



### What is HEPOS?

HEPOS (**HE**llic **PO**sitioning **S**ystem) is a system that provides **high-accuracy satellite-based positioning services** by utilizing the Global Positioning System (GPS). Its design, operation and data dissemination options are similar to other existing systems that have been established in most of the European Union countries during the last years.

HEPOS consists of **98 permanent** (continuously operating) **reference stations** and a **Control Center** which is situated at the headquarters of KTIMATOLOGIO S.A. The Control Center collects and processes all incoming data from the reference stations and provides to registered users the necessary data for precise GPS-based positioning.

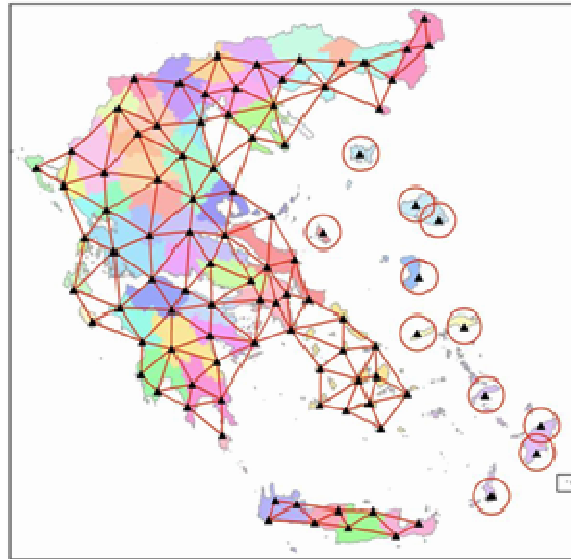
### Who will use HEPOS?

HEPOS has been developed by KTIMATOLOGIO S.A. for the purpose of facilitating the establishment of the National Cadastre. In addition, it provides a modern geodetic reference frame that is necessary for the modernization of the national spatial data infrastructure and the support of high-accuracy positioning applications.

HEPOS can be utilized by a wide range of public and private users, including:

- Public Services, Authorities and Organizations
- Project contractors under KTIMATOLOGIO S.A.
- Surveying engineers and other professional geoscientists
- Individual design and construction engineers
- Universities and other research institutes

### HEPOS REFERENCE STATIONS NETWORK



### HEPOS Services

Two main types of positioning services are offered by HEPOS:

- **"Real-Time" services**, for obtaining the coordinates of the points at the time of the observation in the field. These services can provide positioning accuracy that ranges from a few centimeters (RTK techniques) up to half of a meter (DGPS techniques).
- **"Post-processing" services**, for estimating precise coordinates of the points, after processing in the office the observations collected in the field. These services can be used for static positioning techniques (observations stored in Rinex files) and provide the highest accuracy level that can reach up to few millimetres.

### HEPOS Applications

Besides the on-going and future projects for the establishment of the National Cadastre, HEPOS services can be used in a wide range of other application fields, such as: Field Surveying, Geodesy, Cartography, Hydrography, construction projects and spatial data collection, etc. HEPOS can also facilitate and support the scientific research in the fields of Geodynamics, Geology and Seismology.

### User equipment

The necessary equipment for using HEPOS depends on the accuracy level that the user wants to achieve, and the particular services that he/she has selected.

- For cm-level positioning accuracy, a **geodetic GPS receiver** is required.
- For sub-meter positioning accuracy, a simpler GPS receiver could be used, as long as it is capable of receiving correction data from the Control Center.
- For the "Real-Time" services, apart from the GPS receiver, a **GSM or GPRS modem** is required for connecting to the Control Center. Such modems can be integrated in the GPS receiver, or they can be external devices such as the users' mobile phones.
- For "Post-processing" services, apart from the appropriate GPS receiver, a suitable **GPS post-processing software package** is required.