

EPN DENSIFICATION

STATUS REPORT OF THE REFERENCE FRAME COORDINATOR

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FÖMI, HUNGARY

EPN TWG Spring meeting, Gavle, Sweden
13-14 March, 2014

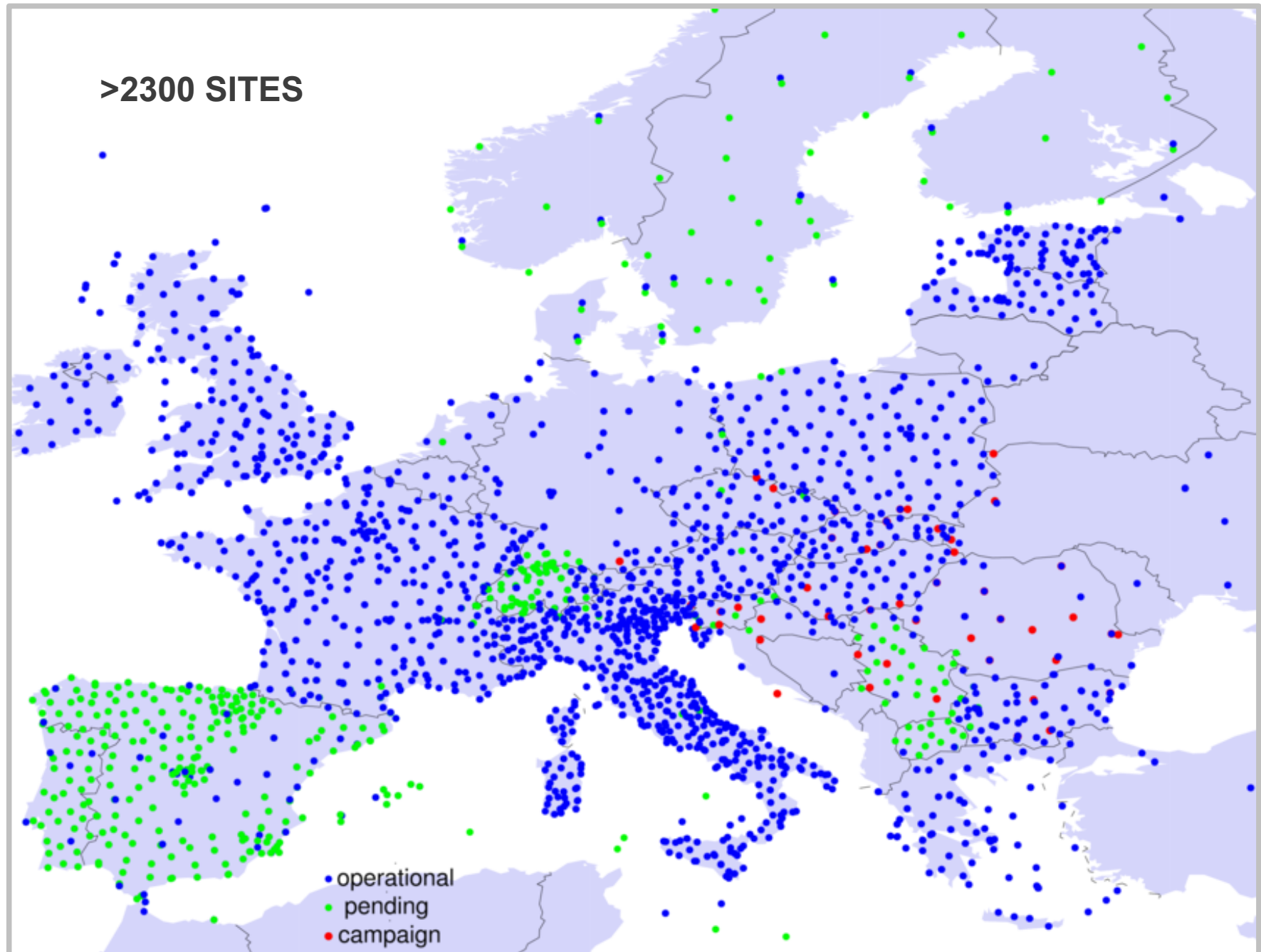
WORK PHASES AND RESULTS

- **COLLECTION AND PREPARATION OF NATIONAL LONG TERM WEEKLY SINEX SOLUTIONS**
 - SINEX testing (“compatibility”, constraints, quality)
 - SINEX CLEANING: outlier and offset detection, elimination
 - soln/4charID harmonization with EPN/**IGS**
- **COMBINATION WITH THE REFERENCE WEEKLY SINEX**
 - CATREF / MC approach
 - EPN as reference (later IGS)
 - Handling of different software products (GAMIT, GIPSY)
 - **GLOBAL SOLUTION IS PLANNED**
- **RESULTS / PRODUCTS**
 - cleaned national SINEX solutions,
 - position and velocity estimates in ITRFyy/IGSyy/ETRFyy,
 - time series plots
 - MAIN input to the EPN WG on Deformation Modeling

DATA AVAILABILITY - MARCH 2014

ASG	Poland	: 1482 - >1770	
EST	Estonia	: 1448 - >1770	
GGI	Latvia	: 1461 - >1770	
GKU	Slovakia	: 1408 - 1729	
CZE	Czech R	: 1565 - 1740	
SGO	Hungary	: 1400 - >1770	EUPOS
AMON	Austria	: 1356 - >1770	
MON	Middle East	: 1400 - >1770	
GRE	Greece	: 1721 - >1770	
BUL	Bulgaria	: 1434 - 1770	
UPA	Italy	: 1623 - >1770 (1422-)	
IGN	Spain/Portugal	: 1400 - 1770	
CEGRN	C-Europe	: 1400 - >1770	
AGNES	Switzerland	: 0953 - >1770	IGS01 - cumulative
SGN	France (glo)	: 1200 - >1770	
BIGF	UK (glo)	: 1200 - >1770	

STATUS OF THE NETWORK



CONTRIBUTION SPECIALITIES

- RELEVANT CONTRIBUTIONS WITH STILL **SHORT** SERIES
 - Italy (400 sites!)
 - Greece
- **PENDING** CONTRIBUTIONS
 - Spain / Portugal: available and ready, but wait for the PhD of MV
 - Serbia: negotiations in progress
- **EXPECTED** CONTRIBUTIONS
 - The Netherlands, Belgium
 - NKG
 - Germany (beyond GREF)
 -
- **NEED FOR METADATA (STA FILE and LOG files)**

TASKS, ISSUES TO SOLVE

- NAMING (2-3 per network), DOMES NUMBERS (countryV111)
- CONSTRAINTS HANDLING, BERNESE vs GAMIT SINEX
- **IGS01 / IGS05 / IGS08 ATX**
 - IGS08 only: BIGF
 - mixed (week 1632)

What to do?

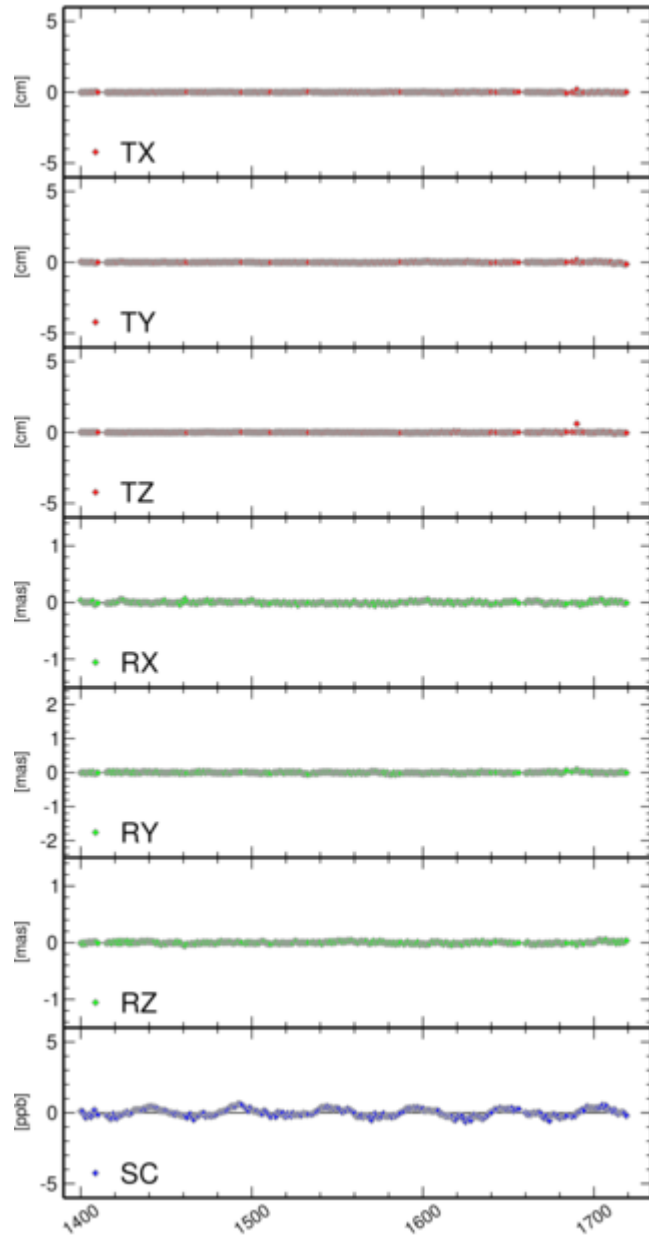
- Keep them as they are?
 - cons: occasional bias in the velocity estimate
- Correct the offsets with the IGS tool (keeping in mind the EPN individual PCV strategy)
 - cons: may introduce a bias or part of the offset remains

Repro2!

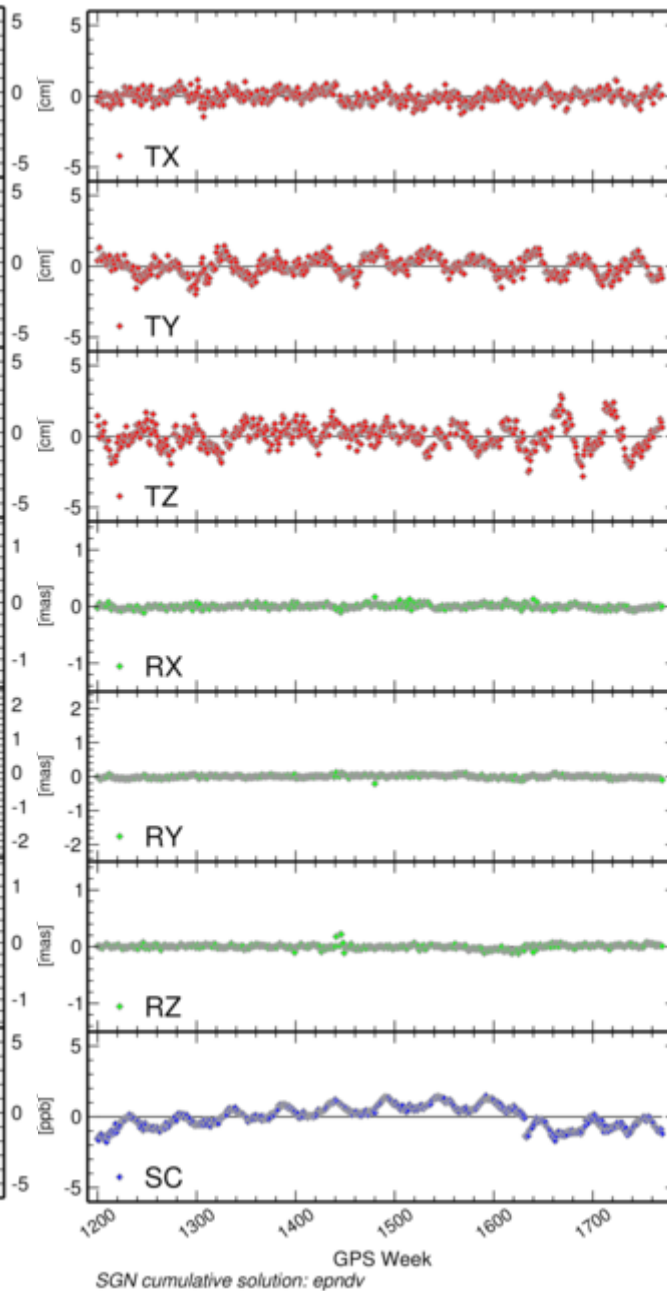
- **BETTER VISIBILITY**

HELMERT-TRANSFORMATIONS

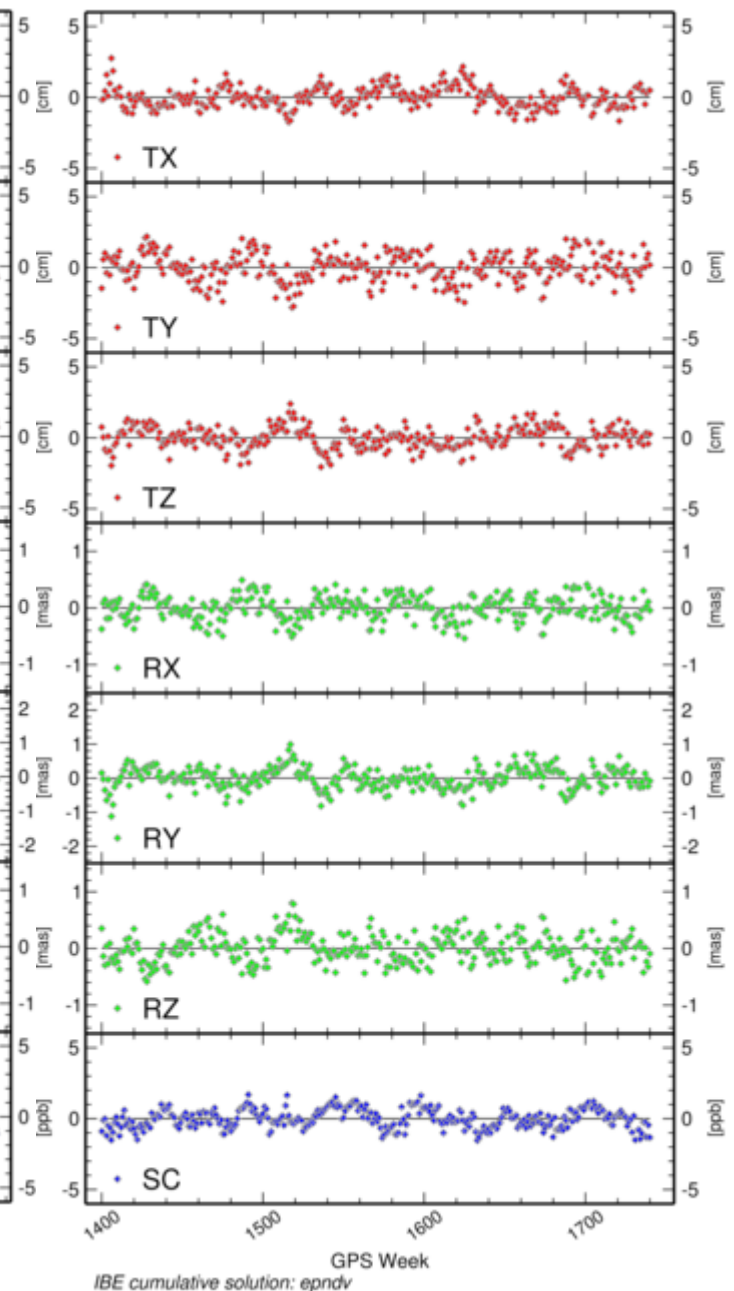
BGF_Helmert_parameters



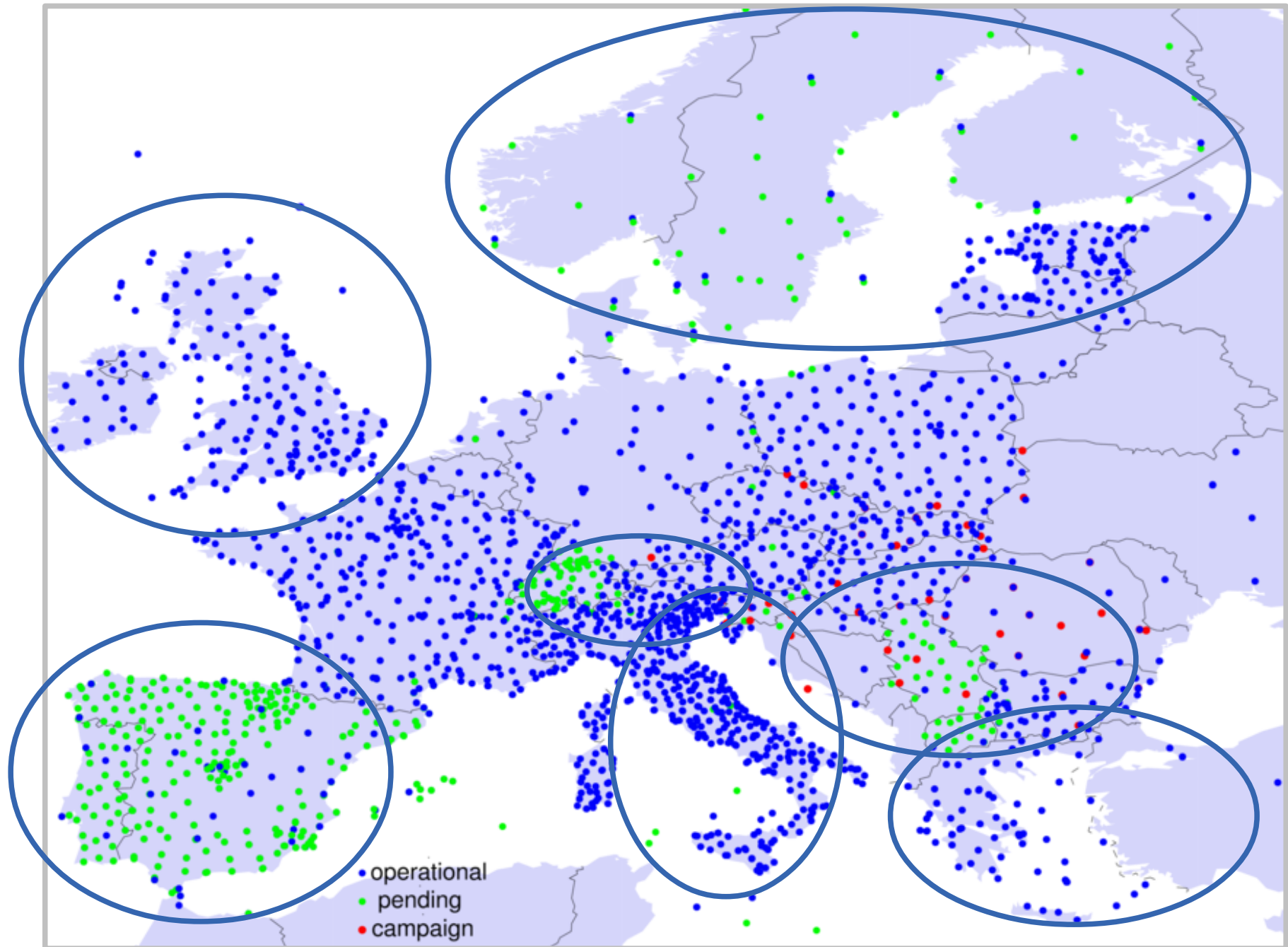
SGN_Helmert_parameters



IBE_Helmert_parameters



FOCUS AREAS



PUBLICATION, URGENT TASKS

- **DRAFT AND LIMITED RESULTS AT THE 2014 SYMPOSIUM**
includes weekly solutions up to week 1770 (end of 2013)
- **WEB PAGE (EPNCB or ???)**
- **BETTER VISIBILITY (EGU, IGS, publication)**
- **EPN GUIDELINES EXTENDED WITH DENSIFICATION COMPONENTS**
 - **EPN Densification Network**
 - **EPN Densification Analysis Centre**