

PRESS RELEASE AND MANAGEMENT REPORT

Paris, February 16, 2022

2021 Results: An excellent year across all performance criteria

Key Figures (in millions of euros)	FY 2021	2021/2020 as published	2021/2020 comparable ^(a)
Group Revenue	23,335	+13.9%	+8.2%
of which Gas & Services	22,267	+13.3%	+7.3%
Operating Income Recurring (OIR)	4,160	+9.8%	+12.7%
Group OIR Margin	17.8%	-70 bps	
Variation excluding energy ^(b)		+70 bps	
Gas & Services OIR Margin	19.6%	-80 bps	
Variation excluding energy ^(b)		+80 bps	
Net Profit (Group share)	2,572	+5.6%	
Net Profit Recurring (Group share) ^(c)	2,572	+9.9%	
Variation Net Profit Recurring (Group share) excluding currency impact $^{(b)}$		+13.3%	
Earnings per Share (in euros)	5.45	+5.5%	
2021 proposed Dividend per share (in euros)	2.90	+5.5%	
Cash flow from operating activities before changes in net working capital	5,292	+7.3%	
Net Debt	€10.4 bn		
Return on Capital Employed after tax - ROCE	9.3%	+30 bps	
Recurring ROCE ^(d)	9.3%	+70 bps	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix. (b) See reconciliation in appendix. (c) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix. (d) Based on the recurring net profit, see reconciliation in appendix.

Commenting on 2021, Benoît Potier, Chairman and CEO of Air Liquide, stated:

"In 2021, the Group achieved an **excellent performance**, in spite of **the ongoing pandemic and the strong inflationary pressures** mainly related to the sharp **increase in energy prices** in the second half.

Air Liquide's **teams have stepped up in all areas**, whether in response to the covid-19 crisis, the significant acceleration in inflation or the energy transition challenge, once again demonstrating their **strong reactivity and adaptability**. We have taken action in the here and now, while at the same time preparing the future. Our investment momentum has been sustained, with the **signature of numerous agreements** in particular related to the **energy transition**.

The Group has delivered another year of profitable growth: **Sales** reached **23.3 billion euros, up +8.2%** on a comparable basis, the **operating margin increased by 70 basis points** excluding the energy impact, and **recurring net profit** ⁽¹⁾ **rose 13.3%** at constant exchange rates.

All activities improved markedly: Gas & Services, which represents 95% of Group revenue, Engineering & Construction, as well as Global Markets & Technologies. **All Gas & Services business lines and regions grew** to high levels, with Asia growing by +6%, Europe by +7% and the Americas by +8%.

The Group further improved its operating margin thanks to an **inflation-adapted pricing policy**, **significant efficiencies** of 430 million euros and a **dynamic management of its business portfolio**. Faced with a sharp and sustained rise in energy prices, the Group has demonstrated both the **strength of its business model** – which allows it to automatically

¹ Excluding exceptional and significant transactions that have no impact on the operating income recurring.

pass on these variations to its Large Industries customers – and its **ability to rapidly adapt its pricing** for Industrial Merchant customers.

Air Liquide's balance sheet has been further strengthened. Recurring ROCE reached 9.3%, approaching the 2023–2024 target of more than 10%. Cash flow from operations remained high at 24.5% of sales, excluding the energy impact, and helped reduce debt while also financing our capital expenditures and the dividend. Investment decisions reached 3.6 billion euros for the year, and opportunities remained high at 3.3 billion euros, of which more than 40% are related to the energy transition. The dividend, which will be submitted to the shareholders' vote in May, is proposed at 2.90 euros per share, which represents an increase of +5.5% that reflects our confidence in the future. Moreover, a free shares attribution will take place in June 2022.

With a business model that combines financial and extra-financial performance, Air Liquide is particularly well positioned in the markets of the future. In response, notably to the major challenges of climate change and the energy transition, the Group offers a wide range of solutions based on hydrogen and technologies to decarbonize industry. Contributing to a sustainable future is at the heart of our activity and of our strategy.

In 2022, assuming no significant economic disruption, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit growth, at constant exchange rates.⁽²⁾"

2021 Highlights

- Corporate:
 - Announcement of a plan for the succession of Benoît Potier as Chief Executive Officer of Air Liquide, coupled with the implementation of new governance. Following the recommendations of the Appointments and Governance Committee, the Board of Directors, which is due to meet at the close of the 2022 General Meeting, will be called upon to renew Benoît Potier's term of office as Chairman of the Board of Directors and to appoint François Jackow to succeed him as Chief Executive Officer with effect from June 1, 2022.

Sustainable development:

- Presentation of ambitious sustainable development objectives, based on three pillars:
 - ACT for a low-carbon society: Air Liquide has set itself the goal of achieving carbon neutrality by 2050 and a 33% reduction in its CO₂ emissions by 2035 with reduction starting around 2025, while developing a wide range of low-carbon solutions for its industrial customers so that they can reduce their own emissions.
 - Work toward better Healthcare by improving the quality of life of patients with chronic diseases in mature economies and by facilitating access to medical oxygen for rural communities in low- and middle-income countries.
 - Trust as the base to engage with our employees and to adhere to best governance practices.
- Completion of the Group's **first green bond issue**, which raised 500 million euros dedicated to several sustainable development projects, notably in hydrogen and biogas.
- Partnership with Rothschild & Co and the Solar Impulse Foundation to launch a 200-million-euro investment fund to support the development of high-potential SMEs working on environmentally friendly solutions.
- Low-carbon hydrogen:
 - Numerous partnerships and initiatives to develop low-carbon hydrogen:
 - Launch of the **world's largest clean hydrogen infrastructure fund** with a potential of 1.5 billion euros in partnership with **TotalEnergies, VINCI** and several international companies.
 - Partnership with Airbus and VINCI Airports to develop the use of hydrogen and accelerate decarbonization in the aviation sector.
 - **Memorandum of Understanding signed with Airbus and Groupe ADP** in preparation for the arrival of **hydrogen at airports** by 2035 as part of the development of hydrogen-powered aircraft.
 - Partnership with Eni aimed at investing in the development of the necessary infrastructures

² Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant items that have no impact on the operating income recurring, and excluding the impact of any US tax reform in 2022.

(logistics chain, refueling stations) for the expansion of hydrogen mobility in Italy.

- Joint development agreement signed with **Faurecia** to design and produce **on-board liquid hydrogen storage systems** for heavy-duty vehicles.
- Memorandum of Understanding with IVECO to accelerate the development of hydrogen heavy-duty mobility in Europe, through the development of hydrogen heavy-duty vehicles and the roll-out of hydrogen refueling stations.
- Increased support to the **Energy Observer**, becoming a **main partner**, for four years, of this laboratory vessel that demonstrates the key role of hydrogen in the energy transition.
- Low-carbon hydrogen production:
 - Memorandum of Understanding signed with **Siemens Energy** to **develop high-capacity** electrolyzers in Europe.
 - Acquisition of H2V Normandy, renamed **Air Liquide Normand'Hy**, aimed at building an electrolyzer **of at least 200 MW**.
 - Construction project in **Germany** of an **industrial-size renewable hydrogen production unit** that will be linked to the existing local Air Liquide **pipeline infrastructure**.
 - Ramping up of the world's largest **renewable hydrogen production unit based on membrane electrolysis** in Canada, with a capacity of 20 MW.
 - Cooperation project with **TotalEnergies** to **decarbonize hydrogen production** on the TotalEnergies platform in Normandy.

Industry & decarbonization:

- Long-term **power purchase agreements for renewable energy** in Belgium and the Netherlands to reduce the carbon footprint of our production plants.
- **Finalization of the acquisition** of Sasol's 16 Air Separation Units (ASUs) in Secunda, South Africa, with the aim of reducing CO₂ emissions linked to oxygen production by 30% to 40% over the next 10 years.
- In Kazakhstan, acquisition and integration by Air Liquide Munay Tech Gases (ALMTG), a 75% subsidiary
 of Air Liquide, of the industrial gas production plants at the Atyrau refinery. ALMTG will operate these
 production plants for KazMunayGas under a long-term contract.
- Long-term investments and contracts to supply industrial gases. In China with BOE, a world leader in
 flat panels and an Internet of Things specialist, as well as a major producer of flash memory chips, and
 in steel with Shagang Group. In Russia with the Severstal steel company. Together with the chemicals
 company BASF, for its new battery materials site in Germany, and in South Korea to increase hydrogen
 and carbon monoxide volumes by 20% in the Yeosu industrial complex.
- Memorandum of Understanding with Borealis, Esso S.A.F., TotalEnergies and Yara International ASA to develop CO₂ capture and storage infrastructure that will contribute to the decarbonization of the Normandy industrial basin.
- Selection by the **European Commission of Kairos@C**, a carbon capture and storage project developed with **BASF** to decarbonize the industrial site located in the Port of Antwerp, to receive funding from the **European Innovation Fund**.
- Memorandum of Understanding signed with ArcelorMittal, aimed at implementing solutions to produce low-carbon steel in Dunkirk.
- Launch of **Qlixbi**, a groundbreaking packaged gas offering for welders, in **four new European countries** (Germany, Sweden, Denmark and the Netherlands) following its success in the United Kingdom.
- New record-breaking year with 48 on-site contracts in Industrial Merchant.

Healthcare:

- **Continued mobilization of teams** in the fight against the pandemic, worldwide.
- Acquisition of Betamed SA, a major player in the home healthcare business in Poland.

Group revenue for 2021 totaled **23,335 million euros**, up **+8.2%** on a comparable basis. This strong sales growth in 2021 follows the year 2020 that saw the Group demonstrate resilience in an especially tough sanitary environment. Sales in 2021 were up +6% ⁽³⁾ compared with 2019. Notably driven by projects related to the energy transition, consolidated revenue from Engineering & Construction was up +55.4%. Global Markets & Technologies posted growth of +17.8%, which was buoyed by the momentum of the biogas market. Energy prices saw an exceptionally strong increase during the 2nd half of the year, especially in Europe, resulting in a significant energy impact on the sales, at +8.4% for 2021 and even +16.5% in the 4th quarter. Currency and significant scope impacts were negative, at -1.6% and -1.1% respectively. All in all, the Group reported growth of +13.9% in published revenue.

Gas & Services revenue in 2021 totaled **22,267 million euros**, a strong comparable growth of **+7.3%**. Gas & Services sales were up +13.3% as published in 2021: the energy impact (+8.8%) hit record levels, especially toward the end of the year. This was partially offset by unfavorable currency (-1.6%) and significant scope (-1.2%) impacts. The significant scope impact results primarily from the acquisition of 16 Sasol air separation units in late June 2021, the divestment of Schülke in 2020 in Healthcare and the reduction or sale of the Group's stakes in several non-strategic distributors in 2020 in Japan.

- Gas & Services revenue in the Americas totaled 8,445 million euros in 2021, up by +7.6% on a comparable basis. Large Industries sales were up +7.6% driven by high demand, and the start-up and ramp-up of new units. The Industrial Merchant business continued to recover, with a +6.9% increase in revenue. Healthcare sales were up +13.7% for the year: teams remained focused on fighting the pandemic and business activity gradually returned to normal, particularly in the United States in proximity care. Electronics posted solid revenue growth of +5.2% in 2021.
- Revenue in Europe was up +7.0% on a comparable basis in 2021 to 8,315 million euros. Large Industries sales (+5.2%) were driven by the strong customer activity in the Steel and Chemicals markets as well as a gradual recovery in Refining. Industrial Merchant activity grew strongly by +10.8%, benefiting from dynamic volumes in all markets and geographies, and an acceleration of pricing impacts especially in the 4th quarter. Healthcare posted revenue that was up by +4.7% on a comparable basis after an exceptionally strong growth of +9.7% in 2020: pandemic-related medical oxygen sales rose strongly in 2021, even if the 4th quarter sales were below the 2020 record level. Moreover, revenue benefited from the pick-up of Home Healthcare activity and surgeries in hospitals.
- Revenue for the Asia-Pacific region in 2021 rose sharply by +6.4% on a comparable basis, totaling 4,790 million euros. Large Industries sales for the year rose steadily by +2.9%: after a highly robust 1st half of the year, they were down in the second half, mainly resulting from temporary measures of Dual Energy Control in China. The Industrial Merchant business saw a comparable growth of +10.2%, fueled by strong activity in China and the recovery across the rest of Asia. Electronics sales increased by +6.7% in 2021 on a comparable basis, with a significant contribution from Carrier Gases which benefited from the start-up and ramp-up of several units.
- Revenue for 2021 in the Middle East and Africa reached 717 million euros, up +12.7% on a comparable basis. Large Industries sales benefited from strong hydrogen demand by customers in the Yanbu basin in Saudi Arabia. Air gases volumes rose sharply in South Africa, as 16 Sasol ASUs (the acquisition of which was finalized in late June) were integrated: in the 2nd half of the year, sales totaled 70 million euros and were recognized as part of the significant scope effect, hence excluded from the comparable growth in 2021. Industrial Merchant revenue continued to grow and Healthcare saw strong growth especially over the first three quarters.

Large Industries sales rose **+5.5%** on a comparable basis and were driven by strong demand in the Steel and Chemicals markets, as well as a recovery in Refining over the year. **Electronics** revenue rose **+7.0%** in a thriving market. **Healthcare** growth remained strong at **+7.2%** despite a high basis of comparison in 2020, with teams still focused on fighting against covid-19. The recovery in the **Industrial Merchant** business continued in 2021, with sales rising **+8.4%**, driven by a **pricing impact** of **+3.6%** for the year, which picked up to reach **+7.0% in the 4th quarter**.

Consolidated revenue from Engineering & Construction totaled **387 million euros** in 2021, up strongly by **+55.4%** on a comparable basis. Over the year, order intake exceeded 1 billion euros for the first time since 2014, standing at **1,249 million euros**. It benefited from positive momentum in Asia, which made up more than half of orders, as well as from the energy transition.

³ Due to the exceptional impact of the pandemic, a comparison with 2019 sales has been introduced for context in reviewing 2021 performance. The comparison between 2021 and 2019 is calculated by adding 2020 and 2021 comparable effects. It is given as a reference point and does not constitute an alternative performance measure. The comparable growths mentioned below are calculated compared to the same period of 2020 except when 2019 is mentioned.

Global Markets & Technologies revenue for 2021 reached **681 million euros**, representing a comparable growth of **+17.8%**. Biogas enjoyed strong momentum, benefiting from the ramp-up of new production units and the rise in sales prices, relating to the energy prices increase, especially in the United States.

Efficiencies ⁽⁴⁾ for the year totaled **430 million euros**, exceeding the annual target of 400 million euros.

Group Operating Income Recurring (OIR) reached **4,160 million euros**, marking a sharp increase of +9.8% and of **+12.7% on a comparable basis**, which was **much higher than the comparable sales growth** of +8.2%. The **operating margin (OIR to revenue)** stood at **17.8%** as published, an **improvement of +70 basis points excluding the energy impact**. On a reported basis, the margin declined by -70 basis points compared to 2020, due to the strong energy costs increase, which are contractually passed through to customers, therefore having a dilutive impact on the published margin. This performance reflected the Group's capability to quickly translate steep and rapid increase of energy costs during the 2nd half of the year into prices. This also marked the third consecutive year of significant improvement in operating margin excluding the energy impact, following the performances seen in 2019 (+70 basis points) and 2020 (+80 basis points).

Net profit (Group share) stood at **2,572 million euros** in 2021, up **+5.6%** as published and a significant increase of **+8.9% excluding the currency impact**. **Recurring net profit (Group share)**⁽⁵⁾ also amounted to **2,572 million euros**. This represented a marked increase of +9.9%, and **+13.3% excluding the currency impact**, compared with recurring net profit (Group share) for 2020.

Net earnings per share, at **5.45 euros**, were up +5.5% compared with 2020, in line with the increase in net profit (Group share).

Cash flow from operating activities before changes in net working capital amounted to **5,292 million euros**, a marked increase of +7.3% and of **+9.1% excluding the currency impact**. This corresponds to a high level of 22.7% of sales and **24.5% excluding the energy impact**, improving by **+40 basis points compared with 2020**.

Gross industrial capital expenditure amounted to **2,917 million euros** compared with 2,630 million euros in 2020. This represented 12.5% of sales and **13.5% excluding the energy impact**, reflecting strong project development. **Financial investments** amounted to **660 million euros in 2021**, representing a marked increase compared with 129 million euros in 2020. These included the acquisition of Sasol's units for approximately 480 million euros. A total of 21 acquisitions were completed in 2021. **Net debt** at December 31, 2021, reached **10,448 million euros**.

Industrial investment decisions totaled close to **3.0 billion** euros and were stable compared with 2020. **Financial investment decisions** reached **662 million euros** in 2021 and included the acquisition of the units from Sasol for approximately 480 million euros. The **12-month portfolio of investment opportunities** increased to **3.3 billion euros** at the end of 2021, with new entries in the second half-year, notably related to Electronics in Asia and Large Industries. The **investment backlog** remained stable at the high level of **3.2 billion euros**, appropriately distributed across various business sectors and geographies.

The additional contribution to sales of unit start-ups and ramp-ups totaled **345 million euros** in 2021, including a 70 million euros contribution by the Sasol units in South Africa in the second half-year. The additional contribution to **2022 sales** of unit start-ups and ramp-ups is expected to be **between 410 million and 435 million euros**. This includes approximately 135 million euros from the 16 units acquired from Sasol at the end of June 2021. Half of this amount will be recognized as part of the significant scope impact.

The return on capital employed after tax (ROCE) was 9.3% in 2021. Recurring ROCE ⁽⁶⁾ was identical (9.3%), representing a marked improvement compared with 8.6% in 2020 and in line with the ROCE target of more than 10% in 2023 or 2024.

At the General Meeting on May 4, 2022, the payment of a dividend of **2.90 euros per share** will be proposed to shareholders for the 2021 fiscal year, representing an increase of **+5.5%** compared with the previous year. The ex-dividend date has been set for May 16, 2022, and the payment is scheduled for May 18, 2022. Moreover, a **free shares attribution**, on the basis of one free share for every 10 shares held, as well as the application of a loyalty bonus, are planned for June 2022.

Air Liquide's Board of Directors, which met on February 15, 2022, approved the audited financial statements for the 2021 fiscal year. The statutory Auditors are in the process of issuing a report with an unqualified opinion.

⁴ See definition in appendix.

⁵ See definition and reconciliation in appendix.

⁶ See definition and reconciliation in appendix.

As part of the implementation of the Company's new mode of governance, announced on December 1, 2021, the Board of Directors, on the recommendation of the Appointments and Governance Committee chaired by Mr. Jean-Paul Agon, Lead Director, approved the draft resolutions which will be submitted to the General Meeting of May 4, 2022 in order notably to renew **Mr. Benoît Potier**'s office as Director, and to appoint **Mr. François Jackow** as Director, for a period of four years. The Board meeting which will be held at the close of the General Meeting will be called upon to renew Mr. Benoît Potier's term of office as Chairman of the Board of Directors and to appoint Mr. François Jackow to succeed him as Chief Executive Officer with effect from June 1, 2022. In order to continue to benefit from Mr. Benoît Potier's experience and from his in-depth knowledge of the Group and its strategic issues, certain specific missions will be entrusted to him in his capacity as Chairman of the Board of Directors with effect from June 1, 2022. Which he will exercise in close consultation with the new Chief Executive Officer and the Chairman of the Board of Directors with effect from June 1, 2022 will be presented in the Company's Universal Registration Document for 2021 which will be published in March 2022 and in the updated internal regulations of the Board which will be published on the Company's web site in due course.

On the recommendation of the Appointments and Governance Committee, the Board of Directors also approved the draft resolutions which will be submitted to the General Meeting of May 4, 2022 in order to:

- Renew for a period of four years the term of office of Ms. Annette Winkler, an independent Director since 2014, Chair of the Environment and Society Committee and a member of the Appointments and Governance Committee. Ms. Annette Winkler will continue to provide the Board of Directors with the benefit of her experience as the former head of division of a major German industrial group with global reach and her knowledge of the automobile sector.
- The Board took note that **Mr. Jean-Paul Agon**, whose term of office as Director will expire at the close of the General Meeting of May 2022, does not wish to seek renewal of his office. The Board thanked him very warmly for his contribution to the work of the Board of Directors which he has supported since 2010, for his exceptional commitment in his capacity as Lead Director and as Chair of the Appointments and Governance Committee, and for his participation in the work of the Remuneration Committee.
- Moreover, Ms. Sin Leng Low whose term of office as Director will expire at the close of the General Meeting of May 2022 also indicated that she does not wish to seek renewal of her office as Director. The Board took due note and thanked Ms. Sin Leng Low very warmly for her contribution to the work of the Board of Directors of which she has been a member since 2014, and for her participation to the work of the Audit Committee of which she has been a member since 2015.

At the close of the General Meeting of May 4, 2022, and subject to the approval of the proposed resolutions, the Board of Directors would accordingly be composed of **12 members**: **10 members** elected by the shareholders, the vast majority of whom are independent (namely 80% independent Directors) including **5 women (representing 50%)** and 4 foreign members, and **2 employee Directors**.

The Board of Directors also decided to maintain, in the context of the new separate governance roles, the office of a Lead Director, who shall be appointed from among the independent Directors. A Lead Director, with unchanged powers, will thus be appointed to succeed Mr. Jean-Paul Agon at the Board meeting which will be held at the close of the General Meeting. The new composition of the Committees will be decided at that same Board meeting. This information will be communicated after the General Meeting.

Finally, the Board of Directors will submit to the vote of the General Meeting the elements of Mr. Benoît Potier's remuneration for 2021, in his capacity as Chairman and Chief Executive Officer, together with the information relating to the remuneration of all the corporate officers for 2021. The General Meeting will also be invited to decide upon the remuneration policy for the corporate officers which will apply to Mr. Benoît Potier (in his capacity as Chairman and Chief Executive Officer for the period from January 1, 2022 until May 31, 2022 and in his capacity as Chairman of the Board of Directors with effect from June 1, 2022), to Mr. François Jackow (in his capacity as Chief Executive Officer with effect from June 1, 2022) and to the Directors.

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PERFORMANCE

Unless otherwise stated, all variations in revenue outlined below are on a comparable basis, excluding currency, energy (natural gas and electricity) and significant scope impacts.

Key Figures

in millions of euros)	FY 2020	FY 2021	2021/2020 published change	2021/2020 comparable change ^(a)
Total Revenue	20,485	23,335	+13.9%	+8.2%
Of which Gas & Services	19,656	22,267	+13.3%	+7.3%
Operating Income Recurring (OIR)	3,790	4,160	+9.8%	+12.7%
Group OIR Margin	18.5%	17.8%	-70 bps	
Variation excluding energy ^(b)			+70 bps	
Other Non-Recurring Operating Income and Expenses	(140)	(151)		
Net Profit (Group share)	2,435	2,572	+5.6%	
Net Profit Recurring (Group share) ^(c)	2,341	2,572	+9.9%	
Variation Net Profit Recurring (Group share) excluding currency impact $^{(b)}$			+13.3%	
Earnings per share (in euros)	5.16	5.45	+5.5%	
Net Dividend per share (in euros)	2.75	2.90 ^(d)	+5.5%	
Cash flow from operating activities before changes in net working capital	4,932	5,292	+7.3%	
Net Capital Expenditure ^(e)	1,971	3,388		
Net Debt	€10.6 bn	€10.4 bn		
Net Debt to Equity ratio	55.8%	47.5%		
Return on Capital Employed after tax - ROCE	9.0%	9.3%	+30 bps	
Recurring ROCE ^(f)	8.6%	9.3%	+70 bps	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix.

(b) See reconciliation in appendix.

(b) See reconciliation in appendix.
(c) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix.
(d) Dividend proposed to shareholders for the 2021 fiscal year.
(e) Including transactions with minority shareholders.
(f) Based on the recurring net profit, see reconciliation in appendix.

Income Statement

REVENUE

Revenue (in millions of euros)	FY 2020	FY 2021	2021/2020 published change	2021/2020 comparable change
Gas & Services	19,656	22,267	+13.3%	+7.3%
Engineering & Construction	250	387	+54.5%	+55.4%
Global Markets & Technologies	579	681	+17.5%	+17.8%
TOTAL REVENUE	20,485	23,335	+13.9%	+8.2%

Revenue by Quarter (in millions of euros)	Q1 2021	Q2 2021	Q3 2021	Q4 2021
Gas & Services	5,103	5,247	5,585	6,332
Engineering & Construction	76	93	81	137
Global Markets & Technologies	155	172	168	186
TOTAL REVENUE	5,334	5,512	5,834	6,655
2021/2020 Group published change	-0.7%	+12.4%	+17.2%	+27.2%
2021/2020 Group comparable change	+3.8%	+15.2%	+7.1%	+7.2%
2021/2020 Gas & Services comparable change	+2.8%	+13.7%	+6.5%	+6.7%

Group

Group revenue for 2021 totaled **23,335 million euros**, up **+8.2%**. This strong sales growth in 2021 follows the year 2020 that saw the Group demonstrate resilience in an especially tough sanitary environment. Sales in 2021 were up $+6\%^{(7)}$ compared with 2019. Notably driven by projects related to the energy transition, consolidated revenue from Engineering & Construction was up +55.4%. Global Markets & Technologies posted growth of +17.8%, which was buoyed by the momentum of the biogas market.

Energy prices saw an exceptionally strong increase during the 2^{nd} half of the year, especially in Europe, resulting in a significant energy impact, at +8.4% for 2021 and even +16.5% in the 4^{th} quarter. Currency and significant scope impacts were negative, at -1.6% and -1.1% respectively. All in all, the Group reported growth of +13.9% in published revenue.

Gas & Services

Gas & Services revenue in 2021 totaled **22,267 million euros**, a strong increase of **+7.3%**. Large Industries sales rose +5.5% and were driven by strong demand in the Steel and Chemicals markets, as well as a recovery in Refining over the year. Electronics revenue rose +7.0% in a thriving market, with Carrier Gases sales posting double-digit growth thanks to the start-up of new production units. Healthcare growth remained strong at +7.2% despite a high basis of comparison in 2020, with teams still focused on fighting against covid-19. The recovery in the Industrial Merchant

⁷ Due to the exceptional impact of the pandemic, a comparison with 2019 sales has been introduced for context in reviewing 2021 performance. The comparison between 2021 and 2019 is calculated by adding 2020 and 2021 comparable effects. It is given as a reference point and does not constitute an alternative performance measure. The comparable growths mentioned below are calculated compared to the same period of 2020 except when 2019 is mentioned.

business continued in 2021, with sales rising +8.4%, driven by a pricing impact of +3.6% for the year, which picked up to reach +7.0% in the 4^{th} quarter.

Gas & Services sales were up +13.3% as published in 2021: the energy impact (+8.8%) hit record levels, especially toward the end of the year. This was partially offset by unfavorable currency (-1.6%) and significant scope (-1.2%) impacts. The significant scope impact primarily results from the acquisition of 16 Sasol air separation units in late June 2021, the divestment of Schülke in 2020 in Healthcare and the reduction or sale of the Group's stakes in several non-strategic distributors in 2020 in Japan.

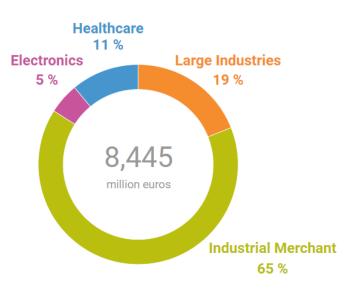
Revenue by geography and business line (in millions of euros)	FY 2020	FY 2021	2021/2020 published change	2021/2020 comparable change
Americas	7,799	8,445	+8.3%	+7.6%
Europe	6,826	8,315	+21.8%	+7.0%
Asia-Pacific	4,467	4,790	+7.2%	+6.4%
Middle East & Africa	564	717	+27.2%	+12.7%
GAS & SERVICES REVENUE	19,656	22,267	+13.3%	+7.3%
Large Industries	4,972	6,978	+40.3%	+5.5%
Industrial Merchant	8,959	9,487	+5.9%	+8.4%
Healthcare	3,724	3,706	-0.5%	+7.2%
Electronics	2,001	2,096	+4.8%	+7.0%

Americas

Gas & Services revenue in the Americas totaled **8,445 million euros** in 2021, up by **+7.6%**. Large Industries sales were up +7.6% driven by high demand, and the start-up and ramp-up of new units. The Industrial Merchant business continued to recover, with a +6.9% increase in revenue. Healthcare sales were up +13.7% for the year: teams remained focused on fighting the pandemic and business activity gradually returned to normal, particularly in the United States in proximity care. Electronics posted solid revenue growth of +5.2% in 2021.

- Large Industries 2021 revenue was up +7.6%. Oxygen volumes grew strongly over the year, driven by customer demand in the Chemicals and Steel industries. Similarly, demand for hydrogen used in Refining increased. Lastly, the ramp-up of existing units in Latin America and the start-up of new units in Canada and the United States contributed to growth.
- The dynamic recovery in the Industrial Merchant business continued, with a +6.9% increase in revenue. In the United States, growth was strong across all markets. However, the non-residential construction sector remained soft, contributing to the limited growth in hardgoods. Volumes were robust in Latin America, particularly in Brazil. Pricing impacts amounted to +4.3% for the year, rising in the 4th quarter (+7.0%) driven by dynamic pricing campaigns.

Americas Gas & Services 2021 Revenue



Healthcare revenue rose sharply (+13.7%) in 2021, especially during the first three quarters which saw strong growth in medical oxygen volumes throughout the region due to the pandemic. In the United States, proximity

care gradually returned to normal activity levels with the resumption of non-emergency surgeries. Home Healthcare saw strong growth in Latin America, especially in oxygen therapy and sleep apnea treatment.

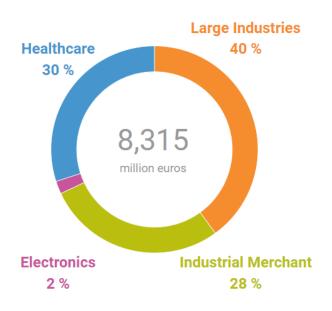
Electronics sales grew by **+5.2%** over the year, and were driven in particular by the start-up of a Carrier Gases unit in the United States and by strong demand in Specialty Materials.

Europe

Revenue in Europe was up **+7.0%** in 2021 to **8,315 million euros**. Large Industries sales (+5.2%) were driven by the strong customer activity in the Steel and Chemicals markets as well as a gradual recovery in Refining. Industrial Merchant activity grew strongly by +10.8%, benefiting from dynamic volumes in all markets and geographies, and an acceleration in pricing impacts in the 4th quarter. Healthcare posted revenue that was up by +4.7% after an exceptionally strong growth of +9.7% in 2020: pandemic-related medical oxygen sales rose strongly in 2021, even if the 4th quarter sales were below the 2020 record level. Moreover, revenue benefited from the pick-up of Home Healthcare activity and surgeries in hospitals.

- In 2021, Large Industries sales rose by +5.2%, driven by strong demand in the Steel and Chemicals markets. Hydrogen volumes for Refining grew thanks to a pick-up in activity and the contribution of a new unit in Kazakhstan acquired at the beginning of the year. The robust sales growth in Eastern Europe was also helped by the start-up of two units in Russia and one unit in Kazakhstan in the 2nd half of the year. The 2nd half of 2021 was characterized by a steep and rapid increase in energy prices, which are contractually invoiced to customers.
- The recovery was robust throughout the year in the Industrial Merchant business, with sales growing by +10.8%. All end-markets are growing, primarily Metal Fabrication, Materials and Energy. In Western Europe, sales of liquid gas posted double-digit growth and cylinder gas sales were also on the rise in all countries. Business was particularly robust in Eastern





Europe with more than a +20% increase in sales, notably in Poland, Russia and Turkey. **Pricing impacts** were up **+3.9%** for the year, rising on a sequential basis and accelerating sharply in the **4th quarter** to stand at **+10.4%**. They reflect the capability of teams to quickly translate exceptionally steep and rapid increase of energy costs into prices.

Healthcare pursued its revenue growth (+4.7%) in 2021 after exceptionally strong upward momentum in 2020 during the peak of the pandemic, in particular of medical gases and of sales of equipment. 2021 sales of medical gases show strong growth, especially over the first three quarters; during the 4th quarter, they were down on very high sales figures from 2020. Home Healthcare business activity was solid, especially in diabetes treatment with the broadening of services in France and its introduction into new regions such as Germany and the United Kingdom. Renewed prescriptions for sleep apnea also contributed to this momentum in practically all countries. Lastly, sales of Specialty Ingredients contributed to the year's strong growth.



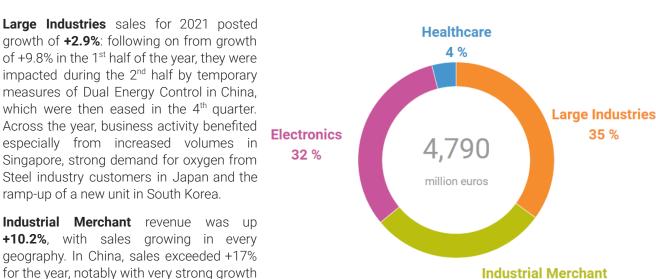
- Air Liquide and BASF are planning to develop the world's largest cross-border Carbon Capture and Storage (CCS) value chain. The goal is to significantly reduce CO₂ emissions at the industrial cluster in the port of Antwerp. The joint project "Kairos@C" has been selected for funding by the European Commission through its Innovation Fund, as one of the seven large-scale projects out of more than 300 applications.
- Air Liquide announced several projects in the Normandy industrial basin in France related to the energy transition:
 - Air Liquide and TotalEnergies have joined forces to **decarbonize hydrogen production** at TotalEnergies' platform in **Normandy**. The project* first stage is to acquire TotalEnergies' existing hydrogen production plant and connect it to Air Liquide's pipeline system. The next stage will see Air Liquide invest in a new CO₂ capture unit at the production plant purchased from TotalEnergies. This spending is part of the plan to **develop the world's first low-carbon hydrogen pipeline network**, which will provide the industrial infrastructure for the development of **hydrogen mobility**.
 - Air Liquide, Borealis, Esso, TotalEnergies and Yara have signed a Memorandum of Understanding (MoU) to explore the development of a CO₂ infrastructure including capture and storage, to help decarbonize the industrial basin located in the Normandy region, France. With the objective to reduce CO₂ emissions by up to 3 million tons per year by 2030, the first phase will consist in studying the technical and economical feasibility of this project.
 - Air Liquide increased to 100% its total stake in H2V Normandy, of which it previously held 40%. Renamed Air Liquide Normand'Hy, this company aims to build a large-scale electrolyzer of at least 200 MW for the production of renewable hydrogen in France. This strategic investment will support the development of a low-carbon hydrogen ecosystem in the Normandy industrial basin.
- Air Liquide and Eni join forces to **support hydrogen mobility** as one of the solutions to decarbonize the transport segment. The two companies have entered into a **partnership** with the aim to invest in the development of the infrastructure necessary to allow the **expansion of hydrogen mobility in Italy.**

*This project is subject to approval by the competent authorities.

Asia-Pacific

Revenue for the Asia-Pacific region in 2021 rose sharply by **+6.4%**, totaling **4,790 million euros**. Large Industries sales for the year rose steadily by +2.9%: after a highly dynamic 1st half of the year, they were down in the second half, mainly resulting from temporary measures of Dual Energy Control in China. The Industrial Merchant business saw growth of +10.2%, fueled by strong activity in China and the recovery across the rest of Asia. Electronics sales increased by +6.7% in 2021, with a significant contribution from Carrier Gases which benefited from the start-up and ramp-up of several units.

29 %



Asia-Pacific Gas & Services 2021 Revenue

especially Automotive, Metal Fabrication, Materials and Energy. **Pricing impacts** were **+0.6%** for the year, accelerating in the **4th quarter** where they stood at **+2.6%** and +3.2% excluding helium, further to price increase campaigns, especially in China.

Electronics sales for 2021 were up +6.7%, driven by a semiconductor market with great momentum. Carrier Gases sales saw strong growth with the ramp-up of units and 5 start-ups during the year in China, Japan and Singapore. Sales growth in Advanced Materials and Specialty Materials was very solid over the year with a sharp acceleration in the 4th quarter. Equipment & Installations sales posted robust growth in 2021.

Asia-Pacific

in sales of cylinder gas and of gases

produced by small on-site gas generators. All end-markets are growing in the region,

- Air Liquide will invest around 70 million euros to build a state-of-the-art gases plant in Wuhan to supply a major memory chipmaker. Air Liquide has been producing ultra-pure industrial gases for this leading Chinese high-tech company for more than 12 years. The unit is planned to be operational in 2022.
- Air Liquide and Jiangsu Shagang Group, the largest private steel enterprise in China and one of top 5 globally, have signed a new long-term agreement for the supply of industrial gases in Zhangjiagang City, Jiangsu Province, China. Air Liquide will invest around 100 million euros towards the construction of a world-scale Air Separation Unit (ASU) on the site, where it already operates two other ASUs. Designed to use low carbon energy, this state of the art plant will allow to significantly reduce CO₂ emissions over time. This new ASU will also be a new source of krypton and xenon to address the growing demand of the Electronics industry, as well as other air gases for our industrial merchant activity in China.

Middle East and Africa

Revenue for 2021 in the Middle East and Africa reached **717 million euros**, up **+12.7%**. Large Industries sales benefited from strong hydrogen demand by customers in the Yanbu basin in Saudi Arabia. Air gases volumes rose sharply in South Africa, as 16 Sasol ASUs (the acquisition of which was finalized in late June) were integrated: in the 2nd half of the year, sales totaled 70 million euros and were recognized as part of the significant scope effect, hence excluded from the comparable growth in 2021. Industrial Merchant revenue continued to grow. Healthcare saw

strong growth over the first three quarters, driven by the supply of very large volumes of medical oxygen in pandemic-hit countries; during the 4th quarter, sales were down on very high activity levels in 2020.



Middle East and Africa

Air Liquide has finalized the acquisition of Sasol's 16 Air Separation Units (ASU) located in Secunda, South Africa. Air Liquide will operate this site - the biggest oxygen production site in the world - with a plan to reduce its CO₂ emissions by 30% to 40% within the next ten years. The initial investment is approximately 8 billion South African Rand (circa 480 million euros).

Engineering & Construction

Consolidated revenue from Engineering & Construction totaled **387 million euros** in 2021, up strongly by **+55.4%**.

Over the year, order intake exceeded 1 billion euros for the first time since 2014, standing at **1,249 million euros**. It benefited from the energy transition and from positive momentum in Asia, which made up more than half of orders. This notably included a major liquid hydrogen production project in Asia, as well as sales of licenses and engineering services in the field of hydrogen and CO_2 capture. Group orders accounted for about half of the total.

Global Markets & Technologies

Global Markets & Technologies revenue for 2021 reached **681 million euros**, representing growth of **+17.8%**. Biogas enjoyed strong momentum, benefiting from the ramp-up of new production units and from the rise in sales prices relating to the energy price increase, especially in the United States.

Order intake for Group projects and third-party customers totaled **699 million euros**, representing a dynamic increase of +17.0%. It included in particular large hydrogen liquefiers, hydrogen refueling stations and more than 10 Turbo-Brayton reliquefaction units.

Global Markets & Technologies

- Air Liquide has entered into a long-term agreement with Laurentis Energy Partners, a leader in the clean-energy industry, to produce and distribute helium-3 (³He). This molecule is a rare isotope of helium used in quantum computing, quantum science, astrophysics, neutron detection, medical imaging and, in the future, fusion. Thanks to this new partnership, Air Liquide will be able to deliver large quantities of helium-3 to its customers around the world.
- Air Liquide and IVECO, the commercial vehicles brand of CNH Industrial, have signed a Memorandum of Understanding to develop hydrogen for mobility in Europe. The partnership will contribute to materialize clean mobility by leveraging the two companies' complementary competencies, in particular Air Liquide's unique expertise across the entire hydrogen value chain, from production and storage to distribution, and IVECO's legacy as a provider of advanced, clean sustainable transport solutions.
- Air Liquide, Airbus and Groupe ADP have signed a Memorandum of Understanding (MoU) to prepare for the arrival of hydrogen in airports by 2035 as part of the development of hydrogen-powered commercial aircraft. The partners will leverage their respective expertise to support the decarbonization of the aviation industry and to define the concrete needs and opportunities that hydrogen can bring to the aeronautics sector.

OPERATING INCOME RECURRING

Operating income recurring before depreciation and amortization totaled **6,333 million euros**, up **+6.8%** compared with 2020.

Personnel costs increased by **+2.9%** and by **+**4.7% excluding the currency impact. **Purchases** saw a marked increase of **+30.4%**, mainly reflecting the exceptionally steep and rapid rise (of +32.3% excluding the currency impact over the year) of energy costs, especially during the 2nd half of the year. As a reminder, Large Industries energy costs are contractually passed through to customers. **Other operating expenses and income** was up **+4.2%** and notably included an increase in transport costs and maintenance expenses due to the exceptional winter storm along the Gulf Coast at the beginning of the year and Hurricane Ida in September. **Depreciation and amortization** reached **2,173 million euros**, representing a moderate increase of **+1.6%** and of +2.7% excluding the currency impact: the impact from the start-up of new units and the integration of the 16 ASUs acquired from Sasol in June 2021 was partially offset by divestments, including that of Schülke in 2020, and the end of the depreciation and amortization of certain assets.

Group Operating Income Recurring (OIR) reached **4,160 million euros**, marking a sharp increase of +9.8% and of **+12.7% on a comparable basis**, which was **much higher than the comparable sales growth** of +8.2%. The **operating margin (OIR to revenue)** stood at **17.8%** as published, an **improvement of +70 basis points excluding the energy impact**. On a reported basis, the margin declined by -70 basis points compared to 2020, due to the strong energy costs increase, which are contractually passed through to Large Industries customers, therefore having a dilutive impact on the published margin. This performance reflected the Group's capability to quickly translate steep and rapid increase of energy costs during the 2nd half of the year into prices. This also marked the third consecutive year of significant improvement in operating margin excluding the energy impact, following the performances seen in 2019 (+70 basis points) and 2020 (+80 basis points).

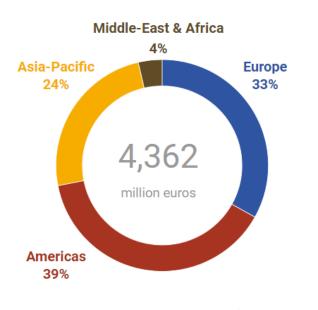
Efficiencies⁽⁸⁾ for the year totaled **430 million euros**, exceeding the annual target of 400 million euros. These efficiencies represent a saving of 3.0% of the cost base. **Industrial efficiencies** accounted for close to 50% of total efficiencies and were mainly the result of investment in efficiency projects, notably **energy efficiencies** in Large Industries. The implementation of **digital tools** aimed at the Group's **transformation** continued, with the acceleration of the roll-out of remote operation centers for Large Industries production units (Smart Innovative Operations, SIO), new optimization tools for delivery routes in Industrial Merchant (Integrated Bulk Operations, IBO), and the introduction of a remote patient monitoring platform in Healthcare.

Portfolio and pricing management also contributed to margin improvement.

Gas & Services

Gas & Services operating income recurring totaled **4,362 million euros**, representing an increase of +8.6% compared with 2020, and an improvement of **+11.3% on a comparable basis**. The operating margin stood at **19.6%**, **up +80 basis points excluding the energy impact**. The operating margin, as published, was down compared with 2020 (20.4%) due to the significant increase in energy costs, which are contractually passed through to Large Industries customers and therefore have a dilutive impact on the published margin.

Industrial Merchant prices were up **+3.6%** over the year due to pricing campaigns launched at the beginning of the year and which were stepped up during the 2nd half of the year in an unprecedented context of steep and rapid increase of



Gas & Services 2021 Operating Income Recurring

⁸ See definition in appendix.

energy prices, in particular in Europe. Prices were stable in Healthcare (down in Europe and up in the Americas) and were down in Electronics due to price discounts on certain Advanced Materials granted to customers signing medium-term contracts, in anticipation of a strong increase in volumes.

Gas & Services Operating margin ^(a)	FY 2020	FY 2021	FY 2021, excluding energy impact	2021/2020 excluding energy impact
Americas	19.6%	20.1%	20.9%	+130 bps
Europe	20.6%	17.4%	20.5%	-10 bps
Asia-Pacific	22.0%	22.2%	22.6%	+60 bps
Middle East & Africa	16.9%	22.1%	22.4%	+550 bps
TOTAL	20.4%	19.6%	21.2%	+80 bps

(a) Operating income recurring / revenue as published

Operating income recurring in the **Americas** reached **1,694 million euros** in 2021, an increase of **+10.7%**. Excluding the energy impact, the operating margin stood at **20.9%**, marking a very high increase of **+130 basis points** compared with 2020. The Industrial Merchant was the most contributing activity due to the volumes increase related to the pick-up in the activity and the efficiencies generated coupled with a strong cost control. Improved volumes and business mix in Healthcare coupled with efficiencies in Large Industries also participated in the improvement in the operating margin.

Operating income recurring for **Europe** reached **1,444 million euros**, an increase of **+2.8%**. Excluding the energy impact, the operating margin was **20.5%**, down just **-10 basis points** compared with 2020. The operating margin of industrial activities improved slightly, driven by Large Industries, especially the efficiencies, and to a lesser extent by the increased volumes and efficiencies in Industrial Merchant. The Healthcare operating margin was down due to a marked decrease in regulatory prices despite the significant efficiencies generated and improved business mix following the strong activity increase in Home Healthcare.

Operating income recurring for **Asia-Pacific** totaled **1,066 million euros**, an increase of **+8.2%**. The operating margin was **22.6%** excluding the energy impact, up **+60 basis points** compared with 2020. Electronics, which notably enjoyed a strong increase in Advanced Materials and Carrier Gases volumes with several start-ups during the year, and Large Industries which generated significant efficiencies, were the two largest contributors. Industrial Merchant and Healthcare also participated in the improved operating margin, albeit to a lesser extent, through efficiencies and an increase in Industrial Merchant volumes.

Operating income recurring for the **Middle East and Africa** amounted to **158 million euros**, a significant increase of **+66.0%**. This was driven mainly by the acquisition of the 16 Sasol units at the end of June, which fully contributed during the 2nd half of the year. Excluding the energy impact, the operating margin was **22.4%**, representing a major improvement of **+550 basis points**. The integration of the 16 Sasol units accounted for almost half of this improvement, the customer keeping at its direct expenses the energy costs in a first phase, which had an accretive effect on the margin. The operating margin also benefited from higher volumes in Large Industries, in particular in the Yanbu basin in Saudi Arabia, as well as in Industrial Merchant where the efficiencies generated were also significant.

Engineering & Construction

Operating income recurring for **Engineering & Construction** was **42 million euros** in 2021. The operating margin stood at **11.0%**, representing a marked improvement compared with 5.1% in 2020 due to a clear upturn in business and project progress.

Global Markets & Technologies

Operating income recurring for **Global Markets & Technologies** amounted to **97 million euros** with an operating margin of **14.2%** for 2021, representing a **+70 basis point** increase compared with 2020.

Corporate Costs and Research & Development

Corporate and Research & Development expenses, stood at **341 million euros**. They were up +7.4% compared with 2020, mainly due to the development of innovation and costs related to the capital increase reserved for employees.

NET PROFIT

Other operating income and expenses showed a balance of **-151 million euros** compared with -140 million euros in 2020. These included costs relating to the realignment plans implemented in various countries and business lines, and expenses relating to acquisitions and divestments carried out during the year.

The financial result amounted to -408 million euros and included the cost of net debt, which stood at -280 million euros, representing a decrease of -20.6% compared with 2020. This decrease was primarily due to the exceptional cost generated in 2020 by the early redemption of bonds ("senior notes") issued by Airgas before its acquisition by Air Liquide. The average cost of net debt was 2.8%, stable compared with 2020. Other financial income and expenses amounted to -128 million euros compared with -87 million euros in 2020. This difference is explained in particular by a provision taken on interests on arrears, the impact of hyperinflation in Argentina and the effect of the revaluation of financial instruments.

Income tax expense was **915 million** euros in 2021, corresponding to an effective tax rate of **25.4%**. This is compared with an exceptionally low rate (21.1%) in 2020 due to the reduced tax rate on the capital gain from the sale of Schülke.

The **share of profit of associates** amounted to **5 million euros**. The **share of minority interests** in net profit totaled **120 million euros**, up +28.9% due to the strong increase in profit at subsidiaries with minority shareholders that was driven by business picking up.

Net profit (Group share) stood at **2,572 million euros** in 2021, up +5.6% as published and a significant increase of **+8.9% excluding the currency impact**. **Recurring net profit (Group share)**⁽⁹⁾ also amounted to **2,572 million euros**. This represented a marked increase of +9.9%, and **+13.3% excluding the currency impact**, compared with recurring net profit (Group share) for 2020.

Net earnings per share, at **5.45 euros**, were up +5.5% compared with 2020, in line with the increase in net profit (Group share). The average number of outstanding shares used for the calculation of 2021 net earnings per share was **472,253,960**.

Change in the number of shares

FY 2020	FY 2021
Average number of outstanding shares471,603,408	472,253,960

⁹ See definition and reconciliation in appendix.

DIVIDEND

At the General Meeting on May 4, 2022, the payment of a dividend of **2.90 euros per share** will be proposed to shareholders for the 2021 fiscal year, representing an increase of **+5.5%** compared with the previous year. The total estimated pay-out taking into account share buybacks and cancellations would amount to **1,415 million euros**, representing a **pay-out ratio of 55%** of the published net profit. The ex-dividend date has been set for May 16, 2022, and the payment is scheduled for May 18, 2022. Moreover, a **free shares attribution**, on the basis of one free share for every 10 shares held, as well as the application of a loyalty bonus, are planned for June 2022.

2021 Cash Flow and Balance Sheet

(in millions of euros)	2020	2021
Cash flow from operating activities before changes in net working capital	4,932	5,292
Changes in working capital	364	377
Other cash items	(91)	(99)
Net cash flows from operating activities	5,206	5,571
Dividends	(1,387)	(1,418)
Purchase of property, plant and equipment and intangible assets, net of disposals	(1,971)	(3,388)
Proceeds from issues of share capital	44	175
Purchase of treasury shares	(50)	(40)
Lease liabilities repayments and net interests paid on lease liabilities	(282)	(274)
Impact of exchange rate changes and net indebtedness of newly consolidated companies & restatement of net finance costs	203	(465)
Change in net debt	1,764	161
Net debt as of December 31	(10,609)	(10,448)
Debt-to-equity ratio as of December 31	55.8%	47.5%

NET CASH FLOW FROM OPERATING ACTIVITIES AND CHANGES IN WORKING CAPITAL REQUIREMENT

Cash flow from operating activities before changes in net working capital amounted to **5,292 million euros**, a marked increase of +7.3% and of **+9.1% excluding the currency impact**. This corresponds to a high level of 22.7% of sales and **24.5% excluding the energy impact**, improving by **+40 basis points compared with 2020**. The improvement in the OIR before depreciation and amortization to sales ratio excluding the energy impact was also +40 basis points.

Working Capital Requirement (WCR) decreased significantly, by **377 million euros** compared with December 31, 2020. This improvement was mainly driven by an increase in prepayments from third-party customers in Engineering & Construction related to the strong upturn in business, as well as an increase in non-recourse factoring programs for an amount of almost 300 million euros excluding currency effect to manage the impact of the sharp increase in energy prices on the value of trade receivables. The strong focus on debt recovery continues amid a tough sanitary environment. The **WCR excluding taxes to sales ratio** therefore improved to **0.9%** from 2.3% in 2020.

Net cash flow from operating activities after changes in working capital requirement amounted to **5,571** million euros, a marked increase of +7.0% compared with 2020 and of **+8.6% excluding the currency impact**.

CAPITAL EXPENDITURE

(in millions of euros)	Industrial Investments	Financial Investments ^(a)	Total capital expenditures ^(a)
2017	2,183	144	2,327
2018	2,249	131	2,380
2019	2,636	568	3,205
2020	2,630	145	2,775
2021	2,917	696	3,613

^(a) Including transactions with minority shareholders.

Gross capital expenditure was very high in 2021 at **3,613 million euros**, including transactions with minority shareholders.

Gross industrial capital expenditure amounted to **2,917 million euros** compared with 2,630 million euros in 2020. This represented **12.5% of sales and 13.5% excluding the energy impact**, reflecting strong project development. For Gas & Services, this expenditure totaled 2,641 million euros with the corresponding geographical breakdown presented in the table below.

	Gas & Services				
(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Total
2020	873	914	577	53	2,416
2021	913	909	755	64	2,641

Financial investments amounted to **660 million euros** in 2021, representing a marked increase compared with 129 million euros in 2020. These included the acquisition of Sasol's units for approximately 480 million euros. A total of 21 acquisitions were completed in 2021.

Proceeds from the sale of assets, which reached **220 million euros** in 2021, underline the Group's efforts to maintain an active portfolio management strategy. These included in particular the divestment of activities in Greece, these of propane in the United States and of compressed air in France.

Net capital expenditure ⁽¹⁰⁾ totaled **3,388 million euros**.

NET DEBT

Net debt at December 31, 2021, reached **10,448 million euros**. Despite the very high level of investment and an unfavorable currency impact, net debt was down by 161 million euros compared with December 31, 2020, mainly due to the increased Group cash flow from operating activities and the decrease in working capital requirement. The **net debt-to-equity ratio** reached **47.5%**.

ROCE

The return on capital employed after tax (ROCE) was 9.3% in 2021. Recurring ROCE ⁽¹¹⁾ was identical (9.3%), representing a marked improvement compared with 8.6% in 2020 and in line with the ROCE target of more than 10% in 2023 or 2024.

¹⁰ Including transactions with minority shareholders.

¹¹ See definition and reconciliation in Appendix.

Environment and Society

SAFETY

Employees **lost time accident frequency rate**⁽¹²⁾ reached **1.1** at the end of 2021, a slight increase compared to 2020 (0.9) which was the lowest in 20 years, related to the strong pick-up in activity in 2021.

SUSTAINABILITY

In March 2021, the Group announced the strengthening of all of its sustainable development goals by detailing them around three axes.

First, **act for a low-carbon society**, in line with the Paris Agreement, by setting a carbon neutrality target by 2050, with two major intermediate steps: the start of the reduction of CO_2 emissions in absolute value around 2025 then a -33% decrease in its CO_2 emissions from scopes 1 and 2 by $2035^{(13)}$ compared to 2020. Moreover, the Group maintained its target set in 2018 to reduce its carbon intensity by -30% compared to 2015 by $2025^{(14)}$.

In 2021, the Group's CO_2 emissions of scopes 1 and 2 amounted to around 36 millions tons and the carbon intensity¹⁵ was 5.5 kg of CO_2 per euro of EBITDA. A new organization for greenhouse gas emissions management was defined and put in place this year. This newly formed organization, along with the decisions taken and the actions performed by the Group secure the objective of emissions inflection in absolute value around 2025 and the decrease by -30% of carbon intensity.

Second, **care for patients** by improving the quality of life of patients with chronic diseases in mature economies and facilitating access to medical oxygen in low- and middle-income countries.

In 2021, Air Liquide provided care for approximately 1 million patients at home, 38% of whom follow a personalized care pathway. In addition, the Group's specific initiatives facilitated access to medical oxygen for approximately 1 million people in low- and middle-income countries, mainly in rural areas.

And third, **trust** as the base to engage with employees and to build the best-in-class governance. Air Liquide promotes inclusion and diversity within its teams, in particular, in order to reach a proportion of 35% of women among managers and professionals by 2025. The Group is also committed to providing a common basis of care coverage for all its employees in all the countries where the Group is present.

Women represented 31% of managers and professionals in the Air Liquide workforce in 2021, compared to 29% in 2017 following the acquisition of Airgas. In 2021, 34% of employees benefited from care coverage on a common basis. In addition, from May to September 2021, entities in each country assessed the deviations from their current situation and defined a gradual upgrade plan by 2025. A corporate team dedicated to this commitment has been formed within the Human Resources department to steer the deployment of the plan and measure its progress within the Group each year.

¹² Number of lost-time accidents with at least one lost day per million hours worked by Group employees.

¹³ In tons of CO_2 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.

¹⁴ 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.

¹⁵ See reconciliation in annex.



Environment and Society

Air Liquide has signed a long-term Power Purchase Agreement (PPA) with TotalEnergies for a total capacity of 15 megawatts of offshore wind electricity in Belgium. Following PPA agreements in the United States, Spain, and the Netherlands, this PPA signed by the Group in Belgium illustrates Air Liquide's commitment to lead the way in the energy transition and to lower its carbon footprint, in line with its Sustainability Objectives.

INVESTMENT CYCLE AND FINANCING

Investments

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

(in billions of euros)	Industrial Investment decisions	Financial investment decisions (acquisitions)	Total investment decisions
2017	2.4	0.2	2.6
2018	3.0	0.2	3.1
2019	3.2	0.6	3.7
2020	3.0	0.1	3.2
2021	3.0	0.6	3.6

In 2021, **industrial and financial investment decisions** reached a very high level of **3,631 million euros**, thus exceeding 3 billion euros for the fourth consecutive year. They notably included the acquisition of 16 Air Separation Units from Sasol in South Africa for approximately 480 million euros.

Industrial investment decisions totaled close to **3.0 billion** euros and were stable compared with 2020. They were strong in Large Industries and notably included energy transition projects: in Asia, they included a carbon monoxide production unit with integrated CO_2 recycling, and in Europe, a large-size electrolyzer in the Ruhr basin. Investment decisions continued at a high level within the Electronics business line, with Carrier Gases projects in Asia and the United States. Industrial decisions contributing to **efficiencies** accounted for **8%** of the total.

Financial investment decisions reached **662 million euros** in 2021 and included the acquisition of the units from Sasol for approximately 480 million euros. They also comprise several Healthcare acquisitions in Europe, as well as in the Industrial Merchant business line in North America, Europe and Asia.

The **investment backlog** remained stable at the high level of **3.2 billion euros**, appropriately distributed across various business sectors and geographies. The Chemicals market represents the largest share, followed by Semiconductors, while the share that energy transition projects represent remains substantial. These investments should lead to a future contribution to annual sales of approximately **1.1 billion euros** per year when fully ramped up.



Air Liquide is continuing to develop its home healthcare business in Europe with the acquisition of Betamed S.A., a major home healthcare provider in Poland. Betamed specialises in the care of patients with severe pathologies, either at home or in its specialised clinic in Chorzów in Silesia. This acquisition enables the Group to strengthen its presence in Poland and to expand its range of services to support patients suffering from complex forms of chronic diseases.

START-UPS

There were **21 major start-ups** during 2021. This notably included large-scale ASUs in Russia and the United States for the **Large Industries** Steel and Chemicals markets, and several Carrier Gases production units for **Electronics** in Asia and the United States.

The **additional contribution to sales** of unit start-ups and ramp-ups totaled **345 million euros** in 2021, including a 70 million euros contribution by the Sasol units in South Africa in the second half-year. Electronics is the main contributor in Asia-Pacific, while in Europe and Americas it is Large Industries.

The **additional contribution to 2022 sales** of unit start-ups and ramp-ups is expected to be **between 410 million and 435 million euros**, which is higher than the corresponding amount in 2021. This includes approximately 135 million euros from the 16 units acquired from Sasol at the end of June 2021 and half of this amount will be recognized as part of the significant scope impact.

INVESTMENT OPPORTUNITIES

The **12-month portfolio of investment opportunities** increased to **3.3 billion euros** at the end of 2021, with new entries in the second half-year, notably related to Electronics in Asia and Large Industries, offsetting investment decisions and the removal from the portfolio of several projects that were either postponed beyond 12 months or awarded to the competition.

The projects related to **energy transition** represent more than **40% of the investment opportunities. Europe**, where the majority of energy transition projects are based, represented approximately 40% of the portfolio. It was followed by **Asia**, which was driven by large **Electronics** projects. Next came the **Americas**, with opportunities for major projects in **Large Industries** and **Electronics**. Lastly, the Middle-East and Africa accounted for less than 10% of the portfolio.

2021 Financing

"A" CATEGORY FINANCIAL RATING CONFIRMED

Air Liquide is rated by two main rating agencies, Standard & Poor's and Moody's. The long-term rating from **Standard & Poor's is "A"**, **improving** compared to "A-" in 2020, and from **Moody's is "A3"**. These are in line with the Group's strategy. Moreover, the short-term ratings are "A1" for Standard & Poor's, **upgraded** compared to "A2" in 2020, and "P2" for Moody's. Standard & Poor's announced its long term and short terms rating upgrades on July 28, 2021 and gave a stable outlook. Moody's confirmed its ratings on May 4, 2021 and upgraded its outlook from stable to positive.

DIVERSIFYING AND SECURING FINANCIAL SOURCES

As of December 31, 2021, Group financing through capital markets accounted for **89% of the Group's total debt**, for a **total amount of outstanding bonds of 11.1 billion euros** including all types of bonds, and 0.2 billion euros of commercial paper.

The total amount of credit facilities was stable at **3.6 billion euros**. The syndicated credit facility covers an unchanged amount of **2.5 billion euros** and matures in December 2025. Since 2019, this facility includes an indexation mechanism between the financial costs and three of the Group's CSR targets in the areas of carbon intensity, gender diversity, and safety.

The amount of total debt maturing in the next 12 months is 2.2 billion euros, stable compared with December 31, 2020.

2021 BOND ISSUANCE

In May 2021, under the EMTN program, the Group issued a public **green bond** for an amount of **500 million euros**, maturing in **10 years**.



On May 19, 2021, Air Liquide successfully launched its first green bond issue, by raising 500 million euros (10 years maturity) which will be dedicated to financing and refinancing the development of several sustainable projects, in particular in hydrogen, biogas and oxygen. This operation is in line with the "Sustainable Financing Framework" published on May 17 and validated by a third-party. This new bond issue will notably contribute to the financing of the ambitious sustainable projects the Group announced on March 23, 2021. At the same time, Air Liquide undertakes to publish, annually until the funds raised are fully allocated, a "Sustainable Financing Reporting", which will include an allocation report and an impact report, both validated by an audit firm and made public on the Group's website.

In September 2021, the Group also issued a **public bond for an amount of 500 million euros**, under its EMTN program, **maturing** in **12 years**.

At the end of 2021, outstanding bonds issued under the EMTN program amounted to 7.5 billion euros (nominal amount).

Net Debt by currency as of December 31

	December 31, 2020	December 31, 2021
Euro	47%	42%
US Dollar	40%	42%
Japanese yen	2%	2%
South-african rand	-	3%
Other	11%	11%
TOTAL	100%	100%

Investments are generally funded in the currency in which the cash flows are generated, creating a natural currency hedge. In 2021, net debt increased in US dollar due to the currency impact (appreciation of the US dollar against the euro) and in South African rand. In addition, net debt decreased in euro and the share of the euro in total net debt decreased consequently in favor of the US dollar and the South African rand.

CENTRALIZATION OF CASH AND FUNDING

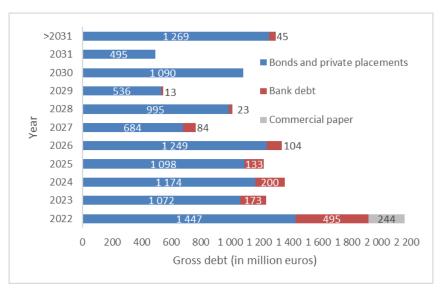
Air Liquide Finance pools the cash balances of Group entities.

At December 31, 2021, Air Liquide Finance had granted to Group subsidiaries, directly or indirectly, the equivalent of 13.0 billion euros in loans and received 3.4 billion euros in excess cash as deposits from them. These transactions were denominated in 26 currencies (primarily the euro, US dollar, Japanese yen, Chinese renminbi, Singapore dollar, British pound). Approximately 400 subsidiaries are included in the Group cash pooling, directly or indirectly (including subsidiaries where cash pooling is carried out locally before being centralized at Air Liquide Finance).

DEBT MATURITY AND SCHEDULE

The **average of the Group's debt maturity** was **6.0 years** at December 31, 2021, a slight increase compared to December 31, 2020 (5.8 years). Due to the generation of net cash flow in 2021, bond issues reached maturity without the need for refinancing and the new bonds were issued with long maturity, at 10 and 12 years.

The following chart shows the Group's debt maturity schedule. The single largest annual maturity represents approximately 11% of total debt.



OUTLOOK

In 2021, the Group achieved an **excellent performance**, in spite of **the ongoing pandemic and the strong inflationary pressures** mainly related to the sharp **increase in energy prices** in the second half.

Air Liquide's **teams have stepped up in all areas**, whether in response to the covid-19 crisis, the significant acceleration in inflation or the energy transition challenge, once again demonstrating their **strong reactivity and adaptability**. The Group has taken action in the here and now, while at the same time preparing the future. The investment momentum has been sustained, with the **signature of numerous agreements** in particular related to the energy transition.

The Group has delivered another year of profitable growth: Sales reached 23.3 billion euros, up +8.2% on a comparable basis, the operating margin increased by 70 basis points excluding the energy impact, and recurring net profit ⁽¹⁶⁾ rose 13.3% at constant exchange rates.

All activities improved markedly: Gas & Services, which represents 95% of Group revenue, Engineering & Construction, as well as Global Markets & Technologies. **All Gas & Services business lines and regions grew** to high levels, with Asia growing by +6%, Europe by +7% and the Americas by +8%.

The Group further improved its operating margin thanks to an **inflation-adapted pricing policy, significant efficiencies** of 430 million euros and a **dynamic management of its business portfolio**. Faced with a sharp and sustained rise in energy prices, the Group has demonstrated both the **strength of its business model** – which allows it to automatically pass on these variations to its Large Industries customers – and its **ability to rapidly adapt its pricing** for Industrial Merchant customers.

Air Liquide's balance sheet has been further strengthened. Recurring ROCE reached 9.3%, approaching the 2023–2024 target of more than 10%. Cash flow from operations remained high at 24.5% of sales, excluding the energy impact, and helped reduce debt while also financing our capital expenditures and the dividend. Investment decisions reached 3.6 billion euros for the year, and opportunities remained high at 3.3 billion euros, of which more than 40% are related to the energy transition. The dividend, which will be submitted to the shareholders' vote in May, is proposed at 2.90 euros per share, which represents an increase of +5.5% that reflects our confidence in the future. Moreover, a free shares attribution will take place in June 2022.

With a business model that combines financial and extra-financial performance, Air Liquide is particularly well positioned in the markets of the future. In response, notably to the major challenges of climate change and the energy transition, the Group offers a wide range of solutions based on hydrogen and technologies to decarbonize industry. Contributing to a sustainable future is at the heart of our activity and of our strategy.

In 2022, assuming no significant economic disruption, Air Liquide is confident in its ability to further increase its operating margin and to deliver recurring net profit ⁽¹⁷⁾ growth at constant exchange rates.

¹⁶ Excluding exceptional and significant transactions that have no impact on the operating income recurring.

¹⁷ Operating margin excluding energy passthrough impact. Recurring net profit excluding exceptional and significant items that have no impact on the operating income recurring, and excluding the impact of any US tax reform in 2022.

APPENDICES

Performance indicators

Performance indicators used by the Group that are not directly defined in the financial statements have been prepared in accordance with the AMF position 2015-12 about alternative performance measures.

The performance indicators are the following:

- Currency, energy and significant scope impacts
- Comparable sales change and comparable operating income recurring change
- Operating margin and operating margin excluding energy
- Operating income recurring before depreciation and amortization excluding IFRS16 at 2015 exchange rate
- Recurring net profit Group share
- Recurring net profit excluding currency effect
- Net Profit Excluding IFRS16
- Net Profit Recurring Excluding IFRS16
- Efficiencies
- Return on Capital Employed (ROCE)
- Recurring ROCE

DEFINITION OF CURRENCY, ENERGY AND SIGNIFICANT SCOPE IMPACTS

Since industrial and medical gases are rarely exported, the impact of currency fluctuations on activity levels and results is limited to euro translation impacts with respect to the financial statements of subsidiaries located outside the euro zone. **The currency effect** is calculated based on the aggregates for the period converted at the exchange rate for the previous period.

In addition, the Group passes on variations in the cost of energy (electricity and natural gas) to its customers via indexed invoicing integrated into their medium and long-term contracts. This indexing can lead to significant variations in sales (mainly in the Large Industries Business Line) from one period to another depending on fluctuations in prices on the energy market.

An energy impact is calculated based on the sales of each of the main subsidiaries in Large Industries. Their consolidation allows the determination of the energy impact for the Group as a whole. The foreign exchange rate used is the average annual exchange rate for the year N-1. Thus, at the subsidiary level, the following formula provides the energy impact, calculated for natural gas and electricity respectively:

Energy impact =

Share of sales indexed to energy year (N-1) x (Average energy price in year (N) - Average energy price in year (N-1))

This indexation effect of electricity and natural gas does not impact the operating income recurring.

The significant scope effect corresponds to the impact on sales of all acquisitions or disposals of a significant size for the Group. These changes in scope of consolidation are determined:

- for acquisitions during the period, by deducting from the aggregates for the period the contribution of the acquisition,
- for acquisitions during the previous period, by deducting from the aggregates for the period the contribution of the acquisition between January 1 of the current period and the anniversary date of the acquisition,
- for disposals during the period, by deducting from the aggregates for the previous period the contribution of the disposed entity as of the anniversary date of the disposal,
- for disposals during the previous period, by deducting from the aggregates for the previous period the contribution of the disposed entity.

Calculation of performance indicators (Year)

COMPARABLE SALES CHANGE AND COMPARABLE OPERATING INCOME RECURRING CHANGE

Comparable changes for sales and operating income recurring **exclude the currency, energy and significant scope impacts described above**.

For 2021, the calculations are the following:

(in millions of euros)	FY 2021	FY 2021/2020 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	FY 2021/2020 Comparable Growth
Revenue							
Group	23,335	+13.9%	(321)	1,255	467	(206)	+8.2%
Impacts in %			-1.6%	+6.1%	+2.3%	-1.1%	
Gas & Services	22,267	+13.3%	(317)	1,255	467	(206)	+7.3%
Impacts in %			-1.6%	+6.4%	+2.4%	-1.2%	
Operating Income Recu	rring						
Group	4,160	+9.8%	(75)	-	-	(27)	+12.7%
Impacts in %			-2.0%	-	-	-0.9%	
Gas & Services	4,362	+8.6%	(74)	-	-	(27)	+11.3%
Impacts in %			-1.9%	-	-	-0.8%	

OPERATING MARGIN AND OPERATING MARGIN EXCLUDING ENERGY

The operating margin is the ratio of the operating income recurring divided by revenue. The operating margin excluding energy corresponds to the operating income recurring, not affected by the indexation effect of electricity and natural gas, divided by revenue excluding the energy impact. The ratio of operating income recurring divided by the revenue (whether restated or not from the energy impact) is calculated with rounding to one decimal place. The variation between 2 periods is calculated as the difference between these rounded ratios, which can result in positive or negative differences compared to a more precise calculation, due to rounding.

		FY 2021	Natural gas impact	Electricity impact	FY 2021, excluding energy impact
Revenue	Group	23,335	1,243	463	21,629
	Gas & Services	22,267	1,243	463	20,561
Operating Income Recurring	Group	4,160	-	-	4,160
	Gas & Services	4,362	-	-	4,362
Operating Margin	Group	17.8%			19.2%
	Gas & Services	19.6%			21.2%

CARBON INTENSITY CALCULATION

	2015	2021	2021/2015 change
(A) Operating income recurring before depreciation and amortization	4,033	6,333	
(B) Currency impact (2015) ⁽¹⁾		(491)	
(C) IFRS16 Impact ⁽²⁾		265	
(A) - (B) - (C) = (D) EBITDA used for Carbon Intensity calculation	4,033	6,559	
(E) CO2 equivalent emissions (Scopes $1 + 2^{(3)}$) in thousands of tonnes	29,413	36,364	
Carbon Intensity (E) / (D)	7.3	5.5	-24%

⁽¹⁾ At 2015 exchange rate excluding Argentina due to the hyperinflationary context in Argentina (EBITDA of Argentina conserved at 2021 rate).

⁽²⁾ The IFRS16 impact on operating income recurring before depreciation and amortization includes the neutralization of rental expenses, which are then reintegrated into depreciation and amortization and other financial expenses booked in relation to IFRS16

⁽³⁾ Scope 2 emissions calculated from the specific supplies (market-based): the Group hence adopted the methodology recommended by the GHG Protocol.

RECURRING NET PROFIT GROUP SHARE AND RECURRING NET PROFIT GROUP SHARE EXCLUDING CURRENCY IMPACT

The recurring net profit Group share corresponds to the net profit Group share excluding exceptional and significant transactions that have no impact on the operating income recurring.

	FY 2020	FY 2021	2021/2020 Change
(A) Net Profit (Group share) - As Published	2,435.1	2,572.2	+5.6%
(B) Exceptional and significant transactions after-tax with no impact on OIR			
- Exceptional expenses linked to the management of the Covid-19 pandemic	(48.6)		
- Strategic review of asset portfolio	(300.3)		
- Capital gain on Schülke divestiture	473.2		
- Early reimbursement cost of Airgas senior notes	(30.3)		
(A) - (B) = Net Profit Recurring (Group share)	2,341.1	2,572.2	+9.9%
(C) Currency impact		(79.1)	
(A) - (B) - (C) = Net Profit Recurring (Group share) excluding currency impact		2,651.3	+13.3%

NET PROFIT EXCLUDING IFRS16 AND NET PROFIT RECURRING EXCLUDING IFRS16

FY 2020	FY 2021
2,528.0	2,691.9
(13.2)	(13.3)
2,541.2	2,705.2
	2,528.0 (13.2)

⁽¹⁾The IFRS16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS16

	FY 2020	FY 2021
(A) Net Profit as Published	2,528.0	2,691.9
(B) Exceptional and significant transactions after-tax with no impact on OIR	94.0	0.0
(A) - (B) = Net Profit recurring	2,434.0	2,691.9
(C) IFRS16 Impact ⁽¹⁾	(13.2)	(13.3)
(A) - (B) - (C) = Net Profit recurring excluding IFRS16	2,447.2	2,705.2

⁽¹⁾The IFRS16 impact includes the reintegration of leasing expenses less depreciation and other financial expenses booked in relation to IFRS16

EFFICIENCIES

Efficiencies represent a sustainable cost reduction resulting from an action plan on a specific project. Efficiencies are identified and managed on a per project basis. Each project is followed by a team composed in alignment with the nature of the project (purchasing, operations, human resources...).

RETURN ON CAPITAL EMPLOYED - ROCE

Return on capital employed after tax is calculated based on the Group's consolidated financial statements, by applying the following ratio for the period in question.

For the numerator: net profit excluding IFRS16 - net finance costs after taxes for the period in question.

For the denominator: the average of (total shareholders' equity excluding IFRS16 + net debt) at the end of the past three half-years.

millions of euros)		FY 2020 (a)	H1 2021 (b)	FY 2021 (c)	ROCE Calculation
	Net Profit Excluding IFRS16			2,705.2	2,705.2
	Net Finance costs			(280.0)	
Numerator (c)	Effective Tax Rate ⁽¹⁾			24.6%	
(0)	Net Finance costs after tax			(211.2)	(211.2)
_	Net Profit - Net financial costs after tax			2,916.4	2,916.4
_	Total Equity Excluding IFRS16	19,032.2	19,607.6	22,039.6	20,226.5
Denominator ((a)+(b)+(c))/3	Net Debt	10,609.3	12,013.2	10,448.3	11,023.6
	Average of (total equity + net debt)	29,641.5	31,620.8	32,487.9	31,250.1
OCE					9.3%

⁽¹⁾ excluding non-recurring tax impact

RECURRING ROCE

The recurring ROCE is calculated in the same manner as the ROCE using the recurring net profit for the numerator. In 2021 the net profit recurring excluding IFRS16 was of the same amount as net profit excluding IFRS16.

(in millions of euros)		FY 2020 (a)	H1 2021 (b)	FY 2021 (c)	Recurring ROCE Calculation
	Net Profit Recurring Excluding IFRS16			2,705.2	2,705.2
	Net Finance costs			(280.0)	
Numerator	Effective Tax Rate ⁽¹⁾			24.6%	
(c)	Net Finance costs after tax			(211.2)	(211.2)
	Recurring Net Profit Excluding IFRS16 - Net financial costs after tax			2,916.3	2,916.4
	Total Equity Excluding IFRS16	19,032.2	19,607.6	22,039.6	20,226.5
Denominator ((a)+(b)+(c))/3	Net Debt	10,609.3	12,013.2	10,448.3	11,023.6
	Average of (total equity + net debt)	29,641.5	31,620.8	32,487.9	31,250.1
Recurring ROCE					9.3%

 $^{\scriptscriptstyle (1)}$ excluding non-recurring tax impact

Calculation of performance indicators (Quarter)

	Q4 2021	Q4 2021/2020 Published Growth	Currency impact	Natural gas impact	Electricity impact	Significant scope impact	Q4 2021/2020 Comparable Growth
Revenue							
Group	6,655	+27.2%	153	609	254	31	+7.2%
Impacts in %			+2.9%	+11.7%	+4.8%	+0.6%	
Gas & Services	6,332	+27.7%	147	609	254	31	+6.7%
Impacts in %			+3.0%	+12.2%	+5.2%	+0.6%	

4th quarter 2021 revenue

BY GEOGRAPHY

Revenue (in millions of euros)	Q4 2020	Q4 2021	Published change	Comparable change
Americas	1,908	2,242	+17.5%	+7.7%
Europe	1,771	2,620	+48.0%	+7.4%
Asia-Pacific	1,130	1,267	+12.2%	+4.4%
Middle East & Africa	150	203	+34.7%	+3.7%
Gas & Services Revenue	4,959	6,332	+27.7%	+6.7%
Engineering & Construction	86	137	+57.8%	+56.6%
Global Markets & Technologies	187	186	-0.8%	-3.3%
GROUP REVENUE	5,232	6,655	+27.2%	+7.2%

BY WORLD BUSINESS LINE

Revenue (in millions of euros)	04 2020	04 2021	Published change	Comparable change
	Q4 2020		Fublished change	comparable change
Large industries	1,330	2,319	+74.3%	+4.0%
Industrial Merchant	2,233	2,508	+12.4%	+9.0%
Healthcare	899	950	+5.7%	+4.0%
Electronics	497	555	+11.8%	+8.5%
GAS & SERVICES REVENUE	4,959	6,332	+27.7%	+6.7%

Geographic and segment information

		FY 2020		FY 2021			
(in millions of euros and %)	Revenue	Operating income recurring	OIR margin	Revenue	Operating income recurring	OIR margin	
Americas	7,799	1,530	19.6%	8,445	1,694	20.1%	
Europe	6,826	1,405	20.6%	8,315	1,444	17.4%	
Asia-Pacific	4,467	985	22.0%	4,790	1,066	22.2%	
Middle East and Africa	564	95	16.9%	717	158	22.1%	
Gas & Services	19,656	4,016	20.4%	22,267	4,362	19.6%	
Engineering and Construction	250	13	5.1%	387	42	11.0%	
Global Markets & Technologies	579	78	13.5%	681	97	14.2%	
Reconciliation	-	(317)	-	-	(341)	-	
TOTAL GROUP	20,485	3,790	18.5%	23,335	4,160	17.8%	

Consolidated income statement

(in millions of euros)	FY 2020	FY 2021
Revenue	20,485.2	23,334.8
Other income	216.1	226.8
Purchases	(7,197.7)	(9,388.7)
Personnel expenses	(4,239.8)	(4,362.9)
Other expenses	(3,336.3)	(3,477.2)
Operating income recurring before depreciation and amortization	5,927.5	6,332.8
Depreciation and amortization expenses	(2,137.9)	(2,172.5)
Operating income recurring	3,789.6	4,160.3
Other non-recurring operating income	481.2	8.3
Other non-recurring operating expenses	(620.7)	(159.0)
Operating income	3,650.1	4,009.6
Net finance costs	(352.8)	(280.0)
Other financial income	6.9	3.6
Other financial expenses	(94.0)	(131.9)
Income taxes	(678.2)	(914.8)
Share of profit of associates	(4.0)	5.4
PROFIT FOR THE PERIOD	2,528.0	2,691.9
- Minority interests	92.9	119.7
- Net profit (Group share)	2,435.1	2,572.2
Basic earnings per share (in euros)	5.16	5.45

Consolidated balance sheet

ASSETS (in millions of euros)	December 31, 2020	December 31, 2021
Goodwill	13,087.4	13,992.3
Other intangible assets	1,397.8	1,452.6
Property, plant and equipment	20,002.9	22,531.5
Non-current assets	34,488.1	37,976.4
Non-current financial assets	602.5	745.4
Investments in associates	160.9	158.0
Deferred tax assets	268.4	239.3
Fair value of non-current derivatives (assets)	90.9	73.4
Other non-current assets	1,122.7	1,216.1
TOTAL NON-CURRENT ASSETS	35,610.8	39,192.5
Inventories and work-in-progress	1,405.9	1,585.1
Trade receivables	2,205.8	2,694.1
Other current assets	737.7	810.5
Current tax assets	90.4	106.5
Fair value of current derivatives (assets)	44.1	63.9
Cash and cash equivalents	1,791.4	2,246.6
TOTAL CURRENT ASSETS	6,275.3	7,506.7
ASSETS HELD FOR SALE	91.0	83.9
TOTAL ASSETS	41,977.1	46,783.1

EQUITY AND LIABILITIES (in millions of euros)	December 31, 2020	December 31, 2021
Share capital	2,605.1	2,614.1
Additional paid-in capital	2,608.1	2,749.2
Retained earnings	11,033.8	13,645.1
Treasury shares	(139.8)	(118.3)
Net profit (Group share)	2,435.1	2,572.2
Shareholders' equity	18,542.3	21,462.3
Minority interests	462.3	536.5
TOTAL EQUITY	19,004.6	21,998.8
Provisions, pensions and other employee benefits	2,418.3	2,291.9
Deferred tax liabilities	1,871.5	2,126.8
Non-current borrowings	10,220.2	10,506.3
Non-current lease liabilities	969.4	1,032.8
Other non-current liabilities	206.5	343.0
Fair value of non-current derivatives (liabilities)	11.5	39.0
TOTAL NON-CURRENT LIABILITIES	15,697.4	16,339.8
Provisions, pensions and other employee benefits	316.1	309.4
Trade payables	2,437.9	3,333.2
Other current liabilities	1,809.2	2,002.9
Current tax payables	215.2	277.8
Current borrowings	2,180.5	2,188.6
Current lease liabilities	218.2	228.0
Fair value of current derivatives (liabilities)	59.0	67.5
TOTAL CURRENT LIABILITIES	7,236.1	8,407.4
LIABILITIES HELD FOR SALE	39.0	37.1
TOTAL EQUITY AND LIABILITIES	41,977.1	46,783.1

Consolidated cash flow statement

(in millions of euros)	FY 2020	FY 2021
Operating activities		
Net profit (Group share)	2,435.1	2,572.2
Minority interests	92.9	119.7
Adjustments:		
Depreciation and amortization	2,137.9	2,172.5
Changes in deferred taxes	(68.4)	106.2
Changes in provisions	411.8	(36.0)
Share of profit of associates	4.0	(5.4)
Profit/loss on disposal of assets	(454.7)	27.5
Net finance costs	249.0	203.1
• Other non cash items	124.8	132.3
Cash flow from operating activities before changes in net working capital	4,932.4	5,292.1
Changes in working capital	364.3	377.3
Other cash items	(91.0)	(98.7)
Net cash flows from operating activities	5,205.7	5,570.7
Investing activities		
Purchase of property, plant and equipment and intangible assets	(2,630.2)	(2,916.8)
Acquisition of consolidated companies and financial assets	(129.1)	(659.8)
Proceeds from sale of property, plant and equipment and intangible assets	81.3	88.7
Proceeds from the sale of subsidiaries, net of net debt sold and from the sale	718.8	130.9
of financial assets	/10.0	130.9
Dividends received from equity affiliates	4.6	5.5
Net cash flows used in investing activities	(1,954.6)	(3,351.5)
Financing activities		
Dividends paid		
• L'Air Liquide S.A.	(1,307.9)	(1,334.8)
Minority interests	(78.6)	(82.9)
Proceeds from issues of share capital	43.7	175.4
Purchase of treasury shares	(49.9)	(40.1)
Net financial interests paid	(255.1)	(204.9)
Increase (decrease) in borrowings	(482.0)	(17.2)
Lease liabilities repayments	(245.2)	(241.4)
Net interests paid on lease liabilities	(36.6)	(33.0)
Transactions with minority shareholders	(16.0)	(36.8)
Net cash flows from (used in) financing activities	(2,427.6)	(1,815.7)
Effect of exchange rate changes and change in scope of consolidation	(1.4)	16.8
Net increase (decrease) in net cash and cash equivalents	822.0	420.3
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	896.5	1,718.6
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	1,718.6	2,138.9

The analysis of net cash and cash equivalents at the end of the period is as follows:

(in millions of euros)	December 31, 2020	December 31, 2021
Cash and cash equivalents	1,791.4	2,246.6
Bank overdrafts (included in current borrowings)	(72.8)	(107.7)
NET CASH AND CASH EQUIVALENTS	1,718.6	2,138.9

Net debt calculation

(in millions of euros)	December 31, 2020	December 31, 2021
Non-current borrowings	(10,220.2)	(10,506.3)
Current borrowings	(2,180.5)	(2,188.6)
TOTAL GROSS DEBT	(12,400.7)	(12,694.9)
Cash and cash equivalents	1,791.4	2,246.6
TOTAL NET DEBT AT THE END OF THE PERIOD	(10,609.3)	(10,448.3)

Statement of changes in net debt

(in millions of euros)	FY 2020	FY 2021
Net debt at the beginning of the period	(12,373.3)	(10,609.3)
Net cash flows from operating activities	5,205.7	5,570.7
Net cash flows used in investing activities	(1,954.6)	(3,351.5)
Net cash flows used in financing activities excluding changes in borrowings	(1,690.5)	(1,593.6)
Total net cash flows	1,560.6	625.6
Effect of exchange rate changes, opening net debt of newly acquired companies and others	443.1	(269.3)
Adjustment of net finance costs	(239.7)	(195.3)
Change in net debt	1,764.0	161.0
NET DEBT AT THE END OF THE PERIOD	(10,609.3)	(10,448.3)

Benoît Potier also comments the Group's 2021 results in a video interview, available in French and English at <u>www.airliquide.com</u>.

The slideshow that accompanies this release is available as of 9:00 am (Paris time) at <u>www.airliquide.com</u>. Throughout the year, follow Air Liquide on Twitter: @AirLiquideGroup.

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Investor Relations

UPCOMING EVENTS

Capital Markets Day March 22, 2022

2022 1st Quarter Revenue April 27, 2022

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.

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.