



**CLGE GA – Skopje  
Workshop – Saturday 14<sup>th</sup> May**

**European GNSS using  
High Accuracy Services**

*The finalisation of the satellite constellation of the European satellite positioning system Galileo offers the surveying profession the opportunity to design a new system dedicated to its needs for cadastral works and demonstrating its expertise in the area of accuracy of measurement.*

### **GISCAD-OV Solution**

GNSS measurements are largely used in cadastral surveying and mapping. GNSS features' attractiveness vs the conventional methods and techniques are well known.

Nonetheless, at the current stage, cadastral surveying operations carried out through GNSS are limited by several factors such as the cost of the augmentation service (e.g. number of reference stations to be installed, maintenance costs, software licensing), the cost of professional GNSS receivers, the not easy-to-use services and the lack of customer care and supporting services.

The main scope of the GISCAD-OV project is to design, develop and validate an innovative and cost-effective High Accuracy Service for cadastral and property surveying applications, based on GPS and Galileo High Accuracy Services (HAS) and advanced techniques of Precise Point Positioning-Ambiguity Resolution quick convergence (PPP-AR).

The project aims also to set up a GISCAD-OV Service Operator Centre, able to fully integrate the existing augmentation and national infrastructures for improving efficiency and effectiveness of cadastral operations, reducing cadastral procedures' time for the benefit of its many users, including surveyors, and ultimately for the good of all European citizens.

### **Europe-wide Pilot Project campaign**

Since fall 2021, and after 18 months of software development and hardware settings, the project has entered its truly operational phase.

A Europe-wide pilot project campaign is currently carried out for validating the implemented solution, applying single countries cadastral regulations. These tests are conducted with the contribution of benevolent local surveyors who help in selecting survey sites for each required cadastral scenario (division / sub-division of parcel, empty plot or building) and environmental condition (rural, peri-urban, dense urban,...).





## Content of the Workshop

On the occasion of this General Assembly, we propose you to exchange, through a workshop, with the CLGE project team, and answer the following questions and topics together:

### 1. *Feedback on the conduct of field tests*

To date, extensive tests have been carried out in 3 countries (Italy, France and Spain) out of the 7 planned. While waiting to resume field operations in a few months in the last 4 countries to be covered (Croatia, Czech Republic, Germany and Estonia), the preliminary results obtained are already promising.

This feedback may also associate the surveyors and members of CLGE who participate to the field operations, realised or to come (e.g. EE, CZ).

### 2. *Expected Project Impacts for all Project's stakeholders*

Each stakeholder of the project each stakeholder expects a certain number of returns, benefits and gains, whether in terms of profitability (time, infrastructure) or new technical and commercial opportunities.

These include:

- For the Surveyors: improved availability in urban areas, one-time terminal configuration, opportunities of new markets due to HAS availability, etc.;
- For National Mapping and Cadastral Agencies: harmonised GNSS service levels on a wide area, reduced time for cadastral acts approval, increase in the number of processed acts per year;
- For the Services providers: optimised infrastructure and maintenance, communication burden reduction through HAS, Service Levels Differentiation;
- For Receivers' manufacturers: market uptake due to lower barrier to entry for High Accuracy Users.

### 3. *What new applications could result from GISCAD-OV solution, for the benefit of final users as for the European customers and citizens?*

The high-accuracy positioning market is very dynamic, currently driven by emerging applications such as autonomous vehicles and drones, but also by technological evolution (e.g. dual-frequency chipsets for the mass-market) and the market situation (cheaper or free-of-charge services in some countries), all of which is leading to the democratisation of high accuracy. Therefore, high accuracy is not only a domain for professional applications but is becoming a widespread commodity for a wide array of emerging applications.

**Would you have any questions, please don't hesitate to contact:**

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**Finally, we will take care to answer all your questions and requests for additional information during the workshop.**

