



D11.1

Report on planning and implementing physical access across disciplines

WORK PACKAGE 11 – New Concepts and Tools for Physical Access

LEADING BENEFICIARY: CNRS

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ABSTRACT

This document describes the planning and implementing of a first use case for physical access to multi-disciplinary platforms to promote synergies of observations across the environmental domains. An access procedure has been established to define the modalities, conditions, and criteria of access. Four test platforms have been selected for which a detailed description was provided via the ENVRIplus website. A first call for access has been prepared, organized and carried out, based on agreed procedures for application, evaluation and selection of the proposals, and support to research for multi-disciplinary access has been provided. The goal of the use case is to explore the conditions for multi-disciplinary access and evaluate the method applied and to build on this first experience in order to ultimately improve the opportunities for interdisciplinary research through access service provision.

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REPORT ON PLANNING AND IMPLEMENTING PHYSICAL ACCESS ACROSS DISCIPLINES

Within work package 11, the main goal was to improve access to environmental RIs through exploring and promoting synergies of joint observation sites, crosscutting research, and trans-national access programmes. This implies exploring best possible methods and procedures to provide cross-disciplinary access to sites. The two aspects developed in the present report to promote the use of RI platforms and to explore and promote synergies of joint observation sites are the following:

- Implementing physical access across disciplines to four identified fixed platforms operated by ENVRIplus partners that are used for test cases that can be particularly suitable for performing innovative research at the frontier between different domains.
- Addressing the challenges that are connected to physical access and to the access across disciplines also outside the RI communities and including private sector users (e.g. SMEs).

1. IMPLEMENTING PHYSICAL ACCESS TO MULTI-DISCIPLINARY FIXED PLATFORMS

1.1 ENVRIplus test cases for physical access

In order to evaluate challenges in implementing physical access across disciplines within ENVRIplus, four test platforms covering various environmental domains were selected for implementing multi-disciplinary access. They are summarized in table 1. The test cases are either singled sited, offering multidisciplinary collaboration in a single location with available on-site instrumentation or space for additional equipment (e.g., SMEAR II, SOERE-ACBB), or are multi-sited over a confined area (such as INGV ETNA with several facilities on the Mt. Etna, and OSU-R which comprises four different geophysical platforms on Reunion Island, including atmospheric, marine, forest, hydrological, and volcanic stations allowing to carry out trans-disciplinary research). The location of the platforms is indicated in figure 1.

Table 1. Overview of platforms in ENVRIplus for testing of physical access across environmental domains.

Use case platform	Type, location	ENV research domain	Involved RI(s)
SMEAR II- HYYTIÄLÄ (Finland)	Single site, Boreal forest	ATMO, BIO	ACTRIS, ANAEE, ICOS, eLTER
OSU-R (La Réunion, France)	Multiple site, Southwestern Indian Ocean, mountains	ATMO, BIO, MARINE, SOLID	ACTRIS
ETNA INGV (Italy)	Multiple site, volcanoes	ATMO, SOLID (BIO, MARINE)	EPOS
SOERE-ACBB (France)	Single site, meadow	ATMO, BIO	ANAEE, ICOS



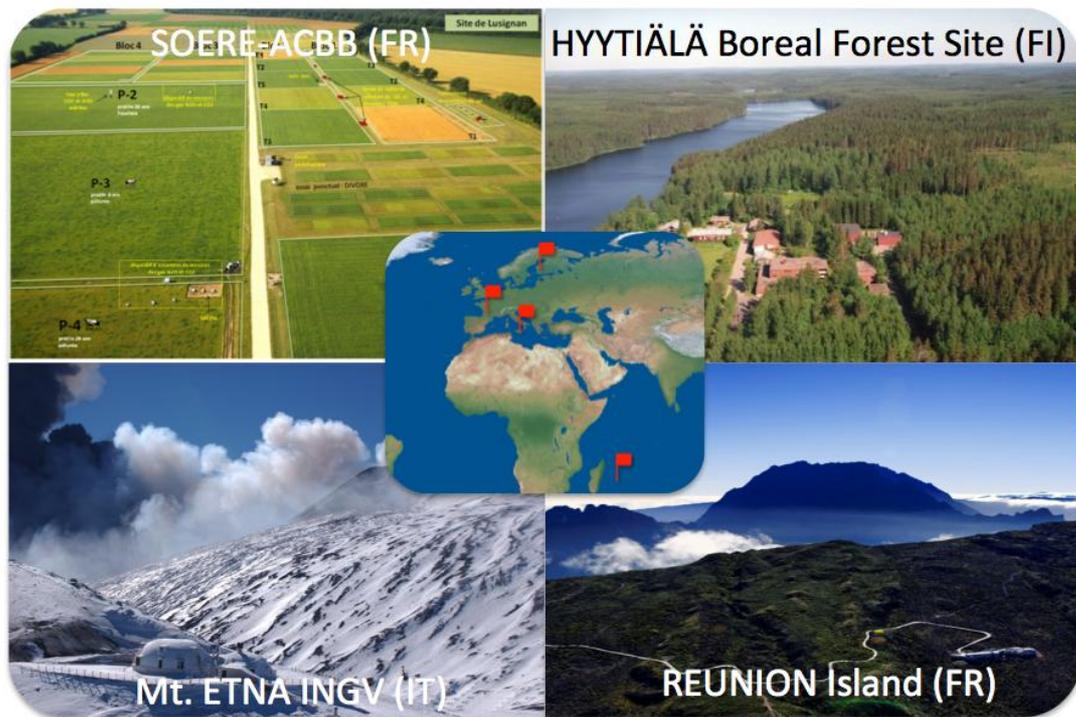


Figure 1. Selected multi-disciplinary test platforms for physical access.

A comprehensive questionnaire (Appendix 1) has been developed at the beginning of the project (month 3) and distributed to the test platforms to gather detailed information about each platform including general aspects (platform name, location, contacts, host institution(s)), geographical information, relevant research areas and expertise, installations involved, cross-domain potential, history of access and access modalities, on-site support and facilities, financial aspects, photos, etc. An initial challenge has been to identify a contact person acting as representative access provider of the different facilities/disciplines of the entire test platforms. The completed questionnaires have been used as base for description and publicity of physical access opportunities.

1.2 Access modalities

The following steps to implement physical access to the selected use cases, were

1. appointing the access providers in charge of each test platform,
2. designing the conditions and criteria of physical access (jointly with the access providers),
3. establishing the access modalities,
4. advertisement of opportunities for access,
5. access procedure: application, selection and evaluation process,
6. access provision and support
7. post-access reporting.

The discussions about the above mentioned steps have taken place through a number of meetings (Paris, FR, July 2015; 1st ENVRIweek, Prague, CZ, Nov 2015, 2nd ENVRIweek, Zandvoort, NL, May 2016) and various telecons. The overall procedure for physical access as it has been framed is shown in Figure 2.

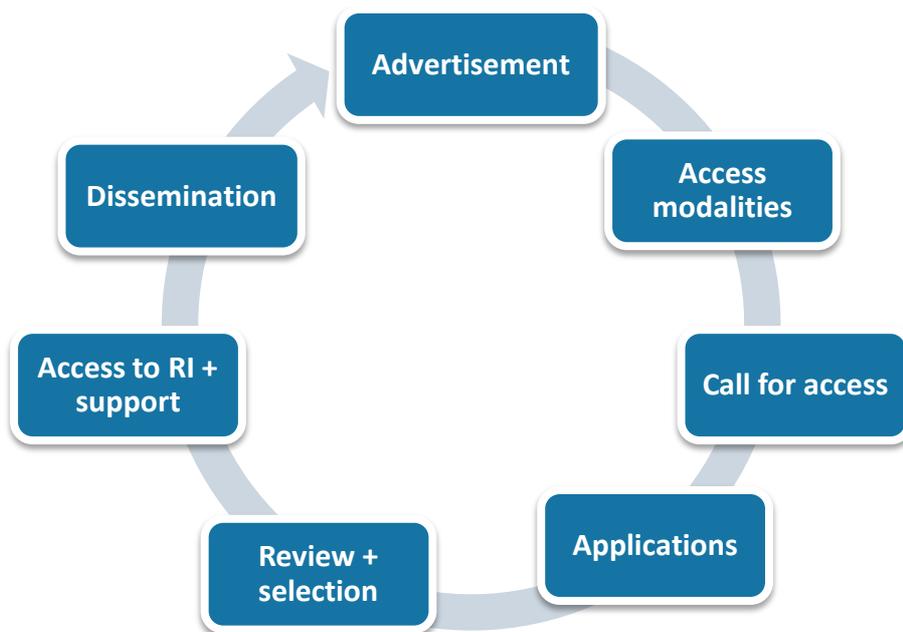


Figure 2. Agreed procedure for physical access to multi-disciplinary test platforms.

Although the access promoted and organized under ENVRIplus is not a true Transnational Access (TNA) activity, it is intended to define the access modalities and procedures as close as possible to the H2020 specific provisions for TNA. A TNA activity would require that the infrastructure/installation provide a reliable and representative cost model for the activities related to the provision of access, either based on unit costs, access costs, or a combination of both. Given the complexity of a multi-disciplinary platform, being single or multi-sited and involving a number of different hosting organizations, the calculation and allocating of costs the project specific activities is not a straightforward exercise, particularly in the case of novel cross-domain projects requiring a new definition of perimeters and staff involved for supporting these activities within the test platforms. Nevertheless, the assessment of realistic cost models remains a clear objective within this WP during the project lifetime. As a result, the budget dedicated to the provision of access within ENVRIplus does not foresee any access costs to the infrastructures providing access, but is limited to supporting the mobility of users benefitting from access by financially covering (fully or partially) the travel and subsistence costs.

1.3 Application procedure

An initial application template (Appendix 2) for users (researchers, engineers, technicians, or other users from the public or private sector) has been developed in the first months of the project, based on the EU requirements for access but also on the experiences of the participants for organising and managing access to RIs. The multidisciplinary access proposal requires from the users applying for access, being single users or user groups, sufficient information to allow proper evaluation and selection of the proposals. In particular, information about a) the participating members (names, nationalities, home institutions, research area, references), b) the project (title, acronym, planned dates, project description (scientific objectives and technical description), c) the expected results, and d) the estimated project costs. The ethical standards and guidelines of H2020 are being strictly applied when collecting data within this access process. With the access providers, a two-stage proposal submission process was agreed during which the PI of the project must send the proposal in a first step to the access provider to confirm scientific and technical feasibility of the project,

thus, only pre-screen proposals are considered for evaluation and selection. The agreed access rules stipulate that access must be free-of-charge and trans-national (i.e., the users must work in a country other than the country where the platform providing access is located). Access must furthermore include the logistical, technological and scientific support and the specific training that is usually provided to external researchers using the infrastructure (although the infrastructure providing access is not reimbursed for the on-site support to users). Users are requested to publish the results they have generated under the access (except for users from the private sector) with respect to scientific good practice rules.

1.4 Call for access and advertisement

The first call for multidisciplinary access was published on January 18, 2016 (month 9) on the ENVRIplus website (<http://www.envriplus.eu/1st-envriplus-call-for-transnational-access-is-open-2/>), and was also widely advertised via the ENVRIplus newsletters, mailing lists and social networks (e.g., Twitter) of all ENVRIplus RIs, the websites or the ENVRIplus RIs and access providing platforms. Beyond ENVRIplus and its participating RIs, the sites for hosting interdisciplinary field studies have also been presented and marketed in other international research and development events. The published call and access opportunities includes a detailed presentation of the multi-disciplinary platforms, access opportunities, and application procedure. The call was open for two months, with a deadline for submission on March 18 and a subsequent access period from June 1, 2016 to August 31, 2017. Funding was offered to support user groups with up to 5000 EUR for supporting travel and subsistence costs.

1.5 Selection procedure

An international selection panel has been constituted for the evaluation of the access proposals. The panel currently consists of 12 internal and external members from all environmental fields (all four environmental domains: ATMO, BIO-ECO, MARINE, SOLID EARTH). It is essential that all domains are well represented in the panel and that expertise from both the user and end-user perspective is covered when selecting and ranking the proposals. Despite the effort, it has proven difficult to nominate a majority of members from outside the project, as required for real TNA programmes, given the extent and large number of partners and RIs participating within ENVRIplus. This remains a goal to be reached, to ensure full transparency and independence, thus, it is envisioned to enlarge the panel to approach the percentage of independent (external) members, and to adapt the review panel according to future needs. The list of evaluation panel members for the first call for access is given in Table 2.

Table 2. Nominated members of the ENVRIplus WP11 access evaluation panel.

Review panel member	ENV domain	Affiliation	Member
Sabine Philippin	(Task 11.2 leader)	CNRS, France	internal
Abad Chabbi	ECO-BIO (WP11 leader)	INRA, France	internal
Karine Sellegri	ATMO (task 11.1 leader)	CNRS, France	internal
Kostas Tsigaridis	ATMO/ MULTI-DOM	Columbia University, USA	external
Ulrich Bundke	ATMO (task 1.4 leader)	FJZ / IAGOS, Germany	internal
Ingrid Mann	ATMO (WP10 leader)	EISCAT-3D, Sweden	internal



Markus Steffens	ECO-BIO	Technical University Munich, Germany	external
Michaela Dippold	ECO-BIO	University of Göttingen, Germany	external
Sylvie Pichereau	MARINE	IFREMER, France	internal
Stefania Sparnocchia	MARINE	CNR-ISMAR, Italy	internal
Jean-Pierre Vilotte	SOLID EARTH	IPGP Paris, Seismology, Italy	internal
Antonello Provenzale	SOLID EARTH	CNR Geoscience and Geo-resources Institute, Italy	internal

For the evaluation of the proposals, an evaluation form has been developed with defined selection criteria for the assessment of the access proposals (Appendix 3). The selection criteria took into account aspects related to the multidisciplinary approach (weight: 4/20 points), scientific merit (9/20 points) innovative approach of the planned project (2/20 points), and user types (training benefit 2/20 points, scientific excellence 2/20 points, female participation 1/20 points). A first evaluation meeting following proposal submission has been organised on May 3, 2016 at INRA, Paris, to discuss, rank and select the proposal and to decide on the financial support. 15 proposals were received which comprised more than 1350 access days and 50 users. To evaluate each proposal, the reviewers' scores of each panel member were taken into account as a basis for selection and further discussion. The access providers' comments, collected before the evaluation meeting, were furthermore taken into consideration (the access providers were asked to evaluate the proposals concerning the project's scientific and technical feasibility, constituting a first-stage pre-screening step. The access providers were asked to comment aspects related to the scientific motivation, method and experimental setup, choice of the infrastructure, feasibility, relevance and impact, strong and weak points of the proposal as well as general support of it). The proposals were ultimately ranked as follows: A - excellent (score: 17-20), B - good (13-16), C - average (10-12), D - poor (0-9), E – rejected or not eligible. For this first call, 10 proposals were positively evaluated and granted support for up to a total of 46000 EUR. Three proposals were rejected for insufficient scientific quality, weak methodology, or failing interdisciplinarity; two proposals were considered not eligible (outside the scope and rules of the call). An overview of accepted proposals is given in Table 3.

Table 3. Selected proposals for access to multidisciplinary test platforms

Affiliation (Country)	Proposal title (Acronym)	Platform involved (ENV Domain)	Access dates
MPI Chemistry (Germany)	Influence of Biosphere-Atmosphere Interactions on the Reactive Nitrogen Budget (IBAIRN)	SMEAR II (ATMO, BIO)	Sep 2016
Univ of Groningen (Netherlands)	Constraining gross carbon fluxes using ecosystem flux and atmospheric concentration measurements of carbonyl sulfide (COS) and CO ₂ (COSMOS)	SMEAR II (ATMO, BIO)	Sep 2016
Univ of Antananarivo (Madagascar)	Seismic and Infrasound Monitoring of Cyclones in the Indian Ocean	OSU-R (ATMO, SOLID)	Jun-Jul 2016



	(SIMCIO)	EARTH)	
Univ of Firenze (Italy)	Volcano Acoustic Monitoring from near and far-field Observations (VAMOS)	OSU-R (ATMO, SOLID EARTH)	Apr 2017
Ecole Normale Supérieure – Département des Géosciences (France)	Radioactive Aerosols and other source parameters for better atmospheric Dispersion and Impact estimatiOns (EtnaPlumeLab – RADIO)	ETNA INGV (ATMO, SOLID EARTH)	Jul 2016, (+2017)
Univ of Manchester (UK)	Ash fragmentation at Mount Etna and implications of different particle shape on ash dispersal in the atmosphere (ETNASH)	ETNA INGV (ATMO, SOLID EARTH)	May 2017
Jožef Stefan Institute (Slovenia)	Mercury emissions, its influence and correlation to Rn in Mt. Etna area (MeRnETNA)	ETNA INGV (ATMO, SOLID EARTH)	May 2017
CNRS-LAMP (France)	Aerosol nucleation in the ETNA passive plume (ETNA-Nuc)	ETNA INGV (ATMO, SOLID EARTH)	Jun 2016
OPGC-LMV (France)	In situ observations and sampling of volcanic emissions at Etna with an unmanned aerial vehicles, UAVs (VolcaDronEtna)	ETNA INGV (ATMO, SOLID EARTH)	Apr 2017
Institute of Soil and Environmental Sciences, University of Agriculture (Pakistan)	Impact of land-use changes on soil health and greenhouse gases emissions (ILUC-SH-GHGE)	SOERE-ACBB (ATMO, BIO, SOLID EARTH)	(cancelled)

1.6 Access to research infrastructures and support

The support provided for access to research infrastructures (RI) involves the follow-up on the proposal and includes the following steps:

- ensuring the communication between the applicants, the access providers, and the reviewers,
- feedback of reviewers' remarks to applicants to be taken into account during implementation of the project,
- reimbursement of the agreed grant decided on case-by-case basis,
- organisation and logistic of the access,
- post-access reporting (including documentation on the quantity of access provided, scientific activity report and user report, publications and other dissemination material, where discussed with the applicants).

As the provision of access is one of the services provided by an RI, it is the goal of the project to adapt the access to the user needs. Although the majority of users of the first call for access are mainly from academic research communities, the aim is to reach out to user communities beyond the scientific community, e.g., private sector (SMEs), public sector (operational services including Met offices), etc. The ENVRIplus access providers have collaborated with several SMEs working in the field of observation technology, metrology and research and development. E.g., during the last two years, UHEL has been benchmarking



novel instrumentation with Envitem Oy, Airmodus Oy and RSC-Finland. In collaboration with the SMEs, at SMEARII-Hyytiälä they have performed co-located observations of trace gases, aerosols and ice accumulation in the mast structures. In consequence, we will encourage SMEs to submit a proposal for the next call.

1.7 Optimize conditions for access

Particularly discussed and identified at the review meetings were aspects to improve the access process. Based on the first experiences and past records of physical TNA within individual RIs and discussion with the access providers of the test cases, the conditions to evolve and adapt the process throughout the project to the physical access tools in general are explored and evaluated. The identified issues concern several aspects within the access procedure with respect to the application, review, and access process, and include:

- optimizing advertisement of the access opportunities (seeking additional channels of communication for reaching out to potential other users or user communities),
- additional information in the application and evaluation process,
- optimizing the procedure and access,
- optimizing the use of the platforms and on-site support (efficient use of available data and equipment),
- improving the collaboration with industrial partners efforts,
- developing common ENVRIplus access data policy jointly with access providers (management, archiving, etc.), and particularly
- enhancing interdisciplinarity and promoting the multidisciplinary use of the RI platforms, and the use of results and data to foster cross-domain collaboration.

For future calls, it was also proposed to increase the maximum allowance budget from 5 000 to 10 000 in order to increase the number of proposals as well as their quality. The activities carried out to date have been successful and will contribute to develop the conditions for access across disciplines. It is currently planned to publish a second call for multi-disciplinary access in January 2017. It has to be discussed if this call will be designed as targeted or open topic call. The scientific fields to be targeted are the topic of the following section 2.

2. ADAPTING THE PHYSICAL ACCESS TO MULTI-DISCIPLINARY PLATFORMS TO THE NEEDS OF ENVRIPLUS

The goal of this activity was to identify end-user needs, research gaps and possible synergies to enhance research within the domains and to define possible case studies in order to increase the quality of access to test sites.

In order to assess if the main and actual scientific questions in interdisciplinary research could be addressed by the four platforms identified, discussions with different actors were engaged to explore possible cross-domain research topics and to identify needs and gaps. Jointly with task 4.1, a workshop on “Science across observatories” was organized to define a first series of test cases for scientific research topics at the interphase between the environmental domains. The four identified topics are:

- 1) Nitrogen from the field to the coastal ocean;
- 2) Influences on and from phytoplankton blooms;



- 3) Observations in the Arctic with special focus on methane,
- 4) Simulating and monitoring O₃ and CO₂ deposition/coupling/ interactions).

For each scientific topic, at least one scientist worldwide recognized for his/her expertise in the topic was invited for a keynote talk on the scientific knowledge and most important identified gaps to be fulfilled. Besides, an expert of future Earth system global modelling was invited to give an update of the main uncertainties and needs for the Earth system model community, at the interface between each domain (see the “Science across observatory networks report” for more details). The process of identifying experts in domains interfaces outside the ENVRIplus project and Earth system modellers that were ready to get involved in the workshop revealed to be rather difficult and it would be valuable for the future of the project that such experts are officially included for the remaining course of the project. Following these invited talks, an inventory of the environmental variables needed to fulfil the scientific topics at the interfaces between domains and already available among the different ENVRIplus RI was performed. The scientific topics discussed were chosen to serve as bases for a future science-orientated TNA call. From the discussions however, it appeared that there was a need to add an additional platform particularly concerning the marine domain that could fulfil questions related to the ocean-atmosphere interface. It also appeared that the communication between the ENVRIplus scientists and the modelling community was extremely fruitful and that the exercise should be repeated regularly during the ENVRI plus meetings.

3. CONCLUSIONS: IMPACT ON PROJECT AND STAKEHOLDERS

Within WP11, a first series of cross-domain interface research topics have been identified. A questionnaire about use-cases offering multi-disciplinary access has been created which was completed for the use cases offering physical access. A procedure for transnational physical access to the four selected multi-disciplinary platforms has been designed, prepared, and organized including the development of application and evaluation forms for implementing physical access. The first call for access to four cross-domain platforms was launched which included a detailed description of the research platforms. The support to access to users of 10 selected projects has started, and three projects have already been successfully completed. Some of the selected test sites for physical access have long records and experience of access. In the past, the work carried out has resulted in a large number of scientific publications that is expected to increase in the future due to the multidisciplinary collaboration promoted within ENVRIplus. The first results from ENVRIplus TNAs will be available after completion of the access activities. First discussion meetings have taken place with different actors of oceanographic research vessels, not being coordinator on European level, to advance the coordination and the implementation of physical access. The first inputs for the guidelines on implementing physical access across disciplines have been collected.

The access procedure is continuously analysed to improve the quality of the access process and further to encourage the opportunities of access and make it more transparent. Some major issues have been identified that are linked to the multidisciplinary access aspect, which will require particular attention in the future, although not being critical at this stage. These include i) limited scientific contacts with experts at the interface between neighbouring environmental domains to fully exploit cross-cutting scientific topics, requiring increased networking efforts, ii) further encourage the development of true interdisciplinary research projects from mostly single-domain user expertise to foster cross-domain collaborations, iii) motivate wider user communities (including from the private



sector) and end user communities (e.g., modellers, environmental quality experts), iv) missing financial support to access-providing facilities (additional costs for access incurred at facilities are not covered), although full and free-of-charge support is provided to the users, v) development of representative access cost models to multidisciplinary platforms to allow cost calculation of for multidisciplinary access.

The outcome of the activities aimed at the provision of access to multi-disciplinary access and related implementation of processes and modalities will benefit the different stakeholders concerned: the research communities, the institutions involved in the RIs offering services and providing access, and the user communities profiting from the services and access offered.

The objectives of this study on the planning and implementing physical access across disciplines within ENVRIplus have been achieved.



4. APPENDICES

5.1 Questionnaire for access provision to ENVRIplus test platform



Description of Infrastructures for TransNational Access

In preparation of the TransNational Access (TNA) call to promote interdisciplinary projects through access to and use of the existing research facilities within ENVRI PLUS, please complete the following questionnaire for each installation of the station (sections 2 to 7), section 1 should be common to all installations of the ENVRI PLUS TNA station.

The completed questionnaire should be returned to envriplus-access@opgc.cnrs.fr before **December 1st, 2015**

(1) General information for the global ENVRI PLUS TNA platform	
Name and acronym of platform (ensemble of facilities that will be referred to within ENVRI PLUS)	
List of individual facility names (and RI projects associated)	
Main contact name and e-mail	
Contact name and email for each facility/associated RI project	
Location (Region, Country)	

(2) General information for each installation of the ENVRI PLUS station	
Geographic coordinates of installation (lat/long, altitude, depth ..)	
Website address:	
Legal name of organization operating the facilities:	
Location of organization (town, country)	



(3) Relevant research area and expertise¹	
Brief description of the state-of-the-art equipment or services offered by the facility	
Environmental situation (air mass type and pollution level, vegetation type, oceanic currents etc.)	
Why is the facility unique/specific in Europe in this domain?	
Potential cross-domain issue?	

(4) History	
Start date of observations at facility (within area of interest)	
Past experience on access provision	Has the infrastructure provided regular TNA or access to external researcher or research teams in the past? <input type="checkbox"/> No <input type="checkbox"/> Yes, please specify:
Major national or international campaigns conducted at the infrastructure	<input type="checkbox"/> within the installation domain (please specify campaign name) <input type="checkbox"/> interdisciplinary ((please specify campaign name)
Scientific community / user type served by the infrastructure	
Scientific community / user type wished to be targeted through ENVRI PLUS?	

(5) Access modalities and support offered	
Accessible equipment at facility	
Available space/electricity/internet connection access for	

¹ To be provided for each installation of the ENVRI PLUS TNA Station



external users	
Scientific and technical support offered	
Administrative support offered	
Available accommodation facilities at infrastructure or nearby	
Other (if applicable)	

(6) Financial aspects	
Estimated travel costs ² per access	
Estimated instrument shipping costs per access	
Estimated daily subsistence costs ³ (if applicable)	
Have TNA unit access costs already been calculated in the frame of its corresponding RI ?	<input type="checkbox"/> Yes <input type="checkbox"/> No

(7) Other	
Recent photos	<input type="checkbox"/> Yes, please attach in separate file <input type="checkbox"/> No
Other comments	

² Indicate average round-trip travel costs per person (plane, train) from within Europe

³ Indicate average daily subsistence costs per person for accommodation and food.



5.2 Proposal form for multi-disciplinary access to RI_ENVRIplus (1st Call for access, January 2016)

1



Proposal form for Multi-disciplinary Access to RI platforms

1. Principal Investigator							
First and LAST name:				Gender: <input type="checkbox"/> F <input type="checkbox"/> M			
Home institution :							
Postal address :							
Country :			Phone number		+		
E-mail :							
User status :		<input type="checkbox"/> EXP	<input type="checkbox"/> PDOC	<input type="checkbox"/> PGR	<input type="checkbox"/> TEC	<input type="checkbox"/> UND	
		<input type="checkbox"/> SME	<input type="checkbox"/> OTHER:				
2. Recent References <small>(5 max / if no references provide short CV)</small>							
3. Project Information							
Project title :							
Project acronym : (20 char. max)							
Integration in ENVRIplus ENVdomain (min. 2) :		<input type="checkbox"/> Atmo sphere	<input type="checkbox"/> Bio sphere	<input type="checkbox"/> Marine	<input type="checkbox"/> Solid Earth		
Selected multi-disciplinary RI platform :		<input type="checkbox"/> SMEAR II - HYTTIÄLÄ	<input type="checkbox"/> OSUR (LA REUNION ISLAND)	<input type="checkbox"/> ETNA INGV	<input type="checkbox"/> SOERE-ACBB		
Main contact of RI platform: (see guidelines at end of document)				Email:			
Planned project dates :		Start date: <i>dd/mm/yyyy</i>		End date: <i>dd/mm/yyyy</i>			
4. Project Participants							
Name	Institution	Email	Research status EXP/ PDOC/	Gender M/F	Access start <i>dd/mm/yyyy</i>	Access end <i>dd/mm/yyyy</i>	Access days

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			PGR/ TEC/ UND/ SME/ OTHER				
Total number of access days :							
5. Project Description							
5.1. Scientific objectives (max 350 words) (Include ample information on interdisciplinary / multidisciplinary aspects of the proposal targeting integration of - at least 2 – different ENV domains)							
5.2. Technical description of work to be performed (max 350 words) (Include information in case specific site requirements are required for access)							
5.3. Expected results and deliverables (max 100 words)							
6. Estimated project costs in EUR							
a. Travel costs	Travel costs per person (a1)	xxx,xx	No of participants (a2)		Total travel costs (a1 x a2)	xxx,xx	
b. Daily subsistence costs	Daily subsistence costs per person (b1)	xxx,xx	No of access days (b2), cf. #3 above		Total subs. costs (b1 x b2)	xxx,xx	
c. Other costs (e.g., shipping)	Provide details:				Total other costs	xxx,xx	
d. Total costs						(a+b+c)	xxx,xx
e. Percentage requested							x %
f. Grand total						(d x e)	xxx,xx
7. Comments (optional)							
8. Proposal pre-screening (mandatory)							

ENVRIplus is supported by the European Commission under the Horizon 2020 – Research and Innovation Action, H2020-INFRADEV-1-2014-1, Grant Agreement number: 654182



First submission of proposal to / contact with access provider made:	<input type="checkbox"/> Yes <input type="checkbox"/> No
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Proposal guidance notes

- (1) **Principal Investigator:** the principal investigator (PI) is the person responsible for the project who acts as contact of the proposal for the research team involved in the planned project. A research team consists of one or several researchers. Note that priority will be given to young researchers participating as project PI.

User status: please use any of the following categories: EXP (experienced, professional researcher, senior scientist), PDOC (Post-doctoral researcher), PGR (Post-graduate, student with 1st university degree), TEC (Technician), UND (Undergraduate), SME, OTHER (e.g., other private sector, public authority, education, etc.)

- (2) **Recent references:** List max 5 relevant references demonstrating the relevant scientific research experience and profile of the PI. Alternatively, a short CV may be included for young researchers who have not yet published; the targeted research training objectives of the planned activities should be addressed in the project description (5).

- (3) **Project information:**

- A project title and acronym are mandatory. The length of the acronym should not exceed 20 characters.
- The multi-disciplinary nature of a research project granted under the ENVRIplus access is mandatory. Thus, only projects integrating at least two or more environmental disciplines (i.e., atmosphere, biosphere, marine, solid Earth domain) will be considered. The cross-disciplinary approach must be addressed and furthermore detailed in the project description under (5).

- **Multi-disciplinary RI platforms:** access is possible to the following observational sites:

HYTTIÄLÄ is a multi-disciplinary observing station located in background boreal forest site in Finland and having ICOS, ACTRIS, ANAEE components. It consists of a main site and additional sites for flux measurements in wetland and boreal lake environments. HYTTIÄLÄ is operational since 1995 and provides in-situ, photometric, radar and LIDAR instruments for measurements of aerosols, cloud condensation nuclei, trace gases, volatile organic compounds, ammonia, greenhouse gases, as well as instruments to measure forest growth, forest physiology and micrometeorology. Official RI contact / access provider: Tuukka Petäjä (tuukka.petaja@helsinki.fi).

LA REUNION is situated on la Réunion Island, France and is a multi-disciplinary research infrastructure located in the southwestern Indian Ocean (French overseas department). It comprises 4 geophysical stations: i) the Mado observatory (2160 m asl) on the northwestern part of the island for atmospheric observations, ii) the marine station on the western coast for observations of the reef zone, the coast line, and coastal aquifers, iii) the forest station on the southern coast for forest ecological observations, and iv) the hydrological station in a drainage basin over the northern coast. Official RI contact / access provider: Jean-Pierre Cammas (jean-pierre.cammas@univ-reunion.fr).

MT. ETNA INGV is a multi-disciplinary observatory, contributing to the EPOS-ESFRI project and managed by INGV. The main observatory is located on the flank of Mt. Etna and equipped with a broad range of instruments to physically and chemically characterize the structure of the volcano and its dynamics. The "Pizzi Deneri" Observatory located at 2800 m of altitude, near the active summit craters of the volcano is suitable for temporary installations. The observatory also supports fieldwork by providing computing facilities, 4WD vehicles and the use of the analytic laboratories. Official RI contact / access provider: Giuseppe Puglisi (giuseppe.puglisi@ct.ingv.it).

SOERE-ACBB is a multidisciplinary set of platforms involving experiments initiated in 2005. As part of the SOERE-ACBB, the Lusignan platform is designed to characterize the trajectories of key variables such as carbon, phosphorus, potassium and nitrogen and the diversity of plants and organisms in the soil. The platform's instrumentation continuously quantifies a broad range of physical, chemical and biological variables: climate forcing variables, physical conditions in soil, water fluxes and quality, carbon. Official RI contact / access provider: Abad Chabbi (abad.chabbi@lusignan.inra.fr).

- Planned project dates: indicate the first and last day the infrastructure is accessed by any person of the research team.

- (4) **Project participants:**

- List all participants needed to carry out the project.
- Priority of access is given to participants whose home institution is not located in the same country as the RI platform (trans-nationality aspect).
- Research status: indicate using categories listed under (1) above

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- Indicate first and last day of access (dd/mm/yyyy). If a participant's access is not continuous, please list periods on separate lines.
 - Total access: indicate the participant's duration of access in days (round to minimum half day). Include only the actual days of access to the platform and if relevant to the project. The access may include days for installation, tests, dismantling (max 20%). The total access in days is the sum of access days of all participants of the research team.
- (5) **Project description:** Please limit the text to the recommended length.
- **Scientific objectives:** Explain in concise and clear manner the scientific objectives of the planned activities, highlight the originality and innovative nature of the project, and relate to the 'state of the art' of research in the environmental domains. Identify the gaps the project is intended to fill, state your motivation and potential for using the specific RI platform. Particular importance must be given to interdisciplinary and multi-disciplinary integrity of the activities. Describe the scientific impact and the potential to the project's objectives across domain to acquire new knowledge and contribution to European excellence and competitiveness.
 - **Technical work plan:** Provide a succinct and accurate description of your plan for achieving the goals in the given time frame, the methods employed, the experimental set-up foreseen, and any additional information about the planned time table. State possible requirements (scientific, technical, administrative, practical) on site. The work plan should provided sufficient information needed for evaluating of the project and for verifying its feasibility and credibility.
 - **Scientific outcome:** Describe the expected results and deliverables and how the outcome may fit with the overall goals of ENVRIplus. Specify the nature of the deliverable evidencing the research work: scientific report, manuscript, conference presentations, etc.
- (6) **Estimated project costs:** List your estimated costs for all participants.
- The amount of financial support to travel expenses will be decided on a case-by-case basis after proposal evaluation, and might also depend on the number of incoming proposals.
 - Independent of the size of the research group, financial support might be limited to 2-3 equivalent persons per project, according to the research needs of the planned project.
 - Eligible costs:
 - **Travel costs:** estimated eligible costs for travel from and to the infrastructure. A maximum flat rate for travel costs might apply. Only those costs are eligible for which proof can be provided (e.g., copy of travel ticket). Short travels on-site, e.g., bus, train, taxi, etc. are not reimbursable. Costs related to the use of personal car or rental car are not eligible.
 - **Subsistence costs:** the subsistence costs are the estimated eligible costs in relation to the daily expenses of the participant(s) during the visit at the infrastructure. It should be calculated based on the actual daily expenses for accommodation and meals. A maximum daily flat rate might apply.
 - **Other costs** (shipping, transport, insurance etc.) will only be reimbursed in exceptional cases, please specify. Shipping costs are only eligible if shipping is provided by a carrier (expenses for the use of rental car, personal car or business vehicle will not be covered). Any other costs must be justified and should be kept to a minimum.
 - Grand total: specify the percentage requested to calculate the total estimated costs for reimbursement by ENVRIplus.
 - Details for reimbursement of the costs will be provided after proposal acceptance.
- (7) **Proposal submission:**
- Before official submission, the PI must ensure to contact and send the proposal to the access provider in charge of the multi-disciplinary platform, listed under (3) above. The first stage pre-screening of the proposal for scientific and technical feasibility is mandatory. Proposals not pre-screened by the access provider will not be considered for final evaluation.



5.3 Reviewer evaluation form

Reviewer Evaluation Form for Multi-disciplinary Access to RI platforms

Reviewer name:		Evaluation of multi-disciplinary access											RANKING		
PROJECT	TNA project acronym: TNA PI name :	Points Comments	A (max 4)	B (max 9)			C (max 2)	D (max 5)			TOTAL SCORE (max 20)	Accepted? (at least 10/20) Y/N	General Comments	A - excellent (17 ... 20) B - good (13 ... 16) C - average (10 ... 12) D - poor (0 ... 9)	
			Multi- /inter- disciplinary approach: (from 0 to 4)	Originality and scientific quality: (from 0 to 3)	Quality of the methodology: (from 0 to 3)	Interest to scientific community / (from 0 to 3)	Innovative approach / potential: (from 0 to 2)	Scientific excellence of research team (from 0 to 2)	Training benefit (young researchers) (from 0 to 2)	Promotion of female participation (from 0 to 1)					#DIV/0!
1	PROJECT 1		#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!			B+
		Reviewer 1										0			
		Reviewer 2										0			
		Reviewer 3										0			
		Reviewer 4										0			
		Reviewer 5										0			
		Reviewer 6										0			
		Reviewer 7										0			
		Reviewer 8										0			
		Reviewer 9										0			
		Reviewer 10										0			
		Access Provider	Scientific motivation, Method & experimental setup, Choice of infrastructure / feasibility, Relevance & impact												
			Strong points												
			Weak points												
			General comments (ev ranking)												
			Supported			Yes / No									



5. GLOSSARY

Table 4. List of acronyms in alphabetical order.

INGV ETNA	Multi-disciplinary test platform: National Geophysical and Volcanology Institute (Istituto Nazionale di Geofisica e Vulcanologia), provides physical access under ENVRIplus at Mt. Etna, Italy.
OSU-R	Multi-disciplinary test platform: Observatory of Earth Sciences in La Réunion Island, France (Observatoire des Sciences de l'Univers – La Réunion)), provides physical access under ENVRIplus
RI	Research Infrastructure
SME	Small and Medium Enterprise
SMEAR II HYYTIÄLÄ	Multi-disciplinary test platform (Station for Measuring Forest Ecosystem-Atmosphere Relations), providing physical access under ENVRIplus in Hyytiälä, Finland
SOERE-ACBB	Multi-disciplinary test platform (Long-term observation and experimentation system for environmental research - Agro-ecosystem, bio-geochemical cycle, and biodiversity (Système d'Observation et d'Expérimentation sur le long-terme pour la Recherche en Environnement - Agro-ecosystème, Cycle Bio-géochimique et Biodiversité), France), provides physical access under ENVRIplus in France
TNA	Trans-National Access, activity funded under the H2020 RI Work programme for Integrating Activities.