

## EPOS launches the European Portal for Open and Integrated Access to Multidisciplinary Scientific Data for Solid Earth Sciences

The platform "[EPOS Data Portal](#)" will be presented at the EGU General Assembly 2023 and will allow scientists, students and stakeholders to access multidisciplinary scientific data and products for understanding Earth dynamics. With the support of the Belgian Science Policy Office (BELSPO), Belgium is strongly involved in EPOS.

After more than 20 years of research and innovation, the European Plate Observing System ([EPOS](#)) will **officially present its central Data Portal** to the scientific community at the next **European Geosciences Union (EGU) meeting in Vienna on April 25, 2023 (EGU23)**.

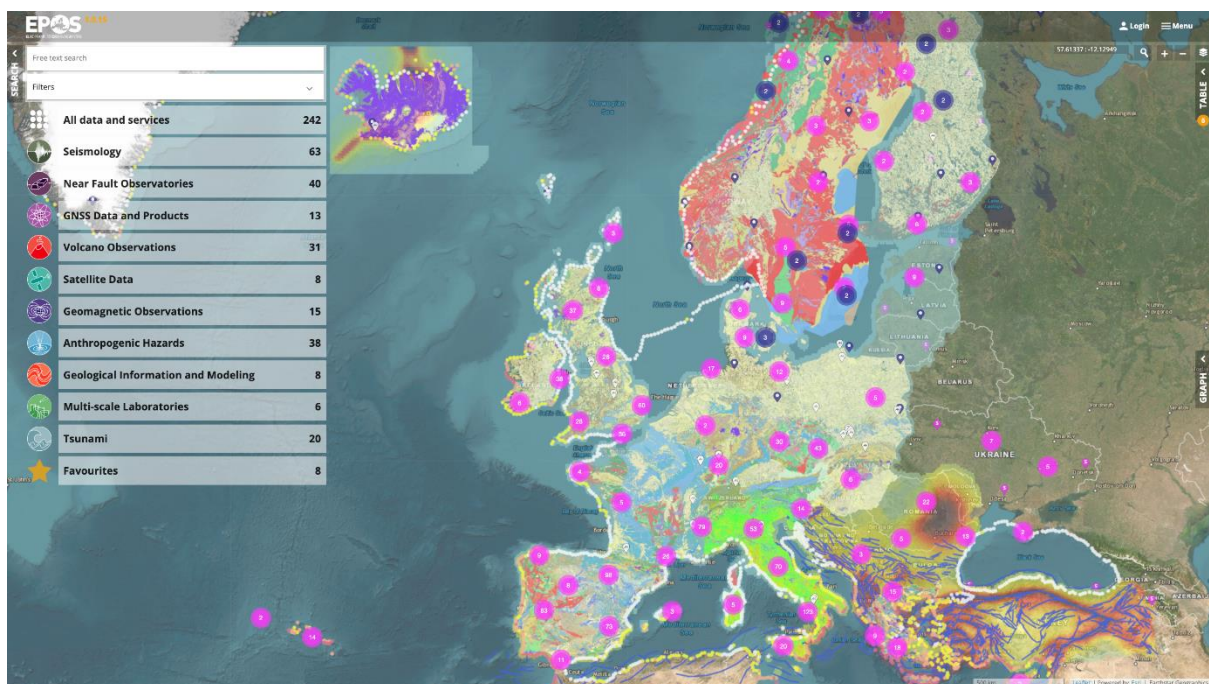


Figure 1. EPOS Data Portal functions and services

Born in 2007 with the aim of developing a long-term integration plan for sharing scientific data and products, EPOS has integrated around **150 national research organizations from 25 European countries** into a single distributed infrastructure. In 2018 EPOS obtained the legal status of **ERIC (European Research Infrastructure Consortium)** from the European Commission, with Belgium as one of its founding members.

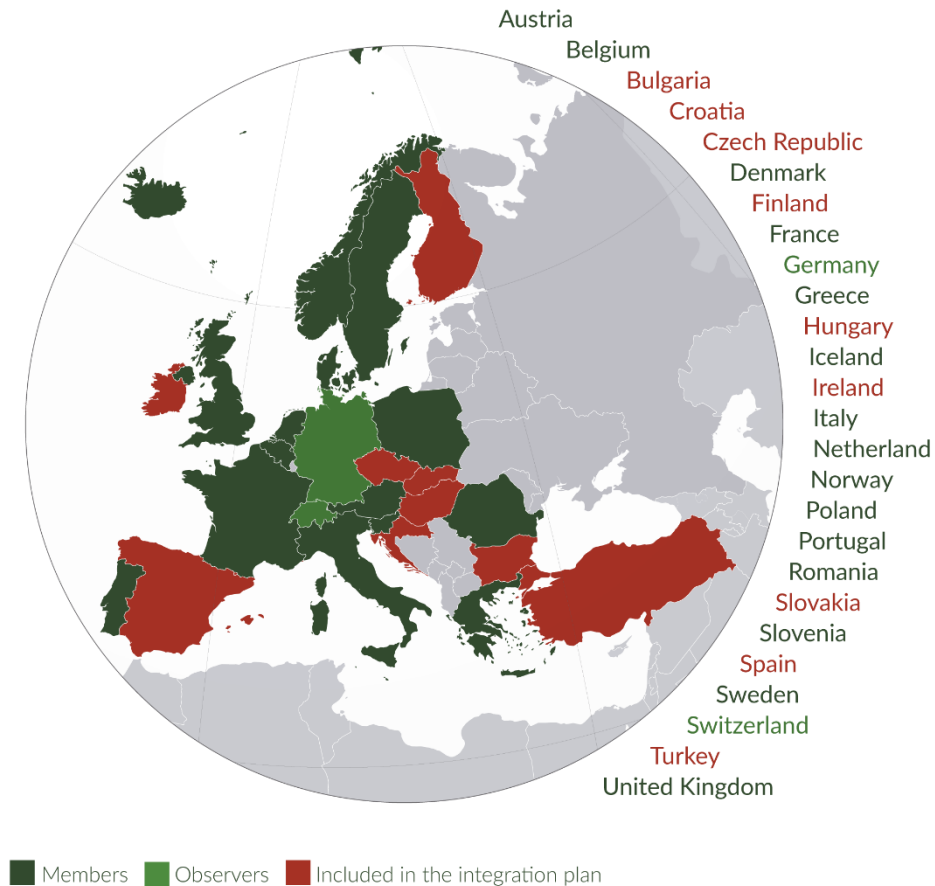


Figure 2. EPOS members (dark green), observers (light green), and countries included in the integration plan but not in EPOS-ERIC (red).

EPOS is the **first and only pan-European research infrastructure for solid Earth Science**, integrating and harmonizing over 60 types of metadata from various disciplines. The data, products and services made available by the EPOS Data Portal are aimed at a **large spectrum of users** (scientific community, institutions, political decision-makers) and promotes the progress of **open science research** to better understand Earth system dynamics. As such, EPOS will drive **research and innovation** to help researchers and national governments in the mitigation of natural hazards, the sustainable management of georesources (raw materials, water and energy), etc.

[Click here for more information on the EPOS architecture](#)

Thanks to the support of the Belgian Science Policy Office (**BELSP0**), Belgium is strongly involved in EPOS. From the onset, the Royal Observatory of Belgium (**ROB**) took a leading role in data and service provision to EPOS, being active in the **GNSS** (Global Navigation Satellite Systems) and **Seismology** thematic core services (TCS) of EPOS. BELSP0 supports ROB for this contribution through the **EPOS-BE (12/2018 - 06/2023)** and **SERVE ESFRI-FED (12/2021 - 12-2024)** projects.

EPOS-GNSS will provide access to GNSS data, metadata and data products from more than 3000 GNSS stations, to allow for the precise measurement of ground deformations. ROB's contribution to EPOS-GNSS is threefold: it is involved in its **governance and coordination**, delivers **GNSS data** from Belgian GNSS stations as well as GNSS stations belonging to the European [EUREF network](#), and provides **several pan-European GNSS Services**. These services are: (1) a GNSS station metadata management service [M<sup>3</sup>G](#), and (2) a service monitoring the [daily data quality](#) of the EPOS GNSS stations.

EPOS-Seismology provides access to seismological and earthquake-related information, and is built on various European community infrastructures in seismology that coordinate and operate data services. ROB provides (1) **seismic waveform data** from the [Belgian seismic network](#), (2) **historical** (pre-instrumental) **macroseismic data**, and (3) geological and paleoseismological data on the main **seismogenic faults** in Belgium.

[Click here for more detailed information on ROB's data and service provision to EPOS](#)

In a later stage, the Belgian contribution to EPOS has been extended to other federal and regional research institutions. Currently, also the Royal Meteorological Institute (**RMI**) and the Flanders Marine Institute (**VLIZ**) are providing data and services to EPOS in the **Geomagnetism** (RMI), **Multi-scale Laboratories** (RMI) and **Tsunami** (VLIZ) thematic core services of EPOS. The RMI provides (1) the **local geomagnetic vector** from its two Belgian geomagnetic stations, and (2) gives access to the experimental [facilities](#) of the **Laboratory for Environmental Magnetism** in Dourbes. VLIZ is responsible for (1) the management of the '[Global IOC Sealevel Station Monitoring Facility](#)' service in EPOS, and (2) provides data from its sealevel monitoring station in Ostend.

Through the SERVE ESFRI-FED project (BELSPO), **the uptake of EPOS at the Belgian level is aimed to be reinforced** in the near-by future. As such, additional data provision to EPOS from other Belgian research institutes is anticipated.

## *Save the date*

### **EPOS ERIC Data Portal launch event**

Tuesday **25 April, 19:00**, Room E2 **@Austria Center Vienna - EPOS Townhall**  
**"Introducing EPOS Data Portal"** (further information [here](#)).

Furthermore, **from 24 to 28 April**, the EPOS community will meet scientists from all geoscience disciplines at the **EPOS booth** (*Exhibition Gallery Green Level 1 - 111/112/113*).

The event will be part of the initiatives organised on the occasion of the EGU23 Annual General Meeting.

[Click here for more information on EGU23](#)