



**RÉPUBLIQUE
FRANÇAISE**

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INSTITUT NATIONAL
DE L'INFORMATION
GÉOGRAPHIQUE
ET FORESTIÈRE

Institut national de l'information géographique et forestière EUREF 2025 -
National report FRANCE

NATIONAL REPORT FRANCE

EUREF 2025 Symposium
Covilhã

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GNSS PERMANENT NETWORK

RGP Network

IGN acts as a coordinator of ~ 50 partners
private networks, public and scientific sector

500 permanent stations (31/05/2025)

454 stations in continental Europe

34 stations are integrated in EPN (26 active)

261 stations are integrated in EPOS

Hourly, daily and weekly solutions

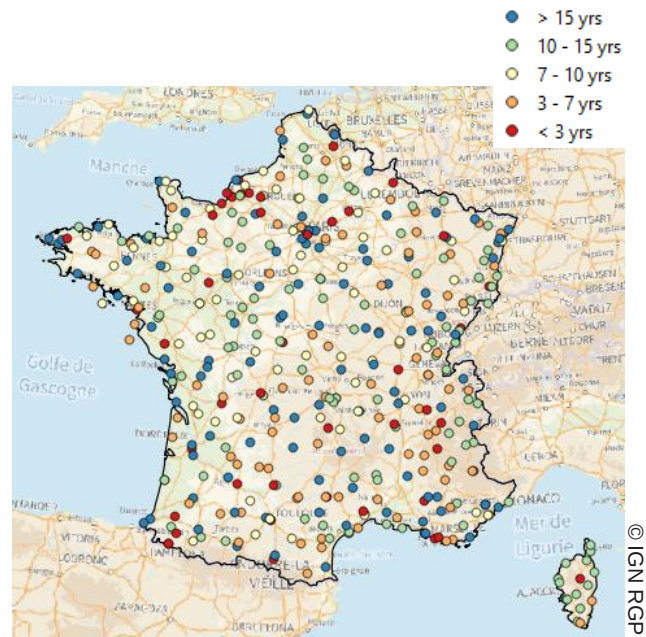
Cooperation with Météo-France for hourly ZTD production

Services

Website : <https://rgp.ign.fr> > 3000 visitors / month

RINEX data download: ~1500 visitors / month - ~ 600 Gb / month

Online GNSS processing service (differential and PPP): > 600 requests / month



CONTRIBUTIONS TO THE GLOBAL GEODETIC INFRASTRUCTURE

IGS

- ➔ IGS reference frame combination center
- ➔ Global data center



EUREF / EPN

- ➔ Analysis center and local data center
- ➔ Contribution to EPN repro3 campaign



DORIS

Partnership with CNES

- ➔ Network maintenance and evolution
- ➔ IDS data center
- ➔ IDS analysis center



REGINA

Partnership with CNES

Global GNSS network of 40 stations with real-time capacities, integrated in the IGS network

- ➔ Operational infrastructure management
- ➔ Redundant mission center



SONEL

Partnership between CNRS, IGN, SHOM, LEGOS, LIENSs

Sea-level observation from tide gauges and GNSS
Datacenter for GLOSS (Global Sea Level Observing System)

- ➔ GNSS data center
- ➔ GNSS stations implantation, management and measurement



LEVELLING

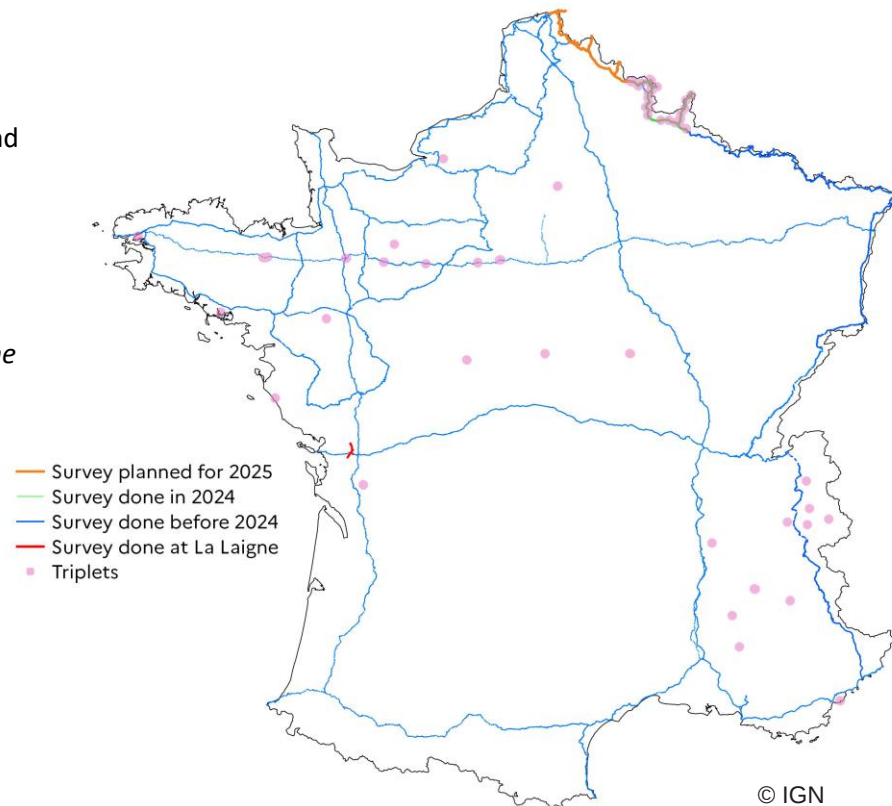
Scientific Levelling : NIREF

2022-2025: Completion of a ~ 800 km levelling line between Strasbourg and Dunkirk

- ➔ 2024: 270 km realized including junctions with the first-order Belgian levelling network
- ➔ 2025: Finalization of the levelling line from Bavay to Dunkirk
- ➔ 2024-2025: Continuation of 24-hour GNSS observations on the NIREF line between Strasbourg and Brest for the EHRs

National levelling network

- ➔ A new levelling campaign at La Laigne after 2023 seismic event
- ➔ New levelling and GNSS observations following the destructions of some triplet benchmarks



GRAVIMETRIC NETWORK

National Gravimetric Network

2024: Maintenance of the national gravimetric network

- ➔ 25 relative lines and 11 gradients
- ➔ 43 absolute gravity measurements
- ➔ Improvement of the national gravimetric network by point densification
- ➔ *Acquisition of a new Scintrex CG-6 relative gravimeter*



Gravimetric network

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PERSPECTIVES

InSAR infrastructure

Evaluation of the contributions of this technology to the maintenance of geodetic networks
Creation of multi-technique reference stations
(GNSS + inSAR reflectors/transponders)

Geodetic software

Comp3D software suite (Comp3D, PyPrepaComp, CompGIS) is now distributed as open-source under the GPLv3 license

GNSS permanent network

RINEX3 compatible in 2025
Cloud-based infrastructure in 2027

Levelling

Hydrodynamic levelling is used to connect Corsica to mainland, with several Corsican tide gauges linked to Marseille
Plans to connect Corsica with other European tide gauges
Chronometric levelling: Connection to time metrology laboratories



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THANK YOU
FOR YOUR ATTENTION



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