# EUPOS WORKING GROUP SQII MISSION AND BENEFITS:

# GNSS REFERNCE STATION SERVICE, INTERNATIONAL INTEROPERABILITY AND QUALITY

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# Presentation outline

- What is SQII Working group ?
- Working Group tasks
- Working Group realizations
- Working Group SQII future plans

# What is SQII working group?

- Under EUPOS European Position Determination System Steering Committee supervision.
- Established Year 2006
- Includes technical specialists in GPS
- Circulates technical information to cooperate between countries

# SQII tasks

- Technical quality guidelines and standards

- Supervision of implementation in national EUPOS segments

- Document networks, station configurations and status (database)

- Support the development of methodology and software for efficient quality, interference and integrity monitoring

# SQII realizations
# Technical quality guidelines and standards

- Guidelines For Single Site Design
  - Site selection

  - Site monumentation

  - Antenna installation

  - Station operation

# SQII realizations
# Technical quality guidelines and standards

- Guidelines for reference frame and homogenity

  - Use one reference frame in all EUPOS countries

  - European Commision set EUREF89 as obligatory for EU in Year 2003

Guidelines include:

ETRS89 realisation

ETRS89 implementation in EUPOS

Using EPS stations and coordinate calculations

# SQII realizations

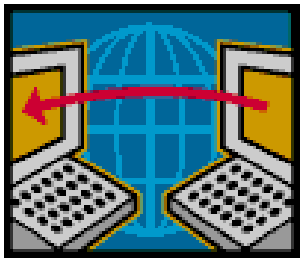
## Technical quality guidelines and standards

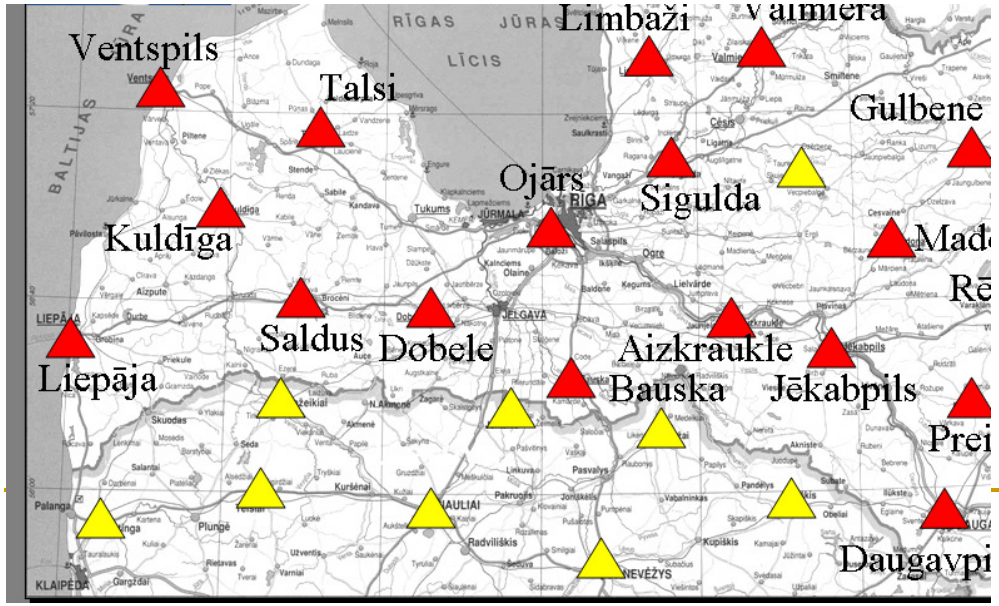
- Guidelines For Cross-Border Data Logistics

  Exchange data contents and formats

  Transmission method and transport protocol

  Access rules and usage regulations





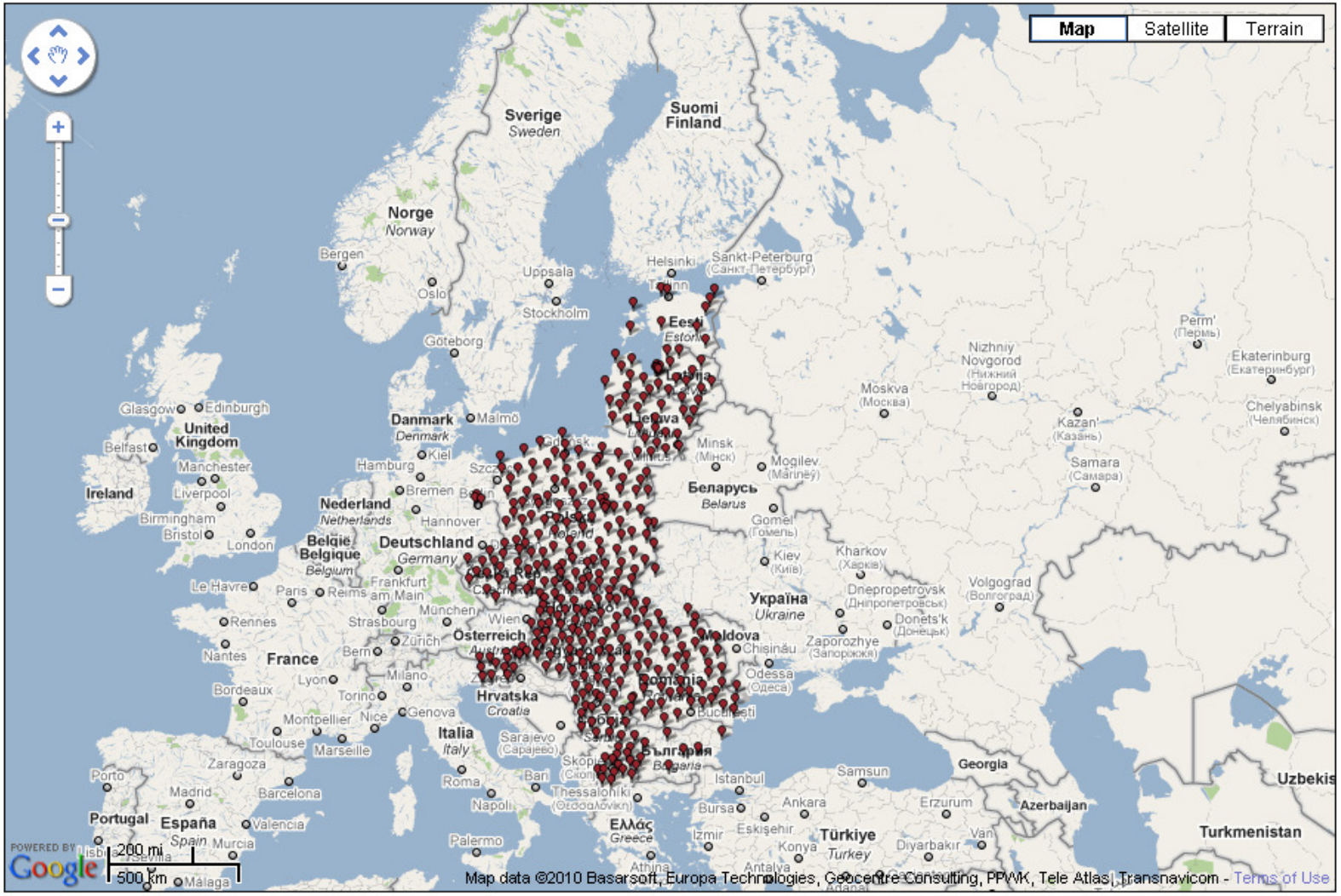
# Supervision of implementation in national EUPOS segments

- EUPOS base station database
  - Station name
  - Coordinates (actual)
  - Receiver type
  - Generate IGS site LOG

# Station database

| EUPOS Reference Stations in Hungary | | | Approximate ETRS 89 Cartesian coordinates | | | Approximate ETRS 89 Geographic coordinates | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | X | Y | Z | Latitude | | | Longitude | | | Height |
| Station ID | City or Town | RTCM ID | [m] | [m] | [m] | [°] | ['] | ["] | [°] | ['] | ["] | [m] |
| BALE | Baja | 0216 | 4184400 | 1435900 | 4579300 | +46 | 10 | 50 | +018 | 56 | 20 | 160 |
| BARC | Barcs | 0237 | 4237100 | 1332500 | 4562200 | +45 | 57 | 30 | +017 | 27 | 30 | 170 |
| BUTE | Budapest | 0207 | 4081900 | 1410000 | 4678200 | +47 | 28 | 50 | +019 | 03 | 20 | 180 |
| CSOR | Csorna | 0208 | 4114000 | 1277500 | 4688000 | +47 | 36 | 40 | +017 | 15 | 0 | 180 |
| DEBR | Debrecen | 0224 | 4010700 | 1590300 | 4681900 | +47 | 31 | 50 | +021 | 37 | 40 | 180 |
| DUJV | Dunaújváros | 0238 | 4124700 | 1415400 | 4639200 | +46 | 57 | 50 | +018 | 56 | 20 | 210 |
| FUZE | Füzesabony | 0219 | 4026600 | 1498700 | 4698300 | +47 | 44 | 60 | +020 | 24 | 60 | 160 |
| GYFC | Győr | 0214 | 4099500 | 1303200 | 4693600 | +47 | 41 | 10 | +017 | 38 | 0 | 180 |
| GYOM | Gyomaendrőd | 0226 | 4078200 | 1551300 | 4636700 | +46 | 55 | 60 | +020 | 49 | 30 | 140 |
| GYUL | Gyula | 0232 | 4087500 | 1591700 | 4614900 | +46 | 38 | 40 | +021 | 16 | 30 | 150 |
| HALA | Kiskunhalas | 0231 | 4151600 | 1469000 | 4598500 | +46 | 25 | 50 | +019 | 29 | 10 | 190 |

# Station database



# Supervision of implementation in national EUPOS segments

- Establishing coordinate monitoring centre

-Selected sites
-Data prepared in SINEX format
-Regular coordinate computing

# SQII future plans

- NTRIP naming convention will be enhanced
- *EUPOS* processing centre will be discussed
- Network RTK integrity messages
- RTK system monitoring

# QUESTIONS ?

- EUPOS will help?