

Global Navigation Satellite System (GNSS) consist of constellations of satellites that transmit positioning and timing signals to receivers on Earth. These receivers process the signals to accurately determine location, enabling precise geodetic measurements and long-term monitoring of surface deformation.

GNSS data is essential in Geodesy, the science of measuring the Earth's shape and how it evolves over time due to natural and anthropogenic processes.

The **GNSS DATA AND PRODUCTS TCS** provides access to GNSS data, metadata, and derived products through EPOS, supporting research in Geodesy and Solid Earth science.

It also coordinates the archiving and standardization of GNSS resources, including position time series, velocity fields, and strain rate fields, while promoting best practices for station operation, data quality control, and open data management.

Services

4 COMMUNITY PORTALS



www.epos-eu.org/tcs/gnss-data-and-products

The GNSS TCS provides access to a variety of European and regional geodetic data, metadata, products, and software. It works closely with EUREF, and national and regional GNSS networks to ensure standardized data integration and broader interoperability.

GNSS DATA, DATA PRODUCTS and SERVICES support the study of Earth's surface motion across different timescales, from sudden displacements caused by earthquakes to the slow movement of tectonic plates.

In addition, integrating GNSS DATA AND PRODUCTS with data provided by other EPOS TCS fosters multidisciplinary research at a Pan-European and global level.

EPOS, the **European Plate Observing System**, is a multidisciplinary, distributed research infrastructure that facilitates the integrated use of data, data products, and facilities from the solid Earth science community in Europe. EPOS ensures the long-term access to Solid Earth science data and services, with the goal of answering some of the most pressing societal questions concerning geo-hazards and those geodynamic phenomena relevant to the environment and human welfare.

