



**PRESS RELEASE / PRESS RELEASE / PRESS RELEASE / PRESS RELEASE / PRESS RELEASE**

## **Air Liquide, Ecole Centrale Paris and CNRS sign an industrial chair in oxy-combustion**

(Châtenay-Malabry, May 15, 2012) - Air Liquide, Ecole Centrale Paris and CNRS announce **the creation of an educational and research industrial chair** in oxy-combustion. Initially planned for a six-year period, this Chair has received a **funding from ANR** (French National Research Agency), a proof of both the project's excellence and the willingness to support Public-Private Partnerships.

For Air Liquide, oxy-combustion is a promising solution that consists in using **oxygen** instead of air during combustion processes. **The CO<sub>2</sub> obtained through this technology** when combined with a purification process is **ready to be captured and stored or directly reused**. It paves the way to the decarbonized production of steam and power. By signing this chair, Air Liquide, a partner of the "Energy" option of Ecole Centrale Paris, strengthens its commitment towards this **clean energy sector**.

Thierry Schuller, professor at Ecole Centrale Paris and researcher at the **macroscopic and molecular energy, combustion laboratory** (EM2C, a CNRS unit), will supervise this chair that aims at training young engineers and doctors. Research will focus on a better **understanding of high-pressure combustion processes** for gaseous, liquid and solid fuels (coal, biomass). This knowledge will help Air Liquide to define **more reliable models and improved processes for oxygen burners sizing**, for life size demonstrators or complex geometries.

The chair's activities will be organized around a **digital and experimental platform**, settled within the **EM2C laboratory**. The experimental platform will be equipped with advanced diagnosis systems to measure **simultaneously** flames features and heat transfers at high pressure, the first of its kind in the world.

**Olivier Delabroy**, vice-president of Group Research and Development, said: *"Meeting the energy challenges of tomorrow and launching this technological sector require the development of scientific knowledge and skills. Our commitment within the Paris-Saclay ecosystem and the implementation of high level public-private partnerships enable to pool basic research initiatives in order to fuel industrial innovation"*.

**Hervé Biaisser**, director of Ecole Centrale Paris, added: *"Energy is one of the major societal stakes and Ecole Centrale Paris has a recognized expertise in this field, both in education and research. The launch of this chair marks another step forward in our relationships with Air Liquide, a close partnership for several years now."*

### **Press Contact:**

Alexandrine URBAIN

@ : [alexandrine.urbain@ecp.fr](mailto:alexandrine.urbain@ecp.fr)

☎ : + 33 1 41 13 13 10

### **About The Ecole Centrale Paris ([www.ecp.fr](http://www.ecp.fr))**

The Ecole Centrale Paris, founded in 1829, has since its creation trained high-level engineers, i.e. company directors, senior management, managers and experts in technology. The quality and commitment of its 2300 students (1570 student engineers, 130 Research Masters, 350 Specialised Masters, 250 doctoral students), 220 permanent teachers, 1000 parttime lecturers and its international, Centralian network are essential components of the School, together with the very high level demanded of its teaching and the excellence of its research.

### **About Air Liquide ([www.airliquide.com](http://www.airliquide.com))**

***Air Liquide is the world leader in gases for industry, health and the environment, and is present in 80 countries with 46,200 employees. Oxygen, nitrogen, hydrogen and rare gases have been at the core of Air Liquide's activities since its creation in 1902. Using these molecules, Air Liquide continuously reinvents its business, anticipating the needs of current and future markets. The Group innovates to enable progress, to achieve dynamic growth and a consistent performance.***

***Innovative technologies** that curb polluting emissions, lower industry's energy use, recover and reuse natural resources or develop the energies of tomorrow, such as hydrogen, biofuels or photovoltaic energy... Oxygen for hospitals, homecare, fighting nosocomial infections...Air Liquide combines many products and technologies to develop valuable applications and services not only for its customers but also for society*

***A partner for the long term**, Air Liquide relies on employee commitment, customer trust and shareholder support to pursue its vision of sustainable, competitive growth. The diversity of Air Liquide's teams, businesses, markets and geographic presence provides a solid and sustainable base for its development and strengthens its ability to push back its own limits, conquer new territories and build its future.*

***Air Liquide explores the best that air can offer to preserve life, staying true to its Corporate Social Responsibility and sustainable development approach.** In 2011, the Group's revenues amounted to **€14.5 billion**, of which more than 80% were generated outside France. Air Liquide is listed on the Paris Euronext stock exchange (compartment A) and is a member of the CAC 40 and Dow Jones Euro Stoxx 50 indexes.*