- MY DAILY WORK AND TECHNICAL DEVELOPMENTS WE ARE WORKING ON-

1ˢᵗ FIG Young Surveyors European Meeting

National Agency for Cadastre and Land Registration
Bucharest, ROMANIA

Lisbon, Portugal, 17ᵗʰ – 18ᵗʰ October 2013

CONTENT

◆ **1. My daily work**

✓ ROMPOS system administration;
✓ approval and acceptance of specialized works;
✓ advices for cityzens related to the field of geodesy.

◆ **2. Technical developments we are working on**

✓ back-up solution for ROMPOS servers;
✓ a national gravimetric quasigeoid model for Romania

ROMANIAN GNSS Network
## (National Space Geodetic Network)
ETRS89 official introduced

Applications	Class	E (cm)	Realization by
First class national geodetic network Regional and local geodynamic, deformation projects, engineering surveying, et al.	Ao/A	1.0	*Permanent stations* *74 ANCPI* ✔ *+1 TUCE* ✔
Second class national geodetic network connections to primary network, engineering surveying, landslides	B	2.0	*Epoch stations* *306 points* ✔ *(2003)*
Third class national geodetic network engineering surveying, cadaster	C	3.0	*about 4750 points* *(1pt/50km^2)~100 pts/county* Realization 100%
Fourth class national geodetic network cadaster, GIS et al.	D	5.0	*(1pt/5km^2) (Finalized only for Bucharest area)*

GNSS Network Class Ao/A is the core of ROMPOS
(Romanian Position Determination System)

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✓ **Romanian Position Determination System (ROMPOS) administration**
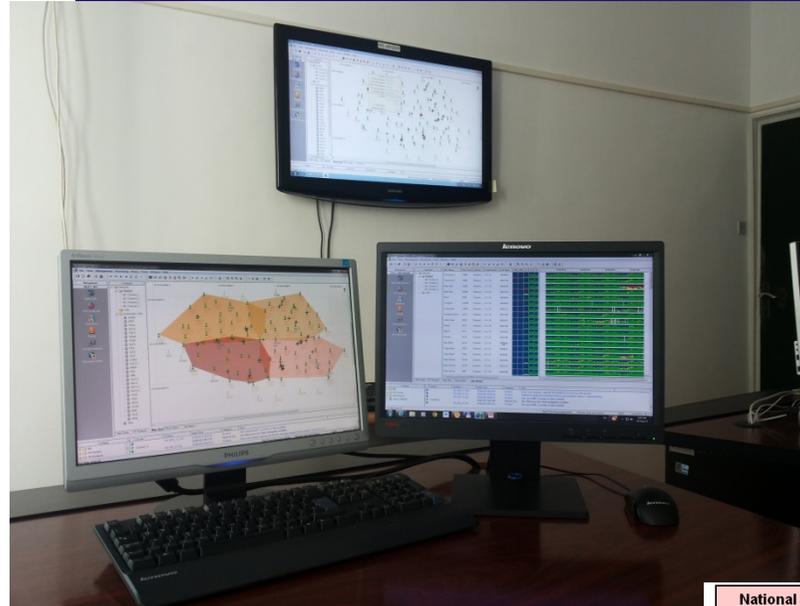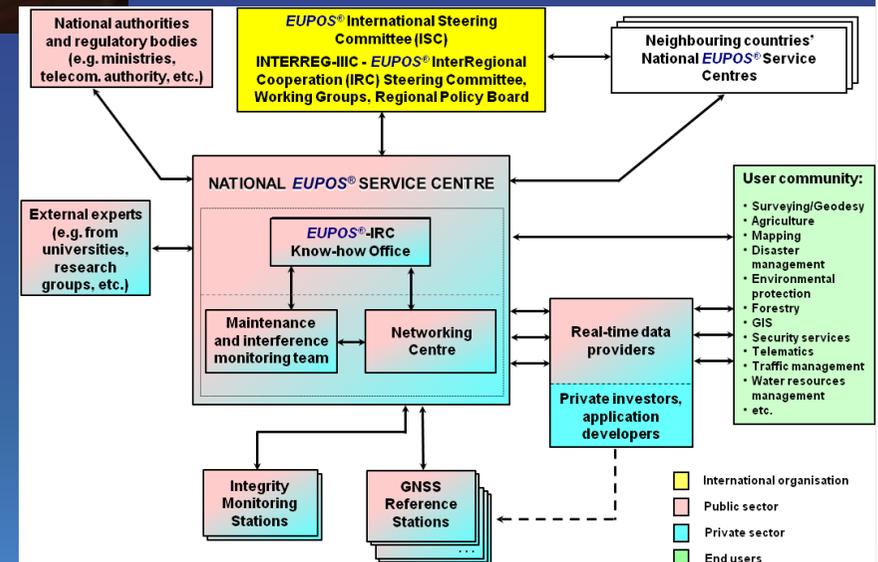

National Center for ROMPOS Services

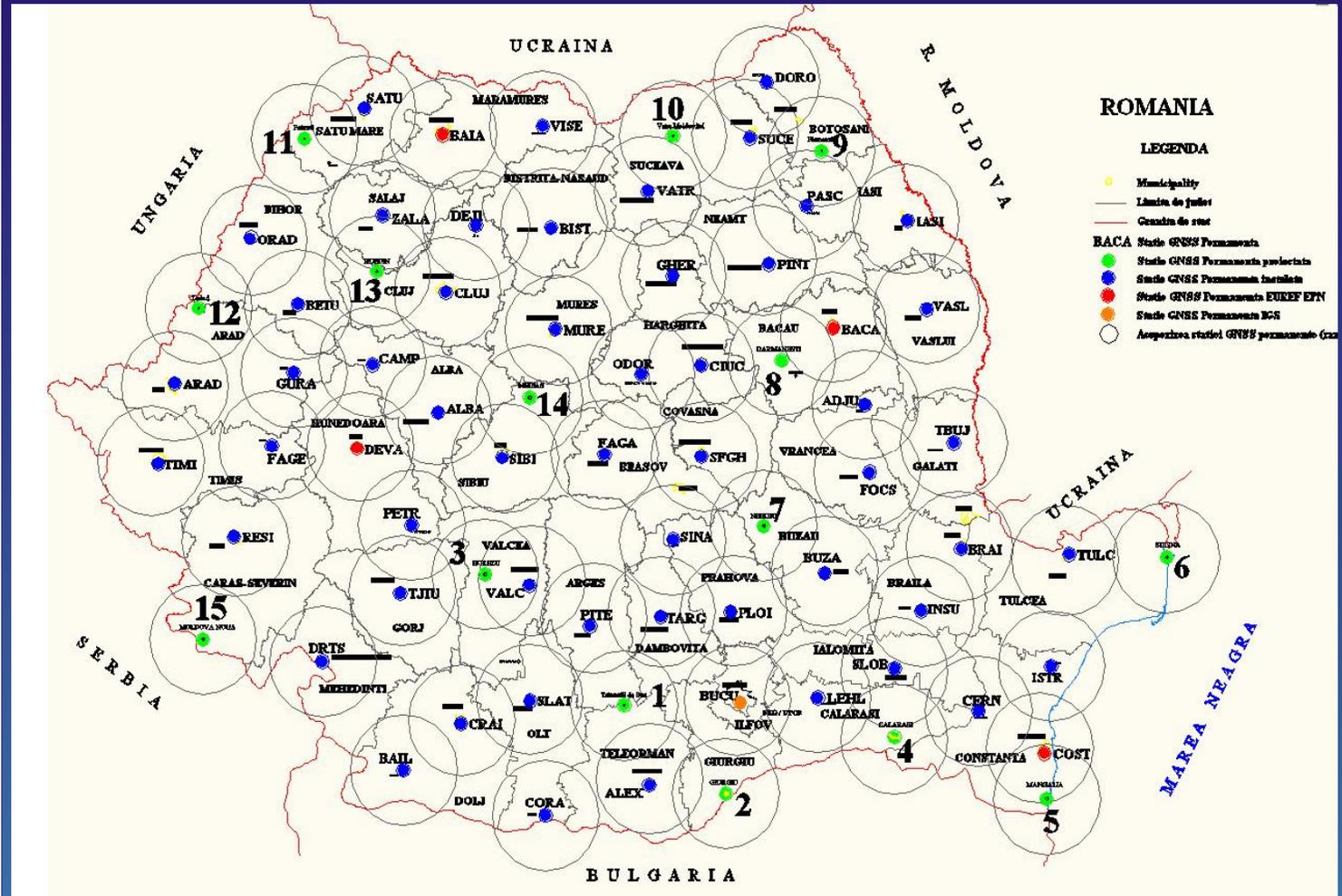**About 2700 registred users of ROMPOS-RTK (last year in march the number was 2100)**

ROMPOS = Registered mark in Romania

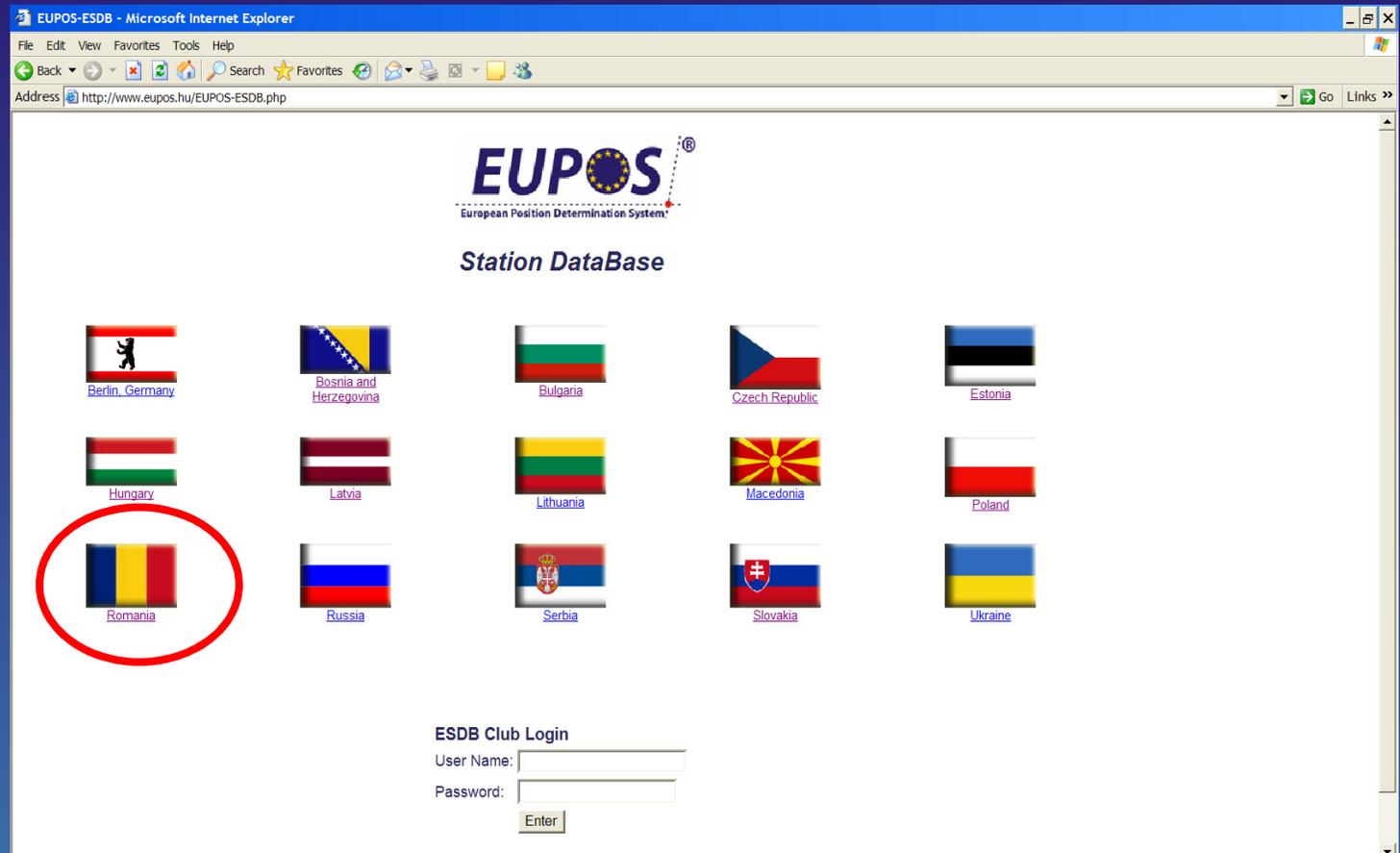**Networking software achieved and installed in May 2009 (7 servers ; 4 clusters; up to 9Tb)**

ROMPOS stations – 2012 : 75 stations
(black numbers – position of last 15 stations installed)

ROMPOS station information – included into EUPOS Station DataBase (IDs, coordinates, antenna, et al.)

EUREF-EPN stations – 5 stations
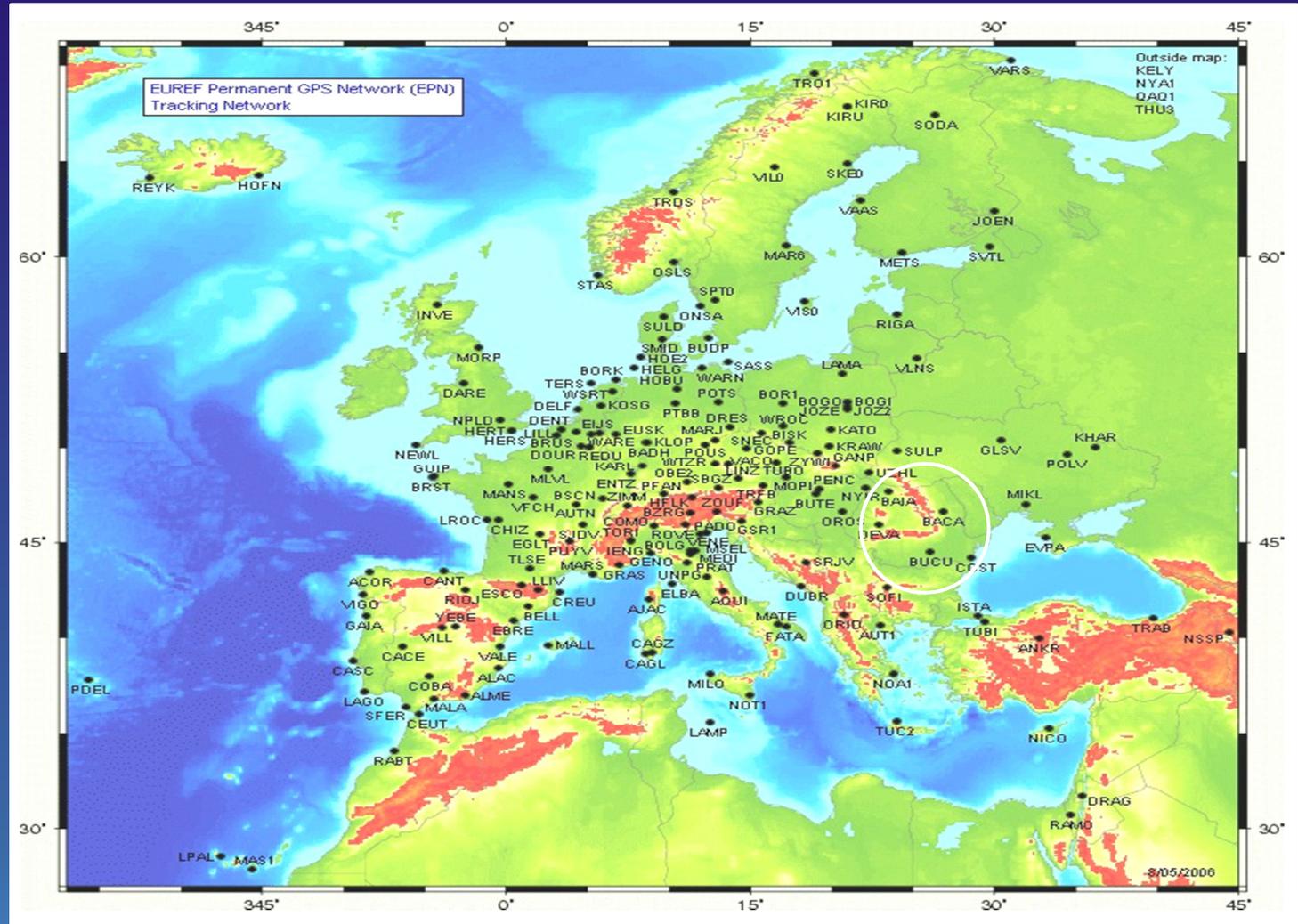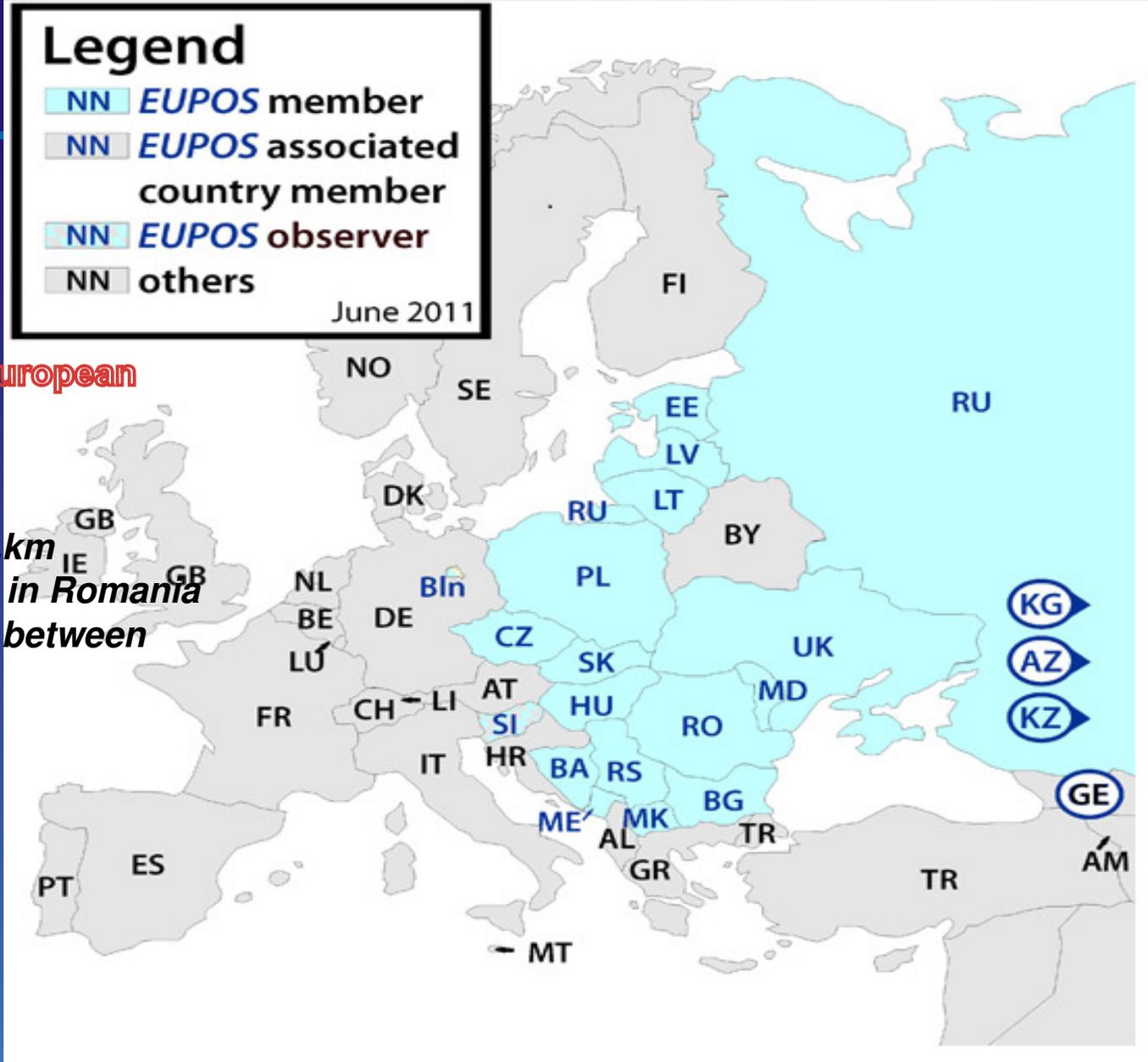## (1 GNSS and 4 GPS stations)

BUCU-Bucharest - IGS

BACA-Bacau
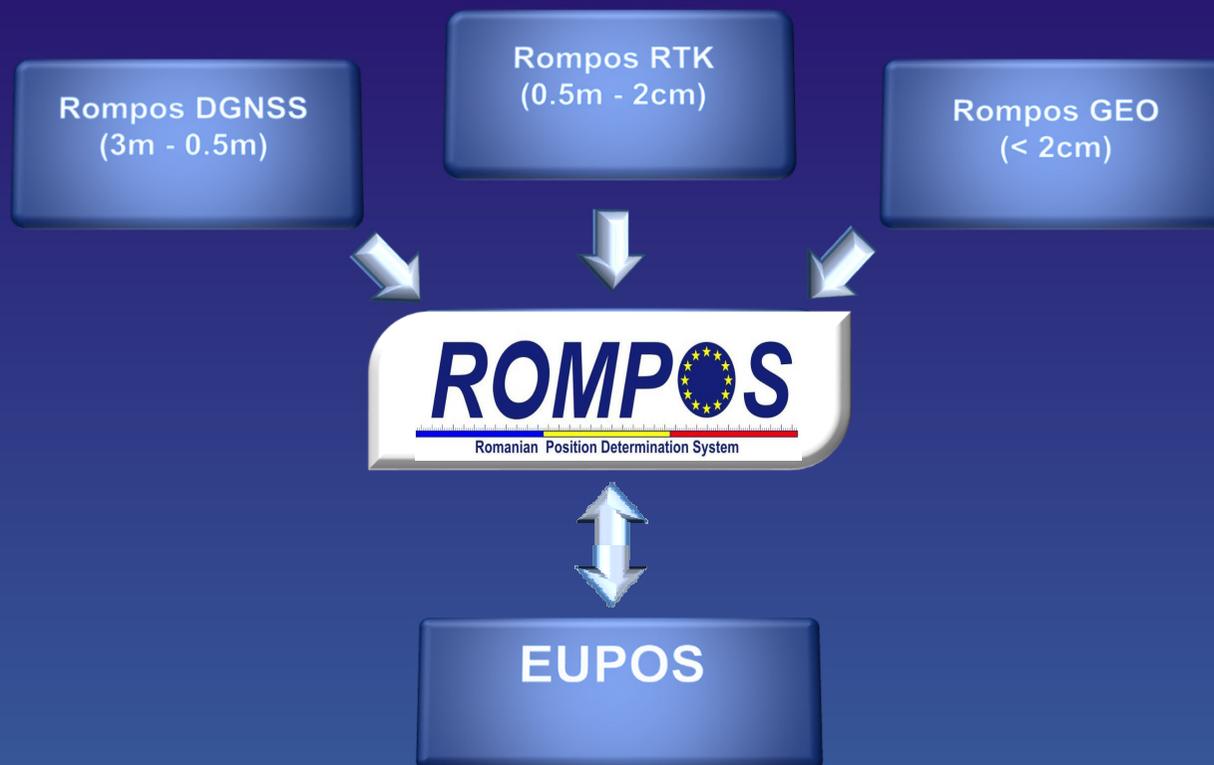
BAIA-Baia Mare

COST-Constanta

DEVA-Deva

Central and East European countries

Romania
- *Area - 237,500 sq.km*
- *75 perm. stations in Romania*
- *Medium distance between stations: 70 km*

http://www.eupos.org

ROMPOS services

Rompos DGNSS
(3m - 0.5m)

Rompos RTK
(0.5m - 2cm)

Rompos GEO
(< 2cm)

ROMPOS
Romanian Position Determination System

EUPOS

EUPOS

18 Central end East European countries

More than 400 reference stations

Common standards

Similar products and services

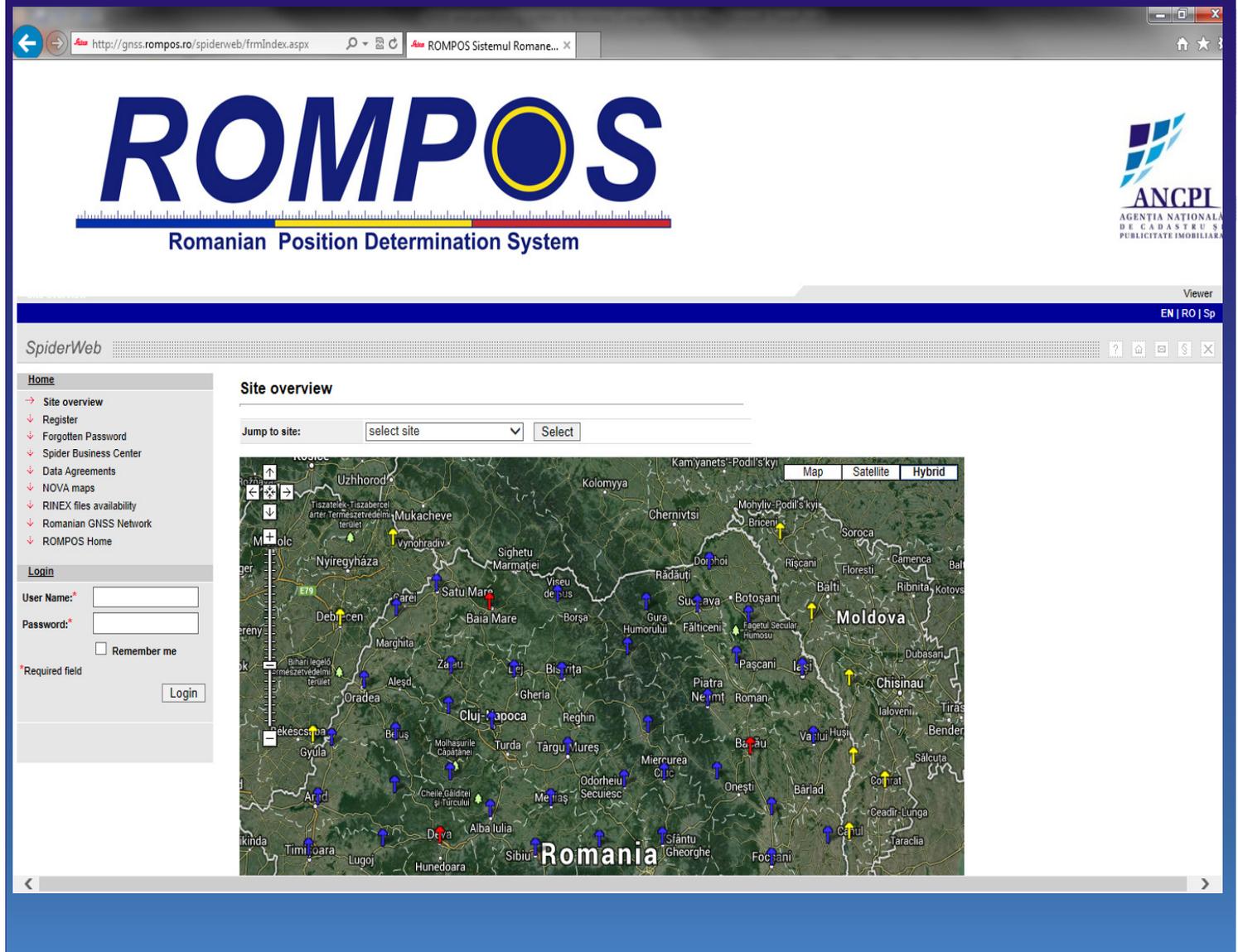*Launched : September 2008*

ROMPOS-DGNSS&RTK – free of charge

ROMPOS-GEO - charged

ROMPOS web site
www.rompos.ro

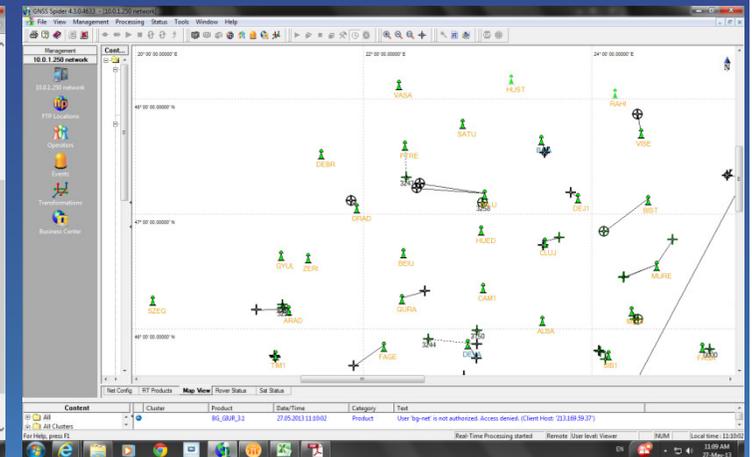# Cross border data exchange

Data exchange with neighbour countries:
HU: 4 stations
RS: 4 stations
BG: 5 stations
MD: 6 stations
UA: 4 stations
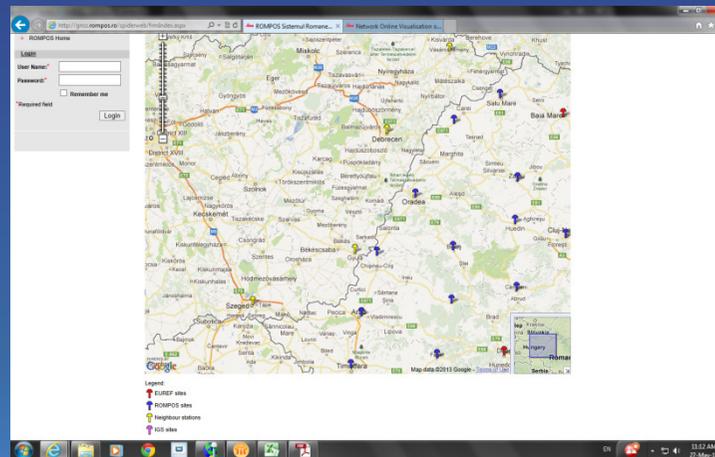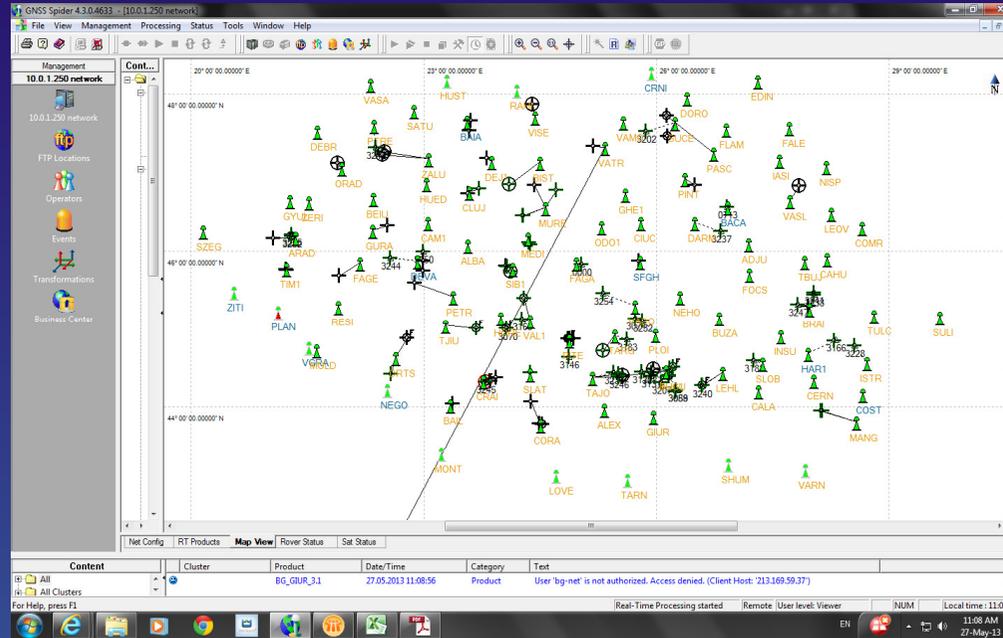
✓ **Back-up solution for ROMPOS servers**

Networking software achieved and installed in May 2009
(7 servers ; 4 clusters; up to 9Tb)
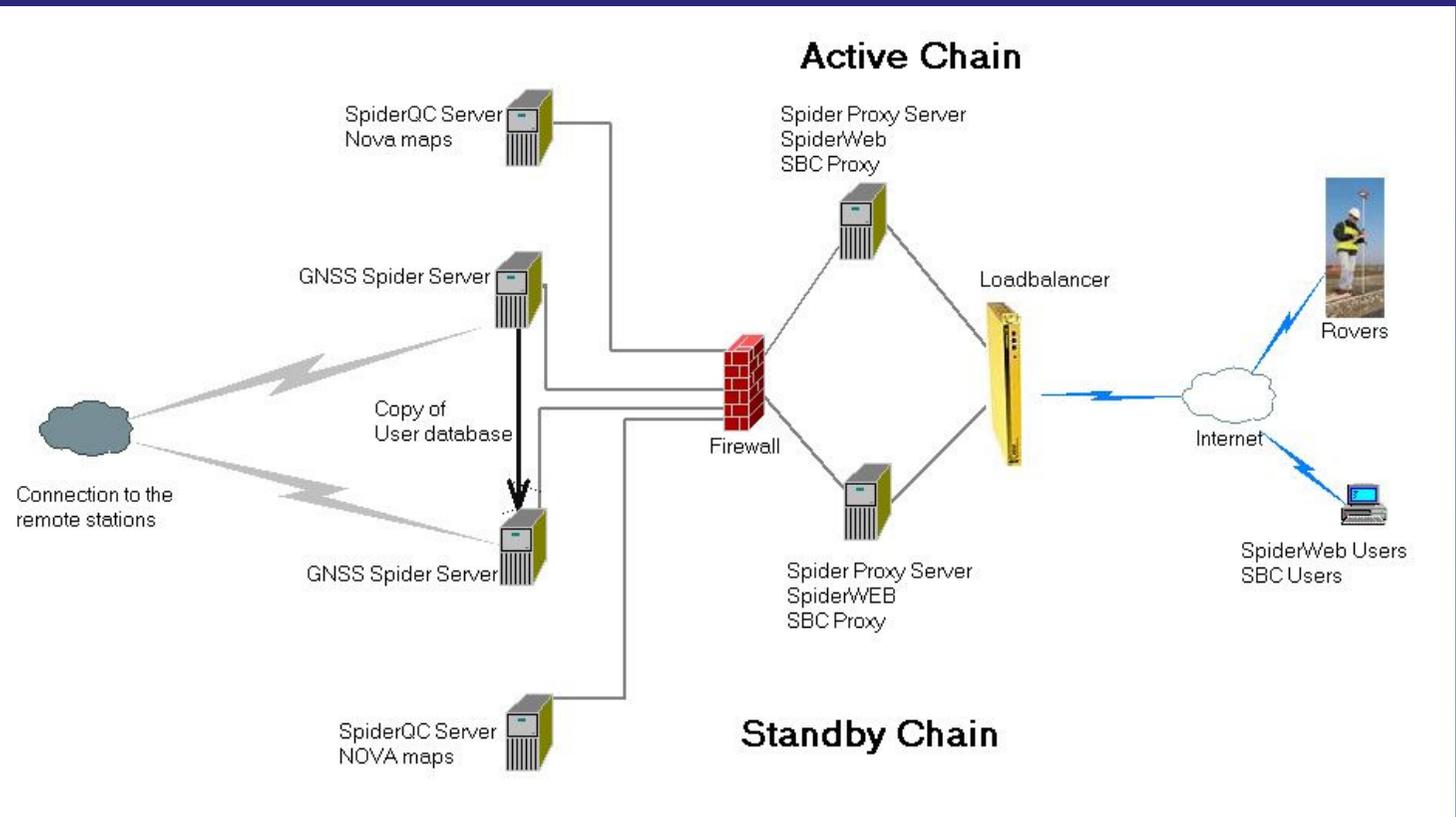
✓ *Developing of a precise national gravimetric quasigeoid model for Romania*

❖ **now available only for Bucharest area**
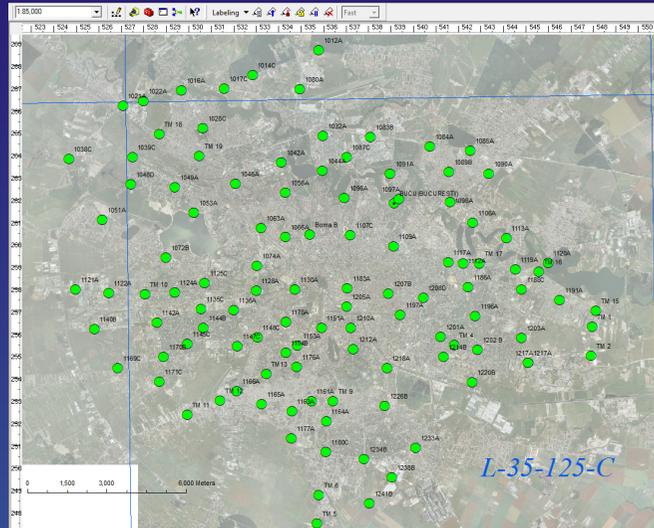
- 114 points
- 3 kind of determinations: gravimetric and GNSS / levelling;
- standard deviation of high anomaly: ± 0.039 m

Main statistics of the new quasigeoid model

Statistic	[m]
Min.=	-0.118
Max.=	0.127
Average=	0.002
Std deviation=	0.039

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Thank you !

References

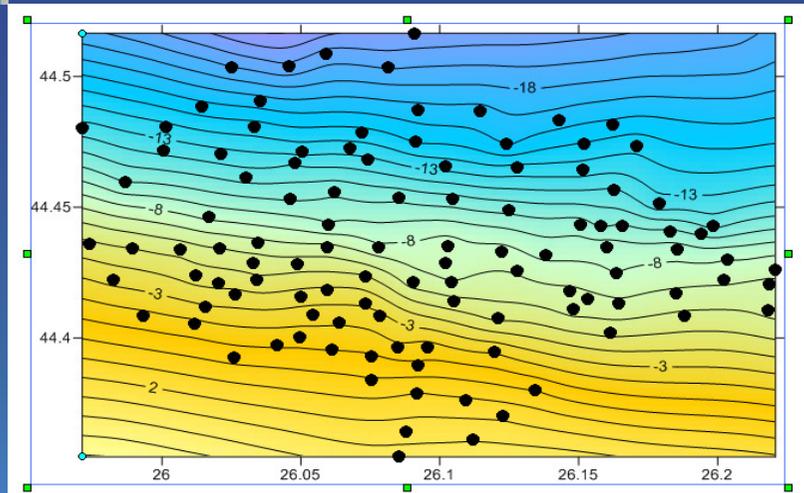- Ordinul nr. 634/2006 pentru aprobarea Regulamentului privind conţinutul şi modul de întocmire a documentaţiilor cadastrale în vederea înscrierii în cartea funciară;
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- European Position Determination System, Technical Standards, Revised 2nd Edition, 24 April 2008, Resolution of the International EUPOS® Steering Committee, 13th Conference, Bucharest, Romania, 23 – 24 April 2008
- European Position Determination System, *Guidelines For Cross-Border Data Exchange*, Version 1.0, 21 September 2006
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- T. Rus, P.Dragomir, N. Avramiuc, P.Dumitru, M.Fădur, V.Sorta - ROMPOS for Cadastre Applications, International Symposium on Global Navigation Satellite Systems, Space-Based and Ground-Based Augmentation Systems and Applications 2009; Berlin, Germany, 30 November - 2 December 2009.

www.rompos.ro
www.ancpi.ro
www.eupos.org