

TCS NFO Consortium Agreement for the Construction and Operation of the EPOS Research Infrastructure

Between

Istituto Nazionale di Geofisica e Vulcanologia, Italy for TABOO, whose registered office is in Via di Vigna Murata 605, 00143, Rome, Italy, hereinafter referred to as “INGV”, represented for this purpose hereof by Prof. Carlo Doglioni, as INGV President, a duly entitled officer hereto (“**Party**”);

Università di Napoli Federico II, Italy for IRPINIA; whose registered office is in Corso Umberto I, 40, 80138 Naples, Italy, hereinafter referred to as “UNINA”, represented for this purpose hereof by prof. Leonardo Merola, as director of the Physics Department of the University, a duly entitled officer hereto (“**Party**”);

Icelandic Metrological Office for SISZ, Iceland whose registered office is at Bústaðavegur 7-9, 150 Reykjavik, Iceland hereinafter referred to as IMO, represented for this purpose hereof by [Dr. Árni Snorrason, Director General of IMO], a duly entitled officer hereto (“Party”);

ETH for VALAIS, whose registered office is at [], hereinafter referred to as “[], represented for this purpose hereof by [], a duly entitled officer hereto (“**Party**”);

KOERI for MARMARA whose registered office is at [], hereinafter referred to as “[], represented for this purpose hereof by [], a duly entitled officer hereto (“**Party**”);

INFP for VRANCEA; whose registered office is at [Calugareni 12, Magurele, Ilfov, Romania], hereinafter referred to as “[INFP], represented for this purpose hereof by [Ionescu Constantin], a duly entitled officer hereto (“Party”);

NOA for CRL whose registered office is at [], hereinafter referred to as “[], represented for this purpose hereof by [], a duly entitled officer hereto (“**Party**”);

CNRS Centre National de la Recherche Scientifique for CRL, whose registered office is at 3, rue Michel-Ange, 75794, Paris Cedex 16, hereinafter referred to as “CNRS”, represented for this purpose hereof by the Mr Antoine PETIT who has delegated his signing authority to the Regional Representative of the Paris Regional Michel Ange Division, Ms Hélène MAURY, a duly entitled officer hereto (“**Party**”);

National and Kapodistrian University of Athens for CRL whose registered office is at 6 Christou Lada str., 105 61 Athens, hereinafter referred to as “NKUA”, represented for this purpose hereof by Professor Nikolaos Voulgaris, Vice Rector of NKUA, a duly entitled officer hereto (“**Party**”);

UPATRAS for CRL whose registered office is at [], hereinafter referred to as “[], represented for this purpose hereof by [], a duly entitled officer hereto (“**Party**”);

hereinafter, jointly, or individually, referred to as “*Parties*” or “*Party*”.

Preamble:

The Near Fault Observatories (NFO) are long term research infrastructures that strive to provide multidisciplinary and high resolution near fault data and products.

Whereas the *Parties* to this agreement have agreed to contribute to the EPOS Thematic Core Services (TCS) Near Fault Observatories and wish to define their rights and obligations as part of the TCS NFO Consortium.

The *Parties* have agreed to enter into the Consortium Agreement (hereinafter referred to as the “Agreement”) under the terms and conditions below.

By signing this Agreement, the *Parties* agree to implement the EPOS TCS Near Fault Observatories Work Programme (Annex 1) under their own responsibility and in accordance with this Agreement, with all the obligations and conditions it sets out. The Work Programme focuses on providing data and services to the EPOS Research Infrastructure.

The Consortium Agreement is composed of:

- Terms and conditions
- Annex 1: Work Programme (with description of the activities and resources of each Party)
- Annex 2: Composition of NFO TCS Consortium Board
- Annex 3 Regulations of the NFO TCS Consortium Board
- Annex 4 Data Policy
- Annex 5 Access Policy
- Annex 6 Accession document (with description of the activities and resources of the new *Party*)
- Annex 7 List of Observers

Terms and Conditions

Now therefore, it is hereby agreed between the Parties as follows:

Section 1: Definitions

Words beginning with a capital letter shall have the specific meaning defined in this Agreement.

Additional Definitions

“Consortium Body(ies)”: means any management body described in the Governance Structure section of this Consortium Agreement.

“Background”: means any data, know-how or information — whatever its form or nature (tangible or intangible), including any rights such as intellectual property rights — that:

- (a) is held by the beneficiaries before they acceded to the Agreement, and
- (b) is needed to implement the action or exploit the results.

“Data, Data Products, Software and Services (DDSS)”: means measurements and/or observations of physical and chemical parameters, collections thereof, and information derived from such measurements and/or observations.

“Force majeure”: means any situation or event that:

- prevents either party from fulfilling their obligations under the Consortium Agreement,
- was unforeseeable, exceptional situation and beyond the *Parties'* control,
- was not due to error or negligence on their part (or on the part of third *Parties* involved in the action), and
- proves to be inevitable in spite of exercising all due diligence.

“Results”: means any (tangible or intangible) output of the action such as data, knowledge or information — whatever its form or nature, whether it can be protected or not — that is generated in the action, as well as any rights attached to it, including intellectual property rights.

“Software”: means sequences of instructions to carry out a process in, or convertible into, a form executable by a computer and fixed in any tangible medium of expression.

“Core Software”: means software belonging to a Party prior to the entry into force of the Agreement.

“Derived Software”: means software developed from Core Software under the Agreement.

There are two categories of Derived Software: Adaptations and Extensions:

- Adaptation: Derived Software using the same algorithms as the Core Software from which it is derived and/or rewritten in another language.
- Extension: Derived Software allowing for access to new functions or performance by comparison to the Core Software from which it is derived.

“Shared Software”: means software created ex nihilo under the Agreement

“Supplier”: means entities granting rights of redistribution of their DDSS through EPOS by signing a Supplier Letter

“Service Provider”: means entities responsible for aggregating, collecting and ensuring access to DDSS. They supply DDSS to the EPOS Core Services (ICS and TCS) with DDSS from one or more Suppliers

“Work Programme”: means the description of the actions of the TCS NFO Consortium defined in Annex

Section 2: Purpose of this Agreement

The purpose of this Agreement and annexes is to specify the relationship among *Parties*, the rights and obligations of the *Parties* and the organisational, managerial and financial guidelines to be followed by the TCS NFO Consortium. The mission of the TCS NFO is to provide coordination in between the European Near Fault Observatories, share data and products, and promote best practice through NFO and the European Plate Observing System (EPOS) platforms and services.

To achieve this the TCS NFO Consortium

- o Defines the standard services and coordinates their implementation in accordance with the agreed data and products open access policy;

- Provides access to data and derived products as defined by the TCS NFO Consortium;
- Shares best practice in NFO networks design and operation in terms of sensor installation, data quality and management, software, and product development;
- Promotes Transnational Access to the NFO facilities;
- Defines and implements the information and dissemination outreach strategy;
- Coordinates community for collaborative projects across NFOs (e.g. EPOS; ITN).

Section 3: *Parties* to the Agreement and withdrawal/removal of a *Party*.

3.1. *Parties* to this Agreement

The Near Fault Observatories contributing to the NFO Consortium are either operated by a single national organisation, by different national institutions, or by different national and European organisations.

Each of the *Parties* to this Agreement contributes towards operating an NFO and their contribution to the TCS NFO specific task is in accordance to the Work Programme (Annex 1).

Each NFO has in total one vote within the Consortium Board. If more than one *Party* operating a single NFO joins the Consortium NFO Agreement, the operating *Parties* shall have only one shared vote. The voting rights are described in the Annex 2.

The admission of new *Parties* requires an approval of the Consortium Board according to the provisions of Annex 3.

Any new *Party* shall sign the Accession document (Annex 6) to the Agreement and describe its activities in the Accession document as agreed upon with the Consortium Board. The accession of any new *Party* shall enter into force upon the date of the signature of the Agreement's amendment.

3.2. Withdraw or Removal of a *Party*

Any *Party* may withdraw from the TCS NFO Consortium upon request, provided that four (4) months' prior notice is given to the Consortium Board. The withdrawing *Party* undertakes to complete its commitment taken up to the date of its withdrawal regarding the joint activities and for the running year regarding its potential financial contribution. The terms of removal shall be fixed by a specific agreement under provisions set out in Annex 3.

In the event a responsible Consortium Body as defined in Section 6 identifies a breach by a *Party* of its obligations under this Agreement, the Consortium Board will give written notice to such *Party* requiring that such breach be remedied within thirty (30) calendar days. If such breach is substantial and is

not remedied within that period or is not capable of remedy, the Consortium Board may decide to declare the *Party* to be a defaulting *Party* and to decide on the consequences thereof which may include termination of its participation. Such a decision requires the approval of the TCS NFO Consortium Board in accordance to the regulations provided in Annex 3. The terms of withdrawal shall be fixed by a specific agreement under provisions set out in Annex 3.

3.3. Observers

Legal entities contributing to the operation of an NFO's that are not *Parties* to this agreement have the right to nominate one representative each to attend Consortium board meeting as Observers, with no voting rights. Observers shall sign a Supplier Letter describing their commitment towards the TCS NFO Consortium and approve the Data Policy (Annex 4). The admission of Observers requires an approval of the Consortium Board by with at least two-thirds (2/3) of the Consortium Board members.

Observers are listed in Annex 7. Annex 7 shall be kept up to date by the Chairperson of the Consortium Board or any person authorised by him/her.

Section 4: Entry into force, duration and termination

4.1 Entry into force

This Consortium Agreement shall come into force on the date on which at least three *Parties* have signed it (hereinafter referred to as "Effective date"). This Agreement shall come into force on the date on which the final *Party* signs (hereinafter referred to as "Effective date")

4.2 Duration

This Agreement shall continue in full force and effect for a period of ten (10) years after the Effective Date.

4.3. Termination or extension

This Agreement may be extended or terminated before the expiration date by the Consortium Board by unanimous decision after proposition by any *Party*, in accordance to the rules provided in Annex 3.

4.4 Survival of rights and obligations

The provisions relating to Intellectual Property Rights, for the time period

mentioned therein, as well as for Liability, applicable law and settlement of disputes shall survive the expiration or termination of this Consortium Agreement.

Termination shall not affect any rights or obligations of a *Party* leaving the TCS NFO Consortium incurred prior to the date of termination, unless otherwise agreed between the Consortium Board and the leaving *Party*. This includes the obligation to provide all input described in the Work Programme for the period of its participation.

Section 5: Rights and Obligations of *Parties*

5.1 General Principles

Each *Party* has voting rights within the Consortium Board as described in Annex 2.

Each *Party* commits to execute its tasks and take part in the efficient implementation of their responsibilities as described in the Work Programme (Annex 1), and to cooperate, perform and fulfil, promptly and on time, all of its obligations as may reasonably be required from it.

Each *Party* undertakes to notify promptly, in accordance with the governance structure of the TCS NFO Consortium any significant information, fact, problem or delay likely to affect the tasks described in the Work Programme.

Each *Party* shall promptly provide all reasonably required information having bearings on other EPOS Research Infrastructure activities.

Each *Party* shall take reasonable measures to ensure the accuracy of any information or materials it supplies to the other *Parties*.

Each *Party* commits to support the approved Service Providers as described within the Work Programme.

Each *Party* shall, within the NFO it represents, promote coordination and the active participation of the organizations operating the NFO and the Suppliers.

To this end the *Party* shall organize at the minimum one NFO meeting a year inviting all the contributing Suppliers deliver a report summarizing the priorities of the community and their ideas of development of services. In the case where there are two or more *Parties* from each NFO, the *Parties* will share this responsibility. The report shall be sent to the chairman of the Consortium Board before November each year and be considered by the Executive Committee and the Consortium Board in the development of each year Work Programme.

Section 6: Organisation of TCS NFO Consortium

The TCS NFO Consortium is composed of the following Consortium Bodies:

- A. ***Consortium Board;***
- B. ***Service Committee;***
- C. ***Advisory Board;***
- D. ***Executive Management.***

6.1 Consortium Board (CB)

The CB is the decision-making body of the EPOS TCS NFO Consortium. The CB is responsible for the overall performance of the TCS NFO Consortium, it provides an overall leadership for the strategic direction of the Consortium and it is free to act on its own initiative to formulate proposals and take decisions in accordance with procedures set out in the Agreement. All proposals made by other Consortium bodies and the implementation of decisions shall be considered and decided upon by the CB.

The CB will be in charge of namely, but not exclusively:

- Deciding upon the distribution of common funds allocated by EPOS-ERIC or any third *Party* and the joint budget subject to set up the related agreements;
- Approving any modification to the Articles and Annexes 1,2 ,3 and 5 of the Agreement, Supervision of the proper execution of the Work Programme;
- Being responsible for the overall performance of the Agreement (ensuring the objectives are achieved);
- Supplying information to the members of the Consortium;
- Appointing the CB Chair;
- Appointing the Service Coordination Committee representative for EPOS ERIC;
- Appointing the members and Chairperson of the Executive Committee, and if necessary terminating their mandate before the end of the period of four (4) years;
- Deciding on admission of a new *Party* and a removal/withdrawal of a *Party* from the Consortium;
- Handling disputes or conflicts
- Interacting/Coordinating with EPOS- ERIC

- Approving the tasks listed in the service contract that each *Party* will sign with EPOS-ERIC before the service contract is signed;
- Selecting and appointing the members of the Advisory Committee;
- Adopting/modifying the rules of procedure of the Service Committee, Advisory Committee and Executive Committee;
- Appointing the *Party* who signs the service contract for the Services for coordination with EPOS ERIC;
- Admitting Observers

The CB 's regulations are detailed in Annex 3.

Each *Party* has the right to vote within the CB subject to the provisions set out in Article 3.1. The members of TCS NFO Consortium, their representing entities and voting rights are listed in Annex 2. Annex 2 shall be kept up to date by the Chairperson of the CB or any person authorised by him/her.

Observers have the right to attend CB meetings, with no voting rights. Their representatives within the CB shall be listed in Annex 7.

6.2. Service Committee (SeC)

The SeC shall be set up to ensure data provision, develop and monitor services and plan technical solutions for new services.

It will be composed by at least one technical representative from each NFO, appointed by the CB and one representative from each Service Provider.

The SeC shall before November 1st each year provide a written report summarizing SeC activities and recommendations. The report will be assessed by the Executive Committee.

The SeC shall designate a Spokesperson who shall advice the Executive Committee. She/he can be invited to attend the meetings of the CB.

Each member of the SeC present or represented in the meeting shall have one (1) vote.

Unless otherwise agreed, decisions shall be taken by a two-thirds (2/3) majority.

The rules of procedure of the SeC shall be adopted/modified by the CB under provisions of the Annex 3.

6.3. Advisory Committee (AC)

The AC shall be set up to support the community building, to advise the CB on the development of the Work Programme, to provide user perspective on the Services, advise on future development and to suggest priorities to further extend the services.

The AC shall each year provide a written report containing recommendations. This report will be assessed by the Executive Committee and required actions will be taken to answer the recommendations.

The rules of procedure of the AC shall be adopted by the CB.

The AC shall be composed of at least six (6) representatives of the community, appointed by the CB.

The AC shall each year designate a Spokesperson who shall advise the Executive Committee. She/he can be invited to attend the meetings of the CB.

6.4. The Executive Committee (ExC)

The Executive Committee (ExC) is the supervisory body for the execution and implementation of the Work Programme and of CB decisions. This includes the day-to-day coordination of NFO TCS activities, and the compliance check with the EPOS data policy (Annex 4).

The ExC shall manage progress reports from other NFO TCS committees, report from *Parties* and propose a Work Programme each year based on the recommendations within the reports. ExC shall report to and be accountable to the CB.

The ExC shall consist of the chairperson of the CB plus two (2) members appointed by the CB amongst its members for a period of four (4) years. Those members shall belong to three different *Parties*. They have the joint overall responsibility for managing the activities decided by the CB and representing the NFO TCS Consortium.

The Chairperson of the ExC shall not be the same as the Chairperson of the CB.

The ExC manages the Services for Governance and community coordination. One of the ExC members should represent the *Party* who signs the Service Contract for the services for governance and community coordination with EPOS ERIC.

The ExC cannot make any legally binding decisions on behalf of any *Party*. The rules of procedure of the ExC shall be adopted/modified by the CB under provisions set out in Annex 2.

Each member of the ExC present or represented in the meeting shall have one

(1) vote. Unless otherwise agreed, decisions shall be taken by a two-third (2/3) majority.

Section 7: Work Programme of the TCS NFO

The Work Programme of the TCS NFO Consortium will be updated annually under provisions set out in Annex 3.

The Work Programme shall describe the maintenance and improvements to the existing operational services and the development plan for new services. It shall also describe each *Party's* obligations i.e. the activities and resources they commit to TCS NFO Consortium (people, services, data).

The Work Programme will outline how the TCS NFO Consortium will work towards integrating new parties and how many meetings are anticipated (and when) each year.

The Work Programme and the resources of each *Party* are detailed in Annex 1.

Section 8: Resources

Each *Party* shall be responsible for its own resources, as described in the Work Programme (Annex 1).

Any decision regarding a joint budget and distribution of common funds allocated by any third *Party* requires a two-third (2/3) majority of the CB.

A *Party* may refuse to contribute additional resources beyond the contribution that would be due to meet the agreed level stated in the most recent Work Programme.

Section 9: Data and Intellectual Property Rights

9.1. General Principles

The principles and process of handling data and intellectual property rights within the activities of the TCS NFO Consortium are laid down in the EPOS Data Policy (Annex 4).

The provisions of the policy are complemented with the provisions of this article below.

9.2. Background

Each *Party* shall own and continue to own its Background and nothing in this

Agreement shall transfer those rights to another *Party*. The *Parties* do not intend any other assignment of or license to Background than is explicitly provided for in this Agreement.

Subject to any third *Party* rights, each *Party* hereby grants to the other *Parties*, a non-exclusive, royalty-free license under the owning *Party*'s Background to use the owning *Party*'s Background for the purpose of carrying out the tasks under this Agreement.

9.3. Management of Results

Results obtained in the framework of this Agreement shall belong to the *Party* or *Parties* generating it.

In case of Results generated by several *Parties*, hereafter referred as "Joint Owners", the co-ownership rate and intellectual property costs will be equally shared between the said *Parties*.

All the CB members will be committed in monitoring and protecting the common Results and related rights.

The *Parties* undertake to sign in good faith any legal instrument enabling them to exercise proprietary rights over the Results in accordance with this Agreement prior any exploitation.

It is agreed that the *Parties* shall proceed in the interest of the inventors, in accordance with the legislation.

Each *Party* shall be responsible for securing rights, to the necessary extent, to such Results from its employees, students, and/or any sub-contractors.

9.4. Software

In addition to the provisions set out in Sections 9.1 and 9.3, the Core Software shall remain the property of the *Party* which holds it prior to the signing of the Consortium Agreement.

Adaptations carried out, regardless of the author, in the framework of the Agreement, shall be the property of the *Party* owning the Core Software. Accordingly, where the *Party* having carried out Adaptations is not the owner of the Core Software, it undertakes to assign the right of use of such Adaptations, free of charge, to the *Party* owning the Core Software, including the right to reproduce, represent, translate, adapt, arrange, alter and market the Adaptation.

Each *Party* shall be the owner of the Extension produced by it within the framework of the Agreement, regardless of which *Party* is the owner of the Core Software from which such Extensions are derived.

Extensions produced jointly by the *Parties*, regardless of which *Party* is the initial owner of the Core Software from which such extensions are derived, shall be the joint property of the *Parties*.

The Shared Software shall be the jointly owned property of the *Parties*.

9.5. Use of Results

In case of joint ownership: each of the joint owners shall be entitled to use their jointly generated and jointly owned Results, whether patentable or not, for non-commercial research and teaching activities on a royalty-free basis, and without requiring the prior consent of the other Joint Owner(s). Each of the joint owners shall be entitled to otherwise exploit the jointly owned Results and to grant (exclusive or non-exclusive) licenses to third *Parties* if the other Joint Owners are given prior notice and subject to prior agreement between the Joint Owners, who agree in particular on the payment of financial compensation agreement.

9.6. Dissemination

For the avoidance of doubt, nothing in this Section 9.6. has impact on the confidentiality obligations set out in Section 10.

9.6.1 Dissemination of another Party's unpublished Results or Background

A *Party* shall not include in any dissemination activity another *Party's* Results or Background without obtaining the owning *Party's* prior written approval, unless they are already published.

9.6.2 Cooperation obligations

The *Parties* undertake to cooperate to allow the timely submission, examination, publication and defence of any dissertation or thesis for a degree that includes their Results or Background subject to the confidentiality and publication provisions agreed in this Agreement.

9.6.3 Use of names, logos or trademarks

Nothing in this Agreement shall be construed as conferring rights to use in advertising, publicity or otherwise the name of the *Parties* or any of their logos or trademarks without their prior written approval.

Section 10: Confidentiality

10.1. General Principles

All information in whatever form or mode of communication, which is disclosed by a *Party* (the “Disclosing *Party*”) to any other *Party* (the “Recipient”) in connection with the activities under this Agreement and which has been explicitly marked as “confidential” at the time of disclosure, or when disclosed orally has been identified as confidential at the time of disclosure and has been confirmed and designated in writing within fifteen (15) calendar days from oral disclosure at the latest as confidential information by the Disclosing *Party*, is “Confidential Information”.

10.2. Obligations

The Recipients hereby undertake, during the Agreement and for a period of four (4) years after the termination of this Agreement:

- not to use Confidential Information otherwise than for the purpose for which it was disclosed;
- not to disclose Confidential Information to any third *Party* without the prior written consent by the Disclosing *Party*;
- to ensure that internal distribution of Confidential Information by a Recipient shall take place on a strict need-to-know basis;
- to return to the Disclosing *Party* on demand all Confidential Information which has been supplied to or acquired by the Recipients including all copies thereof and to delete all information stored in a machine-readable form. The Recipients may keep a copy to the extent it is required to keep, archive or store such Confidential Information because of compliance with applicable laws and regulations or for the proof of on-going obligations.

The Recipient shall be responsible for the fulfilment of the above obligations on the part of their employees or third *Parties* involved and shall ensure that they remain so obliged, as far as legally possible, during the Agreement and/or after the termination of the contractual relationship with the employee or third *Party*.

The above shall not apply for disclosure or use of Confidential Information, if and in so far as the Recipient can show that:

- the Confidential Information has become or becomes publicly available by means other than a breach of the Recipient’s confidentiality obligations;
- the Disclosing *Party* subsequently informs the Recipient that the Confidential Information is no longer confidential;

- the Confidential Information is communicated to the Recipient without any obligation of confidentiality by a third *Party* who is to the best knowledge of the Recipient in lawful possession thereof and under no obligation of confidentiality to the Disclosing *Party*;
- the Confidential Information, at any time, was developed by the Recipient completely independently of any such disclosure by the Disclosing *Party*;
- the Confidential Information was already known to the Recipient prior to disclosure;
- the Recipient is required to disclose the Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, subject to the article 8 last paragraph hereunder.

The Recipient shall apply the same degree of care with regard to the Confidential Information disclosed within the scope of the Consortium Agreement as with its own confidential and/or proprietary information, but in no case less than reasonable care.

Each *Party* shall promptly advise the other *Party* in writing of any unauthorised disclosure, misappropriation or misuse of Confidential Information after it becomes aware of such unauthorised disclosure, misappropriation or misuse.

If any *Party* becomes aware that it will be required, or is likely to be required, to disclose Confidential Information in order to comply with applicable laws or regulations or with a court or administrative order, it shall, to the extent it is lawfully able to do so, prior to any such disclosure:

- notify the Disclosing *Party*,
- comply with the Disclosing *Party's* reasonable instructions to protect the confidentiality of the information.

Section 11: Liability

11.1 No warranties

In respect of any information or materials (incl. Results and Background) supplied by one *Party* to another in the context of this Consortium, no warranty or representation of any kind is made, given or implied as to the sufficiency or fitness for purpose nor as to the absence of any infringement of any proprietary rights of third *Parties*.

Therefore,

- the recipient *Party* shall in all cases be entirely and solely liable for the use to which it puts such information and materials, and
- no *Party* granting access rights shall be liable in case of infringement of proprietary rights of a third Party resulting from any other Party exercising its access rights.

11.2 Limitations of Contractual liability

No *Party* shall be responsible to any other *Party* for any indirect or consequential loss or similar damage such as, but not limited to, loss of profit, loss of revenue or loss of contracts, provided such damage was not caused by a wilful act or by a breach of confidentiality.

11.3 Damage caused to third *Parties*

A *Party* shall be solely liable for any loss, damage or injury to third *Parties* resulting from the performance of the said *Party's* obligations by it or on its behalf under this Agreement or from its use of Results or Background.

11.4 Force Majeure

No *Party* shall be considered to be in breach of this Agreement if it is prevented from fulfilling its obligations under the Agreement by Force Majeure.

Each *Party* will notify the competent Consortium Bodies of any Force Majeure without undue delay. If the consequences of Force Majeure for the Project are not overcome within six (6) weeks after such notification, the transfer of tasks - if any - shall be decided by the competent Consortium Bodies.

Section 12: Miscellaneous

12.1. Amendment, Attachments, inconsistencies and severability

This Agreement consists of this core text and Annexes which are an integral part of the Agreement.

In case of conflicts between the attachments and the core text of this Agreement, the latter shall prevail.

Should any provision of this Agreement become invalid, illegal or unenforceable, it shall not affect the validity of the remaining provisions of this Agreement. In such a case, the *Parties* concerned shall be entitled to request that a valid and practicable provision be negotiated that fulfils the purpose of the original provision.

Amendment proposals may be submitted to the CB by any *Party* in accordance to the regulations set out in Annex 3.

Amendment proposals shall be listed on the agenda communicated with the invitation to the CB.

Notwithstanding the foregoing, in order to modify and/or update the Annexes, it

is not necessary to follow the same procedure as for amending the Articles of the Agreement. The Annexes 1, 2, 3 and 6 can be modified and/or updated by decision of the CB in accordance to the regulations set up in Annex 3. Annex 4 and 5 are modified by the decision of the EPOS ERIC.

12.2 No Partnership or Agency

Nothing in this Agreement is intended to create a partnership of any kind among the *Parties*, or to authorise any *Party* to act as agent for any other. Save to the extent expressly permitted by this Agreement, no *Party* will have the authority to act in the name or on behalf of or otherwise to bind any other *Party*.

12.3 Notices and other communication

Any notice to be given under this Agreement shall be in writing to the addresses and recipients as listed in the most current address list kept by the Chairperson of the Consortium Board.

12.4 Formal notices

If it is required in this Agreement that a formal notice, consent or approval shall be given, such notice shall be signed by an authorised representative of a *Party* and shall either be served personally or sent by mail with recorded delivery or telefax with receipt acknowledgement.

12.5 Other communication

Other communication between the *Parties* may also be effectuated by other means such as e-mail with acknowledgement of receipt, which fulfils the conditions of written form.

12.6 Change of persons or contact details

Any change of persons or contact details shall be notified immediately by the respective *Party* to the Chairperson of the Consortium Board. The address list shall be accessible to all *Parties*.

12.7 Mandatory national law

Nothing in this Agreement shall be deemed to require a *Party* to breach any mandatory statutory law under which the *Party* is operating.

12.8 Language

This Agreement is drawn up in English, which language shall govern all documents, notices, meetings, arbitral proceedings and processes relative thereto.

12.9 Settlement of disputes

The *Parties* shall endeavour to settle their disputes amicably.

All disputes arising out of or in connection with this Agreement, which cannot be solved amicably, shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce by one or more arbitrators appointed in accordance with the said Rules.

The place of arbitration shall be Brussels if not otherwise agreed by the conflicting *Parties*.

The award of the arbitration will be final and binding upon the *Parties*.

Nothing in this Agreement shall limit the *Parties'* right to seek injunctive relief in any applicable competent court.

List of Annexes

Annex 1: Work Programme

Annex 2: Composition of NFO TCS Consortium Board

Annex 3: Regulations of the NFO TCS Consortium Board

Annex 4: Data Policy

Annex 5: Access Policy

Annex 6: Accession document ((with description of the activities and resources of the new *Party*)

Annex 7: List of Observers

Annex 1 - Work Programme

The mission of the NFO TCS is to provide, through the European Plate Observing System (EPOS), access to NFO data, meta-data, products, and software in support of the Solid Earth Sciences. To achieve this goal, TCS NFO:

- coordinates the community and works on the promotion of initiatives toward the integration of new *Parties* of the Solid Earth Science community;
- facilitates access to relevant and validated NFO data, meta-data, and data products;
- coordinates the archiving of relevant NFO data, metadata and data products;
- promotes best practice for multidisciplinary and boreholes station operation, data quality control and data management;
- maintains and develops NFO data products;
- coordinates the harmonization of virtual, physical and remote access to the NFO services;
- maintains the research infrastructure to generate data and provides the community services.

The Work Programme will be updated on an annual basis under provisions set out in Annex 3.

The table below gives the overview of the different TCS Services and the *Parties* committed to perform these tasks:

Service	Description of Services	Service Provider(s)
<i>Governance</i>	TCS office & community coordination	INGV
	TCS outreach	INFP
<i>Services</i>	Community Data and Products Gateway (FRIDGE)	INGV
	Early Warning Testing Centre (CREW)	UNINA
<i>Data and Products provision</i>	Seismology (waveforms, stations information, earthquakes catalogues, velocity models, time series)	INGV, NIEP, UNINA, ETH, CNRS, NOA, NKUA, UPATRAS, KOERI, IMO
	Geodesy (raw time series, stations information, strain-velocity field)	INGV, KOERI, CNRS
	Geochemistry (CO ₂ , Radon, Meteo, raw data, time series)	INGV, NIEP, CNRS
<i>Software</i>	EEW	UNINA, ETH
<i>Physical/Remote access</i>	TNA	INGV, ETH, NIEP, UNINA, CNRS, KOERI

Annex 2 - Composition of NFO TCS Consortium board and the voting rights of each Party

Parties within each NFO hold in total one (1) vote within the Consortium board that can be split between multiple *Parties*. It is agreed that *Parties* have voting rights as described in this Annex.

Below the list of representatives of each *Party*. Each member of the Consortium Board shall be duly authorised to deliberate, negotiate and decide on all matters submitted to the Consortium Board.

SISZ Near Fault Observatory

One *Party*/one vote

Icelandic Metrological Office

Representative within the board: Kristin S. Vogfjörð - vogfjord@vedur.is

VALAIS Near Fault Observatory

One *Party*/one vote

ETH

Representative within the board: John Clinton jclinton@sed.ethz.ch

TABOO Near Fault Observatory

One *Party* /one vote

INGV

Representative : Lauro Chiaraluce - lauro.chiaraluce@ingv.it

CRL Near Fault Observatory

Four *Parties* / one vote

NOA / one-sixth (1/6) vote

Representative within the board: Christos Evangelidis - cevan@noa.gr

NKUA / one-sixth (1/6) vote

Representative : Panayotis Papadimitriou - ppapadim@geol.uoa.gr

UPATRAS / one-twelfth (1/6) vote

Representative within the board: Efthimios Sokos - esokos@uptras.gr

CNRS / one-half (1/2) vote

Representative within the board: Pascal Bernard - bernard@ipgp.fr

MARMARA Near Fault Observatory

One *Party* /one vote

KOERI

Representative within the board: Semih Ergintav - semih.ergintav@boun.edu.tr

IRPINIA Near Fault Observatory

One *Party* /one vote

UniNA

Representative within the board: Gaetano Festa - gaetano.festa@unina.it

VRANCEA Near Fault Observatory

One *Party* /one vote

INFP

Representative within the board: Alexandru Marmura - marmura@infp.ro

Annex 3 - Regulations of the NFO TCS Consortium board

The Consortium Board is the decision-making body of the EPOS TCS Near Fault Observatories.

The CB shall consist of one representative of each *Party* (hereinafter referred to as "Member").

Each Member has the right to vote within the CB but as there is one vote in total per NFO votes might be portioned. Voting rights of each *Party* are described in Annex 2.

The Consortium Board elects a chair among its members (two-thirds (2/3) majority). The term of the mandate is two (2) years renewable once.

Ordinary and extraordinary meetings:

The Consortium Board will meet on ordinary meetings at least twice (2) per year.

The Chairperson of the Consortium Board shall convene all Members and Observers by notice in writing at least **thirty (30)** calendar days preceding the meeting.

The Consortium Board may meet on extraordinary meetings when necessary.

The request shall be made by any *Party* to the Consortium Board Chair, who will decide whether or not it is necessary to organise an extraordinary meeting of the Consortium Board and define the organisation of such an extraordinary meeting.

Agenda

The Consortium Board Chair shall set the agenda for each meeting and include it in the invitation to the meeting.

Each Member shall be entitled to add issues on the agenda until fifteen (15) calendar days before the meeting.

Any issue which is not on the agenda may not be discussed or decided in the meeting, unless all Members are present and no one objects.

Voting rules and quorum

The CB shall not deliberate and decide validly unless two-thirds (2/3) of its Members are present or represented (quorum). If the quorum is not reached, the chairperson of the Consortium Board shall convene another ordinary

meeting within thirty (30) calendar days. If in this meeting the quorum is not reached once more, the chairperson shall convene an extraordinary meeting which shall be entitled to decide even if less than the quorum of Members is present or represented.

Decisions will be made by consensus when possible. Failing consensus, decisions shall be taken by a two-thirds (2/3) majority votes unless otherwise agreed.

The following decisions shall be taken by the Consortium Board by unanimous vote of the Member present or represented:

- **Admission of a new *Party* to the consortium and approval of the settlement on the conditions of the accession of such a new *Party*,**
- Removal of a *Party* to the consortium and approval of the agreement on the conditions of the removal of this *Party*. The *Party* subjected to this procedure is not entitled to take part to this vote,
- Approval of the agreement on the conditions of the withdrawal of a *Party*. The withdrawing *Party* is not entitled to take part to this vote;
- Extension or termination before the expiration date of the Agreement.

Veto rights

A *Party* which can show that its own work, time for performance, costs, liabilities, intellectual property rights or other legitimate interests would be severely affected by a decision of the Consortium Board may exercise a veto with respect to the corresponding decision or relevant part of the decision.

A *Party* may refuse to contribute additional resources beyond the contribution that would be due to meet the agreed level stated in the most recent Work Programme.

In case of a deadlock, if no agreement can be reached within two (2) months after a veto, the Consortium Board may appoint an arbitration committee of three independent experts.

Minutes of meetings

The CB Chair shall produce written of each Minutes meeting which shall be the formal record of all decisions taken. He/she shall send the draft to all of its Members within ten (10) calendar days of the meeting.

The Minutes shall be considered as accepted if, within ten (10) calendar days from sending, no member has objected in writing to the CB Chair with respect to the accuracy of the draft of the Minutes.

The accepted Minutes shall be sent to all of the Members of the Consortium

Board and its Chair, who shall safeguard them. If requested the CB Chair shall provide authenticated duplicates to the *Parties*.

Representation, Representation by Proxy, Remote Participation:

Each CB Member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters submitted to the CB.

Any Member shall be able to authorise another Member to represent it in the meeting of the CB and vote on its behalf. In such a case, the representative shall be provided with a written power-of-attorney signed by the delegate of the principal Member. Each Member shall be entitled to a maximum of two power-of-attorney.

Any Member shall be able to participate in the meeting of the CB using a teleconference or videoconference system, if the technical means are available.

In urgent cases, it shall be possible to hold a Consortium Board meeting via e-mail or other means of electronic communication, if no Member objects.

Annex 4 Data policy

EPOS DATA POLICY

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1. DEFINITIONS

Core Services: Both ICS and TCS (see definitions below)

Creative Commons (CC) Licences: See <https://creativecommons.org/>

Data, Data Products, Software and Services (DDSS): Measurements and/or observations of physical and chemical parameters, collections thereof, and information derived from such measurements and/or observations. Data and Data Products redistributed by EPOS are provided by Suppliers to EPOS Integrated Core Services (ICS) and Thematic Core Services (TCS) and are accessible by Users. Data and data products are grouped in 4 levels: raw or basic data (level 0), data products coming from (nearly)automated procedures (level 1), data products resulting from scientific investigations (level 2), integrated data products resulting from complex analysis (level 3). Software are Computer programs or any other processing, visualization and analysis tools for treatment of Data and Data Products, also including methods and workflows or

their description. Tools and Software are made available and/or accessible in EPOS through specific EPOS Services. They may be made available as software packages, libraries, or descriptions for download, and/or be made accessible for execution.

EPOS-ERIC: EPOS-ERIC is a European Research Infrastructure Consortium (ERIC), a specific legal form chosen to facilitate the establishment and operation of EPOS research infrastructure. For more information, see <https://ec.europa.eu/research/infrastructures/index.cfm?pg=eric>

Integrated Core Services (ICS): Services provided by EPOS as integrated services reaching across the scientific themes/disciplines of EPOS, focusing on advanced ICT infrastructures (e-infrastructure) for discovery of and access to DDSS generation of multidisciplinary products and services, development and execution of workflows.

Metadata: Information about provenance, description, quality, processing, maturity level, and collection/generation context, which supports interoperability across disciplines. Metadata associated with Data and Data Products and Tools and Software in EPOS shall meet or exceed applicable national or European requirements.

Service Providers (SP): Entities responsible for aggregating, collecting and ensuring access to DDSS. They supply DDSS to the EPOS Core Services (ICS and TCS) with DDSS from one or more Suppliers.

Suppliers Entities granting rights of redistribution of their DDSS through EPOS by signing a Supplier Letter (see Appendix 1).

Thematic Core Services (TCS)

Thematic groups of Service Providers are organised in and coordinated by Thematic Core Services, which provide the scientific expertise for EPOS and interact in close connection with the user community.

User: Individual or institution that utilises the EPOS Services to access Data and Data Products and/or Tools and Software. Access includes discovery, download, execution, or any other use.

2. GENERAL INTRODUCTION

The purpose of the European Plate Observing System (EPOS) is to create a pan-European research infrastructure for solid Earth science to support state-of-the-art cross-disciplinary research activity in all fields of Solid Earth Science and to foster a safe and sustainable society.

EPOS relies heavily on the cooperation with Suppliers as a high proportion of the data are available in distributed national data repositories and not in dedicated repositories owned and operated by EPOS. Suppliers produce and deliver the data upon which the EPOS catalogue of DDSS is built. The Thematic Core Services (“TCS”) organise and coordinate the Service Providers (“SP”). The contractual link for service provision will take the form of service contracts between EPOS and the SP. In order to foster open, free and easy access to

DDSS from the SP, EPOS needs a common data policy. EPOS Data Policy applies directly to the DDSS managed by EPOS through ICS. The detailed data management plans specific to each Service Provider must be compliant with EPOS Data Policy. EPOS Data Policy national and European legislation which are primary regulations.

3. GUIDING PRINCIPLES

EPOS Data Policy aims to promote:

- **Innovation:** by encouraging diversity of analysis and opinion to facilitate evaluation of alternative hypotheses and to permit the coordinated application of scientific, social, and business knowledge to generate solutions to complex challenges.
- **Collaboration:** among diverse disciplines to foster greater productivity and creativity.
- **Efficiency:** by preventing duplication of effort and by enabling secondary analyses and enhancement of existing data, permits the redirection of resources to the most promising endeavours to maximise the impact of investments.
- **Accountability:** by encouraging independent verification.
- **Capacity Strengthening:** by facilitating the education of new researchers, and enabling broader access to data for secondary analysis and stimulation of bold and innovative ideas, which is of particular importance to researchers in developing countries.

It is generally recognised that throughout Europe various scientific communities are at different stages of implementing data sharing and use different methods of data distribution. EPOS intends to work closely with Suppliers and users to ensure their diverse models and needs are accommodated. EPOS will adopt this flexible approach in recognition that one size does not fit all. This will help to reinforce open science inquiry, encourage diversity of analysis and opinion, and promote new research, adhering to principles outlined by the Organisation for Economic Co-operation and Development (OECD).

EPOS will provide transnational and interdisciplinary services that will simultaneously integrate and support national and regional infrastructures. Where there are differences in policies relating to data sharing, EPOS will encourage a culture of openness and sharing of research data within public research communities and within member countries and beyond.

EPOS intends to adopt the following key principles:

- to disseminate data and knowledge through Open Access;
- to make DDSS available in a timely manner, without undue delay and preferably free of charge taking in due account the need to differentiate between virtual and remote access and physical access;

- to follow the OECD principles for research data from public funding;
- to utilise a widely accepted community licensing scheme, i.e. Creative Commons.

EPOS Data Policy also acknowledges the ongoing work of the European Commission to foster the FAIR (Findable, Accessible, Interoperable, Reusable) principles for data access.

4. EUROPEAN LEGAL FRAMEWORK RELATED TO ENVIRONMENTAL DATA, INFORMATION AND DATABASES

EPOS Data Policy takes into account the overall European legal framework related to environmental data, information and databases. The most important regulatory documents which also impact EPOS Data

Policy are:

- *Aarhus Convention* (access to environmental data),
- *INSPIRE Directive* (sharing of the spatial information among public sector organizations and access to the spatial data),
- *Database Directive* (protection of the databases),
- *Software Directive* (protection for computer programs) and
- *PSI Directive* on the re-use of the public sector information

EPOS Data Policy also recognises relevant international observation system initiatives and national policies and legislation with the aim of full and open exchange of data, metadata and elaborated data products being made available with minimum time delay and at no-cost, but in exceptional cases at minimal cost recovery.

5. ACCESS TO EPOS DATA, DATA PRODUCTS, SOFTWARE AND SERVICES

5.1 OPEN ACCESS

EPOS supports the European Commission's approach regarding data policy: "As open as possible, as closed as necessary". Reasonable restrictions that are still in line with open access principles may therefore be implemented for specific data sets, especially when their divulgation could jeopardize a potential industrial/commercial use, violate the rules on personal data protection or on confidentiality for security reasons; or for any other legitimate reason given by a Supplier. Wherever possible EPOS will support the wishes and conditions placed by Suppliers the way in which the DDSS can be used. Procedures to approve/accept restrictions and embargo conditions will be handled by a dedicated EPOS-ERIC committee. Information on restriction and embargo conditions shall be available to a User in a clear and transparent way.

Within EPOS Data Policy, “Users” in respect of access rights and restrictions, are classified as follows:

- **Anonymous:** Access without any identification or accreditation is not permitted at the ICS level. However, if a TCS decide to grant anonymous access, the TCS should provide alternative mechanisms to monitor use and purposes to which DDSS use is being applied.
- **Registered:** Identified access requiring prior registration, which may differ from specific EPOS services.

group(s). Only a Registered user can become an Authorised user.

Within EPOS Data Policy, “Access to DDSS”, with regard to access rights and restrictions, may be classified as follows:

- **Open:** DDSS freely available/accessible to User(s) either for download or for direct use within an EPOS Service.
- **Restricted:** DDSS that are available under the conditions set out by the SP. Restrictions to specific type of user categories, if any, should be limited to specific datasets. Restrictions may also mean that fees could be charged. While metadata shall always be available at no charge, fees, if any, should no higher than the actual cost of making the DDSS available.
- **Embargoed:** DDSS that are available only after a predefined limited time (embargo period – that cannot exceed 3 years) has passed since collection/generation. Once the embargo period has passed, DDSS may become either Open or Restricted.

Metadata (and DDSS descriptions) are always free and available at any time, even for restricted and embargoed data.

Software disseminated via EPOS may take one of three forms:

- **Acquired Software**, acquired for use by EPOS or users.
- **Contributed Software**, which may be contributed by another research infrastructure and which may have restrictions on use.
- **Generated Software**, which will be generated within EPOS.

5.2 LICENCING

5.2.1 DDSS licensing

To facilitate effective rights/ownership management, EPOS shall only redistribute DDSS after 2021 to which a licence has been applied/affixed. EPOS aims to grant one default licence set for EPOS-managed DDSS, Creative Commons 4.0. Within the Creative Commons permitted licence scheme, two licences will be adopted, CC:BY and CC:BY:NC. SP(s) have the possibility, provided it is agreed with Suppliers, where no licence type is identified to

apply/affix a licence on unlicensed data on the Supplier's behalf.

5.2.2 Metadata licensing

To ensure the widest dissemination and publicity for EPOS managed DDSS, it is essential that metadata are easily and freely accessible at any time, with as few restrictions as possible. In order to achieve this, Suppliers will be encouraged to affix open licenses, preferably Creative Commons 4.0 CC:BY, to their metadata. The machine-readable version of this licence will allow User(s) to identify the relevant datasets through search engines licences filters.

5.3 QUALITY CONTROL

Quality control of the DDSS rests with the Supplier. SP are responsible for checking the quality parameters of the metadata descriptions that provide information for discovery, contextualisation and action and on provenance and traceability.

EPOS will disseminate good practice and shall provide a mechanism to obtain User feedback on DDSS quality.

EPOS will ensure a continuous process of review and assessment to verify that EPOS DDSS provision is operating as envisioned, seeking improvements and preventing/eradicating problems.

EPOS will give emphasis to controlling the quality of the services provided (e.g. response time, number of successful requests, number of peer reviewed publications).

External audit on quality assurance and quality control is also foreseen through an External Advisory Scientific Board.

5.4 LIABILITY

EPOS users register and in so doing agree to relieve EPOS of any liability for any use of the EPOS DDSS.

EPOS is not liable for any misuse of DDSS or associated metadata.

EPOS does not relieve Service Providers and Suppliers from their legal

responsibilities.

5.5 PRIVACY

EPOS intends to comply with all international, European and national legislation regarding the protection of personal data and privacy.

6. INTELLECTUAL PROPERTY RIGHTS

Intellectual property rights subsisting, incorporated or contained within of any DDSS shall continue to belong to the entity/individual that owns or has generated it or holds the rights (by licence or otherwise) at the time of submission of the DDSS to EPOS, except in case where these rights have been specifically waived by the owner/generator/holder.

Suppliers are required to verify that the DDSS they provide do not, to the best of their knowledge and belief, infringe any third party intellectual property rights, and ensure that, where identified, third party interests are fully accounted for and acknowledged.

7. MANAGEMENT FOR THE EPOS DATA POLICY

Any failures regarding use of or the implementing of EPOS Data Policy shall be reported to the EPOS head office which will inform an *ad hoc committee*, whose statutes, missions and composition will be defined by EPOS-ERIC General Assembly. The committee will then take a decision accordingly.

The responsibility of the implementation and monitoring of EPOS Data Policy is that of the Service Providers. This means that there shall be a dedicated data management plan for every SP, and that every SP needs to ensure DDSS is managed efficiently and delivered according to EPOS Data Policy. In addition, the SP(s) agree to make sure the Suppliers are informed and agree that the EPOS infrastructure redistributes their DDSS (see Appendix 1).

8. POLICY REVIEW

This document is subject to revision according to changes in the law, the needs and strategy changes of

EPOS. EPOS Data Policy reviews will be approved by the EPOS-ERIC General Assembly.

Trans National Access (TNA) to Research Facilities

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Annex 5 Access Policy

1. INTRODUCTION

This document focuses on provision of physical and remote access to facilities of *Research Infrastructures* (RIs) through the EPOS Integrated Core Services (ICS) and the Thematic Core Services (TCS). RIs include, but are not limited to, laboratories, observatories, volcanos, near-fault sites, geo-energy test beds, equipment pools and instruments. This document sets out the general principles of Trans-National Access (TNA).

In order to provide TNA services to a wide range of users, the EPOS-ERIC must balance the interests and expectations of the *Suppliers of Research Facilities* against the needs of the *Users* requesting access to those resources. The general principles of TNA provision, including Supplier and User requirements and expectations where known, as well as the TNA Web Service for coordination and access through the EPOS ICS, will be covered in this document.

2. THE EPOS ICS BROKERING WEB SERVICE FOR ACCESS TO FACILITIES

While virtual access to *DDSS* through the ICS will be governed by the EPOS Data Policy and the Data Management Plan, physical access to *Research Facilities* will require site specific agreements on a case by case basis. In this respect, the EPOS-ICS will take the role of an intermediary Brokering Web Service and provide key metadata (information, gathered by each TCS from their facilities, describing the facility's capabilities) to the *User*.

Research Facilities should each provide clear and *Transparent Information* (metadata) on the Facility: its services, access rules including any terms and conditions of use of equipment by users, data management policy, and other information deemed necessary or useful by the facility to enable open access to visiting researchers.

TNA Facility Metadata

In order to make TNA services of a facility searchable and discoverable, metadata for the following points might be included in the ICS Brokering Web Service:

- Name, location and nature of facility (testbed, laboratory, field equipment, etc.)
- Laboratory manager/contact details
- Technical description, specifications and capabilities
- Supporting resources and available know-how (e.g. supporting labs and/or technical expertise)
- Time schedule and availability - typical length of access (i.e. by day/week/month) required to carry out meaningful research

- Critical technical or HSE constraints - e.g. operating temperature/pressure range
- Links to general user requirements for access (rights and responsibilities)
- Links to insurance and logistics considerations (if available)
- Links to cost estimates (if available)
- Links to former collaboration agreements (if available)
- Links sample contracts (if available)
- Links to procedures and rules for dealing with the results of TNA

The CERIF metadata catalogue of the EPOS-ICS will hold this metadata. A **TNA Brokering Service** (at ICS-C) establishes the links between *Users* and *Research Facilities* by making TNA services searchable, discoverable, and then accessible through defined specifications, schedules and transparent procedures.

A **harmonization group** will regularly review the TNA information in the EPOS-ICS Brokering Web Service and agree on the metadata elements required in the catalogue to allow *Users* to effectively discover, identify and access facilities. Because of the heterogeneous nature of the *TNA Suppliers*, the specific metadata structure should be adapted and updated as necessary to set out the requirements and constraints of the Research Facility, e.g., there will be different metadata requirements, and costing approaches, for *Suppliers* providing physical access to their equipment or site, or for *Suppliers* that loan or deploy equipment for field use.

Through its role as an intermediary and information broker, EPOS will acquire experience from both *TNA Suppliers* and *TNA Users* on the establishment of appropriate, practical, fit for purpose access agreements. This knowledge will be made available through the EPOS TNA brokering service in the form of model/example access agreements or sample contracts, to allow future access agreements to be refined. EPOS ICS may ultimately be in a position to provide service and access agreement templates to improve the smooth progression of integration of new TNA services and user TNA applications.

Each *Research Facility* offering TNA will compute the cost of access (per unit time) to their facility based on either unit costs, or actual costs based on previous access provision, and in accordance with appropriate prevailing H2020 guidance (e.g. InfraDev-3 programme). The cost estimates will not be made publically available in advance. They will instead be provided to potential users early in the application process i.e. after an initial approach to EPOS and/or the facility.

TNA governance

The TNA itself will be managed at the TCS level, where, on a regular basis, an open search will be conducted to select hosting *Research Facilities* as well as *applicants* for TNA on the basis of their scientific records and research

proposals. Each TCS will have a committee responsible for the selection of the facilities and researchers, and for administration of the budget made available by the TCS for the TNA activities. The TCS committee will work closely with the specific *TNA Suppliers* in the process to select *TNA Users*. The TNA provision will follow established H2020 standards, cost estimation and regulations.

The selection of *TNA Suppliers* represented in the EPOS-ICS Web Service will be made by a selection committee, consisting of members of all EPOS TCSs, ICS members, the EPOS-ERIC management and external advisors. Together with the TCSs, the selection committee will develop selection criteria for *TNA Suppliers*, frequently review the services of *TNA Suppliers* already in the EPOS database and evaluate proposals of *TNA Suppliers* that want to add their services to the ICS catalogue.

The TCS committee will work closely with *TNA Suppliers* in matching *TNA Users*. Transnational Access provision is in accordance with an appropriate transparent set of guidelines, e.g. H2020 including support for travel, subsistence, accommodation for visiting researchers where appropriate.

Provision of TNA

The nature of calls for TNA applications (e.g. continuous, time-limited or open scope, defined scope, invited) will be determined by the TCS. TNA applications/proposals will be assessed against transparent criteria e.g. scientific merit, alignment with the scientific roadmap of the TCS concerned, or in accordance with the European Commission's "European Charter for Access to Research Infrastructures" (2015) *Access Modes*: "excellence-driven", "market-driven" and "wide" or a combination of these.

3. RESEARCH FACILITIES SUPPLYING TNA

Access Procedures involved in the access to Research Facilities may consist of application, negotiation, evaluation, feedback, selection, admission, approval, feasibility check, setting-up, use, monitoring and dismantling. Research Facilities should in any case clearly communicate and motivate their decision to the Users upon their request.

In order to facilitate access, Research Facilities are encouraged to offer *Support Measures* to Users such as guidance through User manuals, provision of User support, provision of accommodation, and guidance with immigration procedures. Research Facilities are encouraged to offer *Education and Training* in the areas of their activities and to collaborate with other institutions and organisations that would benefit from using the Facility for their education and training purposes.

Access to any given Research Facility should be based on a facility specific *Regulatory Framework* that can range from generic terms and conditions for use accepted by the User, through a dedicated contract up to the provisions of

international agreements or treaties. The regulatory framework should cover, at the least, access, insurance requirements, time schedule, intellectual property rights, data protection, confidentiality, liability and eventual fees.

Research Facilities should each have a single point providing clear and *Transparent Information* on the Facility itself, its services, access policy, data management policy and the legal terms and conditions for use of equipment. Information should be provided on the available equipment, costs, fees, contractual obligations, health safety and environment rules and procedures, intellectual property rights and the legal settlement of disputes.

As a rule, the final decision for access to Research Facilities for every TNA proposal will be taken by the management of the respective Research Facility. Research Facilities should undertake the necessary measures to ensure the *Health, Security and Safety* of any User accessing the Facility as well as to take the necessary actions to minimise the *Impact on the Environment*.

Research Facilities may restrict physical access by means of quota, pre-defined User groups or specific expertise requirements as long as the *Conditions for Access* are clearly communicated to the Users. Such restrictions may be based on established acceptable practices such as, but not limited to, scientific excellence, research programmes, ethics, legal and contractual obligations, financial contributions, resources and membership.

Access Limitations to Research Facilities may originate, amongst others, by the following: national security and defense; privacy and confidentiality; commercial sensitivity and intellectual property rights; ethical considerations in accordance with applicable laws and regulations.

4. EXPECTATIONS OF USERS OF TNA SERVICES

It is proposed that *Users* will follow a step-wise application procedure:

- Identify potential TNA facility using the ICS-C brokering service
- Hold any initial discussions deemed useful with the TNA facility to agree scope and develop application
- Submit application to EPOS, notifying TCS/TNA facility
- If approved, sign a case-specific Access Agreement with the TNA facility

An online proposal submission service will be developed as part of the TNA Programme, and which will likely include a short (e.g. Expression of Interest/Outline Concept) application form. Once approved, the user will need to agree to a case-specific Access Agreement as above.

Users need to submit a written proposal to the TNA Supplier (with copy to EPOS TNA Brokering) with details about the planned experiment in accordance with general rules of EPOS TNA access and the specific requirements of the *TNA Supplier*. All questions related to the *Conditions of Access* must be addressed in the proposal.

Users must comply with security, safety and environmental rules and with procedures in force at the Research Facility, in particular concerning the notifications on introduction of material and instrumentation that could induce risks or ethical issues to the facility. Equipment of the *User* that requires special authorization needs to be cleared before the TNA can be granted.

Users must strictly follow the Supplier's access policy, data management policy and the legal terms and conditions for use of equipment.

Users are required to leave a copy of the raw data/results of the experiment at the host facility. *Users* also need to make sure that data/results produced in projects under EPOS brokering with *TNA Suppliers* will be accessible within the EPOS delivery framework. Access to data produced within the EPOS facility network will be governed by the EPOS data policy, including the possibility of an embargo period for the publication of the data/results/

Users are required to write a final report of the activity carried out at the host facility (or with the host equipment). It should be submitted to the host facility not later than one month after the end of the experiment.

Users need to include a standard phrase acknowledging the host facility and EPOS as the intermediary when the experimental results are published in the scientific literature.

DEFINITIONS/TERMINOLOGY

TNA	Trans-national access
Supplier	The facility providing access
User	The User gaining access to a facility through TNA
Service agreement	Between EPOS ERIC and the facility, enabling the facility to provide TNA through EPOS
Access agreement	Between facility and user - prepared on a case by case basis, and including all local rules, HSE, site access, IP arrangements, etc.
DDSS	Data, Data Products, Software, and Services
EPOS ERIC	The EPOS European Research Infrastructure Consortium (to be established)
EPOS GA	The EPOS General Assembly
EPOS TNA Committee	A committee in each TCS for TNA
EPOS TCS	The EPOS Thematic Core Services - the community specific services
EPOS ICS-C	The EPOS Integrated Core Services -

	where C means located at the central hub of EPOS
EPOS ICS-D	The EPOS Integrated Core Services - where D refers to distributed services (i.e., not at the central hub)
EPOS ECO	The EPOS Executive Coordination Office
TNA harmonization group	A group harmonizing TNA on the ICS level

Annex 6 - Accession document

ACCESSION FORM

of a new *Party* to the EPOS TCS Near Fault Observatory Consortium
XXXX a legal entity established under the laws of the ...**[include address and representation]**
hereby consents to become a *Party* of the EPOS TCS Near Fault Observatory Consortium and accepts all the rights and obligations of a *Party* of this Consortium Agreement that will become effective at the date of **XXXX** signature.

YYYY, Chairperson of the Consortium Board

hereby certifies that the Consortium Board has accepted in the meeting held on **ZZZZ** the accession of the **xxxxx** to the Consortium that will become effective at the date of **XXXX** signature.

The Accession document has been made up in two originals to be duly signed by the undersigned authorised representatives.

Signature XXXX
Place and Date ZZZZ

Stamp organisation XXXX

On behalf of **TTTTT**, Chairperson of the Consortium Board

Signature TTTT
Place and Date ZZZZ

Annex 7 - List of Observers