



HEAD OFFICE OF GEODESY AND CARTOGRAPHY

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ASG-EUPOS

MULTIFUNCTIONAL SYSTEM OF PRECISE SATELLITE POSITIONNING

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European Regional
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✓ Introduction

✓ ASG-EUPOS system

ASG-EUPOS description

Services provided

✓ Project development

Milestones

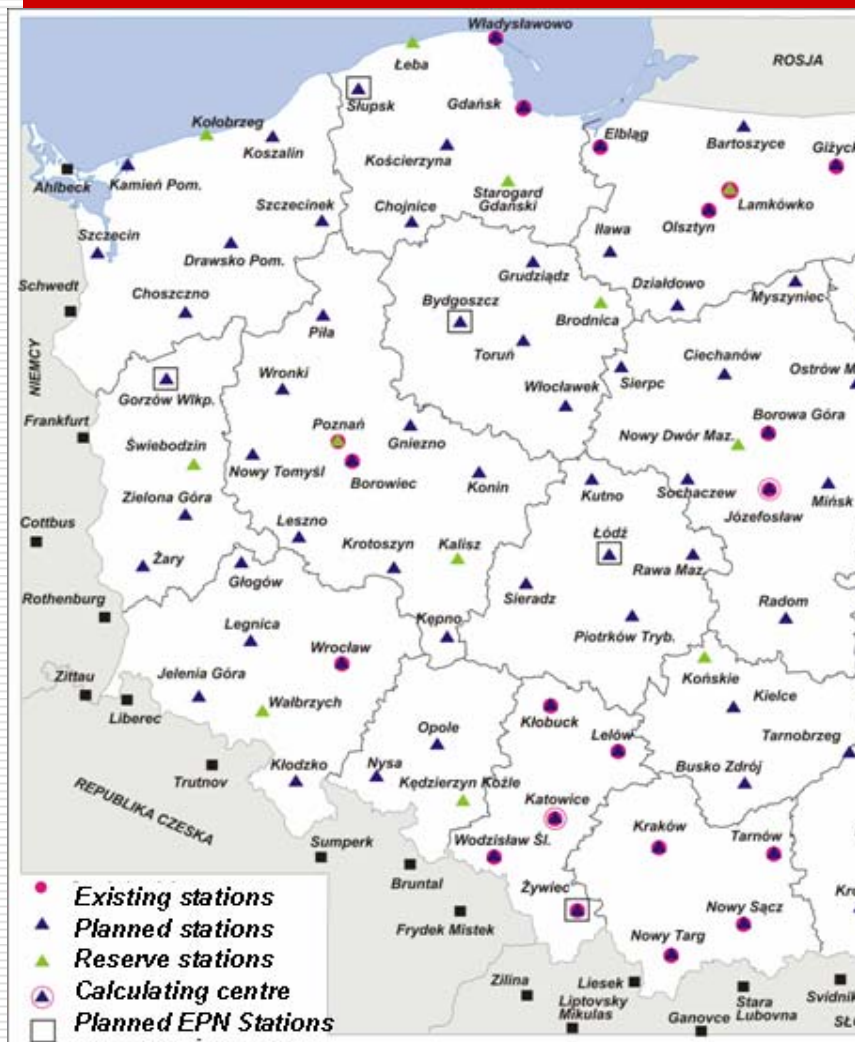
Realisation

✓ Conclusions

Multifunctional system of precise satellite positioning
ASG-EUPOS system will provide in on-line mode, in all standard formats available on the market, the corrections to GNSS observations for precise positioning purposes.

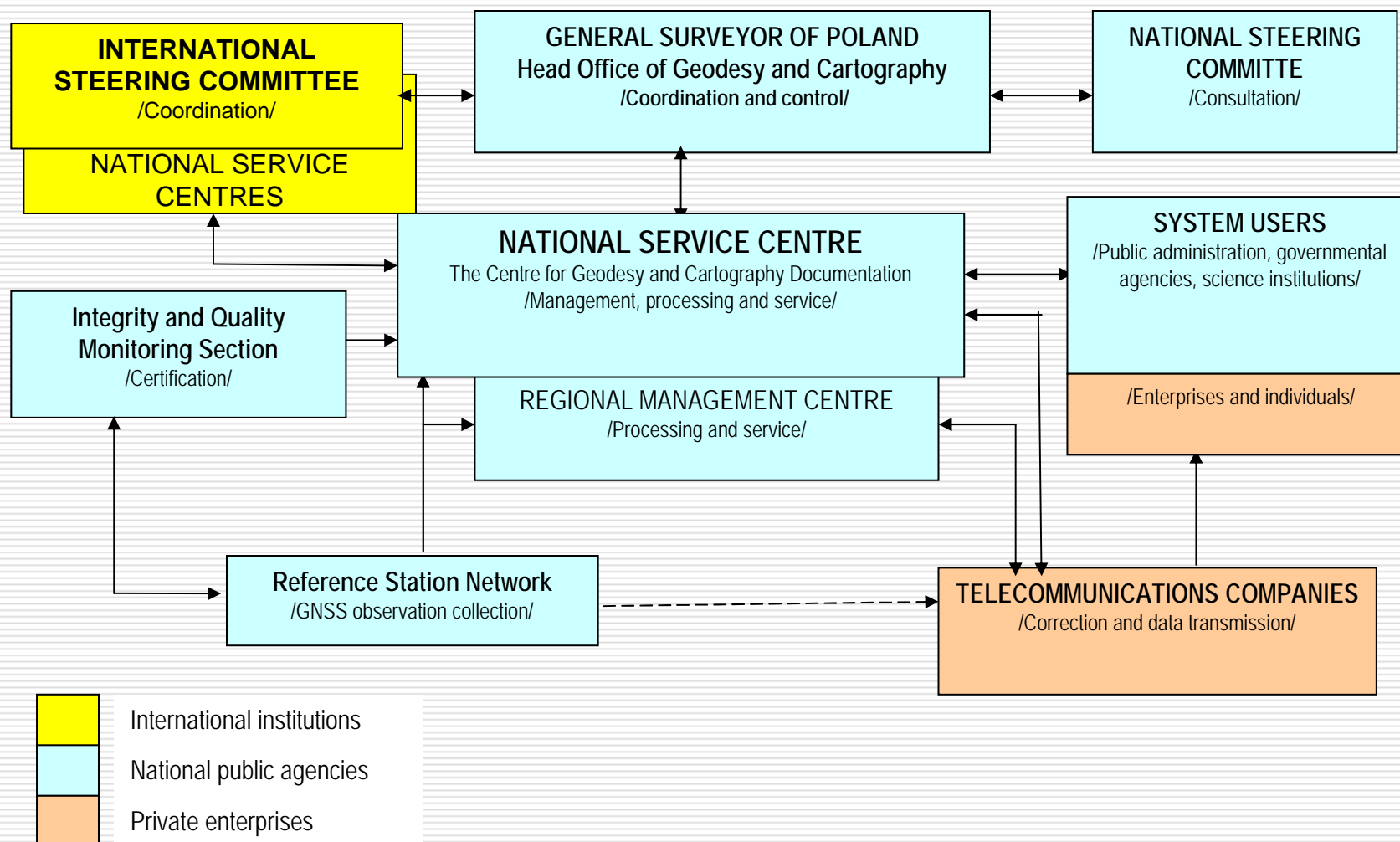
System ASG-EUPOS, based on network of ground reference stations, will create a stable, uniform spatial reference geodetic datum in Poland.

ASG-EUPOS system will be a part of the international project EUPOS and some reference stations are to be included into scientific projects and to national geodetic control network in Poland.



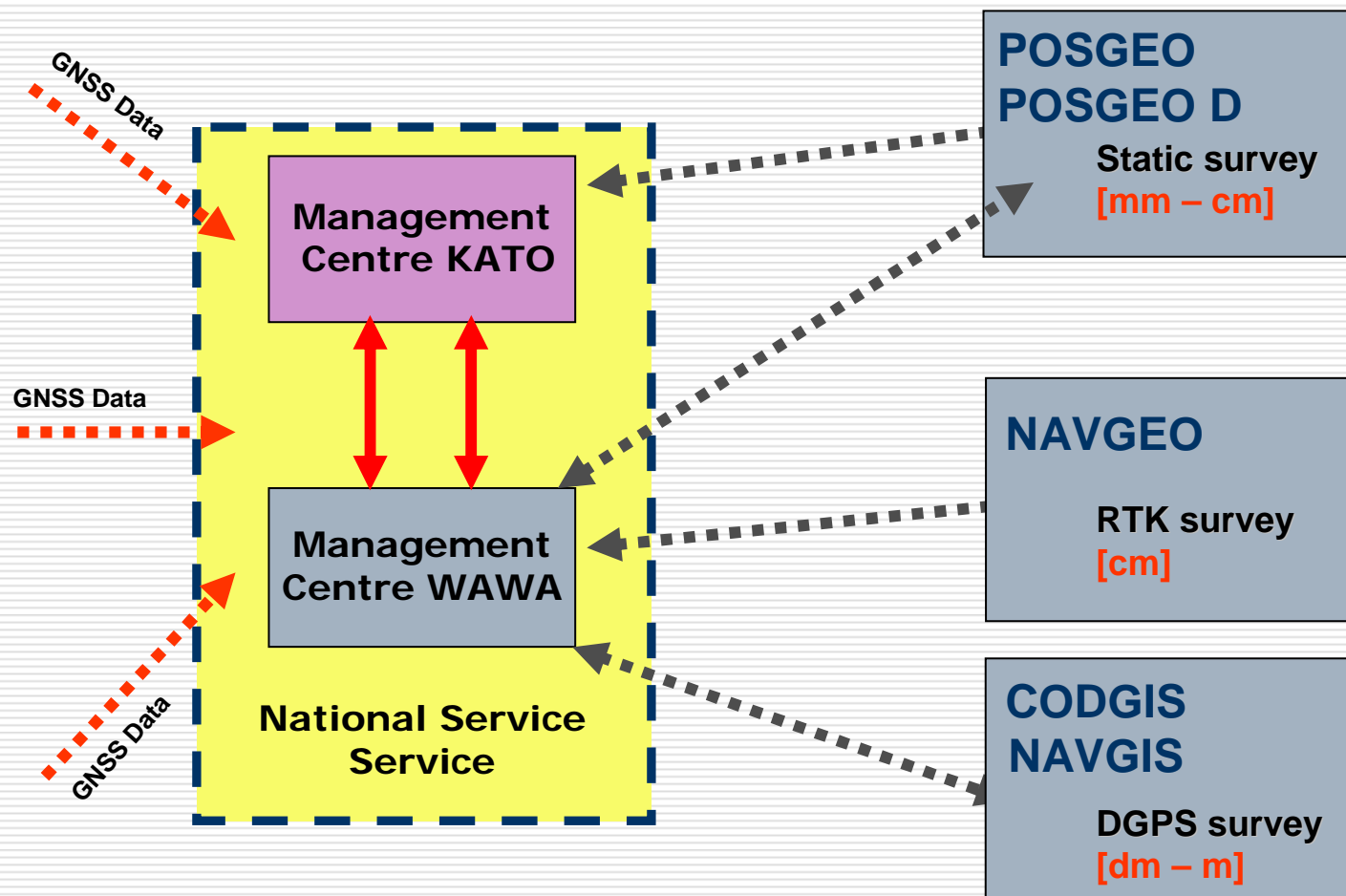
NATIONAL SERVICE CENTRE

multifunctional system,
 86 reference stations,
 ca. 30 foreign stations,
 13 additional localisation,
 2 processing centres,
 6 basic services,
 developed in 2005-2007,
 total cost ca. € 7.478.000,
 ERDF co-financing € 5.535.000,



SERVICE	METHOD	DATA TRANSMISSION	ACCURACY	EQUIPMENT
NAVGeo	RTK	GSM/ GPRS Internet	$\leq 0,03 \text{ m}$ $\geq 0,05 \text{ m}$	L1/L2 receivers modem
NAVGIS/ CODGIS	DGPS	FM/ VFM (Optional) GSM/ GPRS Internet	$\leq 0,3 \text{ m}$ $\geq 3,0 \text{ m}$	L1 (CA) receivers L1/L2 receivers/ modem
POSGEO/ POSGEO D	Static	Internet/ CDROM	$\geq 0,01 \text{ m}$ $\geq 0,1 \text{ m}$	L1/L2 receivers L1 receivers

Supply of 65 rover GPS receivers, technical and information service and maintenance of the ASG-EUPOS home page



✓ REFERENCE STATIONS

Trimble Net RS (GPS) and Net R5 (GPS/GLONASS) receivers

Trimble Zephyr I and II antennas

Trimble GPS Net and Trimble GPS Base software

✓ PROCESSING CENTRES

Trimble VRS networking software

Trimble TTC post-processing software

✓ MOBILE EQUIPMENT

Trimble RS8 receivers

Trimble integrated antenna

- ✓ September 2005 – start of ASG-EUPOS project realisation,
- ✓ August 2006 – announcement call for tender,
- ✓ January 2007 – signing the contract with consortium,
- ✓ April 2007 – establishment of NSC in Warsaw,
- ✓ July 2006 – development of 75 new stations,
- ✓ July 2007 – activation of RTK/DGPS services,
- ✓ August 2007 – start of system operational testing,
- ✓ October 2007 – activation of whole system,
- ✓ December 2007 – completion of ASG-EUPOS project
- ✓ January 2008 – implementation of ASG-EUPOS system.

✓ **STAGE 1** – 16.02.2007

Engineering design preparation, delivery of 30 GPS stations and 15 rover GPS receivers, installation of hardware and software in national and regional processing centres.

✓ **STAGE 2** – 30.06.2007

Delivery of 40 GPS and 8 GPS/GLONASS stations, delivery of 50 rover GPS receivers, establishment of reference stations, preparation of technical documentation of the stations, training of personnel.

✓ **STAGE 3** – 15.12.2007

Activation of 3 RTK/DGPS services, activation of 2 services in post-processing, networking the foreign stations, system testing and calibration, training of personnel in processing centres, auditing of the system.

SCHEDULE

Task	Stage	2007											
		I			II			III			IV		
Delivery of receivers, servers and software	1,2												
Installation of reference stations	2												
Activation of NAVGEO, NAVGIS, CODGIS services	2,3												
Activation of POSGEO, POSGEO D services	2,3												
Training of personnel	2,3												
Calibration of the system	3												
Implementation of the system	3												

- ✓ **ASG-EUPOS project will prove geodetic reference system in Poland and fulfils requirements of many users for three-dimensional positioning.**
- ✓ **The Head Office of Geodesy and Cartography will manage the ASG-EUPOS system development to meet specific requirements of the providers of geodetic and engineering applications.**
- ✓ **ASG-EUPOS will be compatible with systems in neighbouring countries due to use unified EUPOS standard (FKP, VRS and NTRIP formats).**
- ✓ **Most of existing in Poland reference stations are to be included into ASG-EUPOS system.**
- ✓ **Cross-border exchange of GNSS observation data from reference stations will be realised through National Service Centre.**

Thank for your attention ...

www.asg-eupos.gov.pl

www.eupos.org

www.gugik.gov.pl

www.asg-pl.pl

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