

National Report of SLOVAKIA 08

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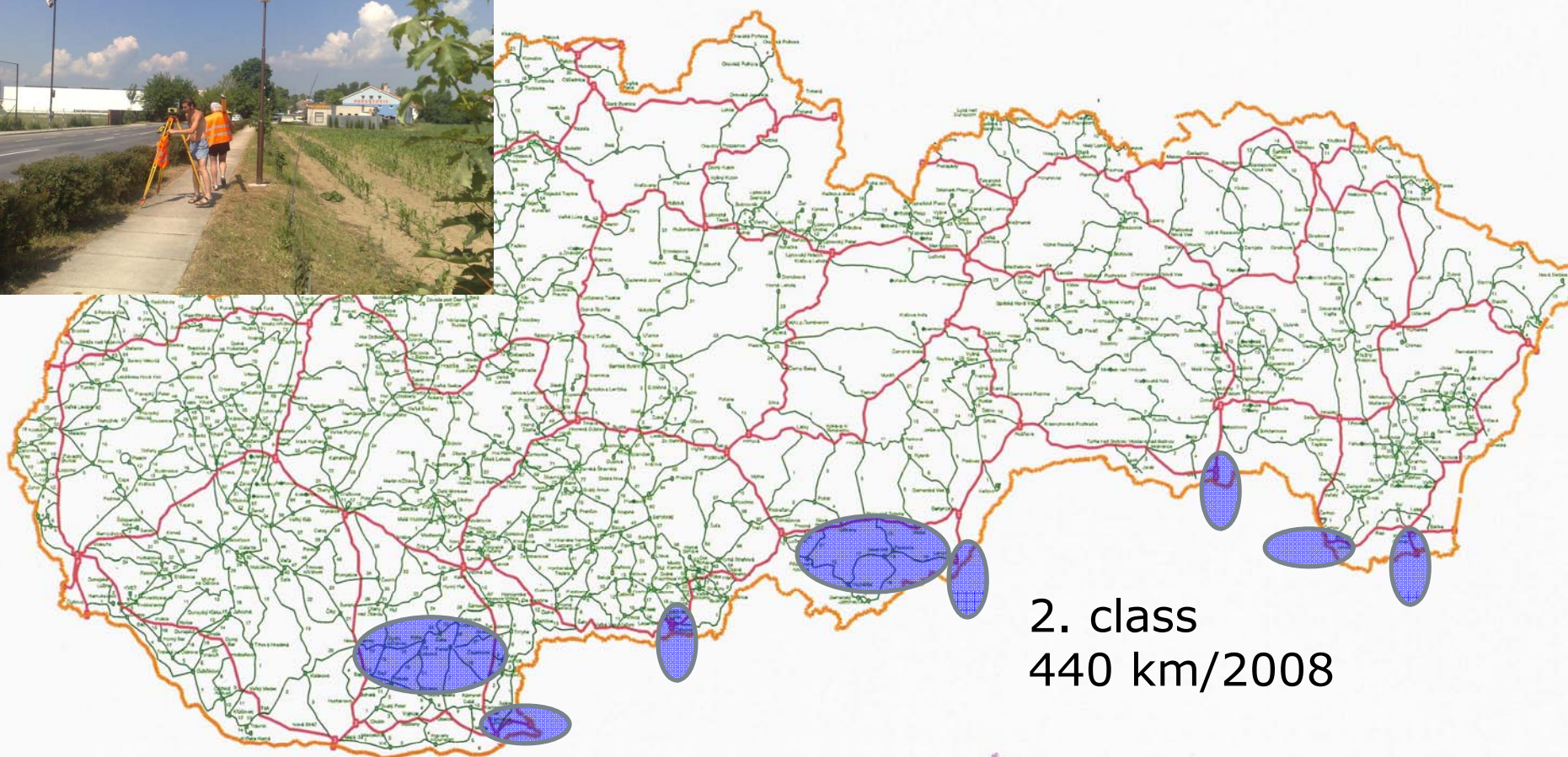
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Florence

27. – 29. May 2009



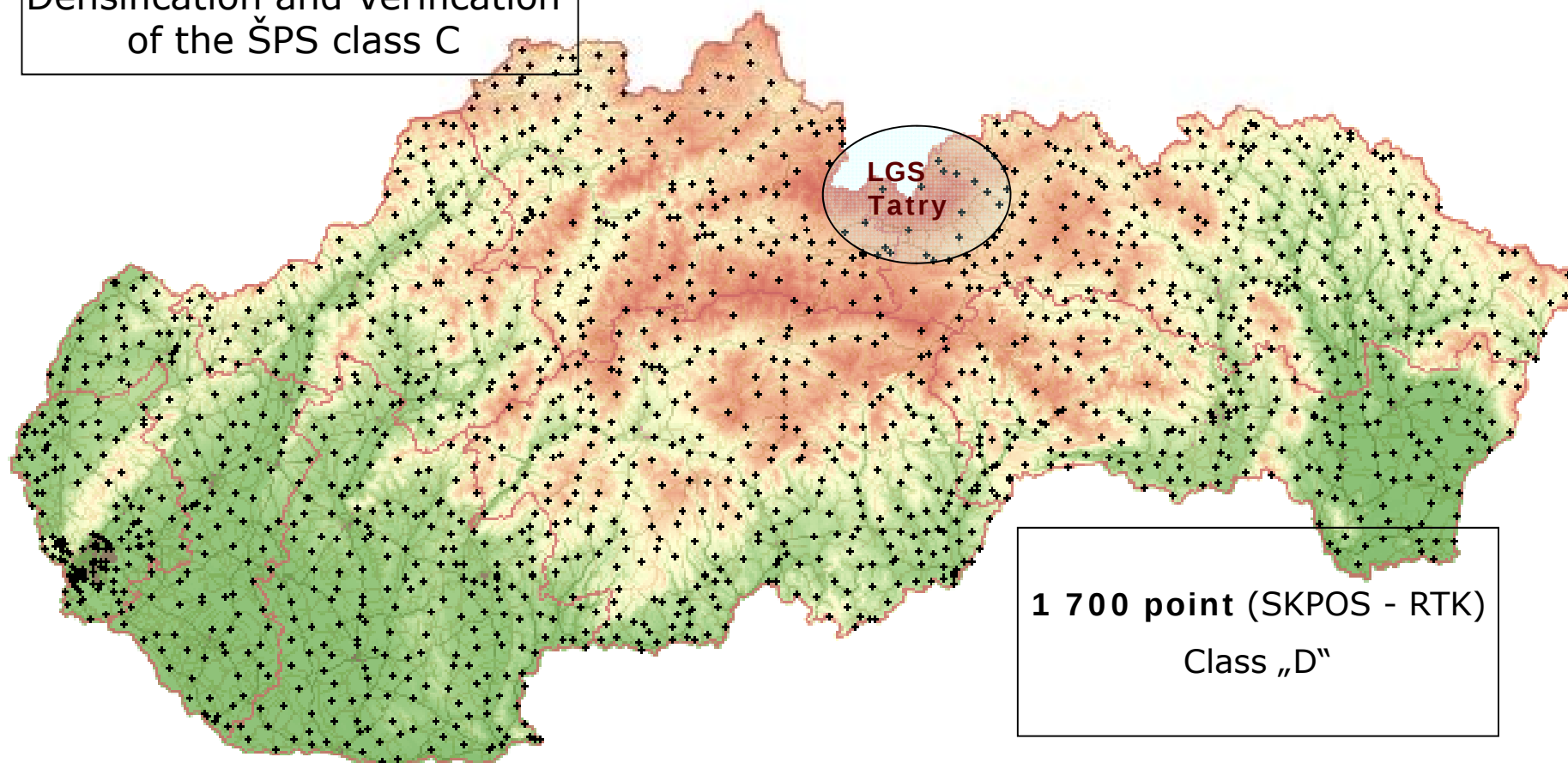
National levelling network Štátna nivelačná sieť - ŠNS (EVRS - Bpv; Ams)





National spatial network Štátna priestorová sieť - ŠPS (ETRS89)

Densification and Verification
of the ŠPS class C



1 700 point (SKPOS - RTK)
Class „D“



Štátna priestorová sieť - ŠPS

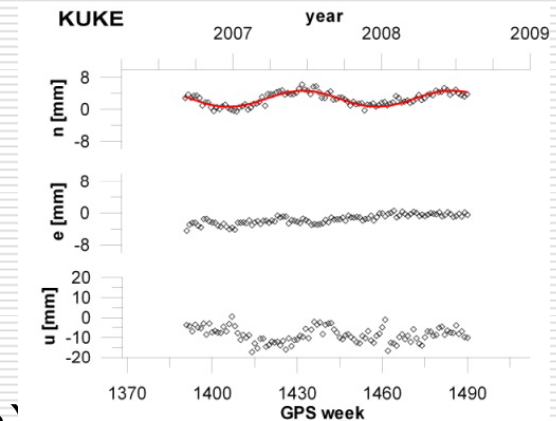
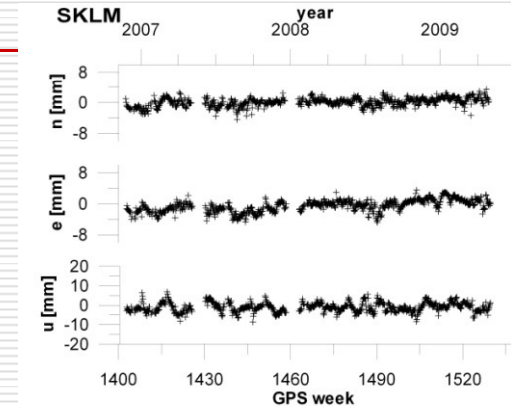
Class „A“ - EUREF related activities

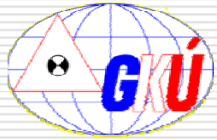
	GANP	EPN SKPOS IGS	320/2003 236/2006 311/2006	EUREF-IP
	BBYS	EPN SKPOS	035/2007 (236/2006)	
	MOP2	EPN SKPOS	237/2008 098/2009	

- EUVN_DA data submission
- EUREF - IP
- EVRS 2008
- LAC SUT Bratislava

SKPOS official reference frame

- ☐ **ETRF2000 (epoch 2006.636)**
- ☐ Computation
 - Data from 4 weeks (from 1412 to 1415)
 - Bernese software v.5.0
 - Antennas absolute phase center variation
 - GPS+GLONASS
 - 10 EPN stations
- ☐ Adjustment
 - WIGS program
 - ITRF2000 velocity model
- ☐ Maintenance
 - Coordinate monitoring
 - Time series analysis (daily data, weekly data)
- ☐ Plan for near future – new reference frame introduction
 - ETRF2000 (R05) - estimation from near 3 years data sets



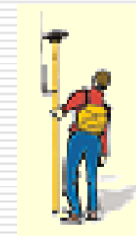


SKPOS (ETRS89)

Services

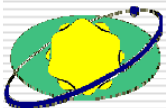
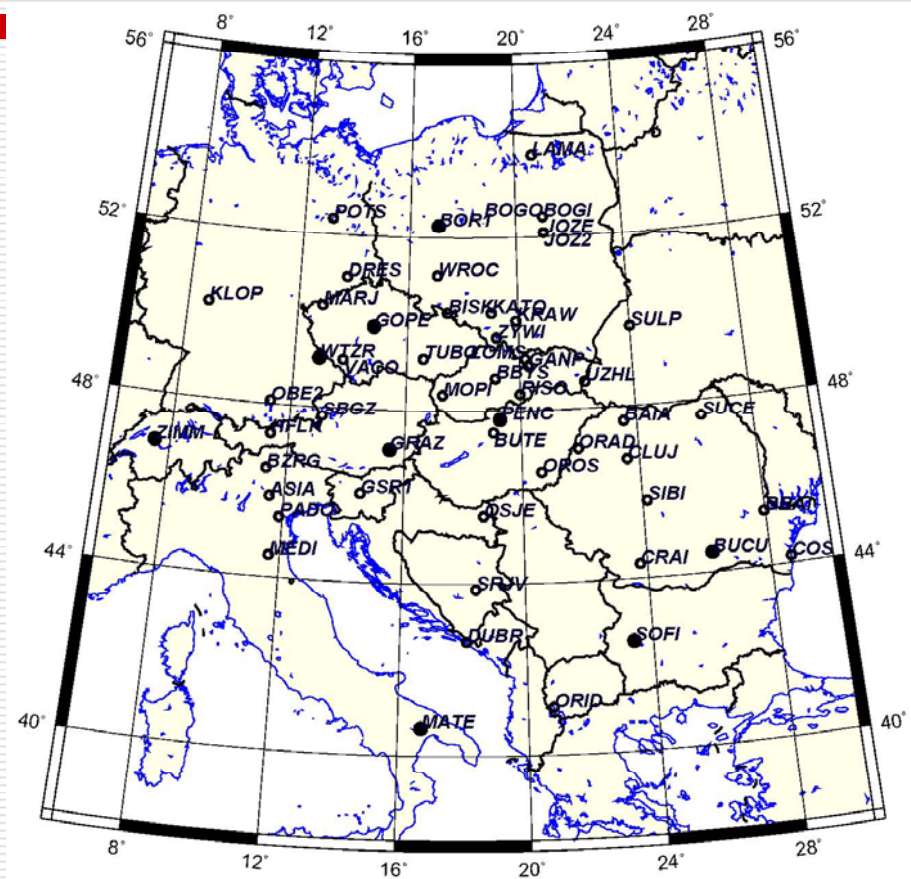
- ☐ SKPOS-*dm* (DGNSS)
- ☐ SKPOS-*cm* (RTK VRS, CMR+)
- ☐ SKPOS-*mm* (RINEX 2.11 postprocessing)

- ☐ Price for registration 350 € / 2009



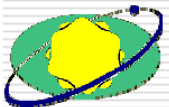
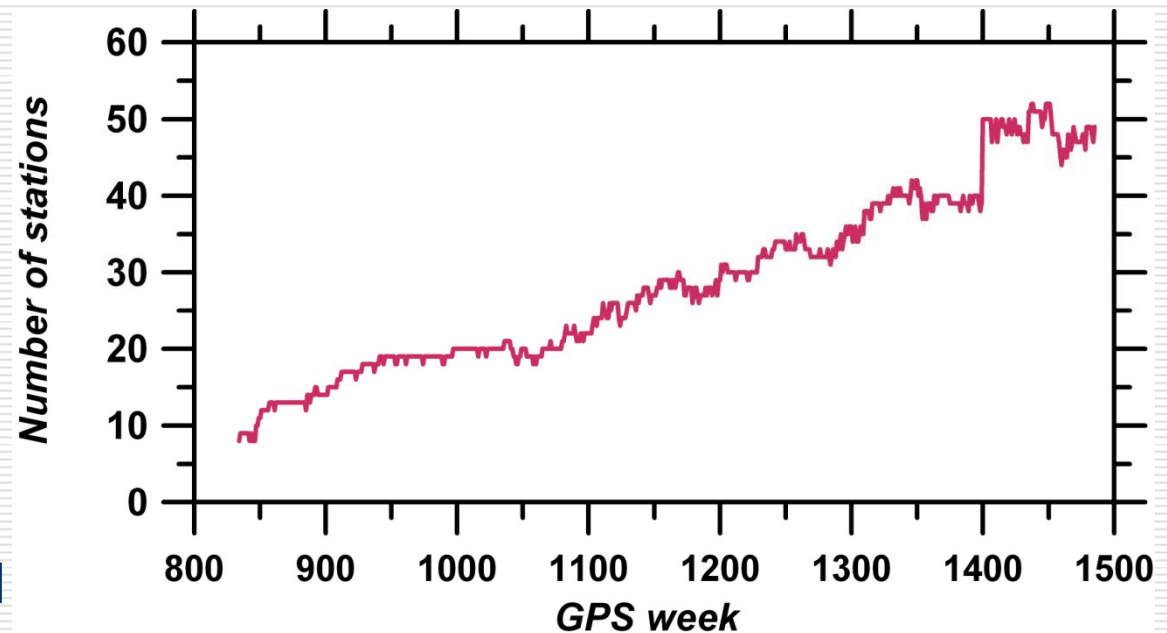
Reprocessing of network of GPS permanent stations in Central Europe (1996-2008)

- At the Slovak University of Technology in collaboration with Institute of Geodesy and Cartography a network of 54 sites (in 2008) was reprocessed.
- 45 EUREF permanent network stations and 9 non- EPN sites are included

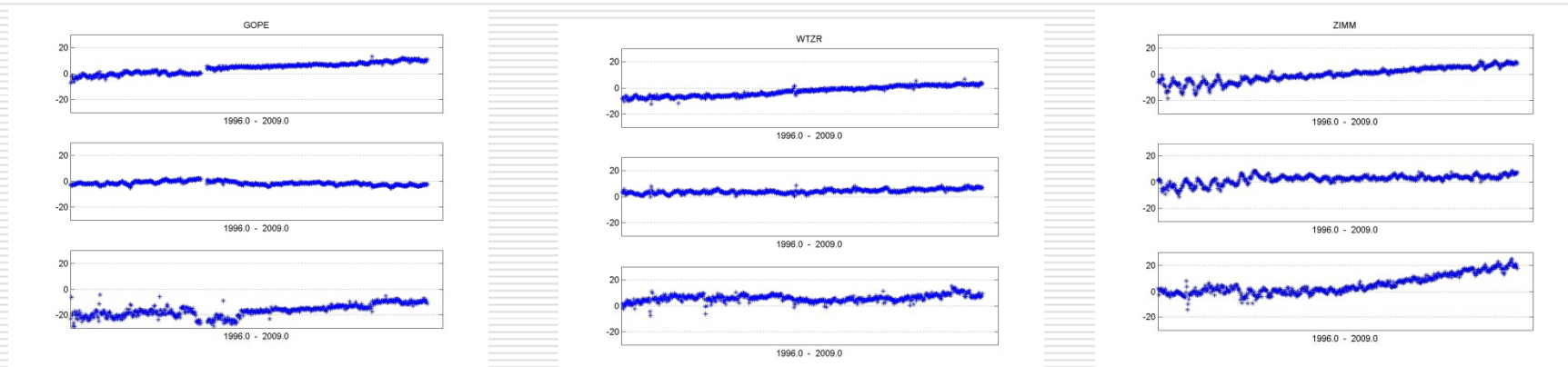


Evolution of number of analyzed GPS permanent stations

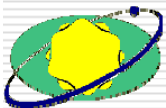
- Start in 1996.0 – 9 stations: BOR1, GOPE, GRAZ, JOZE, LAMA, MATE, POTS, UPAD, ZIMM
- Progressive increase till week 1400 (up to 40 stations)
- In week 1400 (Nov. 2006) 10 stations added
- Recently are 50 – 55 sites analyzed.



Examples of coordinate time series reduced for APKIM2000

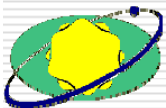
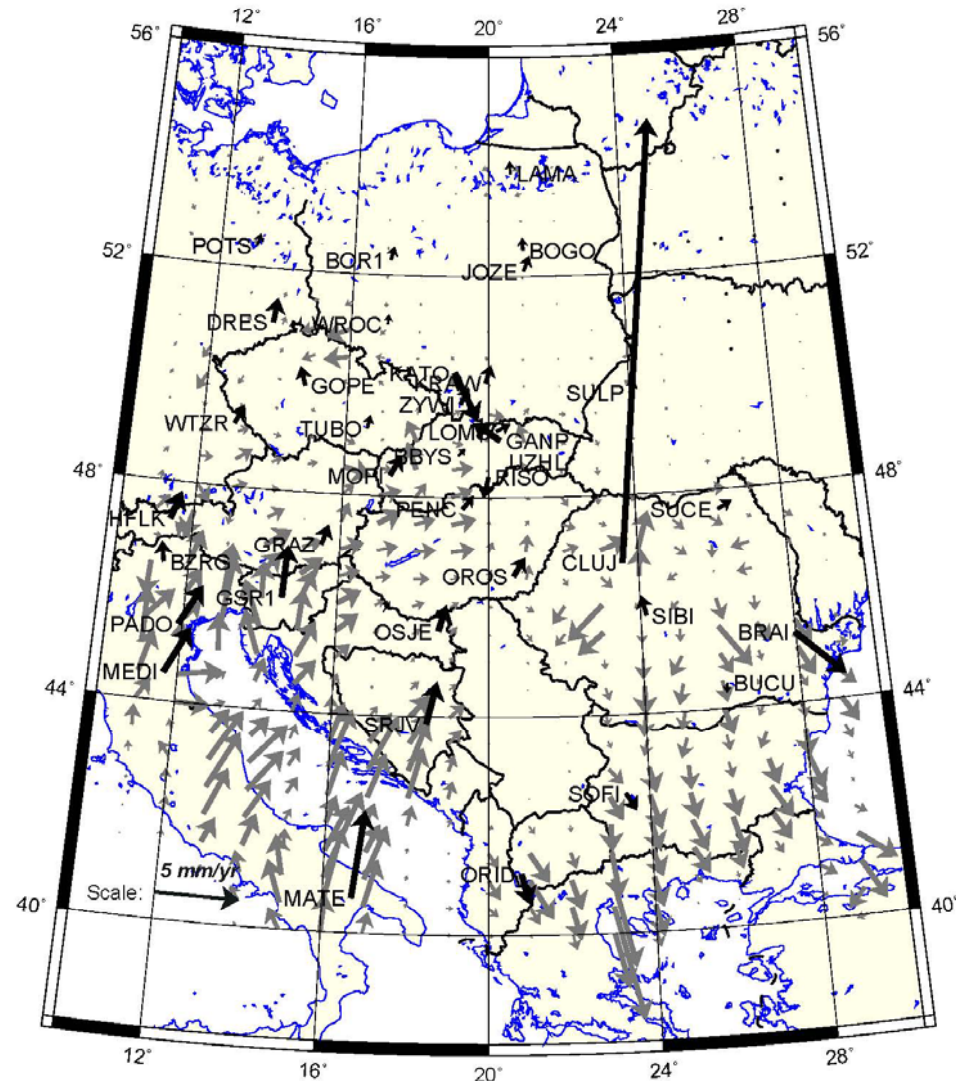


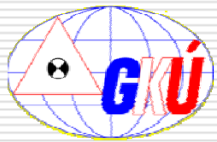
❑ Majority of station yield relatively smooth series, some stations have spurious semiannual variations in horizontal components before 1999.5



Horizontal velocities of CE permanent stations

- ❑ The velocities obtained from reprocessing of permanent GPS stations follow the general pattern resulting from combination of various regional and local sources.
- ❑ Only CLUJ and KATO represent strong local phenomena.





Thank You

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