



## Press Release

### **'Research Takes Flight Day 'Robotics And Factory Of The Future': Airbus Group And Its Corporate Foundation Promote Research And Sciences**

- A day of conferences and round-tables on the role of robotics in the factory of the future in terms research and development.
- Some 200 representatives of the French and European scientific community to attend these conferences.
- Airbus Group Foundation Awards Ceremony: Rachid Deriche, Frédéric Hecht, Olivier Cappé
- Best Thesis Awards Ceremony: Cristóbal Andrés Bertoglio Beltrán, Emilie Sakat, Nacer Chahat, Adeline Pons, Kévin Jouvin.

Paris, 8th April 2014 - Between electronics, embedded software, and artificial intelligence, robotics is now seizing upon every domain, including of course industry. At the dawn of the era of intelligent robots, and just as Airbus has introduced the first interactive humanoid robot in its factory in Puerto Real in Spain, this is the subject the Airbus Group Foundation has chosen for the 10th edition of its 'Research Takes Flight Day'.

Aiming to promote exchanges and reflection among actors of public research and private research, the 'Research Takes Flight Day' was held on Monday 31<sup>st</sup> March 2014 at the Salons de l'Aveyron in Paris in the presence of researchers and experts in this field.

During the opening conference, Jean-Paul Laumond, Director of Research at LAAS-CNRS, took stock of "50 years of research in robotics" and spoke of the "new opportunities" in this field: *"Manufacturing represents a big potential market for robotics, especially in large-scale industries such as aircraft manufacturing."*

During the round-table on "Factory of the future: what degree of autonomy can we expect from robots in the development of their actions?", various experts gave an update on the latest developments of industrial robotics and the challenges that remain. *"The new challenge is to have an autonomous flying vehicle - I'm not speaking about tele-operated drones, but about autonomous drones"* stated Bruno Siciliano, Coordinator of the FP7 NMP-ICT-FoF EuRoC Project - University of Naples Federico II. Christoph Borst, Head of Department Autonomy and Teleoperation, Institute of Robotics and Mechatronics, German Aerospace Center (DLR), said the complete autonomy of robots was not for the immediate future: *"In the coming years, we will see robots in the factory that interact directly with humans, but real autonomy of robots is not for now, I rather expect to see robots able to imitate what they have seen or learned through demonstrations."* Adolfo Suarez Roos, Airbus Group Expert - Robotics, Coordinator of ANR project ICARO preferred to speak of adaptability rather than autonomy: *"In the factory of the future, we want more flexibility, robots that have the ability to reconfigure their task if they encounter an unexpected situation"*. Mariusz Baldyga, Project Officer - Robotics Unit - European

Commission, DG Communications Networks, Content and Technology (Programme H2020) added: *"We have launched projects on the flexibility and autonomy of robots under the Horizon 2020 programme, but with regard to completely autonomous robots, it will be after 2020"*.

This discussion was followed by a conference on "Robotics in Space" by Gianfranco Visentin, Head of Automation and Robotics Section at ESA, which stressed the specificity of robots used in space: *"Space robots must meet the very demanding constraints of Space (high radiation, low power, different gravity), which makes them very different from ground robots and requires the development of appropriate technology"*.

Conference participants were then able to discover the projects supported by the Foundation through an exhibition and to applaud the winners of the Foundation Awards and Best Thesis Awards.

### Laureates of the Airbus Group Foundation Awards

As part of its action towards academic research, the Airbus Group Foundation has asked the Academy of Science to create three prizes rewarding milestone scientific work.

For the 2013 edition, the jury announced the following winners:

- "Information Sciences" Award: Olivier Cappé, CNRS Research Director, Director of LTCI (CNRS / Telecom ParisTech) in Paris.
- "Sciences and Engineering" Award: Frédéric Hecht, Researcher at the Jacques-Louis Lions laboratory, University Professor at the Pierre et Marie Curie University in Paris.
- "Computer Science" Award: Rachid Deriche, Research Director at Inria Sophia-Antipolis.

### Laureates of the Best Thesis Awards

Five young researchers received a Best Thesis Award for the excellence of their doctoral work:

- Cristóbal Andrés Bertoglio Beltrán (Mathematics and its Interactions) for his work on "Forward and Inverse Problems in Fluid-Structure Interaction. Application to Haemodynamics", Paris Graduate School of Mathematical Sciences.
- Emilie Sakat (Engineering Sciences) for her work on the "Metal-dielectric guided mode resonance structures and applications to filtering and infrared imaging", Doctoral graduate school of Polytechnique.
- Nacer Chahat (Science and Information and Communication Technology) for his work on "Antenna, propagation, and interaction with the body for body-centric wireless communications at microwaves and millimeter-waves", Matisse Doctoral School, Rennes.
- Adeline Pons (Earth, the Universe and Space Sciences) for her work on "Fluid over-pressures and accretionary prism stability: theory and numerical and experimental validation", Doctoral School of Earth Sciences, Paris-Diderot University.
- Kévin Jouvin (Physics, Chemistry) for his work on the "Synthesis of hetero-substituted alkynes via copper catalyzed reaction", Doctoral School of Science and Technologies of Versailles.

The 'Research Takes Flight' day is the Airbus Group Foundation's yearly highlight. This event features a number of conferences and round-tables opening a new door for dialogue between the corporate and research world, and for debate about the key issues shaping society. It also provides an opportunity for Foundation grand holders to meet and discuss their projects. In addition, the Foundation hands out the three Foundation Prizes (which it awards in association with the Academy of Science) and its six Best Thesis Prizes.

Through many actions such as the '*Research Takes Flight Day*', the Foundation gives Airbus Group the means to realize its commitment to furthering knowledge and research.

For more information:

[www.envol-recherche.fr/site/GB/](http://www.envol-recherche.fr/site/GB/)

[www.fondation.airbus-group.com/content/en/](http://www.fondation.airbus-group.com/content/en/)

#### **About the Airbus Group Corporate Foundation**

Founded in 2004, the Airbus Group Corporate Foundation aims to develop ties between public research and private research and invests in scientific projects of excellence. It also pursues corporate patronage activities, asserting its societal and ethical commitment in the scientific field.

Since its creation, the Airbus Group Corporate Foundation has supported over 120 scientific and technological research projects and has established 12 teaching and research chairs, and honored nearly hundred men and women of sciences.

#### **About Airbus Group**

Airbus Group is a global leader in aerospace, defence and related services. In 2013, the Group – comprising Airbus, Airbus Defence and Space and Airbus Helicopters – generated revenues of € 59.3 billion and employed a workforce of around 144,000. (The legal name change from European Aeronautic Defence and Space Company EADS N.V. ("EADS N.V.") to Airbus Group N.V. is subject to the approval of the Annual General Meeting).

#### **Press contacts:**

##### **Airbus Group Corporate Foundation**

Eve Humbert +33 1 46 97 33 65 | Eve.Humbert@eads.net

##### **Airbus Group**

Matthieu Duvelleroy +33 1 42 24 24 25 | Matthieu.Duvelleroy@eads.net