

WP5 : Instrumentation development

For the COPAL aircraft, with its basic measurement and acquisition systems, to become a research facility, a broad community of research laboratories, experts in airborne instrumentation shall be mobilized. A network of SMEs shall be constituted to support instrument development and prepare their airborne certification, in close collaboration with the aircraft operator. This workpackage will start with a comprehensive inventory of existing cutting edge airborne instruments for research in Europe, including a description of the access procedures and costs for service, data collection and processing, and quality control. The inventory will further be extended to research laboratories and SMEs expert in physical instrumentation, especially in countries which are not yet operating research aircraft, hence have not already developed an airborne expertise, but show a high potential of contributions to COPAL. The inventory will also include national policies for support to instrument development. A draft report will be completed during the first year for evaluation by the SC and GB. Following the recommendations of the GB, the report will be improved iteratively, until the fourth year of the project to contribute to the COPAL Agreement section on instrument development.

Work package number	5	Start date or starting event:											M1				
Work package title	SUPP : Instrumentation development																
Activity Type	SUPP																
Participant id	1	2	3	4	5	6	7	8	9	10	11	12	Total				
Pmonths per beneficiary	4	2	6	0	2	2	2	2	2	3	1	0	26				

Objectives:

Elaborate plans for the creation of a network of laboratories and SMEs, expert in airborne instrument development, and its long-term sustainability.

Description of work:

Task 5.1 : Inventory of existing airborne instruments.

A questionnaire will be distributed to the operators of instruments registered on the EUFAR web-site, for them to provide information about their instruments, the procedures for access to the instruments, and costs for operating the instrument on board, processing the collected data and quality control. A report on existing instruments will be completed for the SC and GB.

Task 5.2 : Inventory of laboratories and SMEs for airborne instrument development.

A call will be broadly distributed, via the EUFAR web-site, the national research funding institutions, European organizations, such as the European Geosciences Union, the European Meteorological Society, the European Aerosol Assembly, to collect information about research laboratories and SMEs expert in physical instrumentation. A report on potential contributors to airborne instrument development in each country will be completed for SC and GB.

Task 5.3 : National policies for support to instrument development.

The national organizations members of COPAL will be contacted, via the GB, to provide information on national policies for the support to instrument development. A report on national policies in each member state will be completed for the SC and GB.