SARISTU (SmARt Intelligent aircraft STrUctures)

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Overview

- **Duration**: 2011-2015.
- **Partners**: Airbus Operations GMBH; Critical Materials; Alenia; Aeronnova; Atard; Savunma; Short Brothers; Catalyse; Cenaero; Centro Italiano Ricerche Aerospaziali; Centre National de la recherché scientifique; Deutsches Zentrum fuer Luft; EADS; EASN; Fischer and others (64 partners).
- **Contractor**: EU.
- **Objective**: SARISTU focuses on the cost reduction of air travel through a variety of individual applications as well as their combination. Another important objective is to limit the integration cost of Structural Health Monitoring (SHM) systems by moving the system integration as far forward in the manufacturing chain as possible.
- **UPM responsibilities**: Develop a inverse Finite Element Method for shape identification of active morphing structures. Responsible of the strain measures with fiber optic sensors.
DIAPOSITIVA 2

SARISTU focuses on the challenges posed by the physical integration of smart intelligent structural concepts.

It addresses aircraft weight and operational cost reductions as well as an improvement in the flight profile specific aerodynamic performance.

This concerns material concepts enabling a conformal, controlled distortion of aerodynamically important surfaces, material concepts enabling an active or passive status assessment of specific airframe areas with respect to shape and potential damages and material concepts enabling further functionalities which to date have been unrealizable.