GeoSmartCity

cip competitiveness and innovation framework programme 2007–2013

Reggio Emilia Pilot: Green-Energy Scenario

Pilot Leader: Comune di Reggio Emilia

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 will 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: the Green-Energy scenario, to facilitate diffusion and management of renewable energy within cities, and the Underground scenario, to support integrated management of underground utility infrastructures.
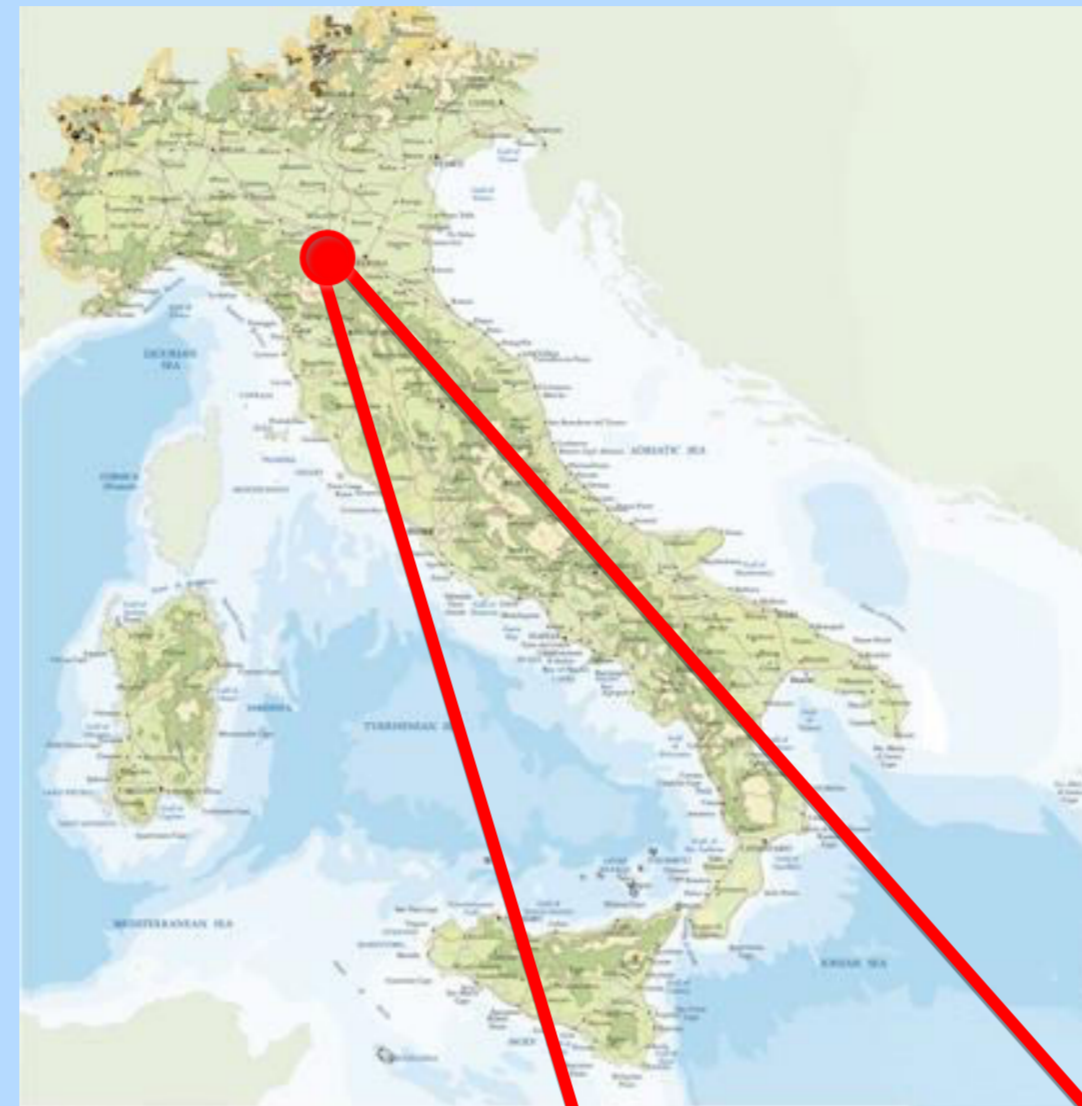
General Information

• Population: 172,525 in the Municipality of Reggio Emilia
• Area: 231,55 km2

Reggio Emilia is located in the Pianura Padana Valley, along the via Emilia in the heart of the historical region of Emilia, and it is crossed by the creek Crostolo. It is connected to the motorway and to the main rail network (Rome-Milan). Since 2013 Reggio Emilia is also connected to the High Speed Railway. Like all towns along the via Emilia, the urban structure is quite compact, with the residential areas in the southern side (toward the hills) and the productive areas in the northern side (along the main infrastructures).

Experience in related projects

The Municipality has developed many policies and actions for environmental sustainability over the past 10 years. In particular, regarding the energy issues, in order to counteract climate change, and environmental accountability, we have been involved in:
• Increase collection of environmental data, organized in databases;
• development of the environmental accountability system of the public authority;
• definition and enhancement of the accountability system for CO_2 emission;
• adoption of a Municipal Energy Plan and a Sustainable Energy Action Plan;
• realization of several actions regarding control of energy waste of municipal buildings and public lighting;
• experimentation of a Geo Data Ware House about green areas and environmental Open Data.

Description of the pilot deployment

The Municipality of Reggio Emilia manages a great amount of data that could be used to reduce CO_2 emissions. This information is collected because it is compulsory (it is requested by the law), for accountability purposes or because it is requested by other Public Authorities.
Most of the time this data is not geo referenced, or is not usable (not in digital format or non homogeneous formats).
Therefore, it is not possible to use this valuable information.
Examples of this data are: green public area, mobility, renewable energy, private/public buildings energy consumption, Energy Performance Certificates, Public illumination, Waste management.

Objective

The pilot in Reggio Emilia will collect geo referenced information, integrate and harmonize geo data, use geo data for strategic purpose and publish "open geo data" for citizens and enterprises.
"Open geo data" will:
• help politicians in their strategic decisions,
• help technicians in their day-to-day activities,
• help citizens to understand Municipality activities and participate more actively,
• be a good market opportunity for enterprises,
• be a useful control tool during the planning, organizing and directing phases of the Municipality activities,
• be helpful for Public Administration in the energy policies definition process.

Specific Data sources used for the scenario

✓ Trees, parks, green area
✓ Mobility: bike path (position, length, usage); speed limit (position, limit)
✓ Private/public buildings with solar and photovoltaic panels
✓ Private/public buildings with Energy Performance Certificates
✓ Public buildings energy consumption
✓ Waste management
✓ Public lighting

Stakeholders

✓ Municipality
✓ SME
✓ Utilities
✓ Citizen / associations