquide's innovative materials allow the semiconductor industry to meet this performance challenge. The Group's global presence, production capacity and quality management system support both the growth and the zero-defect production demanded by the automotive industry.





Artificial intelligence

The reach of artificial intelligence (AI) has expanded rapidly in the last decade, leaving no sector of our daily life untouched.

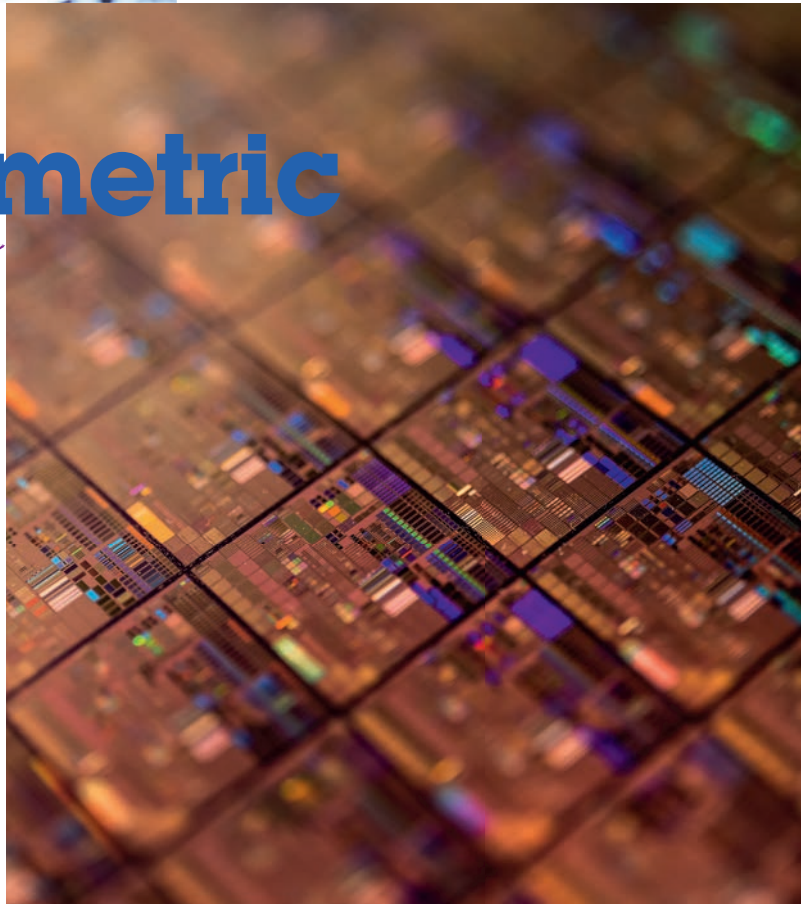
AI requires extremely powerful processors to access and treat enormous quantities of data in a record time, imitating the functionalities of a human brain but surpassing by far its capacity and processing speed. The

semiconductors behind these calculations must be extremely powerful and fast, but also energy efficient. Air Liquide leverages its innovation capabilities and proximity with the semiconductor ecosystem to invent new materials which allow the semiconductor industry to meet these challenges and advance the abilities of AI.

Nanometric solutions

The newest semiconductors must be of impeccable quality and capable of delivering peak performance and minimal environmental impact, all at the smallest possible size.

EnScribe™, an Air Liquide portfolio of advanced etch materials, was developed in partnership with semiconductor manufacturer partners to help them meet both the technological and environmental challenges of manufacturing the tiniest microchips. A significant step towards low-carbon computing.



04_

Helping
industries
meet the
challenges of
tomorrow

Present in a wide variety of markets, Air Liquide is in a privileged position to observe and detect new trends, needs and uses across industrial ecosystems. Drawing on the powerful potential of essential small molecules and data management, the Group innovates with and for its customers to offer them new gas applications that contribute to their operational efficiency and address the challenges of both new emerging markets and the energy transition.

2M

INDUSTRIAL CUSTOMERS
WORLDWIDE

€2.9Bn

OF INDUSTRIAL MERCHANT SALES
ARE RELATED TO SOLUTIONS THAT PROTECT
LIFE AND ENVIRONMENT



Laure Pouyanné
Business Data Manager,
Industrial Merchant activity,
Air Liquide

How does digital data enable Air Liquide to better meet the expectations of its customers?

Just like our customers, we have to produce sustainably, offer a quality experience and meet the latest industry expectations. Data is a powerful enabler for us in overcoming these challenges. The Integrated Bulk Operations' program, which is currently being rolled out, is a good example. By digitally connecting logistical assets (production plants, tanks installed on customers' sites or trucks), we are able to collect and analyze data to optimize the liquid gas supply chain in real time. The key here is that our logistics teams can anticipate customer requests and identify the right time for delivery by organizing more efficient and reliable delivery rounds. This gives us an agile logistics chain for better customer service while lowering our CO₂ emissions!

What role do employees play in this digital transformation?

Our employees are experts in our business processes and are in close contact with our customers. So involving them from the start is crucial when working together to build solutions that can improve our operational efficiency. This in turn provides a better customer experience. For example, the Digital and R&D teams worked with operators in France to design a solution that would increase their productivity in preparing customer orders for gas cylinders while optimizing handling operations.

What is the greatest challenge in optimizing data management?

Supporting decision-making, anticipating needs, managing performance and more. There is a wealth of data available and our teams were quick to see the value in capitalizing on it. So much so that you hear them talking about "their" data. Now the challenge is to upskill and train teams, an indispensable investment that maximizes the potential of data. In the future, using data will be part and parcel of employees' everyday work.

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“Data is a powerful tool for improving the customer and employee experience.”

(1) A program for digitizing the liquid gas supply chain

Steve Hope

Vice President Markets & Strategy, Industrial Merchant activity, Air Liquide

A new ecosystem intelligence approach is being tested in the Industrial Merchant activity. What does this involve?

Essentially, it is about challenging our orthodoxies around how we look at current and new markets. The idea is to go outside our normal bounds and look at all stakeholders, their drivers of change and their interactions. We then build a strategic analysis that better addresses an individual market, prioritizing actions and reducing the time to market for relevant solutions. To do this, we need to be part of a broad, diverse ecosystem where we are connected with key stakeholders. Supported by the i-Lab,¹⁾ we're testing the approach on some market segments such as water treatment in the pharmaceutical industry.

How strategic is this approach for your business?

To stay ahead in a fast-changing world, we must detect trends and understand how they will shape our business regarding new customers, stakeholders (customers, customers' clients, suppliers, public authorities, etc.) and business models. By being proactively involved in an ecosystem, we can deepen our knowledge and ask ourselves the right questions: What will this customer look like in five years? How will energy transition trends affect customers, and what impact will they have on their business and on the value chain? Who are the new players in the market? This approach puts us at the forefront of change so we can understand how disruption impacts our customers' needs, and we can anticipate their future expectations and come up with new solutions.

What is the value for Air Liquide and your customers?

An ecosystem-based process gives a much better read of the customer's environmental, regulatory and supply chain context across markets, helping us to prioritize actions and align resources. We start with their pain points and ecosystem changes and then build on them using a customer-centric approach. This can also lead to unlikely pairings or partnerships that accelerate our thinking and shape customer outcomes. By identifying critical water treatment challenges within the pharmaceutical industry that could be addressed by our technological expertise, we forge new connections to solve issues and create value for every player in the ecosystem.



“There is a transformation underway that demands a completely different way of understanding and engaging our customers and their key stakeholders.”

1. Air Liquide's foresight department which investigates emerging trends and topics, and develops foresight tools and methodologies.



01_A production furnace at a glass plant

Reducing energy consumption and CO₂ emissions by improving the oxy-combustion process.

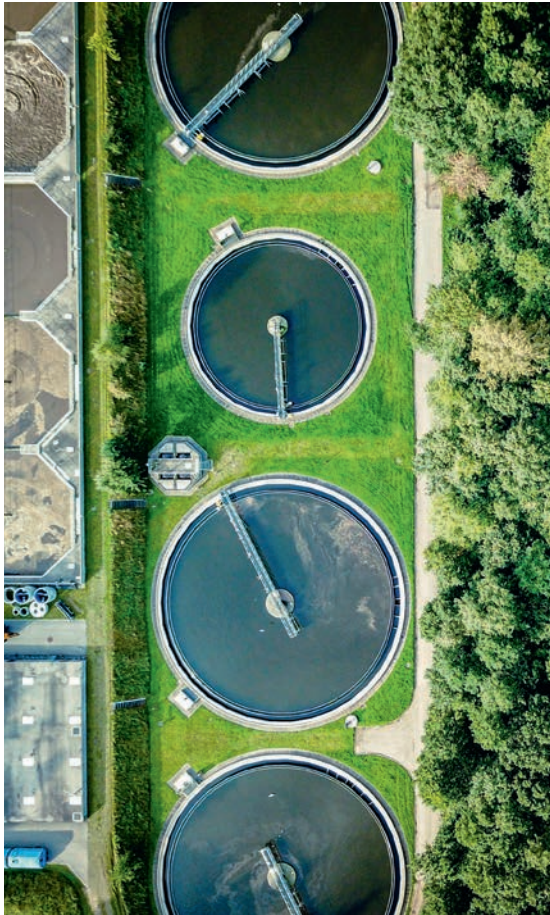
Glass manufacturers are increasingly seeking to improve energy- and cost-efficiency and furnace profitability while reducing pollutants. Air Liquide's heat-oxycombustion technology improves the glass production process by reusing heat that would otherwise be wasted. An EU-funded study at a Bulgarian glass factory demonstrated that heat-oxycombustion reduced emissions of CO₂ by 19% and of nitrogen oxides by 90%.



02_An innovative training approach for welders

Supporting welding customers to become more competitive around the world.

In the highly competitive metal fabrication market, customers seek increased productivity, improved quality and cost reductions. Air Liquide U.S. subsidiary Airgas offers a comprehensive, systematic program to help customers gain more value and continuously improve. The innovative "Unlocking the Hidden Cost of Welding™" program provides professional training, quality management methods and ongoing digital benchmarking tools, and is currently being successfully deployed in Europe and in Asia.



03_Integrated and sustainable water treatment solution

Partnering with Inopsys, a Belgian specialist in treating chemical and pharmaceutical wastewater.

Some waste waters from complex industrial processes are non-recyclable and often transported for incineration, a costly and CO₂-intensive process. Air Liquide offers its customers an integrated and sustainable solution, developed in collaboration with Inopsys, that uses hybrid technology to purify wastewater streams on site. The Group initially shared its pioneering work in advanced oxidation with Inopsys, and now supplies the company with pure oxygen and strategic expertise.



04_Indoor vertical farming

Developing a foothold on indoor vertical farming in Singapore through a new partnership with the company &ever.

Aiming to create a buffer from supply disruptions and produce 30% of its nutritional needs locally by 2030, Singapore called upon the German company &ever to develop indoor vertical farming in the country. Air Liquide will support &ever's sustainable operations to supply carbon dioxide, crucial for plant growth, which can help increase their yield and growth rate.

To meet the challenges facing society, a profound transformation of industry is underway. Air Liquide is contributing by working with its customers to build more innovative and sustainable industries. The Group develops new solutions for the future that support those involved in bringing about new industrial revolutions, whether that is electric vehicles, 3D printing or the agriculture of tomorrow.

Electrical *revolution*

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The electric vehicle revolution is gaining speed and Air Liquide is a key player, as gases are crucial in manufacturing the next generation of batteries with an extended range and a reduced carbon footprint. The Group provides its expertise to the world's leading companies in this ecosystem. Gas solutions are needed along the entire value chain, from extracting raw materials and producing electrodes to assembling cells and recycling.



Additive manufacturing

In 2021, the first 3D-printed metal bridge was inaugurated in Amsterdam. This was a technological feat to which Air Liquide made a major contribution. The Group shared the welding and additive manufacturing expertise of its R&D teams and provided shielding gases to MX3D, the tech start-up that masterminded the project. More generally, industrial gases play a key role throughout the chain of additive manufacturing processes, ensuring their safe execution, operational stability and the final quality of the metal parts.



Alternative proteins

By 2050, the Earth will have 10 billion inhabitants, and food production will need to increase by 70%. This global challenge will mean using new sources of accessible, sustainable proteins such as plant proteins, insects or proteins derived from fermentation. Air Liquide is committed to this transition through the supply of gas and

equipment solutions to those working in this field. The Group has forged R&D and industrial partnerships notably in Belgium, Canada, France and Germany, to support the development of this high-growth sector.

A person is shown in profile, wearing a VR headset. The background is a vibrant, abstract digital space with glowing blue and purple lines and patterns. The overall mood is futuristic and immersive.

At the forefront of

48

01. Quantum computing

02. Cryogenic
technologies

03. Fusion

04. Space

Technological progress promising solutions to some of humanity's most pressing issues is closer than ever. From new energies to space exploration and quantum computing science, Air Liquide develops cutting-edge solutions and hands-on expertise to ensure that tomorrow's world really does arrive.

technological progress

49



Quantum computing

Minimal temperatures, maximum benefits

Air Liquide, a pioneer in ultra-low temperatures, ventured even further into the cold with the 2020 acquisition of CryoConcept, a company specialized in extreme cryogenics. They have developed a dilution refrigeration solution that approaches absolute zero ($-273,14^{\circ}\text{C}$), temperatures crucial for ground-breaking scientific research into quantum computing that promises to accelerate the search for new drugs, the discovery of new materials and even cyberdefense.



Cryogenic technologies

Capturing, cooling and storing to save energy

Used initially in the space industry, Air Liquide's Turbo-Brayton technology has found a promising market in the maritime transport of liquefied natural gas (LNG). Onboard LNG tankers, it prevents boil-off, contributing to the reduction of economic loss and CO₂ emissions. This technology is also used to liquefy biomethane that can then be easily transported to its point of use, such as bio-NGV (natural gas for vehicles) stations or industrial customers. This promising fuel alternative is a sustainable source of energy, of which Air Liquide will produce 1.8 TWh annually on a global scale by the end of 2022.



Fusion

A powerful energy of the future

A powerful, safe and man-made source of energy, comparable to the sun, with zero carbon emissions - this will soon become a reality. The ITER experimental reactor, currently under construction in France, is expected to be operational by 2025. Air Liquide is supplying the world's largest centralized helium plant and the equipment that provide the cooling power essential to producing this clean and renewable energy of the future.



Space

Exploring new frontiers

With over 50 years' worth of technological contributions to international space programs such as the International Space Station or the European launcher, Air Liquide has always been a key player in the development of space technology. As the pace of progress accelerates, our expertise in oxygen, hydrogen and space cryogenics technologies guide the industry's innovation, from projects aiming to establish human colonies in space to the next generation of launch vehicles and ground systems.

Building the future

01. Building a better employee experience

02. Developing solutions jointly with our customers

03. Helping start-ups grow

04. Joining forces to build powerful ecosystems

05. Promoting Shareholder democracy

06. Interesting young people

Building both the future of the Group and that of society would not be possible without the trust of our employees, customers, Shareholders and partners. With them, we develop and maintain relationships based on transparency, responsibility and mutual benefits. Our Shareholders have always been an integral part of our history and remain one of our highest priorities. Throughout the health crisis, we have reinvented our ways of communicating with you in order to maintain dialogue, inform, capture interest, listen and preserve our unique relationship.

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together



Debora Trevisan

Director of Human Resources at Air Liquide Brazil

What is Air Liquide's approach to strengthening the employee-employer relationship?

We place our employees at the center of everything we do, and we encourage them to develop their full potential through our program 'Be, Act, Engage'. This initiative is based on continuous dialogue and collaboration.

What key initiatives are you most proud of launching?

We have implemented new programs in several areas, including safety, development, collaboration, inclusion, diversity, health, well-being and social responsibility. To do so, we have listened to employees' expectations and engaged them in their implementation. For example, we created a Diversity Committee and founded 'Give an UP to your CV' to increase the inclusion of disabled persons. I'm also very proud of CuidAR, a well-being program that promotes mental, physical and emotional health.

Did you see changes in employee engagement?

The benefits of these programs are demonstrated in a concrete fashion by our survey results. With My Voice, the Group's annual program to measure employee engagement, we have seen an increase of several points in our engagement index between 2020 and 2021.

Building a better employee experience

You are working with Air Liquide to implement Kairos@C, a carbon capture and storage (CCS) system in the port of Antwerp, Belgium. Can you tell us more?

We are planning to develop the world's largest cross-border CCS value chain. Air Liquide will use its Cryocap™ technology to capture and purify the CO₂ and BASF will apply its Sorbead® solution for drying the CO₂, which will then be transported via pipelines on both banks of the Scheldt River to a liquefaction terminal. This will lead to an estimated 14.2 million metric tons of CO₂ emissions avoided over the first ten years of Kairos@C's operation.

That sounds like a major milestone on the route towards low-carbon industry.

It certainly is! Kairos@C is the first complete value chain of its kind that allows large-scale CO₂ sequestration. Thanks to this partnership, we are able to create a large-scale structure, launch the value chain process and attract other industrial players.

How are Air Liquide and BASF working together to make this happen?

Air Liquide is contributing gas capturing and liquefaction technology expertise that is central to the process, and BASF is bringing in knowledge, experience and contacts. We have been working together in Antwerp since the 1960s. Each of us concentrates on its own strengths, which feeds the growth of complementary expertise and a mutually beneficial relationship.

Jan Remeysen

CEO of BASF Antwerpen, the second biggest Verbund site of BASF, the world's largest chemical company

Developing solutions jointly with our customers





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Hugo Cence

Co-founder and CEO of Intact, a start-up that develops ultrasonic and 3D quality control tests for industrial equipment

Intact develops industrial quality control tests. What does this involve in concrete terms?

We have designed a robot that allows us to model the interior of a structure in 3D, without affecting the integrity of the equipment. Our solution enables quality control of all types of metallic or composite structures, avoiding industrial risks and improving the safety of operators, all while improving operational efficiency.

ALIAD, Air Liquide's venture capital investor, has invested in Intact. Why this partnership?

To start, there was the meeting between Ekoscan and Air Liquide's R&D teams in 2015. Together, we developed a customized monitoring solution for the inspection of hydrogen purification units and a robot to deploy this technology in an automated manner on Air Liquide's industrial sites. We then decided to create the start-up Intact in partnership with ALIAD, who participates in Intact's governance and helps us to grow faster.

What does Air Liquide bring you, beyond the financial investment?

We regularly exchange with their materials engineering experts to better understand the equipment we control and its integrity. Commercially, the fact that we have been able to test our technologies for Air Liquide enables us to propose very convincing business cases to our other customers.

Helping
start-ups
grow

Joining forces to build powerful *ecosystems*



What role is hydrogen going to play in the aviation sector?

At Airbus, we believe zero-emission aviation is the future, and the widespread adoption of hydrogen is critical to securing this. As investment increases across sectors, hydrogen is becoming a competitive and sustainable fuel source. Our ZEROe concept aircraft enable us to explore a variety of configurations and hydrogen technologies, which will shape the development of our future zero-emission aircraft by 2035.

Why did you choose Air Liquide as a partner for the ZEROe project?

Air Liquide is a long-term partner with the right hydrogen expertise to help Airbus deliver on our ZEROe ambition, both on the ground and on board. Air Liquide also challenges us in a constructive way, strengthening our ability to bring a winning solution to market.

How is Air Liquide directly contributing to this initiative?

Air Liquide teams are leveraging their expertise and technologies in hydrogen storage, production and distribution to help us design the on-board aircraft technologies necessary for adapting liquid hydrogen to aviation purposes. On the ground, they are also playing a key role in the development of hydrogen hubs at airports, working with operators like Groupe ADP and VINCI Airports to map out the future of hydrogen airport infrastructure.

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Glenn Llewellyn

**Vice President,
Zero-Emission Aircraft,
Airbus**

Promoting Shareholder democracy

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Simmoni de W.

Head of Finance at a start-up specializing in software, Simmoni de W. has been an Air Liquide Shareholder since

2017. A member of the SCC from 2017 to 2020, she continues to be a voice for Shareholders. She is also involved with the French NGO *Passerelles numériques*, which enables young

people from underprivileged backgrounds in South Asia to build their employability through education in the digital sector.

Through the Shareholders' Communication Committee (SCC), Air Liquide promotes dialogue and gives a voice to its Shareholders.

As a former member of the Shareholders' Communication Committee (SCC), how would you describe your experience?

My time on the SCC was extremely rewarding. I was very pleasantly surprised by how attentive Air Liquide is toward its Shareholders. I felt that my voice was being heard and that I had a seat at the table. In particular, I had the chance to openly ask Benoît Potier questions, in a transparent manner, at our SCC meetings. It was a great honor. I also appreciated the depth and diversity of the committee members, in terms of age, background, expectations and more. Working with people from different walks of life and generations is an inspiring experience. Our profiles complemented each other and gave us a more creative and broader perspective.

Was there an initiative that particularly caught your attention?

During our meetings, we would address a wide range of topics, such as Air Liquide's communication tools or the use of social media to target a younger audience. But it was the share ownership events that Air Liquide participates in, such as Investir Day, that really stood out for me. It was an opportunity for participants to meet and talk to the Group's experts on Air Liquide's projects and capacity for innovation.

As one of the younger Shareholders, how did you contribute in that respect?

By striving for a greater emphasis on communicating via digital channels, with a stronger presence on social media. The goal is to reach young people who, nowadays, are more readily focused on crowdfunding and don't necessarily think about investing in a future-oriented company like Air Liquide. Indeed, the role of the SCC is to put share ownership into the hands of the people and to dispel the perception held by young people that it is institutional or overly formal. Air Liquide is doing its utmost in this regard.

The SCC: A voice for Shareholders

In 1987, Air Liquide was the first company to establish a SCC. Chaired by Benoît Potier, the committee meets three times a year and each member is appointed for a three-year term. On the agenda: meetings, discussions with internal and external experts, and active participation in Shareholder communication projects.

Annual General Meeting: THE highlight of Shareholder democracy

After two years behind closed doors, the 2022 Annual General Meeting will once again be held in-person. However, it will also feature a new digital dimension, in particular thanks to optimized replay. Air Liquide will then hold a regional Shareholders' meeting on May 12 in Lille, France.

Dialogue with Shareholders is at the heart of the Group's philosophy

The Shareholder Services Department, which counts around 40 experts, maintains a privileged shareholder dialogue on an ongoing basis. In addition, the online Shareholder Portal was revamped in 2021. More intuitive, it offers a clearer presentation of the various elements related to stock market transactions. It also allows registered Shareholders to have a consolidated view of their portfolio and to follow its evolution, and brings together the various account documents of direct registered Shareholders. Shareholding has never been so simple!



Interesting *young* people

62



Pierre-Antoine N.

Pierre-Antoine N., aged 27, is in the third year of his doctorate in plant physiology at the National Research Institute for Agriculture, Food and the

Environment (INRAE) in Dijon (Burgundy Franche-Comté region), where he just defended his doctoral thesis. As an agronomist, he works with Air Liquide on a daily basis as part of his professional duties.

By educating young people about shareholding, Air Liquide is inviting them to invest in a group with a future. Pierre-Antoine N., an agricultural researcher as well as an Air Liquide Shareholder, shares his thoughts.

You are 27 years old. How did you become an Air Liquide Shareholder?

I've been a Shareholder for three or four years now. My parents passed their shares on to me. My shares go back to my great-grandparents, who invested when Air Liquide was created. You could say it's a family affair! Buying shares for your children is a good way to help them. Investing, even with a small budget, can make a difference when it comes to buying a car or a home. It gives you a good start in life.

Why did you choose Air Liquide?

Whether it's an inheritance that is passed on from one generation to the next or one that you build up yourself, I think it's important to invest in a company with a purpose like Air Liquide. I work in a research laboratory that needs technical gases to operate, and they are supplied by Air Liquide. I'm also aware of the importance of the Group in the field of healthcare, especially during this health crisis. The Group invests in the future and it is a source of pride for me to be a Shareholder.

Is a sense of familiarity important to you?

I have an attachment to companies I know. I always read the newsletter, which keeps me informed about Air Liquide and its current events, research efforts and investment choices. Additionally, I work with start-ups, manufacturers and large companies in the wine industry and the luxury sector, and we often have a partner in common: Air Liquide! Proximity is built on several levels, anecdotal or otherwise. Every Tuesday, the Air Liquide truck comes to our laboratory to replenish our gas supply. That brings a smile to my face and makes me feel very close to the Group.

A special focus on young investors

In 2021, a survey conducted by the Viavoice polling institute revealed that 38% of French people aged 25 to 40, who do not own shares in the stock market, would like to invest. Air Liquide has the opportunity to meet these potential Shareholders at 'Investir Day' and hear their thoughts about the stock market. We also support the student competition 'Dauphine Next Challenge,' whose purpose is to develop responsible portfolio management practices.

Social media campaign

In 2021, Air Liquide launched a 100% digital educational campaign on social networks. The goal? To raise awareness about shareholding among young people through innovative and impactful messages that give them the key information they need to discover what it means to be a Shareholder. The result was high visibility for the Group among this target audience, with over 50 million contacts, more than 1.7 million views and a dedicated website where users could open a securities account directly online!

A comic book to understand the stock market, like a grown-up!

In addition to explaining the functioning of the stock market and securities performance, we are eager to share a culture of share ownership with new generations of Shareholders in an educational and entertaining way. All new direct registered Shareholders who are minors receive a comic book⁽¹⁾ specially chosen for their age group. As they get older, they are given the next comic book in the series (four versions are available).

(1) The comic book is addressed to the legal guardian of the underage Shareholder. This document should not be considered investment advice. Please read the risk factors detailed in the Universal Registration Document, available at airliquide.com. Past performances of Air Liquide's shares are not a guarantee of future results.

Our priority: being even closer to you!

Dialogue and proximity are the basis of the relationship between Air Liquide and its individual Shareholders.

At Air Liquide, we maintain a long-term relationship of trust and proximity with our Shareholders. This relationship includes special services, attractive remuneration, increased long-term investment value and special opportunities to meet and talk with us.

The purpose of the Shareholder Services Department is to maintain a close and permanent relationship with our Shareholders. Over 40 experts have been mobilized to answer all your questions, help complete procedures, explain the use of our digital tools, and offer personalized support. From your computer, smartphone or tablet, you can access your Shareholder Portal, which offers increasing services and allows direct registered Shareholders to carry out their day-to-day transactions online, 24 hours a day, seven days a week.

Being an Air Liquide Shareholder also means enjoying numerous benefits, such as loyalty bonuses and free shares. Moreover, when you pass on Air Liquide shares to your loved ones, you are sharing much more than shares and stock performance. You are demonstrating your attachment to the Group and transmitting the shareholder culture.

To maintain this close relationship, we are also stepping up our communication efforts through regular emails, a monthly newsletter to inform you about shareholder education, Group news and

its strategy, a dedicated Shareholders section on the website that has been revamped to be more intuitive and the participation of Shareholders in meetings of the Shareholders' Communication Committee (SCC).

This desire for proximity is most clearly demonstrated at the most important manifestation of shareholder dialogue: the Annual General Meeting. Following the 2021 meeting, which was fully remote and available to view live or at a later date on the Group's website, the 2022 Annual General Meeting will combine the best of face-to-face and digital technology in a show of modernity, transparency and shareholder dialogue. A regional Shareholders' meeting will follow on May 12 in Lille, France.

Proximity was also the theme of 'Investir Day.' After a long period of remote meetings, the 2021 event adopted an innovative interactive format: a 100% digital week followed by a discussion with Shareholders at the Paris Stock Exchange, with Benoit Potier in attendance. This also allowed for the organization of conferences and talks by Group experts at our stand, and the opportunity to engage in one-on-one conversations with our Shareholders.

+500K

INDIVIDUAL SHAREHOLDERS,
INCLUDING

+35,000

IN 2021

90%

OF OUR STOCK ORDERS
IN 2021 TOOK PLACE
THROUGH THE ONLINE
SHAREHOLDER PORTAL

34,000

CALLS WERE RECEIVED
AND

83,000

EMAILS WERE ANSWERED IN
2021 BY OVER 40
SHAREHOLDER SERVICES
DEPARTMENT EXPERTS



Saphia Lesieur

Senior Marketing
Project Manager,
Air Liquide
Shareholder Services
Department



“The digital interfaces have been redesigned to make navigation more intuitive and ergonomic in the Shareholders section of the new airliquide.com website and in your online Shareholder Portal.”

Proximity has its advantages!

When you hold Air Liquide shares, you receive many benefits:



A + 10% loyalty bonus for registered shares after two full calendar years of ownership



An **invitation** to each year's Annual General Meeting



Direct access to our results and stock news



Free shares during our attribution operations, once every two years on average



Free account management for pure registered shares



One of the **lowest brokerage fees** available for pure registered shares: 0.1% (or 0.18% excluding tax), with no minimum

“I've given my grandchildren some shares as a gift. When they're older, they'll need financial support for their studies. *Just as my grandfather did with me,* I'm passing capital on to them to give them a start in life.”

Marc L.

75 years old, retired and an Air Liquide Shareholder for the last 30 years



Our advantage: solid long-term performance

In 2021, Air Liquide once again demonstrated its strength that comes from its fundamental advantages. Through the mobilization of its staff, on site or remotely, it maintained long-term relationships of trust with its partners and customers. It also benefited from the diversity and resilience of its business model. With operations in 75 countries and a presence in various markets and economic sectors, from everyday products to the aerospace sector, water management, healthcare, energy and electronics, the Group's revenues by geographic area remain well balanced.

Air Liquide has always strived to reconcile economic growth with respect for the environment and society as a whole. Through its actions and commitments, the Group contributes to the Sustainable Development Goals set by the United Nations. Its decarbonization solutions, particularly hydrogen, will play a major role in the development of a sustainable, low-carbon society.

Additionally, the loyalty of our registered Shareholders is regularly rewarded with a loyalty bonus of +10% on the amount of dividends and on the number of bonus shares allocated.

The Group's stability results in shares that outperform the CAC 40 over the long term and have, for 20 years, offered regular increases in price and dividends paid to Shareholders⁽¹⁾.

€2.90

THE PROPOSED
DIVIDEND PER SHARE
IN 2022

+10%

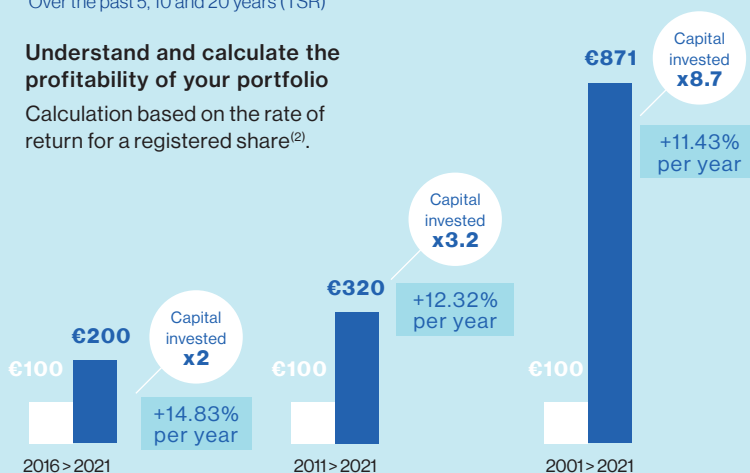
THE LOYALTY BONUS
FOR REGISTERED
SHAREHOLDERS WHO HAVE
HELD THEIR SHARES FOR
MORE THAN TWO FULL
CALENDAR YEARS

PORTFOLIO GROWTH

Over the past 5, 10 and 20 years (TSR)

Understand and calculate the profitability of your portfolio

Calculation based on the rate of
return for a registered share⁽²⁾.



(1) Any investment in shares carries a risk of capital loss. Past performance of the Air Liquide share is no guarantee of future performance. This does not constitute financial investment advice. You may consult the risk factors mentioned in the Universal Registration Document.

(2) The total shareholder return (TSR) is an annualized rate of return for a shareholder who buys shares at the beginning of the period and sells them at the end of the period. The average return shown takes into account the change in share price, dividends reinvested in shares and bonus share grants (both increased for the loyalty bonus), and includes the impact related to the use of preferential subscription rights during the capital increase carried out in 2016 in connection with the acquisition of Airgas.

“As far back as 20 years ago, my grandfather regularly declared that Air Liquide was a group *with a future*. Owning Air Liquide stock is a long-term investment. A safe bet.”

Marie L.

A 47-year-old attorney and an Air Liquide Shareholder for the last 18 years



Nicolas T.

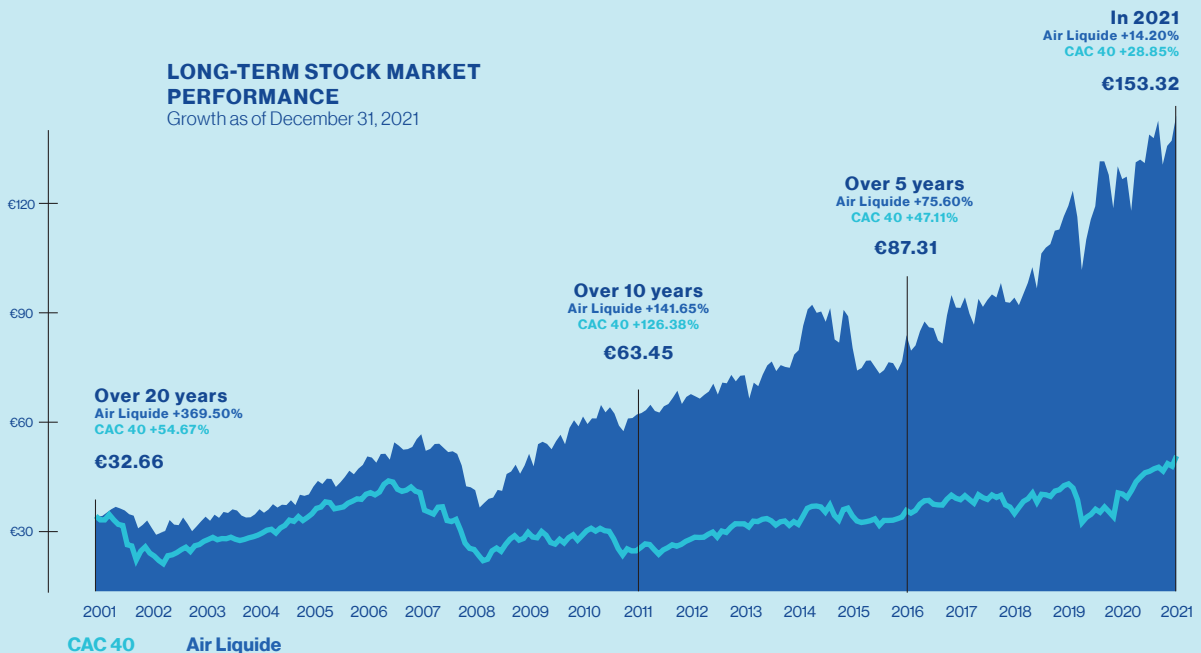
A 38-year-old airline pilot, and an Air Liquide Shareholder since last year



“Air Liquide is a pillar of French industry. Thanks to its high standards of professionalism, it has always been able to project itself into the future, especially by focusing on *hydrogen* to contribute to the *energy transition*.”

LONG-TERM STOCK MARKET PERFORMANCE

Growth as of December 31, 2021



Adjusted according to the Euronext rules currently in force. Share price as at December 31st of the year concerned. Any investment in shares carries a risk of capital loss. Past performances of Air Liquide's shares are not a guarantee of future results. This does not constitute financial investment advice. You may consult the risk factors mentioned in the Universal Registration Document.

A world leader in industrial gases and related services

Our profile

~**64,500**

committed employees in 78 countries

Extensive scientific and technical expertise in industrial gases (oxygen, nitrogen, hydrogen, etc.)

>**3.8M**

customers and patients

4,500

employees contributing to innovation

5

Innovation Campuses

1

Campus Technologies

13,500

patents

2 industrial gases production modes

Centralized production
On-site production at customer sites

3 industrial gases distribution networks

>9,700 km of pipelines for large quantities
~20 million cylinders for small quantities
~9,900 trucks for medium quantities

Our business model

Long-term vision and clear strategy

+

A wide range of customers and applications

+

Major ability to innovate

+

Long-term customer contracts, indexed to energy prices

+

Management and optimization of production and distribution chain

+

Active involvement in new markets

+

Global presence and local activity

Our activities serving nearly all sectors of the economy

LARGE INDUSTRIES

Industrial gases in large quantities in the framework of long-term partnerships

Chemicals Refining Metals

INDUSTRIAL MERCHANT

Industrial gases in small and medium quantities, application technologies, small equipment and related services serving a wide range of customers

Materials & energy Automotive & fabrication Food & pharmaceuticals
Technology & research Entrepreneurs & distributors

ELECTRONICS

Ultra-pure gases in large quantities and development of new molecules

Semiconducteurs Flat panels Photovoltaic

HEALTHCARE

Medical gases, products and services to support patients and customers in the hospital and at home

Hospitals Home healthcare Specialty ingredients

GLOBAL MARKETS & TECHNOLOGIES

Molecules, equipment and services to support the energy transition and deep tech⁽¹⁾ markets

Energy transition Deep tech⁽¹⁾

ENGINEERING & CONSTRUCTION

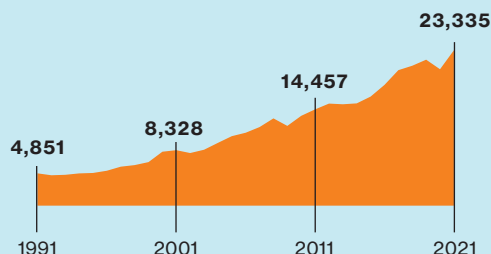
Plants and equipment for industrial gas production

Customers choosing to insource their industrial gas needs

(1) Disruptive technologies based on scientific breakthroughs that can fundamentally change design and production methods.

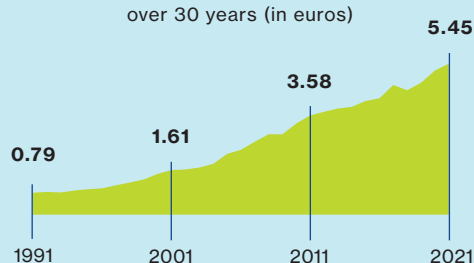
Consistent performance over 30 years

EVOLUTION OF GROUP REVENUE over 30 years (in millions of euros)



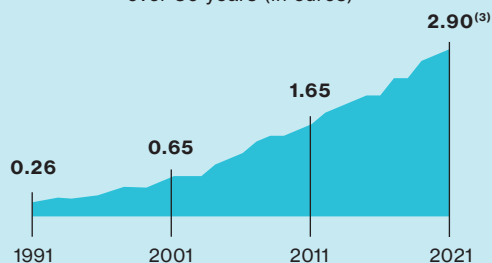
+ 5.4% average annual growth⁽¹⁾

EVOLUTION OF ADJUSTED NET EARNINGS⁽²⁾ PER SHARE over 30 years (in euros)



+ 6.7% average annual growth⁽¹⁾

EVOLUTION OF ADJUSTED DIVIDEND⁽²⁾ PER SHARE over 30 years (in euros)



+ 8.3% average annual growth⁽¹⁾

2021 key financial figures

REVENUE

€23,335M +8.2%⁽⁴⁾

RECURRING NET PROFIT (Group share)

€2,572M +13.3%⁽⁵⁾

OPERATIONAL MARGIN

17.8% +70 bps⁽⁶⁾

EFFICIENCY GAINS

€430M

GEARING

47.5%

INVESTMENT DECISIONS

€3.6bn

69

Innovation

€304M

of innovation expenses including 100 million dedicated to the energy transition

354

new patents filed

>400

industrial and scientific partnerships and collaborations with start-ups

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

(2) Adjusted for the 2-for-1 share split in 2007, for attributions of free shares and for a factor of 0.974 reflecting the value of the rights of the capital increase completed in October 2016.

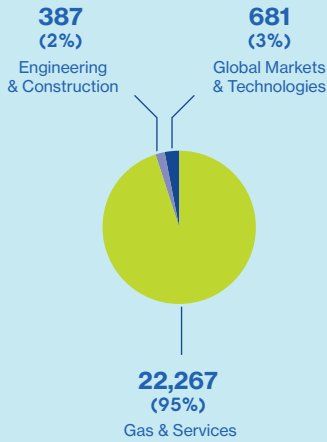
(3) 2021 dividend subject to the approval of shareholders at the General Meeting on May 4, 2022.

(4) Comparable growth, excluding currency and energy effects.

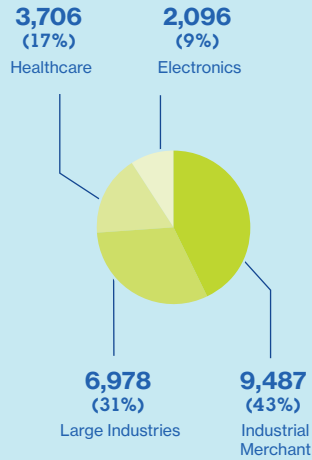
(5) Excluding exceptional and significant operations not impacting operating income recurring.

(6) Excluding energy impact.

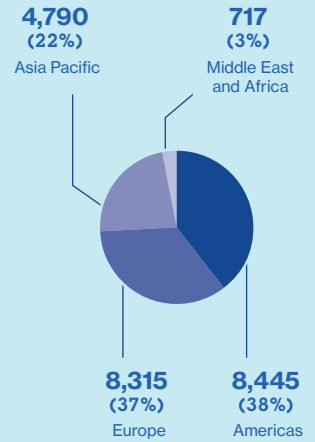
DISTRIBUTION OF 2021 GROUP REVENUE
(in millions of euros)



2021 GAS & SERVICES REVENUE BY ACTIVITY
(in millions of euros)



DISTRIBUTION OF 2020 GAS & SERVICES REVENUE BY GEOGRAPHY
(in millions of euros)



ENVIRONMENTAL, SOCIAL AND GOVERNANCE INDICATORS

Act

FOR A LOW-CARBON SOCIETY

Achieve carbon neutrality by 2050, with two major intermediate steps:

by 2025

reduce CO₂ emissions in absolute terms and reduce the Group's carbon intensity⁽¹⁾ by **30%** compared to 2015

by 2035

reduce CO₂ emissions from scopes 1 and 2 by **33%**⁽²⁾ compared to 2020

FOR HEALTH

by improving the quality of life of patients with chronic diseases and by facilitating access to medical oxygen.

1.8 million

patients were cared for at home by Air Liquide in 2021, including **38%** who are following a personalized care pathway.

1 million

people in low- and middle-income countries had access to medical oxygen.

IN CONFIDENCE

by engaging with employees and building best-in-class governance practices. Objectives to achieve by 2025:

35%

ratio of **women** engineers and managers (31% in 2021);

100%

of employees with common basis of care coverage (34% in 2021);

1.1

The frequency rate for accidents with work stoppages per million hours. worked.

(1) In metric tons of CO₂ -equivalent, restated to include from 2020 and each following year the full-year emissions of assets acquired and integrated after 2020, scopes 1 and 2. Scope 2 emissions calculated from the specific supplies (market-based); the Group hence adopted the methodology recommended by the GHG Protocol. Scope 2 emissions are calculated on the basis of specific supplies («market basis»); the Group thus adopts the method recommended by the GHG Protocol.

(2) In kg CO₂ -equivalent/euro of operating income recurring before depreciation and amortization at 2015 exchange rate and excluding IFRS 16, with scopes 1 and 2 of reported greenhouse gas emissions, applying the "market-based" method for the scope 2.

GROUP SHAREHOLDERS
(as of December 31, 2021)

67%
institutional
Shareholders

505,000
individual Shareholders

33%
individual
Shareholders

including 117,000 direct registered Shareholders, 165,000 intermediary registered Shareholders and 223,00 bearer Shareholders

A world leader in gases, technologies and services for Industry and Health. Air Liquide is present in 75 countries with approximately 66,400 employees and serves more than 3.8 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 be a leader in its industry, deliver long term performance and contribute to sustainability - with a strong commitment to climate change and energy transition at the heart of its strategy. The company's customer-centric transformation strategy aims at profitable, regular and responsible 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 more than 23 billion euros in 2021. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, CAC 40 ESG, EURO STOXX 50 and FTSE4Good indexes.



AIRLIQUIDE.COM

See our annual publications on our website:
Annual Report, Universal Registration Document,
Shareholder's Guide, Interactions...and on our social media.


Contact us throughout the year:

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By phone: +33(0)157 05 02 26 (outside France) or 0800 166 179 (free from a French landline)
By mail: Shareholder Services Department - TSA 91948 - 62978 ARRAS Cedex 9

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Note: past performances of Air Liquide's share are not a guarantee of future results.

L'Air Liquide - S.A. company established for the study and application of processes developed by Georges Claude
with issued capital of 2,614,100,703.50 euros.

Thank you to our
Shareholders:

Alexandra
Candice
Léopold
Marc
Marie
Monique
Nicolas
Nima
Pierre-Antoine
Simmoni
Sandra

for their
participation

