

PROJECT / RealTime Monitoring Power Reduction Gearbox RTMGear

Main Objective:

Towards the Advisory Council for Aeronautical Research in Europe (ACARE) goals, which intends to reduce aircraft CO2 emissions and fuel consumption by 50 % within the next decade, the Clean Sky program has focused its intervention in several concurrent developments, such as aircraft aerodynamics and weight, and highly efficient engine concepts. In this framework, Snecma is leading the Clean Sky SAGE2 activities, to study the development of an innovative concept based in a geared open rotor engine that will end up as a breakthrough for the next 15 years, thanks to the improvements in the propulsive efficiency, without the penalties of any duct drag.

Along with several engine subsystems and technologies that are being developed in the scope of SAGE2, conducted by several Clean Sky ITD leaders, Avio Propulsione Aerospaziale is responsible for the power gearbox, which is the focus of this bidding activity.

As an innovative high efficiency power gearbox is being developed, it is very important to keep the tracking of as many early physical parameters as possible, in order to provide useful feedback data for design processes optimization; during operation, similar parameters will allow the aircraft to identify potential structural health problems, such as unexpected vibration, temperature and pressure variations, and metal debris in the oil. In this RTMGear activity, Active Space Technologies (AST) intends to develop a

telemetric system based, as much as possible, in proved technologies, while Instituto de Telecomunicações (IT) will



Groups: [Integrated Circuits – Av](#)

Partners: Active Space Technologies

Local Coordinator: [Luis Filipe Mesquita Nero Moreira Alves](#)