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

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Outline presentation:

- Multi-scale laboratories (MSL): Mission and achievements
- What's in it for laboratories?
- What's in it for researchers?
- How to become part of the EPOS MSL network

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EPOS = *E*uropean *P*late *O*bserving *S*ystem

Pan-European project with the goal:

Improving and facilitate the integration, access, use, and re-use of solid Earth science data, data products, services and facilities

Method:

Harmonizing and integrating the mosaic of distributed but separated solid Earth sciences Research Infrastructures within Europe

- networks, observatories, data repositories, laboratories and modelling facilities, etc.

Deliverable:

A single sustainable, permanent and distributed infrastructure that integrates the diverse and advanced European Research Infrastructures for solid Earth science under a common framework

- Central Portal

EPOS ≠ Doing actual science | ≠ a funding agent | ≠ database | ≠ owning facilities

EPOS = Enabling science by integrating research infrastructures, thereby providing access to data, scientific products, and services

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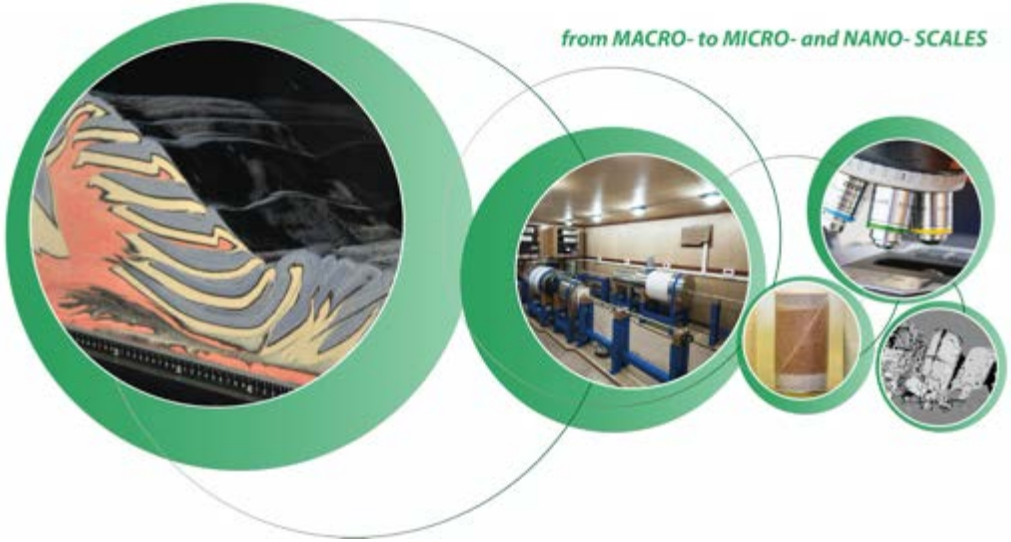
Multi-scale laboratories (MSL): Mission

The mission of the 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 Findability, Accessibility, Interoperability, and Reusability (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 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.

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Multi-scale laboratories (MSL): Achievements:

✓ **Data Publication Chain:**

1. Creation of Data Publications
2. Dedicated metadata editor to assign metadata and license
3. Dedicated data repositories to store Data Publication and assign DOI
4. Discovery through the MSL Portal

✓ **Trans-national Access (TNA) Program:**

1. Three TNA pilot calls (2017, 2018, 2019)
2. 65 labs participated – 55 TNA users
3. TNA-derived data gets published through the MSL Data Publication Chain

- Consortium of 11 members from 8 countries
- 82 laboratories from 12 countries in MSL community
- 4 subdomains (Analogue Modeling, Analytical & Microscopy, Paleomagnetism, Rock Physics

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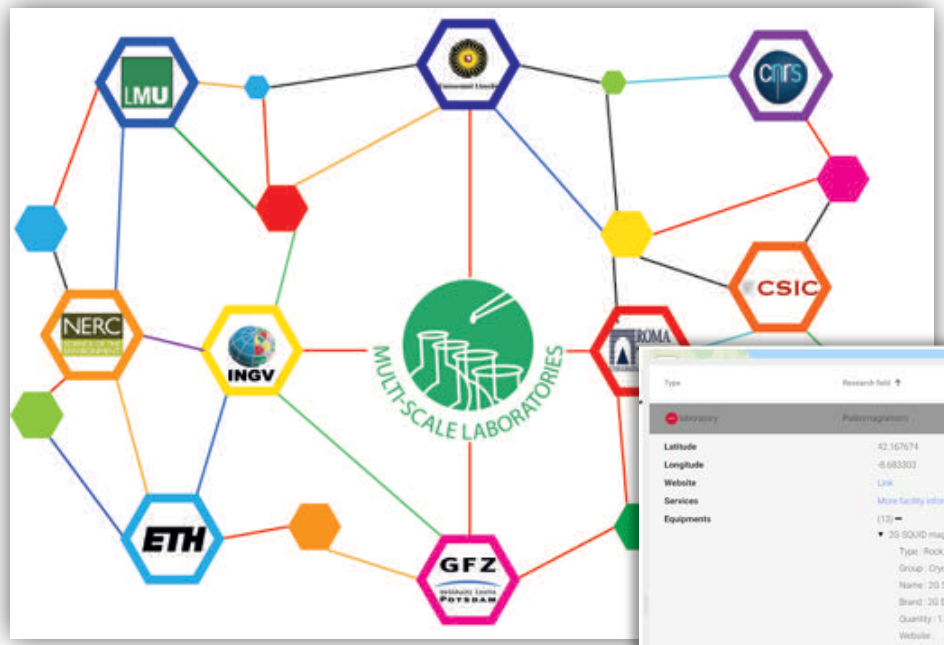
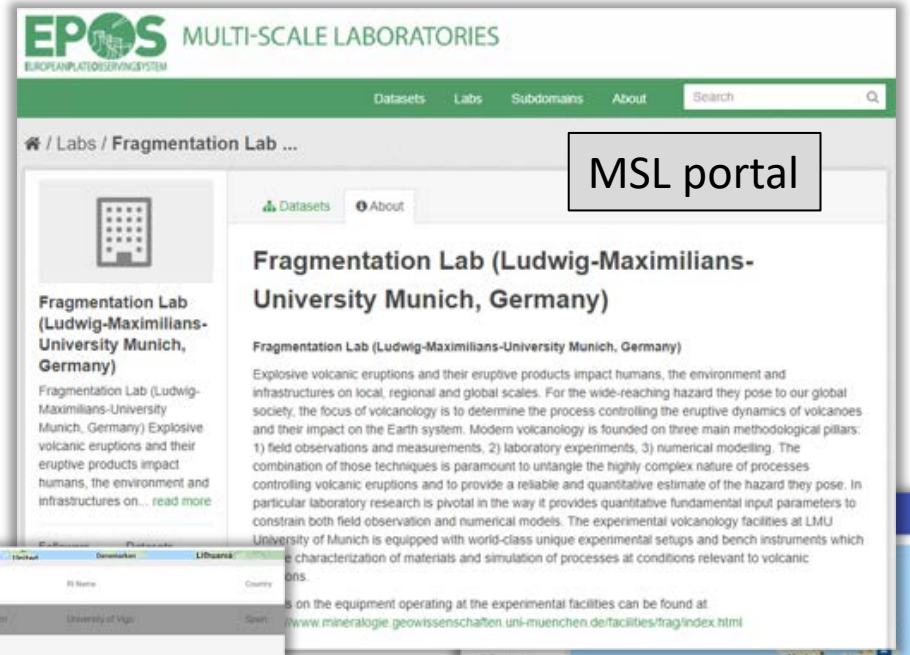
What's in it for laboratories?

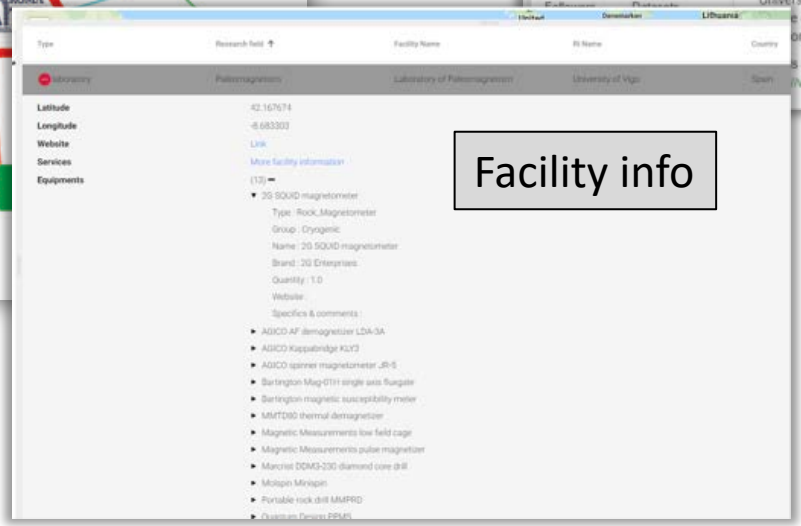
Become part of the EPOS MSL network



Visibility within the community



MSL portal



Facility info

Facilities

82 laboratories & growing!

Showcase facility information (672 instruments)

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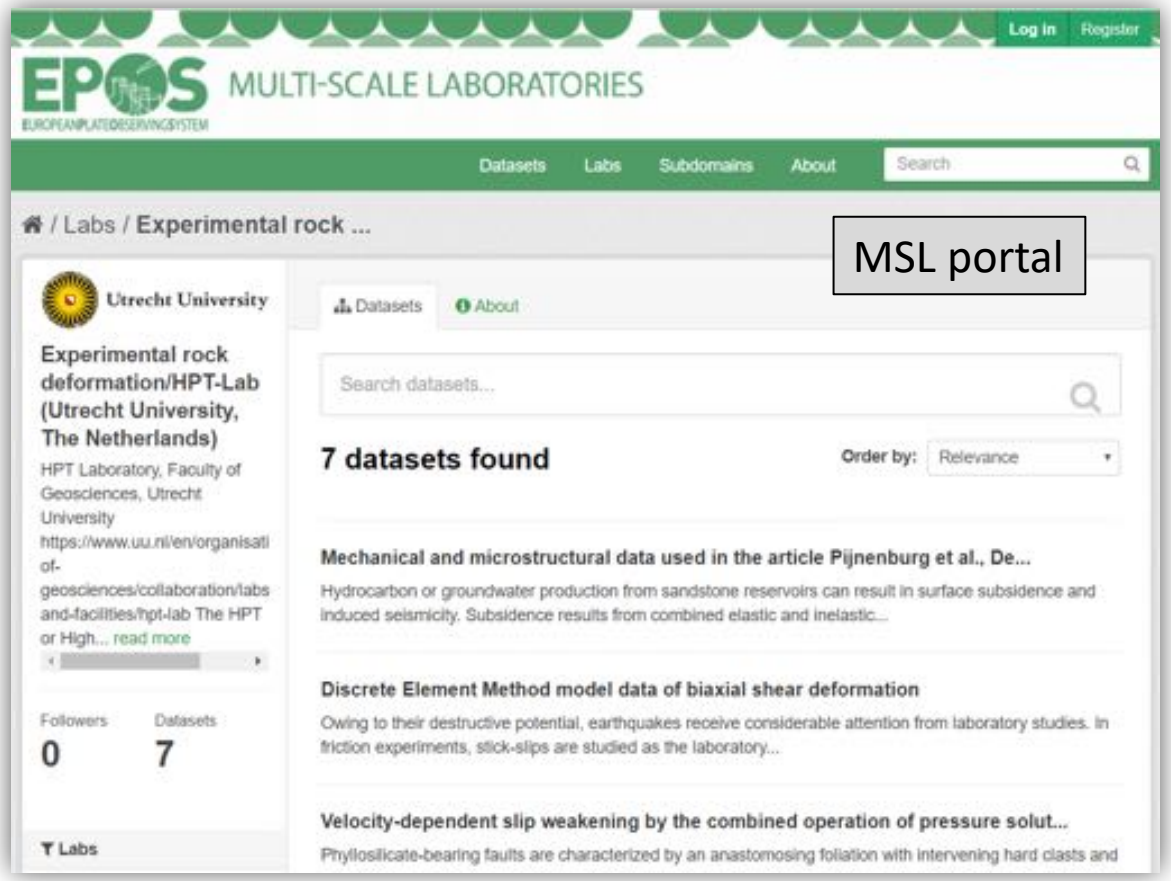
EPOS MULTI-SCALE LABORATORIES

What's in it for laboratories?

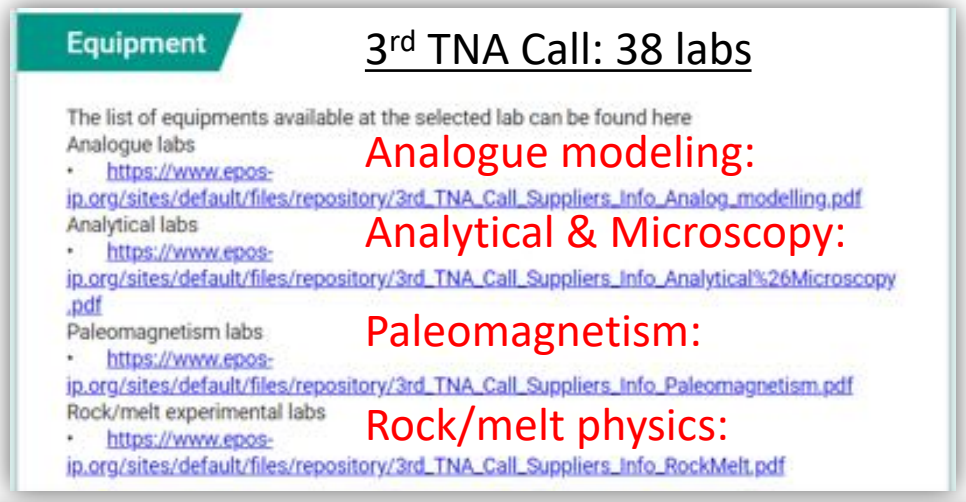
Share your research output



MSL portal

https://epos-msl.uu.nl

Open your lab for foreign researchers (TNA)



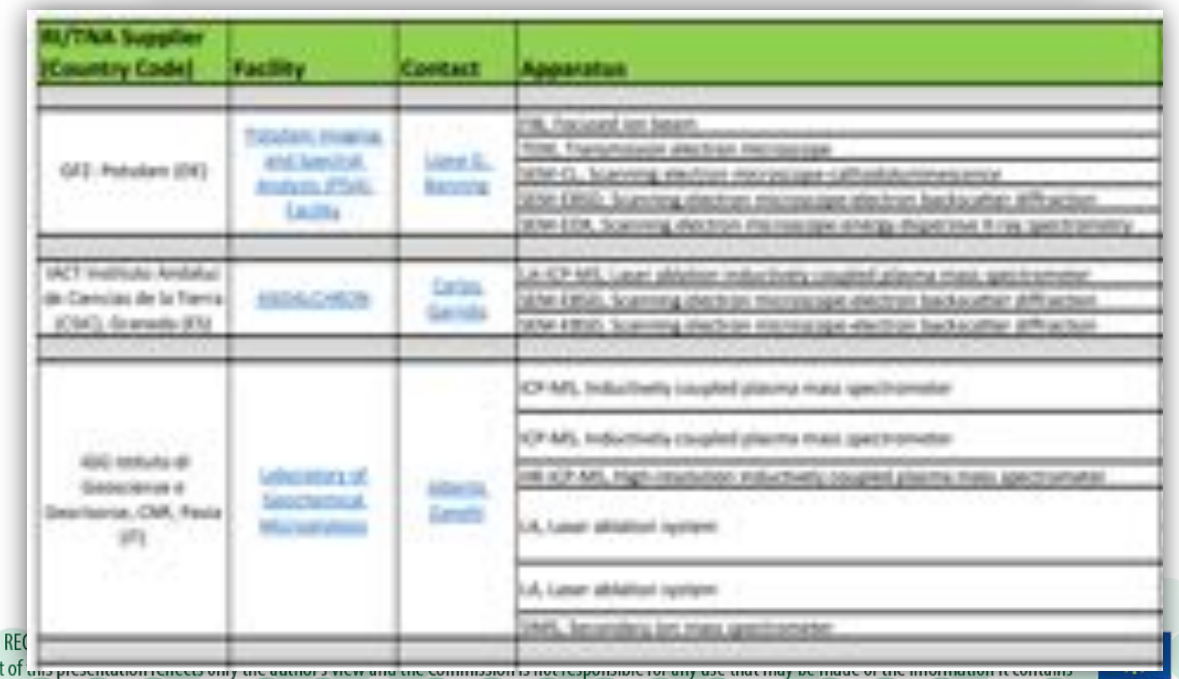
3rd TNA Call: 38 labs

Analogue modeling:

Analytical & Microscopy:

Paleomagnetism:

Rock/melt physics:



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EPOS MULTI-SCALE LABORATORIES

What's in it for researchers?

Why publish your research data through the EPOS Multi-scale labs?

- ✓ Make your research data ***F***indable, ***A***ccessible, ***I***nteroperable, ***R***eusable (***FAIR***) and citable for other scientist!
- ✓ Prevents you and your fellow scientists from re-inventing the wheel
- ✓ Stop a large part of your data ending up in the 'bottom-drawer', but getting used by colleagues instead

❖ Because the funder requires you to present a Data Management Plan and/or (the journal) requires you to publish your data in a FAIR manner…

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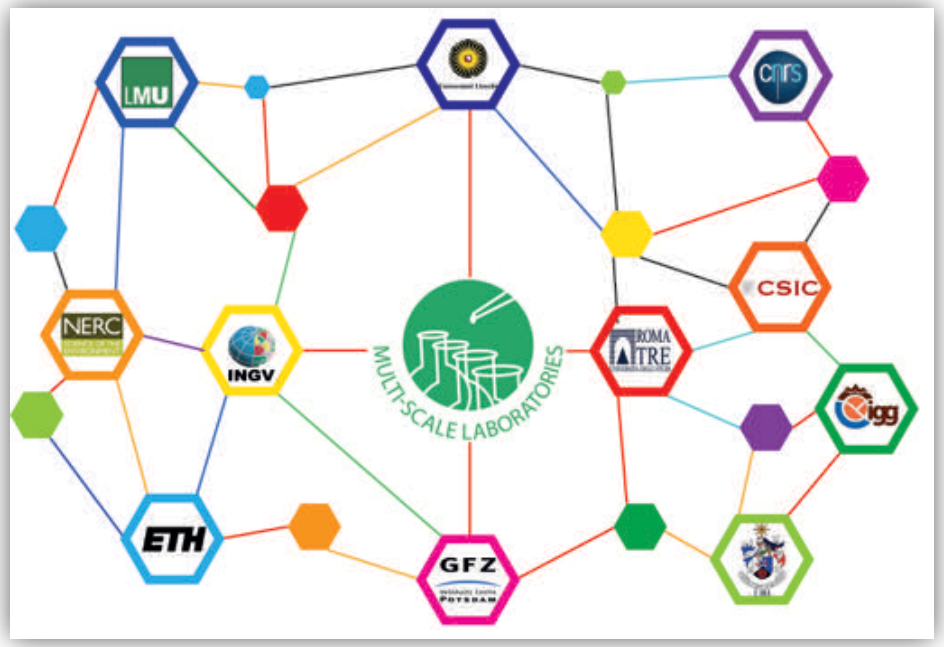
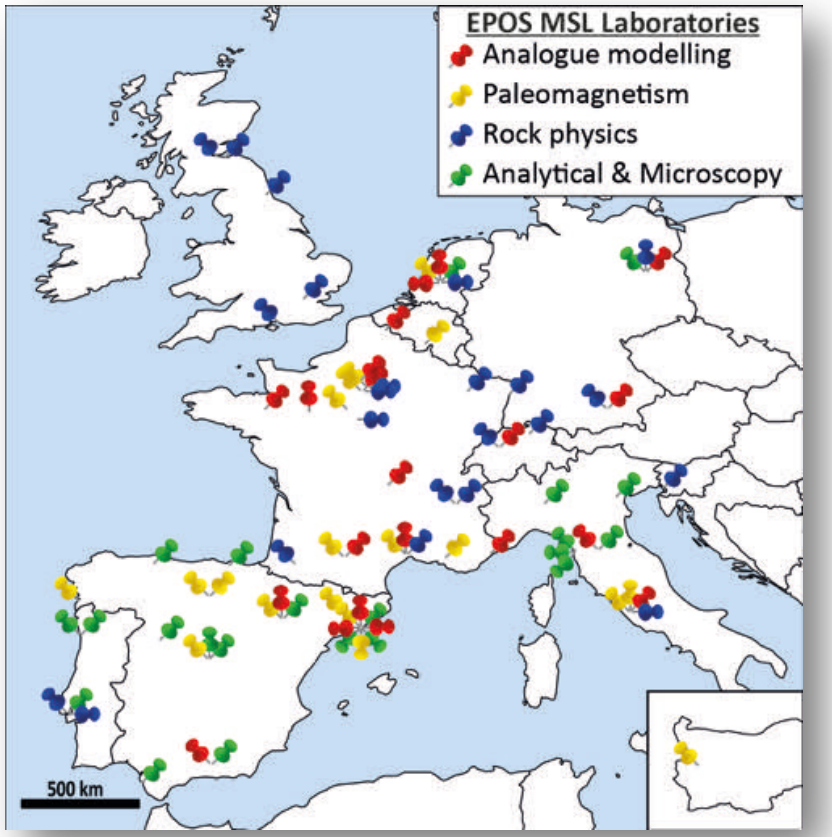
What's in it for researchers?

Collaborations with other labs/researchers (TNA)





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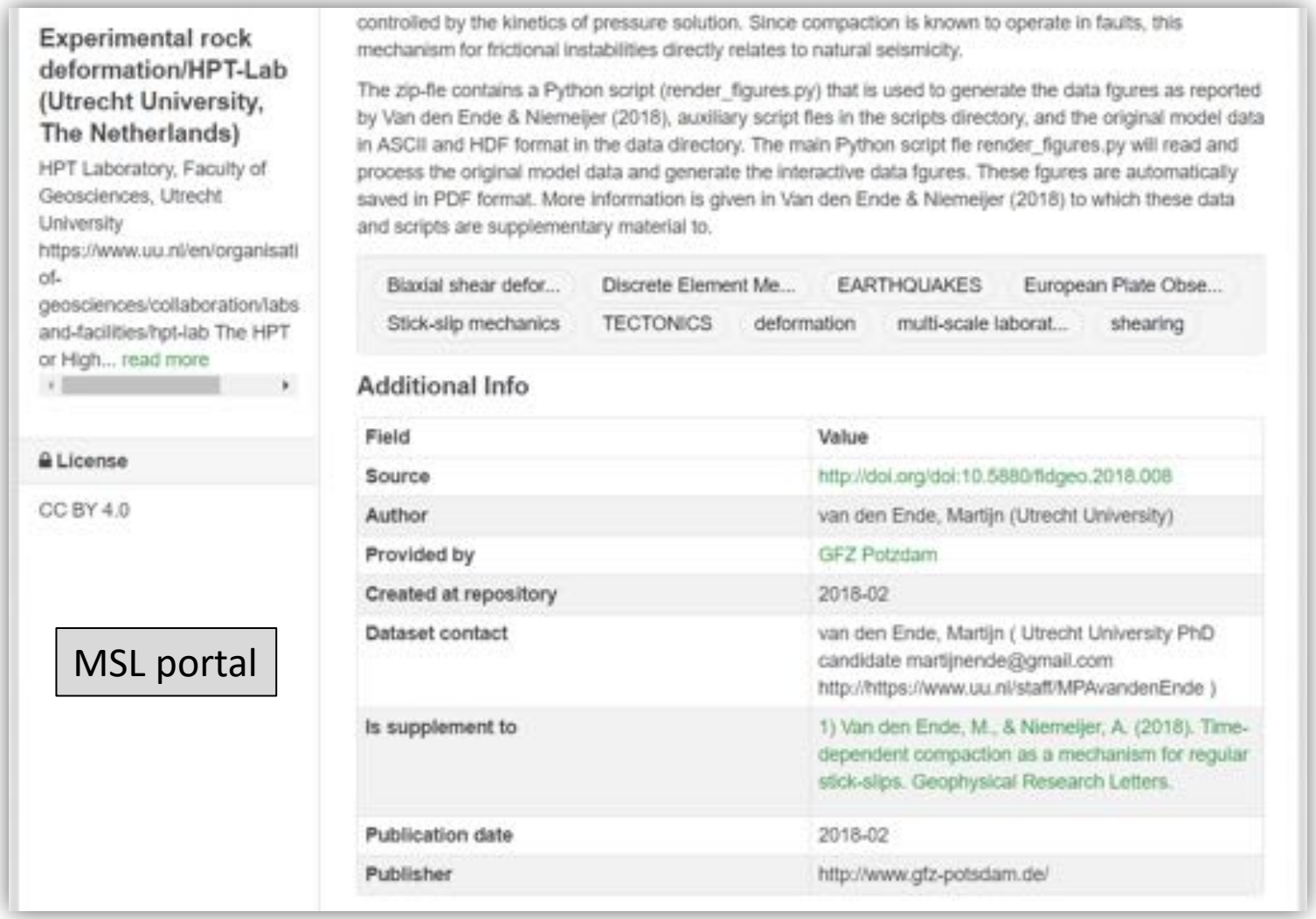
What's in it for researchers?

Citation index

Discovery of your research data



MSL portal

- **Journals (such as Elsevier) add links to the datasets (DOI) to already published papers!**

https://epos-msl.uu.nl

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Multi-scale laboratories: recap

- Mission: Create a coherent and well-organized network of solid Earth Science laboratories
- Organized in a Consortium of 11 members; contains 82 laboratories from 12 countries – and growing
- Fully operational Data Publication Chain: data – metadata – curation – storage – DOI – discovery
- Provides Trans-national Access (TNA) through affiliated laboratories

- **It is possible for laboratories/institutes to join the EPOS Multi-scale laboratory community!**

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EPOS EUROPEAN PLATE OBSERVING SYSTEM

tectonics earthquakes volcanic eruptions georesources surface dynamics

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