

EUVN_DA

FINAL REPORT (? !)

EUVN_DA WORKING GROUP:

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EUREF SPRING TWG meeting, 8-9 March, 2010, Vienna

EUVN_DA POINT DISTRIBUTION

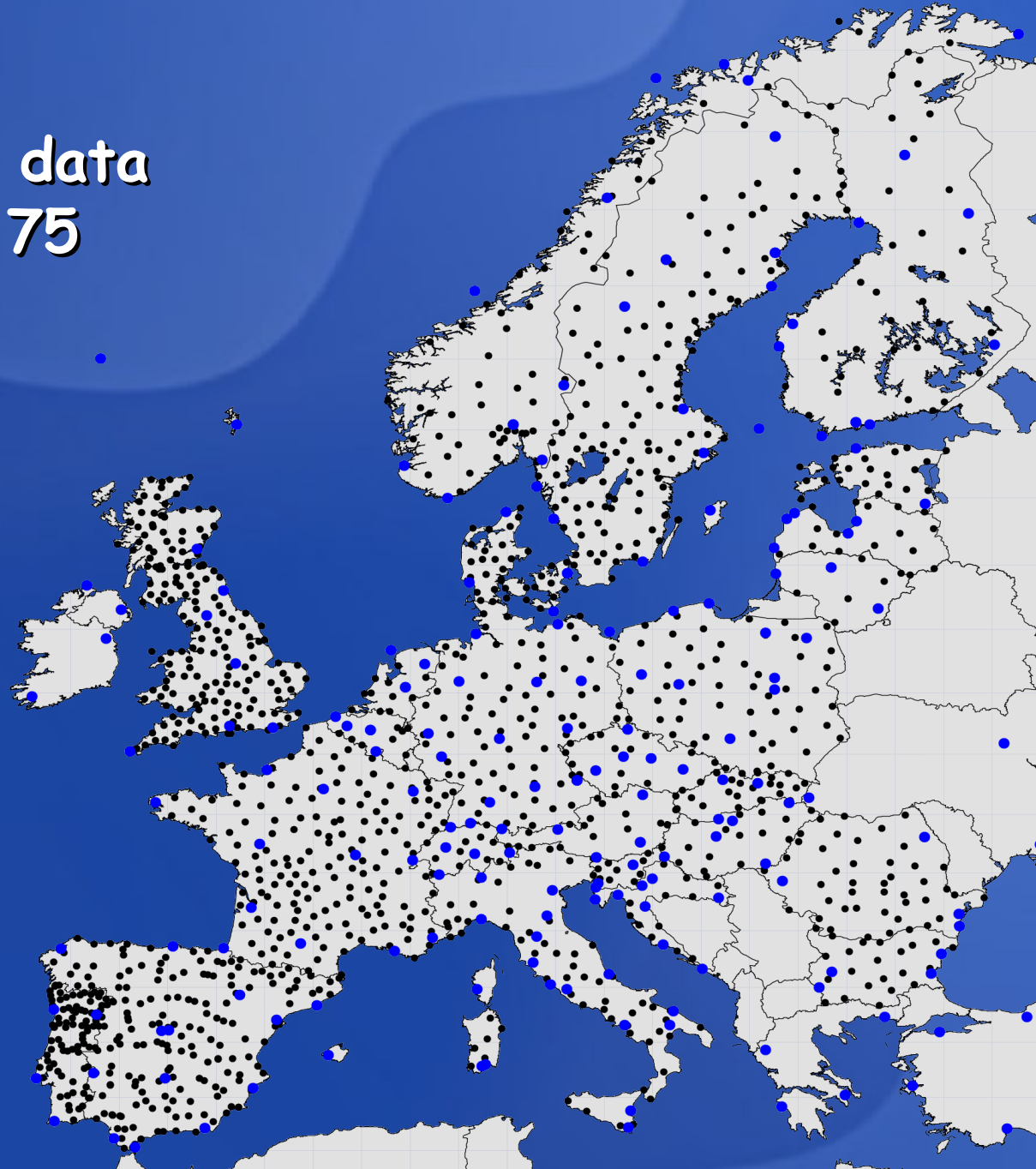
The only change: Italian data
195 → 75

Totally 1400 points
(25 UELN countries)

h: ETRS89(GRS80)

H: EVRS2007(UELN)
UK, Spain, Portugal, Italy
TRANSFORMATION

Reference epochs

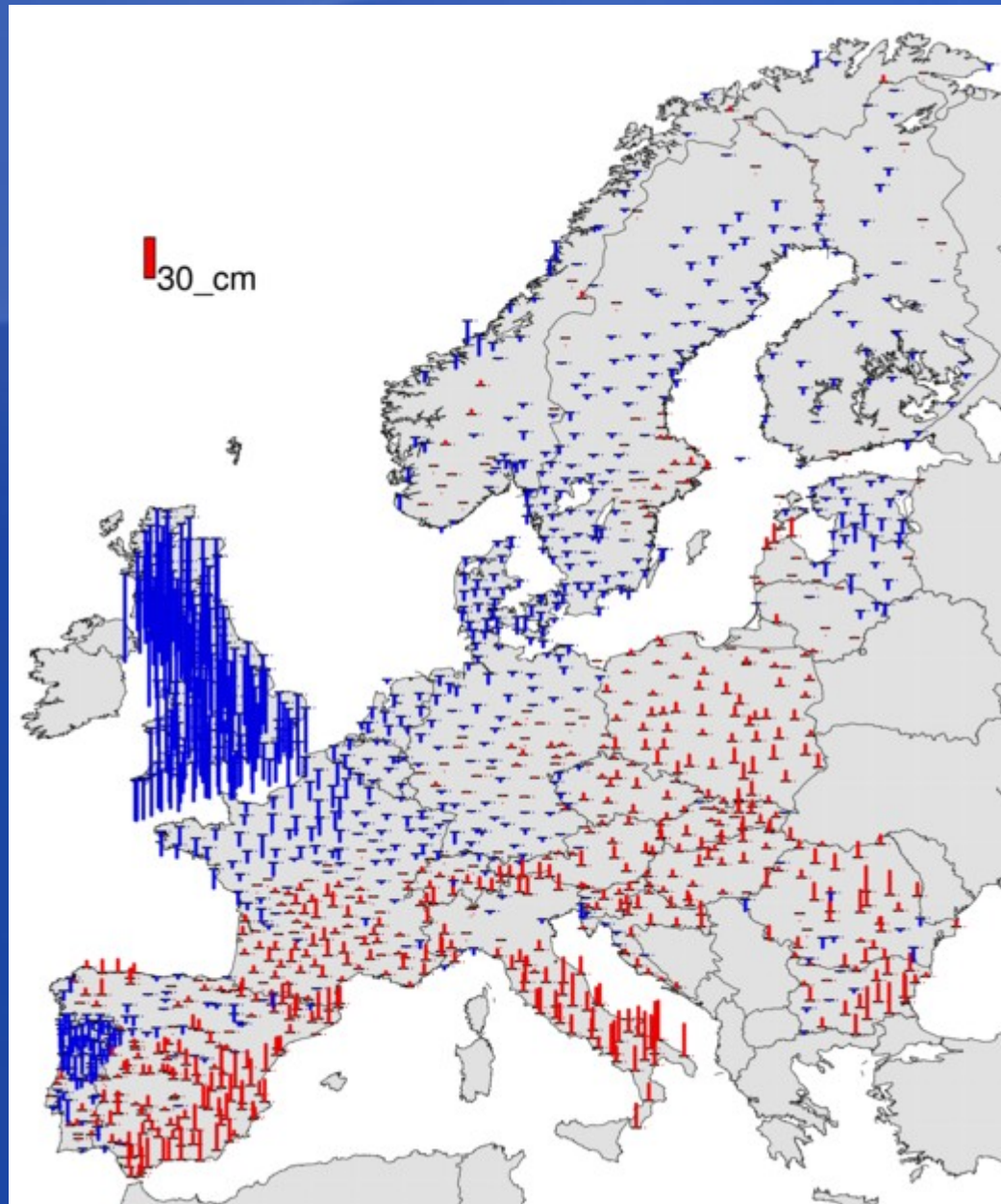
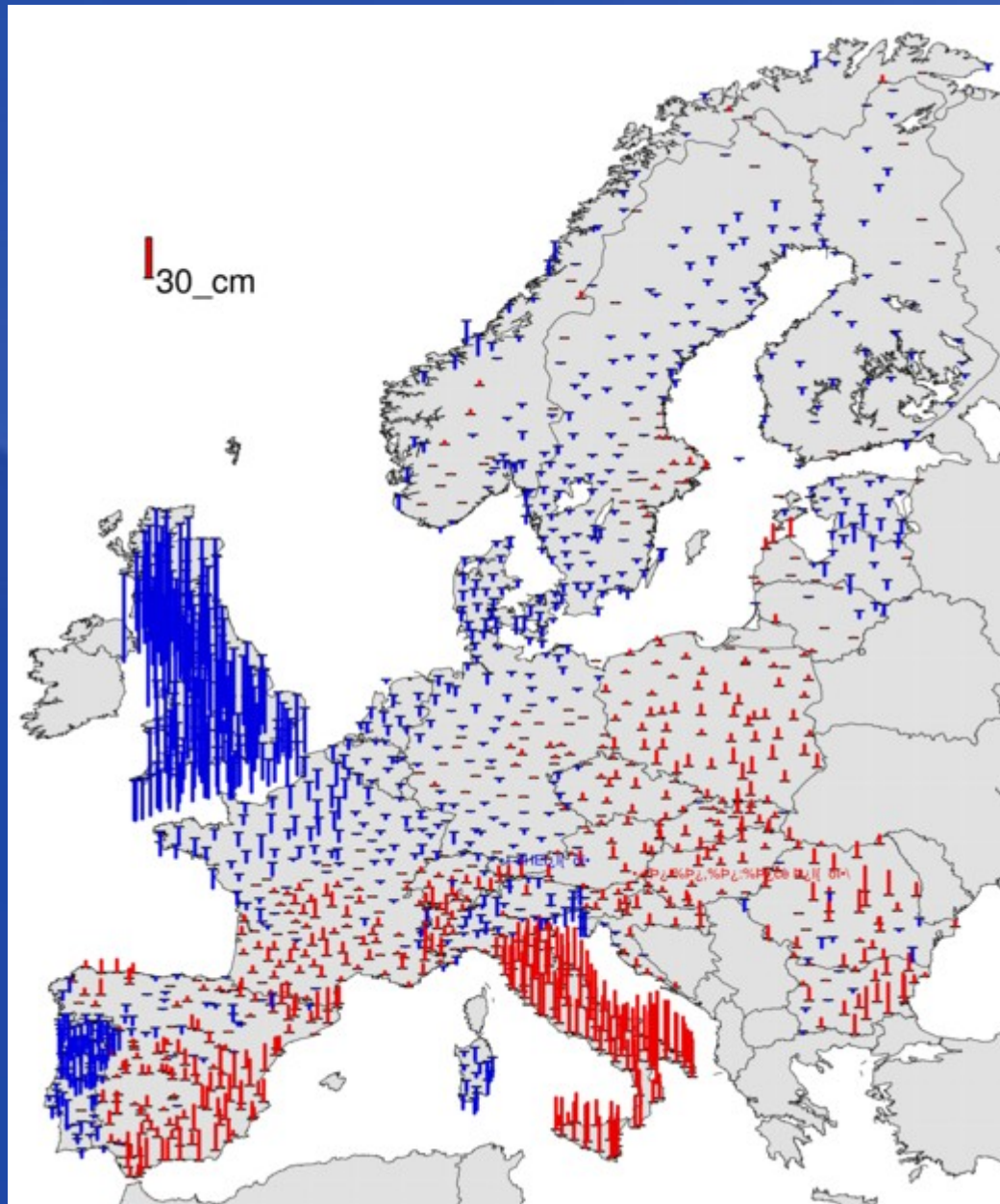


ITALIAN UPDATE

- 61 (peninsula) + 7(Sicily) + 7(Sardinia)
- NO UELN connections were provided, EVRF2007 heights should still come from transformation!
(done directly between geopotential numbers from EVRS and the national height system at the UELN nodal points)
- Surpasses the previous set, a much less emphasized tilt observable in the geoid comparison

EUVN_DA EGG08 COMPARISONS

-2009 2010-



ITALIAN UPDATE

What is this tilt in fact?

- a real one, or
- **a virtual one**: the setting of the IGM's network in the EVRF2007 frame?

The background transformation has high residuals (54 → 41 mm rms)

EGG08 input gravimetric data

EUVN tests by Martina Sacher

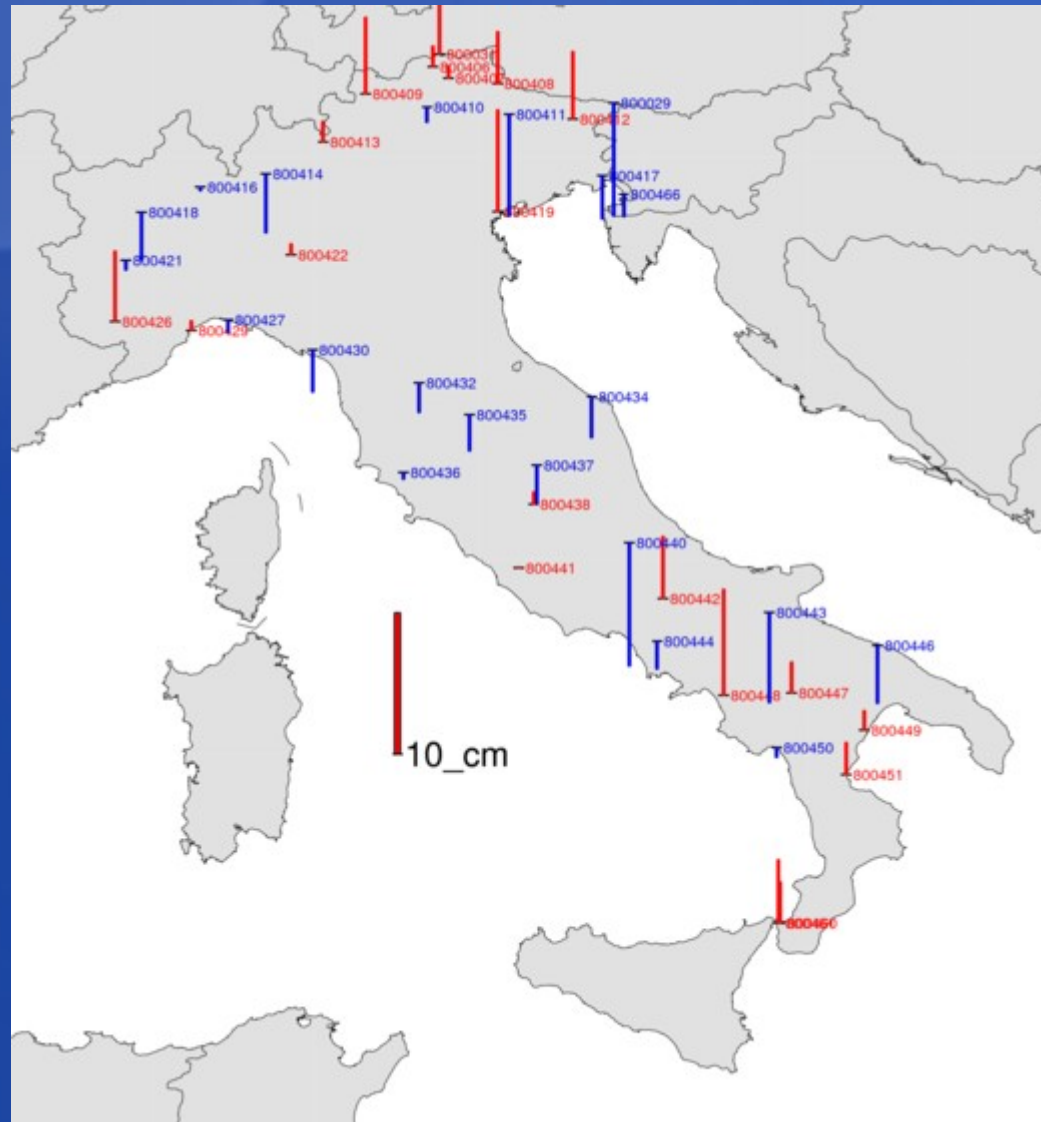
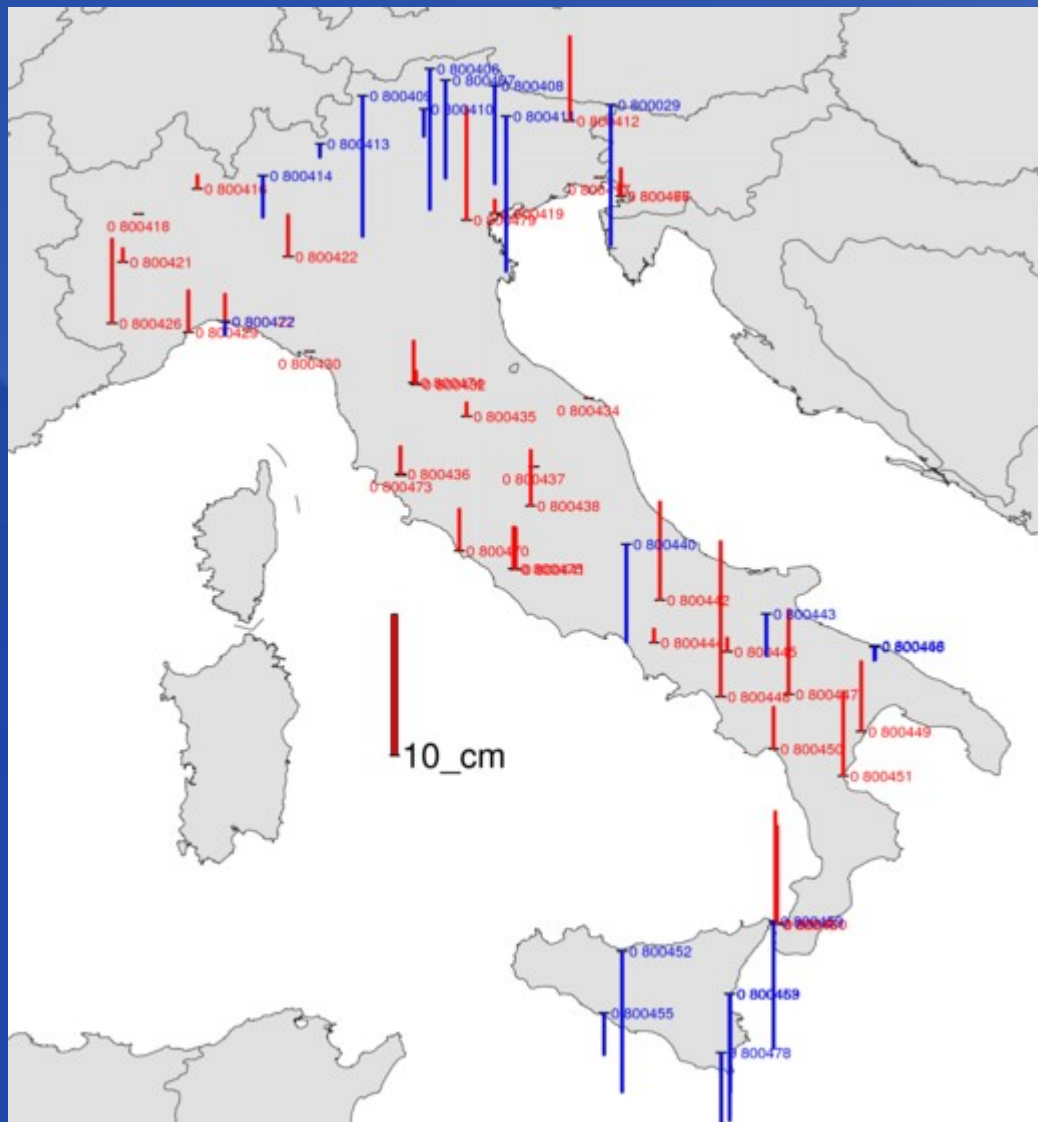
The answer is beyond EUVN_DA

(Revision of the original UELN data -from the 70ies- is one option)

EVRF2007/IGM transformation residuals

2009 54 mm rms

2010 41 mm rms

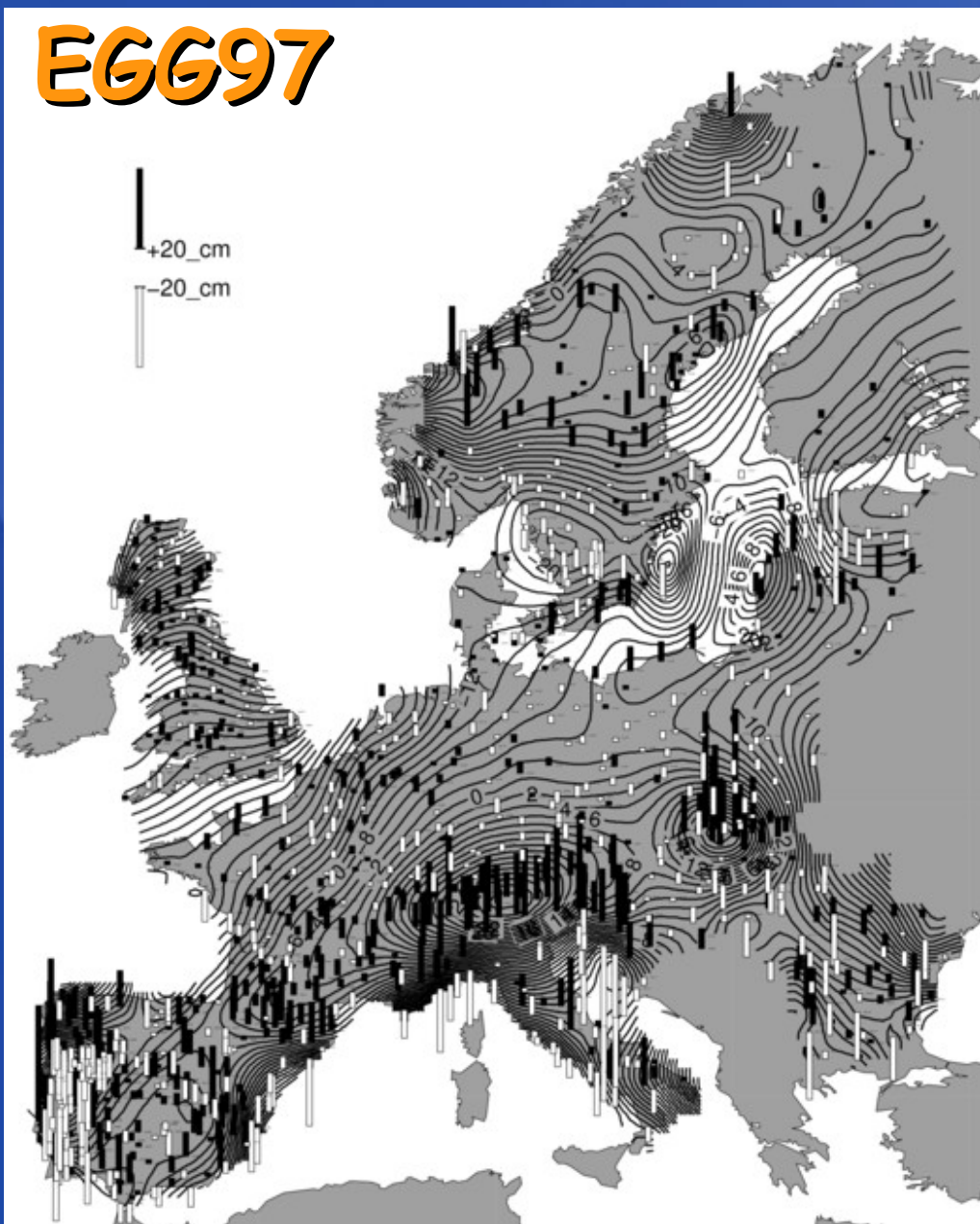


TOWARDS MODELING THE LEVELING GPS/GEOID DIFFERENCES

- 'OFFICIAL' SOLUTION FOR THE HEIGHT REFERENCE SURFACE MODELING WILL BE PREPARED BY EGGP
- A QUICK ANALYSIS FOR DEMONSTRATION PURPOSES HAS BEEN DONE
- POSSIBLE SOLUTIONS:
 - (COMMON ADJUSTMENT - LS COLLOCATION)
 - FIT A SMOOTH SURFACE TO KNOWN REFERENCE POINTS (ROBUST, INSENSITIVE TO OUTLIERS)
- **WEAKNESS:** NO UNIQUE SOLUTION EXISTS
- 'LOCAL POLINOMIAL APPROACH' SELECTED

MODELING OF THE EUVN_DA/EGGyy DIFFERENCES

EGG97



EGG08



EUVN_DA WEB PAGES

USES BKG's NEW EVRS LAYOUT

www.bkg.bund.de/nn_166756/geodIS/EVRS/EN/Projects/02EUVN-DA/euvnda_node.html_nnn=true

- GENERAL DESCRIPTION
- COUNTRY SPECIFIC PAGES
 - ONLY METADATA AND A MAP OF SITE DISTRIBUTION
- COMPARISONS WITH THE EGG QUASIGEOID SOLUTIONS

WILL BE READY BY END OF MARCH

PASSWORD PROTECTED DOWNLOAD IS NOT POSSIBLE!

EUVN_DA MAIN PAGE

BKG - Information System EVRS - EUVN-DA - Mozilla Firefox

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http://www.bkg.bund.de/nn_166756/geodIS/EVRS/EN/Projects/02EUVN-DA/euvnda_node.html_nnn=true

perl bash LSysAd [o] [o] Index NOL Bv5.0 CODE IGS TV EPN MET Google KGOMail BKG_DC OTP szótár GMTman Ubu Cambridge FN C MR

BKG - Information System EVR...

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Bundesamt für Kartographie und Geodäsie

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EUVN Densification Action (EUVN-DA)

The project EUVN-DA (European Vertical Reference Network - Densification Action) is a project for densification of EUVN for a more accurate geoid solution based on a denser GPS / levelling network.

In the respective sub-topic this project are described in detail.

- [Introduction](#)
- [Data submission](#)
- [Data analysis](#)
- [Product description](#)
- [Supporting institutions](#)

Done

Applications Places System BKG -... kenye... EUVN... [GNO... [EUV... 1 °C Wed Mar 3, 20:10 kenyeres

KNOWN ISSUES

mostly related to UELN/EVRF2007

- **UK** – significant tilt
 - ODN 2nd and 3rd epochs are tilted wrt each other
 - UELN solution is based on the biased 3rd epoch
 - EuroTunnel connection not yet finalized
- **Spain** – very old data, should be soon replaced
- **France** – tilt in the national leveling network, re-measurements are going on.
- **Portugal** – tilt, clarification should wait for Spain
- **Italy** – consider to provide a subset of EUVN_DA data with UELN nodal connection
 - revision of the UELN connection data

I ASK YOUR APPROVAL
TO DECLARE EUVN_DA

CLOSED!

AND

EXPRESS HEARTFUL APPRECIATION
TO ALL CONTRIBUTORS!

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TO DECLARE EUVN_DA

CLOSED!

