



## PRESS RELEASE

# “Plant 4.0” Start-Up Incubator A 2<sup>nd</sup> Edition on IoT With Five New Partners

**Paris, June 27, 2017** - Total is today launching its second Plant 4.0 start-up incubator, joined this year by Air Liquide, AREVA, Eiffage, Solvay and VINCI Energies. This is the very first multicorporate Plant 4.0 start-up incubator in the world. The partners' common goal is to accelerate the deployment of digital technology in industry.

Buoyed by the success of the Plant 4.0 start-up incubator launched by Total in 2016, the Group decided to repeat the experience, this time opening up the project to include other industry partners, on the narrower theme of innovative solutions offered by the industrial Internet of Things (IoT).

This open innovation approach aims to identify the start-ups that offer practical, relatively mature industrial solutions to meet specialized operational requirements. The fledgling companies can test their technology, product or service directly with their potential customers and are put in contact with the incubator's manufacturing partners and their start-up ecosystems. Total and the other partners will also share their expertise with the successful candidates.

With the spread of sensors and new developments in data collection and management, innovative solutions can improve the efficiency and boost the performance of plants and different industries. This international call for projects focuses on connected objects in industry in four areas:

- Acoustic detection of leaks or anomalies.
- Corrosion monitoring.
- Non-invasive flow measurement.
- Manual valve position displays.

“Total works in an open innovation process with start-ups and manufacturing partners because we all face the same challenges. Building digital solutions together speeds up their deployment in our plants and industrial facilities,” says Gilles Cochevelou, Chief Digital Officer at Total. “Digital tech improves safety and efficiency, while reducing costs. It offers a world of opportunities and could increase competitiveness in industry and for start-ups.”

### **To participate:**

- Register at: [www.plant4-0-startup-incubator.com](http://www.plant4-0-startup-incubator.com).
- The closing date for submissions is **September 2, 2017**.
- Shortlisted projects will be presented to the panel of judges.
- The selection committee will reveal the names of the first start-ups selected in the fourth quarter of **2017**.
- The successful start-ups may be incubated for several months.

The judges will include managers and experts from Total, Air Liquide, AREVA, Eiffage, Solvay, VINCI Energies and their partner Impulse Labs, which specializes in accelerating energy- and industry-related start-ups.

For the first incubator, all industrial digital tech fields were covered by Total, from robotics, transportation, IoT, cybersecurity and remote diagnostics to augmented reality, drones and artificial intelligence. Out of 150 submissions, 24 start-ups were shortlisted and 9 selected for incubation periods of about 6 months. Total introduced streamlined processes for collaboration with the start-ups, for example by having a single contact person. Proofs of concept (pilots) were conducted at production facilities and some of the start-ups continue to work with Total today.

### **Why participate in a multicorporate incubator?**

"Our involvement in the " Plant 4.0" incubator reflects our Digital Transformation strategy, whose management of ecosystems is a major axis," underlines **Olivier Delabroy, VP Digital Transformation, Air Liquide**. "The relationships we have built and continue to enhance with start-ups are a critical part of our open innovation approach. It is a long-term, partnership-based approach aiming at accelerating innovation and our Digital Transformation, focused on usages and design, serving the customer experience. This proximity with start-ups helps us to increase our agility and to reinforce the expertise required to carry out projects in various fields, including IoT. In this respect, we look forward to joining this incubator that Total is opening for the first time to external partners."

"Industry 4.0 concepts, including IoT, are the first pillar of our digital transformation program. We have over three years of experience with Open Innovation and are very pleased with the results. For New AREVA, joining the Plant 4.0 incubator is in line with this and reflects our willingness to enhance our involvement in industrial collaboration programs," commented **Jean-Luc Delcuvelierie, Digital Transformation Program Manager, New AREVA**

"The participation in Total's "Plant 4.0" incubator with key industrial players is a way for Eiffage to work within a strong dynamic of open innovation, on the issues already identified. The pool of qualified start-ups and the identified uses will allow us to support the deployment of digital technologies in our industrial activities to improve our performance, also accompanying the Group itself in the digital transformation" stated **Valérie David, Sustainable development and transversal innovation Director, Eiffage**.

"The teaming up of this group of industrial companies with specialized start-ups will help to efficiently identify and address the digital needs of the industry. The cutting-edge solutions these start-up companies can bring will accelerate the digital revolution that will transform our industrial sites," said **Alain Faessler, Solvay Group General Manager Industrial**.

**For Olivier Albessard, Brand director of Actemium, the VINCI Energies brand dedicated to the industrial process:** *"Partnering with startups and niche experts allows agility, creativity and a degree of solutions customization that accelerate our capacity to design innovative offers for the industry of the future. We develop our ability to respond as well as our relevance, while the startup conquers difficult markets to reach on her own. Our contribution to the Total incubator, one of our major industrial partners, will allow us to go even further in this operational approach of co-innovation, improving the industrial performance of our client."*

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### **About Total**

Total is a global integrated energy producer and provider, a leading international oil and gas company, and a major player in solar energy with SunPower and Total Solar. Our 98,000 employees are committed to better energy that is safer, cleaner, more efficient, more innovative and accessible to as many people as possible. As a responsible corporate citizen, we focus on ensuring that our operations in more than 130 countries worldwide consistently deliver economic, social and environmental benefits. [total.com](http://total.com)

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### **About AREVA**

AREVA supplies high added-value products and services for the operation of the global nuclear fleet.

The group is present throughout the entire nuclear cycle, from uranium mining to used fuel recycling, including nuclear reactor design and operating services.

Its expertise, its skills in cutting-edge technologies and its uncompromising insistence on safety are recognized by utilities all over the world.

AREVA's 36,000 employees are helping build tomorrow's energy model: supplying ever cleaner, safer and more economical energy to the greatest number of people.

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### **About Air Liquide**

The world leader in gases, technologies and services for Industry and Health, Air Liquide is present in 80 countries with approximately 67,000 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 customercentric transformation strategy aims at profitable growth over the long term. It relies on operational excellence, selective investments, open innovation and a network organization implemented by the Group worldwide. Through the commitment and inventiveness of its people, Air Liquide leverages energy and environment transition, changes in healthcare and digitization, and delivers greater value to all its stakeholders.

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

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### **About Eiffage**

Eiffage is one of Europe's leading construction and concessions companies. The Group's activities are organized on the basis of the following business lines: construction, real estate, regional development, civil engineering, metal, roads, energy and concessions. Thanks to the experience of more than 63,000 employees, Eiffage generated revenues of €14 billion in 2016, including nearly 20% outside France.

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### **About Solvay**

Solvay is a multi-specialty chemical company, committed to developing chemistry that addresses key societal challenges. Solvay innovates and partners with customers in diverse global end markets. Its products and solutions are used in planes, cars, smart and medical devices, batteries, in mineral and oil extraction, among many other applications promoting sustainability. Its lightweighting materials enhance cleaner mobility, its formulations optimize the use of resources and its performance chemicals improve air and water quality. Solvay is headquartered in Brussels with around 27,000 employees in 58 countries. Net sales were € 10.9 billion in 2016, with 90% from activities where Solvay ranks among the world's top 3 leaders. Solvay SA (**SOLB.BE**) is listed on Euronext Brussels and Paris (Bloomberg: **SOLB.BB** - Reuters: **SOLB.BR**) and in the United States its shares (SOLVY) are traded through a level-1 ADR program.

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### **About VINCI Energies**

In a world undergoing constant change, VINCI Energies focuses on connections, performance, energy efficiency and data to fast-track the rollout of new technologies and support two major changes: the digital transformation and the energy transition. With their strong regional roots and agile organisational structure, VINCI Energies' business units boost the reliability, safety and efficiency of energy, transport and communication infrastructure, factories and buildings.

2016: €10.2 billion revenue // 64,500 employees // 1,600 business units // 52 countries

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