



EPOS-GNSS – Improving the infrastructure for GNSS data and products in Europe

Rui Fernandes (1,15), Machiel Bos (1), Carine Bruyninx (2), Paul Crocker (1), Jan Dousa (3), Anne Socquet (4), Andrea Walpersdorf (4), Antonio Avallone (5), Athanassios Ganas (6), Benedikt Gunnar (7), Constantin Ionescu (8), Ambrus Kenyeres (9), Haluk Ozener (10), Mathilde Vergnolle (11), Martin Lidberg (12), Tomek Liwosz (13), and Wolfgang Soehne (14)

(1) University of Beira Interior, SEGAL (UBI/IDL), C4G, Covilhã, Portugal, (2) Royal Observatory of Belgium, Brussels, Belgium, (3) Geodetic Observatory Pecny, Zdiby, Czech Republic, (4) University Grenoble Alpes, CNRS, ISTERRE, Grenoble, France, (5) Istituto Nazionale di Geofisica e Vulcanologia, Rome, Italy, (6) National Observatory of Athens, Athens, Greece, (7) Icelandic Meteorological Office, Reykjavík, Iceland, (8) National Institute for Earth Physics, Bucharest, Romania, (9) Institute of Geodesy, Cartography and Remote Sensing, Budapest, Hungary, (10) Bogaziçi University, Kandilli Observatory, Istanbul, Turkey, (11) Observatoire Côte d'Azur, CNRS, Nice, France, (12) Lantmäteriet, Sweden, (13) Warsaw University of Technology, Faculty of Geodesy and Cartography, Poland, (14) Bundesamt für Kartographie und Geodäsie, Frankfurt, Germany, (15) Technical University of Delft, Delft, The Netherlands

EPOS-IP WP10 – “GNSS Data & Products” is the Working Package 10 of the European Plate Observing System – Implementation Phase project in charge of implementing services for the geo-sciences community to access existing Pan-European Geodetic Infrastructures. WP10 is currently formed by representatives of participating European institutions but in the operational phase contributions will be solicited from the entire geodetic community. In fact, WP10 also includes members from other institutions/countries that formally are not participating in the EPOS-IP but will be key players in the future services to be provided by EPOS. Additionally, several partners are also key partners at EUREF, which is also actively collaborating with EPOS.

The geodetic component of EPOS is dealing essentially with implementing an e-infrastructure to store and disseminate the continuous GNSS data from existing Research Infrastructures. Present efforts are on developing geodetic tools to support Solid Earth research by optimizing the existing resources. However, other research and technical applications (e.g., reference frames, meteorology, space weather) can also benefit in the future from the optimization of the geodetic resources in Europe.

We present and discuss the status of the implementation of the thematic and core services (TCS) for GNSS data within EPOS and the related business plan. We explain the tools and web-services being developed towards the implementation of the best solutions that will permit to the end-users, and in particular geo-scientists, to access the geodetic data, derived solutions, and associated metadata using a transparent and standardized processes. We also detail the different DDSS (Data, Data-Products, Services, Software) that will be made available for the Operational Phase of EPOS, which will start to be tested and made available during 2017 and 2018.