

# FAIR-GNSS



Funding source  
**National**

In-kind value  
**€250k–€500k**

Timeframe  
**2021–2023**

Target group  
**Researchers**

Scale  
**National**

Year of reporting  
**2022**

## Case study

The **FAIR-GNSS** project, led by the Royal Observatory of Belgium (ROB), and in collaboration with Ghent University, applied FAIR data principles to enhance ROB's Global Navigation Satellite System (GNSS) data repositories. It transformed decades of GNSS data into FAIR Data Objects with standardised metadata and Persistent Identifiers, making them accessible via APIs and an Open Data Portal. This improved data integration, discoverability, and reuse within the European Plate Observing System.



Collaborators:  
Ghent University



## Added value

- Revised and improved ROB's **GNSS data repositories** based on community feedback.
- Accompanied GNSS data files with user-requested metadata, adhering to **FAIR data principles**.
- Created an **Open Data Portal** with full station descriptions, standardised metadata, and data citation information.

## Problem addressed

The FAIR-GNSS project improved access to, confinement and preservation of ROB's GNSS data repositories. Initially, procedures were complex and not machine-readable. Metadata and data licenses were lacking, and there was no data citation procedure. The project not only modernised data management of the ROB database, but also responded to user demands and maximised the interoperability and discoverability of GNSS data.

223



### Streams

Number of streams transmitted by the ROB Broadcaster

53



### Broadcasters

Number of external broadcasters relayed by the ROB Broadcaster, along with streams from the EUREF Permanent Network (EPN) stations

1 156




### Users

Number of registered users with access to ROB's public repository




#### SRIA General Objective

G03: Establish a sustainable and federated infrastructure enabling open sharing of scientific results

#### Research areas

 Natural Sciences

#### Type of result

 Infrastructure  Tool  
 Service