



EPN DENSIFICATION

D2237 - THE ENDGAME FOR IGS14 ??

Ambrus Kenyeres
WG Chair

A Araszkiwicz - E Azcue - R Bingley - C Bruyninx - A Caporali - F de Doncker - A Duret -
M Ferianc - M Flueras - P Franke - I Georgiev - D Gomez - I Jaunpaule - L Jivall -
O Khoda - K Kosenko - Al Kurt - S Lahtinen - J Legrand - J Metsar -
X Papanikolaou - E Parseulinas - D Prizginiene -
J Reznicek - OB Tangen - H Titz - M Varga - J Zurutuza - M Weber

EUPOS2023 Council & Tech Meeting, 22-23 November 2023
Riga, Latvia



EPND MILESTONES

- Started as EUPOS Combination Centre in 2005
- D1933, as “pioneer” solution
- D2050, as “intermediate” solution
- D2100, as major achievement
- D2150, as first “stable” solution
 - New webpage
 - Still complete WEEKLY re-combination
- D2200, simple extension of D2150
- **D2237, the last solution expressed in IGS14**



EPND WEBSITE

EPND WEBSITE: <https://epnd.sgo-penc.hu>

- Interactive maps, diagrams - PLEASE PLAY WITH!
- Direct access to the combination results
- Product portal serving more communities
- Clear visibility for contributors, dedicated place to share results
- In view of REPRO3, please **check out the EQUIPMENT plots!**

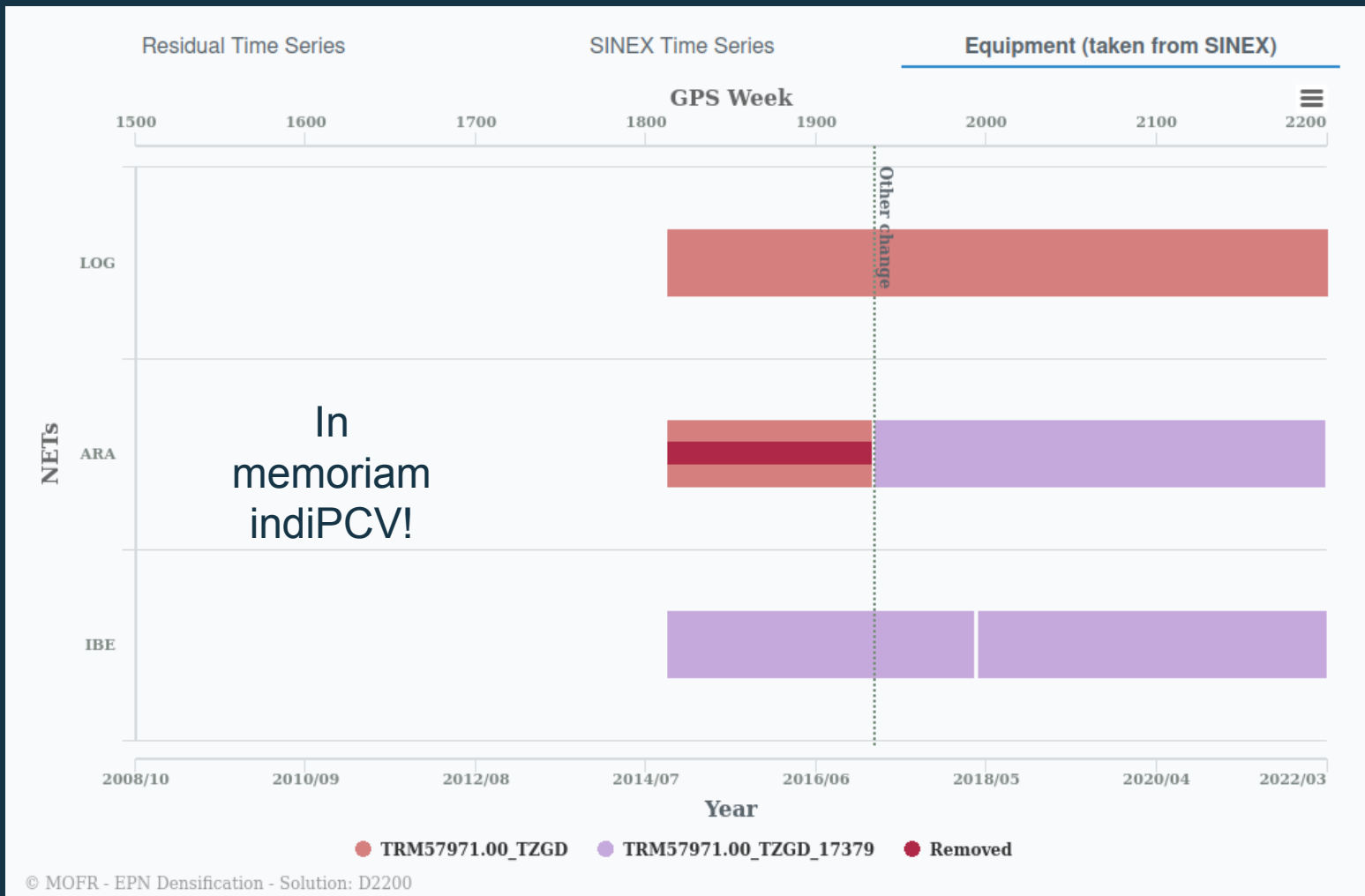


EPND STATION EQUIPMENT





PCV MODEL USED ...





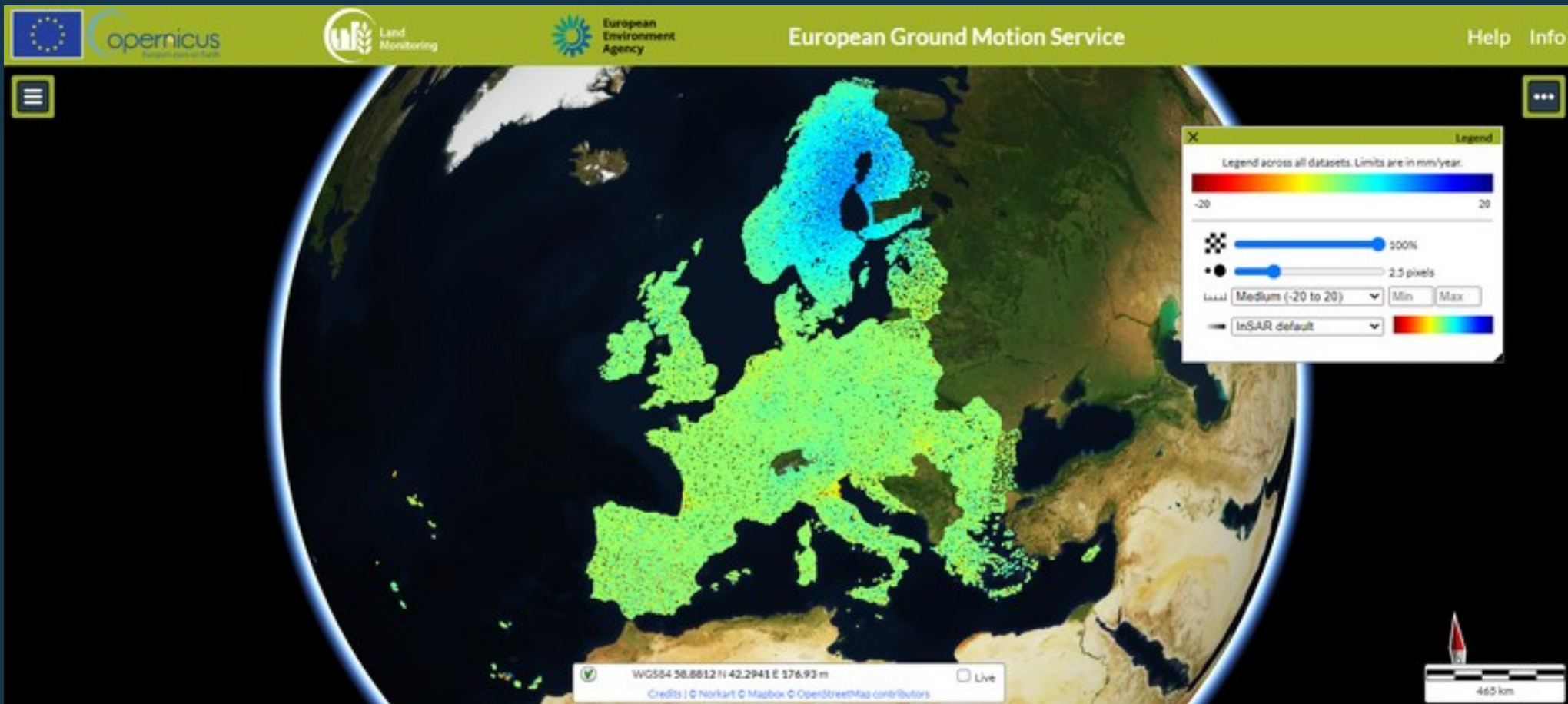
EPND APPLICATIONS

EPND IS A PUBLICLY AVAILABLE PRODUCT, EVERYONE IS FREE TO USE IT

- Implemented by EUREF WGs
 - EUDV - now terminated
 - EuVM by LM
- EPOS GNSS Product Portal - EPOS extension is expected
- EGMS - European Ground Motion Service
assisted EPND



EGMS - A-EPND



<https://land.copernicus.eu/pan-european/european-ground-motion-service>



EPND VELOCITIES - D2200





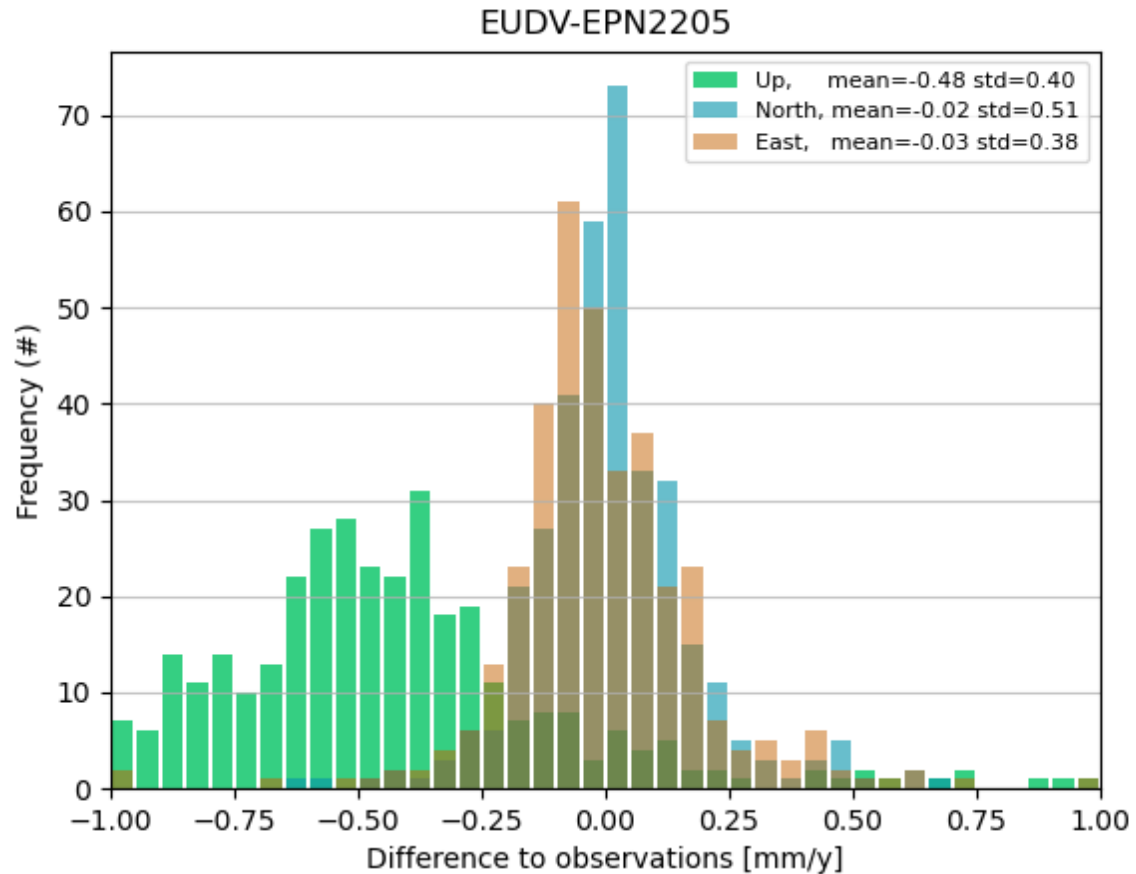
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EPN vs EUDV





EPND APPLICATIONS

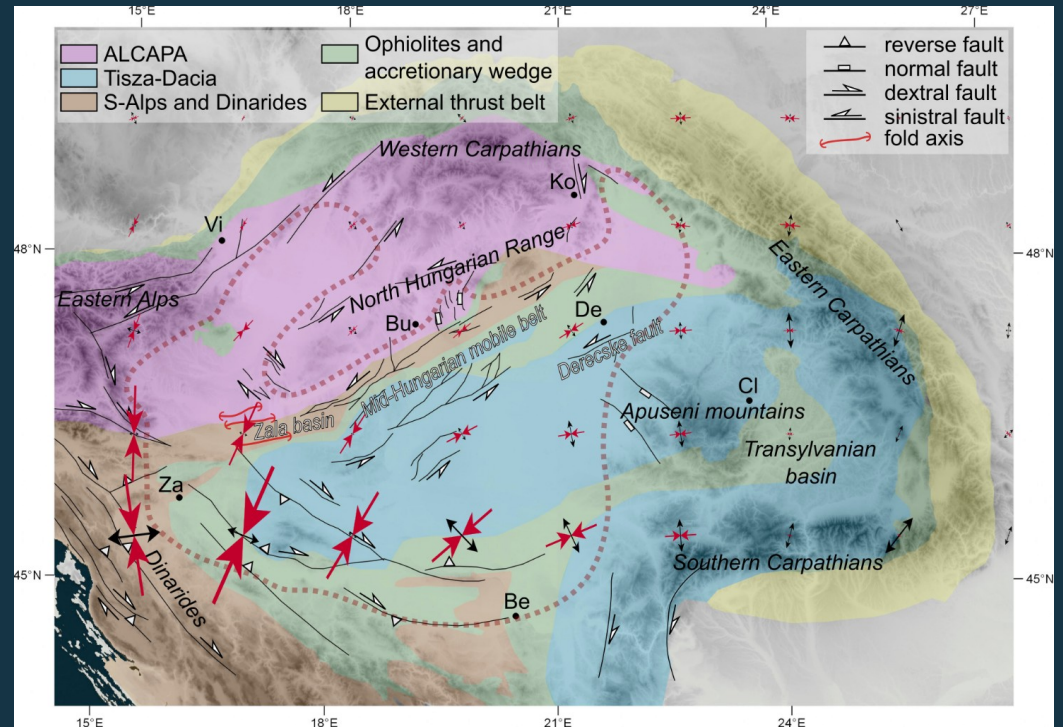
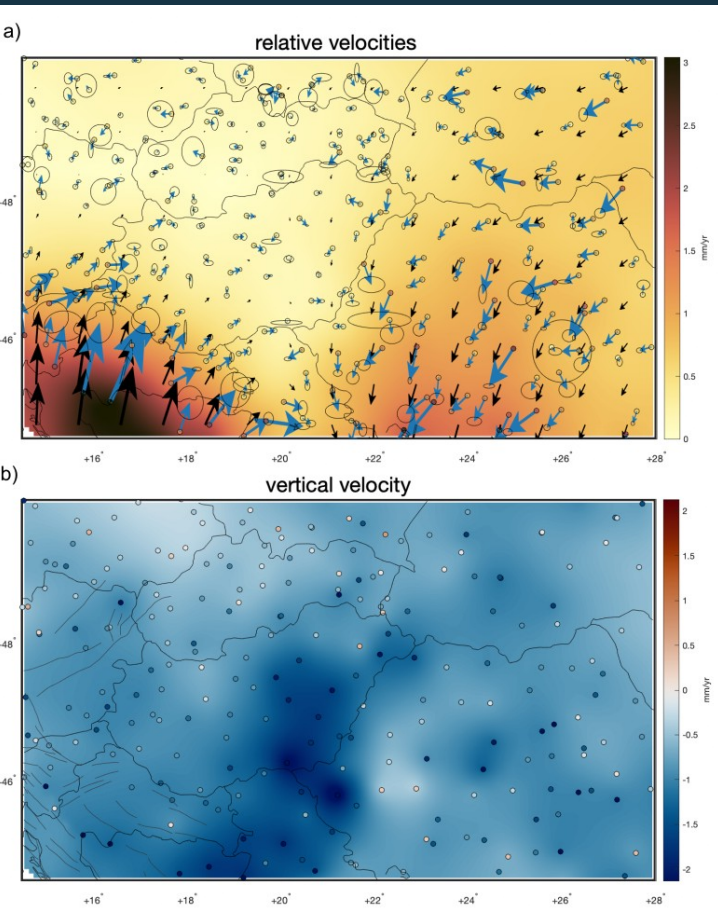
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- EGMS - European Ground Motion Service
assisted EPND
- Sub-regional geophysical interpretation



EPND IN GEOPHYSICS

Porkoláb, K., Broerse, T., Kenyeres, A. et al. Active tectonics of the Circum-Pannonian region in the light of updated GNSS network data. *Acta Geod Geophys* (2023). <https://doi.org/10.1007/s40328-023-00409-8>





D2237, AS FINAL IGS14 COMBINATION

TWO PHASES:

(1) combining all EPND AC solutions (still some pending)

Done, published

(2) phase (1) +

- with still missing EPND AC solutions;
- 2 EPOS Pan-European AC results;
- **support to ACs in preparing for REPRO3**
- available 2024 Q1



AFTER D2237 ...

**Long-long SILENCE until a repro3 solution comes out
BUT,**

- repro3 should run in the background, most of the
Densification ACs will participate;**
- in case of processing capacity constraints we are ready to
provide support**
- each AC will be notified about possible issues in order to
finalize the STA/station.info files in agreement with M3G;**



NEWS AT EPND ANALYSIS

- EPN repro3 - delay expected (Bernese bug ...);
- AC capacity issues
 - Austria - SGO runs the processing
 - Bulgaria
- New capacities:
 - Belgrade University
 - CEGRN - J Zurutuza



**THANKS TO ALL ACs,
INSTITUTIONS AND INDIVIDUALS
FOR THE LONG TERM SUPPORT OF
EPN DENSIFICATION!**

BE READY FOR REPRO3!