

EPOS-GNSS – Current status of service implementation for European GNSS data and products

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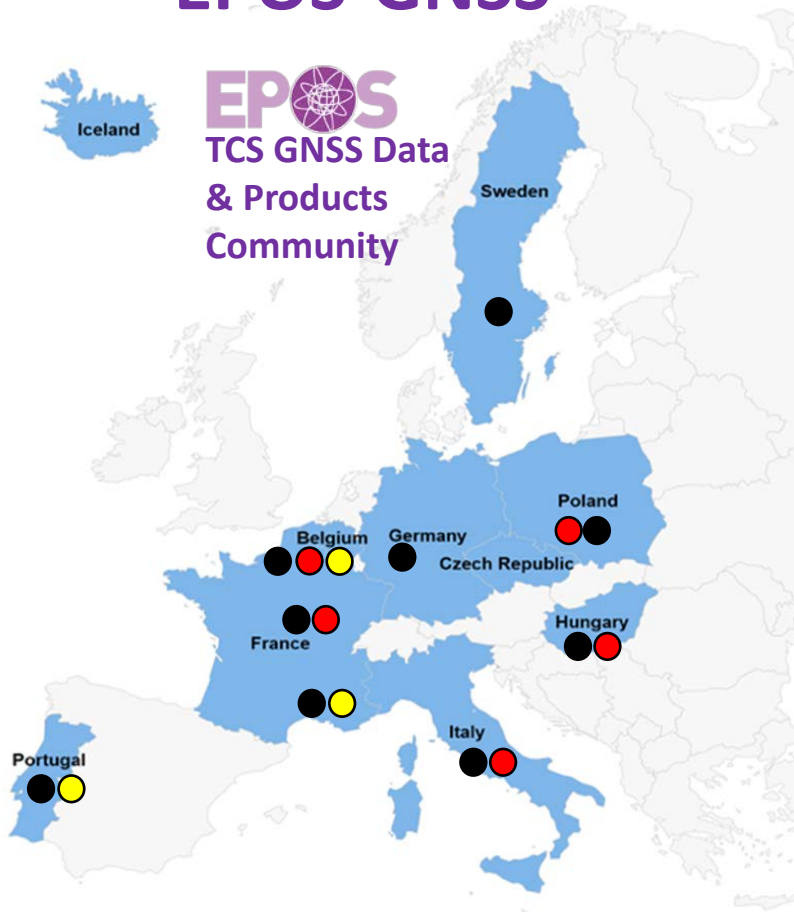
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- (2) Royal Observatory of Belgium, Reference Systems and Planetology, Belgium
- (3) Université Côte d'Azur, CNRS, Observatoire de la Côte d'Azur, France.
- (4) Université Grenoble Alpes, Univ. Savoie Mont Blanc, CNRS, France
- (5) Istituto Nazionale di Geofisica e Vulcanologia, Osservatorio Nazionale Terremoti, Italy
- (6) Lantmäteriet, Geodetic Infrastructure, Sweden
- (7) Satellite Geodetic Observatory, Hungary
- (8) Warsaw University of Technology, Department of Geodesy and Geodetic Astronomy, Poland
- (9) Federal Agency for Cartography and Geodesy, Germany
- (10) Research Institute of Geodesy, Topography and Cartography, Czech Republic
- (11) Institute of Geodynamics, National Observatory of Athens, Greece

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EPOS-GNSS



EPOS
TCS GNSS Data
& Products
Community



GNSS EPOS Service Providers

List of core stakeholders:

- BKG** Bundesamt für Kartographie und Geodäsie, DE
- CNRS-UGA** Université Grenoble Alpes, FR
- CNRS-OCA** Observatoire Cote d'Azur, FR
- INGV** Istituto Nazionale di Geofisica e Vulcanologia, IT
- LM** Lantmäteriet, SW
- ROB** Royal Observatory of Belgium, BE
- SGO** Space Geodetic Observatory, HU
- UBI/C4G** Univ. Beira Interior, PT
- WUT** Warsaw University of Technology, PL

- 5 Analysis Center's
- 3 Portals (M³G, Data, Products)
- 11 Service Providers

- + Data Providers (National Research Infrastructures)
- EUREF (Data, Data Products & Services)



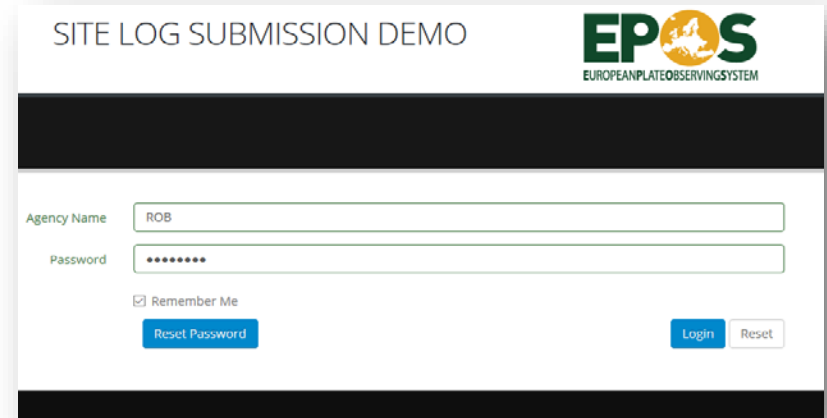
Added value of EPOS GNSS Data & Products

- **Sustainability within EPOS:**
 - Countries that join EPOS-ERIC commit to maintain their GNSS infrastructure integrated in EPOS (stations, operation).
 - Service Providers chosen based on the commitment of the countries to sustain them on long-term (EPOS-ERIC operation).
- **Provision of software tools (GLASS):**
 - Standardized data quality check and visualization
 - Standardized exchange of metadata
 - Seamless data access
 - To be made globally available

M³G CENTER

PORTAL (Metadata Management and distribution system for Multiple GNSS Networks)

- The system allows upload, validate, and distribute GNSS station metadata (e.g. site logs)
- Its main purpose is to serve to submit and validate metadata and contribute to the densification of GNSS networks.



The screenshot shows a web interface for 'SITE LOG SUBMISSION DEMO'. At the top right is the EPOS logo (EUROPEAN PLATE OBSERVING SYSTEM). The form contains the following elements:

- Agency Name: Input field with 'ROB' entered.
- Password: Input field with masked characters '*****'.
- Remember Me: A checked checkbox.
- Reset Password: A blue button.
- Login: A blue button.
- Reset: A grey button.

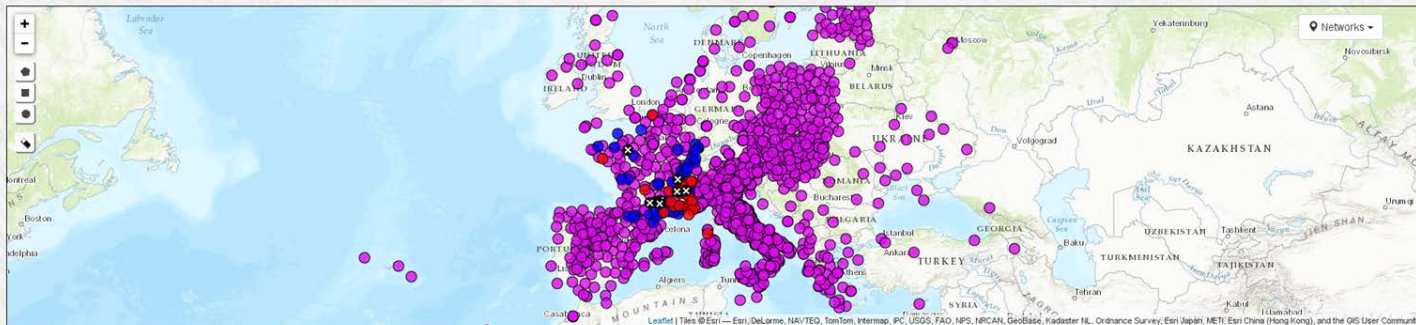
<https://gnss-metadata.eu/>

DATA PORTAL



Download - Show spatial selection Show advanced search

Files Search Clear Run Search



4 Char ID	Site Name	Lat	Lon	Alt	Install Date	End Date	Country	State	City	Agency	Network
		greater than less than	greater than less than	greater than less than	greater than	less than					
✓ AGDE	Cap d'Agde purificat...	43.2964	3.4664	67	2006-09-04 12:00:00	2017-04-21 16:16:08	FRANCE	Herault	CAP D'AGDE - AGDE	GM	RENAG RGP
✓ AIGL	Mont Aigoual	44.1214	3.5813	1618.8	2001-06-01 00:00:00	2017-04-21 16:16:08	FRANCE	Gard	VALLERAUGUE	GM	RENAG RGP
✓ ALPE	Alpe d'Huez	45.0866	6.0835	1892.2	2006-10-30 00:00:00	2017-04-21 16:16:08	FRANCE	Isere	ALPE D'HUEZ	ISTerre	RENAG RGP
✓ ARUF	ARUDY	43.0996	-0.4311	482	2014-03-13 00:00:00	2017-04-21 16:16:08	FRANCE	Pyrenees-Atlantiques	ARUDY	OMP-GET-CNES	RENAG RGP
✓ AUBU	Aubure	48.2168	7.1967	1151.8	2008-07-05 00:00:00	2017-04-21 16:16:08	FRANCE	Haut-Rhin	AUBURE	EOST	RENAG RGP
✓ BANN	Fort de Banne	44.3692	4.1563	416	2003-07-03 00:00:00	2017-04-21 16:16:08	FRANCE	Ardeche	BANNE	ISTerre	RENAG RGP
✓ BLVR	Belvoir	47.3235	6.5668	714.6	2013-07-03 00:00:00	2017-04-21 16:16:08	FRANCE	Doubs	BELVOIR / LES CH...	OSUTHETA	RENAG RGP
✓ BUAN	Bure-Andra	48.4862	5.3536	416.3	2007-11-13 00:00:00	2017-04-21 16:16:08	FRANCE	Meuse	BURE	EOST	RENAG RGP
✓ CHIZ	CHIZE	46.1335	-0.4077	113.2	2000-10-19 00:00:00	2017-04-21 16:16:08	FRANCE	Deux-Sevres	CHIZE	LIENSs	RENAG RGP
✓ CHTG	Cherbourg	49.6512	-1.6355	54.93	2015-02-20 00:00:00	2017-04-21 16:16:08	FRANCE	Manche	CHERBOURG	LIENSs	RENAG RGP
✓ CHTL	Le Chatel	45.3042	6.3588	838.8	1997-10-14 00:00:00	2017-04-21 16:16:08	FRANCE	Savoie	LE CHATEL	ISTerre	RENAG RGP
✓ CLFD	Clermont-Ferrand	45.761	3.1111	474	2006-10-17 00:00:00	2017-04-21 16:16:08	FRANCE	Puy-de-Dome	CLERMONT-FERR...	OPGC	RENAG RGP

<https://gnssdata-epos.oca.eu/>

PRODUCTS

- **Daily solutions + metadata**

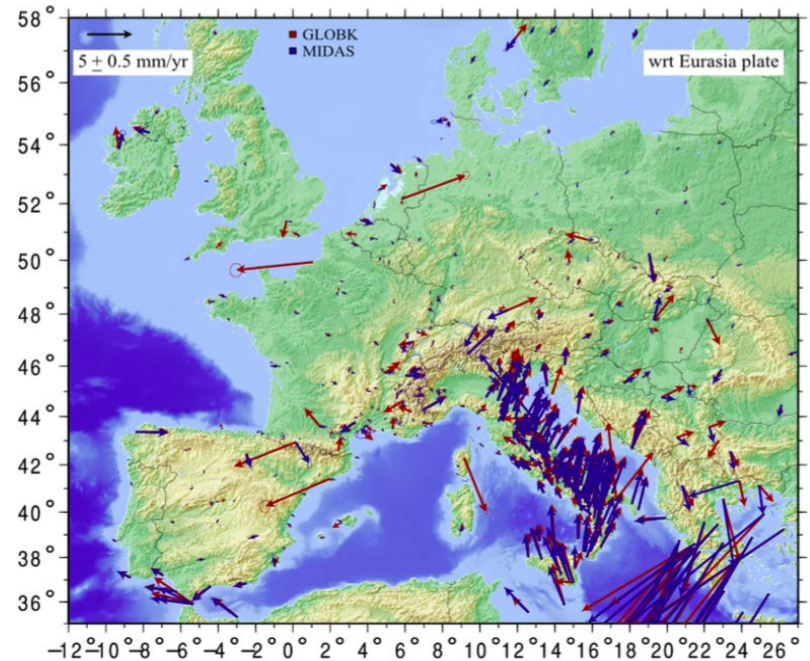
- 2 Pan-European processing centers (INGV, UGA-CNRS)
- EUREF solutions (WUT)
- Densified solution EUREF/EPOS (SGO)

- **Daily time-series & velocity fields + metadata**

- Single technique Solutions (INGV, UGA-CNRS)
- Combined Solution (SGO)
- EUREF Reference Frame Solution (ROB)
- Validation (UBI)

- **Strain Rate maps + metadata**

- Global + Regionals (LM)



PRODUCTS PORTAL

The screenshot displays the GNSS Products Portal interface. At the top, the browser address bar shows the URL <https://gnssproducts.epos.ubi.pt>. The page header includes the EPOS logo and the text "GNSS PRODUCTS PORTAL". Navigation links for "Survey", "Info", "Data Portal", and "Login" are visible. The main content area features a map of Europe with numerous station locations marked by purple icons. To the right of the map are "Data Controls" (Timeseries, Velocities, Power Spectral Density, Strain Rate) and "Filters" for Networks and Analysis Centres. Below the map is a table of station data.

9-Char ID	Site Name	Altitude	Country	City	Agency	Network	Availability
002200DEU	Frankfurt Oder, DE	108.97	Germany	--	Not disclosed	UNKNOWN	<input type="radio"/>
002600DEU	Guben, DE	109.38	Germany	--	Not disclosed	UNKNOWN	<input type="radio"/>
013900DEU	Rothenburg, DE	220.43	Germany	--	Not disclosed	UNKNOWN	<input type="radio"/>
014700DEU	0147	380.99	Germany	--	Not disclosed	UNKNOWN	<input type="radio"/>
078100DEU	Ahlbeck, DE	57.39	Germany	--	Not disclosed	UNKNOWN	<input type="radio"/>
AARS00BEL	Aarschot, BE	104.67	Belgium	--	Not disclosed	UNKNOWN	<input type="radio"/>

<http://gnssproducts.epos.ubi.pt/>

DOCUMENTATION:

GNSS TCS <https://www.epos-ip.org/tcs/gnss-data-and-products>

PORTALS:

M3G <https://gnss-metadata.eu/>

DATA <https://gnssdata-epos.oca.eu/>

PRODUCTS <https://gnssproducts.epos.ubi.pt/>

DISSEMINATION:

<https://www.youtube.com/watch?v=PpJyfFfCSkQ>

<https://www.youtube.com/watch?v=f54nlliid5U>

<https://www.youtube.com/watch?v=NqInMhkCgMI>