

National report of Slovenia

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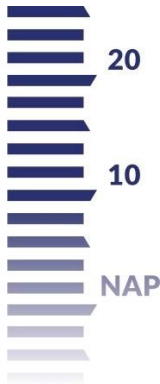
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EUREF 2018 SYMPOSIUM

AMSTERDAM 30 May – 1 June 2018

Slovenia



evening levelling

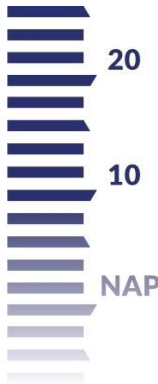


mont TRIGLAV (2864m)

Slovenia normal benchmark FR1049



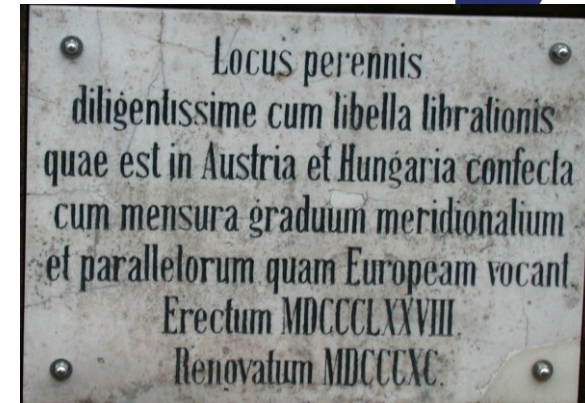
- Austro-Hungarian Empire
- (Hauptfixpunkte No. 374)
- set up in **1878**
- Altogether 7 in levelling network
(only 1 preserved ?)
- the horizontal surface is a embossed stone
(above 1 dm²)
- with a Latin inscription



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Slovenia normal benchmark FR1049



Presentation topics

- Terrestrial Reference Frame
- National CORS Networks
- Local to ETRS89 Datum Transformation
- Vertical Reference Frame

Terrestrial Reference Frame

“EUREF Slovenia 2016” GNSS Campaign

Main goals:

- to check the consistency
- to re-connect the national CORS networks with the passive (EUREF) network.

Facts:

- the **new D17** realization of ETRS89 in Slovenia (IGb08/ETRF2000) will not be directly implemented as the new CRS in Slovenia; we'll still be using the **D96** realization,
- to improve the quality of the coordinates in the SIGNAL network, but within the existing realization of ETRS89 in Slovenia.

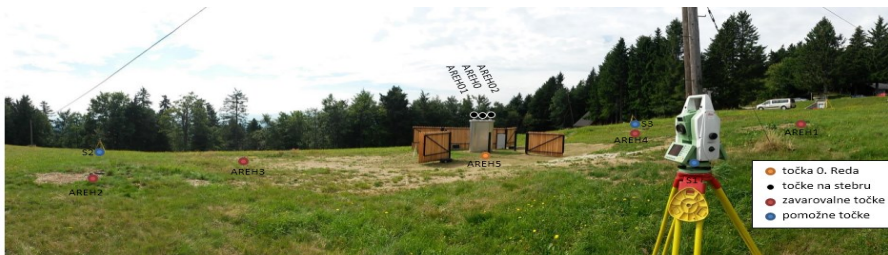
The reasons are practical; we would not like to bother the cadastral community.



National Combined Geodetic Network

Zero-Order-Network

- 6 locations, distances of ~ 100 km
- 10 continuously operating GNSS stations – two NEW, altogether 4 “double stations”
- All antennas individual absolute calibration, new DOMES numbers
- Future national spatial reference system realisation



National Combined Geodetic Network

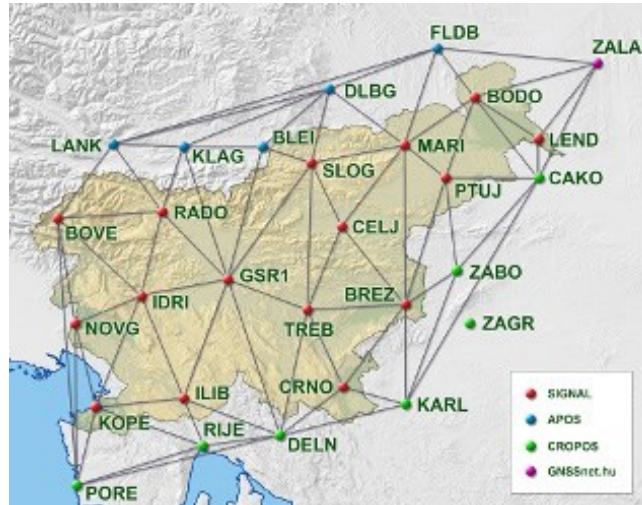
Co-location with other measurements techniques

- Tide gauge station (KOPER)
- Absolute gravity benchmark (AREH)
- 1st. order triangulation point (KORADA)
- Seismic station (KOG)



SIGNAL Network

- Slovenian GBAS network of **16 continuously operating GNSS stations** (KOPE is also zero-order station, GSR1 is also EPN station)
- **Upgrade with identical redundant system in 2017**
(testing purposes and back-up system) on Trimble PIVOT platform



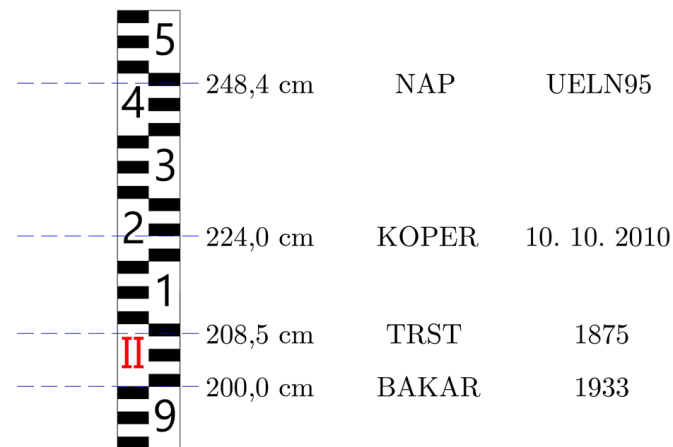
Local to ETRS89 Transformation

- National Local to ETRS89 Datum **Transformation Model** of Slovenia was published in 2017
- Freeware tool for transformation (<http://www.e-prostor.gov.si/aplikacije/page/2/>)
- Transformation of all spatial data (**including cadastral**) till end of 2018

Vertical Reference Frame

Towards a New Height Reference System → 1.1.2019

- Changing from
normal orthometric, datum Trieste (yr.1875) to
normal heights, datum Koper (yr. 2010)
- Shift -128mm (from -9 to -215 mm)



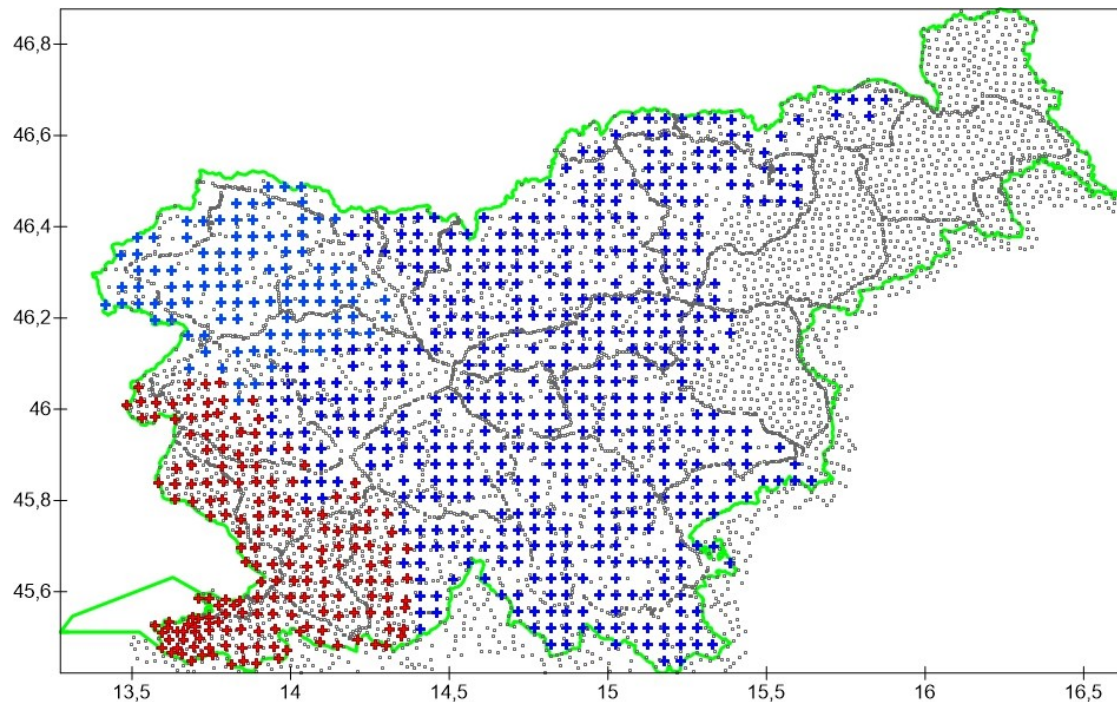
- New 1.st order levelling network (~2000km) → contribute to **UELN**

Gravimetric data

New **regional gravimetric survey** still going on

- **Blue dots** in 2015 (~600 points)
- **Red dots** in 2017 (~200 points)
- To measure (~300 points)

Goal: new raster min. 4 x 4 km



Thank you for your attention