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Airbus Fly Your Ideas 2013

The Airbus Fly Your Ideas (FYI) competition challenges students worldwide to develop new ideas for a more sustainable aviation industry.

Airbus launched FYI in 2008 with the aim of engaging with universities and students worldwide and from all backgrounds. The key goals of FYI are to stimulate innovative ideas for a more sustainable aviation industry and to identify potential opportunities for R&T development and/or interaction with academic research teams. This challenge, backed by UNESCO, is part of the "Talent" pillar of the leading aircraft manufacturer's Future by Airbus programme – a vision of air travel in 2050.

Airbus FYI is a rare opportunity for tomorrow's generation to join Airbus in its vision for the eco-efficient aviation industry of the future; to address the two percent the industry contributes to manmade CO_2 emissions; and meet the needs of air transport in a sustainable way. The biennial contest involves three progressively challenging rounds judged by a panel of Airbus and industry experts. The winners share a top prize of €30,000; the runners-up €15,000. Tthe winning team will also welcome Airbus experts on campus at their university for an innovation week.

The third biennial FYI competition was launched in March 2012 in London. In May 2012, UNESCO announced its patronage of this competition. Charles Champion, Airbus' Executive Vice President Engineering, is FYI patron and once again university students of any nationality, or discipline – from engineering to marketing; business, science or design – can participate. Each team of 3 to 5 students is asked to identify an 'Academic Mentor', a member of the academic staff from one of the team member's institutions to lend support in the development of their proposal. In the second round each team will have an "Airbus Mentor" assigned to them selected from volunteers coming from different Airbus departments. The Airbus Mentors will support their respective team with the direction and structure of their project. New for 2013 is the addition of an "Airbus Expert" who will support each team with technical guidance at key stages of the competition.

Participating in FYI gives students the opportunity to develop their potential to be creative and innovative; to improve their project development and presentation skills; to experience working in a team with other nationalities; to learn more about Airbus and the aviation industry; and get feedback on their ideas from industry experts. This all supports the development of key employability skills and offers the chance for vital interaction between universities and Airbus.

For FYI 2013 Airbus has placed the focus on innovation, and has asked students to propose an idea addressing either "Energy"; "Efficiency"; "Affordable Growth"; "Traffic Growth"; "Passenger Experience"; or "Community Friendliness." These six themes have been identified by Airbus as key 21st century challenges for a sustainable aviation industry.

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For this new edition, following 6089 registrations, 618 teams of 3 to 5 students comprising 2556 participants of 82 nationalities submitted a one page proposal to enter Round 1 of the Fly Your Ideas challenge. 102 teams from 5 continents were selected for Round 2. These teams developed their ideas into detailed submissions, including a short video of 1 to 3 minutes long which presented their team and project creatively. Five finalist teams were selected to participate in a VIP trip to Toulouse and Paris in June 2013 where they presented their projects to a jury of Airbus and industry experts. The final was held in Toulouse in June 2013 with the award ceremony at UNESCO in Paris.

Among **the five finalists teams** the winning team selected was **Team Levar, from University of São Paulo, Brazil**, for a luggage loading and unloading system for airplane cargo compartments to reduce the workload of airport baggage handlers with an air cushion solution inspired by air hockey tables.
The runner-up team was **Team CLiMA, from the Royal Melbourne Institute of Technology in Australia** for the development of aircraft fuelled by a blend of sustainably produced liquefied biomethane and liquefied natural gas (Bio-LNG). The team was composed of two Australians as well as a South African, a Canadian and a Maltese.

The three other finalist attending the final was:
Team AVAS, from SRM University, India for reduced propulsion noise thanks to jet exhaust shape modification using intelligent materials (shape memory alloys). These alloys are energized by harvested electricity generated by advanced thermoelectric materials using engine heat.
Team Flybrid, Technical University of Milan, Italy for an electric/turboprop combination for hybrid propulsion in regional aircraft. This system uses batteries pre-charged on ground and not in-flight. The team includes two Spanish students:
Team Embarker, Universiti Putra Malaysia, Malaysia for a self-sustaining aircraft cabin concept in which the excess body heat from seated passengers is used as an alternative source of energy to power small electronics in the cabin.

A further 5 teams based in Australia, China, Germany, Kenya, and Spain were also selected to compete in the Video Competition online.

In 2011, 84 teams from 75 countries took part in FYI. The FYI 2011 winning team was:
Team Wings of Phoenix from China – Nanjing University of Aeronautics and Astronautics, for their suggestion of a ground-based wind power generation system derived from aircraft wakes. The FYI 2011 runner-up team was **Team Condor from Chile** – Universidad Técnica Federico Santa María, for their novel alternative design for an aerodynamic speed brake that would recover energy for on-board reuse.
The FYI 2011 video prize winner was: Team Ecolution from Spain – Universidad Pontificia Comillas, Madrid, for the effective and well-presented visual demonstration of the implementation of low weight natural fibre composites in aircraft cargo containers.

The inaugural contest was launched in October 2008. **For FYI 2009,** the multinational **team 'COz' from the University of Queensland, Australia**, were judged eventual winners in June 2009. Their project focused on the use of a pioneering natural fibre composite – made from castor plants – in aircraft cabins.
Solaire Voyager' from the National University of Singapore claimed the runner-up prize for their proposal to use solar cell technology integrating photovoltaic cells in aircraft to generate

electricity. The winning projects were chosen based on the following criteria: degree of innovation, potential contribution to a better environment, logic behind the project, teamwork shown throughout the competition, rigor of the study process, and team presentations.
A collaborative research project into extended aircraft formations was recently completed with Stanford University - USA - following a partnership formed after Stanford were finalists in the 2009 FYI challenge.

At Airbus, more than 3,000 people are working either directly or indirectly on over 100 Research and Technology projects; Airbus files over 500 patent applications per year; and more than 90% of annual Research and Development investment of over €2 billion has environmental benefits for current and future aircraft.
Employing more than 59,000 people of over 100 nationalities, Airbus is the world's leading aircraft manufacturer, headquartered in Toulouse, France.

- For further information, visit www.airbus-fyi.com