European Union Location Framework

Francesco Pignatelli, Maria Teresa Borzacchiello and Albana Kona
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• Feasibility study on location data and energy efficiency
INSPIRE and beyond: the EULF

- The European Union Location Framework (EULF) project promotes effective location-enabled e-government across Europe, as part of the Interoperability Solutions for Public Administrations (ISA) programme.

- It does this through a series of recommendations, guidance and actions targeting priority needs of citizens and businesses across all government sectors, and addressing cross-border applications and the goals of the Digital Single Market.

- INSPIRE is a key element in the EULF toolkit.

- The actions include guidance, recommendations, use case and pilots in different sectors.
European Union Location Framework

Strategic framework based on EU survey

Benefits in multiple use cases

- Policy and strategy alignment
- Return on investment
- e-Government integration
- Effective governance and partnerships
- Standardisation and interoperability

Recommendations and guidance in 5 focus areas

Practical problems solved through pilot studies

Working together with MS to address priorities

Delivering savings, growth and better services through “location-enabled government”
# EULF deliverables

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http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-13action_en.htm
EULF pilots

EULF: provides the strategic framework, turning its recommendations into action and learning from the results.
Location Data for Energy Efficiency Policies
Feasibility study

• Focus on **Energy Efficiency**

• Collaboration among JRC Units dealing with different topics:
  - IES (H06) – *EULF, INSPIRE*

• The goal of this study is to verify how location data can support energy efficiency policies
Energy feasibility study report

Data requirements from Energy Directives (EPBD, EED)

Methodological approach to support energy efficiency policy

Data requirements from Covenant of Mayors

Survey on the use of location data relevant to energy

Data requirements from INSPIRE (BU, AD, CP, ...)

Projects and initiatives dealing with Energy Efficiency & Location

Analysis of data requirements from INSPIRE and Energy Directives

Analysis of usage of geodata about energy
Outcomes of the feasibility study

• Public authorities can rely only on basic reporting tools and aggregated data to perform their monitoring obligations related to energy efficiency

• Need for a more harmonised approach to
  ▪ ease the burden for public authorities
  ▪ support the needs of policy makers

• Requirements from EPBD and EED are semantically richer than INSPIRE building requirements – need for extension

• Geospatial technologies can support energy efficiency policy, increasing
  ▪ the efficiency of data collection, elaboration and sharing
  ▪ the effectiveness of stakeholders’ decision

• A pilot project will address these points
Goals of the EULF energy pilot

• Support local authorities to enhance the energy efficiency policy making process, improving the quality of the data
• Provide local authorities with methodology and tools to build and update a robust inventory of energy performance of buildings data
• Put in place harmonised data flows to support local energy related initiatives (e.g. the CoM)
• Align local initiatives with the national energy efficiency planning obligations (set by the Energy Efficiency Directives)
Energy pilot: relevance to Digital Single Market

- Open access and better exploitation of energy performance of building data coming from municipalities
- Ensure interoperability through use of geospatial standards (INSPIRE) taking into account thematic requirements
- Business opportunities thanks to the availability of energy data, linking government (municipalities, regional and national authorities) and private sector involved on energy performance or construction (utilities, SMEs)
Energy efficiency policies: EPBD

Energy Performance of Buildings Directive:

promotes the improvement of the energy performance of buildings within the Union, taking into account outdoor climatic and local conditions, as well as indoor climate requirements and cost-effectiveness.

Source: JRC – IET H. Bloem
Energy efficiency policies - EED

- The **Energy Efficiency Directive (EED)** establishes a common framework of measures for the promotion of energy efficiency within the Union in order to ensure the achievement of the Union’s 2020 targets.

- The **National Energy Efficiency Action Plans** shall cover significant energy efficiency improvement measures and expected and/ or achieved energy savings, including those in the supply, transmission and distribution of energy as well as energy end-use, in view of achieving the national energy efficiency targets.
Covenant of Mayors - CoM

Voluntary initiative launched by DG ENERGY in 2008 to support local authorities in the sustainable energy development and the fight against climate change

Mayors voluntary commit to meet and exceed the EU energy and climate objectives

at least 20% CO2 reduction in their respective territories by 2020

- Define a Baseline Emission Inventory (BEI)
- Prepare a Sustainable Energy Action Plan (SEAP)
- Implement their Action Plan
- Report periodically on progress

6 330 signatories: 200 Million inh.
Overview of data in the CoM

The Covenant of Mayors in Figures and Performance Indicators: 6-year Assessment
Location data at building level - EPBD

Energy Performance Labelling atlas:

Administrative information on building stock..(age, type, location, construction, usage), energy systems...

http://www.energielabelatlas.nl/
Location data in districts - EED

Performance indicators at district level:

\textit{ex. average gas consumption per unit area}

Location data in urban areas - CoM

Performance indicators at city level: e.g. Energy consumption per capita, Geolocation of SEAP measures.

There is a need for a **bottom up** approach from building to district to urban area

Source: Location Data for Energy Efficiency Policies. In progress JRC 2015
Location data at MS level – EED

Performance indicators at country level:

- scaling up from urban to country level

- Mapping CoM measures contributing in the National Action Plans
Methodologies

ENERGY PILOT

- INSPIRE compliant datasets
- Other Data Sources
  - JRC, Eurostat
- CoM database
Conclusions and next steps

- Implement an open data (spatial) platform where to collect geographic datasets about energy properties of real buildings (performance, consumption, systems, ...), with data coming from 3 to 4 pilot cities in Europe (possibly already signatories of Covenant of Mayors)

- Workshop with key stakeholders to review the assessment and proposed approach and determine interest in participation to the pilot
“Have your say!” at the EULF Workshop

• When?
  ▪ Friday 29 May 13.30-15.00

• Where?
  ▪ ???

• What?
  ▪ Overview of EULF - towards a framework for location-enabled e-government
  ▪ EULF and the Digital Single Market on-enabled government
  ▪ Overview of each of the EULF Pilots and of their findings so far
  ▪ Facilitated group discussions on the general framework and on the use cases
Contact and join us!

http://ec.europa.eu/isa/actions/02-interoperability-architecture/2-13action_en.htm

https://joinup.ec.europa.eu/community/eulf/description


e-mail: eulf-info@jrc.ec.europa.eu

https://twitter.com/EULocation

#EULF
Making it happen - INSPIRE

- INSPIRE Directive 2007/02/EC – to establish a spatial data infrastructure for environmental policy
- 34 data themes including reference data (e.g. coordinate systems, transport networks) and thematic data (e.g. buildings, land use)
- Common cross-domain data models to facilitate interoperability
- Thematic extensions being developed
- Decentralised publication via network services and metadata (discovery, view, download, transform, invoke)
- Data and service sharing policy
- Comprehensive monitoring and reporting
- Implementation 2009 to 2020