

Genova Pilot: Underground Scenario

Pilot Leader: Comune di Genova

Overview

GeoSmartCity contributes to the Smart City implementation by establishing a cross-platform, re-usable and open hub able to publish open geographic information and to provide specialized services based on open standards.

The GeoSmartCity cross-platform toolkit and operational methodology allow further integration of third-party data (open or restricted) as well as crowd-sourced data. The potentiality of the toolkit will be demonstrated through the development of 11 operative and re-usable pilot cases in the frame of two scenarios: Green-Energy scenario, to facilitate diffusion and management of renewable energy within cities, and Underground scenario, to support integrated management of underground utility infrastructures.



General Information

- Population: 607.000 in the Municipality of Genova
- Surface: 244km², the Municipality, that however in the plans should be included in a wider metropolitan area including most (39) of the Communes of the former Province of Genova, for a total of approx. 850.000 inhabitants.

Genova is composed of a narrow coastal zone, hills and steep mountains in the behind (its highest elevation is at 1.183 m asl).

The coastal zone of the city is almost 40 km long, and it is from W-NW to E-SE oriented.

The main rivers (torrential regime) are: the Bisagno (in the eastern part), and the Polcevera (more at west).

Description of the pilot deployment:

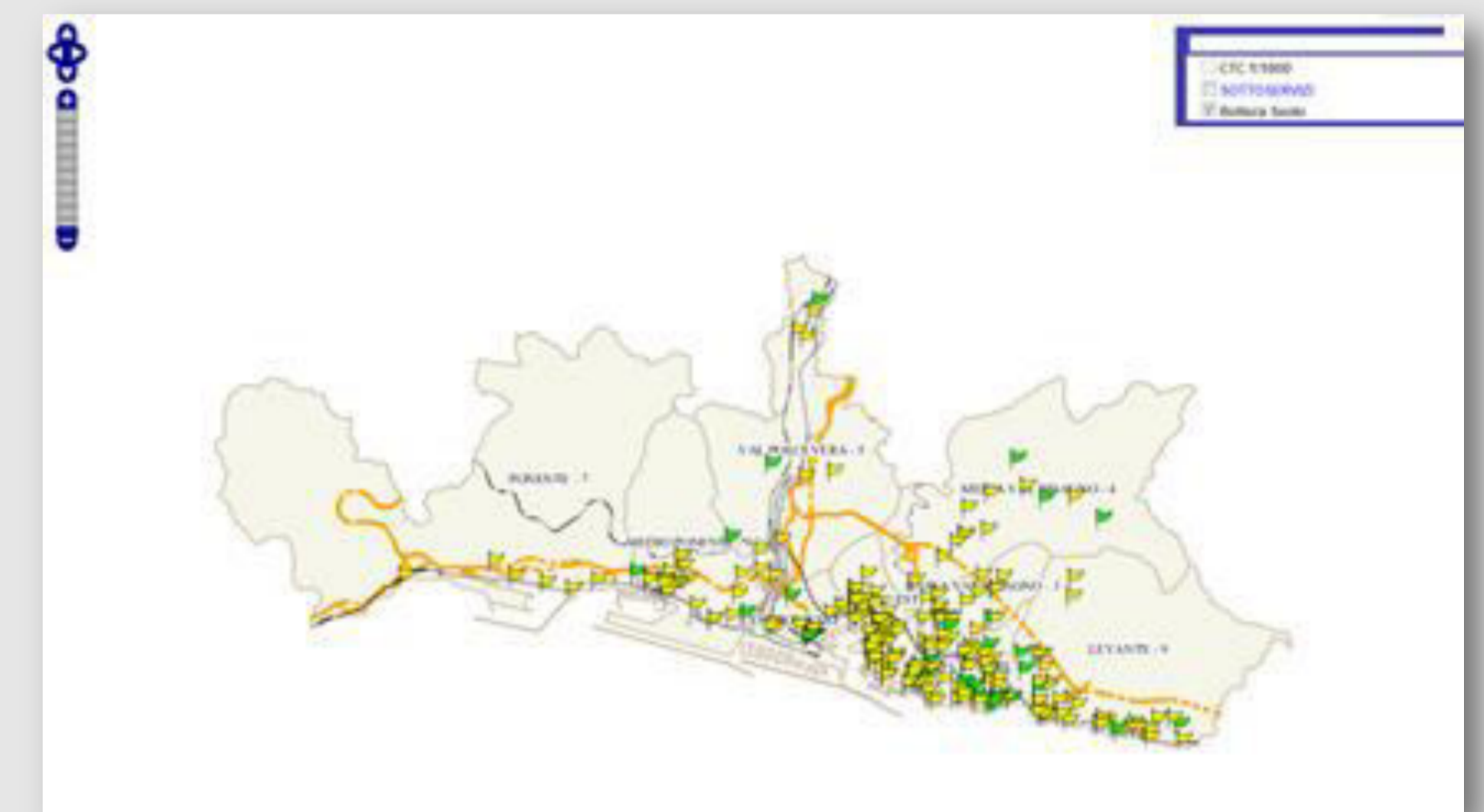
The issue of planning, government and management of the underground has old origins and has been always considered as one of the aspects to evaluate the technological and organizational level of a city or urban community. Through the implementation of this pilot application, the Municipality of Genova wants to address this aspect in the wider context of Genova as digital and Smart City.

The underground is a complex system where different components, both natural (geology, morphology and waters) and anthropic interact. In the urban underground different utility networks are present, usually managed by different utility companies, but all acting under the control and supervision of the Municipality.

Objective

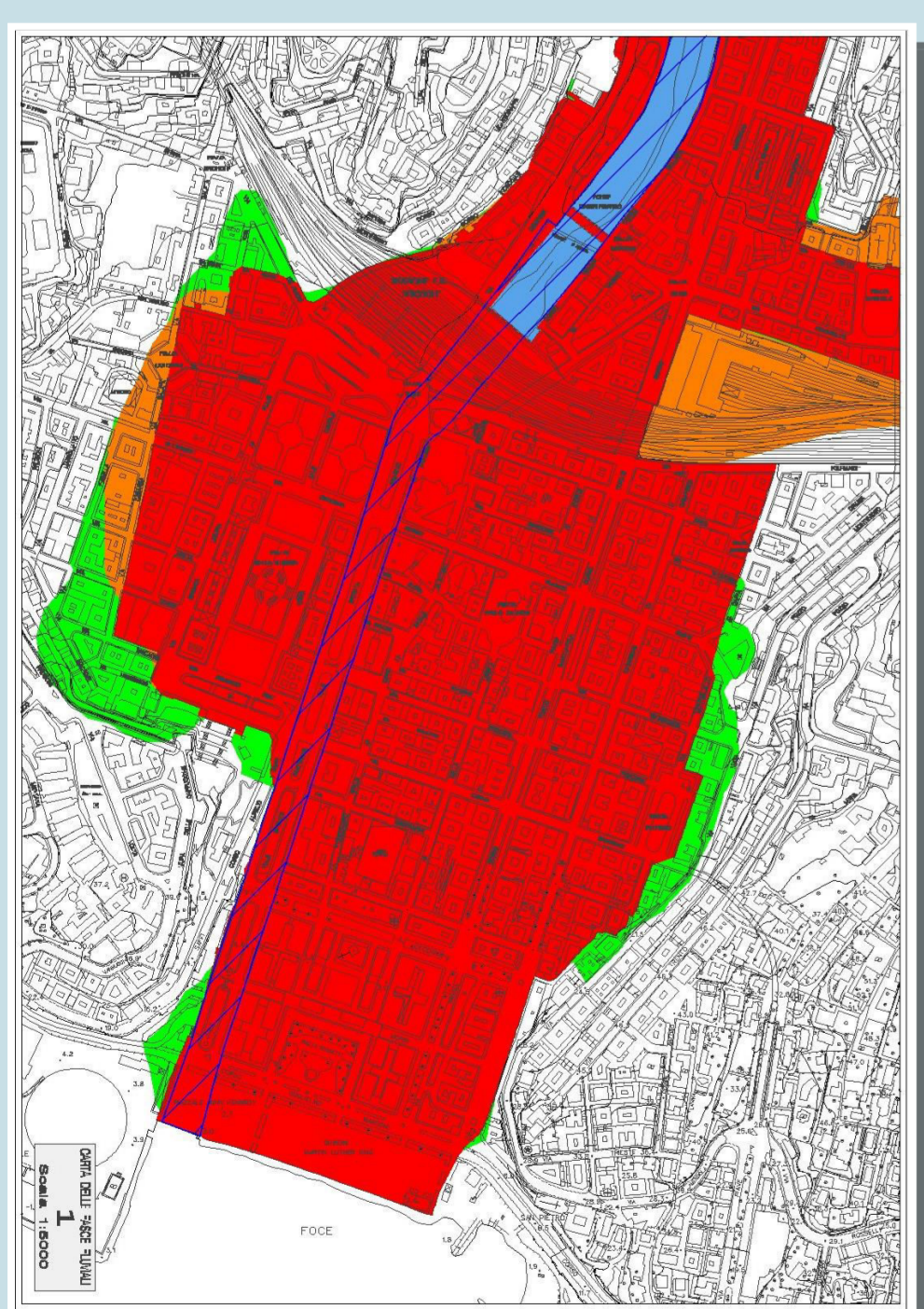
The objective of the pilot is to reinforce dialogue between utility companies and the Public Administration, namely the Municipality of Genova, and the sharing of data related to the underground

The main aim is to establish a permanent flow of information towards and from the Municipality, so allowing a better knowledge of the underground existing infrastructures and of their interaction with the surrounding environment, finally resulting in a sounder policy of this sector and into prompter actions, in planning or emergency.



Specific Data sources used for the scenario:

- ✓ Water Networks
- ✓ Sewer Networks
- ✓ Gas Networks (low pressure)
- ✓ Gas Network (high pressure)
- ✓ Heating networks
- ✓ Electricity network
- ✓ Telecommunication networks
- ✓ Oil networks
- ✓ Methane pipeline



Aree inondabili da Piano di Bacino

Stakeholders

- Public Administration
- Public Officers
- Utility Companies
- Service Companies (e.g. management of roads...)
- Environmental Agencies
- Civil Protection
- Citizens



Immagini da: Catasto Informatizzato della Rappresentazione Grafica Delle Reti del Sottosuolo, denominato "CRRS"