Boeing and Alenia to Support Italy's First Composite Industrial Recycling Plant

Agreement establishes framework for recycling aircraft composite waste into reusable materials

FARNBOROUGH, United Kingdom, July 15 /PRNewswire-FirstCall/ -- The Boeing Company (NYSE: BA) and Alenia Aeronautica, a Finmeccanica company, today announced that they are joining forces to help establish Italy's first composite recycling facility, which will be located in Southern Italy. Together with partners Milled Carbon (based in Birmingham, U.K.), Karborek (based in Puglia, Italy), and ENEA (Italian National Agency for new Technologies Energy and the Environment), the two companies have signed a letter of intent to apply their expertise and work with academia to advance industry knowledge surrounding the recycling of composite airplane parts into reusable materials for manufacturing. Financial terms were not announced.

The composite recycling facility, which is expected to be operational in mid- to late 2009, will be in Italy's Puglia region, near the Alenia Aeronautica manufacturing center and its supply chain production centers. When fully operational, the center is expected to process an average of 1,000 metric tonnes (1,102 tons) of composite scrap annually and add approximately 75 jobs to the regional economy.

Boeing, which is pioneering the use of composites as the primary structure on the 787 Dreamliner, and Alenia, a major 787 partner, will support the project by partnering to advance associated knowledge and technologies and reuse of recycled aircraft parts and manufacturing materials. Both companies will work together to process carbon fiber scrap material from all of the Alenia facilities and related supply chain facilities. Over the longer term, Boeing and Alenia will work closely with Italian industry and academia to develop additional markets for the reuse of the carbon fiber, which could include automotive, civil engineering, sporting goods, nautical and other industrial applications in Italy and across Europe.

"High-value composite materials are playing an increasingly significant role in aviation's ability to develop lighter, more fuel efficient and environment friendly aircraft," said Billy Glover, Boeing Commercial Airplanes managing director of environmental strategy. "Through this agreement, we are proactively developing technologies and capabilities today that will allow us to responsibly recycle our precious resources, and help meet rising demand for high-quality composite material."

Working collaboratively with Boeing, Milled Carbon has demonstrated the ability, in a pilot industrial plant, to process cured and uncured composite parts on a continual feed that extracts high-quality carbon fibers. The recycled material potentially can be used for noncritical structures such as interior linings, galley and seat parts and tools that can benefit from stronger, lighter-weight materials.

ENEA, the Italian Research Institute, has long worked with Karborek to develop recycling process technologies for the recovery of carbon and glass fiber from composite materials. ENEA and Karborek each has separately developed prototypes of complementary technology.

"Alenia Aeronautica is very aware of the importance of product sustainability, and as the use of composites grows, so does the importance of recycling these materials," said Alenia Chief Technology Officer Nazario Cauceglia. "In light of this, we have engaged with Italian research organizations and other companies to make this project a reality. It is encouraging to see the partners already so well advanced in the development of the project."

Boeing and Milled Carbon are both members of the Aircraft Fleet Recycling Association (AFRA), an international nonprofit organization dedicated to developing industry best practices for the responsible recycling of end-of-service aircraft and their parts. The new joint venture is also anticipated to become an AFRA member and ultimately bolster the organization's capabilities in the area of composite recycling.

Alenia Aeronautica S.p.A. is a major Boeing partner producing 787 composite fuselage barrel sections and the horizontal stabilizer.

The Boeing Research & Development of Italy (BR&DI) was established in Southern Italy in early 2008 with a primary mission of engaging Italian industries, academia and research centers in technological innovation and industrial growth.

Milled Carbon is the provider of the industrial plant blueprint and operational recycling processes. The company has worked with Boeing to develop this capability through years of development and pilot program testing.

Karborek, located in Lecce, is teaming with Milled Carbon with regards to the building and operation of the composite recycling plant.

ENEA, Italy's largest technology research institution for energy and environment, brings extensive recycling process experience.

SOURCE: The Boeing Company

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