GeoSmartCity

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

CIP ICT-PSP Project n. 621150

Start date 01-03-2014, duration 36 months

GeoSmartCity implements a platform to share and public geographical open data coming from different sources, such as Public Administrations, Multi-utilities, Companies and Crowd-sourcing.

The platform includes specialized web services to integrate public geographical data with other geo-refenced data (public or private) useful for the smart management of urban infrastructures and public services in the context of the **Smart City** initiative and the **Digital Agenda** for Europe.

Partnership

COMUNE DI GENOVA

TURUN AMMATTIKORKEAKOULU
TURKU UNIVERSITY OF APPLIED SCIENCES

COMUNE DI REGGIO NELL'EMILIA

GEO:

- Provision of Geospatial information (GI) and location services

SMART CITY

- In support to the SmartCity paradigm
- Integrating / Opening GI
- Supporting SC with GI and Location services

Objectives

- Support Cities to 'open' their data to professionals and citizens

- Establish a cross-platform, re-usable, able to publish open-(GI) data, in an urban context, but with a European dimension

- Provision of tools and facilities to integrate GI data/info with open data

- Framework and services to integrate proprietary/restricted data with open (GI) data of the City

Objectives vs Exploitation

- Open infrastructure to build new business model for PAs and SMEs

- PPP (Public Private Partnerships): collaborative management of Open(GI) data

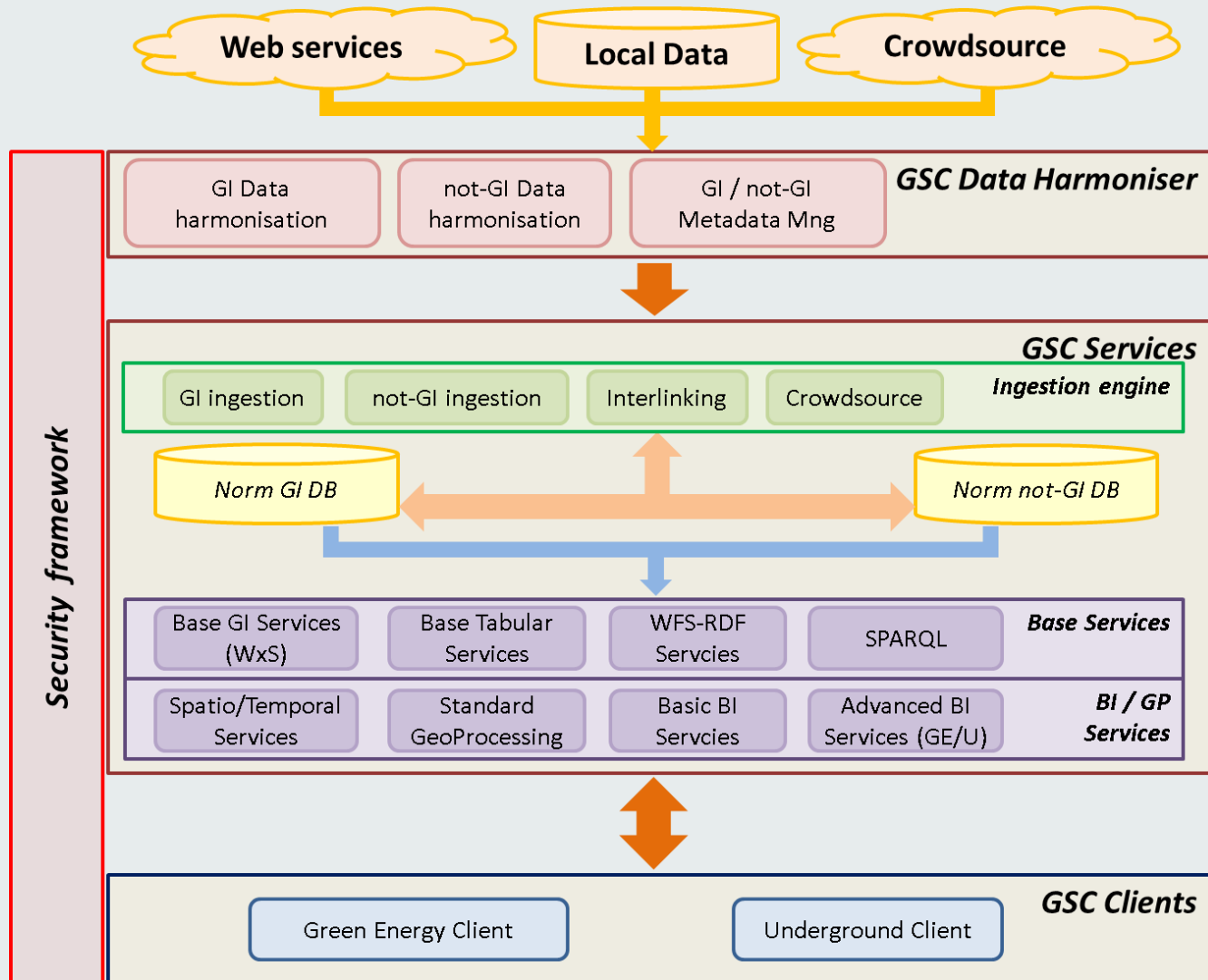- Integration of restricted data in a secure way
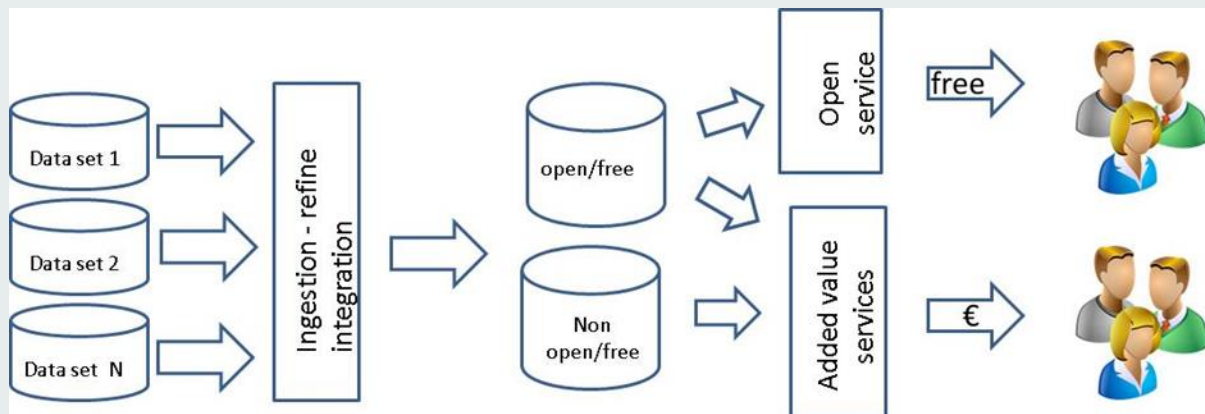
- Open infrastructure extandable to different SmartCity contexts

- Two application scenarios:

  ✓ Green Energy (5 pilot cases)
 ✓ Underground (6 pilot cases)

ICT Objectives
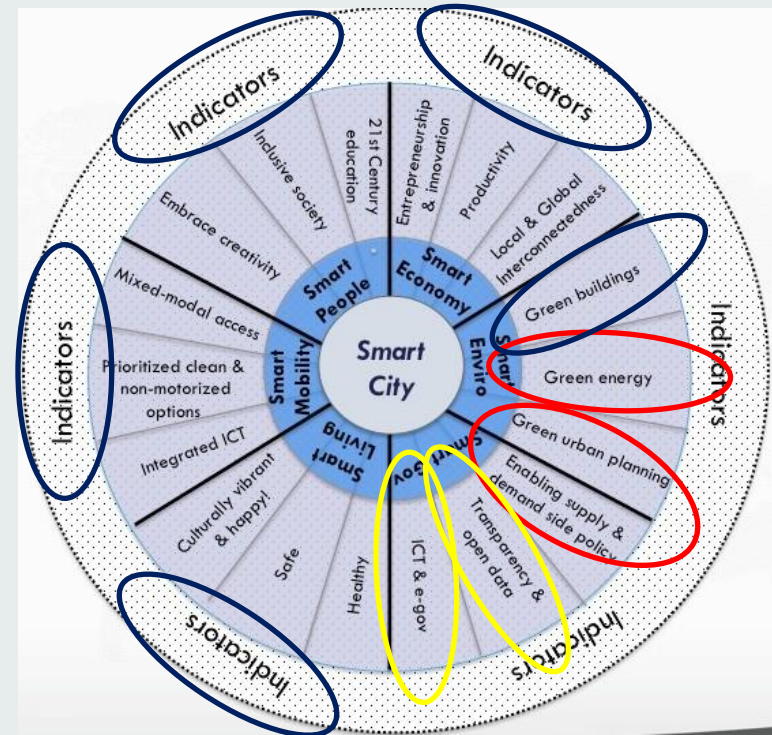
- Harmonised environment to integrate different operational protocols and standards, based on existing infrastructures
- Re-use of specialized services based on open standards
- Integration of new base/specialized services
- Ingestion and data integration engine composed by:
  - Harmonised data storage (based on GI standard, open data format)
  - a set of ingestion and data relation services:
    - Ingestion toolkit of GI data (open/restricted)
    - Ingestion toolkit of not-GI data (open/restricted)
    - Refine and reconcile toolkit to link and interconnect data
    - Crowd-sourcing base services based on location services

City Pilots and Scenarios

Turku

South Moravian Region

Ruda Slaska (Katowice area)

Reggio nell'Emilia

Genova

Maroussi

Flanders Region

Comarca of Pamplona

Girona

Oeiras

Oeiras

UNDERGROUND - GREEN ENERGY

9

- "The Covenant of Mayors" to increase energy efficiency and use of renewable energy sources on their territories (> 6.000 signatories for over 190 Mln people).

- Sustainable Energy Action Plan (SEAP) ➔ CO_2 reduction target by 2020

- Related information:
  - Buildings
  - Environmental info
  - Energy Infrastructure
  - Planning
  - Smart grids

What Is Green Building?
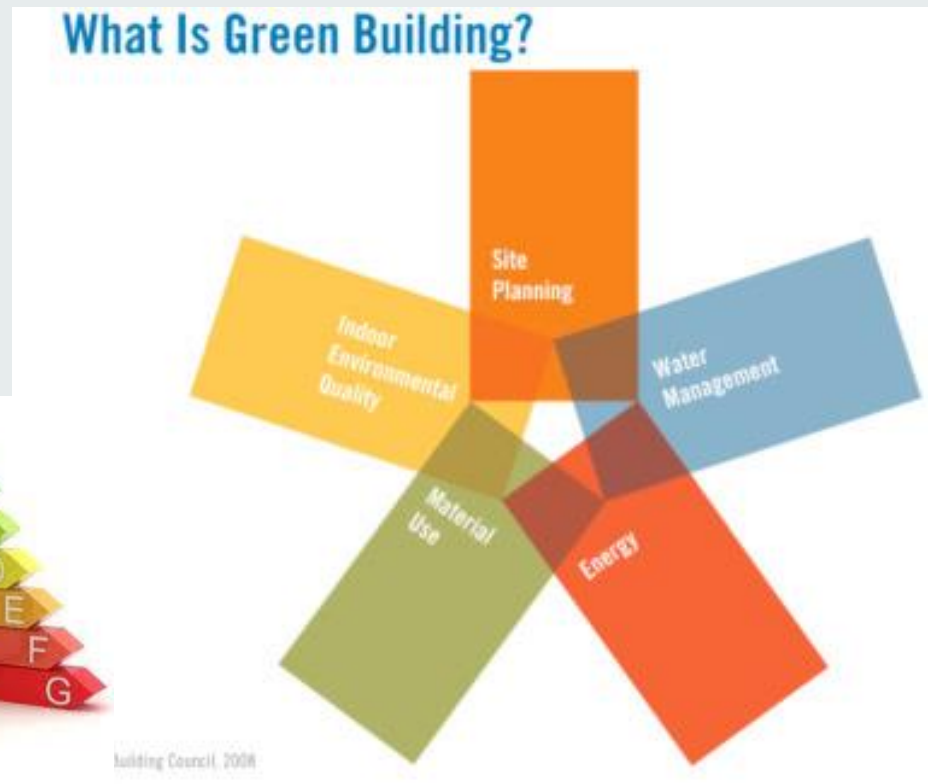
The 2020 climate and energy package:

- A 20% reduction in EU greenhouse gas emissions from 1990 levels;
- Raising the share of EU energy consumption produced from renewable resources to 20%;
- A 20% improvement in the EU's energy efficiency.
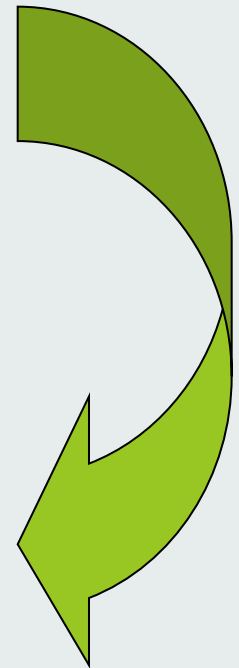
☐ *Reducing greenhouse gas emissions by at least 40%*

☐ *Increasing the share of renewable energy to at least 27%*

☐ *Increasing energy efficiency by at least 27%*

From: http://ec.europa.eu/clima/policies/2030/index_en.htm

Objectives:

➢ To provide the PAs with instruments for the definition and management of their "smart energy" policies

➢ Support the process of energy transition (traditional to renewable) and to provide the needed knowledge

➢ Demonstrate the importance of data integration to optimize and improve the use of energy resources: real time sensors (enviro/climate/energy consumption), smart metering, smart grid

➢ To activate and test, on real use cases with high added value, new public-private collaborations

➢ To create an environment which favours the economic development at territorial level by exploiting the opportunities from the energy transition and the ICT potentiality

5 pilot cases (IT, GR, PT, FI, ES)

- Different infrastructure under the same area
- Unconnected information for the management of assets and systems (damages during maintenance activities)
- Environmental ← impact → infrastructure
- Safety and security

Objectives: enforce the dialogue between utility companies and Public Administrations to improve the sharing of underground data and the data flow toward and from the Public Administration.

Benefits:

- access to updated data, to speed up the planning process, the development and the control of works

- Integration of underground data with territorial data to search for papelines located in risk zones (hydrogeologic, hydraulic, sysmic…) and that need a specific monitoring

- Availability of Apps and Augmented Reality in the daily management of utility networks and to optimize emergecy interventions

- Involvement of citizens which are asked to signal, through their smartphones, possible failures of the utility networks (crowd-sourcing)

6 pilot cases (ES, IT, PT, BE, CZ, PL)