Air Liquide creative oxygen

PRESS RELEASE
AND MANAGEMENT REPORT

Paris, February 11, 2020

2019: A landmark year for performance, investments and commitment to climate

Key Figures (in millions of euros)	FY 2019	2019/2018 as published	2019/2018 comparable [(a)]
Group Revenue	**21,920**	**+4.3%**	**+3.2%**
of which Gas & Services	*21,040*	*+4.6%*	*+3.5%*
Operating Income Recurring (OIR)	**3,794**	**+10.0%**	**+7.5%**
Group OIR Margin	17.3%	+90 bps	
Variation excluding energy	*+70 bps*		
Net Profit (Group Share)	2,242	+6.1%	
Net Profit Recurring (Group Share) [(b)]	2,307	+9.2%	+11.1%
Earnings per Share (in euros)	**4.76**	**+5.9%**	
2019 proposed Dividend per Share (in euros) [(c)]	**2.70**	**+12.4%**	
Cash Flow before change in working capital requirements [(d)]	4,859	+14.5%	
Net Debt	€ 12.4 Bn		
Recurring ROCE [(e)]	**8.6%**	**+60 bps**	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix. (b) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix. (c) 2018 figures restated for the impact of the free share attribution in October 2019. (d) Excluding IFRS16, the change would be +8.3%. (e) Based on the recurring net profit, see reconciliation in appendix.

Commenting on the results for 2019, Benoît Potier, Air Liquide Chairman and CEO, stated:

"2019 is a landmark year, characterized simultaneously by a significant improvement in performance, a high level of investments to serve our customers and strengthen our efficiency, and the operational implementation of our climate action plan.

2019 sales were driven by the development of Gas & Services and Global Markets & Technologies. On a comparable basis, all Gas & Services activities, which account for 96% of Group revenue, progressed over the year, with particularly dynamic Electronics and Healthcare. Geographically, every region grew, notably the Europe and Asia-Pacific regions.

Overall, and despite the expected global economic slowdown observed in the 4th quarter, the Group delivered robust results, confirming the relevance of its economic model and strategy.

The improvement in the Group's operating margin reflects the dynamic management of both pricing and product mix, the asset portfolio, and efficiencies. The latter reached 433 million euros. Cash flows were high and the debt to equity ratio declined substantially. The Group's balance sheet is solid. ROCE continues to improve. 2019 performance is in line with all of the targets of the NEOS program and the Group's Climate objectives.

In a context where industrial opportunities remain high, investment decisions rose sharply, to 3.7 billion euros. The new projects that have been signed with our clients in Large Industry and Electronics will allow us to further strengthen our position in our major industrial basins.

Assuming no major change in the environment and the international health situation is under control, Air Liquide is confident in its ability to further increase its operating margin and to deliver net profit growth in 2020, at constant exchange rates."

2019 Highlights

- **Large Industries**: Signature of numerous long-term contracts, in Russia with Severstal, in the Gulf Coast with Marathon Petroleum Company, Gulf Coast Growth Ventures (GCGV), LyondellBasel and Methanex, and in Kazakhstan with Kazakhstan Petrochemical Industries (KPI). Sale to Fujian Shenyuan of the production center.
- **Industrial Merchant**: Acquisition by Airgas of Tech Air in the United States and acquisition of Southern Industrial Gas in Malaysia. Launch of Qlixbi, a disruptive innovation that combines technical and digital innovation in the field of welding. Inauguration of the first robotic order preparation line at Feyzin (France).
- **Healthcare**: Acquisitions in home healthcare of Megamed AG in Switzerland, of Dialibre in Spain, and of Medidis in the Netherlands. E-health: deployment in France of Chronic Care Connect, a remote medical monitoring system.
- **Innovation**: Inauguration in Japan of the new Tokyo Innovation Campus. Inauguration of Accelair, the deep tech start-up accelerator of the Paris Innovation Campus. Signature of more than 30 contracts for cryogenic equipment based on the Turbo Brayton technology, which lowers LNG boil-off and the greenhouse gas emissions of LNG carriers.
- **Climate**: Participation in three innovative projects designed to fight climate change: the Northern Lights project for the capture and storage of CO_2 in Norway, with thyssenkrupp Steel for the use of hydrogen to reduce carbon emissions in steel production, and with ArcelorMittal for the capture and recycling of carbon emissions related to the production of steel.
- **Hydrogen Energy**: Acquisition of a nearly 20% equity stake in the Canadian company Hydrogenics Corporation, which specializes in equipment used to produce hydrogen by electrolysis. Construction in Canada of the largest membrane electrolysis plant in the world. Development of hydrogen mobility in China with the creation of the joint venture Air Liquide Houpu Hydrogen Equipment Co. and a memorandum of understanding with Sinopec. Partnership in France with Engie and the Durance Luberon Verdon urban area to produce green hydrogen on an industrial scale (HyGreen project).
- **Corporate**: Appointment of 4 new members of the Executive Committee effective September 1. 500 million dollar bond issue at a historically low rate to finance long-term growth. Inclusion of a correlation mechanism in the Group's 2 billion euro syndicated line, between its financial costs and three of its CSR targets, in the areas of carbon intensity, gender diversity, and safety.

Group revenue for 2019 totaled **21,920 million euros**, up **+3.2%** on a comparable basis. Gas & Services enjoyed robust comparable sales growth of **+3.5%** despite the slowing economic environment in the 4th quarter of 2019. In Engineering & Construction, sales to third-party customers were down compared with 2018, with resources mainly allocated to internal projects. Global Markets & Technologies continued its dynamic development with growth of **+14.9%**. The currency impact was positive at +2.1%, whereas the energy impact was unfavorable (-1.4%). The acquisition of Tech Air in the United States at the end of the 1st quarter of 2019 and the disposal of Fujian Shenyuan in September generated a significant scope impact of +0.4% over the year. The Group's **published revenue growth** was therefore up **+4.3%** for 2019.

Gas & Services revenue reached **21,040 million euros** in 2019, up **+3.5%** on a comparable basis. **As published sales** were up **+4.6%** in 2019, with the unfavorable energy impact (-1.5%) more than offset by the favorable currency (+2.1%) and significant scope (+0.5%) impacts.

- Revenue in the **Americas** totaled **8,460 million euros** in 2019, an increase of **+1.5%** in comparable growth. Large Industries sales were stable in 2019, due to several customer maintenance turnarounds in the United States during the 2nd half of the year. Industrial Merchant revenue growth was resilient at +0.7%, driven mainly by higher prices. Electronics growth stood at +2.1% and Healthcare continued to improve strongly (+9.7%), in particular in Medical Gases in the United States and Latin America.
- Revenue in **Europe** reached **7,172 million euros** over 2019, up **+3.4%** on a comparable basis driven mainly by good Healthcare sales momentum (+5.2%) and a solid growth in Industrial Merchant (+3.4%), notably thanks

to high price impacts and robust volumes. Large Industries sales (+1.7%) were driven by higher hydrogen volumes for refineries in Benelux, whereas demand remained weaker in the Steel and Chemical sectors.

- Revenue in the **Asia Pacific** zone totaled **4,794 million euros** in 2019, up **+7.7%** on a comparable basis. Large Industries sales grew strongly (+9.7%) thanks to the ramp-up of several units in China. Industrial Merchant growth was solid (+3.7%), in particular in China and South-East Asia. Electronics revenue maintained its very dynamic growth momentum in 2019 (+10.4%) despite a major decline in Equipment & Installations sales in the 4th quarter compared with record high sales in 2018.
- Revenue in the **Middle East and Africa** zone amounted to **614 million euros**, up **+1.5%** over 2019 on a comparable basis. Industrial Merchant remained very dynamic in the Middle East, Egypt and India, with strong helium sales in particular. Activity was up slightly in Large Industries, with the major units in the region, located in Saudi Arabia and South Africa, now operating at full capacity. The Healthcare business continued to grow in Egypt and Saudi Arabia.

All businesses contributed to growth in 2019, in particular Healthcare and Electronics. Large Industries (**+3.4%**) benefited notably from sustained hydrogen volumes in Europe and Asia and from the ramp-up of several new units. In a less favorable economic environment in the 4th quarter 2019, Industrial Merchant growth reached **+1.9%** over the year, driven mainly by efficient price management (**+3.6%**), including helium. Strong healthcare growth (**+5.7%**) was due to organic sales growth, in particular in Home Healthcare in Europe and Latin America and in Medical Gases in the United States. Electronics revenue maintained a very dynamic growth momentum over the year (**+7.9%**) with double-digit growth for Carrier Gases and Advanced Materials sales.

Consolidated **Engineering & Construction** revenue, at **328 million euros**, was down compared with 2018, with resources mainly allocated to internal projects in Large Industries and Electronics. Total sales including Group projects were up, boosted by a record-high level of investment decisions, in particular in Large Industries.

Global Markets & Technologies revenue was up **+14.9%** in 2019 on a comparable basis, at **552 million euros.** Biomethane grew strongly thanks to the ramp-up of several units in Europe. Sales of equipment related to the Turbo Brayton technology, which reduces greenhouse gas emissions when transporting natural gas by sea, also strongly contributed to this growth.

In 2019, **efficiencies** increased markedly by **+23.4%** to **433 million euros**, compared with 351 million euros in 2018. These represented savings of 2.7% of the cost base and largely exceeded the objective, which had been set at more than 400 million euros after the reinforcement of the program at the beginning of the year. The main drivers of this increase in efficiencies are the roll-out of digital tools, the continuation of the realignment plans and the ramp-up of Airgas within the program.

The Group's **operating income recurring (OIR)** reached **3,794 million euros** for 2019, a published increase of +10.0%, or +7.5% on a comparable basis. The **operating margin (OIR to revenue)** stood at **17.3%**, a marked improvement of **+90 basis points** compared to 2018 and of **+70 basis points** excluding the energy impact, including +10 basis points from the application of IFRS 16. The Gas & Services **operating margin** stood at **19.1%**, an improvement **+60 basis points** compared with 2018 excluding the energy impact.

Net profit (Group share) amounted to **2,242 million euros** in 2019, an increase of **+6.1%** as published and **+6.7%** excluding the application of IFRS 16.

Excluding the capital loss on the disposal of the Fujian Shenyuan units in 2019 and the non-recurring financial gain in 2018, **recurring net profit[1] Group share** was up **+11.1%**.

Cash flow from operating activities before changes in working capital requirement totaled **4,859 million euros** and stood at **22.2% of Group sales** (21.0% excluding the application of IFRS 16). This represented strong published growth of **+14.5%** (+8.3% excluding the application of IFRS 16).

[1] *See definition and reconciliation in Appendix*

In 2019, gross industrial capital expenditure for the Group amounted to 2,636 million euros, a major increase of +17.2% compared to 2018. It represented 12.0% of sales. The net debt-to-equity ratio stood at 64.0% at the end of December 2019, an improvement of -480 basis points compared to the end of 2018.

Industrial and financial investment decisions represented a total of 3.7 billion euros in 2019, a +19.8% increase compared with 2018. Industrial investment decisions reached a record high of 3,157 million euros, with major investments for long-term contracts with Large Industries customers, mainly in strategic basins where the Group is already present. The 12-month portfolio of opportunities remained strong and totaled 2.9 billion euros, an increase compared with 2.6 billion euros at the end of 2018.

Recurring ROCE[(1)] which excludes the capital loss on the disposal of the Fujian Shenyuan units on net profit, stood at 8.6%, i.e. a +60 basis points improvement compared to the end of December 2018. This improvement is in line with the Group's NEOS target of returning to a ROCE of above 10% by 2021-2022.

Regarding to the extra financial performance of the Group, lost time accident frequency improved and reached 1.2 at the end of 2019. This represents the lowest employees lost time accident frequency rate of the last 20 years. In 2019, the Group's carbon intensity declined further and reached 4.6 kg of CO_2 equivalent per euro of EBITDA[(2)]. It is lower than the initial forecast, notably from the disposal of the Fujian Shenyuan units but also because of several customer maintenance turnarounds, leading to lower production volumes. In January 2020, the Group's commitment has been rewarded twice by the CDP[(3)], who gave Air Liquide the highest grade "A" both for its actions in favor of climate and its sustainable management of water. In addition, Air Liquide had 29% of women among engineers and managers in 2019 and aims to reach 35% by 2025.

Air Liquide's Board of Directors, which met on February 10, 2020, approved the audited financial statements for the 2019 fiscal year. The Statutory Auditors are in the process of issuing a report with an unqualified opinion.

At the next Annual General Meeting the payment of a dividend of 2.70 euros per share will be proposed. Following the free share attribution of 1 for 10 in October 2019, the proposed dividend shows a strong growth of +12.4% compared with last year. The ex-dividend date is scheduled for May 11, 2020 and the payment is scheduled for May 13, 2020.

The Board also approved the draft resolutions that will be submitted for a vote by the General Meeting on May 5, 2020, concerning in particular:

- the proposed reappointment, for a four-year term, of Mr. Brian Gilvary, a member of the company's Board of Directors since 2016 and a member of the Audit and Accounts Committee since 2017;
- the proposed appointment, for a four-year term, of Ms. Anette Bronder and Ms. Kim-Ann Mink. Ms. Bronder will bring to the Board her strong digital expertise, as well as her experience of large international groups in the fields of IT and telecom. Ms. Mink will bring to the Board, in addition to her scientific academic background and her experience in research and innovation, her strong leadership skills and deep understanding of the chemical sector.

The Board of Directors has, moreover, taken note that the terms of office of Mr. Pierre Dufour and Ms. Karen Katen will expire at the close of the 2020 General Meeting. The Board thanked them warmly for their considerable contribution to the work of the Board and its Committees. The Board stated its intention, furthermore, to appoint Ms. Annette Winkler as a replacement for Mr. Pierre Dufour as Chairman of the Environment and Society Committee, Mr. Xavier Huillard as a member of the Appointments and Governance Committee as a replacement for Ms. Karen Katen, and Mr. Brian Gilvary as a member of the Remuneration Committee as a replacement for Ms. Annette Winkler, with effect from that date.

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[1] *See definition and reconciliation in the appendix.*
[2] *At 2015 exchange rate.*
[3] *A non-profit organization that evaluates companies based on their climate action.*

At the close of the General Meeting on May 5 , 2020, the Board of Directors would thus have 12 members, of whom 11 are elected and one is an employee Director. The Board of Directors would include 6 women and 6 foreign members.

Furthermore, the Board of Directors will propose that the General Meeting bring the articles of association into line with the provisions of the PACTE law, in order to provide for the appointment of a second employee Director, if the number of Directors is more than 8 members, the said Director to be appointed by the European Works' Council.

Finally, in accordance with the new provisions resulting from the PACTE law, the Board of Directors will submit for the vote of the General Meeting the elements of Mr. Benoît Potier's remuneration for 2019, in his capacity as Chairman and Chief Executive Officer, together with the information relating to the remuneration for all the corporate officers. The General Meeting will also be invited to decide upon the remuneration policy for the corporate officers which will apply to Mr. Benoît Potier and to the Company's Directors.

Management Report's Table of Content

PERFORMANCE

Unless otherwise specified, all variations on revenue commented below are made on a comparable basis, which excludes the currency, energy (natural gas and electricity) and significant scope impacts. The reference to Airgas corresponds to the Group Industrial Merchant and Healthcare activities in the United States.

Key Figures

(in millions of euros)	FY 2018	FY 2019	2019/2018 published change	2019/2018 comparable change [a]
Total Revenue	**21,011**	**21,920**	**+4.3%**	**+3.2%**
Of which Gas & Services	*20,107*	*21,040*	*+4.6%*	*+3.5%*
Operating Income Recurring	3,449	3,794	+10.0%	+7.5%
Operating Income Recurring (as % of Revenue)	16.4%	17.3%	+90 bps	
Variation excluding energy		*+70 bps*		
Other Non-Recurring Operating Income and Expenses	(162)	(188)		
Net Profit (Group Share)	2,113	2,242	+6.1%	
Recurring Net Profit (Group Share) [b]	2,113	2,307	+9.2%	+11.1%
Adjusted Earnings per Share (in euros)	4.49	4.76	+5.9%	
Adjusted Net Dividend per Share (in euros) [c]	**2.40**	**2.70**	**+12.4%**	
Cash Flow before change in working capital requirements [d]	4,242	4,859	+14.5%	
Net Capital Expenditure [e]	2,272	2,616		
Net Debt	12,535	12,373		
Net Debt to Equity ratio	68.8%	64.0%		
Recurring ROCE [f]	**8.0%**	**8.6%**	**+60 bps**	

(a) Change excluding the currency, energy (natural gas and electricity) and significant scope impacts, see reconciliation in appendix.
(b) Excluding exceptional and significant transactions that have no impact on the operating income recurring, see reconciliation in appendix.
(c) 2019 proposed dividend. 2018 figures restated for the impact of the free share attribution in October 2019.
(d) Data from 2018 restated. Excluding IFRS16, the change would be +8.3%.
(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 2018**	**FY 2019**	**2019/2018 published change**	**2019/2018 comparable change**
Gas & Services	20,107	21,040	+4.6%	+3.5%
Engineering & Construction	430	328	-23.7%	-25.0%
Global Markets & Technologies	474	552	+16.5%	+14.9%
TOTAL REVENUE	**21,011**	**21,920**	**+4.3%**	**+3.2%**

Revenue by quarter *(in millions of euros)*	**Q1 2019**	**Q2 2019**	**Q3 2019**	**Q4 2019**
Gas & Services	5,237	5,299	5,242	5,262
Engineering & Construction	93	83	81	71
Global Markets & Technologies	111	129	131	181
TOTAL REVENUE	**5,441**	**5,511**	**5,454**	**5,514**
2019/2018 Group published change	**+8.6%**	**+7.0%**	**+3.5%**	**-1.1%**
2019/2018 Group comparable change	**+5.0%**	**+4.7%**	**+3.5%**	**-0.1%**
2019/2018 Gas & Services comparable change	**+4.8%**	**+5.0%**	**+3.5%**	**+0.9%**

Group

Group revenue for 2019 totaled 21,920 million euros, up +3.2% on a comparable basis. Gas & Services enjoyed robust comparable sales growth of +3.5% despite a slowing economic environment in the 4th quarter of 2019. In Engineering & Construction, sales to third-party customers were down compared with 2018, with resources mainly allocated to internal projects, industrial investment decisions having reached a record high in 2019, in particular in Large Industries. Global Markets & Technologies continued its dynamic development with growth of +14.9%.

The currency impact was positive at +2.1%, whereas the energy impact was unfavorable (-1.4%). The acquisition of Tech Air in the United States at the end of the 1st quarter of 2019 and the disposal of Fujian Shenyuan in September generated a significant scope impact of +0.4% over the year. The Group's published revenue growth was therefore up +4.3% for 2019.

Gas & Services

Gas & Services revenue reached 21,040 million euros in 2019, up +3.5% on a comparable basis. All activities contributed to growth, in particular Healthcare and Electronics. Large Industries (+3.4%) benefited notably from sustained hydrogen volumes in Europe and Asia and from the ramp-up of several new units. In a less favorable economic environment in the 4th quarter 2019, Industrial Merchant growth reached +1.9%, driven mainly by efficient price management (+3.6%), including helium. Strong healthcare growth (+5.7%) was due to organic sales growth, in particular in Home Healthcare in Europe and Latin America and in Medical Gases in the United States. Electronics revenue maintained a very dynamic growth momentum over the year (+7.9%) with double-digit growth for Carrier Gases and Advanced Materials sales.

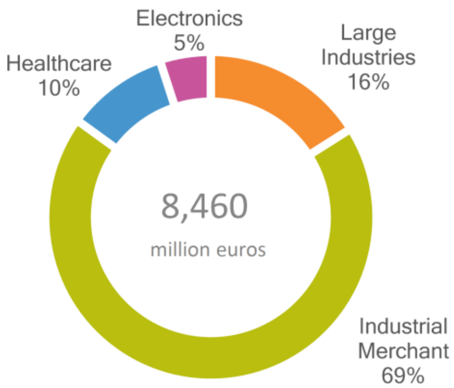
As published sales were up **+4.6%** in 2019, with the unfavorable energy impact (-1.5%) more than offset by the favorable currency (+2.1%) and significant scope (+0.5%) impacts which included the consolidation of Tech Air and the disposal of Fujian Shenyuan.

Revenue by geography and business line *(in millions of euros)*	**FY 2018**	**FY 2019**	**2019/2018 published change**	**2019/2018 comparable change**
Americas	7,982	8,460	+6.0%	+1.5%
Europe	7,111	7,172	+0.9%	+3.4%
Asia-Pacific	4,359	4,794	+10.0%	+7.7%
Middle East & Africa	655	614	-6.3%	+1.5%
GAS & SERVICES REVENUE	**20,107**	**21,040**	**+4.6%**	**+3.5%**
Large Industries	5,685	5,629	-1.0%	+3.4%
Industrial Merchant	9,181	9,754	+6.3%	+1.9%
Healthcare	3,486	3,693	+6.0%	+5.7%
Electronics	1,755	1,964	+11.9%	+7.9%

Americas

Gas & Services revenue in the Americas totaled **8,460 million euros** in 2019, an increase of **+1.5%**. Large Industries sales were stable in 2019, due to several customer maintenance turnarounds in the United States during the 2nd half of the year. Industrial Merchant revenue growth was resilient at +0.7%, driven mainly by higher prices. Electronics growth stood at +2.1% and Healthcare continued to improve strongly (+9.7%), in particular in Medical Gases in the United States and Latin America.

Americas Gas & Services 2019 Revenue



- **Large Industries** revenue was stable compared with 2018. Activity was dynamic throughout the year in Latin America, in particular with the start-up of a hydrogen-supply contract in Mexico in the 2nd quarter, and the ramp-up of Air Separation Units in Brazil and Columbia. The situation in North America was more contrasted. The solid growth in oxygen volumes during the 1st half of 2019 did not offset the high prices of the 1st half of 2018, due to severe weather conditions. The 2nd half saw a decline in hydrogen sales, as the numerous customer maintenance turnarounds penalized sales growth by more than 4% over the half year. Cogeneration sales strongly improved over the year.
- **Industrial Merchant** sales growth was resilient at **+0.7%** in a slower industrial environment, driven by high prices, which were up +4.3% over the year. In North America, sales grew strongly in consumer-related markets such as Food and Pharmaceuticals as well as in the Research sector. In contrast, hardgoods revenue declined significantly in the United States, due to the slowdown in industrial sectors such as Construction and Metal Fabrication. In South America, double-digit growth was driven in particular by a strong increase in liquid gas volumes in Brazil.
- **Healthcare** revenue grew strongly by **+9.7%**, with no significant contribution from acquisitions. Medical Gases sales growth was high in the United States, in particular to proximity care players, where the digital interface cylinder offering has enjoyed significant success. Activity remained very dynamic in Latin America, in particular in Colombia.

- **Electronics** sales were up **+2.1%** over the year, driven by strong Carrier Gases growth, whereas Equipment & Installation sales in the 4th quarter were down markedly, compared with record level seen in the same period in 2018.

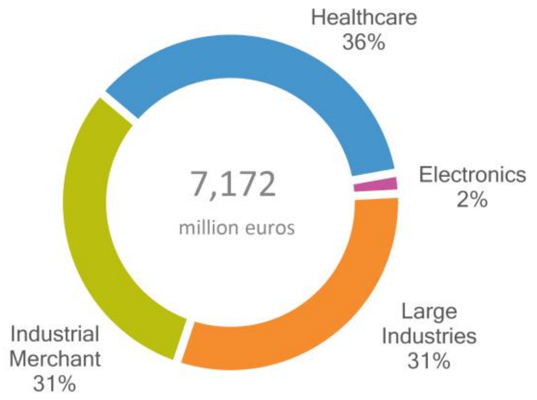
Americas

- Mid-June, Air Liquide announced the **signature of two long-term supply agreements with Marathon Petroleum Company** for a total of up to **900 tonnes per day of oxygen** for Marathon Petroleum's Refineries in Texas City, Texas and Garyville, Louisiana. The two agreements nearly **double the amount of oxygen** that Air Liquide will supply to Marathon Petroleum in total. Both sites are located on the Gulf Coast.
- **Air Liquide and Shell Chemicals** announced in late July the **renewal of contracts** for the supply of **oxygen, nitrogen, steam and electricity** to Shell's Scotford facility in **Alberta, Canada**. To support this renewed long-term commitment, Air Liquide will further enhance its Scotford site operations, which will support future growth in this key industrial basin and create additional operational efficiencies.

Europe

Revenue in Europe reached **7,172 million euros** over 2019, up **+3.4%** on a comparable basis driven by good Healthcare sales momentum (+5.2%) and a solid growth in Industrial Merchant (+3.4%), notably thanks to high price impacts and robust volumes. Large Industries sales (+1.7%) were driven by higher hydrogen volumes for refineries in Benelux, whereas demand remained weaker in the Steel and Chemical sectors.

Europe Gas & Services 2019 Revenue



- **Large Industries** revenue was up **+1.7%** over the year. Hydrogen sales were boosted by high demand among refiners connected to the pipeline network in the Benelux. Activity was weaker in the Steel sector in Germany and Italy and in Chemicals in Germany. Sales growth continued in the East, in particular with final contributions from the ramp-up of an oxygen unit in Turkey and the takeover of a hydrogen unit in Kazakhstan.
- **Industrial Merchant** sales growth was very solid in 2019 (**+3.4%**), driven mainly by high prices (+3.2%) and the further development of the Food and Pharmaceuticals markets. Several initiatives creating significant value for both customers and the Group were launched, focusing the customer portfolio on applications which justify higher price impacts. At the same time, the carbon dioxide market recovered from a difficult 2018. Almost all countries contributed to growth, in particular Eastern Europe and the United Kingdom which enjoyed double-digit growth.
- **Healthcare** sales enjoyed strong, fully organic growth of **+5.2%**. Growth momentum in Home Healthcare was very dynamic, notably thanks to a strong increase in the number of patients treated for diabetes in Scandinavia and France, and for sleep apnea in France and Spain. Sales of Medical Gases for hospitals improved despite constant pressure on pricing. The Hygiene activity grew strongly, through the German subsidiary Schülke.

Europe

- Air Liquide and PAO Severstal, a steel and mining company and long-term partner of the Group, have announced the signature, in March, of a new **long-term contract for the supply of oxygen, nitrogen and argon** in Cherepovets (Russia). Air Liquide will invest around **50 million euros** in the construction of a state-of-the art Air Separation Unit (ASU), which will improve significantly the energy efficiency of the production process and **reduce CO_2 emissions by 20,000 tons per year**. The new signature illustrates the Group's development strategy in key industrial basins and demonstrates its ability to create value for its customers.

- In October, Air Liquide announced the signature of a **long-term contract** in **Kazakhstan**. **Air Liquide Munay Tech Gases**, a company jointly owned by Air Liquide (75%) and the Kazakhstan national oil & gas company (25%), will build, own and operate a new nitrogen unit in a growing chemical basin, requiring a **15 million euros** investment. This new unit will supply up to **8,000 Nm3/h nitrogen** and should be operational in **2021**.

- **Air Liquide is pursuing its development in home healthcare in Europe** by broadening its range of services for diabetes patients in Germany, Belgium, the Netherlands and Luxembourg. The Group provides home care for **1.7 million patients** with chronic diseases around the world. **Air Liquide leverages its experience in the support of patients with respiratory diseases**, which combines expertise in medical equipment, personalized patient follow-up and development of associated digital services.

Asia Pacific

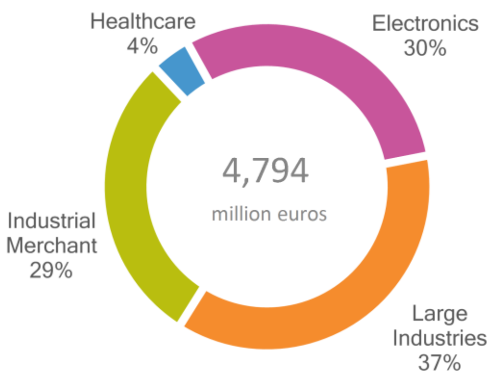
Revenue in the Asia Pacific zone totaled **4,794 million euros** in 2019, up **+7.7%**. Large Industries sales grew strongly (+9.7%) thanks to the ramp-up of several units in China. Industrial Merchant growth was solid (+3.7%), in particular in China and South-East Asia. Electronics revenue maintained its very dynamic growth momentum in 2019 (+10.4%) despite a major decline in Equipment & Installations sales in the 4th quarter compared with record high sales in 2018.

- **Large Industries** sales (**+9.7%**) were driven in particular by the recent ramp-up of three production units in China, including the contribution from Fujian Shenyuan, which was disposed of in early September. Hydrogen sales to refiners also rose strongly in Singapore.

- In **Industrial Merchant**, revenue was up by **+3.7%** thanks notably to the strong increase in cylinder gas volumes in China. Liquid gas volumes were up in the Chinese market but did not offset prices that are now returning to normal levels compared with high previous years. In South-East Asia, revenue also enjoyed sustained growth, particularly in Singapore and Malaysia, whereas the Japanese and Australian markets remained more challenging. The region benefited from a positive price impact of +1.1%, partly driven by helium.

- **Electronics** revenue was up **+10.4%**, thanks to the double-digit growth of Carrier Gases which benefited from the ramp-up of several units, and the growth of Advanced Materials with the success of the new enScribe™ offering for the etching of

Asia Pacific Gas & Services 2019 Revenue



electronic chips, in particular in Korea. Following a strong 1st half-year, Equipment & Installation sales were down towards the end of the year compared with the record level seen during the 4th quarter of 2018.

Asia-Pacific

- In mid-September, Air Liquide announced the **signature of a long-term contract** for the supply of **hydrogen** to Shell's Tabangao refinery in the **Philippines**. Air Liquide will invest **30 million euros** in the construction of a state-of-the-art Hydrogen Manufacturing Unit (HMU) that will be fitted with **a CO_2 recovery unit** that mitigates direct carbon emission levels by capturing and liquifying the CO_2 for other uses.

- Air Liquide announced in late-October the **acquisition of Southern Industrial Gas Sdn Bhd** (SIGSB), a **key Malaysian industrial gas player** with approximately **20 million euros of annual revenue**. This operation doubles Air Liquide's Packaged Gases filling capacity in Malaysia and is expected to deliver significant synergies with its current operations in the country, which now covers most of Malaysia.

Middle East and Africa

Revenue in the Middle East and Africa zone amounted to **614 million euros**, up **+1.5%** over 2019. Industrial Merchant remained very dynamic in the Middle East, Egypt and India, with strong helium sales in particular. Activity was up slightly in Large Industries, with the major units in the region, located in Saudi Arabia and South Africa, now operating at full capacity. The Healthcare activity continued to grow in Egypt and Saudi Arabia.

Engineering & Construction

Consolidated **Engineering & Construction** revenue, at **328 million euros**, was down compared with 2018, with resources mainly allocated to internal projects in Large Industries and Electronics. Total sales including Group projects were up, boosted by a record-high level of investment decisions, in particular in Large Industries.

Order intake for Group projects and third-party customers totaled **838 million euros** at the end of December 2019, a slight increase compared with 2018. They came from Asia, followed by Europe and the Americas. These orders are mainly related to Air Separation Units for the Chemicals and Metals industries, and ultra-pure nitrogen production units for the semiconductor industry.

Global Markets & Technologies

Global Markets & Technologies revenue was up **+14.9%** in 2019 at **552 million euros.** Biomethane grew strongly thanks to the ramp-up of several units in Europe. Sales of equipment related to the Turbo Brayton technology, which reduces greenhouse gas emissions through the reliquefaction of natural gas when transported by sea, also strongly contributed to this growth.

Order intake for Group projects and third-party customers was up +13.7% and totaled **523 million euros**, of which more than 100 million euros are for equipment based on the Turbo Brayton technology.

Innovation and Global Markets & Technologies

- Air Liquide inaugurated in March its **Tokyo Innovation Campus in Japan**. This newest Campus, representing an **investment of 50 million euros**, illustrates the Group's open innovation approach, with a focus on energy transition and environment, healthcare, digital transformation and development of Advanced Materials for Electronics. It will gather **nearly 200 employees** in a state-of-the art new 8,000-square-meter site.

- In April, Air Liquide announced having signed **more than 20 contracts worth a total of 100 million euros** thanks to a solution that reduces greenhouse gas emissions for the maritime industry. The Group developed a refrigeration and liquefying technology based on the Turbo-Brayton physical principle, which reliquefies the evaporated natural gas in LNG (Liquefied Natural Gas) vessels and keeps it under its liquid form in the container. With these contracts, Air Liquide is helping to **prevent more than 120,000 tonnes of CO_2-equivalent emissions per year**.

- Air Liquide and Houpu (Chengdu Huaqi Houpu Holding co.) announced at the end of April the finalization of the creation of Air Liquide Houpu Hydrogen Equipment, a **joint venture for the development, production and distribution of hydrogen refueling stations** for Fuel Cell Electric Vehicles. This collaboration will combine Air Liquide's global technological expertise in clean hydrogen mobility solutions with Houpu's leadership in the production and construction of natural gas refilling stations on the **Chinese market**.

- In early September, Air Liquide **signed a Memorandum of Understanding with Equinor and its partners (Shell and Total) to explore collaboration in a CO_2 capture and storage project, Northern Lights**. The Northern Lights project is aimed to mature the development of offshore carbon storage on the Norwegian Continental Shelf and has the potential to be the first storage project site in the world receiving CO_2 from industrial sources in several European countries.

- In mid-September, Air Liquide announced the **launch of Qlixbi, a breakthrough packaged gas offer including a new generation of gas cylinder and a suite of digital solutions designed to revolutionize the customer experience in welding**. Developed in collaboration with more than 700 welding customers, this innovation will improve the way they use and manage gases in their daily operations thanks to a revolutionary connector ("Click & Weld"), a reserve indicator on the cylinder combined with an IoT ("Internet of Things") system and a digital application.

- In November, **Air Liquide and Sinopec** have signed a **Memorandum of understanding** in order to accelerate the **deployment of hydrogen mobility solutions in China**. Under the agreement, Air Liquide will provide its expertise so as to develop competitive hydrogen solutions for the world's largest mobility market. It will reinforce the **long-term partnership** between Air Liquide and Sinopec.

- **Air Liquide, the Durance, Luberon, Verdon urban area (DLVA) and Engie** have entered into an ambitious partnership in November to develop the **"HyGreen Provence"** project, which aims at producing, storing and distributing green hydrogen. Initiated in 2017, it will make possible the production of **1,300 GWh** of solar electricity as well as the **production of renewable hydrogen on an industrial scale through water electrolysis**. It will meet a very broad spectrum of needs from transportation to heating. The first deliverable stages should occur by the **end of 2021**.

OPERATING INCOME RECURRING

Operating income recurring before depreciation and amortization reached **5,932 million euros**, up by a strong **+13.7%** as published compared with 2018 and **+8.6%** excluding the application of IFRS 16. Under IFRS 16, operating expenses linked to lease contracts are now accounted for as depreciation and amortization and financial expenses, which explains the minor increase of +1.5% in **other operating expenses and income**. Purchases were down -1.5%, thanks mainly to the decrease in natural gas prices, lower hardgoods sales and the impact of the efficiency program. **Personnel costs** were up +6.4%, mainly due to acquisitions, in particular that of Tech Air in the United States, and the increase in the number of employees to support the growth of Home Healthcare which is a labor-intensive business.

Depreciation and amortization reached **2,138 million euros**, up markedly by +21.0% due to the application of IFRS 16. Despite the impact of the start-up and ramp-up of new production units, the increase in depreciation and amortization was limited to +4.5% excluding the currency impact and the application of IFRS 16.

In 2019, **efficiencies** increased markedly by **+23.4%** to **433 million euros**, compared with 351 million euros in 2018. These represented savings of 2.7% of the cost base and largely exceeded the objective, which had been set at more than 400 million euros after the reinforcement of the program at the beginning of the year. The main drivers of this increase in efficiencies are the roll-out of digital tools, the continuation of the realignment plans and the ramp-up of Airgas within the program. In total, more than 60% of efficiencies are from industrial projects, which target in particular a decrease in logistics costs and the optimization of production units, around 30% relate to purchasing gains and almost 10% to transformation initiatives, notably the restructuring of operations. The contribution from the roll-out of digital tools is increasing. In addition, employee training on **continuous improvement** initiatives supported the efficiency program.

Efficiencies

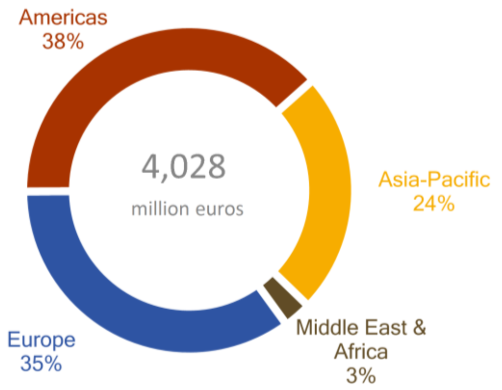
- Early May, Air Liquide and STMicroelectronics announced **a collaborative initiative** on **digital transformation** to accelerate the development of **digital solutions for industrial applications**. This cooperation will extend the long-standing business relationship established over the past decades between both companies.

The Group's **operating income recurring (OIR)** reached **3,794 million euros** for 2019, a published increase of +10.0%, or +7.5% on a comparable basis. The **operating margin (OIR to revenue)** stood at **17.3%**, a marked improvement of **+90 basis points** compared to 2018 and of **+70 basis points** excluding the energy impact, including +10 basis points from the initial application of IFRS 16.

The improvement in operating margin was driven by three factors: an increase in prices as part of a process to create value for customers and measures in favor of the product mix; the first results from the strengthening of the efficiencies program; and active business portfolio management.

Gas & Services

Gas & Services 2019 operating income recurring



Operating income recurring for Gas & Services amounted to **4,028 million euros**, an increase of +9.5% as published, and +7.2% on a comparable basis compared to 2018. The Gas & Services **operating margin** stood at **19.1%**, an improvement of **+80 basis points** and of **+60 basis points** excluding the energy impact, including +10 basis points from the initial application of IFRS 16.

Gas & Services Operating margin [(a)]	2018	2019	2019, excluding energy impact	2019/2018 change, excluding energy impact
Americas	17.2%	18.2%	18.1%	+90 bps
Europe	19.2%	20.0%	19.5%	+30 bps
Asia-Pacific	19.2%	19.8%	19.8%	+60 bps
Middle East & Africa	16.0%	17.9%	16.1%	+10 bps
TOTAL	**18.3%**	**19.1%**	**18.9%**	**+60 bps**

(a) Operating income recurring/revenue, as published figures

Operating income recurring for the **Americas** region stood at **1,537 million euros** for 2019, a strong increase of **+12.2%** as published due in particular to the acquisition of Tech Air in the United States at the end of the 1st quarter of 2019. Excluding the energy impact, the operating margin stood at 18.1%, an increase of **+90 basis points**. This improvement was notably thanks to Airgas, which deployed a voluntarist price management approach in Industrial Merchant as well as major efficiencies generated in all business lines, and to portfolio management. The decrease in hardgoods sales in the United States generated a positive mix impact on the margin.

Operating income recurring in **Europe** reached **1,431 million euros**, an increase of **+4.6%.** Excluding the energy impact, the operating margin stood at 19.5%, a **+30 basis points** increase mainly due to the rollout of applications offering higher added value which generated stronger price impacts in Industrial Merchant as well as efficiencies generated across all business lines.

Operating income recurring in **Asia Pacific** stood at **951 million euros**, an increase of **+13.6%**. The operating margin excluding the energy impact reached 19.8%, up **+60 basis points**. Price impacts were sustained in Industrial Merchant, in particular for helium, and all business lines contributed to margin improvement with high levels of efficiencies. Several Large Industries and Electronics start-ups also contributed to the margin improvement.

Operating income recurring for the **Middle East and Africa** region amounted to **109 million euros**, representing an increase of **+4.5%**. Excluding the energy impact, the operating margin was 16.1%, an increase of **+10 basis points** due to high price impacts, in particular in Healthcare.

Engineering & Construction

Engineering & Construction generated an operating income recurring of **9 million euros** in 2019. The business line benefited from the Group's investment momentum and the increase in order intake. The operating margin stood at 2.7% and should continue to improve progressively to reach a medium-term margin of between 5% and 10%.

Global Markets & Technologies

Operating income recurring for Global Markets & Technologies stood at **67 million euros** with an operating margin at 12.2%, representing a significant increase of **+170 basis points** compared to 2018. A portion of these activities is in the start-up phase and the margin level, which depends on the nature of the projects carried out during the period, may vary significantly.

Research & Development and Corporate costs

Research & Development expenses and Corporate costs stood at **311 million euros**, a +12.3% increase compared to 2018, due mainly to the development of innovation and the ramping-up of the Group's digital transformation.

Research & Development

- Early June, Air Liquide inaugurated, at its new Paris Innovation Campus, **Accelair**, an **entity dedicated exclusively to deeptech start-ups**. In line with its open innovation strategy, the Group will welcome **approximately twenty start-ups**, which will benefit from dedicated workspaces and a support program with Air Liquide experts.

- **Three winners of the 2018 Scientific Challenge were rewarded** at the end of June by Air Liquide out of more than 132 proposals from 34 countries. Teams of researchers, start-ups and private or public institutes were invited to submit scientific research projects aimed at **improving air quality and fighting climate change**. The three winners received the **"Air Liquide Scientific Prize"** endowed with 50,000 euros and have signed a partnership agreement with the Group that will enable them to receive 1.5 million euros in funding, shared between the three projects.

NET PROFIT

Other operating income and expenses showed a **net balance of -188 million euros**. This notably included 95 million euros in expenses relating to realignment plans in various countries and businesses as well as the capital loss on the disposal of the Fujian Shenyuan units which was completed in September 2019.

The **financial result** amounted to **-468 million euros** compared with -353 million euros in 2018. **Cost of net debt**, at -362 million euros, was up 58 million euros, mainly due to a non-recurring gain of around 55 million euros relating to debt restructuring in the United States in 2018. The **average cost of net debt**, at **3.0%**, was stable compared to 2018 and down slightly excluding the impact of hyperinflation in Argentina. **Other financial income and expenses** amounted to -106 million euros compared with -49 million euros in 2018. This increase was mainly due to the application of IFRS 16 for close to 40 million euros.

Income tax expense stood at **802 million euros**, which corresponds to an effective tax rate of **25.5%** in 2019. This +60 basis points increase compared to 2018 was notably due to the non-deductibility of the capital loss on the disposal of the Fujian Shenyuan units.

The share of profit of associates amounted to 1 million euros and the **share of minority interests in net profit** reached **96 million euros**, stable compared to 2018 excluding the currency impact.

Net profit (Group share) amounted to **2,242 million euros** in 2019, an increase of **+6.1%** as published and **+6.7%** excluding the application of IFRS 16.

Excluding the capital loss on the disposal of the Fujian Shenyuan units in 2019 and the non-recurring financial gain in 2018, **recurring net profit**[1] **Group share**, was up **+11.1%**.

Net earnings per share, at **4.76 euros**, were up significantly (**+5.9%**) compared to 2018, in line with the increase in net profit (Group share). The average number of outstanding shares used for the calculation of net earnings per share as of December 31, 2019 was **471,214,966**.

Change in the number of shares

	2018	**2019**
Average number of outstanding shares [(a)]	**426,674,123**	**471,214,966**
Number of shares as of December 31, 2018		429,423,434
Options exercised during the year, prior to the free share attribution		430,376
Cancellation of treasury shares		(953,000)
Free shares issued		44,117,721
Options exercised during the year, after the free share attribution		86,983
Number of shares as of December 31, 2019		**473,105,514**

(a) Used to calculate net earnings per share and adjusted in 2018 for the free share attribution that took place on October 9, 2019.

DIVIDEND

At the Annual General Meeting on May 5, 2020, the payment of a dividend of **2.70 euros per share** will be proposed to shareholders for the fiscal year 2019. Following the **free share attribution** of 1 for 10 in October 2019, the proposed dividend shows a strong growth of +12.4% compared with last year. The total estimated pay-out taking into account share buybacks and cancellations would amount to **1,311 million euros**, representing a **pay-out ratio of 58%** of the published net profit. The ex-dividend date is scheduled for May 11, 2020 and the payment is scheduled for May 13, 2020.

[1] *See definition and reconciliation in the appendix.*

2019 Cash Flow and Balance Sheet

(in millions of euros)	2018 restated [(a)]	2019
Cash flow from operating activities before change in working capital	**4,242**	**4,859**
Change in working capital requirement	613	(37)
Other cash items	(139)	(110)
Net cash flow from operating activities	**4,716**	**4,712**
Dividends	(1,234)	(1,237)
Purchases of property, plant and equipment and intangible assets, net of disposals [(b)]	(2,271)	(2,616)
Increase in share capital	138	39
Purchase of treasury shares	(64)	(148)
Lease liabilities repayments and net interests paid on lease liabilities		(287)
Impact of exchange rate changes and net indebtedness of newly consolidated companies & restatement of net finance costs	(449)	(301)
Change in net debt	**836**	**162**
Net debt as of December 31	(12,535)	(12,373)
Debt-to-equity ratio as of December 31	**69%**	**64%**

(a) The adjustment for income and expenses with no cash impact related to IAS19 and IFRS2 have been reclassified from Other cash items to Other non cash items in 2018. See data published in 2018 in appendix.
(b) Including transactions with minority shareholders.

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

Cash flow from operating activities before changes in working capital requirement totaled 4,859 million euros and stood at 22.2% of Group sales (21.0% excluding the application of IFRS 16). This represented strong published growth of +14.5% (+8.3% excluding the application of IFRS 16).

Working capital requirement (WCR) increased by 37 million euros in 2019. In Engineering & Construction, advances from third-party customers were lower due to a refocus of the activity on internal projects. Gas & Services WCR also increased, in line with the growth of the activity. Working capital requirements excluding tax came to 4.4% of sales, in line with the 2018 level.

Net cash flow from operating activities after changes in working capital requirement amounted to 4,712 million euros and reached 21.5% of sales. Note that working capital requirements had been reduced markedly in 2018 due to the implementation of a program to dispose of significant receivables, in particular at Airgas. These programs stabilized in 2019. Therefore, in 2019, the strong growth in cash flow from operating activities coupled with the marginal change in WCR has allowed to generate a high level of net cash flow from operating activities after changes in working capital requirement, stable compared with 2018.

CAPITAL EXPENDITURE

Gross capital expenditure totaled 3,205 million euros, including transactions with minority shareholders. This reflects a marked increase in industrial investments and the acquisition of Tech Air, which contributes significantly in expanding Airgas' geographical coverage in the United States.

(in millions of euros)	Industrial investments	Financial investments[a]	Total capital expenditures[a]
2015	2,028	395	**2,423**
2016	2,259	12,180	**14,439**
2017	2,183	144	**2,327**
2018	2,249	131	**2,380**
2019	**2,636**	**568**	**3,205**

(a) Including transactions with minority shareholders

Proceeds from the sale of fixed assets totaled **584 million euros**, mainly due to the disposal of Fujian Shenyuan's units which was finalized in September. These also included, to a lesser extent, the disposal of an Airgas safety services business. A total of six divestitures were completed in 2019, reflecting the Group's active business portfolio management.

Net capital expenditure, including the buyout of minority interests, amounted to **2,616 million euros**.

Industrial capital expenditure

In 2019, gross industrial capital expenditure for the Group amounted to **2,636 million euros**, a major increase of +17.2% compared to 2018. It represented **12.0% of sales**. For Gas & Services, this expenditure totaled **2,411 million euros** and its geographical split is described below.

	Gas & Services				
(in millions of euros)	Europe	Americas	Asia Pacific	Middle East and Africa	Total
2018	676	861	461	73	**2,071**
2019	**815**	**946**	**588**	**62**	**2,411**

Financial investments

Financial investments reached **537 million euros** in 2019, mainly due to the acquisition of Tech Air in the United States. A total of 24 acquisitions were completed in 2019.

NET DEBT

Net debt at December 31, 2019 reached **12,373 million euros.** Despite a major increase in the level of investments and an unfavorable currency impact, net debt was down -162 million euros compared to the end of 2018, thanks to the marked increase in cash flow from operating activities in 2019. The **net debt-to-equity ratio** stood at **64.0%** at the end of December 2019, an improvement of -480 basis points compared to the end of 2018.

ROCE

The return on capital employed after tax (ROCE)[1] was 8.4% at the end of 2019. **Recurring ROCE**[1] which excludes the capital loss on the disposal of the Fujian Shenyuan units on net profit, stood at **8.6%**, i.e. a **+60 basis points** improvement compared to the end of December 2018. This improvement is in line with the Group's NEOS target of returning to a ROCE of above 10% by 2021-2022.

[1] *See definition and reconciliation in Appendix*

Environment and society

SAFETY

Employees lost time accident frequency rate[1] improved and reached 1.2 at the end of 2019. This represents the **lowest lost time accident frequency rate of the last 20 years**. This improvement is particularly noticeable at Airgas, which has now deployed the overall Air Liquide protocol.

CLIMATE

Air Liquide announced its Climate objectives on November 30, 2018, including in particular the **reduction** of its carbon intensity **by 30%** between 2015 and 2025. As part of its global approach to climate, the Group not only seeks to reduce the carbon intensity of its assets, but also to act with its customers towards a sustainable industry and to contribute to the development of a low-carbon society.

In 2019, the Group's **carbon intensity** declined further and reached **4.6 kg of CO_2 equivalent per euro of EBITDA**[2]. It is lower than the initial forecast, notably from the disposal of the Fujian Shenyuan units but also because of several customer maintenance turnarounds, leading to lower production volumes.

In January 2020, the Group's commitment has been rewarded twice by the **CDP**[3], who gave Air Liquide the **highest grade "A"** both for its actions **in favor of climate and its sustainable management of water**. More than 8,400 companies made data about their environmental impacts available to CDP (with a focus on climate, water and forests) for independent assessment purposes. Of those companies, only 38 scored a triple or double "A", among which 3 French companies, including Air Liquide.

Climate

- In July, **Air Liquide and thyssenkrupp Steel** announced to join forces in a **pioneering project to develop lower carbon steel production**. For the first time, hydrogen will be injected to partially replace pulverized coal at a large scale in the blast furnace during steel production reducing CO_2 emissions. Air Liquide will ensure to its client a stable supply of hydrogen from its 200 km network in the **Rhine-Ruhr Area**.

- Air Liquide announced in mid-October a **partnership** with **ArcelorMittal** in a **pilot project in Belgium to capture carbon emissions from the steelmaking process and recycle them into bioethanol**. Air Liquide Engineering & Construction will provide a technology solution to purify the offgas coming from the blast furnace. These gases will then be injected into a bioreactor to produce bioethanol.

HUMAN RESOURCES

As part of its NEOS program, the Group has set objectives that promote age and gender diversity. With this in mind, the Group targets to hire 33% of young graduates among managers and professionals by 2025. In addition, Air Liquide had **29% of women among engineers and managers** in 2019 and aims to reach 35% by 2025.

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[1] *Number of lost-time accidents with at least one lost day per million hours worked by Group employees.*
[2] *At 2015 exchange rate.*
[3] *A non-profit organization that evaluates companies based on their climate action.*

INVESTMENT CYCLE AND FINANCING

Investments

The strong momentum of investment projects continued and was reflected in the high level of the main indicators described below.

INVESTMENT DECISIONS AND INVESTMENT BACKLOG

(in billions of euros)	Industrial investment decisions	Financial investment decisions (acquisitions)	Total investment decisions
2015	1.9	0.5	**2.4**
2016	2.0	12.2	**14.2**
2017	2.4	0.2	**2.6**
2018	3.0	0.2	**3.1**
2019	**3.2**	**0.6**	**3.7**

Industrial and financial investment decisions represented a total of **3.7 billion euros** in 2019, a **+19.8%** increase compared with 2018.

Financial investment decisions totaled **580 million euros** and included the acquisition of Tech Air in the United States at the end of the 1st quarter, one of the largest independent distributors of industrial gases and welding supplies in the United States. The Group also acquired a stake of almost 20% in the capital of Canada-based Hydrogenics, a leader in equipment for hydrogen production through PEM (Proton Exchange Membrane) electrolysis. Other bolt-on acquisitions were carried out, in particular in Industrial Merchant in Asia and North America and in Healthcare in Europe.

Financial Investment decisions

- Airgas, an Air Liquide company, completed in March the **acquisition of Tech Air**, one of the largest independent distributors of industrial gases and welding supplies serving various geographies in the United States. Serving more than **45,000 customers** and generating **annual revenue of approximately 190 million US dollars**, Tech Air will allow Airgas to further strengthen its network in the United States with a complementary footprint to better serve customers while generating very significant efficiencies.

- In January 2019, Air Liquide announced the **acquisition of a nearly 20% stake in the capital of the Canadian company Hydrogenics Corporation**, representing an **investment of 20.5 million US dollars** (18 million euros). In February, the Group announced the construction in Canada of **the largest membrane-based electrolyzer in the world** to develop its **carbon-free hydrogen** production. This **20 megawatts** electrolyzer, **with Hydrogenics technology**, allows the Group to reaffirm its long-term commitment to the hydrogen energy markets and its ambition to be a major player in the supply of carbon-free hydrogen.

- Mid-June, Air Liquide announced the **acquisition of Medidis in the Netherlands**, a major player for the treatment of respiratory diseases at home and the production and supply of medical oxygen. The acquisition of this Dutch actor, employing more than **70 people** and generating **revenue of approximately 11 million euros** in 2017, allows Air Liquide, present in the home healthcare market in the Netherlands for more than 20 years, to strengthen its position in a growing market.

- Air Liquide continues to develop its home healthcare activity in Europe with the acquisition of **Sleep & Health SA** and **Megamed AG**, two historic players in this sector and based in Switzerland. These acquisitions enable the Group to serve more than **3,000 new patients** and strengthen the position of Air Liquide, leader in home healthcare in Europe, in a growing market within a mature healthcare system.

- Air Liquide, Europe's leader in home healthcare, announced in April the **acquisition of the Spanish startup DiaLibre**. With this acquisition, the Group **reinforces its service offering** throughout the diabetic patient's care pathway, from the distribution of medical equipment to the personalized support of **diabetic patients**. DiaLibre's offering combines personalized therapeutic support programs and medical follow-up for patients using **innovative technologies**.

Industrial investment decisions reached a record high of **3,157 million euros**, with major investments for long-term contracts with Large Industries customers, mainly in strategic basins where the Group is already present. More than 410 million US dollars were invested in the United States for new Air Separation Units and the development of the **Gulf Coast** pipeline network. Between 2015 and 2022, Air Liquide will have almost **doubled its oxygen production capacity** in the United States. Investments in Electronics continued, mainly in Asia, and those contributing to **efficiencies** were up by nearly **+45%** compared with 2018. Investments contributing to efficiencies now represent **more than 10%** of the amount of industrial decisions. The number of decisions relating to contract renewals also increased. Finally, **close to 30%** of industrial investment decisions contributed to the Group's **Climate objectives**.

Industrial investment decisions

- Air Liquide has signed a **long-term agreement with Gulf Coast Growth Ventures (GCGV)** at the beginning of July, a 50/50 joint venture between ExxonMobil and SABIC. The Group will supply **2,000 tons per day of oxygen and 900 tons per day of nitrogen from its industrial gas pipeline network** to GCGV's planned ethane cracker facility located near Corpus Christi, in Texas. To support the new agreement and additional volumes, Air Liquide plans to invest nearly **140 million US dollars** to build a new world-scale Air Separation Unit and related infrastructure investments.

- In mid-September, Air Liquide announced an investment **of more than 270 million US dollars** in the U.S. Gulf Coast to support a **new long-term agreement with Methanex Corporation** to supply **oxygen, nitrogen and utilities**. To serve Methanex and its other customers in the industrial basin that encompases Geismar and Baton Rouge, Air Liquide will build **two new Air Separation Units with a capacity of 2,500 tons/day of oxygen each** and invest in connected infrastructure assets - **increasing** the company's Mississippi River Pipeline's **supply capacity by more than 25%**.

The total **investment backlog** amounted to **2.8 billion euros**, a marked increase of more than 600 million euros compared with the end of 2018, as new investment decisions more than offset the start-up of new units. These investments should lead to a future contribution to annual sales of approximately **0.9 billion euros per year** after the full ramp-up of the units.

START-UPS

There were 18 start-ups during 2019. These included several production units for Electronics in Asia and for Large Industries in most regions. A new pipeline network at a major industrial basin in Saudi Arabia was also commissioned in 2019.

The contribution to sales of unit start-ups and ramp-ups totaled 336 million euros for 2019. This mainly included additional sales for Large Industries in China particularly with the final contributions from Fujian Shenyuan, the disposal of which was finalized in September 2019, in Mexico with the start-up of a hydrogen-supply contract, and in Eastern Europe. Electronics sales also benefited from several unit start-ups and ramp-ups in Asia.

For 2020, the contribution to sales of unit start-ups and ramp-ups is forecasted at around 230 million euros, and should be higher in 2021, boosted by several major start-ups.

INVESTMENT OPPORTUNITIES

The 12-month portfolio of opportunities remained strong and totaled 2.9 billion euros, an increase compared with 2.6 billion euros at the end of 2018. New projects entering the portfolio exceeded those signed by the Group, awarded to the competition or delayed.

The portfolio of opportunities is fairly well balanced geographically: Europe and Asia are the leading regions within the portfolio, followed by the Americas and Middle East & Africa with similar levels of opportunities. Almost two-thirds of the portfolio of opportunities came from projects in Large Industries, in particular for Chemicals; Electronics was the second largest contributor, followed closely by Global Markets & Technologies.

Around half the value of the portfolio came from projects with investment amounts of less than 50 million euros, and several projects are above 100 million euros. The portfolio included some asset takeover opportunities that would have a faster contribution to growth. A positive contribution to the Group's Climate objectives was identified for around a quarter of the amount of investment opportunities.

2019 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-” and from Moody’s is “A3”. These are in line with the Group’s strategy. The short-term ratings are “A2” for Standard & Poor’s and “P2” for Moody’s. Standard & Poor’s confirmed its rating on July 22, 2019 and upgraded its outlook from stable to positive. Moody’s confirmed its ratings on June 28, 2019 and maintained its stable outlook.

DIVERSIFYING AND SECURING FINANCIAL SOURCES

As of December 31, 2019, financing through capital markets accounted for **92% of the Group’s total debt**, for a **total amount of outstanding bonds of 12.1 billion euros**, under several programs, and **0.2 billion euros of commercial paper**.

The total amount of credit facilities was stable at **3.6 billion euros**. At the beginning of December, five bilateral credit facilities, for a total amount of 500 million euros, were included in the syndicated credit facility negotiated in 2018 for an initial amount of 2 billion euros. The first one-year extension option has been applied to this facility, which now amounts to **2.5 billion euros**, maturing in December 2024, with a second extension option possible. On this occasion, this credit facility was indexed to Corporate Social Responsability (CSR) criteria.

New financing mecanism

- In early December, **Air Liquide signed an amendment to its syndicated credit line** that implements from now on a **correlation scheme between its financial costs and three of its CSR targets** regarding its carbon intensity, gender diversity and safety. Air Liquide testifies through this initiative its willingness to combine performance and responsibility.

The amount of total debt maturing in the next 12 months is 1.8 billion euros, a marked decrease compared to the amount at December 31, 2018.

2019 issues

In June 2019, under its EMTN program, the Group issued an 11 year public bond for an amount of **600 million euros**. In September 2019, the Group also issued a 10 year bond in 144A format in the US market, for an amount of **500 million US dollars**.

Moreover, as of the end of 2019, outstanding bonds issued under the EMTN program amounted to 6.4 billion euros (nominal amount).

Bonds

- In early September, Air Liquide issued bonds on the American market for an amount of **500 million US dollars with a 10-year maturity at a yield of 2.362%**. With this transaction, the Group confirms its willingness to foster long-term relationships with American credit investors.

Net debt by currency as of December 31

	31/12/2018	31/12/2019
Euro	45%	45%
US dollar	37%	40%
Chinese renminbi	3%	0%
Japanese Yen	3%	2%
Other	12%	13%
TOTAL	**100%**	**100%**

Investments are generally funded in the currency in which the cash flows are generated, creating a natural currency hedge. In 2019, net debt in euros was stable in terms of volume and percentage. Debt in US dollars increased slightly, mainly due to currency impact. Net debt in Chinese renminbi decreased, due to the divestiture of the Fujian Shenyuan units by Air Liquide China. Debt denominated in Japanese yen decreased in volume and percentage, as the cash flows generated were used to repay a portion of the debt.

CENTRALIZATION OF CASH AND FUNDING

Air Liquide Finance pools the cash balances of Group entities. In 2019, Air Liquide included the New Zealand dollar in its daily cash pooling, which now covers 15 currencies.

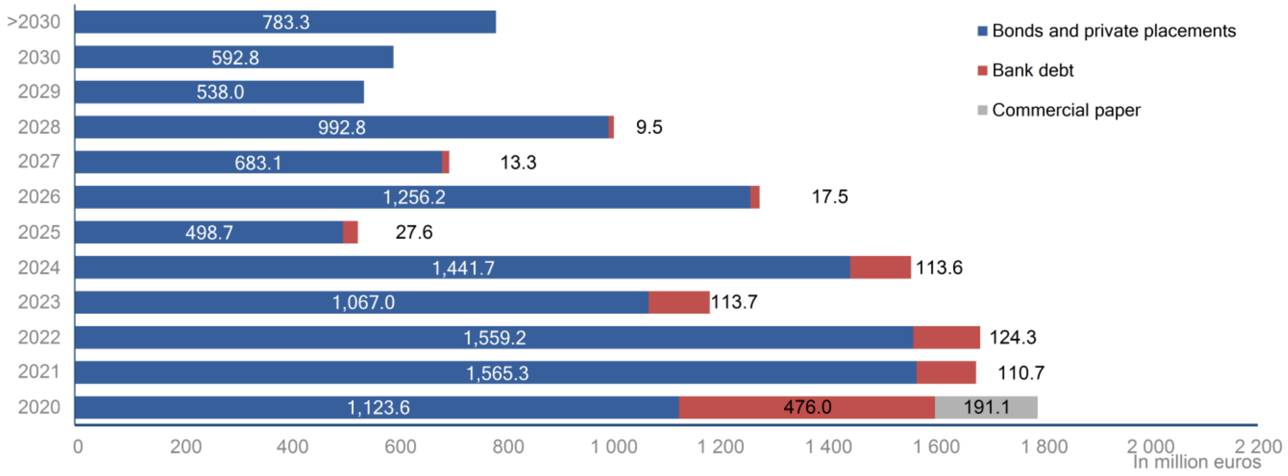
As of December 31, 2019, Air Liquide Finance had granted to Group entities, directly or indirectly, the equivalent of 15.3 billion euros in loans and received 3.9 billion euros in excess cash as deposits from them. These transactions were denominated in 29 currencies (primarily the euro, US dollar, Singapore dollar and Chinese renminbi). 390 Group entities lend, borrow or are included in the Group cashpooling, 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 6.2 years at December 31, 2019, an increase compared to December 31, 2018. Indeed, some bond issues matured in 2019 without renewal, thanks to the generation of net cash flow in 2019.

The following chart shows the Group's debt maturity schedule. The single largest annual maturity represented approximately 13% of total debt.

Debt maturity schedule



OUTLOOK

2019 is a landmark year, characterized simultaneously by a significant improvement in performance, a high level of investments to serve customers and strengthen efficiency, and the operational implementation of the Group's climate action plan.

2019 sales were driven by the development of Gas & Services and Global Markets & Technologies. On a comparable basis, **all Gas & Services activities**, which account for **96%** of **Group** revenue**, progressed** over the year, with particularly dynamic **Electronics** and **Healthcare**. Geographically, every region grew, notably the **Europe** and **Asia-Pacific** regions.

Overall, and despite the expected global economic slowdown observed in the 4th quarter, the Group delivered **robust results**, confirming the relevance of its economic model and strategy.

The improvement in the Group's operating margin reflects the dynamic management of both pricing and product mix, the asset portfolio, and **efficiencies**. The latter reached **433 million euros**. Cash flows were high and the debt to equity ratio declined substantially. The Group's balance sheet is solid. **ROCE continues to improve**. 2019 performance is **in line** with all of the targets of the NEOS program and the Group's Climate objectives.

In a context where industrial opportunities remain high, **investment decisions rose sharply**, to **3.7 billion euros**. The new projects that have been signed with clients in Large Industry and Electronics will allow the Group to further strengthen its position in major industrial basins.

The Group starts the year with confidence in a context characterized by a new uncertainty related to the **Coronavirus epidemic**. This provides us with the opportunity to commend the **professionalism of our Chinese colleagues, fully mobilized**.

Assuming no major change in the environment and the international health situation is under control, Air Liquide is confident in its ability to further increase its operating margin and to deliver net profit growth in 2020, at constant exchange rates.

APPENDICES

Impact of IFRS16

As of January 1, 2019, the Group financial statements include the impacts of the mandatory adoption of the standard IFRS16 « Leases » issued on January 13, 2016 with **no restatement of prior period financial statements.** The standard **does not affect the recognition of revenue** for the Group.

The main impact of the application of IFRS16 for the Group as a lessee consists of the recognition on the balance sheet of all lease contracts, without distinction between finance and operating leases. In the course of its activity, the Group as a lessee enters in contracts mainly for the following type of assets:

- Land, buildings and offices;
- Transportation equipment, in particular for Industrial Merchant and Healthcare;
- Other equipment.

Any contract containing a lease leads to the **recognition on the lessee's balance sheet of a lease liability** measured at the present value of the remaining lease payments **and a right-of-use asset** measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments as well as of any provision for onerous leases recognized in the balance sheet as of December 31, 2018.

Impacts on the Group financial statements on December 31, 2019 are detailed in the following 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
- Recurring net profit Group share
- Return on Capital Employed (ROCE)
- Recurring ROCE

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 index to energy year (N-1) x (Average energy price over the year (N) - Average energy price over the 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.

COMPARABLE SALES CHANGE AND COMPARABLE OPERATING INCOME RECURRING CHANGE

Comparable changes for sales and the operating income recurring exclude the currency, energy and significant scope impacts described above. For 2019, the calculations are the following:

(in millions of euros)	**FY 2019**	**FY 2019/2018 Published Growth**	**Currency impact**	**Natural gas impact**	**Electricity impact**	**Significant scope impact**	**FY 2019/2018 Comparable Growth**
Revenue							
Group	21,920	+4.3%	446	(293)	(8)	95	+3.2%
Impacts in %			*+2.1%*	*-1.4%*	*+0.0%*	*+0.4%*	
Gas & Services	21,040	+4.6%	433	(293)	(8)	95	+3.5%
Impacts in %			*+2.1%*	*-1.4%*	*-0.1%*	*+0.5%*	
Operating Income Recurring							
Group	3,794	+ 10.0 %	71	-	-	17	+ 7.5 %
Impacts in %			*+2.0%*			*+0.5%*	
Gas & Services	4,028	+ 9.5 %	68	-	-	17	+ 7.2 %
Impacts in %			*+1.8%*			*+0.5%*	

Comparable sales change for the 4th quarter 2019 is calculated as follow:

(in millions of euros)	**Q4 2019**	**Q4 2019/2018 Published Growth**	**Currency impact**	**Natural gas impact**	**Electricity impact**	**Significant scope impact**	**Q4 2019/2018 Comparable Growth**
Revenue							
Group	5,514	-1.1%	84	(129)	(30)	19	-0.1%
Impacts in %			*+1.5%*	*-2.3%*	*-0.5%*	*+0.3%*	
Gas & Services	5,262	-0.2%	81	(129)	(30)	19	+0.9%
Impacts in %			*+1.5%*	*-2.4%*	*-0.6%*	*+0.4%*	

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 (including currency impact):

(in millions of euros)		2019	Natural gas impact	Electricity impact	2019 excluding energy
Revenue	Group	21,920	(301)	(11)	22,232
	Gas & Services	21,040	(301)	(11)	21,352
Operating Income Recurring	Group	3,794	-	-	3,794
	Gas & Services	4,028	-	-	4,028
OIR Margin	Group	+17.3 %			+17.1 %
	Gas & Services	+19.1 %			+18.9 %

RECURRING NET PROFIT GROUP SHARE

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.

The recurring net profit Group share in 2019 excluded the after-tax loss on the Fujian Shenyuan divestment. It reached 2,307.4 million euros.

The comparable growth takes the net profit Group share in 2018 excluding the exceptional gain after-tax of 35.7 million euros due to the debt restructuring in the U.S. It reaches 2,077.7 million euros.

The comparable growth of the 2019 recurring net profit Group share reached 2,307.4 / 2,077.7 - 1 = +11.1%.

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.

(in millions of euros)		2018 (a)	H1 2019 (b)	2019 (c)	ROCE Calculation
	Net Profit excluding IFRS16			2,352.0	2 352,0
	Net finance costs			(361.6)	(361.6)
	Effective tax rate [(1)]			25.0%	25.0%
	Net financial costs after tax			(271.2)	(271.2)
	Net Profit - Net financial costs after tax			2,623.2	**2,623.2**
Denominator ((a)+(b)+(c))/3	Total equity excluding IFRS16	18,207.4	17,966.0	19,338.8	18,504.1
	Net debt	12,534.9	13,698.8	12,373.3	12,869.0
	Average of (total equity + net debt)				**31,373.1**
ROCE					**8.4%**

[(1)] *excluding non-recurring tax impact*

RECURRING ROCE

The recurring ROCE is calculated in the same manner than the ROCE using the recurring net profit for the numerator.

(in millions of euros)		2018 (a)	H1 2019 (b)	2019 (c)	ROCE Calculation
	Recurring Net Profit excluding IFRS16			2,417.9	2,417.9
	Net finance costs			(361.6)	(361.6)
	Effective tax rate [(1)]			25.0%	25.0%
	Net financial costs after tax			(271.2)	(271.2)
	Recurring Net Profit - Net financial costs after tax			2,689.1	**2,689.1**
Denominator ((a)+(b)+(c))/3	Total equity excluding IFRS16	18,207.4	17,966.0	19,338.8	18,504.1
	Net debt	12,534.9	13,698.8	12,373.3	12,869.0
	Average of (total equity + net debt)				**31,373.1**
Recurring ROCE					**8.6%**

[(1)] *excluding non-recurring tax impact*

4th Quarter 2019 Revenue

BY GEOGRAPHY

Revenue *(in millions of euros)*	**Q4 2018**	**Q4 2019**	**Published change**	**Comparable change**
Americas	2,091	2,106	+0.8%	-0.6%
Europe	1,868	1,819	-2.7%	+2.1%
Asia-Pacific	1,153	1,182	+2.5%	+1.9%
Middle East & Africa	160	155	-2.9%	+0.6%
Gas & Services Revenue	**5,272**	**5,262**	**-0.2%**	**+0.9%**
Engineering & Construction	145	71	-51.1%	-51.7%
Global Markets & Technologies	161	181	+12.3%	+11.1%
GROUP REVENUE	**5,578**	**5,514**	**-1.1%**	**-0.1%**

BY WORLD BUSINESS LINE

Revenue *(in millions of euros)*	**Q4 2018**	**Q4 2019**	**Published change**	**Comparable change**
Large industries	1,513	1,351	-10.7%	+0.0%
Industrial Merchant	2,368	2,456	+3.7%	+0.1%
Healthcare	910	957	+5.3%	+5.1%
Electronics	481	498	+3.4%	+0.0%
GAS & SERVICES REVENUE	**5,272**	**5,262**	**-0.2%**	**+0.9%**

Geographic and Segment Information

	FY 2018			**FY 2019**		
(in millions of euros and %)	**Revenue**	**Operating income recurring**	**OIR margin**	**Revenue**	**Operating income recurring**	**OIR margin**
Americas	7,982.1	1,369.4	17.2%	8,460.5	1,536.6	18.2%
Europe	7,111.4	1,367.9	19.2%	7,172.3	1,431.4	20.0%
Asia-Pacific	4,358.5	836.9	19.2%	4,793.7	950.8	19.8%
Middle East and Africa	654.9	104.8	16.0%	613.5	109.5	17.9%
Gas & Services	**20,106.9**	**3,679.0**	**18.3%**	**21,040.0**	**4,028.3**	**19.1%**
Engineering and Construction	430.2	(3.7)	-0.9%	328.1	8.9	2.7%
Global Markets & Technologies	474.0	49.8	10.5%	552.0	67.2	12.2%
R&D and Corporate costs	-	(276.6)	-	-	(310.6)	-
TOTAL GROUP	**21,011.1**	**3,448.5**	**16.4%**	**21,920.1**	**3,793.8**	**17.3%**

Consolidated Income Statement

(in millions of euros)	2018	2019	2019 excluding IFRS16
Revenue	**21,011.1**	**21,920.1**	**21,920.1**
Other income	188.4	200.9	200.9
Purchases	(8,276.4)	(8,153.9)	(8,153.9)
Personnel expenses	(4,145.8)	(4,410.9)	(4,410.9)
Other expenses	(3,562.5)	(3,624.7)	(3,890.5)
Operating income recurring before D&A	**5,214.8**	**5,931.5**	**5,665.7**
Depreciation and amortization expense	(1,766.3)	(2,137.7)	(1,895.0)
Operating income recurring	**3,448.5**	**3,793.8**	**3,770.7**
Other non-recurring operating income	4.6	1.5	1.5
Other non-recurring operating expenses	(166.4)	(189.0)	(188.6)
Operating income	**3,286.7**	**3,606.3**	**3,583.6**
Net finance costs	(303.4)	(361.6)	(361.6)
Other financial income	13.6	8.4	8.4
Other financial expenses	(62.9)	(114.5)	(72.8)
Income taxes	(730.7)	(801.7)	(806.3)
Share of profit of associates	4.1	0.7	0.7
PROFIT FOR THE PERIOD	**2,207.4**	**2,337.6**	**2,352.0**
- Minority interests	94.0	96.1	96.1
- Net profit (Group share)	2,113.4	2,241.5	2,255.9
Basic earnings per share (in euros)	**4.49**	**4.76**	**4.79**

Consolidated Balance Sheet

ASSETS (in millions of euros)	2018	2019
Goodwill	13,345.0	13,943.0
Other intangible assets	1,598.7	1,555.0
Property, plant and equipment	19,248.2	21,117.8
Non-current assets	**34,191.9**	**36,615.8**
Non-current financial assets	524.9	646.0
Investments in associates	142.1	154.4
Deferred tax assets	282.8	256.6
Fair value of non-current derivatives (assets)	75.9	26.3
Other non-current assets	**1,025.7**	**1,083.3**
TOTAL NON-CURRENT ASSETS	**35,217.6**	**37,699.1**
Inventories and work-in-progress	1,460.1	1,531.5
Trade receivables	2,500.4	2,477.9
Other current assets	892.0	803.0
Current tax assets	140.7	98.0
Fair value of current derivatives (assets)	44.2	31.3
Cash and cash equivalents	1,725.6	1,025.7
TOTAL CURRENT ASSETS	**6,763.0**	**5,967.4**
TOTAL ASSETS	**41,980.6**	**43,666.5**

EQUITY AND LIABILITIES (in millions of euros)	2018	2019
Share capital	2,361.8	2,602.1
Additional paid-in capital	2,884.5	2,572.9
Retained earnings	10,544.4	11,582.7
Treasury shares	(121.0)	(128.8)
Net profit (Group share)	2,113.4	2,241.5
Shareholders' equity	**17,783.1**	**18,870.4**
Minority interests	**424.3**	**454.0**
TOTAL EQUITY	**18,207.4**	**19,324.4**
Provisions, pensions and other employee benefits	2,410.7	2,521.2
Deferred tax liabilities	1,955.9	2,051.9
Non-current borrowings	11,709.6	11,567.2
Non-current lease liabilities	-	1,087.8
Other non-current liabilities	250.0	261.6
Fair value of non-current derivatives (liabilities)	18.4	45.8
TOTAL NON-CURRENT LIABILITIES	**16,344.6**	**17,535.5**
Provisions, pensions and other employee benefits	325.1	268.4
Trade payables	2,714.5	2,566.6
Other current liabilities	1,639.8	1,629.0
Current tax payables	171.2	200.1
Current borrowings	2,550.9	1,831.8
Current lease liabilities	-	243.6
Fair value of current derivatives (liabilities)	27.1	67.1
TOTAL CURRENT LIABILITIES	**7,428.6**	**6,806.6**
TOTAL EQUITY AND LIABILITIES	**41,980.6**	**43,666.5**

Consolidated Cash Flow Statement

(in millions of euros)	2018	2018 restated [a]	2019	2019 excluding IFRS16
Operating activities				
Net profit (Group share)	**2,113.4**	**2,113.4**	**2,241.5**	**2,255.9**
Minority interests	**94.0**	**94.0**	**96.1**	**96.1**
Adjustments:				
• Depreciation and amortization	1,766.3	1,766.3	2,137.7	1,895.0
• Changes in deferred taxes [b]	55.3	55.3	67.9	72.5
• Changes in provisions	(89.5)	(89.5)	(106.0)	(106.0)
• Share of profit of associates	(4.1)	(4.1)	(0.7)	(0.7)
• Profit/loss on disposal of assets	(9.6)	(9.6)	35.1	35.1
• Net finance costs	212.4	212.4	249.2	249.2
• Other non cash items	-	104.1	138.6	96.9
Cash flows from operating activities before changes in working capital	**4,138.2**	**4,242.3**	**4,859.4**	**4,594.0**
Changes in working capital	612.9	612.9	(36.7)	(48.2) [c]
Other cash items	(34.7)	(138.8)	(110.5)	(110.5)
Net cash flows from operating activities	**4,716.4**	**4,716.4**	**4,712.2**	**4,435.3**
Investing activities				-
Purchase of property, plant and equipment and intangible assets	(2,249.2)	(2,249.2)	(2,636.4)	(2,646.4) [d]
Acquisition of consolidated companies and financial assets	(129.2)	(129.2)	(536.9)	(536.9)
Proceeds from sale of property, plant and equipment and intangible assets	98.0	98.0	584.0	584.0
Proceeds from sale of financial assets	5.1	5.1	0.4	0.4
Dividends received from equity affiliates	5.1	5.1	4.1	4.1
Net cash flows used in investing activities	**(2,270.2)**	**(2,270.2)**	**(2,584.8)**	**(2,594.8)**
Financing activities				-
Dividends paid				-
• L'Air Liquide S.A.	(1,159.4)	(1,159.4)	(1,163.0)	(1,163.0)
• Minority interests	(75.3)	(75.3)	(73.7)	(73.7)
Proceeds from issues of share capital	138.1	138.1	39.2	39.2
Purchase of treasury shares	(63.6)	(63.6)	(148.1)	(148.1)
Net financial interests paid	(167.1)	(167.1)	(225.4)	(225.4)
Increase (decrease) in borrowings	(1,149.8)	(1,149.8)	(891.0)	(891.0)
Lease liabilities repayments	-	-	(248.0)	-
Net interests paid on lease liabilities	-	-	(38.9)	-
Transactions with minority shareholders	(1.4)	(1.4)	(31.3)	(31.3)
Net cash flows from (used in) financing activities	**(2,478.5)**	**(2,478.5)**	**(2,780.2)**	**(2,493.3)**
Effect of exchange rate changes and change in scope of consolidation	65.2	65.2	0.7	0.7
Net increase (decrease) in net cash and cash equivalents	**32.9**	**32.9**	**(652.1)**	**(652.1)**
NET CASH AND CASH EQUIVALENTS AT THE BEGINNING OF THE PERIOD	**1,515.7**	**1,515.7**	**1,548.6**	**1,548.6**
NET CASH AND CASH EQUIVALENTS AT THE END OF THE PERIOD	**1,548.6**	**1,548.6**	**896.5**	**896.5**

(a) From 2019, the adjustment for income and expenses with no cash impact related to IAS 19 and IFRS 2 (96.9 million euros in 2019) are reclassified from Other cash items (Others in the 2018 Reference Document) to Other non cash items.

(b) Changes in deferred taxes reported in the consolidated cash flow statement do not include changes in deferred taxes relating to disposals of assets and capitalized finance costs.

(c) Including the effect of timing differences between lease expenses and the corresponding payments.

(d) Including the effect of cash outflows following the exercise of purchase options for assets which were previously leased.

Net cash and cash equivalents can be analyzed as follows:

(in millions of euros)	December 31, 2018	December 31, 2019
Cash and cash equivalents	1,725.6	1,025.7
Bank overdrafts (included in current borrowings)	(177.0)	(129.2)
NET CASH AND CASH EQUIVALENTS	**1,548.6**	**896.5**

Net debt calculation

(in millions of euros)	December 31, 2018	December 31, 2019
Non-current borrowings	(11,709.6)	(11,567.2)
Current borrowings	(2,550.9)	(1,831.8)
TOTAL GROSS DEBT	(14,260.5)	(13,399.0)
Cash and cash equivalents	1,725.6	1,025.7
TOTAL NET DEBT AT THE END OF THE PERIOD	**(12,534.9)**	**(12,373.3)**

Statement of changes in net debt

(in millions of euros)	December 31, 2018	December 31, 2019
Net debt at the beginning of the period	**(13,370.9)**	**(12,534.9)**
Net cash flows from operating activities	4,716.4	4,712.2
Net cash flows used in investing activities	(2,270.2)	(2,584.8)
Net cash flows used in financing activities excluding changes in borrowings	(1,161.6)	(1,663.8)
Total net cash flows	**1,284.6**	**463.6**
Effect of exchange rate changes, opening net debt of newly acquired companies and others	(236.2)	(62.4)
Adjustment of net finance costs	(212.4)	(239.6)
Change in net debt	**836.0**	**161.6**
NET DEBT AT THE END OF THE PERIOD	**(12,534.9)**	**(12,373.3)**

Benoît Potier also comments on the Group's 2019 results in a video interview, available in both French and English at www.airliquide.com.

The presentation of the release is available as of 8:00 am (Paris time) at www.airliquide.com

Throughout the year, follow Air Liquide news on Twitter - @AirLiquideGroup

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UPCOMING EVENTS

2020 First Quarter Revenue:
April 24, 2020

Annual General Meeting of Shareholders:
May 5, 2020

Dividend Ex-coupon Date:
May 11, 2020

Dividend Payout Date:
May 13, 2020