National Report - Austria

<u>Martin Sehnal</u>, David Mayer, Ernst Zahn, Christian Ullrich BEV – Federal Office of Metrology and Surveying June 2, 2022 - EUREF Symposium 2022

bev.gv.at

Federal Office of Metrology and Surveying

APOS – recent developments

APOS Free RTK

- With cm accuracy for Precision Farming
- Available since **Feb. 1**st **2021** (1st step towards APOS mass application)
- Up to 5 new users per day
- Technical: new redundant server concept & automated customer management



- Kaiser Franz Josefs Höhe Großglockner (GNSS & Gravity) in Co-operation with University Luxemburg
- Maiersdorf Lower Austria (GNSS)

Outlook: APOS-Broadcast

- with SSR-technology for mass application
- Prototype with Converter app / direct chip processing -> still under testing







2

bev.gv.at

Data Center - innovations

- RINEX4 files are accepted and processed
- SINEX product files from the ACs are now hosted on the HTTPS server
- HTTPS upload with certificate authentication and is already used by many organisations
- Major revision of API database to decrease response time



AC - Analysis Center at BEV

- Added 41 stations in 2022
 - Enhance redundancyas > 4th AC for some stations
 - Improve geometry of BEV network
- Now processing 170 EPN stations

bev.gv.at



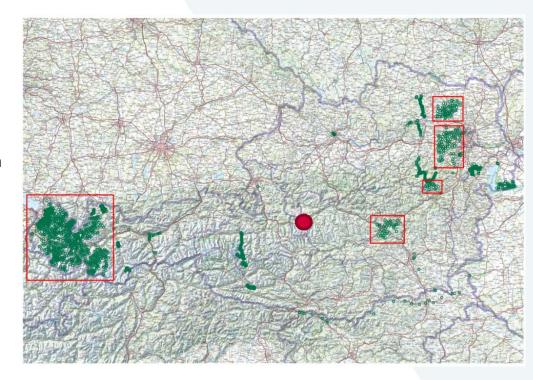
https://epncb.eu/_productsservices/analysiscentres/LAC.php#BEV

Gravimetry

- Annual absolute gravity observations were performed
 - Stations: Vienna (BEV), Conrad Observatory, Trofaiach, Präbichl, Kaiser Franz Josefs Höhe and Penk
- New Superconducting Gravity Meter (iGrav) will be installed at Conrad Observatory
 - Can be used as reference station for the new International Gravity Reference Frame
- BEV took part at the international comparison of absolute gravimeters in Wettzell

Height system and Geoid

- European Alps Geoid (EAlpG):
 Revision and densification of gravity information
 - Areas with new gravity measurements in green approx. 1000 points
- High precise levelling:
 - the APOS station Hauser- Kaibling



Other Activities

- Contribution to ITRF2020 with VLBI solution
- GGOS Coordinating Office
 - New GGOS website
 - New GGOS film "Discover GGOS and Geodesy"











Thank you for your attention!

Martin Sehnal
BEV – Federal Office of Metrology and Surveying
martin.sehnal@bev.gv.at