

Berlin, 12 September 2012

Alenia Aermacchi confirms its commitment for a future greener air transport

Alenia Aermacchi signed a Letter of Intent to cooperate for the second phase of the European Clean Sky programme, joining 13 leading aerospace industry and research partners.

Clean Sky 2 is an extension of the European Commission's "Clean Sky" Joint Technology programme to achieve a reduction of air transport CO₂ emissions per passenger kilometre by as much as 75 percent by 2050 and to enhance citizens mobility across the continent. For this initiative industry would invest jointly with the EC a total of €3.6 billion over seven years on research activities.

Alenia Aermacchi is currently playing a leading role in the Clean Sky research programme, being a key contributor to the programme focusing on research on the future generation regional aircraft (the green regional aircraft), advanced low weight fuselage, electric systems and low noise, high efficient aerodynamics and mission trajectory management. Alenia Aermacchi, in cooperation with ATR, is currently developing a modified ATR 72 for flight test demonstration to start in 2015. *Clean Sky 2* will take the industry's collaborative research to the next level to prepare for a new wave of technologies.

Giuseppe Giordo, Alenia Aermacchi CEO, said: "Alenia Aermacchi is looking forward to participating in the *Clean Sky 2* programme. The investment in the green technology in aviation does not only contribute to reducing the impact of the air transport on the environment but it also improves the technological capabilities and the competitiveness of Europe's aeronautics sector".

European Commission plans to have *Clean Sky 2* included in the "Horizon 2020" programme, to run from 2014 to 2020. The Letter of Intent signed today expresses the European industry's commitment to cooperate further in the environment friendly technologies as it firmly believes in the importance of strong and continued investment and co-operation to respond to the future challenges of air traffic.

Alenia Aermacchi and the "Green Regional Aircraft"

Alenia Aermacchi, world leader in the regional aircraft segment with its turboprop ATR family (designed, developed and produced together with EADS), with its participation in SCAC (a company of which Alenia Aermacchi controls 25%, which designs, develops and produces the new Sukhoi Superjet 100) and in SuperJet International (responsible for sales and technical support for the SSJ 100), has a substantial interest in the Clean Sky project, dedicating a significant number of highly-qualified engineers to the project. These engineers will work for a total of around 700,000 hours on research and demonstration over the course of the project, spanning 2008 to 2015. Their work will include the involvement of the centers of excellence of Pomigliano d'Arco (Naples), Foggia, Venegono Superiore (Varese) and Turin with the participation of SuperJet International.

The objectives are ambitious: Alenia Aermacchi intends to obtain advanced technological solutions for a new-generation regional aircraft with a more efficient aerodynamic configuration, weight reduction, and consequent substantial reductions in fuel consumption (up to 10%), noise and of pollutant emissions (CO₂ and NO_x), as well as consumption savings and emissions coming from future propellers. It is easy to understand the importance of this research, considering the number of aircraft deployed all over the world.

The Green Regional Aircraft has a value of €174 million, equal to 11% of the whole financed research project, and will develop subjects related to:

- aerodynamic technologies for the reduction of the external noise, with the intent of reducing the environment's acoustic impact during the approaching phase, and the increase of the aerodynamic efficiency, for a decrease of fuel/gas emissions consumption during the flight;
- advanced composite material structures – where Alenia Aermacchi has significant experience due to our participation in the Boeing 787 program;
- aircraft and engine advanced design;
- all electric systems and commands;
- navigation avionic systems.

The *all electric* management systems represent an innovation that will provide electric power to the on-board utilities (air conditioning, pressurisation systems, de-icing, flight controls and landing gear actuation systems, etc.) no longer requiring the hydraulic and pneumatic powers used on today's airplanes.

Another important avionic innovation will be the introduction of new functions, which will make it possible to perfect the flight route in all phases of the flight control, in order to reduce emissions and noise. The technological solutions developed will have to comply with both current Air Traffic Management rules and the innovations introduced by SESAR.

The regional aircraft could enter into service around 2020-2025. JTI's studies are valid for both regional jet and turboprop types of aircraft.