ISTITUTO NAZIONALE DI GEOFISICA E VULCANOLOGIA

il Direttore

Gestione WEB

Al Dott. Piergiorgio SCARLATO
Al Dott. Massimo COCCO
Alla Dott.ssa Carmela FREDA
Alla Dott.ssa Agata SANGIANANTONI

Ai Direttori di Dipartimento
Ai Direttori di Sezione
Al Direttore della Direzione Centrale Affari Generali e Bilancio
Al Responsabile del Centro Servizi Contabilità e Bilancio
All'Ufficio Bilancio
Alla Segreteria della Presidenza

Oggetto: Pubblicità atti

Si notifica in copia l'allegata Delibera n. 265/2019 del 27/11/2019 – Allegato T al Verbale n. 10/2019 concernente: *EPOS Multi Scale Laboratories TCS Consortium Agreement.*

Dott. Giovanni Torre

DIREZIONE CENTRALE
AFFARI DEL PERSONALE

Via di Vigna Murata, 605 | 00143 Roma | Italia | Tel.: +39 39.0651860448 | Fax: +39.0651860576
direzione.centrale1@ingv.it | aoo.roma@pec.ingv.it | www.ingv.it

Delibera n. 265/2019
Allegato T al Verbale n. 10/2019
Oggetto: *EPOS Multi Scale Laboratories TCS Consortium Agreement.*

IL CONSIGLIO DI AMMINISTRAZIONE

- **VISTO** il Decreto legislativo 29 settembre 1999, n. 381, concernente la costituzione dell'Istituto Nazionale di Geofisica e Vulcanologia (INGV);
- **VISTO** il Decreto legislativo 25 novembre 2016, n. 218, recante "Semplificazione delle attività degli enti pubblici di ricerca ai sensi dell'articolo 13 della legge 7 agosto 2015, n. 124";
- **VISTO** lo Statuto dell'Istituto Nazionale di Geofisica e Vulcanologia, approvato con Delibera del Consiglio di Amministrazione n. 372/2017 del 9 giugno 2017, come modificato con Delibere del Consiglio di Amministrazione n. 424/2017 del 15 settembre 2017 e n. 501/2017 del 21.12.2017, e pubblicato sul Sito WEB Istituzionale (Avviso di emanazione pubblicato sulla Gazzetta Ufficiale della Repubblica Italiana – Serie generale – n. 27 del 2 febbraio 2018), in particolare, l'art. 2, comma 5;
- **VISTO** il Regolamento di Organizzazione e Funzionamento dell'Istituto Nazionale di Geofisica e Vulcanologia emanato con Decreto del Presidente n. 45 del 21.02.2018, pubblicato sul sito istituzionale;
- **VISTO** il Regolamento di Amministrazione, Contabilità e Finanza emanato con Decreto del Presidente n. 119/2018 del 14.05.2018, pubblicato sul sito web istituzionale;
- **VISTA** la decisione di esecuzione (UE) n. 2018/1732 della Commissione Europea, del 30 Ottobre 2018 relativa all'istituzione del Sistema di osservazione della placca tettonica europea - Consorzio per un'infrastruttura europea di ricerca (ERIC EPOS), notificata con il numero C(2018) 7011;
- **VISTO** il Decreto Ministeriale per il riparto del Fondo ordinario per gli Enti e le Istituzioni di ricerca, con il quale il MIUR ripartisce i finanziamenti necessari per la partecipazione italiana agli ERIC sotto la voce «*attività di ricerca valenza internazionale*» e, in particolare, l'art. 1, comma 3 che prevede testualmente *"I contributi per la partecipazione agli ERIC, o ai progetti da questi realizzati, sia nella forma in-kind sia di contributi finanziari a valere sul FOE, questi ultimi come determinati nella relativa tabella riferita alle "Attività di ricerca a valenza internazionale" costituiscono a tutti gli effetti quota di entrata dei bilanci dei medesimi ERIC, anche mediante eventuale trasferimento diretto";*
- **VISTA** la nota del 30/05/2019 prot. n. 1217, con la quale il Responsabile delle attività nell'ambito del WP16 di EPOS IP, ha precisato che il Consortium Agreement è mirato a formalizzare la partecipazione della comunità scientifica al TCS Multi Scale Laboratories nonché, ad assicurare una governance condivisa per contribuire all'operatività di EPOS garantendo l'impegno delle comunità e delle infrastrutture di ricerca nazionali coinvolte nella fornitura di dati e prodotti scientifici, trasmettendo lo schema del Consortium Agreement;
- **RAVVISATA** la necessità di nominare un rappresentante INGV all'interno del TCS Consortium Board;

- **VISTO** lo schema del Consortium Agreement e le disposizioni in esso contenute;
- **VALUTATE** le esigenze scientifiche e tecnologiche dell'Istituto;
- **VISTO** il parere dell'Ufficio Gestione Dati reso con nota prot. n. 2713 del 25/11/2019;
- **SENTITO** il Collegio dei Revisori dei Conti in corso di seduta;
- Su proposta del Presidente,

DELIBERA

Art. 1

Il Dott. Piergiorgio Scarlato, Primo Ricercatore dell'INGV, è nominato Rappresentante INGV all'interno del TCS Multi Scale Laboratories EPOS Consortium Board, per un periodo di tre anni, rinnovabile a decorrere dalla data di sottoscrizione del Consortium Agreement. Il Rappresentante avrà cura di interfacciarsi, preliminarmente all'approvazione, aggiornamento e/o revisione del Work Programme annuale, con Presidente e Direttore di Dipartimento competente, trasmettendo agli stessi una relazione sulle azioni e sulle risorse che costituiscono, per ciascuna annualità, il contributo INGV al TCS Multi Scale Laboratories.

Art. 2

E' approvato lo schema del Consortium Agreement, nell'ambito di EPOS Multi Scale Laboratories TCS, allegato alla presente Delibera, della quale costituisce parte integrante e sostanziale.
Viene dato mandato al Presidente alla sottoscrizione definitiva degli atti.

Letto, approvato e sottoscritto seduta stante.

Roma, 27/11/2019

La segretaria verbalizzante
(Sig.ra Silvana TUCCI)
Silvana Tucci

IL PRESIDENTE
(Prof. Carlo DOGLIONI)

EPOS Thematic Core Service Multi-scale Laboratories Consortium Agreement

for the Construction and Operation of the EPOS Research Infrastructure

Between

1. **UTRECHT UNIVERSITY**, a legal entity established under the laws of the Netherlands and governed by public law under section 1.8 of the Higher Education and Research Act (*Wet op het hoger onderwijs en wetenschappelijk onderzoek*) and having its registered offices at Heidelberglaan 8, Utrecht, the Netherlands, hereinafter referred to as "**UU**", for the benefit of the faculty Geosciences, Department of Earth Sciences, in this matter duly represented by dr. ir. C.L.M. Marcelis MBA, managing director;

2. **ROMA3**, whose registered office is at Via Ostiense 159, Roma 00154, Italy, hereinafter referred to as "**ROMA3**", represented for this purpose hereof by Director of the Department of Science, Prof. Marco BOLOGNA, a duly entitled officer hereto;

3. **GFZ**, a Public Law Foundation established under the laws of Brandenburg / Germany whose registered office is at Telegrafenberg, 14473 Potsdam, Germany hereinafter referred to as "**GFZ**", represented by the Executive Board Prof. Dr. R. Hüttl and Dr. St. Schwartze, the duly entitled representatives hereto;

4. **Istituto Nazionale di Geofisica e Vulcanologia**, whose registered office is at Via di Vigna Murata 605, hereinafter referred to as "**INGV**", represented for this purpose hereof by Presidente dell'INGV, Mr. Carlo Doglioni, a duly entitled officer hereto;

5. **Natural Environment Research Council**, whose office is at British Geological Survey, Environmental Science Centre, Nottingham NG12 5GG United Kingdom, hereinafter referred to as "**NERC-BGS**", represented for this purpose hereof by Dr Helen Reeves, a duly entitled officer hereto;

6. **Ludwig-Maximilians-Universität München**, whose registered office is at GESCHWISTER SCHOLL PLATZ 1, MUENCHEN 80539, Germany, hereinafter referred to as "**LMU**", represented for this purpose hereof by Dr. Rabea Samak, Financial Officer, and acting on behalf of the Department of Earth and Environmental Sciences of LMU, a duly entitled officer hereto;

7. **Centre National de la Recherche Scientifique**, whose registered office is at 3, rue Michel-Ange,75794 Paris Cedex 16, France, hereinafter referred to as "**CNRS**", represented for this purpose hereof by its Chairman and CEO, Mr Antoine PETIT, who has delegated his signing authority for this Consortium agreement to the Regional Representative of the Paris Regional Michel Ange Division Ms Hélène MAURY, a duly entitled officer hereto;

8. **Universidade da Beira Interior**, whose registered office is at Rua Marquês D'Avila e Bolama, 6201-001 Covilhã, Portugal, hereinafter referred to as "**UBI/C4G**", represented for this purpose hereof by Professor Dr. José Páscoa Marques, a duly entitled officer hereto;

9. **Agencia Estatal CONSEJO SUPERIOR DE INVESTIGACIONES CIENTÍFICAS** , whose registered office is at c/ Serrano 117, 28006, Madrid, Spain, hereinafter referred to as "**CSIC**", represented for this purpose hereof by Dr. Jesús Marco de Lucas, a duly entitled officer hereto;

10. **Eidgenössische Technische Hochschule Zürich,** whose registered office is at Sonneggstrasse 5, 8092 Zürich, Switzerland, hereinafter referred to as "**ETHZ**", represented for this purpose hereof by Professor Dr. Whitney Behr, a duly entitled officer hereto;

11. **Istituto di Geoscienze e Georisorse (IGG) - Consiglio Nazionale delle Ricerche (CNR),** whose registered office is at Area della Ricerca CNR di Pisa, Via Giuseppe Moruzzi 1, 56124 Pisa, Italy, herein after referred to as "**CNR-IGG**", represented for this purpose hereof by Dr. Antonello Provenzale, a duly entitled officer hereto;

Hereinafter referred to individually as "Party", together as "Parties".

Preamble:

A. EPOS (European Plate Observing System) is an European Research Infrastructure, facilitating integrated use of data, data products and facilities from distrusted research infrastructures for solid Earth Science in Europe.
The Thematic Core Services (TCS) Multi-scale Laboratories (MSL) CONSORTIUM (hereinafter referred to as TCS MSL CONSORTIUM) includes world-class experimental and analytical laboratory infrastructures ranging from high pressure-temperature rock and fault mechanics and rock/melt physics facilities, to electron microscopy, micro-beam analysis, analogue modelling and paleomagnetic laboratories.

B. The purpose of this consortium agreement (hereinafter referred to as "Consortium Agreement")is to lay the foundations for the TCS MSL, in order to function as part of EPOS European Infrastructure.

C. Parties have agreed to enter into this TCS MSL Consortium Agreement under the terms and conditions below.

D. By signing this Consortium Agreement, the Parties agree to implement the EPOS TCS MSL ("TCS") Work programme under their own responsibility and in accordance with this Consortium Agreement, with all the obligations and conditions it sets out.

E. The Work programme focuses on providing data, data products, software and services (hereinafter referred to as "DDSS") to the EPOS Research Infrastructure,

This Consortium Agreement is composed of:

Terms and conditions below and
Annex 1: Accession form
Annex 2: Regulations of the EPOS TCS MSL *Consortium Board*
Annex 3: Parties and their Representatives
Annex 4: Work programme
Annex 5a: EPOS Data policy
Annex 5b: Data provider letter
Annex 6: EPOS Transnational Access General principles

INTERPRETATION
The following definitions and rules of interpretation apply in this agreement.

Background IPR	Means any Intellectual Property Rights controlled or owned by any Party prior to the date of commencement of this Agreement or Intellectual Property Rights (IPR) generated by any of the Parties independently and controlled or owned by that Party or any IPR to which the Party has the necessary rights for the purpose of this Agreement.
Consortium Body(ies)	Means any management body described in the Governance Structure section of this Consortium Agreement : a Consortium Board, an Executive Committee, an User Committee, a Data Provider Committee and a Transnational Access (TNA) committee.
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	Software belonging to a Party prior to the entry into force of the Consortium Agreement.
Derived Software	Software developed from Core Software under the Consortium 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	Software created ex nihilo under the Consortium Agreement.
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 Providers 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.
Data Providers	Entities granting rights of redistribution of their DDSS through EPOS by signing a Provider Letter.
Data Suppliers	See Data Providers
Intellectual Property Rights	Means patents, rights to inventions, copyright and related rights, trademarks, trade names and domain names, rights to goodwill or to sue for passing off, rights in designs, rights in computer software, database rights, rights in confidential information (including know-how and trade secrets) and any other intellectual property rights, in each case whether registered or unregistered and including all applications (or rights to apply) for, and renewals or extensions of, such rights and all similar or equivalent rights or forms of protection which subsist or will subsist now or in the future in any part of the world.
Resulting IPR	Means any Intellectual Property Rights arising from and developed by any Party or Parties in the course of the relationship outlined in this Consortium Agreement, specifically work carried out in the course of development of EPOS ERIC.
Work programme	Work programme means the description of the actions of the Consortium Agreement defined in Annex 4.

IT IS THEREFORE AGREED BETWEEN THE PARTIES AS FOLLOWS:

Article 1: Parties to this Consortium Agreement and withdrawal/exclusion of a Party

The Parties consist of organisations contributing to the TCS MSL CONSORTIUM specific tasks as defined in accordance to the Work programme (Annex 4).

Any new organisation wishing to join and become a Party to this Consortium Agreement shall sign the Accession form (Annex 1) and describe its activities and resources in Annex 4 as agreed upon with the Consortium Board.
Any addition to the TCS MSL CONSORTIUM of a new Party requires the approval of the Consortium Board by a qualified majority (seventy-five percent (75%)) decision.
The accession of any new Party shall enter into force upon the date of the signature of the

Accession form.

Any Party may withdraw from the TCS MSL CONSORTIUM upon request, provided that twelve (12) 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.

In the event of negligent failure to perform a Party's duties, the Consortium Board may exclude such Party. Such a decision requires the approval of the Consortium Board members, with at seventy-five percent(75%) of the Consortium Board members voting in favour of exclusion, and without the Party in alleged default being present to vote.

Article 2: Purpose of this Consortium Agreement

This Consortium Agreement sets out organisational, managerial and financial guidelines to be followed by the TCS MSL CONSORTIUM in order to cooperate with and support the activities of EPOS Research Infrastructure.

The mission of this TCS MSL CONSORTIUM is to provide a coherent, cross-disciplinary platform for virtual access to DDSS, as well as physical access to the community's laboratories.

In particular, the TCS MSL CONSORTIUM aims at:

- Collecting and harmonizing available and emerging laboratory data on the properties and processes controlling rock system behaviour at multiple scales;
- Providing products and services through EPOS, supporting research into geo-resources and geo-storage, geo-hazards and Earth system evolution; and
- Coordinating the development, integration and transnational usage of the experimental and analytical laboratory centres and specialist networks within the EPOS framework.

Article 3: Organisation of EPOS TCS MSL Consortium

The TCS MSL CONSORTIUM is composed of a Consortium Board, an Executive Committee, a User Committee, a Data Provider Committee and a Transnational Access (TNA) committee. The former two bodies consist of Parties of this Consortium Agreement only, whereas the latter three bodies may also consist of third parties.

3.1 Consortium Board (CB)

The CB is the decision-making body of the TCS MSL CONSORTIUM.

It is composed of one authorised representative of each Party.

Each Party has one vote.

The CB elects a Chair and a co-chair among its members by seventy-five percent (75%) majority.

The term of the mandate is two (2) years renewable once.
The CB's regulations are detailed in Annex 2.
The CB appoints members of the Executive Committee and elects a Chair and co-chair of the Executive Committee.

3.2 The TCS Executive Management

1) The Executive Committee

The Executive Committee is the supervisory body for the proposition, execution and implementation of the Work programme and of CB decisions. This includes the day-to-day coordination of TCS MSL CONSORTIUM activities,

The Executive Committee shall manage the TCS MSL CONSORTIUM committees.

The Executive Committee is composed of four (4) members elected by the CB (by seventy-five percent (75%) majority). The term of the mandate is two (2) years renewable once. The appointed members have the joint overall responsibility for managing the activities decided by the CB and representing the TCS MSL CONSORTIUM.

The Chair and co-chair of the Executive Committee are appointed by the CB with a seventy-five percent (75%) majority . The Chair and co-chair of the Executive Committee shall not be the same as the Chair and co-chair of the CB.

The Executive Committee reports to the CB.

The Executive Committee cannot make any legally binding decisions on behalf of any Party.

2) Supporting organization

The supporting organisation is described in the Work programme (Annex 4). The supporting organisation is the organisation which provides the operational management of the TCS MSL CONSORTIUM and offers support to the Executive Committee.

3.3 The User Committee

Users are essential for the success of the TCS. They give feedback to the TCS on their services. Their feedback, through the User Committee will improve the functioning of the TCS as a facility. The User Committee is composed of representatives of the user community, which is a self-organising community. The TCS supports the user community in its endeavours and in turn the community delivers the members of the User Committee.

The User Committee designates a Spokesperson who shall advise the Executive Committee. She/he can be invited to attend the meetings of the CB, but has no voting rights.

3.4 The Data Provider Committee

Data availability is vital for the success of the TCS. The Data Providers provide data for and feedback to the TCS on the Data services and data policy. The data provided by Data Providers will be the main asset for the TCS DDSS.

The Data Provider Committee is composed of representatives of the data provider community. The TCS supports the data provider community.

The Data Provider Committee designates a Spokesperson who shall advise the Executive Committee. She/he can be invited to attend the meetings of the Consortium Board, but has no voting rights.

3.5 TNA Committee

The TCS MSL TNA committee is composed of external members selected by the TCS Consortium Board and one representative from each TNA Suppliers selected by the applicants during the respective TNA call.

The TNA Committee shall be responsible for the evaluation of the proposal submitted at each TNA call. The TNA committee interacts with the TCS TNA coordinator (who is a member of the Executive committee) through a designated spokesperson.

Article 4: Work programme of the EPOS TCS MSL Consortium

The Work programme of the TCS MSL CONSORTIUM will be updated annually, as well as the related resources of each Party in accordance with the CB's regulations provided in Annex 2.

The Work programme and the resources of each Party are detailed in Annex 4.

Article 5 : Rights and Obligations of the Parties

Each party:

1) undertakes to take part in the efficient implementation of their responsibilities within the activities of the EPOS Research Infrastructure, and to cooperate, perform and fulfil, promptly and on time, all of its obligations as may reasonably be required from it.

2) undertakes to notify promptly, in accordance with the governance structure of the EPOS Research Infrastructure any significant information, fact, problem or delay likely to affect the activities;

3) shall promptly provide all reasonably required information having a bearing on other EPOS Research Infrastructure activities, and

4) shall take reasonable measures to ensure the accuracy of any information or materials it supplies to the other Parties or any users of the TCS.

Article 6 : Resources of each Party

Each Party shall be responsible for its own resources, as described in Annex 4.
Any additional contribution in terms of financial, equipment or in-kind support shall be subject to a decision of the CB in accordance with the regulations provided in Annex 2.

Any distribution of common funds allocated by any third party shall be subject to a decision of the Consortium Board (75% majority) and to set up of the related agreements.

Any provision regarding a joint budget requires a qualified majority (seventy-five percent (75%)) vote of the Consortium Board.

Article 7: DDSS and Intellectual Property Rights

7.1 General Principles

The principles and process of handling DDSS and their associated intellectual property rights within the activities of the EPOS Research Infrastructure are principally laid down in the EPOS Data Policy, (Annex 5a) which promotes, in most cases, Open Access. The provisions of the policy are expanded in this Article.

7.2 Background IPR

Each Party shall own and continue to own its Background IPR and nothing in this Consortium Agreement shall transfer those rights to another Party. The Parties do not intend any other assignment of or license to Background IPR than is explicitly provided for in this Consortium Agreement.
All Background IPR is excluded that has been and/or will be developed by personnel and/or students at the respective Parties except for the Background IPR owned by the respective Party and made available through the EPOS-TCS Research Infrastructure services at the respective Party.

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 IPR to use the owning Party's Background IPR for the purpose of carrying out the tasks under this Consortium Agreement. Furthermore, the Parties have a royalty-free, non-assignable right to use Background IPR for further use within the activities of the EPOS Research Infrastructure.

7.3 Management of Resulting IPR

Resulting IPR shall belong to the Party or Parties generating it.

In case of IPR 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.

In case of Resulting IPR, the Parties shall designate between them an intellectual property manager

(hereafter "IP Manager") during a meeting of the Consortium Board. The IP Manager will manage and monitor the protection of the Resulting IPR.
The Parties undertake to sign in good faith any legal instrument enabling them to exercise proprietary rights over the Resulting IPR 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.

7.4 Use of Resulting IPR

In case of joint ownership of Intellectual Property Rights: each of the Joint Owners shall be entitled to use their jointly generated and jointly owned research 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 research results and to grant (exclusive or non-exclusive) licenses to third parties if the other joint owners are given prior notice and compensation, proportional to the relative ownership.

Subject to any third party rights, each Party hereby grants to the other Parties a non-exclusive, royalty-free license to use its Resulting IPR for the purpose of carrying out tasks under this Consortium Agreement. Each Party shall be responsible for securing rights, to the necessary extent, to such Resulting IPR from its employees, students, and/or any sub-contractors

For the avoidance of doubt, where a Party or Parties to this Consortium Agreement grant rights of access to their Background IPR and/or Resulting IPR for the purposes of EPOS ERIC, whether in line with the principles covered within the EPOS Data Policy or as an open release, the final mode of release or grant of access shall be determined solely by the owning Party or Parties.

7.5 Software

In addition to the provisions set out in Sections 7.1 and 7.4, 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 Consortium 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 Consortium 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.

7.6 Dissemination
For the avoidance of doubt, nothing in this Section 7.6 has impact on the confidentiality obligations set out in Section 8.

7.6.1 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.

7.6.2 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 Consortium Agreement.

7.6.3 Use of names, logos or trademarks
Nothing in this Consortium 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.

Article 8: Confidentiality

8.1 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, or is information which might be reasonably considered as confidential is "Confidential Information".

8.2 Obligations

The Recipients hereby undertake, during the Consortium Agreement and for a period of four (4) years after the termination of this Consortium 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; and
- 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 Consortium 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, or
- 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.

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.

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.

Article 9: Liability

9.1 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.

9.2 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.

9.3 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 Consortium Agreement or from its use of Results or background.

9.4 Force majeure

No Party shall be considered to be in breach of this Consortium Agreement if it is prevented from fulfilling its obligations under the Consortium 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 6 weeks after such notification, the transfer of tasks - if any - shall be decided by the competent Consortium Bodies.

Article 10: Duration of this Consortium Agreement

10.1 Entry into force

This Consortium Agreement shall come into force on the date on which the final Party signs (hereinafter referred to as "Effective date").

10.2 Expiration

This Agreement will terminate ten (10) years after its Effective date, unless otherwise terminated by agreement between the Parties.

10.3 Termination or extension

This Agreement may be extended or terminated before expiration date by a seventy-five percent (75%) majority approval by the Consortium Board after proposition by any Party, in accordance to the rules provided in Annex 2.

10.4 Survival of rights and obligations

The provisions relating to Intellectual Property Rights, for the time period mentioned therein, as well as for Liability shall, Applicable law and settlement of disputes survive after the expiration or termination of this Consortium Agreement.

Termination shall not affect any rights or obligations of a *Party* leaving the Consortium Agreement 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, deliverables and documents for the period of its participation in accordance with the provision foreseen in the Work Programme

Article 11: Amendment procedure

Amendment proposals may be submitted to the Consortium Board by any Party in accordance with the regulation provided in Annex 2.
Amendment proposals shall be listed on the agenda communicated with the invitation to the Consortium Board.

All Annexes are an integral part of this Consortium Agreement.

The Annexes 1, 2, and 4 and 5b can be modified and/or updated by decision of the Consortium Board in accordance to the regulations set up in Annex 2. Annex 3 can be modified by the Executive Committee upon request of a party, without approval by the Consortium Board. Annex 5a and 6 are modified according to the decision of the EPOS ERIC.

Article 12: Applicable law and settlement of disputes

This Agreement is governed by the applicable European Union law, supplemented if necessary by the law of Belgium.

If a dispute arises concerning the interpretation or implementation of this Consortium Agreement the Parties agree to settle amicably by mutual consultation or negotiation whenever possible.
The Parties shall observe and comply with the laws, rules, and regulations of the EU, supplemented by the law of Belgium.
If a dispute cannot be settled by amicable agreement, within sixty (60) calendar days of the commencement of mutual consultation/ negotiation, such dispute shall be finally settled under the Rules of Arbitration of the International Chamber of Commerce (Rules), by one or more arbitrators appointed in accordance with the said Rules.
Notwithstanding the above, should any Party (e.g. a Public Body) show that certain provisions of its national law prevents it from submitting the relevant dispute to arbitration, then the concerned Parties will submit the dispute to the Courts of Brussels.

Article 13: Notices and other communication

Any notice to be given under this Consortium 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.

13.1 Formal notices

If it is required in this Consortium 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.

13.2 Other communication

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

13.3 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.

Annex 1 –
ACCESSION FORM – FULL MEMBERS

of a new *Party* to the EPOS TCS MSL 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 MSL 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 **XXXX** 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*** ***Stamp organisation XXXX***

Place and Date ***ZZZZ***

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

Signature ***TTTT***

Place and Date ***ZZZZ***

Annex 2: Regulations of the EPOS TCS MSL Laboratories Consortium Board

Duties

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

- Deciding on the strategic issues related to the EPOS TCS MSL
- Decide on the admittance criteria of new parties or Data Providers, using the basic principles of excellence, quantity and quality of data complementary to the partnership
- Decide on the removal of existing one(s) and approval of the agreement on the conditions of the removal of this Party
- Approval of the agreement on the conditions of the withdrawal of a Party,
- Approving the up-to-date of the Work programme;
- Appointing the Consortium Board Chair and co-chair;
- Appointing the Executive Committee;
- Preparing funding strategies and other joint initiatives;
- Deciding who will represent the TCS MSL Consortium in relation to EPOS ERIC.

Ordinary and extraordinary meetings:

The Consortium Board will meet on ordinary meetings at least once per year.

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

Members of the Consortium Board may bring experts when relevant, notifying the Chairperson at least 15 (fifteen) calendar days preceding the meeting.

The Chair of the Executive Committee is a permanent guest to the Consortium Board meetings.

The Consortium Board may meet on extraordinary meetings when necessary.

The request shall be made by any Party to the Chair of the Consortium Board, 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 Chair of the Consortium Board 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.

Quorum and majority rules:

The Consortium Board shall validly hold a meeting only if the quorum requirements have been met.

The Consortium Board shall validly make a decision only if the majority requirements have been met.

The normal quorum requirement shall be met when at least half (50%) of the members, who are entitled to vote, are present or represented.

The special quorum requirement shall be met when at least 2/3 (two-thirds) of the members, who are entitled to vote, are present or represented.

A simple majority shall be formed when the count of votes in favour of the decision is higher than the count of votes against.

A qualified majority shall be formed when at least seventy-five percent (75%) of the votes cast are in favour of the decision.

For decisions to be made with a simple majority, a normal quorum shall suffice.

For decisions to be made with a qualified majority (seventy-five percent (75%)), a special quorum shall be required.

For unanimous decisions all members must be present or represented.

Voting rules

The Consortium Board shall be able to decide with a qualified majority (seventy-five percent (75%)) if an issue on the agenda falls under the categories that require a qualified majority. Such a decision may not be taken unless the special quorum requirement (two-third (2/3) has been met, irrespective of whether the meeting is ordinary, extraordinary, or repeat.

Without prejudice to the above, the Consortium Board shall be competent to, namely, but not exclusively:

- Deciding on the strategic issues related to the EPOS TCS MSL
- Preparing funding strategies and other joint initiatives;
- Selecting the TNA members Committee
- Deciding who will represent the TCS MSL Consortium in relation to EPOS ERIC.
- Approve annually, with simple majority, the up-to-date of the Work programme;
- Decide, with qualified majority (75%), upon the distribution of common funds allocated by any third party, subject to set up the related agreements.
- Decide on the admittance criteria of new parties or Data Providers, using the basic principles of excellence, quantity and quality of data complementary to the partnership
- Accept, with a qualified majority (75%) decision, a new party;
- Decide, with simple majority, its internal rules of procedure;

- Approval of the agreement on the conditions of the withdrawal of a Party,
- Decide on the removal of existing one(s) and approval of the agreement on the conditions of the removal of this Party;
- Exclude a Party with a qualified majority (75%),
- Approve any modification to the Articles and Annexes 1, 2, 4 and 5bwith an unanimous decision,
- Appointing the Consortium Board Chair and co-chair with a qualified majority (75%);
- Appointing the Executive Committee with a qualified majority (75%);
- Appointing the Chair and co-chair of the Executive Committee with a qualified majority ?
- Dissolve the EPOS TCS MSL Consortium with a unanimous decision.

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.

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 Chair of the Consortium Board shall produce written minutes of each meeting which shall be the formal record of all decisions taken. She/He 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 fifteen (15) calendar days from sending, no member has objected in writing to the Chair of the Consortium Board 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 Chair of the Consortium Board shall provide authenticated duplicates to the Parties.

Repeat Meetings

If the quorum is not met, then the meeting of the Consortium Board shall be adjourned and shall be repeated within fifteen (15) calendar days, following a new invitation by the Chair of the Consortium Board.

The issues on the agenda of the repeat meeting shall be the same with the issues on the agenda of the original meeting.

In the repeat meeting of the Consortium Board, the quorum shall be considered met, irrespective of the number of members present or represented.

Representation, Representation by Proxy, Remote Participation:

Each Consortium Board member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters submitted to the Consortium Board.

Any member shall be able to authorise another member to represent it in the meeting of the Consortium Board 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.

Any member shall be able to participate in the meeting of the Consortium Board 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.

At the Effective Date

1. Utrecht University	dr. Ernst Willingshofer* prof. Chris Spiers prof. Martyn Drury dr. Mark Dekkers dr. Richard Wessels Otto Lange, MSc.
2. Roma3	prof. Francesca Funiciello* prof. Claudio Faccenna prof. Francesca Cifelli prof. Valerio Acocella prof. Massimo Mattei dr. Fabio Corbi
3. GFZ	dr. Matthias Rosenau* dr. Onno Oncken dr. Kirsten Elger Damian Ulbricht
4. INGV	dr. Piergiorgio Scarlato* dr. Leonardo Sagnotti dr. Aldo Winkler dr. Elisabetta Del Bello dr. Manuela Nazzari dr. Patrizia Macrì dr. Fabio Speranza
5. NERC-BGS (Durham)	dr. Helen Reeves* dr. Philip Benson dr. Audrey Ougier-Simonin dr. Caroline Graham dr. Stefan Nielsen
6. LMU	dr. Corrado Cimarelli* prof. Don Dingwell
7. CNRS	dr. Stephane Dominguez* dr. Mireille Perrin dr. Patrick Baud

8. UBI/C4G	dr. Rita Caldeira* dr. Mario Moreira dr. Matilde Horta Costa e Silva dr. Alexandra Guedes dr. Mário Gonçalves dr. Fernanda Guimarães dr. Pedro Rodrigues
9. CSIC	dr. José Luis Fernández Turiel* dr. Marta Rejas Alejos dr. Jordi Ibañez Insa dr. Elisabet Beamud Amorós dr. Adelina Geyer Traver dr. Agustín Lobo Aleu
10. ETH	dr. Alba Zappone* prof. Jean-Pierre Burg Claudio Madonna
11. CNR-IGG	dr. Alberto Zanetti* dr. Gianfranco Di Vincenzo dr. Giacomo Corti dr. Marco Bonini dr. Chiara Boschi dr Maddalena Pennisi dr Claudia Principe dr Marinella Laurenzi dr Samuele Agostini dr Andrea Dini dr Maria Laura Balestrieri dr Gabriella Magro dr Matteo Lelli dr Domenico Montanari dr Antonio Langone

*members of the CB

Annex 4: Work Programme

The tasks of Parties contributing to TCS CONSORTIUM are defined in this Annex.

Each Party will ensure the maintenance of the research infrastructure to generate data and provide the services.

UTRECHT UNIVERSITY contributes to the TCS Consortium by providing, staff time, services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access) and through active acquisition of external funds.

- People: Scientific and supporting personnel to ensure data delivery and integration into the TCS E-infrastructure, as well as coordination of Transnational Access activities.
- Services: is the Supporting Organization for the TCS, and provides the operational management of the TCS, which include legal and financial governance, communication with the TCS community and overall coordination, support to the Consortium Board and Executive Committee. Utrecht University will be responsible for maintenance of the TCS catalogue and TCS dedicated repository. UU is also responsible for coordinating the preparation of the TCS' Transnational Access activities, in collaboration with EPOS. Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: experimental data on rocks, paleomagnetic data and analogue modelling data.

ROMA3 contributes to the TCS Consortium by providing staff time services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access) and through active acquisition of external funds.

- People: scientific and technical support for the development of the TCS services and data sharing along with the harmonization process within and across the TCS, as well as coordination of Transnational Access activities.
- Services: ROMA3 coordinates the preparation of the TCS' Transnational Access activities, in collaboration with EPOS. Contribute to WP16 TCS and EPOS ICS, providing data, data product, software and services. Transnational Access will be provided, under the conditions specified in Annex 6
- Data: analogue modelling data, paleomagnetic data.

GFZ contributes to the TCS Consortium by providing

- People: Scientific and supporting personnel to ensure data delivery and management.
- Services: GFZ runs a data service including data publication, storage and curation. GFZ supports the TCS in developing a Metadata schema. GFZ develops in cooperation with other partners a metadata editor to be implemented in the individual repositories and the TCS portal. Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: analogue models.

INGV contributes to the TCS Consortium by providing staff time, services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access) and through active acquisition of external funds.

- People: Scientific and supporting personnel to ensure data delivery and integration into the EPOS TCS MSL E-infrastructure, as well as coordination of Transnational Access activities.

- Services: Contribute to WP16 TCS and EPOS ICS, providing data, data products, software and services. INGV coordinates the preparation of the TCS' Transnational Access activities, in collaboration with EPOS. Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: analytical and rock properties data, experimental data on rocks and melts, paleomagnetic data.

NERC contributes to the TCS Consortium by providing

- People: Scientific and supporting personnel to ensure data delivery and integration into the TCS E-infrastructure.
- Services: Contribute to WP16 TCS and EPOS ICS, providing data, data products, software and services. Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: experimental data on rocks (e.g. density, porosity, permeability, and dynamic elastic parameters)

LMU contributes to the TCS Consortium by providing, staff time, services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access)

- People: Scientific and supporting personnel to ensure data delivery and integration into the TCS E-infrastructure.
- Services: Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: analytical, properties and experimental data on melts, glasses, magmas and their analogues.

CNRS contributes to the TCS MSL CONSORTIUM by providing staff time, services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access).

- People: Scientific and supporting personnel (researchers and technicians) to ensure data delivery and integration into the EPOS TCS MSL E-infrastructure.
- Services: Contribute to WP16 TCS and EPOS ICS, providing data and data products. Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: analytical and rock properties data, analogue modelling data, paleomagnetic data

UBI/C4G contributes to the TCS Consortium by providing

- People: Scientific, technical and supporting personnel to ensure laboratories operation and data delivery and integration into the TCS E-infrastructure.
- Services: Transnational access will be provided under the conditions specified in Annex 6.

- Data: analytical data on rocks, minerals (including fluid inclusions) and properties and experimental data on rocks.

CSIC contributes to the TCS Consortium by providing

- People: Scientific and supporting personnel to ensure data delivery and integration into the TCS.
- Services: Transnational Access will be provided, under the conditions specified in Annex 6.
- Data: analytical and properties data, paleomagnetic data and analogue modelling data.

ETHZ contributes to the TCS Consortium by providing staff time, services and data in accordance with the regulations as defined in Annex 5 (Data Policy) and Annex 6 (Transnational Access)

- People: Personnel involved consists of researchers and technicians, as well as IT and administrative support
- Services: Transnational activities: personnel access to selected infrastructures (permeameter) upon conditions (co-authorship, specific charges, lab availability), and conditioned to selection procedure (mainly excellence of the proposal and common research interests). We provide training to operate the machinery, assistance from technical staff, and eventually support for corollary analysis (sample preparation, optical microscopy, SEM, etc.) always upon the same conditions. We can also provide synthetic samples as bench mark for specific testing purposes.
- Data: experimental data on rocks, density, porosity, permeability, and eventually dynamic elastic parameters

CNR-IGG contributes to the TCS Consortium by providing

- People: Personnel involved consists of researchers and technicians. Researchers will carry out the scientific and technical activities related to the project. A number of technicians will ensure the operative maintenance of the laboratories.
- Services: The laboratories involved (Laboratory of Gas Geochemistry, Laboratory of Geochemical Microanalysis and Crystal-Chemistry; Laboratory of Geochronology and Isotope Geochemistry, Laboratory of Tectonic modeling) will provide analytical facilities, development of analytical protocols and transnational access.
- Data: Analytical data will be provided for the following scientific disciplines: crystal-chemistry (High-T XREF, electron microscopy), geochemistry (major and trace elements, radiogenic and stable isotopes), geochronology (Ar-40/Ar-39, U-Th-Pb and fission track analyses) and analogue modeling.

Annex 5a: EPOS Data policy

Table of content

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 distributed 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.
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-infrastructures) 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	Entities in charge of aggregating, collecting and ensuring access to DDSS. They feed the EPOS Core Services (ICS and TCS) with DDSS from one or more Suppliers.
Suppliers	Entities allowing distribution of their DDSS through EPOS by signing a letter of intent (see Annex 5b).
Thematic Core Services (TCS)	Thematic groups of Service Providers are organized in and coordinated by Thematic Core Services which provide the scientific expertise for EPOS and interact in close connection with the user community.

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 strongly depends on the cooperation with Suppliers as most 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) organize and coordinate the Service Providers. The contractual link for service provision will take the form of service contracts between EPOS and Service Providers (SP).

In order to foster open, free and easy access to DDSS from the Service Providers, EPOS needs a common data policy. The EPOS data policy applies directly to the DDSS managed by EPOS through ICS. The detailed data management plans specific to each Service Provider must state compliancy with the EPOS data policy. EPOS data policy shall respect national and European legislation which are primary regulations.

3 - GUIDING PRINCIPLES

Through its policy EPOS 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 maximize 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 recognized 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, all important OECD principles.

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 utilize a widely accepted community licensing scheme, e.g. 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

The 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 recognizes 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 to be made available with minimum time delay and at minimum and whenever possible no-costs.

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 on the way in which the DDSS can be used.

Procedures to accept restrictions and embargo conditions will be handled by a dedicated EPOS committee.

Information on restriction and embargo conditions shall be available to the user in a clear and transparent way. In the case of an admitted exception, EPOS provides the user with access under the same terms and conditions as the original Supplier.

Within the EPOS Data Policy, "Users", with regard to access rights and restrictions, are classified as follows:

- ***Anonymous:*** Access without any identification or accreditation is not allowed at the ICS level. However, if the TCS decide to allow anonymous access, they should provide alternative mechanisms to track users and purposes of DDSS use;
- ***Registered:*** Identified access requiring prior registration, which may differ from specific EPOS services;
- ***Authorized:*** Identified and authenticated access requiring specific permissions for particular DDSS or EPOS services to identified user group(s). Only a Registered user can become an Authorized user.

Within the EPOS Data Policy, "Access to DDSS", with regard to access rights and restrictions, is classified as follows:

- ***Open:*** DDSS freely available/accessible to User either for download or for direct use within an EPOS Service.
- ***Restricted:*** DDSS that are available under the conditions set out by the Service Providers. 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 not be higher than the actual cost of making 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, they 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 can 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 LICENSING

5.2.1 DDSS licensing

For an effective rights management, EPOS aims at distributing only licensed DDSS. EPOS is aiming to grant one default licenses set for all the DDSS, Creative Commons 4.0, with two allowed licenses, CC:BY and

CC:BY:NC. Service Providers shall have the possibility, provided they are allowed by the Suppliers, to affix licenses on unlicensed data on their behalf in case the supplied DDSS don't include a license.

5.2.2 Metadata licensing

To ensure a wide dissemination and a vast publicity for EPOS DDSS, it is essential that their 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 the users to identify the relevant datasets through search engines licences filters.

5.3 QUALITY CONTROL

The quality control of the data rests with the Supplier. The Service Providers 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 disseminates good practices and shall provide a mechanism to obtain users feedback on DDSS quality.

EPOS will ensure a continuous process of review and assessment to verify that the EPOS DDSS provision is operating as envisioned, finding out improvements and preventing identified problems.

EPOS will especially control 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 complies with International, European and national legislation regarding the protection of personal data and privacy.

6 -INTELLECTUAL PROPERTY RIGHTS

Rights to intellectual property of any DDSS shall remain with the entity or person that has generated it or holds these rights at the time of submission of the DDSS to EPOS, except in case where these rights have been explicitly waived by the original generator or holder.

The Suppliers are in charge of checking 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 third party interests are fully acknowledged.

7 - MANAGEMENT FOR THE EPOS DATA POLICY

Failure of implementing 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 the Data Policy falls to the Service Providers. This implies that there shall be a dedicated Data Management Plan for every Service Provider, and that every Service Provider needs to ensure the proper DDSS delivery. In addition, the Service Providers need to make sure the Suppliers are informed and agree that EPOS distributes their DDSS (see Annex 5b.

8 - POLICY REVIEW

This document is subject to revision according to the needs and strategy changes of EPOS, as well as according to the evolution of the legislation. The reviewed policy shall be approved by the EPOS-ERIC General Assembly.

Annex 5B

Insert Data Provider logo

DATA PROVIDER LETTER

1. In accordance with the EPOS Data Policy, (Annex A), (Name of the Data Provider) allows EPOS to redistribute the data and/or data products and/or software and/or services, hereinafter referred to as "DDSS", identified in the Annex B.
2. (Name of the Data Provider) confirms that to the best of its knowledge and belief:
    a. It has full ownership rights to the DDSS and/or it has full rights to distribute the DDSS or to allow their redistribution by a third party;
    b. It is not under any obligation or disability at law, contract or otherwise, which would in any manner, or to any extent, prevent or restrict it from entering into and fully performing, this Data Provider Letter;
    c. The release of the DDSS in accordance with the terms of this Data Provider Letter does not contravene any laws;
    d. It has taken reasonable steps to maximize the quality of the DDSS.
3. (Name of the Data Provider) will endeavor to only provide licensed DDSS as of EPOS operational phase.
4. Alternatively, (Name of the Data Provider) allows :
    a. The relevant EPOS Service Provider to affix the Creative Commons 4.0 CC:BY license on any Data or Data Product provided with no license information. The license will be affixed on behalf of (Name of the Data Provider), and by no means will this be deemed as waiver to any of its Ownership Rights.
    b. The relevant EPOS Service Provider to affix the relevant license on any Software provided with no license information. The license will be affixed on behalf of (Name of the Data Provider), and by no means will this be deemed as waiver to any of its Ownership Rights.
5. The Data Provider may benefit from EPOS Users authentication system's feedback, in order to be informed about its DDSS usage.

Place, Date, Name, Signature, Stamp

Annex 6: EPOS Trans National Access (TNA) to Research Facilities

TABLE OF CONTENTS

1. DEFINITIONS/TERMINOLOGY

Access agreement	Between facility and user – prepared on a case by case basis, and including all local rules, HSE, site access, IP arrangements, etc.
Core Servies	Both ICS and TCS (see definitions below)
EPOS ERIC	EPOS European Research Infrastructure Consortium
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 distributed 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.
Integrated Core Services (ICS) ICS-C ICS-D	Services provided by EPOS as integrated services reaching across the scientific themes/disciplines of EPOS, focusing on advanced ICT infrastructures (e-infrastructures) for discovery of and access to DDSS generation of multidisciplinary products and services, development and execution of workflows. C means located at the central hub of EPOS. D refers to distributed services (i.e., not at the central hub)
Service agreement	Between EPOS ERIC and the facility, enabling the facility to provide TNA through EPOS
Service Providers	Entities in charge of aggregating, collecting and ensuring access to DDSS. They feed the EPOS Core Services (ICS and TCS) with DDSS from one or more Suppliers.
Supplier	Entities allowing distribution of their DDSS through EPOS by signing a letter of intent (see Annex 5b.
TNA	Trans-national access
Thematic Core Services (TCS)	Thematic groups of Service Providers are organized in and coordinated by Thematic Core Services, which provide the scientific expertise for EPOS and interact in close connection with the user community.

2. 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.

3. 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.

3.1 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 publicly 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.

3.2 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.

3.3 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.

4. 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 defence; privacy and confidentiality; commercial sensitivity and intellectual property rights; ethical considerations in accordance with applicable laws and regulations.

5. 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.