

LIST OF BENEFICIARIES

Beneficiary Number	Beneficiary name	Beneficiary short name	Country
1	Météo-France, Centre National de Recherches Météorologiques	CNRM	FR
2	Instituto Nacional de Técnica Aeroespacial	INTA	ES
3	Finish Meteorological Institute	FMI	FI
4	Natural Environment Research Council	NERC	UK
5	Fundação para a Ciência e a Tecnologia	FCT	PT
6	Consiglio Nazionale delle Ricerche	CNR	IT
7	General Secretariat for Research and Technology	GSRT	EL
8	University of Warsaw, Institute of Geophysics	IGFUW	PL
9	Enviscope GmbH	Enviscope	DE
10	The Meteorological Office	Met.Office	UK
11	Centre National de la Recherche Scientifique	CNRS	FR
12	SJ Berwin LLP	SJ BERWIN	UK/BE

DESCRIPTION OF THE BENEFICIARIES

Participant	Country	Key tasks	Relevant expertise and experience	Contribution to construction
CNRM	FR	Leader of WP1, contributes to WPs 2, 4, 5 & 6	<p>Météo-France has an extensive experience, since 1947, of operating research aircraft for atmospheric studies. Since 2005, Météo-France, CNRS (part. 11) and the French space agency (CNES), jointly manage the French aircraft infrastructure SAFIRE for research in environmental and Geo-sciences. The French fleet comprises a large payload, medium endurance turboprop (ATR-42), a medium payload, medium endurance jet (Falcon-20) and a small aircraft for boundary layer and urban studies (Piper-Aztec). SAFIRE is constituted of 13 scientists/engineers, and 10 technicians.</p> <p>CNRM coordinates the EUFAR network since 2001, and was designated by the EUFAR Consortium for coordinating the COPAL and EUFAR projects in FP7. As part of the EUFAR contract with the Commission, CNRM hosts the EUFAR Office that comprises 4 personnel: the administrator, the web engineer and two multi-language assistants.</p>	<p><i>CNRM does not intend to bring a major contribution to the construction costs, because of its recent contribution to the European fleet, with the large payload, medium endurance ATR-42 turboprop. CNRM however will provide a major contribution to COPAL with the airborne instrumentation that has been developed for this research aircraft, and to the operation with its experience of large payload research aircraft operation.</i></p>
INTA	ES	Leader of WP3 & 4, contributes to WPs 2, 5 & 6	<p>Since its creation in 1942, INTA has developed an intense activity, first in aeronautics and later in space, always in a dual sense: civil and military. The activities of INTA can be grouped in two main fields, Research & Development and Certification & Testing. Research activities are aimed at supporting, fostering and developing the Spanish scientific and technological policy. Since the year 2000, Earth observation is one of its research priorities, and to cover and coordinate the objectives related with this activity the “Earth observation remote sensing and atmospheric research department” was created. This department participates in national and international Earth observation research programs with relevant use of aerospace platforms. INTA also designs,</p>	<p><i>INTA intends to participate to the construction, instrumentation and operation of the COPAL European infrastructure.</i></p>

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			manufactures and integrates new specific instrumentation dedicated to this activity.	
FMI	FI	Leader of WP5, contributes to WPs 2 & 6	The air chemistry research of the FMI covers a wide spectrum of research topics, including development and application of new methods for size-resolved aerosol measurements, modelling of aerosol dynamics and aerosol-cloud interactions, micrometeorological studies of trace gas exchange between terrestrial ecosystems and the atmosphere, measurement and modelling of biogenic emissions and ozone exposure, measurements of airborne and deposited heavy metals, radioactivity and PAH compounds, and long-term monitoring of aerosol properties and greenhouse gas concentrations. The FMI's researchers have been involved in several measurement campaigns utilising aircrafts, e.g. M55 Geophysica, Learjet, Skyvan and Twin Otter.	<i>FMI intends to participate to the construction, instrumentation and operation of the COPAL European infrastructure</i>
NERC	UK	Leader of WP6, contributes to WPs 2	<p>NERC has undertaken airborne atmospheric research since 1992, making use of access to the UK Met Research Flight C-130 aircraft up to 2001, and from 2000 operating a Dornier 228 research aircraft in support of both atmospheric and remote sensing research. Recently, in partnership with Met Office (part. 10), a BAe-146 aircraft atmospheric research aircraft was procured, entering service in 2004.</p> <p>NERC has wide experience of providing and managing infrastructure and facilities additional to the airborne facilities described above. The organization maintains and operates a fleet of research ships, and supports an extensive and diverse portfolio of scientific facilities including analytical laboratories, satellite geodesy and data receiving stations, national data archiving centres, and scientific equipment pools (marine, geophysical and earth observation). A critical element in operating large and sophisticated research infrastructure is the efficient management of equitable access by the research community: NERC has considerable experience in developing robust and efficient mechanisms for allocating such access (including by means of barter agreements) to its aircraft and ship-based facilities whilst ensuring that only the</p>	<i>NERC does not anticipate contributing to the construction costs, because of its recent contribution to the European fleet, by means of significant investment in the large payload, medium endurance, FAAM BAE-146. NERC however will provide a major contribution to COPAL through experience in operation of large payload research aircraft , and of managing scientific access to major research infrastructure</i>

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			highest quality of science is maintained.	
FCT	PT	Contributes to WPs 2, 5 & 6	<p>FCT is the Portugal's main funding agency for research with a status of a public organisation with administrative and financial autonomy, under the aegis of the Ministry of Science, Innovation and Higher Education. In 2001 FCT's budget was around 20% of the total public research budget in the country.</p> <p>FCT covers all fields of science, from natural sciences to humanities, normally in a responsive mode, aiming at capability enhancement and research excellence. Until our days this general support to the development of the system is complemented with the promotion of research in public policy domains, through thematic programmes launched in cooperation with other public organisations.</p>	<i>FCT intends to participate to the construction, instrumentation and operation of the COPAL European infrastructure.</i>
CNR	IT	Contributes to WPs 2, 5 & 6	<p>The Department of "Earth and Environment" at CNR coordinates the activity of a number of Institutes in the field of Physics, Chemistry, Geology, Earth observations, Biometeorology, Oceanography, Polar sciences, etc. A number of scientific environmental infrastructures are operated by the CNR Department of Earth and Environment, such as Oceanographic vessels and Polar and High Altitude stations. Several Institutes running airborne experiments belong or cooperate with the CNR Dept. of Earth and Environment, such as the Institute of Science of Atmosphere and Climate (ISAC), The Institute of Biometeorology (IBIMET), the Institute for Agriculture and wooded areas (ISAFOM) and the Institute of applied Physics (IFAC).</p> <p>CNR has deep and wide connections with the major national industries in all the industrial fields among which the relations with electronics, chemical, medical, optical, mechanical, bio and nano technological industries must be underlined. CNR also promotes private companies (spin-off) aimed at developing high technological products. CNR could be a high efficient link to national aeronautic, optical, electronic industry in building or refurbishing high technological aircraft and airborne systems.</p>	<i>CNR intends to participate to the construction, instrumentation and operation of the COPAL European infrastructure.</i>

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GSRT	EL	Contributes to WPs 2, 5 & 6	<p>The General Secretariat for Research and Technology (GSRT) of the Ministry of Development is the main research funding public organization in Greece. It supports through its programs, the research activities of both the country's scientific research institutes and those of its productive industry, focusing on areas that are important for the national economy and for the improvement of the quality of life. GSRT promotes the transfer and dissemination of advanced technologies throughout the country's productive sector, thus ensuring early utilization of the results of research activity. It contributes to the reinforcement of the country's research manpower. It represents Greece in relevant institutions of the European Union, thus bringing the country's research and technology activities into line with the requirements of the international community, and promotes cooperation with other countries and international organizations on research and technology issues.</p> <p>GSRT has designated the Aristotle University of Thessaloniki, and specifically the Associate Professor Alkiviadis Bais, to act as representative in COPAL.</p>	<p><i>GSRT intends to mobilize a Greek consortium for participation to the construction, instrumentation and operation of the COPAL European infrastructure.</i></p>
IGFUW	PL	Contributes to WPs 2, 5 & 6	<p>The Institute of Geophysics (IGFUW) is a research and academic unit of the faculty of Physics at the University of Warsaw, under the Ministry of Science and Higher Education. The main activity of IGFUW is education at the graduate and post-graduate level and research. IGFUW is the only academic institution in Poland that offers an atmospheric physics education at the university level. Since 1970, IGFUW is actively participating to airborne research. In the 1970s and 1980s, IGFUW owned a motor glider that was used for airborne studies of cloud microphysics. . Early in the 1990s, IGFUW started to participate to European airborne experiments such as EUCREX, ACE-2, BBC2, and international experiments in the US, such as SCMS, AIRS, DYCOMS-II, RICO.</p> <p>IGFUW has received formal support from the Polish Ministry of Science and Higher Education and her representative, Hanna Pawlowska, has been officially designated for assembling a consortium of Polish shareholders to implement the</p>	<p><i>IGFUW intends to mobilize a Polish consortium for participation to the construction, instrumentation and operation of the COPAL European infrastructure.</i></p>

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			COPAL infrastructure initiative.	
Enviscope	DE	Contributes to WPs 4 & 5	<p>Enviscope GmbH is a private company (SME) located in Frankfurt/Germany and well-established in the field of airborne research. Central point of the activities is the engineering and modification of scientific instrumentation, their adaptation and certification for use aboard aircraft, and their operation during national and international experiments. Enviscope accomplishes all of these activities in a well-organized network with co-operation partners coming from industry and research.</p> <p>Since the year 2000 Enviscope GmbH is contracted to the EC within the EUFAR infrastructure and offers within this activity airborne platforms for Trans-national Access (TA). Additionally Enviscope is involved in the Joint Research Activity (JRA) of the EUFAR I3. In collaboration with 7 Research Institutes, Enviscope contributes to the design and construction of an Aerosol Reference Pod that can be flown on several aircraft and will serve as a true basis for inter-calibration of airborne aerosol instrumentation.</p>	<p><i>Enviscope intends to bring into the COPAL initiative its experience in networking with industry and research institutions. Enviscope especially addresses the involvement of industrial partners in the preparation of the new HPLE aircraft platform (WP4) and in the development and operation of innovative instrumentation (WP5).</i></p>
Met Office	UK	Contributes to WPs 3, 4 & 5	<p>The Met Office has undertaken atmospheric research using aircraft since 1942. This included operating a C-130 aircraft from 1973 – 2001, and most recently, in a partnership with NERC (part. 4) a BAe-146 aircraft. Apart from working closely with aircraft operators and engineers, the Met Office experience covers the design of experimental sorties, logistical arrangements needed to operate aircraft successfully in campaigns (both in UK and abroad), and critically the development, installation and long-term operation of scientific equipment.</p> <p>The Met Office has been contracted to the EC under Framework Programmes 4, 5 and 6 to provide Transnational Access (TA) to its C-130, and later BAe-146 aircraft. Under the current EUFAR contract, the Met Office is coordinating the work packages covering TA and the Expert Working Group on Instrumentation. Through these contracts and other collaborations, the Met Office has gained good contacts with European Operators and scientists.</p>	<p><i>Met Office does not anticipate being able to contribute to the future construction because of its recent contribution to the European fleet, with the large payload, medium endurance, FAAM BAe-146 aircraft. The Met Office however will provide a major contribution to COPAL through its knowledge of airborne instrumentation, and with its experience of operating civil and military large payload research aircraft - currently the FAAM</i></p>

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			In recent years the Met Office has worked closely with BAE Systems to commission the FAAM BAe-146 for an atmospheric research role. As far as design of equipment, its air-worthiness approval and installation are concerned, the Met Office has used a number of specialist UK companies with appropriate design authority; these include BAE Systems, Qinetiq and Cranfield Aerospace.	<i>BAe-146, and in the past, a military C-130 for 28 years.</i>
CNRS	FR	Contributes to WPs 2, 3, 4 & 5	CNRS is the French National Center for Scientific Research. The Institute for Science of the Universe (INSU) has a long experience, since 1967, of operating research aircraft for atmospheric studies. INSU is also supporting the development of research instrumentation in academic laboratories for the French infrastructures in environmental and Geosciences. Since 2005, CNRS, Météo-France (part. 1) and the French spatial agency (CNES), jointly manage the French aircraft infrastructure SAFIRE for research in environmental and Geo-sciences.	<i>CNRS does not intend to bring a major contribution to the construction costs, because of its recent contribution to the European fleet, with the medium payload, medium endurance Falcon-20 jet for research in the upper troposphere/lower stratosphere. CNRS however will provide a major contribution to COPAL with the airborne instrumentation that has been developed for this research aircraft, and to the operation with its experience of research aircraft operation. As the French national research institution, CNRS will play a crucial role in the elaboration of the COPAL Agreement on legal, financial and governance issues.</i>
SJ-BERWIN	UK/BE	Leader of WPs 2	Since its establishment in 1982, the fundamental objective of SJ Berwin has been to provide outstanding legal advice in a dynamic environment. SJ Berwin takes pride in its ability to devise innovative and commercially viable solutions	<i>SJ Berwin intends to analyse and set up, in collaboration with the Consortium members, the best</i>

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		<p>to complex problems. SJ Berwin takes pride in its ability to devise innovative and commercially viable solutions to complex problems. SJ Berwin understands its clients' businesses and is always willing to challenge orthodox views. In a relatively short period, SJ Berwin has evolved into a leading city law firm with offices in Berlin, Brussels, Frankfurt, London, Madrid, Milan, Munich, Paris and Turin. With over 150 partners and more than 500 lawyers, SJ Berwin advises on a comprehensive range of legal services including Corporate Finance, Commercial, Real Estate, Banking, Reconstruction & Insolvency, Financial Services, Litigation, Intellectual Property, Employment & Pensions, EU & Competition, Public Procurement and Tax. SJ Berwin operates in the type of open, accessible and fast-moving atmosphere that promotes progressive thinking and a creative approach to meeting our clients' needs. SJ Berwin understands that the relationship between lawyer and client is of paramount importance and that central to this relationship is a transparency and an open process of communication between all parties.</p> <p>SJ Berwin's client base and particular experience in transport, earth and maritime matters, as well as in energy and natural resources, span the full spectrum of the sector. From the traditional areas of oil and gas, mining, water and electricity to areas that continue to experience rapid growth such as alternative energy generation and renewable resources, energy efficiency, and waste management. SK Berwin acts for a range of clients, from global energy, mining groups and incumbent utilities, to new entrants and start-ups, and from private equity investors and funds to public authorities.</p>	<p><i>suitable legal vehicle, in the form of a pan-European infrastructure, that meets the COPAL project's needs, in particular regarding its membership, liability, legal entity, personnel status, etc.(WP2)</i></p>
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THE COPAL CONSORTIUM AS A WHOLE

The Consortium thus includes 10 national research funding institutions, among which 6 are research councils (NERC-UK, FCT-PT, CNR-IT, GSRT-EL, IGFUW-PL, CNRS-FR), 3 are meteorological services (CNRM-FR, FMI-FI, Met Office-UK) supporting research, and one is a national aerospace research institution with significant activity in environmental research (INTA-ES). Enviscope-DE is an SME, with a long-term experience in supporting airborne research. As a European law firm, SJ-BERWIN has the fundamental objective to provide legal advice on a wide scale in a dynamic environment and devise innovative and commercially viable solutions to complex problems on an international level⁷ participants are already operating instrumented aircraft for research in Geo-sciences, and are members of the EUFAR I3: CNRM and CNRS jointly operate the French facility SAFIRE; Met Office/NERC jointly operate the UK facility FAAM, INTA operates two research aircrafts including hyperspectral facilities, CNR operates the IsaFom aircraft for surface flux measurements, NERC operates an earth observation and atmospheric facility, and Enviscope operates a turboprop and a jet for atmospheric research.

SJ BERWIN, leader of the workpackage on the legal structure (WP2), has a significant experience of the models for Pan-European research infrastructures. The 10 national research-funding institutions participating to this workpackage are entitled for negotiating multilateral agreements and making financial commitments before construction can start. All have a long-term experience in evaluating scientific proposals for access to research infrastructures (WP6). INTA is the aircraft certification organization in Spain and has effective connections with the aeronautics community in order to precisely estimate the procurement, modification, and maintenance costs of the HPLE aircraft (WP3). With the support of CNRM, Enviscope, Met Office-UK, and CNRS-FR, which operate research aircraft, INTA is fully skilled for addressing aircraft and data management operation (WP4). All the participants, except SJ-BERWIN and NERC represented by MetOffice, will contribute to the setup of a network of research laboratories and SMEs for the development and operation of research airborne instrumentation. FMI, which leads WP5, has established close links with SMEs and industry for instrumentation development in environmental research. Enviscope is a SME with expertise in establishing links between research and industry.

Additional beneficiaries

There may be additional European research funding institutions willing to join the Consortium during the duration of the contract, to contribute to the construction of the new infrastructure. The decision to integrate such additional beneficiaries in the contract will be made by the Governing Board at the simple majority. No provision is made for personnel costs of such new participants. However, their attendance to the Steering Committee and Governing Board meetings will be supported by the travel and subsistence budget line in COPAL after approval by the Commission, and if it does not impact significantly the planed activities in the contract.

Third parties

Deutsches Zentrum für Luft- und Raumfahrt (DE)

The German Aerospace Center (, DLR) is Germany's aerospace research center and space agency and a member of the Helmholtz Society of research centers in Germany. DLR is conducting research in the fields of aeronautics, astronautics, energy and transportation with a staff of about 4700 employees in 31 institutes at 8 major research sites located throughout Germany. The spectrum of DLR covers basic research, the development of novel technologies, the operation of large-scale test facilities, management tasks and the training of junior scientists.

For Germany, DLR, other research organisations and BMBF, will soon contribute to the European fleet of instrumented aircraft for environmental and Geosciences with the large payload, long endurance jet HALO (>60 M€). Therefore, they will contribute to the COPAL activities by addressing access issues to COPAL and HALO within the same framework at the European level (WP6). They will also contribute to the other work packages with their long experience of operating research aircraft and the recent development of the HALO project, and more specifically on organization, aircraft selection, operation and instrumentation. The travel and subsistence cost for DLR participants is provisioned at the management level for the Steering Committee and Governing Board meetings, and at the workpackage level for the specific activities.