



*EUREF – The IAG Reference Frame
Sub-commission for Europe*



MEMORANDUM OF UNDERSTANDING

between

**EUREF, the Reference Frame Sub-Commission
for Europe of the International Association of
Geodesy (IAG)**

and

**CEGRN, the Central European GPS
Geodynamic Reference Network Consortium**

The Memorandum of Understanding between EUREF and CEGRN is a result of the cooperation between the two organizations in the field of geodesy and geodynamics. The Memorandum of Understanding is a document that defines the terms of cooperation between the two organizations. The Memorandum of Understanding is a document that defines the terms of cooperation between the two organizations.



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A: EUREF, the Reference Frame Sub-Commission for Europe of the International Association of Geodesy (IAG)

and

B: CEGRN, the Central European GPS Geodynamic Reference Network Consortium

1. Parties

A: EUREF (www.euref-iag.eu) is the Reference Frame Sub-commission for Europe of the International Association of Geodesy (IAG), responsible for the definition, realization and maintenance of the European Reference Systems, to be used Europe-wide in all scientific and practical activities related to precise geo-referencing and navigation, Earth Sciences research and multidisciplinary applications.

B: CEGRN (www.fomi.hu/CEGRN/) is a scientific Consortium of Research Institutions committed to a coordinated programme of measurements, technical developments and for international access to monitoring geodetic and geodynamic processes for a long period of time in Central Europe.

2. Background

EUREF is responsible for the EUREF Permanent Network (EPN). This infrastructure deals with the maintenance, data collection, archiving, processing and analysis of a GNSS network of 244 stations that covers homogeneously the European continent.

The CEGRN Consortium serves the operation, maintenance and development of the CEGRN network of 85 stations distributed over 18 Countries, coordinates the measurements, data processing, and collaboration in different research topics related to the Geodynamics of Central Europe. The Consortium has served as the institutional background of the CERGOP-2/Environment Project, supported by the EU 5th Framework Programme

The Sub-Commission “Regional Reference Frames” of the IAG established the Working Group “Regional Dense Velocity Fields”. The long-term goal is to provide a globally referenced dense velocity field, based on GNSS observations, and to be used as a densification of the International Terrestrial Reference Frame.

Key elements for the success of this project are the expertise, coordination role, and the capability to generate a unique and unified cumulative GNSS-based position and velocity solution for Europe, including reliable velocity solutions that can be provided from all parties, even those not directly involved in the project.

EUREF is involved and contributes actively to this Working Group. On the other hand, CEGRN has declared its willingness to support the Working Group by making available its results and knowledge, and accepting standards recommended by EUREF.

There is already a close collaboration between EUREF and CEGRN, especially because there are institutions and persons involved in both organizations.

3. Objectives

The objective of this Memorandum of Understanding is, in general, to create the conditions to facilitate the data exchange and to promote the increase in the co-operation between the two parties, for the benefit of both, and in particular, to facilitate the densification of the European GNSS network for reference frame definition and geokinematical applications, and to support the ECGN (European Combined Geodetic Network) project.

It is expected that a closer co-operation between EUREF and CEGRN will increase the level of support to the IAG Dense Velocity Field Project, and the availability of a combined solution with respect to a denser network.

Moreover, the co-operation will contribute to:

- provide better and more consistent data for geokinematics, by the optimization of guidelines for approval of networks with position and velocities and the improvement of offset treatment in time series;
- stimulate the combination of reprocessed EPN and CEGRN results;
- Involve more nations into the INSPIRE Directive, in particular with the CRS (Coordinate Reference Systems) Implementing Rules.

4. Responsibilities

The responsibilities of the parties are as follows:

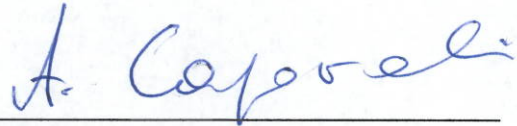
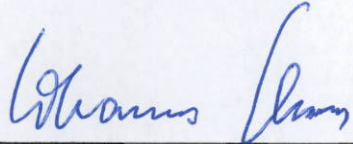
- a) The co-operation between EUREF and CEGRN will be handled, on an operational level, with regular contacts between the representatives of EUREF and CEGRN. It is expected that these individuals will meet as necessary to achieve the objectives of this MOU.
- b) The EUREF and CEGRN representatives will agree on a work plan and maintain a joint annual list of activities and potential emerging work areas.
- c) EUREF and CEGRN will invite each other to participate in working meetings as far as relevant for co-operation.

Furthermore, use of data exchanged under this Memorandum of Understanding for publications must be acknowledged by citation to the relevant data providing party (EUREF or CEGRN).

5. Amendments

This Memorandum of Understanding may be revised or cancelled by initiative of any of the parties by a written agreement.

Date: 27/05/2011



The Chairman of EUREF

The Chairman of CEGRN

Johannes Ihde

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