

**Title of the Project:** Clean-Sky Eco-Fairs Project: Components for helicopter in thermoplastic composite

**Company name:** CETMA Consortium – Engineering, Design & Materials Technologies Center

**Address:** Cittadella della Ricerca S.S. 7 Appia Km 706+030 - 72100 Brindisi – ITALY

**Web:** <http://www.cetma.it>

**Contact person:** Silvio Pappadà, Ph.D.

**Telephone number:** 0039 0831 443111-413

**Email:** [silvio.pappada@cetma.it](mailto:silvio.pappada@cetma.it)

**Short description of the company** (max 500 battute – spazi inclusi):

CETMA, founded in 1994, is a Research and Technology Organization (RTO) with expertises in the field of Materials Engineering, Information Technology and Industrial Design. CETMA is a multidisciplinary center and carries out applied research and experimental development activities for innovation of products, processes and services with the mission to promote the growth and development of the national productive system. CETMA is located at "Cittadella della Ricerca" in Brindisi and takes up a 5,000 square metres area with an equipped Materials Technologies Laboratory, a Prototyping Laboratory and one of the biggest Virtual Reality centres at European level.

**Abstract of the research project:**

Within Clean-Sky Eco-Fairs project CETMA on behalf of AGUSTA carried out the Design, Manufacturing, Joining technology selection, Non Destructive Inspection (NDI), Mechanical characterization and Certification support for new Thermoplastic Structural components for helicopters. A robust methodology for the design, material selection and manufacturing of thermoplastic composite components for helicopters was developed and guidelines for designers were developed. The three demonstrators were designed and produced according to the technical specifications with a TRL6 Technology Readiness Level, by out of autoclave processes. Assessment of the environmental impact according to ECO-quotation procedures was also carried out.