

EUVN_DA: TOWARDS THE REALISATION OF THE EUROPEAN HEIGHT REFERENCE SURFACE

“EHRS2007”

EUVN_DA WORKING GROUP:

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EUREF TWG FALL MEETING PARIS, 29-30 NOVEMBER 2007

STATUS OF EUVN_DA

**THE DATA COLLECTION PHASE HAS
COMPLETED !!!**

>1400 HIGH QUALITY REFERENCE GPS/LEVELING POINTS

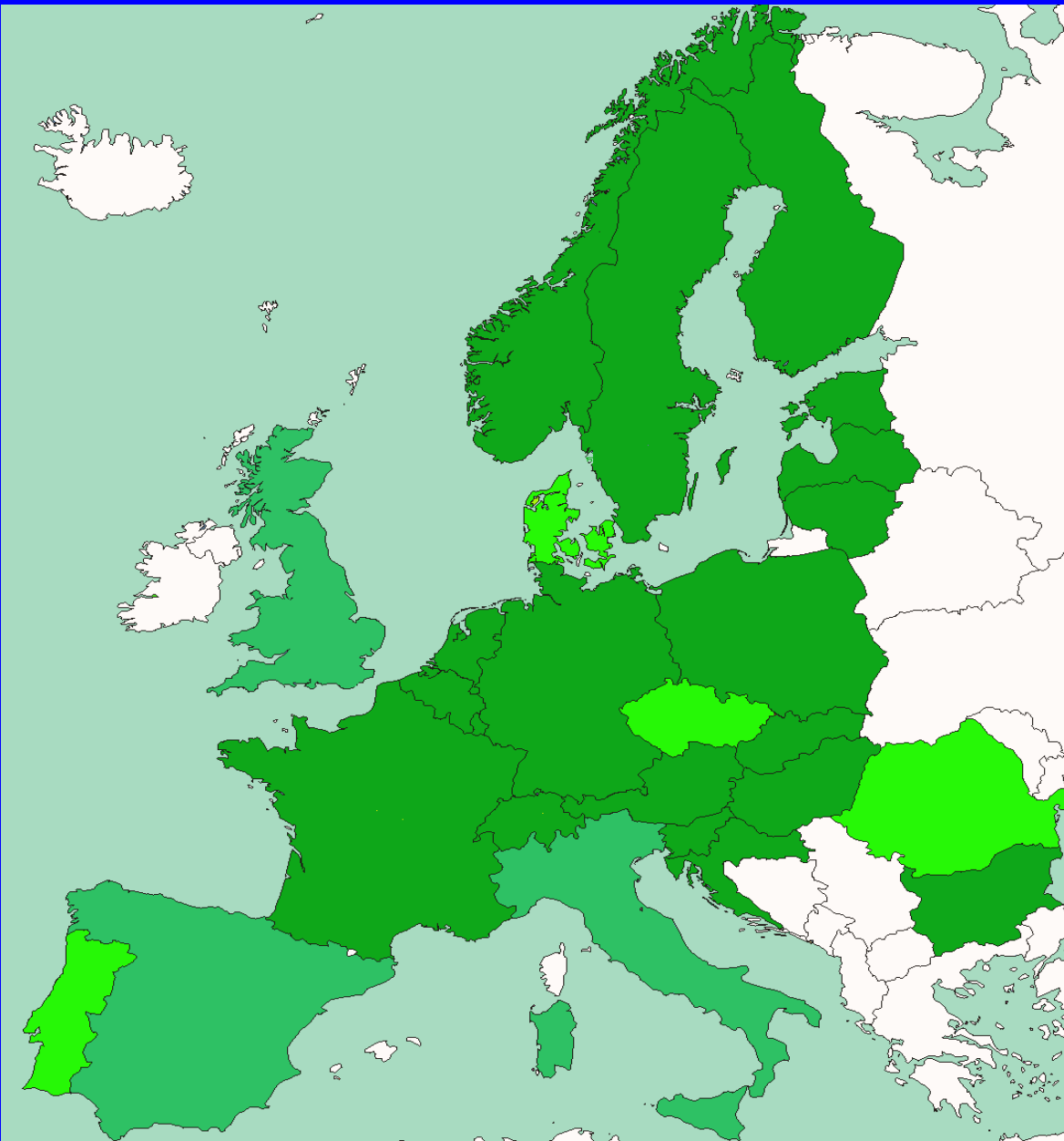
**FINAL CHECKS AND ANALYSIS IS IN PROGRESS
(SPAIN, PORTUGAL)**

EUREF/EGGP PRODUCT

CONTINENTAL HEIGHT REFERENCE SURFACE

COMPUTATIONS ARE IN PROGRESS

PARTICIPATION – JUNE 2007



**DATA SUBMITTED AND
CHECKED**



**DATA UNDER PREPAR-
ATION**



**SHORTER GPS
OBSERVATION SESSIONS
BUT DENSER NETWORK**

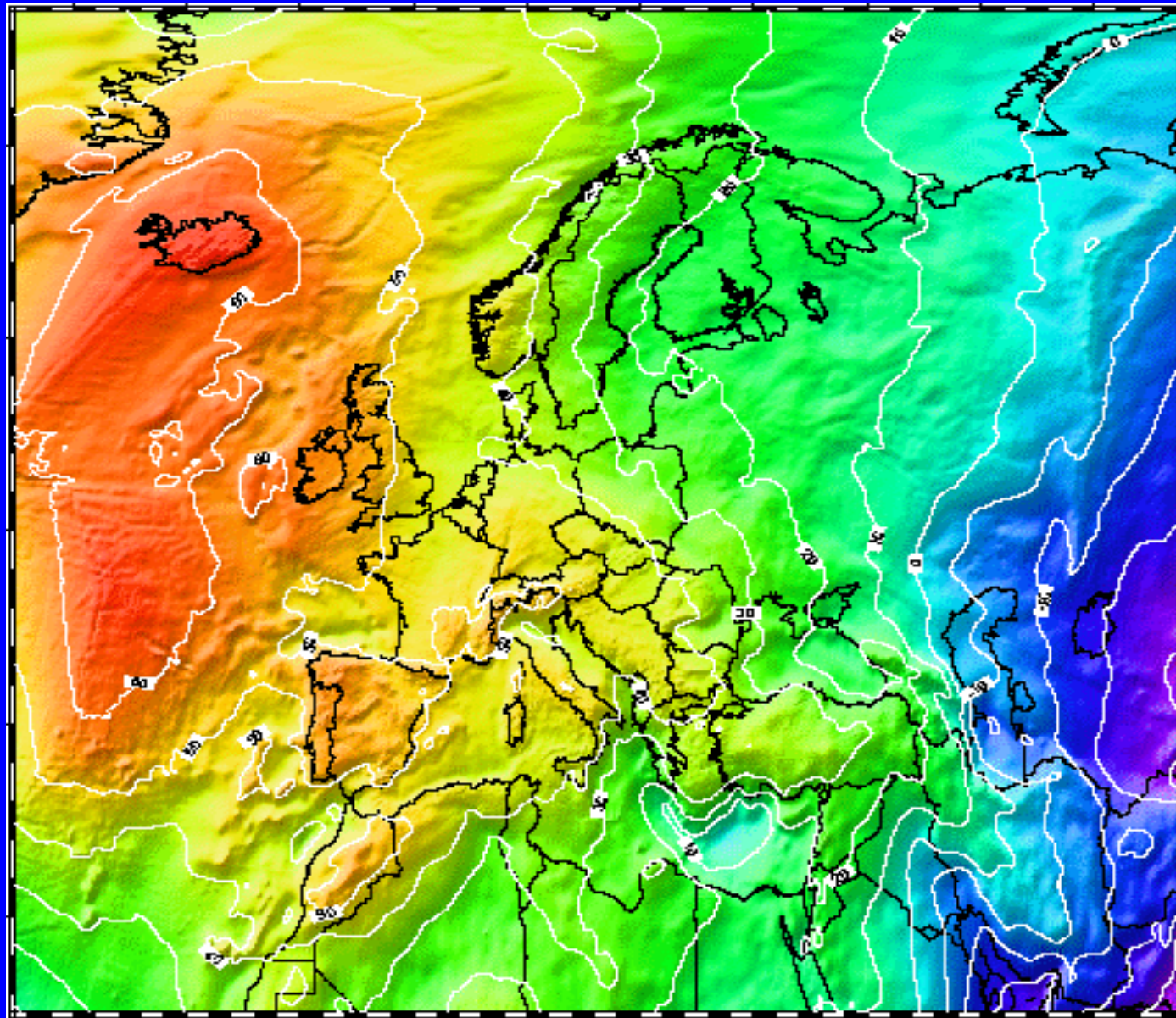
EUVN_DA POINT DISTRIBUTION

1434 GPS/leveling points !



THE EUROPEAN GEOID

(H.Denker - IfE, Hannover)



EGG97 – official

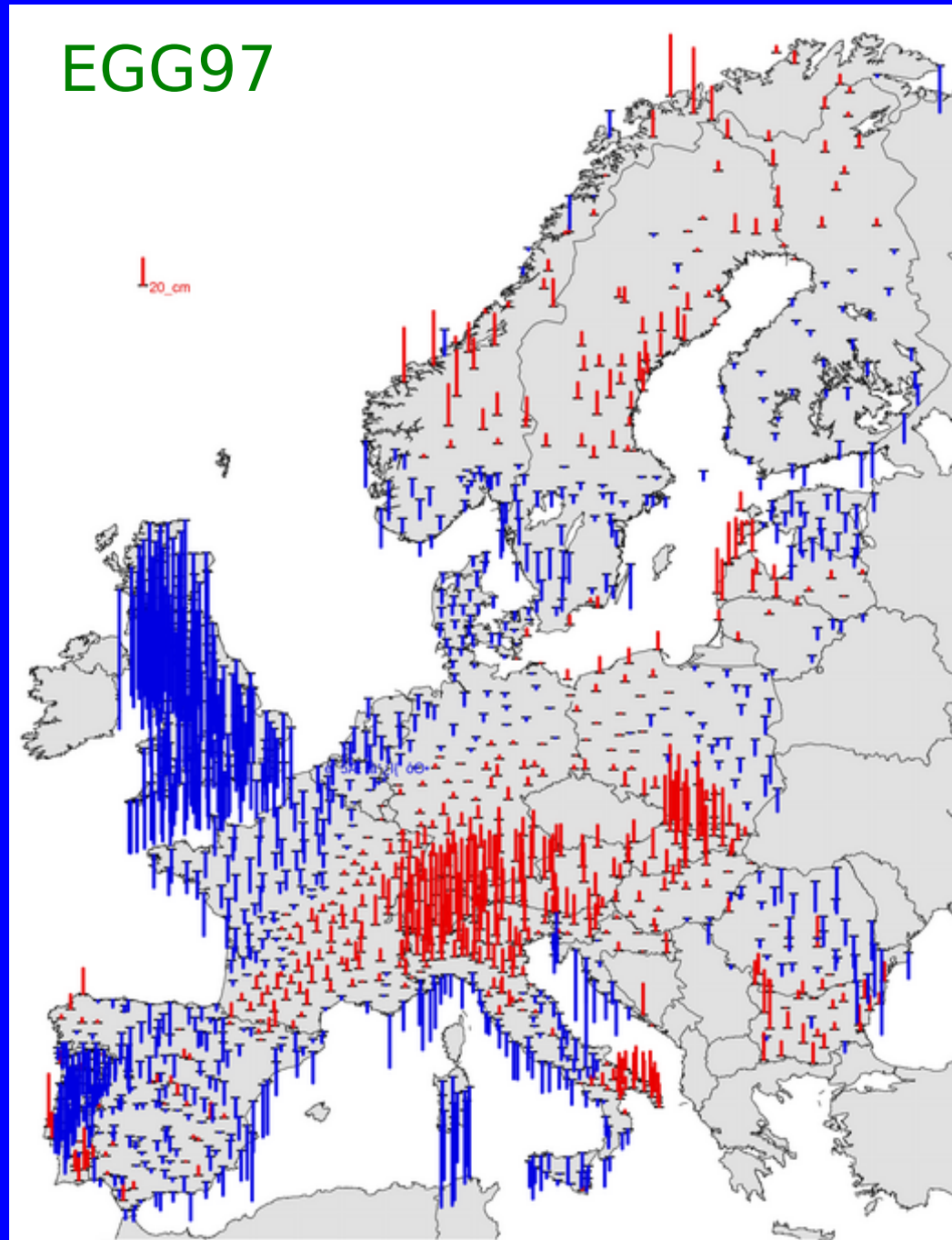
EGG03 – test

EGG06 – test

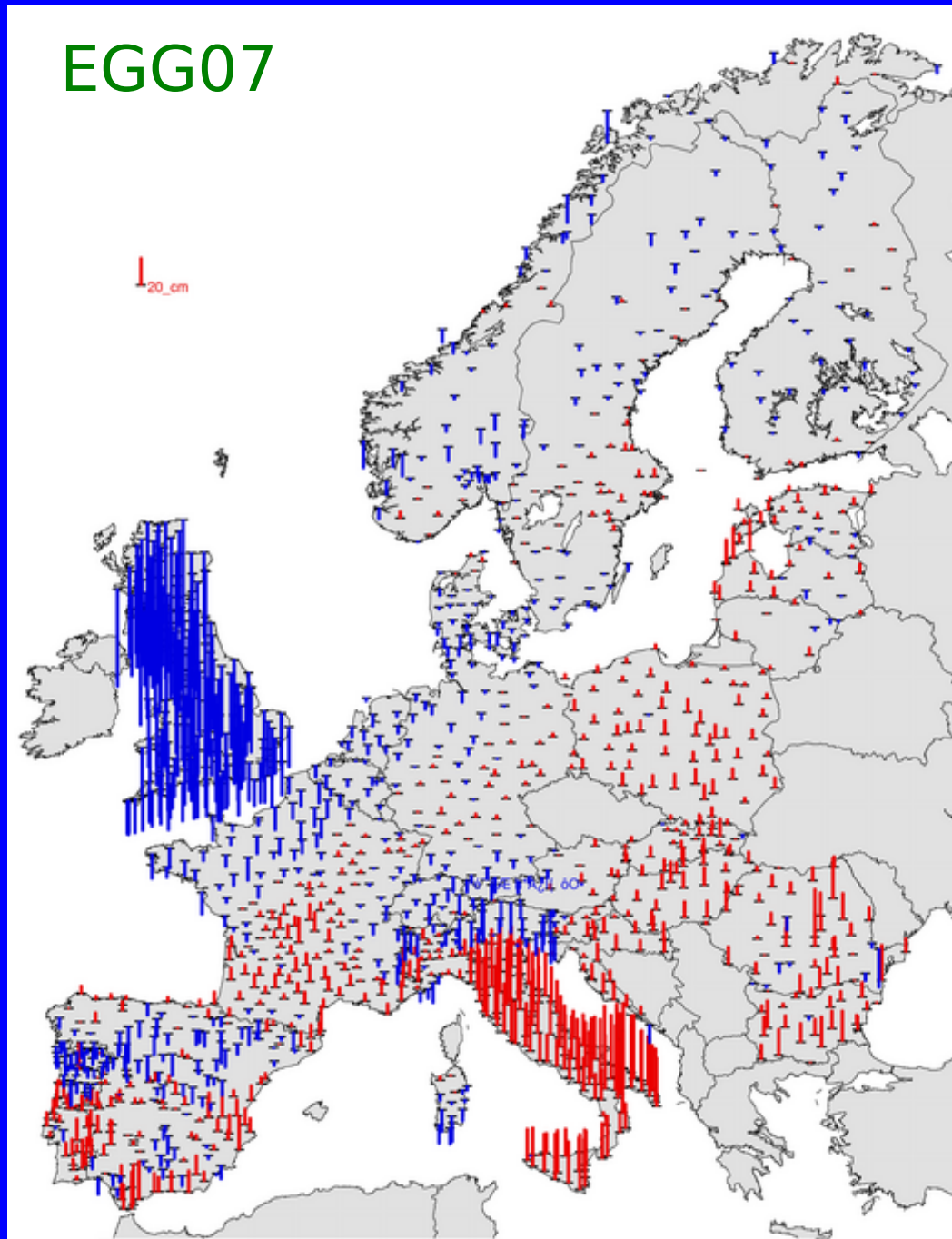
EGG07 – official

EUVN_DA EGGyy COMPARISON

EGG97

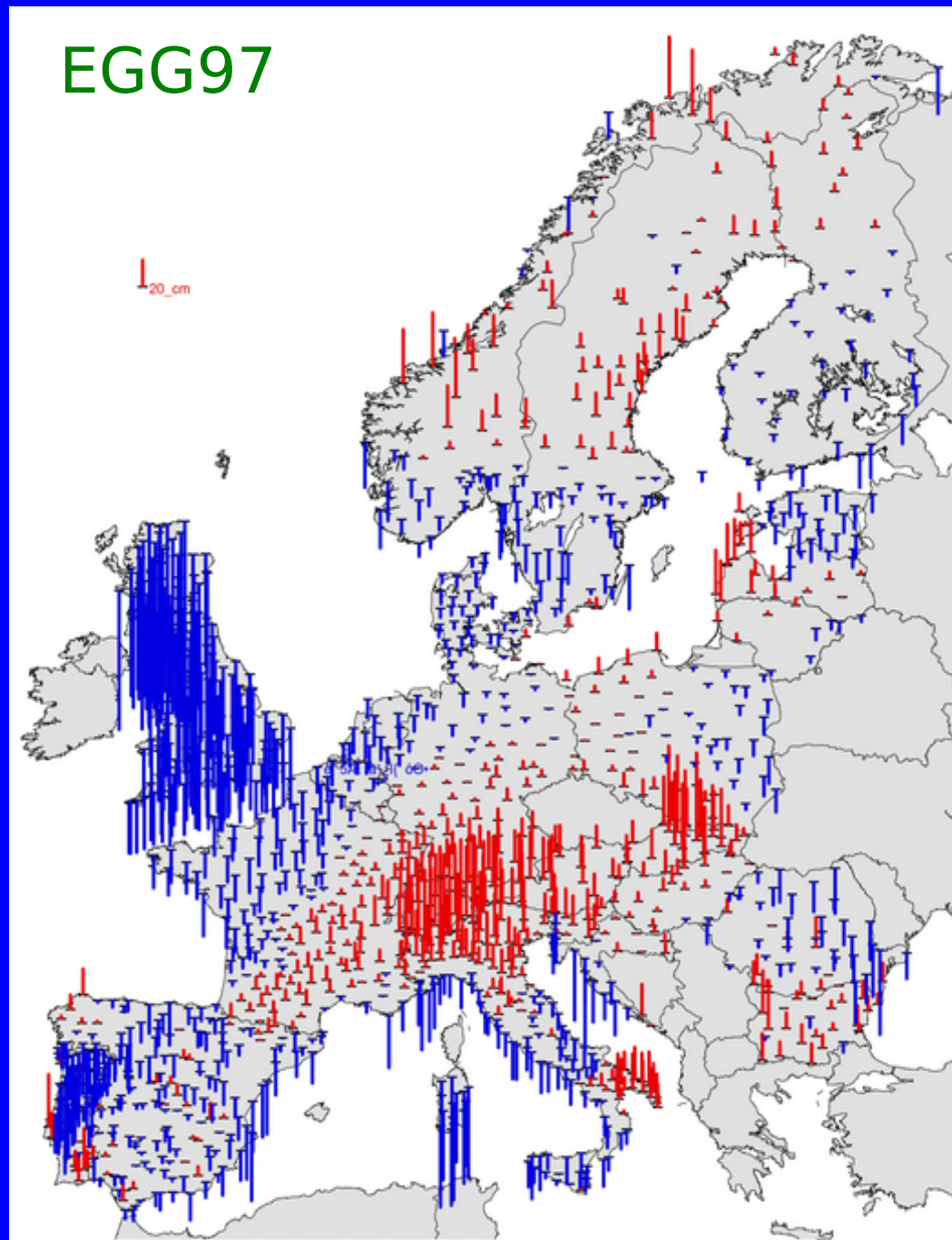


EGG07

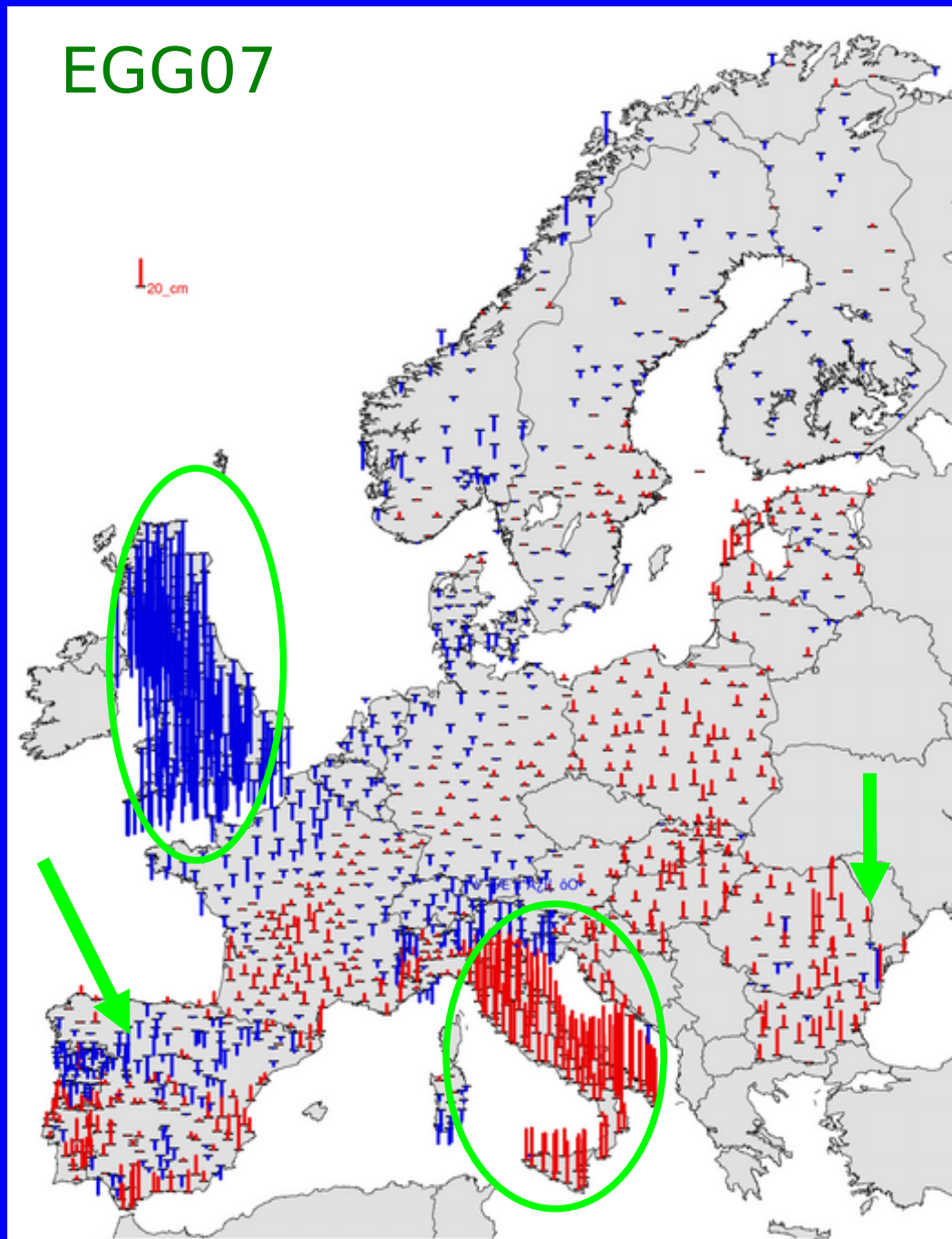


EUVN_DA EGGyy COMPARISON

EGG97



EGG07



HEIGHT REFERENCE SURFACE

„MODIFIED GEOID” - CONSISTENCY BETWEEN GPS (ETRS89) AND LEVELING (UELN)

→ COMMON ADJUSTMENT OF GRAVIMETRIC AND GEOMETRIC DATASETS

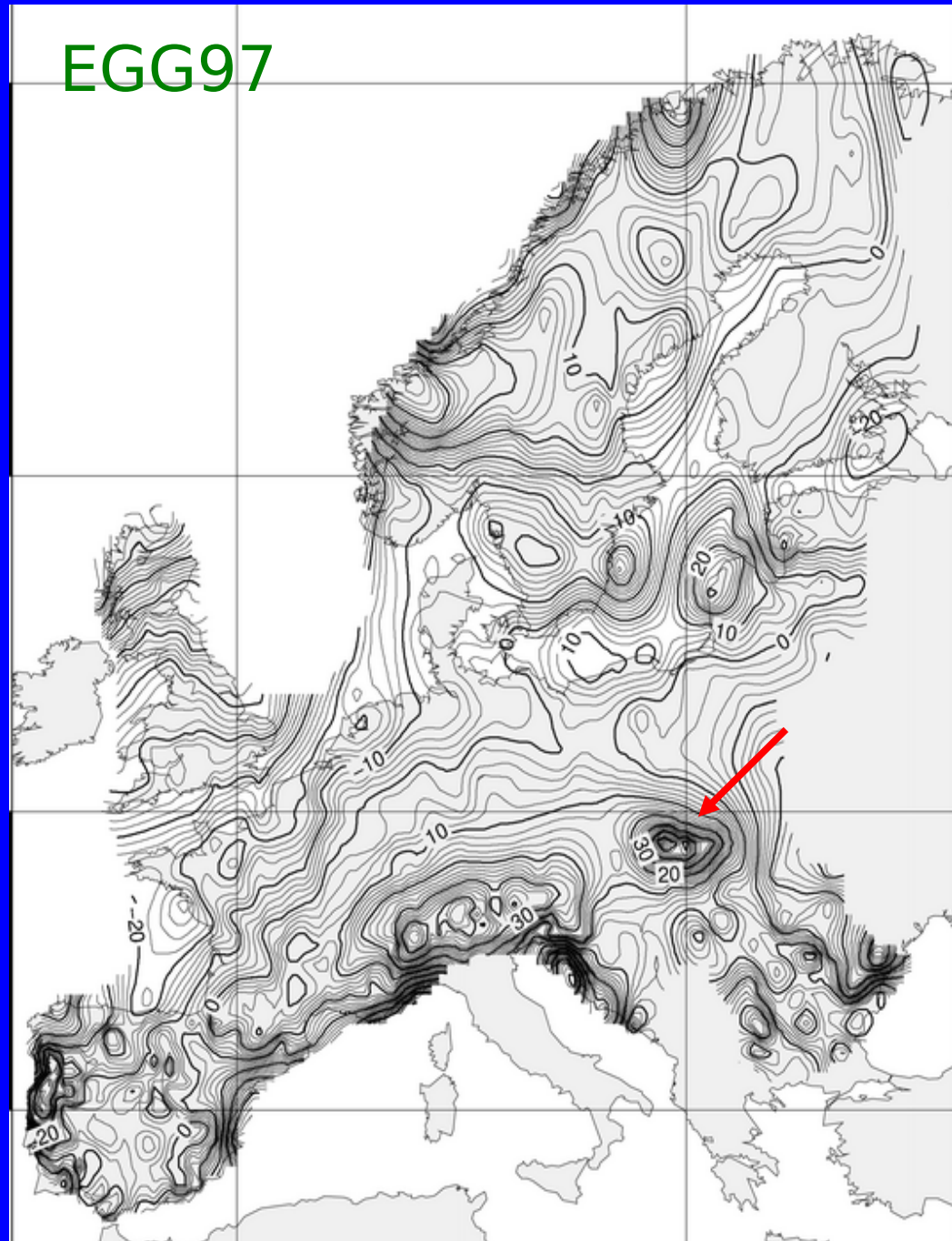
→ POSTFIT OF THE GRAVIMETRIC GEOID TO GPS NETWORKS

HOW? BIG PLAYGROUND!

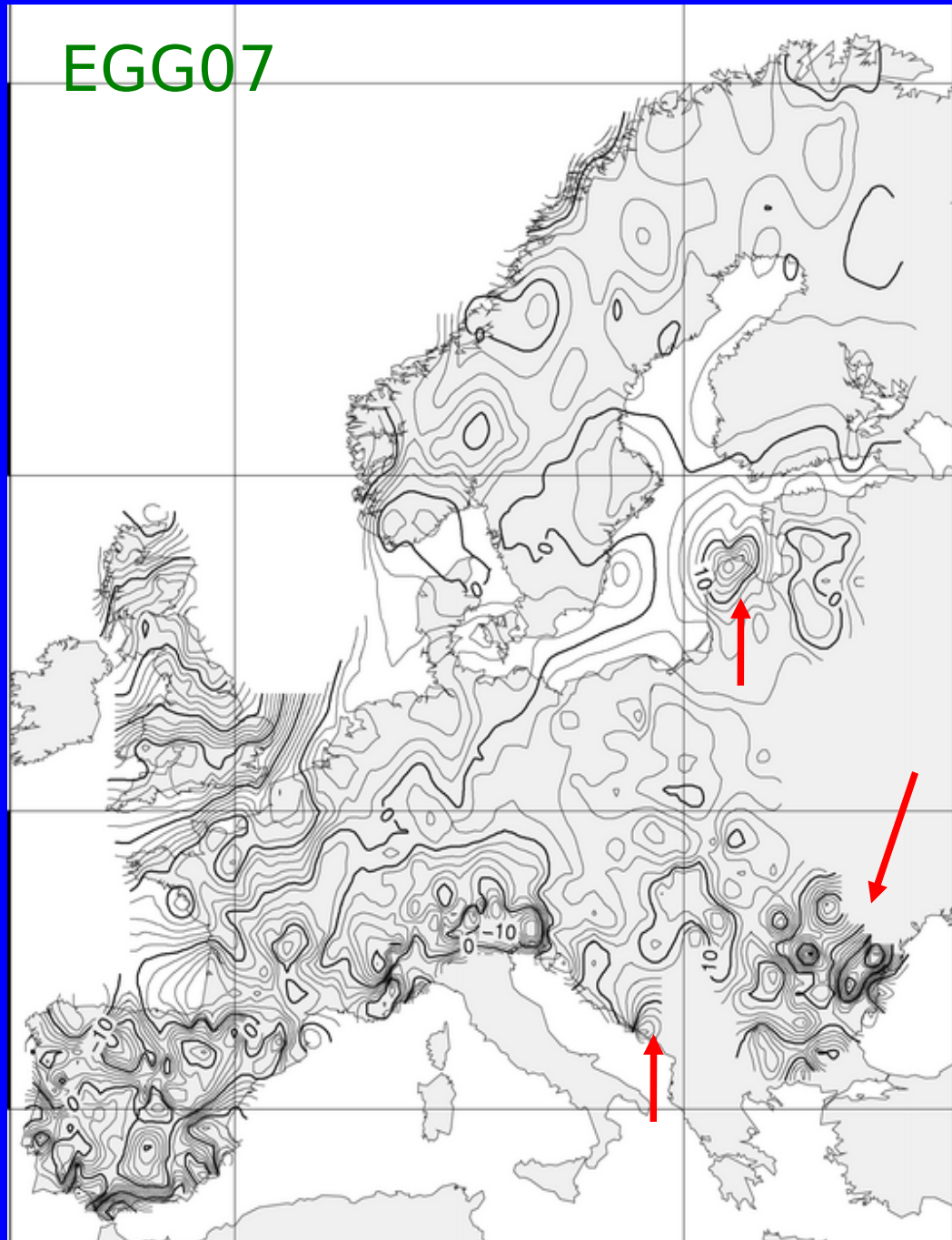
SMOOTH CORRECTION SURFACE, AVOID BULLS-EYE!

EUVN_DA EGGyy COMPARISON

EGG97

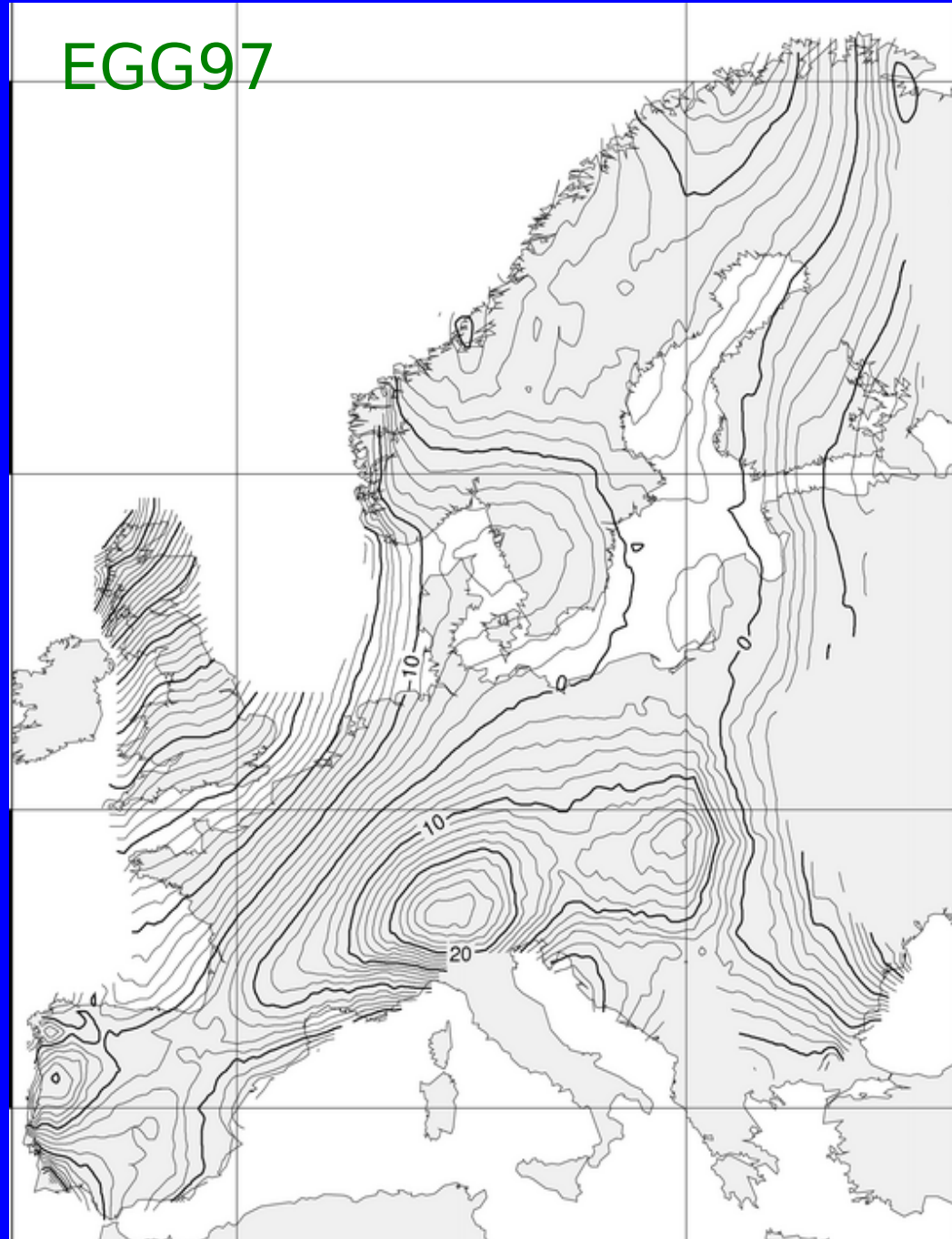


EGG07

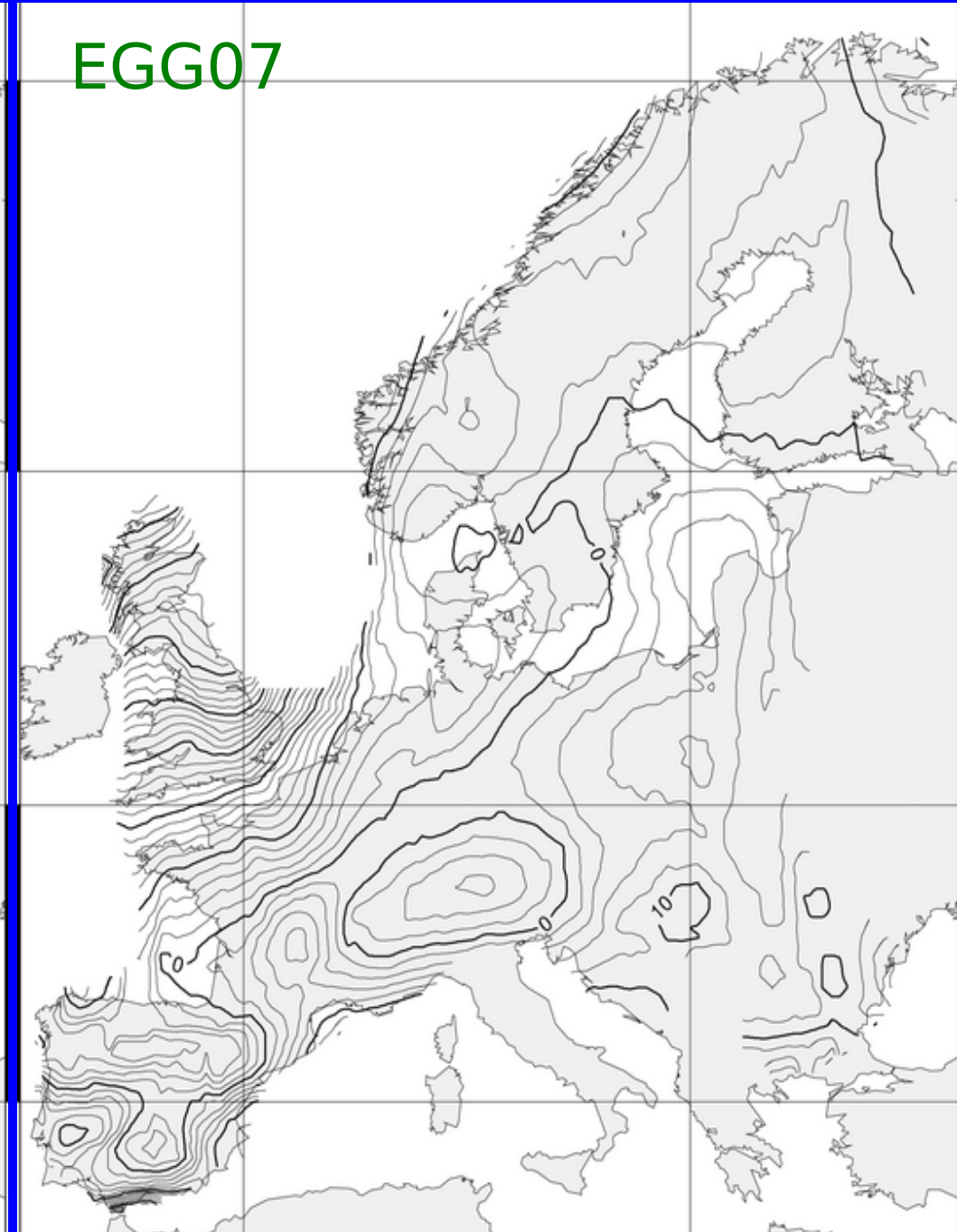


EUVN_DA EGGyy COMPARISON

EGG97

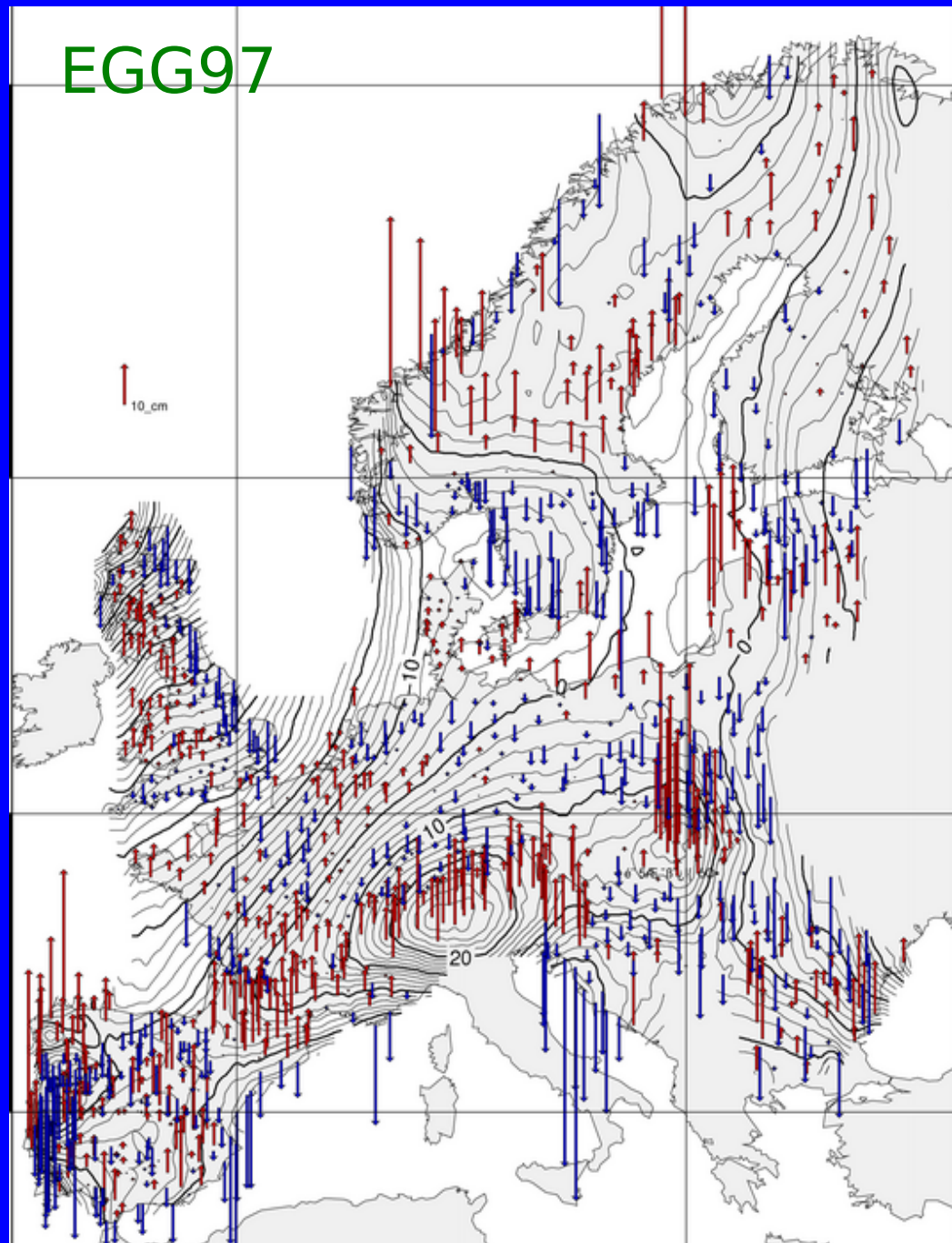


EGG07

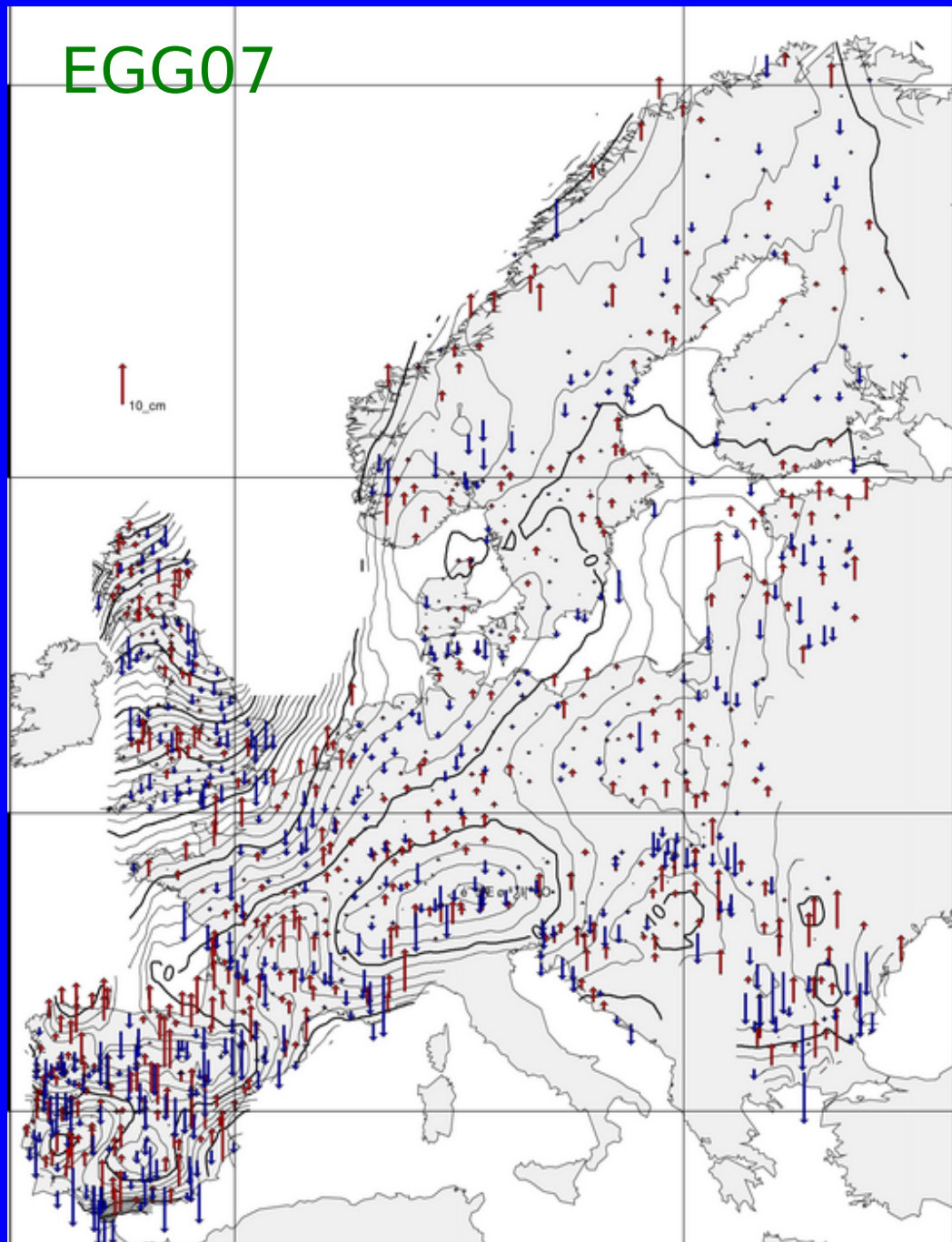


EUVN_DA EGGyy COMPARISON

EGG97



EGG07



EHR2007

European Height Reference Surface 2007

- **postfit of EGG07 to EUVN_DA**
- **method: under testing, not yet finalized (should provide a smooth, robust correction surface)**
- **expected accuracy (residuals of the EGG07 fit: ~3 cm RMS)**