

# Utilities Management System to 'See Underground' Wins Madrid Challenge 2017



The Horizon2020 project [LARA](#), a software/hardware-based system, has won the [Madrid Challenge](#) of the European Satellite Navigation Competition ([ESNC 2017](#)). It enables utility companies to locate their key underground assets. LARA is equipped with a high-precision, low-power, highly autonomous GNSS receiver module capable of achieving centimetre-level accuracy.



LARA combines different submodules – GNSS, Augmented Reality, 3D GIS and geodatabases – into an integrated navigation/positioning framework. By rendering complex 3D models of underground grids (water, sewage, gas, etc), the system guides utility field workers in their daily routines by essentially helping them 'see underground'. It facilitates accurate maintenance operations on underground infrastructure without affecting adjacent underground grids, reduces overall maintenance costs and minimises economic and social implications of lengthy surface works.



LARA utilities management and visualisation system

The LARA system has been developed by a consortium of entities from Cyprus, Germany, Greece, Malaysia, Spain and the United Kingdom, and is coordinated by Geolmaging, a SME from Cyprus. With the achievement of the ESNC Madrid Challenge award, LARA will be able to rely on the potential to accelerate its commercialisation and market entrance.

LARA project has received funding from the [European GNSS Agency](#) under the European Union's Horizon 2020 research and innovation programme.

Find more information on [LARA project](#) participation and award as well as detailed descriptions of the most innovative Satellite Navigation ideas for 2017 at the [ESNC 2017 Results Booklet](#).