

## Air Liquide continues its digital transformation with the opening of a new remote operation center in Southeast Asia

One year after the launch of the first remote operation center in France, Air Liquide inaugurated today its Smart Innovative Operations (SIO) Center for the Southeast Asia Pacific region, located in Malaysia. The SIO Center enables the remote management of production for 18 Air Liquide Large Industries production units spanning eight countries across the region, as well as optimizing energy consumption and improving reliability at these sites. Air Liquide invested €20 million<sup>1</sup> in this project.

The SIO Center, located in Kuala Lumpur, integrates, optimizes and remotely controls the operations of Air Liquide's production units, leveraging **predictive analytics and digital technologies**. These capabilities allow Air Liquide to better predict and accommodate changing customer needs across the region, especially regarding the supply of oxygen, nitrogen, argon and hydrogen. This new SIO Center complements the one the Group opened in Shanghai in September 2017, dedicated to production units in China.

Through **big data combined with human intelligence**, the workflow of each Air Liquide production unit linked to the SIO Center is adapted **in real time to the needs of each customer**. The SIO Center enables **24/7 responsiveness to customer demand**, improves production-unit energy efficiency, and leverages **predictive maintenance** to ensure continuous facility run-time.

In the connected plants, **new digital technologies** are being deployed to simplify maintenance and inspection management operations. For instance, **connected glasses** allow operators to interface with experts located elsewhere while **virtual reality-based training** assist them in their daily tasks.

In 2017, Air Liquide also set up shared **business services in Malaysia**: the Financial Shared Services Center manages financial transactions for Air Liquide entities in the Southeast Asia Pacific region, while the new Smart Innovative Operations Center enables remote management of production in this region.

**François Abrial**, member of the Air Liquide Group's Executive Committee supervising Asia Pacific said: ***"With this new center, the Group is continuing its digital transformation, enabling Air Liquide to better anticipate industrial customers' needs while strengthening the reliability of its production units. We are glad to implement the new Smart Innovative Operations (SIO) Center in Malaysia, a highly promising market with both a solid IT infrastructure and high-skilled professionals in big data analysis."***

### **Air Liquide in Malaysia**

Air Liquide began operations in 1927 and is one of the pioneers of the gas industry in Malaysia. Operating in 11 locations across Malaysia, comprising of both sales offices and production facilities, Air Liquide supports customers by providing innovative solutions at every step of their production, including industrial and specialty gases, energy solutions, application technologies and services.

### **Air Liquide Digital transformation strategy**

Digital transformation at Air Liquide is about leveraging the power of digital to deliver a world-class customer experience. It involves harnessing data and creating digital solutions to better manage its Assets, interact with its Customers and patients, and leverage its Ecosystems (ACE strategy). The value created offers greater efficiencies and increased new growth opportunities notably.

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<sup>1</sup> Air Liquide 2016 investment decision

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

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

Air Liquide's revenues amounted to €18.1 billion in 2016, and its solutions that protect life and the environment represented more than 40% of sales. Air Liquide is listed on the Euronext Paris stock exchange (compartment A) and belongs to the CAC 40, EURO STOXX 50 and FTSE4Good indexes.