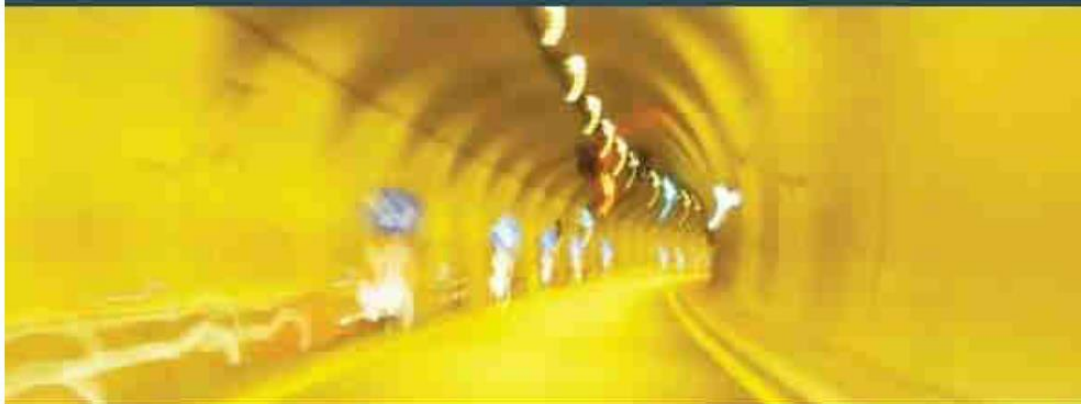


# National Roadmap for Research Infrastructures

2014



HELLENIC REPUBLIC  
Ministry of Education and Religious Affairs  
General Secretariat for Research and Technology



## FAROS - Facility for Airborne Research Observation and Sensing

*Based at the "Athena" – Research and Innovation Center in Information, Communication and Knowledge Technologies of Xanthi*

FAROS is an integrated but distributed National Research Infrastructure for the atmospheric sciences and climate change in Greece, using airborne and remote sensing platforms and a ground-based station. It provides facilities for research groups across the country to accomplish excellence in national and international fora. It concentrates in carrying out research on:

1. Atmospheric quality, composition and physicochemical processes
2. The change of the local and global climate
3. Weather science, extreme and hazardous weather, weather modification
4. Technologies for the observation, remote sensing and modeling of the nationally prevailing atmosphere

It provides a modern, newly instrumented aircraft as a national and regional research platform, a state-of-the-art ground-based 'atmospheric monitoring tall tower' and a Space Internet Communication Centre for online communication with any satellite of interest. The mission of FAROS is to pursue and support internationally-leading research and to advance the application of atmospheric science for the benefit of society. It undertakes and leads fundamental and applied research, provides facilities and training to support atmospheric and wider interdisciplinary environmental science, applies expertise and exploits facilities to support business and government, and it provides the national and international scientific community with the capacity and advice to lead the field. The coordination, enhancement, and long-term support of its activities allows for the best use of the significant investments made to date by the European Union and Greece.

The new infrastructure includes facilities for airborne studies of fluxes and physicochemical processes, as well as Lagrangian atmospheric observations and monitoring, by a modern, modified aircraft. Through its airborne platform, FAROS is able to address local or regional observational and operational tasks such as that of extended wildfires, specific pollution events (e.g. urban smog), industrial or other accidents, weather modification for the protection of agricultural crops, floods, coastal erosion, sea oil slicks and oil or gas pipeline leaks. Furthermore, it benefits fisheries research through the sensing of phytoplankton and fish shoal movements. It also assists in the assessment of real fluxes of pollutants in pollution hotspots and of greenhouse gases, thereby validating both models and emission inventories.

FAROS has associations and collaborations with national and international programs and activities such as: EUFAR (European Aircraft Fleet for Airborne Research, <http://www.eufar.net>), the GLOBAL CARBON PROJECT of the WMO, (<http://www.europefluxdata.eu/home/sites-list>), ICOS (Integrated Carbon Observation System, *ERIC project*) and AERONET (Aerosol RObotic NETwork of NASA).

