EPOS Multi-scale laboratories Data Services & Trans-national access program

Richard Wessels[1], Otto Lange[2], and the EPOS TCS Multi-scale laboratories Team

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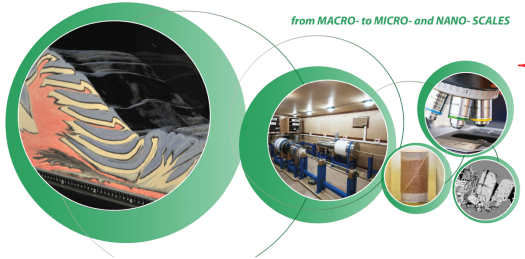
1. The community objectives

EPOS (European Plate Observing System) is an ESFRI Landmark and European Research Infrastructure Consortium (ERIC). The EPOS Thematic Core Service Multi-scale laboratories (TCS MSL) represents a community of European solid Earth sciences laboratories including high temperature and pressure experimental facilities, electron microscopy, micro-beam analysis, analogue tectonic and geodynamic modelling, paleomagnetism, and analytical laboratories.



The mission of the EPOS TCS MSL is to create a unique point for collaboration and exchange by;

1) Creating a coherent and well-organized network of solid Earth Science laboratories;

2) Implementing dedicated Data Services and controlled vocabularies that will guarantee *F*indability, *A*ccessibility, *I*nteroperability, and *R*eusability (*FAIR*) of laboratory data with other solid Earth Science data;

3) Developing a Trans-national Access (TNA) program that will increase European state-of-the-art solid Earth science laboratories attractiveness for researchers and contribute to increased researchers mobility, cooperation and exchange.

In addition, the TCS MSL collects facility information from affiliated laboratories that is displayed in the EPOS Infrastructure Portal, thereby providing an overview of the Solid Earth Sciences laboratory landscape in Europe.

2. Data Services

The TCS Multi-scale laboratories Data Services aim at the dissemination of scientific results in the form of datasets coming from experimental research, uniquely identifiable through publication with a DOI: citable, trackable, persistent and with metadata and data description for re-use and discovery.

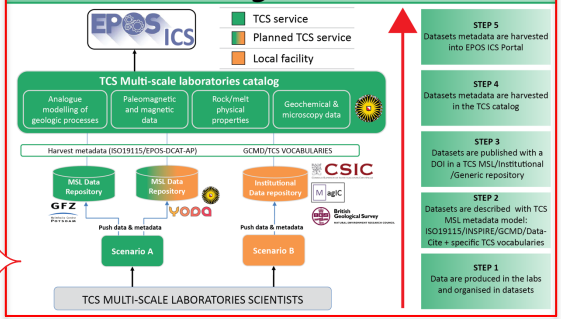
Datasets can be published in generic, institutional repositories or in dedicated EPOS Multi-scale laboratories repositories.

Datasets are described with the EPOS Multi-scale laboratories metadata model, which includes standard vocabularies (ISO19115/INSPIRE, GCMD, DataCite) and new controlled vocabularies specific for: Analogue models of geologic processes, Paleomagnetic and magnetic data, Rock and melt physical properties, Geochemical data, and Microscopy data. Metadata includes licensing information.

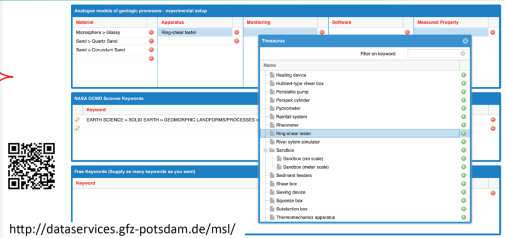
click here!

...or here!

3. Sharing lab data

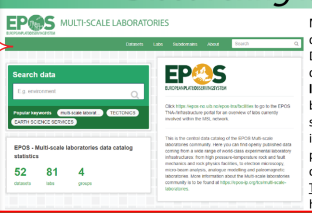


4. Metadata editor



http://dataservices.gfz-potsdam.de/msl/

5. Discovering lab data

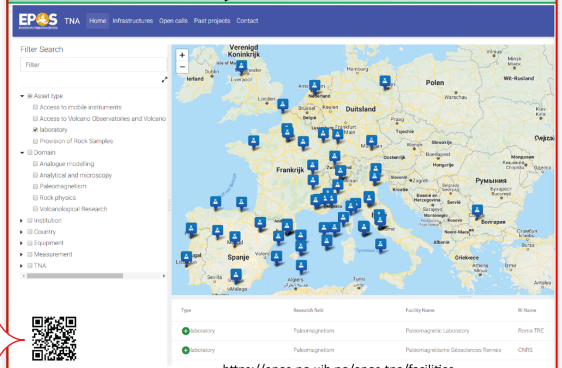


Multi-scale laboratories datasets will be discoverable through the EPOS ICS Portal. Datasets can also be discovered by directly accessing the **TCS Multi-scale laboratories catalog**. Here, datasets can be searched using filters such as domain specific keywords or research infrastructure. The TCS MSL catalog provides also a short description of each contributing laboratory.

TCS Catalog website:
https://epos-msl.uu.nl

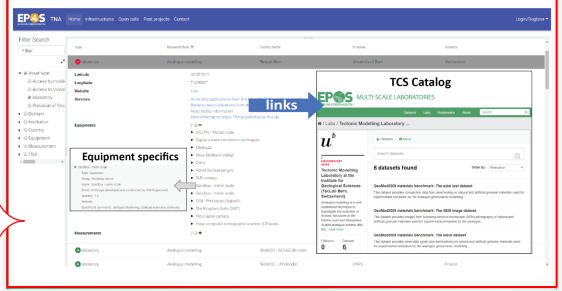
...all the red boxes take you somewhere...

6. Facility information



https://epos-no.uib.no/epos-tna/facilities

7. Equipment information



8. Contact us

@ multi-scale-labs@epos-ip.org

www.epos-ip.org/tcs/multi-scale-laboratories

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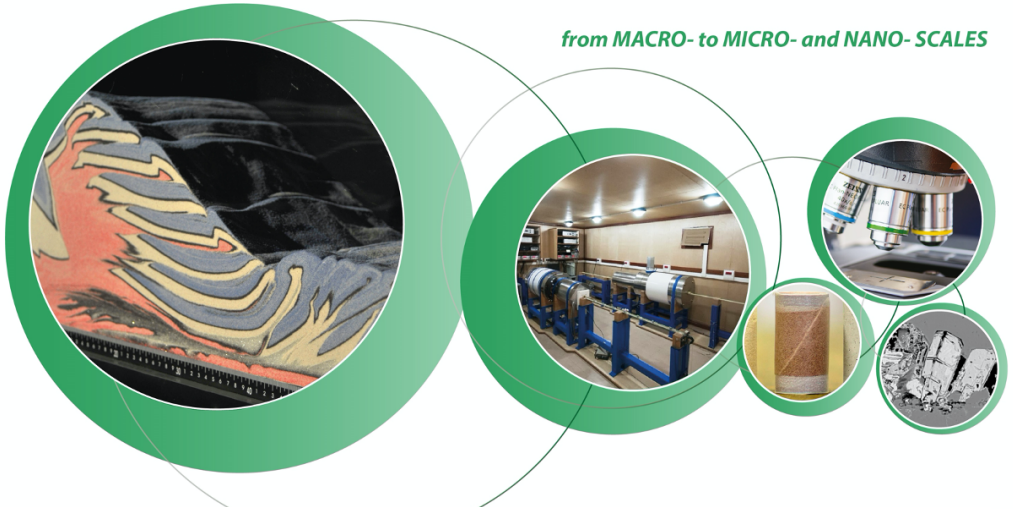

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You can always click here to go back to the first slide!

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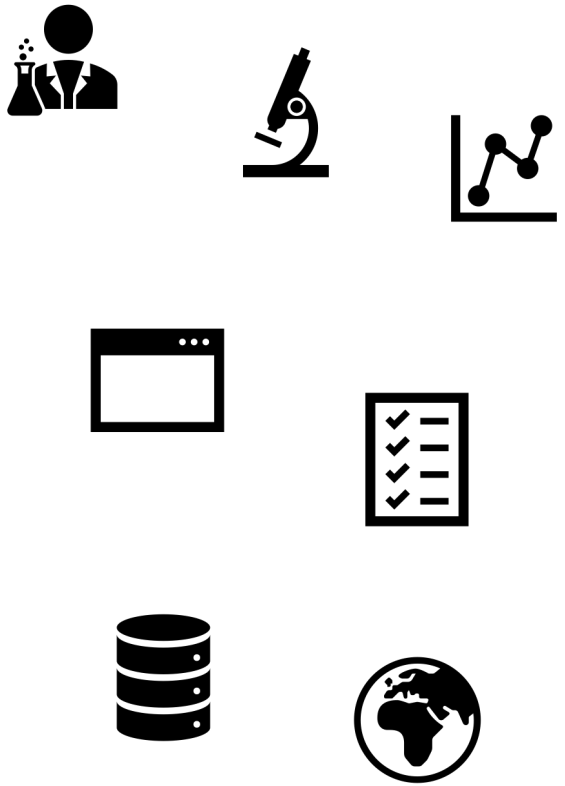

➢ The next slide shows the TCS MSL laboratory data publication process

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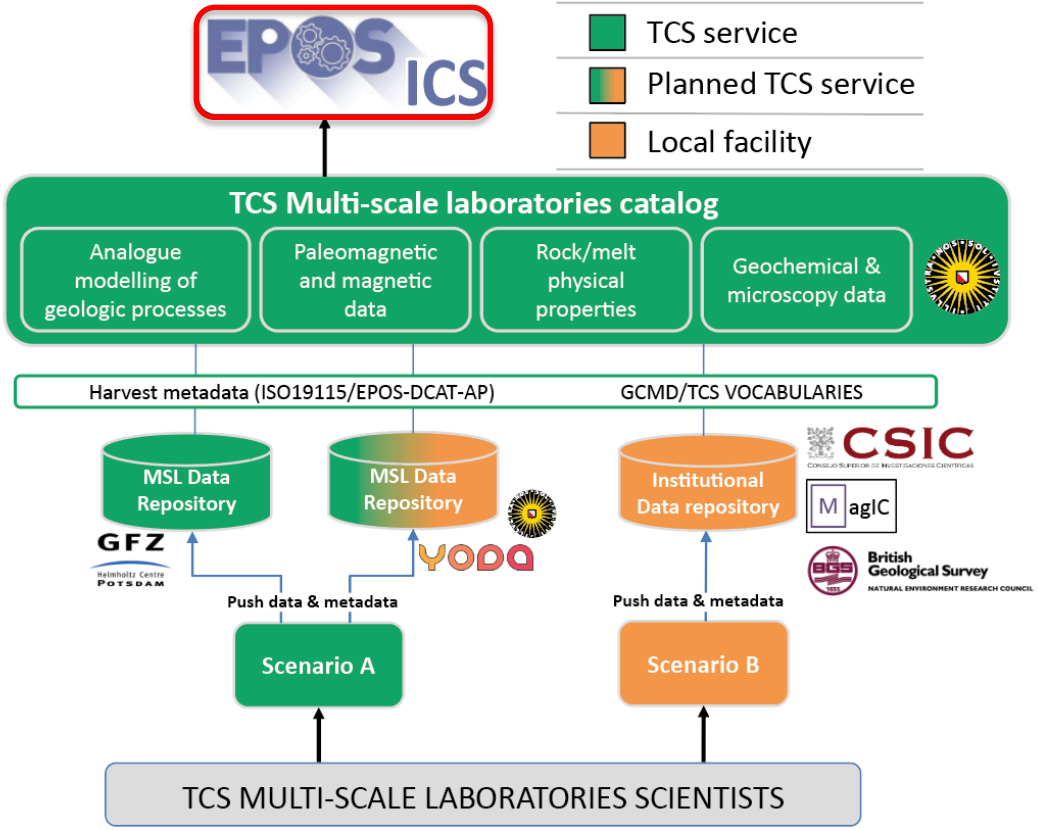


STEP 5
Datasets metadata are harvested into EPOS ICS Portal

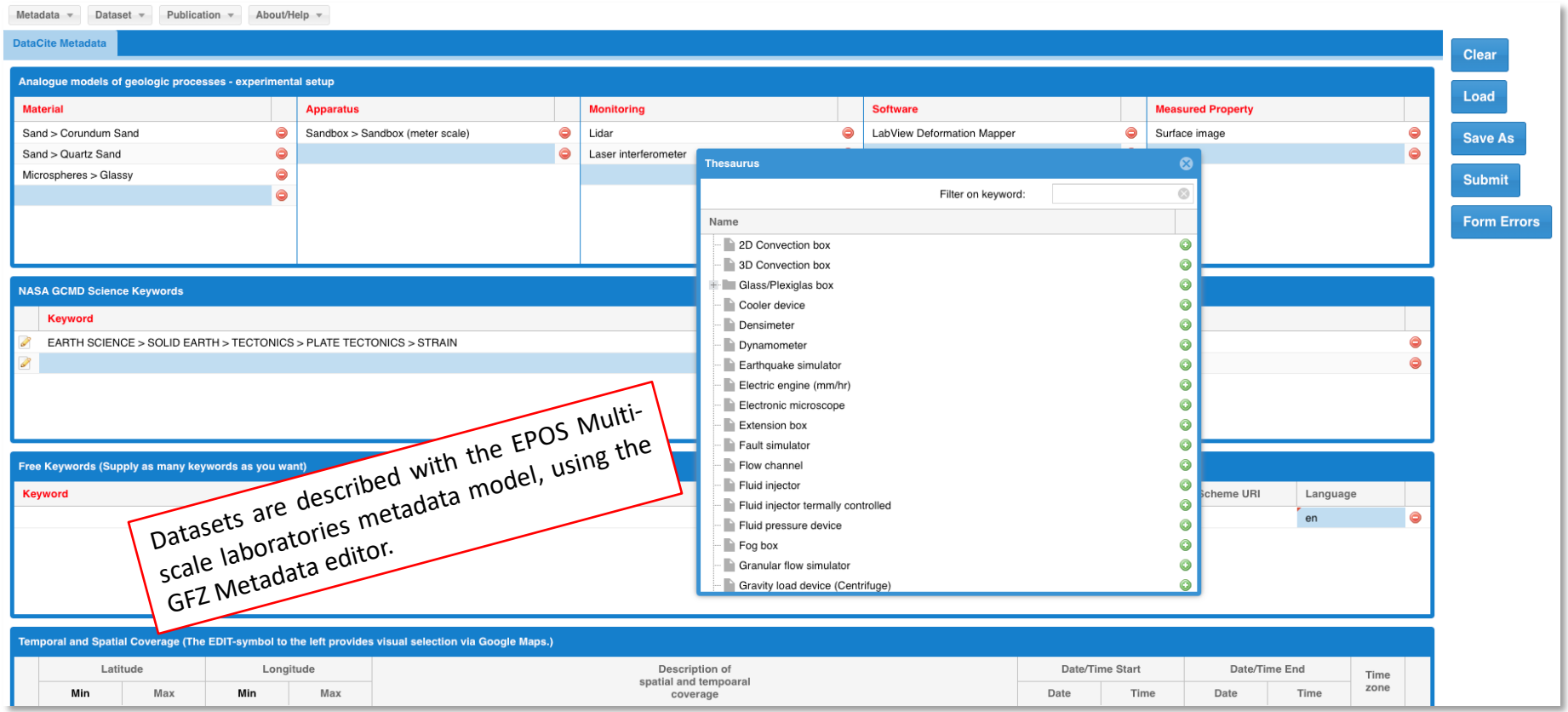
STEP 4
Datasets metadata are harvested in the TCS catalog

STEP 3
Datasets are published with a DOI in a TCS MSL/Institutional repository

STEP 2
Datasets are described with TCS MSL metadata model
ISO19115/INSPIRE/GDMD/DataCite + TCS-specific vocabularies

STEP 1
Data are produced in the labs and organised in datasets

4. Metadata editor



EPOS MULTI-SCALE LABORATORIES

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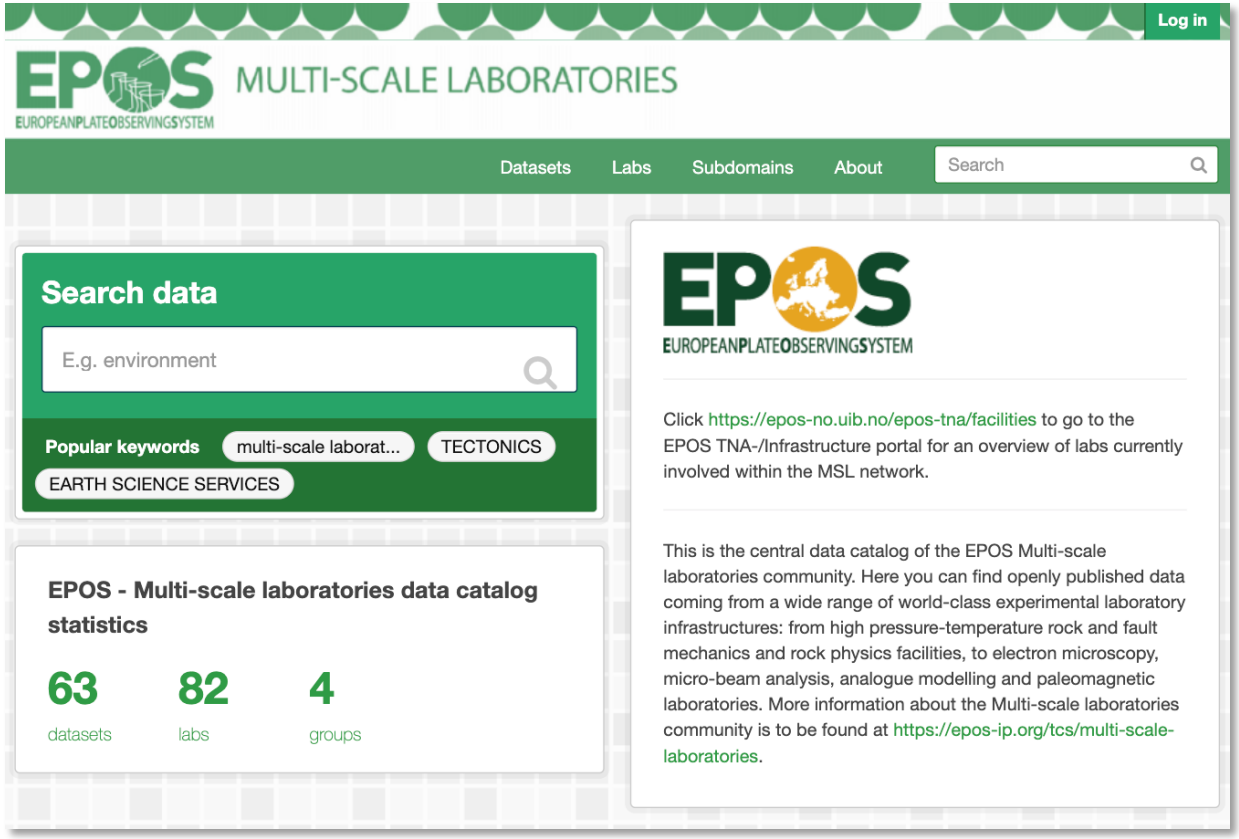

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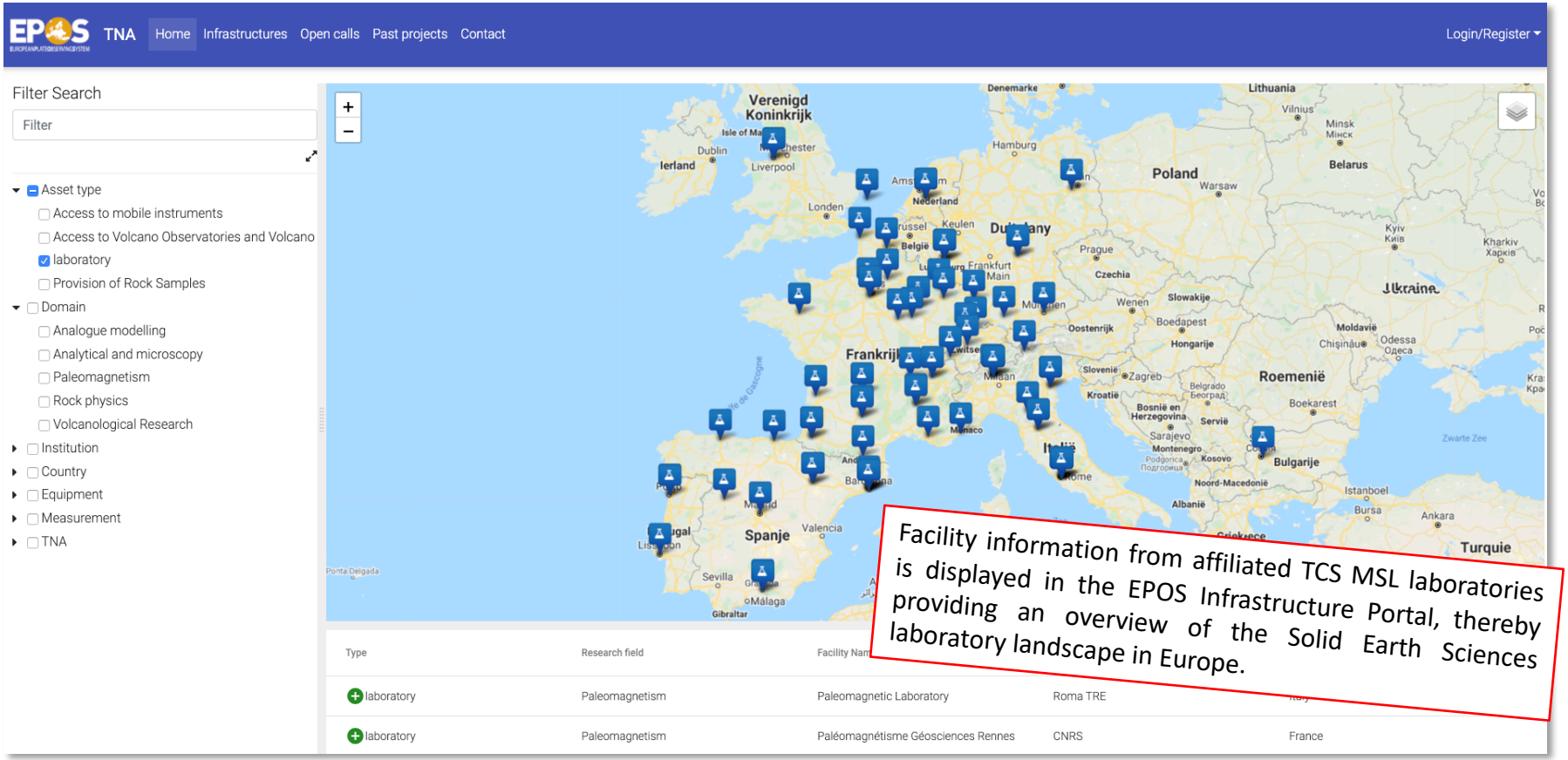

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https://epos-no.uib.no/epos-tna/facilities

7. Equipment information

We also collect information about the available instruments and types of measurements that you can conduct at these facilities!

TCS MSL Catalog

URLs

Info

Equipment specifics

- Sandbox - meter scale
  - Type : Apparatus
  - Group : Modeling_device
  - Name : Sandbox - meter scale
  - Brand : Prototype (developed and constructed by HSR Rapperswil)
  - Quantity : 1.0
  - Website :
  - Specifics & comments : (oblique) shortening, (oblique) extension, strike-slip

https://epos-no.uib.no/epos-tna/facilities

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