Open geo-data for innovative services and user applications towards Smart Cities

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Overview

Smart City management requires integration of geographic data from many heterogeneous sources, spanning from pan-European data sets to local data with «home-made» semantics. In order to analyze and visualize GI through these data sets, it is necessary to integrate the data in terms of formats, access protocols, transformation and coordinate reference system, data harmonization.

The ICT-PSP European project GeoSmartCity establishes a cross-platform, able to publish open GI and to provide specialized services based on open standards services protocols.

Innovative Services

Within the project a set of specialized services based on open standards will be developed. The services are divided into:

Service platform to View, Analyze, Extract data from the GSC OpenData Hub:

WFS, WMS, WCS, Linked Data, SPARQL end point...

Universal discovery services:

GI and non GI Discovery services (CSW)

Bl and GeoProcessing Service Platform:

Spatio temporal and Standarrd GeoProcessing services, Advanced and Basic BI services

Ingestion and Data Integration Engine:

Harmonised data storage, ingestion toolkit for GI and non GI data, Crowd sourcing based services, ...

Virtual Hub

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. GeoSmartCity Hub will be community software and the business model will be based on development of extensions, applications and services as well as geo-statistical analysis.

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.

Scenarios

Green-Energy scenario

Reggio nell'Emilia, Maroussi, Oeiras, Turku, Girona ្វិ Underground scenario

Pamplona, Genova, Oeiras, Ruda Slaska, South Moravian Region, Flanders Region