



Position paper towards the constitution of a sustainable legal structure for EUFAR

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Contents

1. Executive summary	7
2. Preamble	9
3. What is EUFAR?	9
a) Rationale for EUFAR and European integration	10
b) EUFAR2 (2014-2018) activities	10
Management Activities (420 k€)	10
Transnational Access Activities (2.756 M€)	10
Networking Activities (1.833 M€)	11
Joint Research Activities (991 k€)	11
c) Key achievements of EUFAR (2000-2013)	12
EUFAR FP7 (2008-2013)	12
EUFAR FP6 (2004-2008)	12
EUFAR FP5 (2000-2004)	13
4. Historical background	13
a) COPAL versus EUFAR requirements	13
b) Open Access	14
5. Rationale for constituting a sustainable legal structure	14
a) Assuring the continuity of EUFAR	14
b) Implementing and managing the Open Access process	14
c) Overcoming the financial constraint	15
European financial contribution received (FP5-FP7)	15
Potential future European financial contribution (Horizon 2020)	15
d) Possible options for European integration	15
EUFAR and IAGOS	15
Exploration research infrastructures	16
EUFAR and COPAL	16
6. Choice of the sustainable legal structure and strategy	16
a) Potential legal form	16
European Research Infrastructure Consortium (ERIC)	16
International non-profit association under the Belgian Law (AISBL)	16
International non-profit association under the Dutch Law	17
Civil Society under French Law (Société Civile)	17
b) Comparison of potential legal forms	17
AISBL vs Civil Society under French Law	17
AISBL vs association under Dutch Law	17
AISBL vs ERIC	17
c) Strategy	19
7. The EUFAR AISBL	20

a) Objectives.....	20
b) Registered Office.....	20
c) Membership.....	20
Targeted Members.....	20
Potential benefits to Members	21
d) Governance: statutory bodies	22
General Assembly (GA) (compulsory).....	22
Executive Board (EB) (compulsory)	22
Executive Secretariat (ES).....	22
Strategic Advisory Committee (SAC).....	22
Other Advisory Committees	23
External contributors not implicitly involved in governance	23
e) Budget: establishment costs, running costs and resources	24
Establishment costs	24
Running costs & resources	24
Accounting obligations.....	25
f) Votes.....	26
8. Agendas	26
a) Contextual & contractual agendas.....	26
b) AISBL implementation agenda	27
9. Annex I: Financing of mobility of scientists in the scheme of Open Access by means of resource-sharing	29
a) Funding under the European Research Infrastructures’ programme	29
b) Funding under the Marie Skłodowska-Curie Actions’ programme	29
Research and Innovation Staff Exchange (RISE).....	29
Co-funding of regional, national and international programmes (COFUND).....	30
10. Annex II: Memorandum of Understanding	31

Acronyms

AEG	Assessment Expert Group
AISBL	International non-profit association under the Belgian law (Association Internationale Sans But Lucratif)
COPAL	COmmunity heavy-PAYload Long endurance instrumented aircraft for tropospheric research
CNES	Centre National d'Études Spatiales
CNRS	Centre National de la Recherche Scientifique
CERFACS	European Centre for Research and Advanced Training in Scientific Computation
COFUND	Co-funding of Regional, National and International Programmes
EC	European Commission
EPOS	European Plate Observing System
EREA	European Research Establishments for Aeronautics
ERF	European-level Research infrastructure Facilities
ERI	European Research Infrastructures
ERIC	European Research Infrastructure Consortium
ESFRI	European Strategy Forum on Research Infrastructures
EU	European Union
EUFAR	European Facility for Airborne Research
EUROFLEETS	New operational steps towards an alliance of European research fleets
Euro-Argo	European contribution to Argo programme
EuroGOOS	European Global Ocean Observing System
EWG	Expert Working Group
GA	General Assembly
IAGOS-ERI	In-service Aircraft for a Global Observing System European research Infrastructure
IAGOS-AISBL	In-service Aircraft for a Global Observing System AISBL
ICOS	Integrated Carbon Observation System
ICARE	International Conference on Airborne Research
INSPIRE	Infrastructure for Spatial Information in the European Community
MoU	Memorandum of Understanding
MSCA	Marie Skłodowska-Curie Actions
N1SEI	EUFAR2 Networking Activity 1 – Strategy and European Integration
N2TAC	EUFAR2 Networking Activity 2 – Transnational Access Coordination
N3FF	EUFAR2 Networking Activity 3 – Future of the Fleet
N4EWG	EUFAR2 Networking Activity 4 – Expert Working Groups
N5TTO	EUFAR2 Networking Activity 5 – Technology Transfer Office
N6ET	EUFAR2 Networking Activity 6 – Education and Training
N7SP	EUFAR2 Networking Activity 7 – Standards and Protocols
N8DB	EUFAR2 Networking Activity 8 – Database
N9EC	EUFAR2 Networking Activity 9 – E-Communication
N9SST	EUFAR-FP7 Networking Activity 9 – Sustainable Structure
NGO	Non-Governmental Organisation
OA	Open Access
OFEG	Ocean Facilities Exchange Group
pm	Person/month(s)
RI	Research Infrastructure
RISE	Research and Innovation Staff Exchange
SAC	Strategic Advisory Committee

SAFIRE	Service des Avions Français Instrumentés pour la Recherche en Environnement
SEI	Strategy & European Integration
SMEs	Small and medium-sized enterprises
TA	Transnational Access
TAC	Transnational Access Coordination
T&S	Travel & Subsistence
TFEU	Treaty on the Functioning of the European Union
TTO	Technology Transfer Office
WG	Working Group

1. Executive summary

- A new four-year project for EUFAR (European Facility for Airborne Research) was launched on 1 February 2014 with the acronym EUFAR2. A crucial issue that needs to be successfully addressed within the life of EUFAR2 [2014-2018] is the establishment of a sustainable legal structure for EUFAR within a framework of European-led airborne research on environmental and geosciences. At the end of EUFAR2 (31 January 2018), the project would have received 17 years of funding from the European Commission (EC); therefore at the minimum, partial financial independence from the EC is essential, which can be facilitated by establishing such a structure.
- The constitution of a legal sustainable structure for EUFAR, also supported by the Memorandum of Understanding (MoU) signed by the members of the COPAL project (Community heavy-payload long endurance instrumented aircraft for tropospheric research in environmental and geosciences) [2007-2011], remains a major challenge, particularly in ensuring the long-term management of the EUFAR Office that is currently supported by the EUFAR2 project.
- In order to ensure a future for EUFAR, consolidate the network of airborne research facilities and pursue European integration by introducing new stakeholders, the strategy consists of the following: (i) establish a legal sustainable structure that will support core activities of the network; (ii) apply for European funding to cover activities external to the self-financing perimeter of this structure beyond the current EUFAR2 project and to support the mobility of personnel in the framework of the scheme of Open Access by means of resource-sharing that will be implemented within the legal sustainable structure.
- The proposed strategy towards the constitution of a sustainable structure is tightly constrained by the timeframe of the EUFAR2 project. EUFAR is contractually committed to constituting a working group by the end of January 2015 to work and report progress on the sustainable structure until the end of March 2017. The EUFAR2 project coordinator (Météo-France) is contractually responsible for putting this structure in place in collaboration with the scientific and transnational access coordinator (Met Office).
- The proposed strategy is also tightly constrained by the timeframe of the EC strategy. An initiative needs to be carried out to ensure that opportunities for funding for airborne research infrastructure are available under Horizon 2020 Calls for Proposals from 2018 onwards; to this end, the item ‘airborne research’ needs to be included in the Horizon 2020 Work Programme 2018-2019 list of topics to be addressed in the calls for proposals within this timeframe. The EC assessment report in February 2013 took into account the possibility of featuring this topic in the calls under Horizon 2020 on the condition that significant progress has been made towards a “sustainable access scheme”, as explicitly mentioned in the Horizon 2020 topic ENV18. This topic is currently excluded from the Work Programme 2014-2015 and will be excluded from the Work Programme 2016-2017 given that EUFAR2 will cover airborne activities until the end of the contract in 2018.
- Progress on the sustainable legal structure together with lobbying by partners with their national representatives are two crucial prerequisites to ensure EC additional funding for airborne research infrastructure under Horizon 2020.
- Both the establishment of the sustainable legal structure and the implementation of the scheme of Open Access by means of resource-sharing in 2016 – for an evaluation of their functioning in early 2017 - would contribute significantly towards broadening the user base of existing airborne research facilities in Europe and directing additional resources towards their support. Jointly, these two activities will also help to convince the Horizon 2020 selection committees on EUFAR’s progress towards real European-scale integration for further EC additional funding under Horizon 2020.
- After examining different legal forms relevant for EUFAR, the arguments are strongly in favour of establishing an International non-profit Association under the Belgian law (AISBL) rather than a European Research Infrastructure Consortium (ERIC). This is because the primary objective is to increase the integration of and broaden access to the existing network of airborne facilities rather than acquiring, owning and operating any new facilities.

- This document presents a draft proposal on the vision shared in France by Météo-France and the CNRS and by the UK Met Office, encompassing the form of legal structure to adopt, the governance bodies to structure, and the actions that need to be carried out to estimate a realistic budget for setting up and managing such a structure and draft the Statutes of the AISBL.
- Discussion among the EUFAR partners in late 2014/early 2015 on this position paper should converge to a common vision, with the written agreement (MoU) from potential Members' Directors to be signed by mid-March 2015. The AISBL working group to be constituted by late March 2015, and composed of the EUFAR Office, the Scientific Coordinator, the EUFAR2 Steering Committee, the assigned representatives of each potential Member and legal services, will subsequently address the outstanding legal and financial issues (decision-making modalities, recruitment, operating principles of the proposed scheme of Open Access by means of resource-sharing, contract management with respect to EC additional funding and Open Access implementation, subcontracting, etc.), consolidate these critical components of the AISBL during the first half of 2015 and draft the Statutes of the AISBL by July 2015.

2. Preamble

This note aims to describe the context for establishing a sustainable legal structure for EUFAR, as well as summarise the underlying objectives and propose a strategy to achieve them. This is a living document developed by the EUFAR2 (2014-2018) networking activity on Strategy and European Integration (NISEI) to facilitate discussions between the potential members of the EUFAR sustainable legal structure (research aircraft operators, research institutions, research funding institutions and industrial players) and their parent institutions who will ultimately decide on the consolidation of the European network of research aircraft facilities.

A first version of this note was distributed on 5 December 2014 to the EUFAR community. It has since been revised following the decision not to apply for the inclusion of EUFAR in the 2016 ESFRI roadmap, and to focus on the Horizon 2020 Work Programme 2018-2019 (as opposed to 2016-2017) where the item ‘airborne research’ needs to be included in the list of topics to be addressed in the calls for proposals within the corresponding timeframe. Furthermore, thanks to reduced contextual constraints, the position paper will benefit from discussions with partners during a dedicated session at the EUFAR2 second General Assembly meeting in March 2015. As a result, the deadlines for signing the MoU and constituting the AISBL working group have been extended by two months (to mid-March and end of March 2015 respectively), but the deadline for drafting the Statutes remains unchanged (July 2015).

Météo-France has been taking a leading role in EUFAR since the creation of the EUFAR network in 2000 by Jean-Louis Brenguier, and has been assigned as coordinator of the four successive EC contracts under FP5, FP6 and FP7 (first three contracts coordinated by Jean-Louis Brenguier, and last contract by Élisabeth Gérard). In the current contract the coordination is split between Météo-France (administrative coordination) and the Met Office (scientific coordination conducted by Phil Brown). Météo-France is contractually responsible for the constitution of the sustainable legal structure (Task 5 of activity NISEI lead by the Met Office) in collaboration with the Met Office. Both partners have contributed to this note.

3. What is EUFAR?

The EUFAR2 project is an Integrating Activity of the 7th Framework Programme (FP7) of the European Commission covering the period 2014-2018. Following three previous contracts under FP5 (640 k€), FP6 (5 M€) and FP7 (8 M€), the current EUFAR2 project has a budget of 6 M€. EUFAR2’s objectives are summarised as follows:

- to develop transnational access to national infrastructures by supporting researchers in environmental and geo-sciences by facilitating access to airborne research infrastructures that are not available in their home countries or that are not supported by national funding already available to the researcher;
- to promote the use of research infrastructure, especially for young scientists from countries where such facilities are lacking by providing education and training courses on airborne research;
- to strengthen the European culture of cooperation between infrastructure operators, their parent institutions, experts in airborne measurements, scientific users of the facilities, and industry players, enabling the sharing of new developments and best practices in the fields of instrumentation development and data analysis, promoting the wider dissemination of such knowledge to new users of airborne research platforms, and supporting both market pull and technology push driven innovation in airborne research;
- to reduce redundancy, fill the gaps, and optimise the use and development of airborne infrastructure.

The current project EUFAR2 brings together 24 European institutions and organisations involved in airborne research, providing access to 18 instrumented aircraft and 3 specialised instruments under the

transnational access framework. Since 2000 under FP5, Météo-France has coordinated the EUFAR project, with the exception of the current project - EUFAR2 - whose coordination is split between Météo-France (administrative coordination) and the Met Office (scientific coordination).

a) Rationale for EUFAR and European integration

In Europe, investments in research aircraft are decided at the national level. The current European fleet hence comprises numerous small and medium size aircraft but no long-range/heavy-payload aircraft for global scale studies, while US counterparts have access to 11 such aircraft. Similarly, US researchers have access to 4 stratospheric aircraft while there is none available in Europe. A European approach is thus required to progressively mitigate this handicap via joint investments and operation of these research infrastructures.

Moreover, research aircraft are not available in each EU country, with the majority of aircraft being operated in Germany, the UK and France. In these countries, researchers benefit from subsidized access to the infrastructures operated by their parent institutions, while the high cost of a flight campaign remains a serious obstacle for scientists to access aircraft operated by another organisation. In the past, this has led to duplication of small and medium size aircraft in operating countries and the exclusion of researchers from non-operating countries, despite most of the existing aircraft not being used to their full potential. A European integrated approach is therefore a prerequisite for the implementation of an Open Access scheme that will allow more scientists to access the facility the most suited to their needs and reduce duplication of work, hence using research aircraft more efficiently. With funding pressure affecting the present fleet, such an integrated approach is essential to improving the overall efficiency of airborne research infrastructures.

Airborne research instrumentation is multidisciplinary, covering remote sensing and in situ measurements for atmospheric physics, cloud microphysics, radiation, gas and aerosol chemistry, and hyperspectral observation of the surface. Such a broad field of expertise is hardly covered in each country. Increasing the user base and sharing expertise is therefore crucial for the airborne research community to efficiently operate research aircraft and avoid duplication of efforts.

Although databases from field experiments are limited, they can be useful for global scale studies, hence shall be interoperable. The European approach in EUFAR, facilitates the implementation of standards and protocols in a central database that is fully compatible with the INSPIRE directive (Infrastructure for Spatial Information in the European Community) and the main ground and satellite databases.

Finally, the European integrated approach allows speaking with one voice at an international level. This would be important at international events and within international bodies such as the ISPRS international committee for standards in airborne research.

b) EUFAR2 (2014-2018) activities

Management Activities (420 k€)

Transnational Access Activities (2.756 M€)

- Access is offered to 18 instrumented aircraft and 3 hyperspectral instruments. This includes fully-funded flight time, scientific engineering support for integration of instruments, data analysis and planning of the field campaign, and covers a travel and subsistence allowance for participating researchers.
- A total of approximately 430 flight hours (about 38 projects) will be funded by EUFAR2 in the period 2014 – 2018.

Networking Activities (1.833 M€)

- Strategic and European Integration (N1SEI) constitutes a Strategic Advisory Committee of eminent scientists and representatives of research institutions that provides the EUFAR Consortium with independent strategic recommendations on objectives, scientific priorities and long-term developments, as well as high-level guidance on establishing EUFAR's legal sustainable structure.
- Transnational Access Coordination (N2TAC) is the unified management structure which implements and facilitates Transnational Access to research aircraft and instruments by providing fully-funded flight hours supported by EUFAR.
- Future of the Fleet (N3FF) evaluates the performance of the existing fleet, identifies gaps and provides solutions for the long-term development and harmonisation of the fleet.
- Expert Working Groups (N4EWG) aim to improve the scientific expertise in the field of airborne research, to facilitate the transfer of expert knowledge to users, operators, and funding agencies, and to compile supplementary materials to the EUFAR handbook on "Airborne Measurements for Environmental Research – Methods and Instruments".
- The Technology Transfer Office (N5TTO) supports both market pull and technology push driven innovation within EUFAR, and aims to foster a culture whereby EUFAR experts and industry will closely interact and develop partnerships to transfer airborne research instruments, methodologies and software into new products.
- Education and Training (N6ET) activities provide training opportunities (both theoretical and practical) on airborne atmospheric research, field campaigns and remote sensing of the Earth's surface, mainly targeting early-stage researchers.
- Standards and Protocols (N7SP) aims to develop common protocols in airborne research, and support users and operators with recommendations on best practice and state-of-the-art software for airborne data processing, and develop and publish open source software toolboxes for higher level data products and data analysis.
- Data Base (N8DB) will provide a centralised gateway for in situ and remote sensing airborne data, and supporting metadata to improve access to and use of data collected within EUFAR.
- E-Communication (N9EC) will contribute to the improved access to and use of the infrastructures via the EUFAR website. This activity aims to elaborate new solutions for the EUFAR web portal such as providing easy access to up-to-date information on the European fleet, advertising education and training opportunities, improving the proposal-submission system, developing new interactive tools to support collaborative activities, and implementing new facilities based on gaps identified.

Joint Research Activities (991 k€)

- Joint Research Activity 1 (HYLIGHT) aims to develop methodologies and tools for the integrated use of airborne hyperspectral imaging (HSI) data and airborne laser scanning (ALS) data in order to produce improved HSI and ALS products.
- Joint Research Activity 2 (TGOE) aims to develop robust calibration systems for the core gas-phase chemical measurements currently made on-board research aircraft. To this end, the activity seeks to reduce the uncertainty in these key parameters, facilitate improved cross platform research by ensuring that the measurement technologies are all tied to a common baseline, and make critical comparisons between numerical models and between different satellite observations.

c) Key achievements of EUFAR (2000-2013)

EUFAR FP7 (2008-2013)

8 M€ budget allocation, 36 partners, 20 aircraft and 6 airborne instruments open to TA

- 503 fully flight hours (42 flight campaigns) supported, involving 406 individual scientists, including 100 summer school participants. Around 75% of the scientific users supported by TA were from outside the UK, France and Germany.
- 5 training courses held on airborne atmospheric research and remote sensing involving 100 participants (including 12 university lecturers), originating from 18 EU Member States and Associated States. The training courses took place in Hungary, France, Italy and Spain.
- 20 expert working groups set up and 10 expert workshops held along the course of the project.
- International Conference on Airborne Research for the Environment (ICARE) in Toulouse organised and held in October 2010.
- EUFAR handbook on Airborne Measurements for Environmental Research published (March/April 2013, 9 chapters, 655p, 91 authors from 13 countries).
- Central database for EUFAR airborne data launched.
- Publication of internal reports on best practices, and standards and protocols for real-time data exchange and data links between aircraft of the EUFAR and US fleets. Production of software toolboxes for higher level data products.
- Completed 3 Joint Research Activities:
 - Airborne Laser Interferometric Droplet Sizer (ALIDS): novel technique to measure liquid cloud and drizzle drops across a broad size range;
 - Development and testing of new airborne hygrometers (DENCHAR): measurement of humidity, which is of central interest across a broad range of atmospheric science;
 - HYQUAPRO: development of “quality layers” and quality indicators in airborne hyperspectral imagery.

EUFAR FP6 (2004-2008)

5 M€ budget allocation, 34 partners, 20 aircraft open to TA

- 420 fully funded flight hours supported (44 flight campaigns) involving 232 users.
- TAC implemented new flight hour allocation scheme in which the most requested facilities in selected TA proposals were awarded more flight hours, moving away from each operator being assigned a specific amount of flight hours regardless of demand.
- 2 training courses held in Romania and the Netherlands, involving 46 students.
- 10 expert working group meetings held.
- Conducted a gap analysis of the fleet performance against scientific demand, and submitted the COPAL proposal to the European Strategy Forum on Research Infrastructures (ESFRI) for the construction of a heavy-payload and long-endurance community aircraft for tropospheric research.
- Successful design, development and testing of 2 Airborne Aerosol Reference Pods (AARP) that can be flown on several aircraft and serve as a true basis for inter-calibration of airborne aerosol instrumentation. The first with instrumentation for aerosol microphysics, the second further equipped with instrumentation for aerosol optical properties. The AARP is the first airborne instrumental development in Europe carried out by a consortium of laboratories from 5 different countries.

EUFAR FP5 (2000-2004)

640 k€ budget allocation, 9 partners consisting of 8 major European research aircraft operators and the European Science Foundation measurements

- Constitution of committees for the management of the project, evaluation of the activities by independent scientists (Scientific Advisory Committee), Transnational Access activities, co-ordination of the Expert Working Groups (EWG), and for the review of the European fleet of research aircraft.
- Harmonisation of the cost calculations for access to the aircraft.
- Organisation of 8 expert workshops over the course of the project.
- Review of the existing aircraft and recommendations on the future of the fleet.
- Design and development of a website with :
 - A public front-office, providing the users with comprehensive information about aircraft performance and instrumentation, planning of the fleet, and on-line forms for submission of TA proposals;
 - Launch of a secured back-office, restricted to the network members, for updating the published information, and online evaluation of the access proposals.
- Extension of the EUFAR network to almost “all” operators of environmental research aircraft in Europe.

4. Historical background

The aim of the first FP7 EUFAR (2008-2013) networking activity on Sustainable Structure (N9SST) was to develop a framework for evaluating possible models of legal structure for the coordination of the network and the extension of Transnational Access beyond community support.

The COPAL Preparatory Phase study (2008-2011) had already analysed possible legal structure models for the joint ownership of a heavy-payload, long endurance turboprop aircraft in Europe. The objective was therefore different considering that COPAL is planning to jointly operate a community research aircraft, while the objective in EUFAR is rather to coordinate the operators of existing distributed facilities for providing researchers with access at equal terms to these research infrastructures, regardless of which country owns and operates the aircraft, a scheme hereafter referred to as Open Access.

a) COPAL versus EUFAR requirements

COPAL identified two main types of legal structure models, the association model (e.g. AISBL) and the ERIC. The EUFAR and COPAL requirements were discussed at the International Conference on Airborne Research (ICARE-2010) in Toulouse (France) in October 2010 and during three joint EUFAR/COPAL meetings. The consensus among aircraft operators was that the ERIC is well-suited for the joint ownership of a common asset (the heavy-payload and long endurance aircraft), but not necessary for the coordination of aircraft operators of a distributed fleet and the implementation of Open Access.

In September 2011, the majority of the COPAL partners (9 out of 13 partners) and 1 associate partner signed a Memorandum of Understanding (MoU). This MoU acts as an interim structure with two main objectives (the MoU signatories committed to one or to both projects):

- to pursue the objectives of the COPAL Preparatory Phase (for the procurement of a community aircraft), as approved by 4 COPAL partners and 1 associate partner;
- to implement Open Access in EUFAR, as approved by 8 COPAL partners.

The signature of the MoU is a first step towards the constitution of a sustainable structure for both EUFAR and COPAL. Up to now, these two projects were supported from the bottom-up, and it became clear that further steps now require stronger involvement of the parent institutions. Most of the

effort now is therefore devoted to lobbying at the national level for research institutions to actively contribute to the future of the network of airborne research operators and users.

Even though the N9SST working group in the first EUFAR FP7 project (2008-2013) did not succeed in constituting the EUFAR sustainable structure, a detailed analysis of the governance issues was completed during the project. The conclusions are discussed in the draft assessment report on the maturity of the ESFRI Roadmap projects (AEG report, August 2013) following the EUFAR feedback to the ESFRI questionnaire in October 2012 and the interview of Jean-Louis Brenguier and Phil Brown by the ESFRI Committee in Brussels in January 2013. The conclusion expresses a consensus that the AISBL model is sufficient for coordination of a distributed infrastructure network such as EUFAR, while the ERIC model is only necessary if a decision is made in the future to jointly own and operate a community aircraft for tropospheric research.

b) Open Access

The ultimate objective of EUFAR is that all researchers get access at equal terms to a large fleet of instrumented aircraft regardless of their institutional affiliation and of which country operates the aircraft. “Equal terms” means that access proposals are selected based on scientific merit only, and that budget issues related to the aircraft operation are managed at the institutional level. The Forum on Open Access was part of the ICARE-2010 conference. The agreement was first discussed with experts on legal issues and then the scheme was presented to a large community of aircraft operators and representatives of the national research organisations (during the forward-look meeting on airborne geo-sciences).

The expected benefits of the Open Access scheme are

- to develop the user base in countries where such infrastructures are not available;
- to promote the transfer of knowledge from experienced operators to scientists in these countries;
- to improve the usage of existing facilities, direct additional resources towards their support and to reduce duplication.

For countries already operating research aircraft, the Open Access scheme agreements could be based on exchange of access between operators, as already implemented for research vessels (OFEG). For countries with no research infrastructure to barter, contributions to the operational costs could be made in cash or in-kind, for instance by dispatching scientific personnel (contributions in skill) to the operator’s premises.

5. Rationale for constituting a sustainable legal structure

a) Assuring the continuity of EUFAR

Having a sustainable legal structure is the way forward for multi-national infrastructure networks and is a key step to enable EUFAR to develop more straightforward ways of accessing aircraft across Europe and to develop a more efficient use of the existing facilities: an operator might be capable of serving a larger user community than currently exists in its affiliation country. In the short-term, the constitution of a sustainable legal structure is key for assuring the continuity of EUFAR beyond the end of the current project without discontinuity, a consolidation of the European network of research aircraft facilities and further European integration with the involvement of new European stakeholders.

b) Implementing and managing the Open Access process

The successful operation of the Open Access process involves collaboration amongst stakeholders who may not have been closely involved in the EUFAR network to date. Typically, this will include research funding agencies in countries that do not currently operate airborne facilities of their own but that wish to develop an airborne research capability. Constituting EUFAR as a legal sustainable

structure will be the most efficient way to ensure that all stakeholders in the Open Access scheme have an effective voice. It will also enable the Open Access process to develop beyond simple bi-partite arrangements that could be operated outside the EUFAR framework, into a scheme for the free exchange of facilities and users across Europe. It could, for example, ensure that common standards of determining flight access costs are operated by all flight facilities that participate in the scheme.

c) Overcoming the financial constraint

European financial contribution received (FP5-FP7)

Météo-France has been coordinating the EUFAR project since its constitution in 2000 with 9 partners under FP5. EUFAR has significantly evolved in terms of network size, activity and budget (0.64 M€ under FP5; 5 M€ under FP6, 8 M€ and 6 M€ under FP7, successively), positioning EUFAR as the unique European portal offering access to a large and comprehensive fleet of airborne infrastructures.

The implementation of a sustainable legal structure, as already envisaged in the MoU signed by the COPAL project (2007-2011) members and in the previous EUFAR project (2008-2013), is of paramount importance with regard to the long-term joint management of the network, promoting the extension of transnational access beyond community support. This activity will be endorsed in the current EUFAR project (EUFAR2, 2014-2018).

Potential future European financial contribution (Horizon 2020)

During the second half of 2012, the European Commission organised a public consultation on "Possible topics for future activities for integrating and opening national research infrastructure". An expression of interest in airborne research was submitted by the EUFAR project coordinator to the European Commission (October 2012). As a result, in the assessment report on the "topics with high potential and with merit for future Horizon 2020 actions for integrating and opening existing national research infrastructures" (February 2013), the topic "ENV18: European Facilities for Airborne Research in Environmental and Geoscience (with development of a sustainable access scheme)" will be one of the items addressed by the calls for Research Infrastructures' proposals in Horizon 2020. However, this report does not reveal which position EUFAR has in the ranking list (as a topic with either high potential or with merit).

The topic was not included in the first Call for European Research Infrastructures (Work Programme 2014-2015) and will be excluded from the Work Programme 2016-2017 since EUFAR2 will last until 2018. It is however crucial for EUFAR to demonstrate that significant progress has been made towards a "sustainable access scheme", as explicitly mentioned in the Horizon 2020 topic ENV18, before the selection of priority topics in the Horizon 2020 Work Programme (2018-2019).

d) Possible options for European integration

EUFAR and IAGOS

Some reviewers of the EUFAR2 project suggested exploring the feasibility of integrating EUFAR with the IAGOS network given that both use aircraft (research platform in EUFAR and commercial aircraft in IAGOS) to carry instrumentation. In fact, EUFAR aircraft belong to the category of Exploration infrastructures that are used to support short duration and well-focused field campaigns, while IAGOS aircraft belong to the category of Monitoring infrastructures which repeat the same measurements on a daily basis along pre-specified routes. EUFAR works on the principle of proposals submitted by researchers, hence encompassing an innovative experimental approach. This therefore, requires a robust evaluation process for each campaign proposal, while IAGOS flights are planned well in advance and piggy-back on commercial routes. For many other reasons that are not developed in detail here, the management of both types of infrastructures differs greatly. It is therefore not recommended to pursue a joint venture with IAGOS.

Exploration research infrastructures

In fact, if further integration is desirable, it would be more appropriate to consolidate the coordination between Exploration research infrastructures for the environment such as EUFAR, ACTRIS (ground exploration infrastructures) and EUROFLEETS (research vessels) that are jointly operated in most of the large scale field campaigns to provide researchers with a more holistic approach in examining the Earth's system (ocean/continental surface/atmosphere).

EUFAR and COPAL

In terms of European support, EUFAR is an Integrating Activity (Network of existing research infrastructures), whereas COPAL is a project of the ESFRI Roadmap for new research infrastructures. Some ESFRI projects, however, are very similar to EUFAR, such as IAGOS and EPOS which both rely on existing facilities and aim at a better integration of their operations. EUFAR has been represented in recent versions of the ESFRI Roadmap through its spin-off project COPAL. Despite achieving a number of objectives in developing an understanding of how such a community heavy-payload aircraft facility could be operated, COPAL did not manage to secure sufficient funding commitments to proceed to the stage of acquiring and converting an aircraft. Since COPAL is not likely to succeed in the short-term, it is neither relevant nor justifiable to maintain the project alive in the ESFRI roadmap. As a result, COPAL presumably will be removed from the next update of the Roadmap in 2016. In the future, if the EUFAR partners express an interest in acquiring a community heavy-payload aircraft, it is desirable that this option is feasible under the umbrella of the EUFAR legal structure adopted.

6. Choice of the sustainable legal structure and strategy

a) Potential legal form

The following four legal structures were identified as relevant for EUFAR:

- European Research Infrastructure Consortium (ERIC), e.g.:
 - ICOS (Integrated Carbon Observation System)
 - Euro-Argo (European contribution to Argo programme)
- International non-profit association under the Belgian law (AISBL), e.g.:
 - EuroGOOS (European Global Ocean Observing System)
 - IAGOS (In-service Aircraft for a Global Observing System)
 - ERF (European-level Research infrastructure Facilities)
- International non-profit association under the Dutch law, e.g.:
 - EREA (European Research Establishments for Aeronautics)
- Civil Society under French Law (Société Civile), e.g.:
 - CERFACS (European Centre for Research and Advanced Training in Scientific Computation)

European Research Infrastructure Consortium (ERIC)

An ERIC is a community legal form specially designed by the European Commission for European Research Infrastructures, with legal personality and full legal capacity recognised in all EU Member States. Involving several European countries, ERIC regulation provides a common legal framework based on Article 187 of the Treaty on the Functioning of the European Union (TFEU).

An ERIC generally is established at a much higher level involving larger funding than an AISBL, i.e. decisions are made at the government level in each member country.

International non-profit association under the Belgian Law (AISBL)

The AISBL is a well-established legal form specially designed for European organisations in Belgium. Most of its characteristics are well adapted to and sufficient for EUFAR's requirements. Contrary to an ERIC, an AISBL normally requires agreement at the partner institutions' level.

International non-profit association under the Dutch Law

This international association is similar to the AISBL, with a registration in the Netherlands instead of Belgium.

Civil Society under French Law (Société Civile)

A civil society is a society subject to French Law; the Law does not attribute any other characteristics regarding their form, nature or purpose.

b) Comparison of potential legal forms

AISBL vs Civil Society under French Law

The option of establishing a civil society under French law was briefly explored given its similarity to the AISBL and ease of constitution. Although similar to the AISBL, the establishment of a civil society under French Law would require social capital at its establishment (although there is no set minimum requirement), a manager 'gérant' (either physical or moral) and is subject to French fiscal policy contrary to the AISBL. Furthermore, such a civil society would require that the statutory seat is based in France. The advantage of the AISBL is that the statutory seat is based in Brussels allowing for a more European dimension to the network. Another concern is that as EUFAR has been coordinated by Météo-France since the onset of the project in 2000, establishing its legal structure under French Law may be viewed by partners as favouring France. In addition, a civil society under French Law would necessitate that all the documentation will need to be drawn up in French putting all the non-French partners at a disadvantage and requiring translation services every time a document is drawn up or modified.

AISBL vs association under Dutch Law

Many international organisations (from industries such as Airbus and NGOs such as Greenpeace to rock-bands such as U2) are registered in The Netherlands because of flexible and adaptable administrative as well as financial regulations. The AISBL did not really exist at the time EREA was established. No further investigation was made on the association under Dutch Law as an AISBL seems to be more widely in use for other research or observing infrastructures.

AISBL vs ERIC

Both these legal structures appear to be in use for different research infrastructures. For example, IAGOS formed an AISBL, whereas EURO-Argo is constituted as an ERIC although both are monitoring infrastructures. EuroGOOS, predominantly a coordinating activity, chose to adopt the AISBL. EURO-Argo operates the ARGO ocean-monitoring float within Europe and one of the main reasons behind adopting the ERIC legal form is to be able to make large investments such as the purchase of new Argo floats, not subject to public procurement directives to be distributed within the consortium for final use. ERIC is far more autonomous than the AISBL as it has the legal capacity to make decisions and investments independently. This would be useful if the partner organisations were ready to invest in a community aircraft.

With regard to EUFAR, a significant challenge in setting up an ERIC is the high level of membership at national level required. Another drawback in establishing an ERIC, is its lengthy set-up procedure. Theoretically, an ERIC takes much longer to establish than an AISBL. For example, the creation of Euro-Argo was deliberated for at least 6 years, within which an ERIC model was set up in the last three years. It appears that delays in getting it established have been at least in part due to EC input. For instance, when agreement is finally reached at government level over a range of issues, and the EC suggests some changes, this implies that each modification has to be discussed and agreed upon by each Member government, making the procedure time-consuming and laborious. IAGOS took three years to establish its AISBL Statutes, as the procedure was lengthened due to internal issues. The IAGOS-ERI coordinator was responsible for drawing up the Statutes.

The following table summarises the pros and cons of an AISBL and an ERIC.

Criteria	AISBL	ERIC
Initial capital requirement	None	None
Form of membership	Membership at institutional level. At least 3 Members (people or legal entities).	High level membership - at least 3 Member States. Associated countries, third countries and intergovernmental organisations may also be Members.
Full legal personality	Yes, the AISBL becomes the holder of the rights and obligations arising from the recognition granted by royal decree (of which an extract is published in the Moniteur Belge).	Yes, an ERIC shall have legal personality as from the date on which the decision setting up the ERIC takes effect.
Governance structure	Made up of two bodies – the General Assembly (GA) and the Executive Board (EB). The GA is the highest decision making body of the Association. It determines the general policy of the Association and it has all the powers needed for the realisation of the Association’s objectives. The President and Vice President of the GA shall be citizens of two different countries. The EB shall manage and administer the Association in accordance with applicable laws, the Statutes of the AISBL, internal regulations and the decisions of the GA.	Members will define governance structure, which has to include 2 mandatory bodies – Members’ assembly and a director/board of directors. The assembly of Members is the body having full decision making powers, including the adoption of the budget. At least three EU Member States shall hold the majority of the voting rights in the assembly of Members. The director/board of directors appointed by the assembly of Members, as the executive body and legal representative of the ERIC.
Duration of set up	Theoretically about 2 months after submission to Belgian Ministry. IAGOS AISBL took 3 years because of internal issues.	Theoretically, 3 to 9 months from time of submission of application to the EC to EC decision. Generally lengthy procedure. EuroGOOS ERIC took 3 years.
International image and European character	Yes	Yes
Legal capacity to make procurement decisions independently	Limited as bound to public procurement directive making procurement difficult.	ERICs will not be bound by the procedures of the Public Procurement Directive but may set their own procurement rules based on transparency, non-discrimination and competition. This follows from Article 7.3 of the ERIC Regulation, according to which an ERIC is an international organisation within the meaning of the Public Procurement Directive.
Limited liability	Yes - liability of Members limited to their respective contributions.	Yes – liability of Members limited to their respective contributions.
Required administration	Light administration.	Heavy administration (finances, legal, purchasing, personnel).
Requirements relating to the RI	None.	RI must be important for European research, excellent in its field at international level, provide effective access for European researchers, contribute to the mobility of knowledge and/or researchers within the ERA and contribute to dissemination/optimisation of the RTD results.
Location of statutory seat	Must be in Belgium.	In any EU Member State or associated State that is a Member.

c) Strategy

Considering that

- the priority is to coordinate the activities of the EUFAR aircraft operators for implementing Open Access to the existing facilities,
- the implementation of Open Access requires an active involvement of the research institutions from both aircraft operating countries for offering access to existing facilities and non-operating countries which will benefit from Open Access,
- it is essential to coordinate the mobility of scientists in the scheme of Open Access by means of resource-sharing,
- the EUFAR network, constituted of research aircraft operators and scientific users, mostly manages technical and managerial activities such as transnational access, and networking and joint research activities,

the proposed strategy is to set up an AISBL legal structure for EUFAR. At present, an AISBL should be sufficient to bring together partners to form a legal entity, adequately coordinate current partners and oversee Open Access to the existing aircraft fleet. Moreover, an AISBL seems to have a better chance than an ERIC to be established within the lifetime of the present EUFAR2 contract.

Environmental research institutions from both research aircraft operating and non-operating countries shall join the EUFAR Association of aircraft operators and scientific users to take the lead of the Transnational Access and Open Access activities and the Future of the Fleet activities, while aircraft operators and experts in airborne measurements can focus on management of technical activities within EUFAR.

A main challenge facing the scheme of Open Access by resource-sharing is how to support the mobility of participating scientists. That is, in exchange for aircraft flight time, a cash-poor country without access to research infrastructure may make a staff contribution to the aircraft operator. The issue here is how to cover the living costs of seconded personnel. The different level of living expenses from one EU country to another further complicates the problem. For example Romanian personnel detached to France would need far more resources than the other way round. So far, two solutions have been identified both linked to seeking additional EC funding (cf. Section 9 – Annex D): funding either under the European Research Infrastructures (ERI) programme or under Marie Skłodowska-Curie Actions (MSCA).

Upon proof of progress towards the constitution of a sustainable legal structure, EUFAR as a legal entity will seek for further funding from the EC Research Infrastructure programme to cover activities that cannot be financially supported within the AISBL. Such activities include the organisation and financing of transnational access projects and training courses, coordination and financing of specific core developments in activities related to the central database, standards & protocols and website (non-exhaustive list of activities), and of joint research activities.

An important initiative needs to be carried out to ensure that opportunities for funding for airborne research infrastructure are available under Horizon 2020 Calls from 2018 onwards. To this end, it is crucial that the item ‘airborne research’ be included in the Horizon 2020 Work Programme 2018-2019 as a topic to be addressed in the Calls for Proposals within this timeframe. This requires both a proof of significant progress towards the constitution of a sustainable legal structure, and lobbying support from the national representatives.

7. The EUFAR AISBL

The following sections address the main pillars of the Statutes of the AISBL (objectives, registered office, membership, governance, budget, votes). The AISBL working group to be constituted by late January 2015, and composed of the EUFAR Office, the Scientific Coordinator, the EUFAR2 Steering Committee, the assigned representatives of each potential Member and legal services, will subsequently address the outstanding legal issues (decision-making modalities, recruitment, operating principles of the proposed scheme of Open Access by means of resource-sharing, contract management with respect to EC additional funding and Open Access implementation, subcontracting, etc.), consolidate the legal and financial components of the AISBL during the first half of 2015 and draft the Statutes of the AISBL by July 2015.

a) Objectives

The Association, which does not seek financial gain, aims to work in the collective interest of its Members to facilitate collaboration amongst the operators of research aircraft for environmental and geosciences in Europe, the scientific users of such aircraft and relevant industrial partners.

More specifically, the purpose of the Association is:

- To promote efficiencies in operation through the exploitation of common instruments and hardware interfaces together with data processing software, data formats and archiving;
- To promote the uptake of a scheme of Open Access to airborne facilities through a system of resource-sharing to broaden access to European airborne research facilities of scientific users in countries that do not have access through their own national systems;
- To foster coordination between European research funding agencies leading to the development of joint priorities for airborne science and to the harmonised development of future airborne observing systems, including UAS;
- To promote the provision of training opportunities in airborne measurements and their application to early-stage researchers across Europe;
- To provide a focus for collaboration between the airborne research communities in Europe and elsewhere;
- To collect membership, subscription and other fees from Members for application towards these objectives set out above.

A preliminary description on how these objectives can be achieved is provided in the following sections.

b) Registered Office

As an AISBL requires that the statutory seat is in Belgium, an important consideration is whether the AISBL actually maintains a physical office in Brussels or just a P.O. box address. The registered office of the IAGOS AISBL's seat is in the Helmholtz Association, Brussels. Apart from holding the General Assembly and Executive Board meetings in these premises (though not compulsory) and keeping the original minutes of the meetings in a separate register according to the Statutes, there is no obligation of being physically present at the official address. The possibility of loaning an official address with no or low fees will be investigated (e.g. EUMETNET bureau in Brussels, CNRS liaison office in Brussels).

c) Membership

Targeted Members

- Research aircraft operators;
- Research institutions;
- Research funding institutions;
- Industrial players.

Potential benefits to Members

A minimum number of Members would be required to successfully maintain the EUFAR network and its activities through both Member subscriptions and in-kind contributions. An AISBL would allow for different categories of Members with different entry conditions and voting rights. The benefits in becoming a Member should be clear and largely off-set Members' contributions. The benefits would differ from Member to Member. For example an aircraft operator will have different incentives to become a Member compared to a research institution. Benefits per Member group could include the following:

Aircraft operators

Research aircraft represent a significant investment and fixed operational costs regardless of the number of flight hours. Today, many research aircraft in Europe are not used to their full potential, typically between 400 and 600 flight hours annually. The expected benefit for operators is to increase their user base, hence their annual level of research operations. Open Access will also contribute to reducing duplication, which will allow operators to focus on cutting-edge and specific instrumentation instead of trying to cover a very broad range of measurement types.

Research institutions

To benefit from subsidised access to an airborne research infrastructure, researchers shall focus their research on topics that can be addressed with the infrastructures operated by their own parent institution, upper troposphere and lower stratosphere in case of a jet aircraft, middle troposphere with a pressurized turboprop or the boundary layer in case of an unpressurized aircraft. Moreover, not all research aircraft are capable of carrying large instruments such as lidar and radar, hence limiting the possible research fields. The expected benefit of the Open Access scheme for the researchers is therefore to get access to a broader and more diverse fleet of research aircraft and select the one the most suited to their scientific objectives, with the aim of harmonising the instrumentation network to ensure interoperability of the instruments throughout a large number of aircraft.

Research funding institutions

The resulting benefit for the parent institutions is to more efficiently support research infrastructures (reduction of duplication and increased usage of the existing assets), while better supporting their research community by providing access to a broader and more diverse fleet of research aircraft. Indeed, the hourly access cost varies from a few hundreds to more than 30 k€. It is thus crucial for funding institutions to select, for each user, the facility the most suited to the research objectives in terms of capacities versus costs.

Industrial players

The benefit for the industrial players is to have access to training opportunities and staff exchanges, to airborne scientific expertise and needs, and to new innovative technologies developed within EUFAR.

Potential benefits in becoming a Member	Aircraft Operators	Research Institutions	Funding Institutions	Industrial Players
Take part in the scheme of Open Access by means of resource-sharing.	X	X		
More efficient use of existing facilities; an operator might be capable of serving a larger user community than currently exists in its affiliation country.	X		X	
Access to training opportunities and staff exchanges.	X	X		X
Access to new and innovative technologies developed within EUFAR.	X	X	X	X

Sharing of best practices in airborne research and avoiding duplication of efforts.		X		
Easier to facilitate joint research campaigns with other countries or conduct research in other countries.		X	X	
Participation in the Open Access scheme may be a way of developing a relationship with a country(ies) that may subsequently be expanded into a larger strategic partnership.		X		
Falling under the umbrella of EUFAR at international events and committees, rather than as a single operator/institution with a limited voice.	X	X		

d) Governance: statutory bodies

General Assembly (GA) (compulsory)

Highest decision-making organ of the Association

- Determines the general policy of the Association, has the capacity to meet the scope and carry out the activities of the Association.
- Composed of all Members (aircraft operators, research institutions, research funding institutions, industrial players).
- Elects the President, Vice-President and Executive Board (incl. EB Chair & Vice-Chair).

Executive Board (EB) (compulsory)

Executive organ of the Association

- Manages and administers the Association in accordance with the applicable laws and decisions of the GA, legally represents the Association. Is responsible for strategic planning, drawing up of the activity plan and budget, financial accounting and legal affairs, with the support of the Executive Secretariat. May delegate certain tasks and power to the Executive Secretary.
- Composed of the activity leaders, elected by GA.
- The President, Vice-President and Executive Secretary may attend the meetings (ex officio).

Executive Secretariat (ES)

Administrative, financial and legal support to EB

- Organises & prepares meetings, coordinates activities, reports on activity progress, prepares the activity plan, is responsible for the financial accounting, and manages legal affairs or collaborates with external legal services, etc.), for approval by EB.
- Composed of Executive Secretary, Assistant, Treasurer, Legal Expert (if legal services not subcontracted), appointed upon proposal by EB and approval by GA.

Strategic Advisory Committee (SAC)

Strategic advisory organ of the Association

- Provides the EB recommendations on strategy in terms of EU integration, user needs and innovative technologies and conducts evaluation of user driven achievements.
- Composed of external representatives of European environmental organisations and relevant industrial players, with broad scientific background and experience, and wide geographical representation, respecting a gender balance, appointed by GA.
- Chair & Vice-Chair elected by GA or SAC.

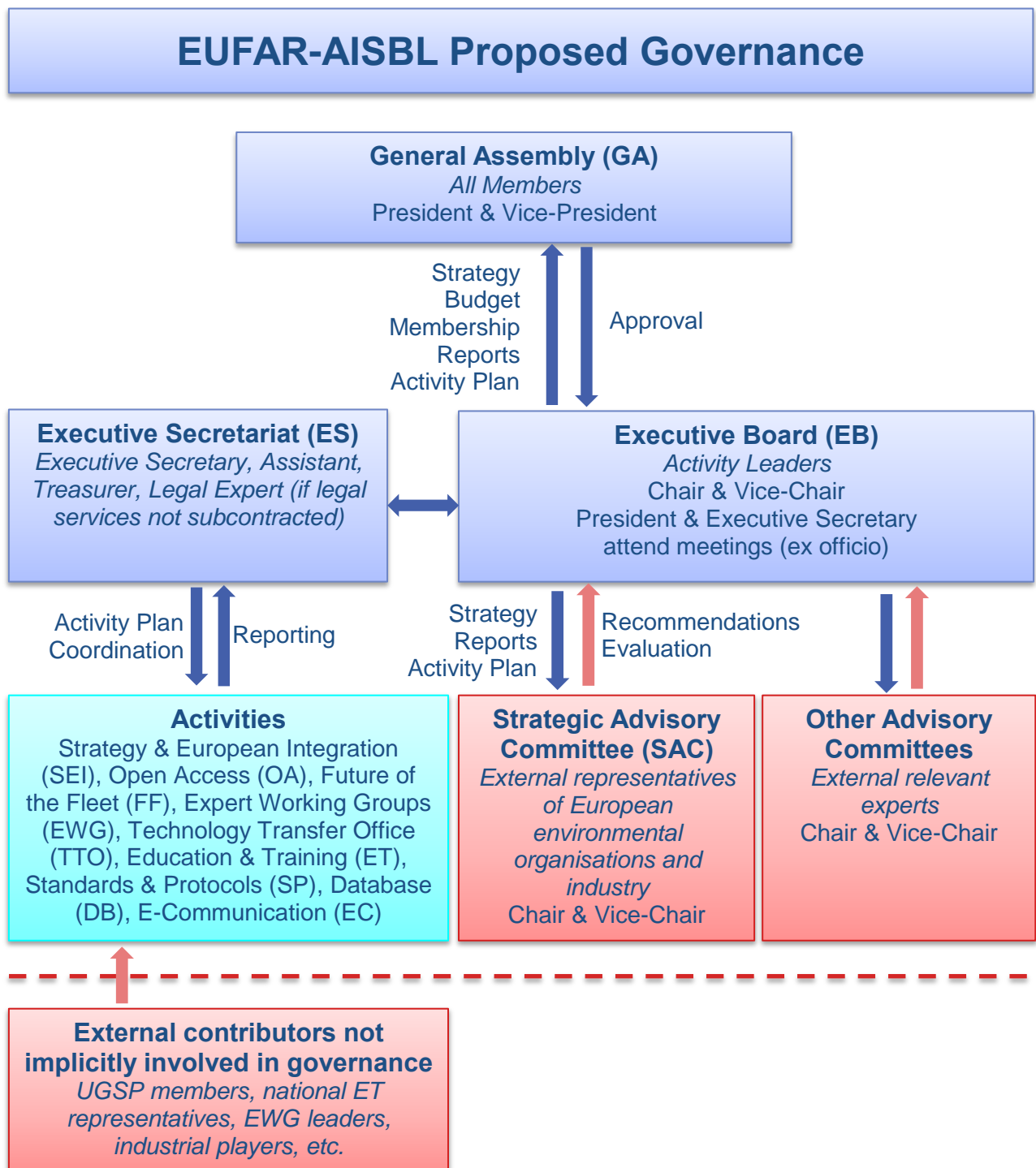
Other Advisory Committees

Advisory organs of the Association on specific activities

- Appointed to pursue and organise specific activities, in line with the outline of activities and terms of reference of each committee, as recommended and approved by GA.
- Composed of external relevant experts, appointed by GA.
- Chair & Vice-Chair of an Advisory Committee elected by GA or Advisory Committee.

External contributors not implicitly involved in governance

- Assist the activity leaders to carry out the activities of the Association.
- Composed of User Group Selection Panel (UGSP) members, national Education and Training representatives, Expert Working Group (EWG) leaders, industrial players, etc.



e) Budget: establishment costs, running costs and resources

While at present all activities of EUFAR are supported by the EC, the future AISBL has to be capable of organising and financially supporting its own core activities (administrative, financial and legal management of the Association, coordination of activities such as strategy and European integration, Open Access, future of the fleet, expert working groups, technology transfer, education and training, standards and protocols, database and e-communication) in order to demonstrate its effectiveness and viability. It will also seek to obtain EC financial support for additional activities, such as organisation and financing of transnational access projects and training courses, coordination and financing of specific core developments and joint research activities.

Establishment costs

It is planned to appoint a law firm to verify the compliance of the AISBL Statutes with Belgian Law, to deposit the Statutes, to pay the fees associated with the notarial deed and the royal acknowledgement, to obtain the VAT number and to register with Belgian VAT Tax Office (AISBL subject to Belgian Tax Laws). According to the Chair of the IAGOS AISBL Executive Board, about 8 k€ were requested to cover these establishment fees (Bird&Bird law firm, Brussels office). The law firm SJ Berwin (Brussels office), who was the COPAL partner in charge of writing the COPAL MoU thus well aware of the background, might be appointed for this purpose but an alternative choice remains open. Prior to the appointment of a law firm, it is recommended that the legal services of a Belgian potential Member of the AISBL collaborate on drafting the Statutes to reduce these fees. Fees related to the opening of a bank account must also be estimated.

Running costs & resources

Estimated costs

A preliminary estimate of the costs (nature and amount when available) is listed in the table hereafter. This list and the estimated amounts will be subsequently revised and completed by the working group in charge of drafting the Statutes and budget during the first half of 2015.

Three scenarios have been considered regarding the number of accessions:

- To launch the AISBL, 5 Members are required;
- To constitute the EB in its full composition, 9 Members are required;
- To meet the objectives of the AISBL, including the uptake of the Open Access by resource-sharing, about 30 Members would be recommended.

The preliminary estimate of costs is based on the following assumptions:

- Personnel costs of the Executive Board will be supported with in-kind contributions. It is expected that ES personnel costs will be covered partially at least by in-kind contribution.
- The Members will support their own participation at and travel expenses to the GA meetings (as in EuroGOOS-AISBL or IAGOS-AISBL); travel and subsistence (T&S) costs will be paid by the Association for EB, ES and Advisory Committees (SAC) meeting only.
- Some consumable and external costs are expected to be supported with in-kind contributions.

Estimated in-cash resources

There will be potentially more Members in the Association than coordination functions in the EB, so not every Member will be able to make in-kind contributions, therefore cash will be necessary along the way to support the running costs. Equal membership fees irrespective of the Member has been assumed in this draft, but flexibility will probably be needed to accommodate all situations; for some of the smaller aircraft operators, particularly those that are small and medium-sized enterprises (SMEs), the ability to pay subscription fees might certainly be much more limited so a separate category of membership might be considered (as was the case in the IAGOS-AISBL). Once the AISBL is in place, the GA will fix the minimum proportion of contributions in the first meeting of the GA and membership fees will be voted annually by the GA.

EUFAR AISBL preliminary cost and resource plan

DRAFT



Assumptions		To launch the AISBL	To constitute the EB in its full composition	To meet the objectives of the AISBL	Comments
Assumptions	No. of Members of the AISBL	5	9	30	
	No. of contributors to the SAC		8		
	Personnel costs	In-kind contribution of the members of GA, EB, SAC			
	Travel & subsistence (T&S) costs	Excluded and paid for by individual members' budget (in-kind) except for EB, ES and SAC			
	T&S /staff / 1day meeting (€)		500		
Catering / staff / 1 day GA meeting (€)		80			
Costs					
Costs	Personnel costs (€/year) - ES staff				
	Executive Secretary (6 pm)	50000	50000	50000	If not in-kind contribution
	Assistant (6 pm)	20000	20000	20000	If not in-kind contribution
	Treasurer (1 pm)	5000	5000	5000	If not in-kind contribution
	Legal Expert (1 pm)	5000	5000	5000	If not in-kind contribution
	Total overheads (incl. offices & basic fees)	TBD	TBD	TBD	If not in-kind contribution
	Total personnel costs				
		?	?	?	
	Minimum				
		20000	20000	20000	High level of in-kind contribution
	Maximum				
		TBD	TBD	TBD	Low level of in-kind contribution
	Meeting & consumable costs (€/year)				
	2 GA meetings (catering)	800	1440	4800	Travel expenses not included
	4 EB+ES meetings (T&S)	14000	22000	22000	EB+ 2 ES members
	1 SAC meeting (T&S)	4000	4000	4000	
	Executive Secretary travel budget	10000	10000	10000	
	Dissemination material (flyers, posters, etc.)	TBD	TBD	TBD	If not in-kind contribution
	ES mail & phone	TBD	TBD	TBD	If not in-kind contribution
	ES office & computer supplies	TBD	TBD	TBD	If not in-kind contribution
	Total meeting costs (€/year)				
		28800	37440	40800	
	External costs (€/year)				
Brussels Office	TBD	TBD	TBD	If not in-kind contribution	
Tax	2000	2000	2000	Estimate from IAGOS-AISBL	
Law Firm	8000	8000	8000	Estimate from IAGOS-AISBL	
Bank Account	TBD	TBD	TBD	If not in-kind contribution	
Total external costs (€/year)					
	?	?	?		
Minimum					
	10000	10000	10000	High level of in-kind contribution	
Maximum					
	TBD	TBD	TBD	Low level of in-kind contribution	
Total costs (€/year)					
Minimum					
	58800	67440	70800	High level of in-kind contribution	
Maximum					
	TBD	TBD	TBD	Low level of in-kind contribution	
Resources					
Resources	Minimum in-cash resources requested	58800	67440	70800	To cover minimum costs
	Maximum in-cash resources requested	TBD	TBD	TBD	To cover maximum costs
	Minimum average membership fee	11760	7493	2360	High level of in-kind contribution
	Maximum average membership fee	TBD	TBD	TBD	Low level of in-kind contribution

Accounting obligations

The accounting obligations are conditional on the category of the Association. The EUFAR AISBL would start as a "Small AISBL". Should this Association become a Beneficiary of an EC contract for activities out of the perimeter of self-financing for activities such as transnational access, summer schools, joint research activities, etc., it might fall within the scope of a "Large AISBL" on the condition that two of the following three criteria are met: (i) average paid workers (full time equivalent): 5; total annual income, other than exceptional (excluding VAT): 312 500 €; (iii) balance sheet total: 1 249 500 €.

Moving from a small to a large AISBL has an impact on accounting obligations with respect to Belgian accounting requirements. Small AISBL only need (i) to keep simplified accounts with income statements and expenditure schedules and (ii) to submit their accounts to the Registry of the Commercial Court. Large AISBL must (i) keep accounts like a commercial company with balance sheets, income statements and notes and (ii) submit their accounts to the Registry of the Commercial Court and the National Bank within 30 days of their approval.

f) Votes

Each Member of the Association having duly made their contributions (in-kind, cash and membership fee) shall have the right to vote in the decisions of the General Assembly. The proportion of the average with which each Member contributed during the previous period to be defined (one or two calendar years) to the total amount of the monetary and in-kind contributions shall be taken into account for determining the number of votes of a Member in meetings of the General Assembly. The quorum, the modality of vote (show of hands, secret ballot, voice vote) and the level of requested vote conditional on nature of the vote (e.g. general affairs, Statutes, annual membership fee) will be discussed when drafting the Statutes.

8. Agendas

a) Contextual & contractual agendas

The constitution of a EUFAR AISBL association is conditional on the European strategy agenda, on the delivery of contractual deliverables to the EC within the framework of the EUFAR2 project, and on the constraint of pursuing EUFAR activities external to the self-financing perimeter of the AISBL beyond the current contract minimising project discontinuity within measure.

Action	Deadline	Responsible(s)
Submit to the EC EUFAR2-N1SEI deliverable D2.2 (Constitution of the working group for the EUFAR sustainable legal structure).	31/01/2015 31/03/2015	ÉG & PB
Support the inclusion of “airborne research” in the Horizon 2020 Work Programme 2018-2019 in the list of topics to be addressed by the Calls for Proposals within the timeframe 2018-2019.	Late 2016 – early 2017	National representatives
Submit to the EC EUFAR2-N1SEI deliverable D2.5 (Report on the progress on the constitution of the EUFAR sustainable legal structure).	31/03/2017	ÉG & PB
End of the EUFAR2 project.	31/01/2018	EUFAR2 Consortium
Submit to the EC a Horizon 2020 EUFAR proposal to receive funding for transnational access, summer schools, networking activities’ core developments and joint research activities, as an Integrating Activity (successor of EUFAR2).	2018	AISBL President & Executive Secretary

b) AISBL implementation agenda

Actions are required at a national level to constitute the sustainable structure, i.e. implement the AISBL and the scheme of Open Access by means of resource sharing. Météo-France, the Met Office and the CNRS are actively working towards the constitution of a sustainable structure. Since 2013, the constitution of a EUFAR sustainable legal structure has been addressed in the Météo-France Action Plan as an action supervised by Philippe Bougeault, Head of Research at Météo-France. Moreover, at the French national level; the shared vision of Météo-France and the CNRS on the sustainable legal structure has been debated within the SAFIRE¹ Steering Committee. Phil Brown as the EUFAR2 scientific coordinator and leader of transnational access and strategy & European integration networking activities has also been actively involved in the constitution of the legal structure and design of the Open Access scheme; Phil has been deploying his efforts towards reaching a consensus in both the Met Office and NERC. Since 2004, EUFAR partners have been invited to mobilise their efforts towards the establishment of a sustainable legal structure; a clear perception of how the structure might be achieved was developed through the COPAL preparatory phase activity and progress in more detail was made after 2010.

It is critical to demonstrate that the constitution of the sustainable structure is well underway and prove the effectiveness of implementation of the Open Access scheme, prior to the submission in 2017 of a proposal seeking additional funding from the EC beyond the EUFAR2 project.

Action	Deadline	Responsible person(s)
Submit to the potential Members the position paper (present document) presenting the context for establishing a sustainable structure for EUFAR, the choice of an AISBL, the underlying objectives and a strategy to achieve them. Position paper already approved by Météo-France, the CNRS and the Met Office.	5 Dec. 2014	Élisabeth Gérard (ÉG, EUFAR2 Project Coord.) & Phil Brown (PB, Scientific Coord.)
Submit to the potential Members a template letter of agreement requesting the Director of each potential Member to sign this letter. Before granting their agreement by signing the letter (MoU, cf. Section 10 – Annex II), each potential Member must ensure that the position paper is evaluated by their legal services. A potential Member, who has given their consent on the way forward outlined in the document, will have the option to designate a representative to be involved in the working group devoted to the constitution of the sustainable legal structure (AISBL WG).	5 Dec. 2014	ÉG & PB
Obtain the written agreement from at least 5 potential Members from 3 different countries on the position paper.	Mid-Jan. Mid-March 2015	ÉG & PB
Organise a session on the sustainable legal structure at the EUFAR2 second General Assembly meeting.	25-27 March 2015	ÉG & PB
Constitute the AISBL WG, composed of EUFAR Office, Scientific Coordinator, EUFAR2 Steering Committee, assigned representatives, legal services.	Late Jan Late March 2015	ÉG & PB

¹ Service des Avions Français Instrumentés pour la Recherche en Environnement, the French aircraft infrastructure jointly operated by Météo-France, the CNRS and CNES since 2005; SAFIRE is one of the operators providing transnational access under the current EUFAR framework.

Report to the EC Project Officer in charge of EUFAR on the progress made on the constitution of the EUFAR AISBL.	Early 2015	ÉG & PB
Establish a realistic financial plan and draft a proposal for the AISBL Statutes based on the EUFAR2 Consortium Agreement, on the experience gained through the settlement of other AISBL and on the AISBL requirements (registered office, governance, budget, membership fees, decision-making modalities, recruitment, operating principles of the proposed Open Access scheme, contract management with respect to EC additional funding and Open Access implementation, subcontracting, legal services, etc.). Météo-France, the CNRS and the Met Office legal services have agreed to provide technical support in this task, but professional help on Belgian law is needed.	Late July 2015	ÉG & PB in collaboration with the AISBL WG
Establish the AISBL.	2016	ÉG & PB
Implement the scheme of Open Access by means of resource-sharing within the AISBL.	2016	PB & ÉG
Report to the EC Project Officer on the progress of the implementation of the AISBL structure and the scheme of Open Access by resource-sharing.	Early 2017	ÉG & PB

9. Annex I: Financing of mobility of scientists in the scheme of Open Access by means of resource-sharing

a) Funding under the European Research Infrastructures' programme

Part of the Horizon 2020 Work Programme 2014-2015 includes a section on European Research Infrastructures (ERI) (within the “Excellent Science” pillar of Horizon 2020) that offers support for specific training and/secondment opportunities within RIs as implied by the following relevant topics in the work programme (http://ec.europa.eu/research/participants/data/ref/h2020/wp/2014_2015/main/h2020-wp1415-infrastructures_en.pdf):

- INFRADEV-4-2014/2015: Implementation and operation of cross-cutting services and solutions for clusters of ESFRI and other relevant research infrastructure initiatives;
- INFRAIA-1-2014/2015: Integrating and opening existing national and regional research infrastructures of European interest. Funding towards this integrating activity will be provided to support in particular, transnational and virtual access activities provided to European researches, cooperation between RIs, scientific communities, industries and other stakeholders, to mention a few.

In particular, there is explicit reference to the exchange of personnel in the annex of the work programme. For instance, annexes C (for INFRADEV-4-2014/2015) and D (for INFRAIA-1-2014/2015) all include activities encompassing the ‘*spreading of good practices, consultancy and training courses to new users; outreach; and the exchange of personnel and training of staff*’, which an Open Access Scheme would aim to facilitate. Therefore on establishing a legal structure for EUFAR, the Horizon 2020 may serve as a means of funding the mobility of seconded personnel, on the condition that ‘airborne research’ is included in the Work Programme (2018-2019) of Horizon 2020 which is not the case in the current Work Programme (2014-2015) and will not be the case in the next one (2016-2017) given that EUFAR2 will cover airborne research activities until the end of the contract in 2018

b) Funding under the Marie Skłodowska-Curie Actions' programme

Part of the Horizon 2020 Work Programme 2014-2015 includes a section on Marie Skłodowska-Curie Actions (MSCA) (within the “Excellent Science” pillar of Horizon 2020) aimed at developing new knowledge and enhancing skills of people behind research and innovation. These actions are well geared towards funding staff to work in another country in order to gain expertise and to then transfer this expertise to their own institution and country, which falls under the Open Access Scheme (http://ec.europa.eu/research/participants/portal/doc/call/h2020/common/1587755-03._msca_calls_wp2014-2015_en.pdf).

Research and Innovation Staff Exchange (RISE)

Previously Marie Curie fellowships, research grants, were limited to researchers and scientists, therefore would not have applied to other RI staff such as technical and management staff that the Open Access Scheme under EUFAR seeks to include. However, the MSCA RISE will support inter-sectoral (academic/non-academic) or international (EU-AC/third countries) short term exchange of staff, open to universities, research centres or companies. This means that secondments funded by the fellowships can also include administrative, managerial and technical staff (1 to 12 months, possibly split).

Extracted from the Horizon 2020 Work Programme on MSCA, personnel eligible for RISE are ‘*researchers (early stage and experienced), administrative, managerial and technical staff supporting the research and innovation activities of the project. They shall be actively engaged in or linked to research and/or innovation activities for at least six months (full-time equivalent) at the sending institution prior to the first period of secondment. Secondments in RISE are not subject to the mobility rules*’.

Under this mechanism, a staff member in country A can apply for RISE funding and if found eligible, the host organisation in country B (e.g. the aircraft operator) will have to appoint this seconded staff member under an employment contract, contract with full social security or a status equivalent to the fixed-amount fellowship. The host organisation in turn will receive EU funding which is dependent on the category of the researcher and is adjusted by country, family situation, etc. The host organisation has also the option to pay a top-up to the seconded personnel. The indicative timetable for evaluation and grant agreement is maximum 5 months and 3 months respectively. Proposals should include at least 3 partners, which can be universities, research institutions, or non-academic organisations. SMEs are encouraged to participate. As it is expected that the legal structure will have at least 3 operators at the beginning, this criterion could be met.

Call for proposals opens on 6 January 2015 and closes on 1 October 2015.

Co-funding of regional, national and international programmes (COFUND)

The MSCA COFUND offers funding to provide an international and inter-sectoral dimension to research training and career development. It targets organisations that fund or manage doctoral programmes or fellowship programmes for experienced researchers. Each COFUND proposal should have a sole participant, i.e. be submitted by just one organisation, which could be a government ministry, funding agency, university, research organisation. If successful, the organisation will be paid a fixed amount as a contribution to living allowance and management costs of implementing the COFUND programme. Selected programmes will receive co-funding for three to five years up to a total amount of 10 M€.

Call for proposals opens on 6 January 2015 and closes on 28 April 2015.

10. Annex II: Memorandum of Understanding

Constitution of an international non-profit association under the Belgian law (AISBL) for the European Facility for Airborne Research (EUFAR) for environmental and geosciences

I hereby approve the necessity of and need for establishing an AISBL for EUFAR and express the intention of my organisation to join the AISBL as a Member, on the condition that the legal and financial provisions laid down in the AISBL Statutes and Budget Plan proposal are in line with my organisation's expectations.

Organisation:	[please insert]
Name(s):	[please insert]
Position(s):	[please insert]
E-mail address(es):	[please insert]
Date:	[please insert]
Signature(s):	
Stamp/seal:	

I hereby wish to designate the following authorised representative(s) of the above-mentioned organisation to actively take part in the working group, devoted to the constitution of the AISBL. [optional]

Name(s):	[please insert]
Position(s):	[please insert]
E-mail address(es):	[please insert]

Comments [optional]: