

# Status Report on the *EUPOS* System and advanced Activities

**Gerd Rosenthal**

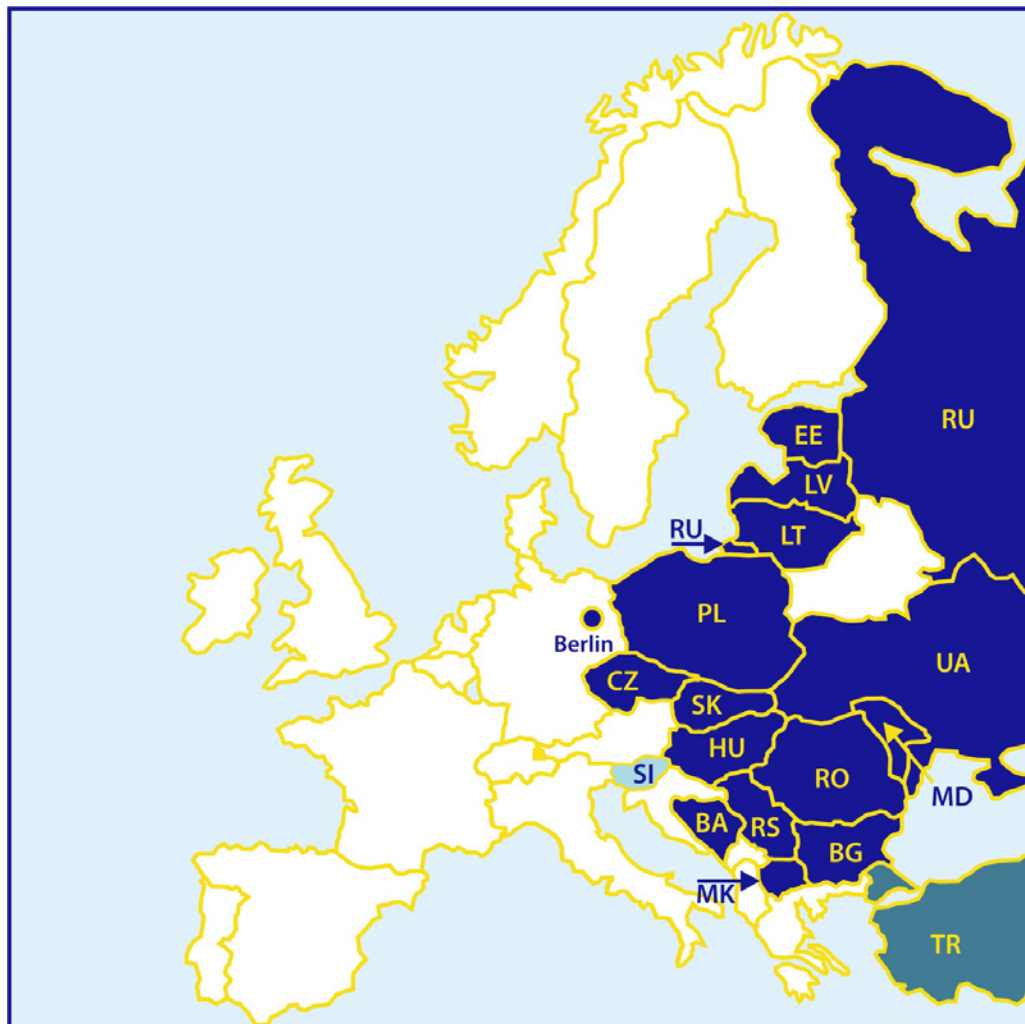
Office of the International *EUPOS*<sup>®</sup> Steering Committee  
Senate Department for Urban Development  
Division III – Geoinformation, Land Surveying, Evaluation  
Section III B - Geodetic Reference Systems  
Fehrbelliner Platz 1, 10707 Berlin, Germany  
phone +49 30 90 12 - 56 15, mobile +49 0172 39 09 619,  
fax +49 30 90 12 - 37 09  
[gerd.rosenthal@eupos-isco.org](mailto:gerd.rosenthal@eupos-isco.org)  
[gerd.rosenthal@senstadt.berlin.de](mailto:gerd.rosenthal@senstadt.berlin.de)  
[www.eupos.org](http://www.eupos.org)

## Contents

- 1 *EUPOS* members and the regional reference system
- 2 *EUPOS* services and technical specifications
- 3 The organisation of *EUPOS*
- 4 Advanced activities
- 5 The International Symposium on GNSS, Space-based and  
Ground-based Augmentation Systems and Applications

## **EUPOS members**

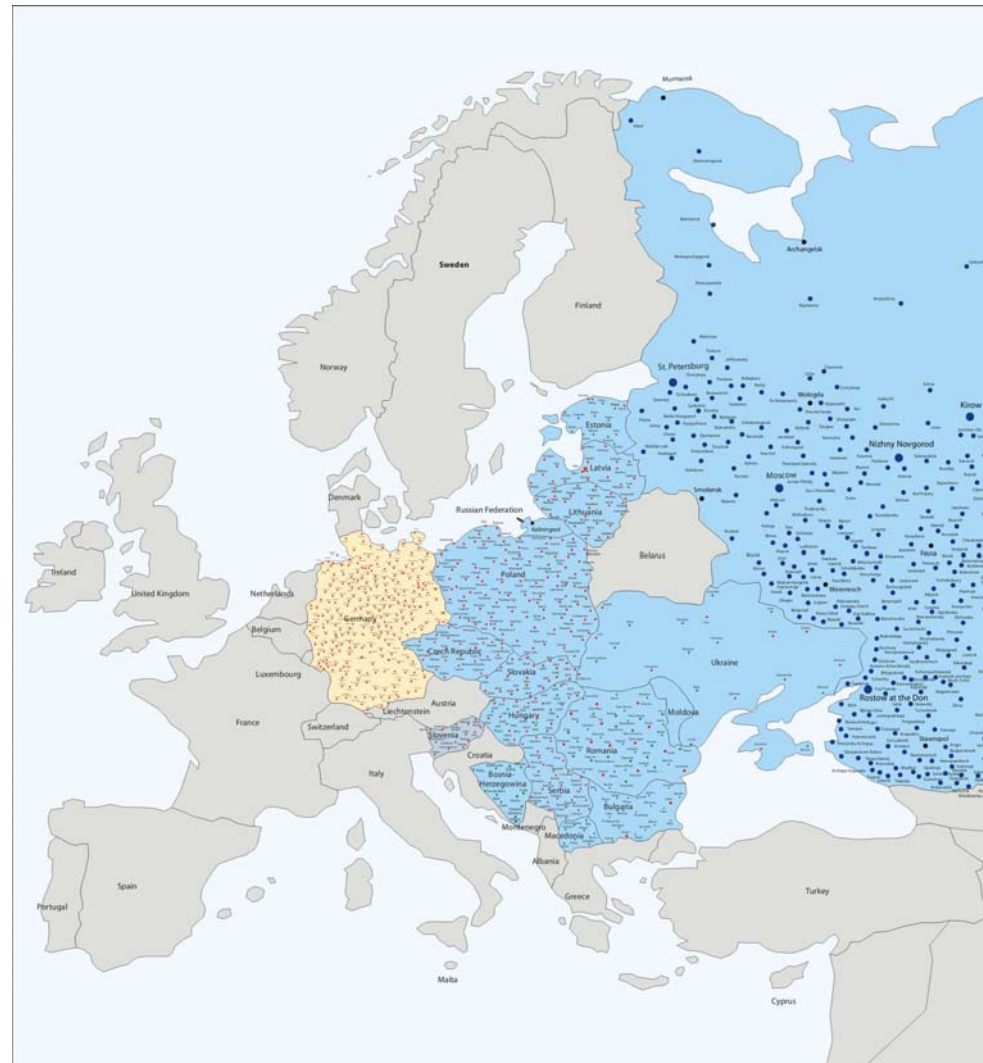
Bosnia and Herzegovina  
Bulgaria  
Czech Republic  
Berlin (ISCO)  
Estonia  
Hungary  
Latvia  
Lithuania  
Macedonia  
Moldova  
Poland  
Romania  
Russian Federation  
Serbia  
Slovakia  
Slovenia (observer)  
Turkey (guest)  
Ukraine



EUPOS members, observer and guests  
as at April 18<sup>th</sup>, 2008



## The regional *EUPOS* reference system



## **Actual documents of the *EUPOS*-ISC**

### ***EUPOS* Terms of Reference**

20 September 2007, updated on 23 April 2008

### ***EUPOS* Technical Standards**

complete revised second edition, 24 April 2008

### ***EUPOS* Guidelines for Cross-Border Data Exchange**

Version 1.0, 21 September 2006

### ***EUPOS* Guidelines for *EUPOS* Reference Frame Fixing**

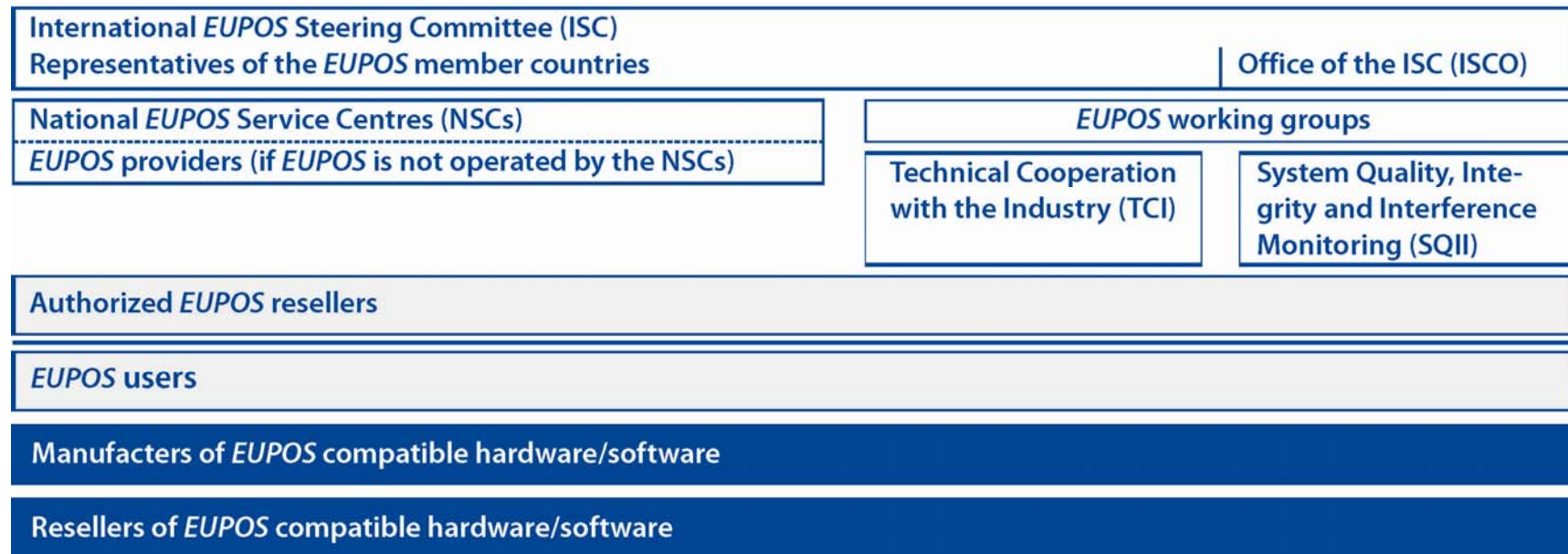
Version 1.0, 21 September 2007

### ***EUPOS* Guidelines for Single Site Design**

Version 2.1, 4 June 2008

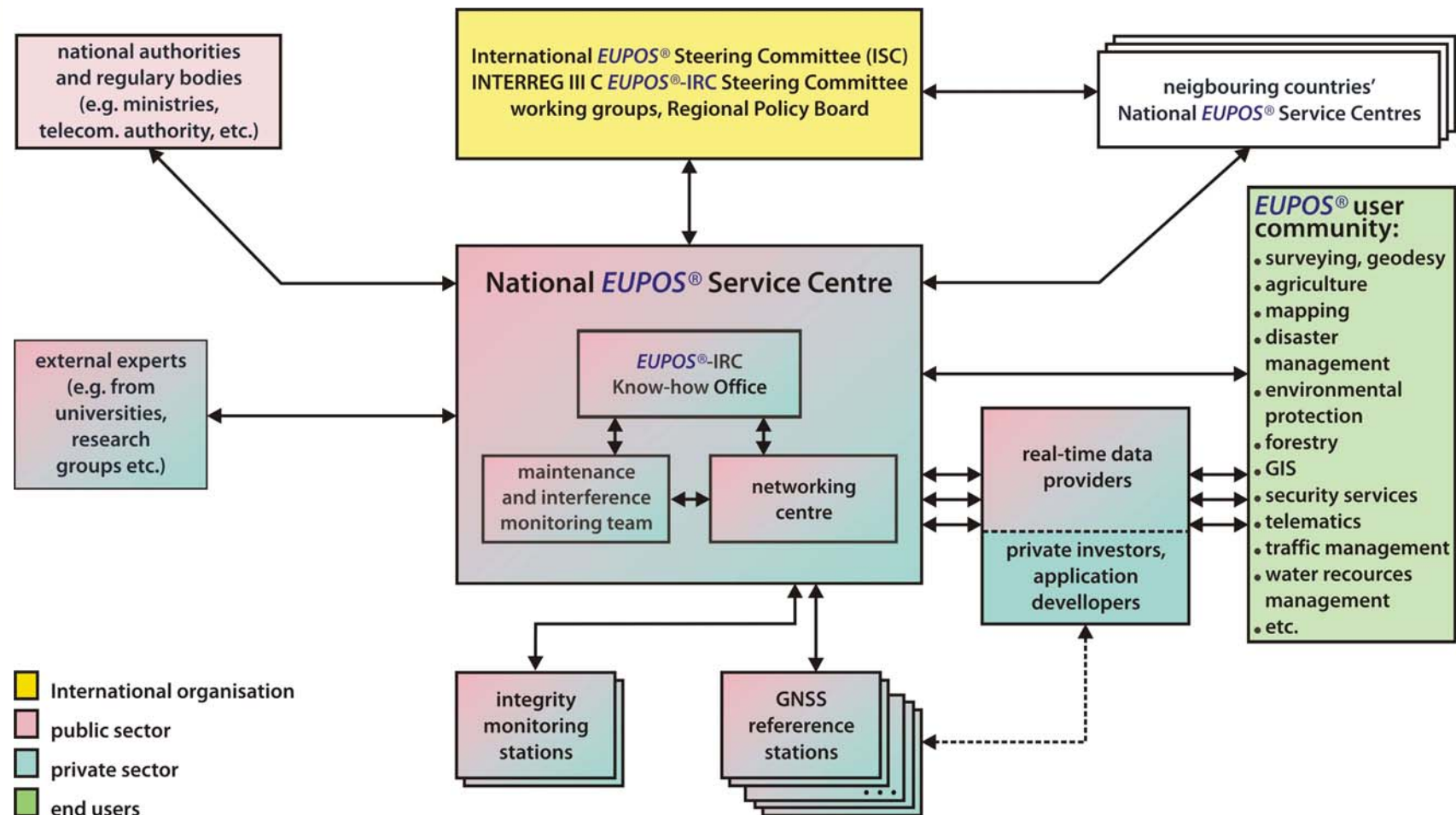
⇒ [http://www.eupos.org/index.php?option=com\\_content&task=view&id=43&Itemid=91](http://www.eupos.org/index.php?option=com_content&task=view&id=43&Itemid=91)

## The organisational structure of *EUPOS*





## EUPOS National Service Centres structure



## **EUPOS cooperation and collaboration with other organisations**

Cooperation with the United Nations Office for Outer Space Affairs.

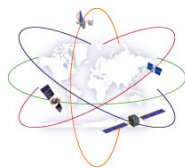
*EUPOS* is associated member of the International Committee on GNSS.

GALILEO Joint Undertaking accepted the necessity of ground-based GNSS augmentation systems and welcomed *EUPOS*.

*EUPOS* initiates cooperation of sub-Saharan African countries and GNSS enterprises under patronage of the UN/ ICG to establish “full scale accuracy” ground-based DGNSS.

Official participation of representatives both EUREF TWG and *EUPOS* ISC in the other organisation’s conferences.

*EUPOS* is member of the Radio Technical Commission for Maritime Services (RTCM).



**ICG** International Committee on  
Global Navigation Satellite Systems





## EUPOS-InterRegional Cooperation (EUPOS-IRC)

### Duration

October 2006 - December 2007

### Budget

ERDF funding	191.950,- €
National Co-financing	118.850,- €
Total budget	310.800,- €

PROJECT PART-FINANCED  
BY THE EUROPEAN UNION



North EAST South West

**INTERREG IIIC**

### Partners

<b>Germany</b> (Lead Partner)	Berlin Senate Department for Urban Development Division Geoinformation, Land Surveying, Valuation
<b>Hungary</b>	Institute of Geodesy, Cartography and Remote Sensing; Satellite Geodetic Observatory
<b>Poland</b>	Head Office of Geodesy and Cartography
<b>Latvia</b>	University of Latvia Institute of Geodesy and Geoinformation
<b>Latvia</b>	Riga GeoMetrs Ltd.
<b>Lithuania</b>	Vilnius Gediminas Technical University Institute of Geodesy
<b>Serbia</b>	University of Novi Sad Faculty of Technical Sciences
<b>Bulgaria</b>	Bulgarian Academy of Sciences Institute of Water Problems
<b>Romania</b>	National Agency for Cadastre and Land Registration

### Outputs

(Selection; cf. *EUPOS-IRC* booklet)

National *EUPOS* Service Centres (NSCs) concept is developed, *EUPOS-IRC* Know-how Offices established, after project's end transferred into NSCs.

Large-scale exchange of information, knowledge and experience (websites, booklet, leaflets, workshops, study visits, training courses, lectures, study, etc.).

Showcase events to demonstrate pilot applications, partly introduced into practical use.

Provisions made for the establishment of a Regional Policy Board.



International Committee on  
Global Navigation Satellite Systems



## **International Symposium on Global Navigation Satellite Systems, Space-based and Ground-based Augmentation Systems and Applications Berlin, Germany, 11 - 14 November 2008**

Organised by the Federal State of Berlin, represented by the Senate Department for Urban Development, the International *EUPOS* Steering Committee, the International Committee on Global Navigation Satellite Systems and the United Nations Office for Outer Space Affairs

### **Location:**

Berlin City Hall, Rathausstr. 15,  
10178 Berlin, Germany





International Committee on  
Global Navigation Satellite Systems



## **International Symposium on GNSS, Space-based and Ground-based Augmentation Systems and Applications**

### **Organisational/ Programme Committee**

Gerd Rosenthal, Berlin Senate Department for Urban Development and International EUPOS Steering Committee Office (EUPOS-ISCO)

Sharafat Gadimova, United Nations Office for Outer Space Affairs (UN OOSA) and ICG Secretariat

Prof. Dr. Hans Haubold, United Nations Office for Outer Space Affairs (UN OOSA) and ICG Secretariat

Prof. Dr. John M. Dow, European Space Agency (ESA/ESOC) and International GNSS Service (IGS)

Katarína Leitmannová, Geodesy, Cartography and Cadastre Authority of the Slovak Republic and International EUPOS Steering Committee (EUPOS ISC)

Dr. Johannes Ihde, Federal Agency for Cartography and Geodesy (BKG) and International Association of Geodesy Reference Frame Sub-Commission for Europe (EUREF)

### **Draft Programme**

**11 Nov. 2008:** DGNSS application related excursions, and town planning related bus tours

**12 Nov. 2008:** Companies and trade exhibition; Sessions (Opening, GNSS Providers, Global Ground-based GNSS Services & Analyses, Regional Reference Systems, GNSS Companies), Senators' reception

**13 Nov. 2008:** Companies and trade exhibition  
Sessions (Real Time, Quality Assurance, National Networks, Applications)

**14 Nov. 2008** Companies and trade exhibition; (National Networks, Applications, Closing session)

# Thank you very much for your attention!

## Links:

<http://www.eupos.org> (EUPOS)

<http://www.stadtentwicklung.berlin.de/geoinformation/landesvermessung/index.shtml> (Berlin)

[http://www.stadtentwicklung.berlin.de/internationales\\_eu/geoinformation/](http://www.stadtentwicklung.berlin.de/internationales_eu/geoinformation/) (BE)

<http://www.unoosa.org/oosa/index.html> (UN OOSA)

<http://www.unoosa.org/oosa/en/SAP/gnss/icg.html> (ICG)



International Committee on  
Global Navigation Satellite Systems



## International Symposium on Global Navigation Satellite Systems, Space-based and Ground-based Augmentation Systems and Applications



Berlin, Germany

11 - 14 November 2008

organised and co-organised by the Federal State of Berlin, represented by the Senate Department for Urban Development, the International EUPOS Steering Committee, the International Committee on Global Navigation Satellite Systems and the United Nations Office for Outer Space Affairs

Lectures, trade exhibition, excursions

Location of the event is the Berlin City Hall,  
Rathausstraße 15, 10178 Berlin

### Contact:

Berlin Senate Department for Urban Development  
Division III - Geoinformation, Land Surveying, Valuation  
Section III B - Geodetic Survey, Three-dimensional Geodesy  
Fehrbelliner Platz 1, 10707 Berlin, Germany  
phone: +49 30 90 12 56 15 fax: +49 30 12 37 09  
eckhard.bockjenstedt@berlin.de

### Organiser's and co-organisers' links:

[www.stadtentwicklung.berlin.de](http://www.stadtentwicklung.berlin.de) [www.eupos.org](http://www.eupos.org) [www.unoosa.org/oosa/en/SAP/gnss/icg.html](http://www.unoosa.org/oosa/en/SAP/gnss/icg.html)