



---

# European Research Infrastructure supporting Smart Grid and Smart Energy Systems Research, Technology Development, Validation and Roll Out – Second Edition

## LAB ACCESS GUIDE

v1

---

*Publication date:* 01/10/2020  
*Authors:* The ERIGrid 2.0 Consortium

---

## Disclaimer

This document contains material, which is copyrighted by certain ERIGrid 2.0 consortium parties and may not be reproduced or copied without permission. The information contained in this document is the proprietary confidential information of certain ERIGrid 2.0 consortium parties and may not be disclosed except in accordance with the consortium agreement.

The commercial use of any information in this document may require a licence from the proprietor of that information.

Neither the ERIGrid 2.0 consortium as a whole, nor any single party within the ERIGrid 2.0 consortium warrant that the information contained in this document is capable of use, nor that the use of such information is free from risk. Neither the ERIGrid 2.0 consortium as a whole, nor any single party within the ERIGrid 2.0 consortium accepts any liability for loss or damage suffered by any person using the information.

This document does not represent the opinion of the European Community, and the European Community is not responsible for any use that might be made of its content.

## Copyright Notice

© The ERIGrid 2.0 Consortium, 2020 – 2024

## Table of Contents

1	Introduction.....	5
2	Eligibility of the User Groups.....	6
3	Lab Access Procedure.....	7
3.1	STEP 1: Publications of the Call for Proposals.....	7
3.2	STEP 2: Submission of the User Proposals.....	8
3.3	STEP 3: Evaluation of the User Proposals.....	8
3.4	STEP 4: Selection of the proposal and notification to the user group.....	9
3.5	STEP 5: Access to the Lab.....	10
3.6	STEP 6: Dissemination and Publication of the Project Results.....	10
4	Reimbursement of the Access Expenses.....	12
5	Annexes.....	13
5.1	Annex 1: User Project Proposal Template.....	13
5.2	Annex 2: Essential information to be included in the access Contract.....	16

## List of Abbreviations

<i>EU</i>	European Union
<i>ICT</i>	Information and Communications Technology
<i>PHIL</i>	Power Hardware-in-the-Loop
<i>RI</i>	Research Infrastructure
<i>RP</i>	Responsible Person
<i>RTD</i>	Research and Technical (or Technological) Development
<i>SME</i>	Small and Medium-sized Enterprise
<i>USP</i>	User Selection Panel

## 1 Introduction

ERIGrid 2.0 offers to eligible external users free of charge lab access to its Research Infrastructures (RI) along with logistical, technological and scientific support. The lab access scheme includes also free travel and lodging for the stays.

The objective of this document is to become the basic guide for those user groups who are thinking of using the ERIGrid 2.0 lab access and benefiting from this opportunity supported by the European Commission (H2020). The document specifies the general rules of the ERIGrid 2.0 lab access scheme, covering the eligibility of the users and the end-to-end procedure to be followed in the ERIGrid 2.0 lab access programme: call announcement, proposal evaluation and selection, and the mandatory dissemination of the user project results.

This guide does not include the descriptions of the laboratories offered by ERIGrid 2.0 and the concrete access conditions applicable to the individual installations. This information is available at the ERIGrid 2.0 website ([www.erigridd2.eu](http://www.erigridd2.eu)).

## 2 Eligibility of the User Groups

Lab access is provided to selected “users” and “user groups” (teams of one or more researchers led by a user group leader). The selection will be done through the evaluation of the received user project proposals by an independent review panel of experts from different domains that are involved in smart grids and smart energy systems (power systems, ICT, cybersecurity, etc.).

The user group leader and the majority of the user group members should work in an institution/ Small and Medium-sized Enterprise (SME) located in a different country to the country where the lab is located (“trans-national” characteristic of the lab access). For multi-site projects this rule applies to all sites to be accessed.

The ERIGrid 2.0 lab access is open to engineers and researchers that are primarily from organizations (this includes SMEs and larger industries) located in an EU Member State or H2020 Associated Countries<sup>1</sup> (Albania, Armenia, Bosnia & Herzegovina, Faroe Islands, Former Yugoslav Republic of Macedonia, Georgia, Iceland, Israel, Moldova, Montenegro, Norway, Serbia, Switzerland, Tunisia, Turkey, and Ukraine).

Limited lab access is also available to applicants from non-EU countries (“third countries”)<sup>2</sup>: the limitation is not on the number of user groups from these countries but on the amount of access that can be provided by ERIGrid 2.0; access for user groups with a majority of users working in third countries is limited to 20% of the total amount of units of access provided under the grant. The general H2020 conditions for International Cooperation and H2020 rules apply for formal eligibility.

Only user groups that agree to disseminate the results that they have generated under the project are eligible to benefit from access to the infrastructure free of charge, except for SMEs. Young scientists at the start of their careers and female researchers will be positively considered.

The duration of the stay at a RI will normally be 1-4 weeks but in some cases longer stays of up to 3 months may also be justified (for visits to the installation/s exceeding 3 months written approval from the European Commission must be requested by the access provider).

---

<sup>1</sup> [https://ec.europa.eu/info/files/countries-associated-horizon-2020-framework-programme\\_en](https://ec.europa.eu/info/files/countries-associated-horizon-2020-framework-programme_en)

<sup>2</sup> [https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-a-countries-rules\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/other/wp/2018-2020/annexes/h2020-wp1820-annex-a-countries-rules_en.pdf)

### 3 Lab Access Procedure

This section describes the steps of the entire procedure, detailing how the lab access in ERIGrid 2.0 will be implemented through successive public calls. It provides the criteria for the assessment and selection of proposals by the User Selection Panel (USP) and settles the general rules for the development of the selected user projects and the dissemination of the results. In addition, it defines the general contractual conditions pertaining to the researcher stay at the infrastructures. Further elaboration and specifics will be detailed using a contract.

The general timeline is shown in the next figure below. As a reference, the duration of the call and the associated user stays will last for around 8-12 months, with the following main time periods:

- The Call will remain open for 3 months.
- The received proposals will be evaluated within 1-2 months after the closing date of each call.
- The access period depends on the user project: 1-4 weeks typically and limited to a maximum of 3 months if well justified.
- Finally, the user group has up to 2 months to carry out the mandatory reporting of the project.

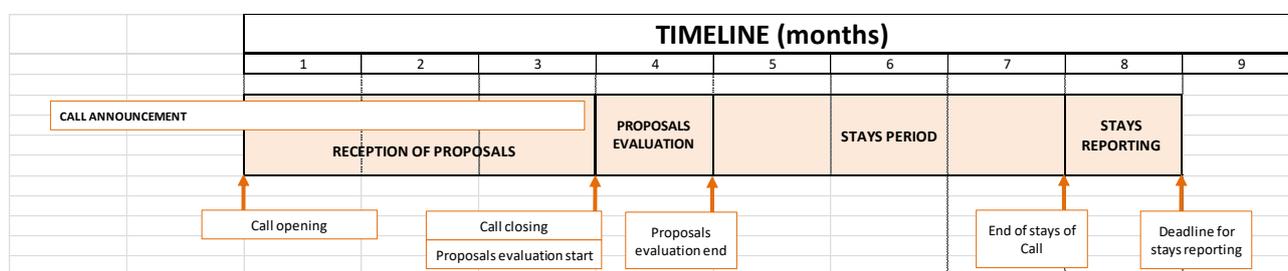


Figure 1: Call reference timeline

#### 3.1 STEP 1: Publications of the Call for Proposals

Every 4 months a Call for Proposals will be launched by ERIGrid 2.0 for lab access to conduct experiments at the involved RI (see their descriptions at [www.erigrd2.eu](http://www.erigrd2.eu)). A total of 10 calls are foreseen during the course of ERIGrid 2.0.

The announcement of the lab access calls will be done through the ERIGrid 2.0 website ([www.erigrd2.eu](http://www.erigrd2.eu)), social networks, advertisement through different channels (posters, flyers, press releases, ERIGrid 2.0 partners' web pages, etc.), publications at conferences, workshops and journals, and direct contact with potential users.

##### 3.1.1 Topics Targeted by the Calls

The Calls for Proposals will be targeted to research and development of Smart Grid and Smart Energy System concepts and configurations and to testing and validation methods and tools following a holistic approach.

Future electrical networks will integrate higher shares of fluctuating renewable energy, distributed energy resources at all voltage levels, active prosumers, electrical vehicles, demand side management programmes, etc. Besides the power system components, like the grid infrastructure, storage, generation, consumption, etc., it also comprises ICT, cyber-security, markets, regulation, etc. Any project proposal covering these broad and complex themes, will fall into the ERIGrid 2.0 lab access scope and may be eligible.

In this context, those proposals contributing to the improvement of the services provided by the infrastructures, the harmonisation and optimization of methodologies, and the reinforcement of the

partnership with industry will receive a special consideration.

The experimental research on the selected research topics must be implemented in one (or several) of the offered labs listed at [www.erigrd2.eu](http://www.erigrd2.eu), therefore, technical feasibility will be checked in advance by the corresponding labs based on the available equipment/facility and offered services.

### 3.2 STEP 2: Submission of the User Proposals

In response to the Calls, user groups will submit their project proposals to ERIGrid 2.0. The submission will be done electronically before the Call deadline from the ERIGrid 2.0 website (via *ConfTool*<sup>3</sup>). Proposal documents must be completed using the proposal template (Annex 1), available on the ERIGrid 2.0 website.

The user group preparing the proposal will indicate the preferred infrastructures (one, two or three options are allowed) where the experimental research will be carried out. These preferences will be considered, to the extent possible, during the evaluation process.

Normally (it is not mandatory but recommended for a successful proposal), before submission of the application form, the user group will contact the preferred infrastructure/s to check the preliminary availability of the facilities and feasibility of the experiments, and to clarify the research objectives and access conditions.

### 3.3 STEP 3: Evaluation of the User Proposals

The selection of researchers or research teams will be carried out through an independent peer-review evaluation of their research projects.

The evaluation of the user project proposals will be done by the USP. The entire evaluation process is expected to be completed within 1-2 months after the deadline for the submission of proposals. In parallel to the USP evaluation, the laboratories selected by the user group in the proposal will perform a so-call "pre-screening".

#### 3.3.1 Pre-screening

The pre-screening is the first assessment of the technical, economic and organizational feasibility of the received proposal done by the three labs selected (preferred) by the user group. Technical problems, risks and related cost will be considered. No further evaluation criteria will be employed at this stage.

If the proposal is not feasible at any of the three selected labs, it will be circulated among the rest of the labs, so they can assess it for feasibility. The proposal will be assigned to one of the labs not initially selected by the user group, but able to implement the user project. If more than one infrastructure can develop the project, the user group will be contacted to choose. If in the end, the proposal (even modified or adapted) cannot be technically implemented at any lab, it will be rejected as unfeasible.

The pre-screening is expected to run smoothly if preliminary contact has been established between the proposing user group and the selected infrastructures.

#### 3.3.2 USP Evaluation

All received proposals will be evaluated by the USP following the principles of transparency, fairness and impartiality. The USP is a group of experts from within and outside ERIGrid 2.0 partner

---

<sup>3</sup> <https://conftool.net/erigrd2/>

organisations with diverse profiles (academia, industry) and covering the different domains of the Smart Grids and Smart Energy Systems arena (power systems, ICT, etc.). Each proposal will be assessed by at least 3 experts of the USP. The ERIGrid 2.0 Lab Access Manager and the ERIGrid 2.0 Coordinator will not participate in the proposal evaluation but shall guarantee the compliance of the proposal with the eligibility rules of the lab access.

Each USP member reviewing a proposal will evaluate the following categories:

#### *Evaluation Categories*

The criteria for the assessment of the proposals are the following:

- a) *Scientific/technical merit* (score: 0-10): scientific and technical relevance, originality and innovation, methodology, robust and realistic test/evaluation approach.
- b) *Improve know-how and capacity of the lab* (score: 0-10): improvement of know-how within the laboratories, enhancement of lab technologies and methods, alignment with ERIGrid 2.0 scenarios/use cases/test cases, synergies with other projects and cooperation with other infrastructures.
- c) *Compliance with EU policies and priorities* (score: 0-10): compliance with European RTD policies and priorities, social impact, impact on EU industry (e.g., standardization and competitiveness), sustainable growth interest, new users that have not previously used the installation, users working in countries where no equivalent research infrastructure exist, young researchers, female researchers.
- d) *General quality of the proposal* (score: 0-10): completeness and organization of the proposal, clear definition of the objectives and expected results, relevance of the proposed dissemination actions, justified requested amount of access.

Additionally, in this phase the USP may provide comments and suggestions to improve the project implementation in the lab (if the proposal is accepted in the end) or build a better proposal for resubmission to future calls (if the proposal is rejected in the current call).

For each proposal, the USP expert will issue a score, which will be the sum of the above four individual scores. The final score of the proposal will be calculated as the mean value of the scores issued by the USP members evaluating the proposal, expressed over 100% (corresponding to a maximum of 40 points):

- Excellent (75-100%)
- Good (50-75%)
- Fair (25-50%)
- Poor (0-25%)

### **3.4 STEP 4: Selection of the proposal and notification to the user group**

All the proposals will be ranked based on the scores assigned by the USP. “Poor”-scored proposals will be normally rejected. Proposals resubmitted, that may have been unsuccessful in previous calls, will be evaluated as new ones.

The user group of each proposal will be formally notified of the evaluation result at the end of the evaluation period (1-2 months after the Call deadline). This result will be accompanied with comments and possibly suggestions for improvement.

If due to technical/economic/organisational feasibility or laboratory availability none of the labs selected by the user group can be allocated, a different lab may be offered. If this is the case, the user

group can (1) withdraw the proposal, (2) update and resubmit the proposal as a new one in one of the next calls, (3) remain with the assigned score for the next Call, when it will be ranked in a new list with the new proposals, or (4) accept the alternative lab suggested by the lab access organisers.

### **3.5 STEP 5: Access to the Lab**

When a proposal is accepted, a focussed interaction between the proposing user group and the host infrastructure starts. The estimated access period indicated in the proposal must be confirmed and agreed between the user group and the host lab. Normally, the access period should be allocated to a date within the next 3 months, following the agreement of the technical details for executing the experiments and fulfilment of administrative issues.

#### **3.5.1 Signature of the Contract**

Before the commencement of the project, a contract must be signed between the hosting lab and the user group. A basic template contract is provided for use in all ERIGrid 2.0 lab access projects as a reference model, but extensions or specific modifications may be introduced by each of the labs for the project, as necessary; the essential information is outlined in Annex 2.

The contract will have a Technical Annex that describes the work programme to be performed during the access period in the lab. This Annex must be coherent with the proposal (even though some adjustments in practice are allowed). Significant modifications of the technical content or the access conditions (e.g. number of access days) with respect to the planned ones in the proposal should be checked with the ERIGrid 2.0 lab access organisers.

#### **3.5.2 Assistance to the User Group**

Each lab must nominate a Responsible Person (RP) for each accepted user project (linked to a proposal). The RP is in charge of supervising the experimental activity at the lab (including the safety matters), and supporting the user group in all technical, administrative and logistic needs. The RP is also the reference person for reporting to ERIGrid 2.0 on the state of the activity running at the lab.

#### **3.5.3 Notification of the use of the Lab**

At the end of the access at the lab, the user group must declare the use of the installations by signing a specific form (attached to the contract) and indicating the total number of “access days” (days of real use of the lab) and the total number of “stay days” (which includes the access days in the lab but normally also the days working in the office of the host, weekend days if applicable, etc.) of each member of the user group.

### **3.6 STEP 6: Dissemination and Publication of the Project Results**

The ERIGrid 2.0 access opportunity has some dissemination commitments, specified in the access contract. Firstly, with the aim of improving the lab access quality, [an on-line questionnaire](#) must be filled to collect the user feedback on the access and the stay at the infrastructure. Secondly, a Technical Report must be prepared describing the objectives and performed experiments and comprising the obtained results and conclusions. An executive summary of up to 2 pages has to be included in this document.

The two mandatory dissemination documents (questionnaire and technical report) must be prepared by the user group and submitted to the ERIGrid 2.0 lab access organisers within 2 months after the end of the access.

In addition, the user group is obliged to give detailed information to the ERIGrid 2.0 lab access organisers about future reports, papers, conference presentations, etc., preferably open, as soon as

they are published in order to provide evidence of the soundness of the scientific work performed at the laboratory under this opportunity. Whenever possible ERIGrid 2.0 would like to receive any publication made as a result of this research to publish it in the website (provided that the full rights of the researchers are not affected, and the copyright conditions are not violated: for example, pre-print or post-print copies could be acceptable for non-open access publications).

*Conditions of EU Horizon 2020 Support for Lab Access Concerning Publication*

The ERIGrid 2.0 project reports to the European Commission will contain the names, home institutions and description of the work of the users. The ERIGrid 2.0 website will publish a list of projects naming the researchers' organizations, research project titles and short descriptions, and the facilities used. Users must also note that the European Commission has the right to publish the list of users.

Publications (including presentations) which result from lab access in ERIGrid 2.0 shall display the EU emblem with the appropriate prominence and contain the acknowledgement:

*"This <insert here the type of research/result> has been <performed/achieved> using the ERIGrid 2.0 Research Infrastructure and is part of a project that has received funding from the European Union's Horizon 2020 Research and Innovation Programme under the Grant Agreement No. 870620. The support of the European Research Infrastructure ERIGrid 2.0 and its partner <name> is very much appreciated".*

Any communication activity related to the project must indicate that it reflects only author's view and that the Commission is not responsible for any use that may be made of the information it contains ("Disclaimer excluding the Commission responsibility").

Publications must be in English (at least the first one associated to the access).

## 4 Reimbursement of the Access Expenses

The lab access offered by ERIGrid 2.0 covers the user group's expenses for travel and subsistence according to the H2020 rules and the host RI conditions (see [www.erigrd2.eu](http://www.erigrd2.eu)).

Reasonable travel expenses (low-cost company, economy class and public transportation, whenever possible) will be reimbursed with the presentation of the corresponding invoices/receipts. For the daily subsistence expenses (accommodation in conventional – not luxury – hotels or equivalent lodging, and meals in regular restaurants), two possibilities (or a combination) are allowed depending on the host labs conditions:

- *“Payment by invoice”*: the user group will get the refund of the subsistence costs after the stay, when declaring the incurred expenses and presenting the invoices/receipts (same mechanism than the reimbursement of the travel expenses); normally, the host infrastructure indicates a reference maximum amount per person for the daily subsistence fee as an indication for the users.
- *“Daily allowance”*: each user receives a per-day pocket money for each day of stay according to the host infrastructure conditions to pay for all the daily subsistence expenses. The user must sign the corresponding payment receipts provided by the host infrastructure: one for the ERIGrid 2.0 project records, and presumably, another one for the host lab's accounting department.

A template for the declaration of the expenses by the user group will be made and must be sent to the host lab for approval and refund. In a similar way, another template will be used as the payment receipt by the host infrastructure when a daily allowance is used.

## 5 Annexes

### 5.1 Annex 1: User Project Proposal Template

## ERIGrid 2.0 LAB ACCESS APPLICATION FORM

### USER PROJECT PROPOSAL

User Project Acronym	
User Project Title	
Main Scientific/Technical Field	
Proposal resubmitted (Y/N)	Choose an item.
Keywords (5 max., free text)	

### PREFERRED HOST LABORATORY/RESEARCH INFRASTRUCTURE

Option 1	Choose an item.
Option 2	Choose an item.
Option 3	Choose an item.
Proposed starting date of the access	Click or tap to enter a date.
Expected access duration (in weeks)	

### LEADER OF THE PROPOSING USER GROUP

Name	
Nationality	
Gender	Choose an item.
Age below 35-year-old (Y/N)?	Choose an item.
Email address	
Organization name	
Organization address	
Organization website	
Organization activity type	Choose an item.

### MEMBERS OF THE PROPOSING USER GROUP (repeat for all Users)

Name	
Nationality	
Gender	Choose an item.
Age below 35-year-old (Y/N)?	Choose an item.
Email address	
Organization name	
Organization address	
Organization website	
Organization activity type	Choose an item.

**[Please, fill the following sections taking into account that the final document should not be longer than 10 pages (i.e., applies for Points 1-9, excluding the meta data page(s); the italic/yellow text in the brackets should be removed; the rest will not be considered for the proposal evaluation). Please do not change the format and/or the font type/size of the template!]**

**1. SUMMARY OF PROPOSED RESEARCH** (about ½ page)

*[Prepare a ½ page summary describing the relevance, scope and objectives of the proposed work, and the expected outcomes.]*

Text in 11 pt, Calibri

**2. STATE-OF-THE-ART/RELATED WORK** (about 1 ½ page)

*[Describe in brief (about 1½ page) the current knowledge on the subject, citing recent relevant references. Identify any knowledge gaps and their relevance.]*

Text in 11 pt, Calibri

**3. DETAILED DESCRIPTION OF PROPOSED PROJECT: OBJECTIVES, EXPECTED OUTCOMES, AND FUNDAMENTAL SCIENTIFIC/TECHNICAL VALUE** (3 pages maximum)

*[Provide a detailed description of the objectives of the proposed activity, the way these objectives will be fulfilled through the proposed work, as well as indications on the expected outcomes and the fundamental scientific and technical value and interest of the proposal. Specify the activities to be undertaken, the type of infrastructure needed, the foreseen test setup, number of tests, possible test sequence, and parameters to be measured and controlled. Describe any special requirements for equipment, standards, safety measures, etc. Evaluate how robust and realistic the proposed approach is. Point out any shortcomings, uncertainties and risks for the fulfilment of the project objectives, as well as the means to mitigate relevant risks.]*

Text in 11 pt, Calibri

**4. ORIGINALITY, INNOVATION AND IMPACT OF PROPOSED RESEARCH** (2 pages maximum)

*[Demonstrate the originality and innovation of the proposed work and the impact the expected results will have on current and future research or practice, public safety, European standardization, competitiveness, integration and cohesion and on sustainable growth.]*

Text in 11 pt, Calibri

**5. SYNERGY WITH ONGOING RESEARCH** (about ½ page)

*[Provide information on any concurrent research project with the same or similar subject with the one proposed. Describe the synergy (if any) that will be sought between the existing and the proposed project. Explain the degree of alignment with the ERIGrid 2.0 approach, scope and objectives]*

Text in 11 pt, Calibri

**6. PROPOSED HOST LAB/RESEARCH INFRASTRUCTURE – JUSTIFICATION** (about ½ page)

*[Specify the type of infrastructure/installation needed for the research (e.g. microgrid, PHIL platform, etc.), which must be coherent with the preferred options indicated in the first page of this proposal; justifications should be provided on the grounds of the test setup, testing method, equipment, past experience in relevant subject, etc. Describe the potential benefits for the host research infrastructure in terms of improvement of know-how or enhancement of technologies and methods. Explain whether the proposing user group intends to deliver to the premises of the infrastructure parts or components to be tested at the user group's expense and responsibility, or to cover the whole or part of the construction/adaptation cost of the specimens to be tested.]*

Text in 11 pt, Calibri

**7. DISSEMINATION – EXPLOITATION OF RESULTS** (about ½ page)

*[In addition to the mandatory reporting for the access described in the "ERIGrid 2.0 Lab Access Guide" document, indicate other means through which the results to be obtained from the proposed project will be diffused and made broadly known.]*

Text in 11 pt, Calibri

**8. TIME SCHEDULE** (about ½ page)

*[Provide an indicative time-schedule for the proposed work and a target starting date.]*

Text in 11 pt, Calibri

**9. DESCRIPTION OF THE PROPOSING TEAM** (1 pages maximum)

*[Give a short description of each member (organization and persons) of the proposing team including projects, publications, technical experience and capabilities and role in the proposed project.]*

Text in 11 pt, Calibri

## 5.2 Annex 2: Essential information to be included in the access Contract

A Contract for the access to the lab between the proposing user group and the host lab must be signed by both Parties before starting the access. The final balance of “access days” and “stay days” of the user group members will be stated in the Addendum-A to the Contract and signed by both Parties after the end of the access. A template of the Contract will be available containing the basic following information (the host infrastructure can include additional clauses in the final version to cover additional specific aspects of the stay):

1. Identification of the Contractors: Lab legal name, name and institution of the Leader of the user group
2. Identification of the representatives of the lab for the execution of the Contract
3. Identification of the members of the user group
4. Reference to the ERIGrid 2.0 project and EU funding
5. Definitions (whenever necessary)
6. Access provisions: total number of expected “access days” per lab and total number of expected “stay days” per user (member of the user group)
7. Travel and subsistence reimbursement condition
8. Safety provisions
9. Reporting and dissemination commitments: documents to be prepared, formats and templates, time plan
10. Liability conditions
11. Confidentiality obligations
12. Intellectual Property Rights issues
13. Signatures
14. Addendum-A