

European Union Location Framework

“TOWARDS THE IMPLEMENTATION OF EULF”

AM/FM Workshop:

Location as Unifying Element of Actions and Information for Citizen Services

24 September 2014, Rome

Francesco Pignatelli
European Commission (JRC)

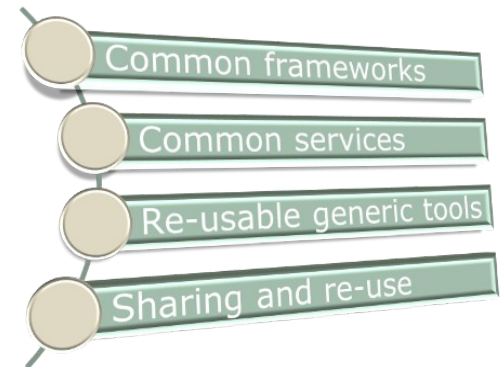


www.jrc.ec.europa.eu

*Serving society
Stimulating innovation
Supporting legislation*

EULF Context

“The European Union Location Framework (EULF) is Action 2.13 of the Interoperability Solutions for Public Administrations (ISA) Programme”.



ISA a key enabler for Public Administrations to join forces, bring down e-barriers and overcome financial constraints

What EULF wants to solve

- Many business (work) processes of governments in which G2G, G2B and G2C interactions take place
 - Lack of **integration** of location information and services
 - often administrative processes and GIS are two worlds apart
 - Are not well **aligned** regarding location information
 - legislation, procedures (e.g. procurement)
 - Do not **interoperate** in an optimal way
 - e.g. different definitions and interfaces
- At the same time
 - INSPIRE and Spatial Data Infrastructures (SDI) are being developed
 - Need to embed SDI components in those work processes

Purpose of the EULF

- To help '**location-enable**' e-government
- By providing a framework for **assessment** and **action**
- Relevant to **all sectors** and **across borders**
- Using **INSPIRE** in new situations
- Delivering **interoperability** alongside the other ISA actions
- Based on an **EU-wide survey and assessment**
- With guidance in a series of **focus areas**
- Tested and refined through a range of **pilots** and **use cases**
- Delivering **benefits** for government, citizens and businesses

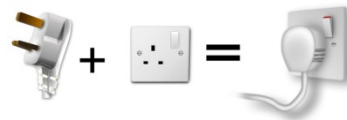
Building and extending INSPIRE for other sectors



“location-enabled government”



Environmental Sector



Transport Sector

Marine Sector

Energy Sector

.....

Data interoperability across sectors and borders



Transport

ITS

Infrastructure

Multi modal timetables

Planning & construction

Safety

Environmental protection

Private sector products and services

EULF Focus Areas

Policy and Strategy Alignment:

Consistent EU and Member States policy and legislative approach

Return on Investment:

Strategic funding and procurement, compelling business cases and good evidence of benefits

Effective Governance and Partnerships:

Decision making, collaboration, awareness and skills to share and apply best practices

e-Government Integration:

Location is a key enabler in e-Government services, addressing user needs and expectations

Standardisation and Interoperability:

Standards and technologies for interoperability and re-use are consistently applied

Location enabling the EIF, EIRA and EICart

EULF Blueprint

TOOLKITS: Recommendations, best practices, guidelines, methodologies



Coordination, funding, procurement, benefit realisation

Policy alignment

Service integration

Data optimisation

Application development

Best practice solutions and tools

EIF Interoperability levels

European Interoperability Framework

Political context

Legal View

Organisational View

Semantic View

Technical View – Application

Technical View – Infrastructure

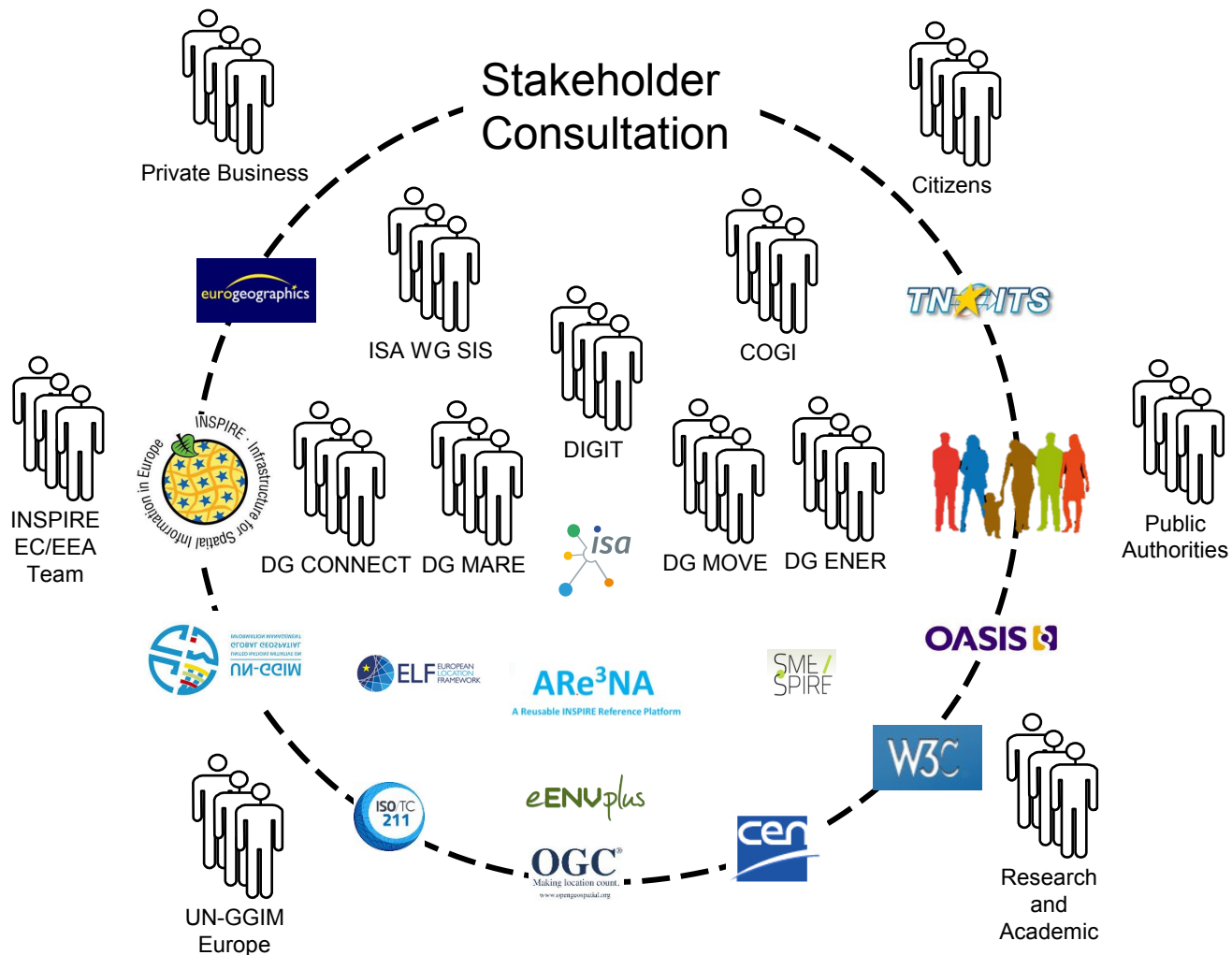
EIRA
European Interoperability Reference Architecture

EICart

European Interoperability Cartography



EULF Stakeholder Landscape



ISA-INSPIRE Joint Working Group on Spatial Information and Services

Provides policy and technical advice on the role of **spatial information in support of the Digital Agenda for Europe**, with particular emphasis on policy alignment, e-government integration and re-usable technology

Members

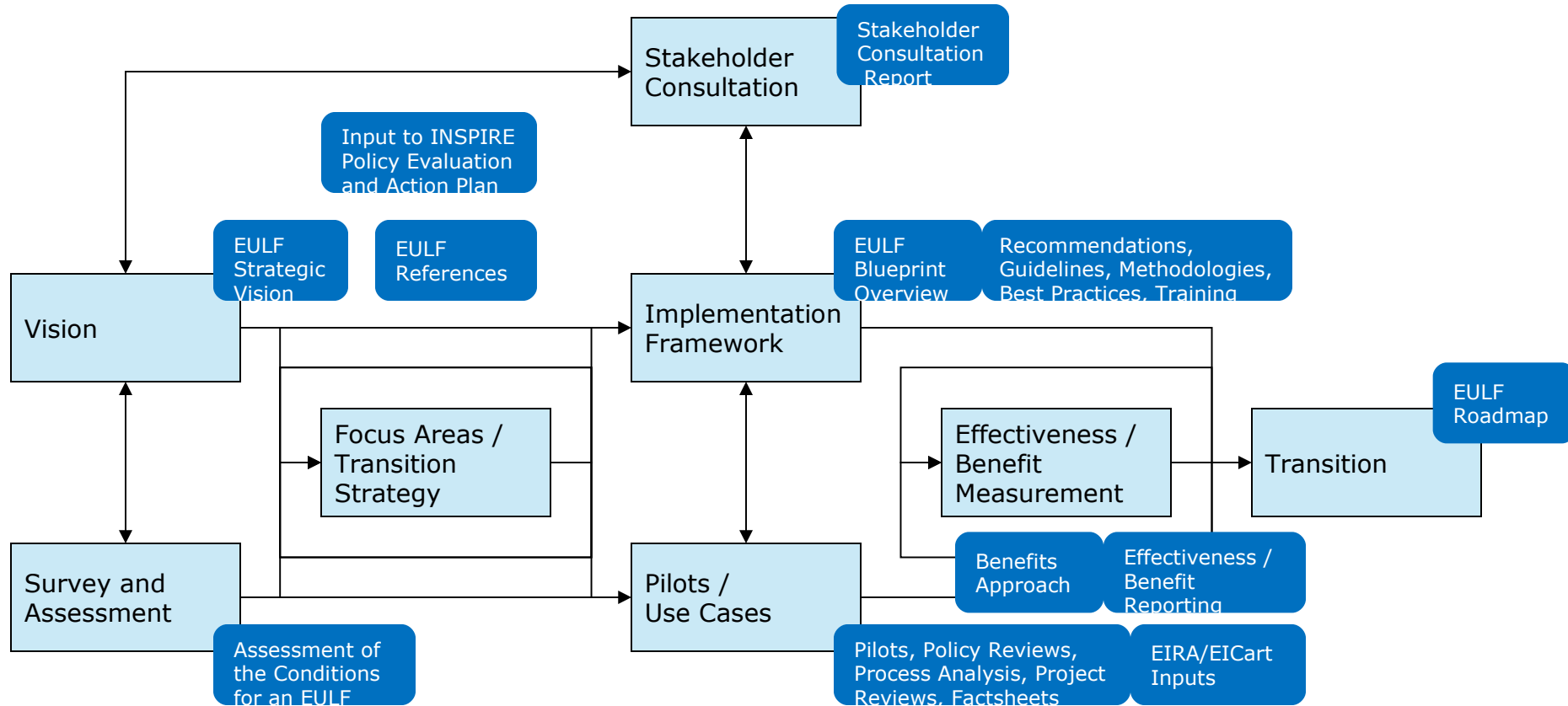
National Contact Points from GI (INSPIRE) and e-Government

Responsibilities

- **Identify policy areas where** a more integrated, efficient or innovative approach to **location information is required**
- **Provide information on national e-Government** developments and technologies, identify gaps and EU collaboration opportunities
- **Identify relevant barriers or good practices**
- **Advise on and promote the ISA actions** for spatial information and services

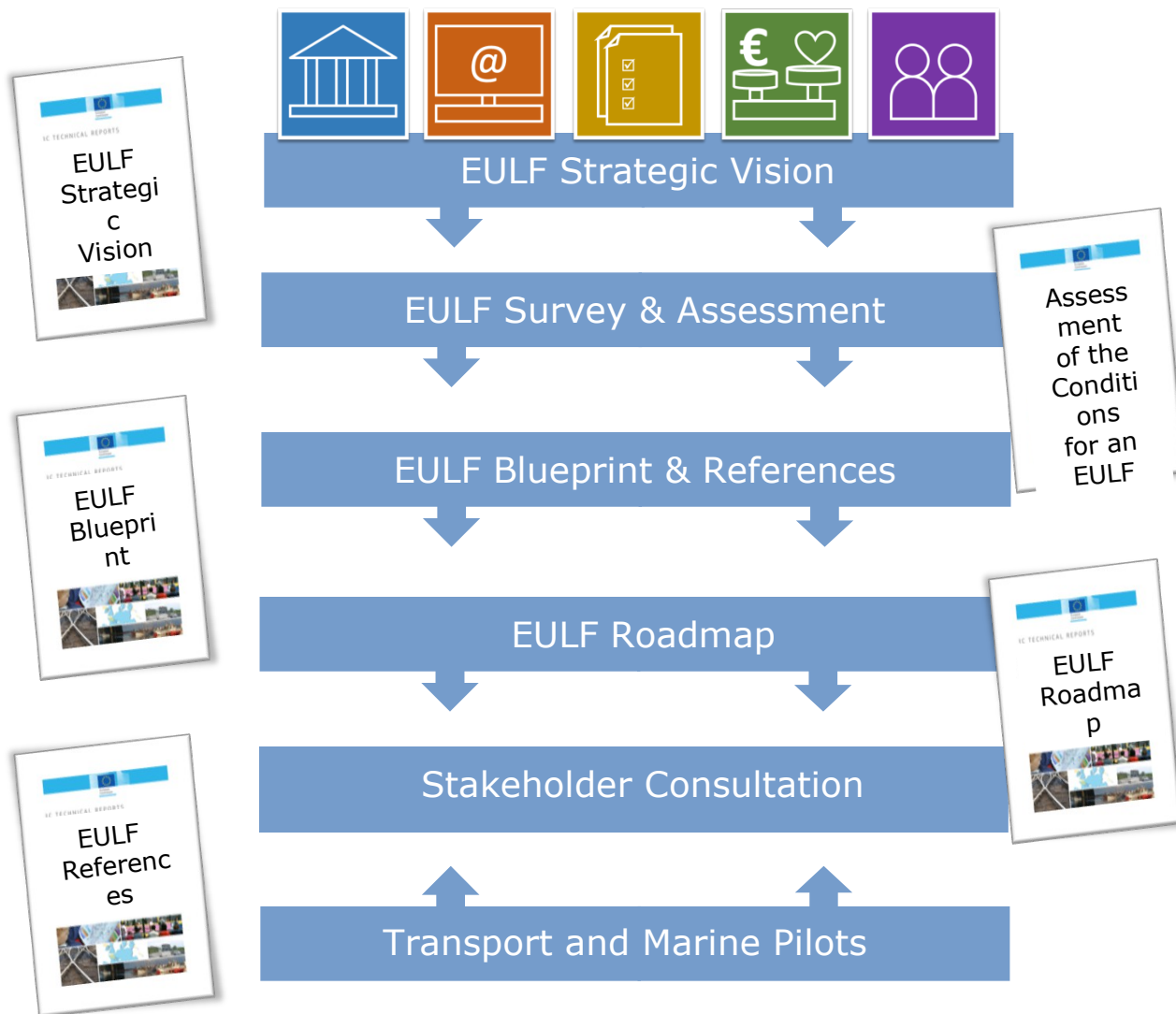
EULF technical approach

ISA Working Group for Spatial Information Services advice and promotion

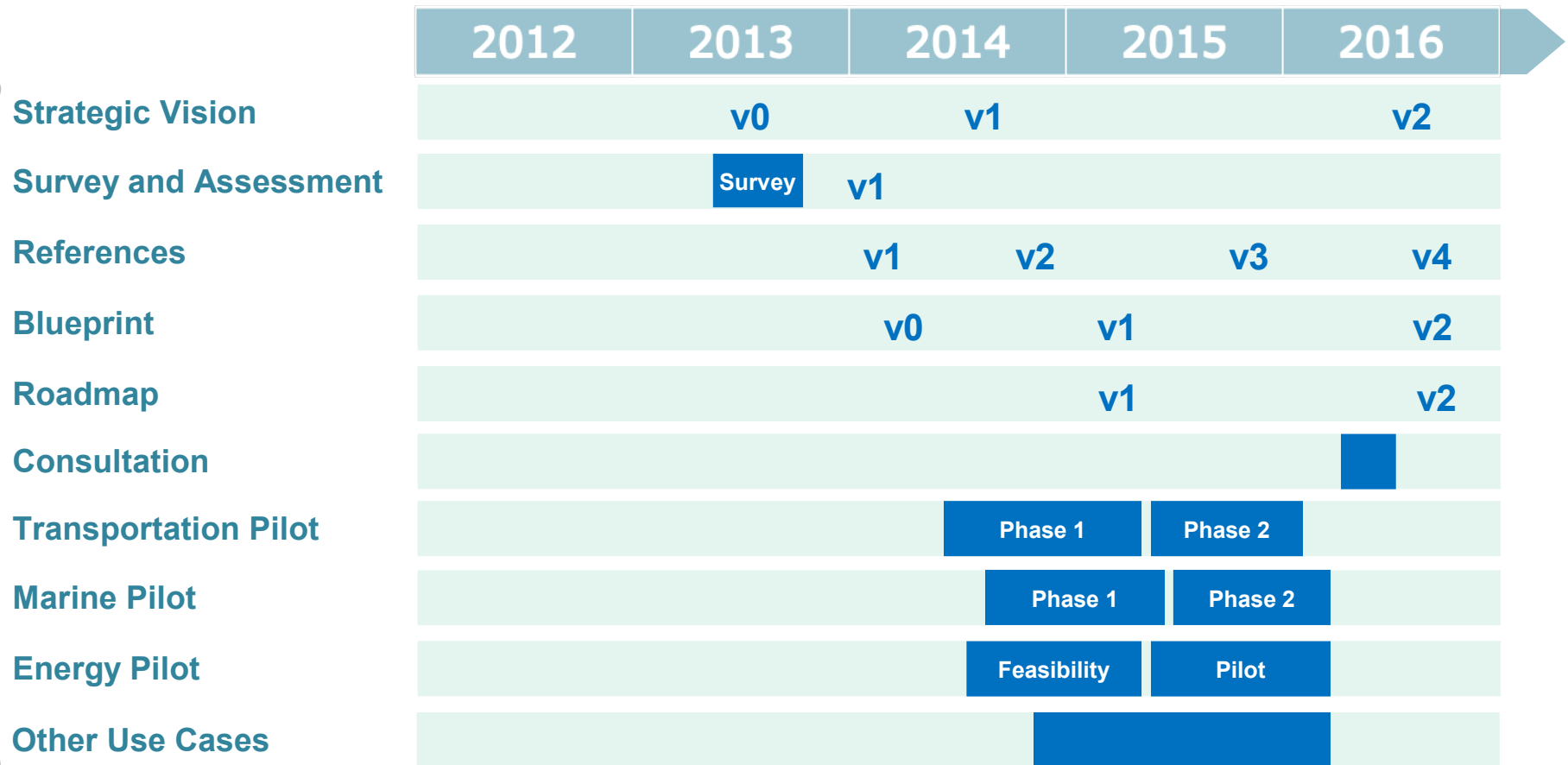


Stakeholder partnerships, inputs and adoption

EULF Deliverables



EULF deliverables schedule



EULF Vision

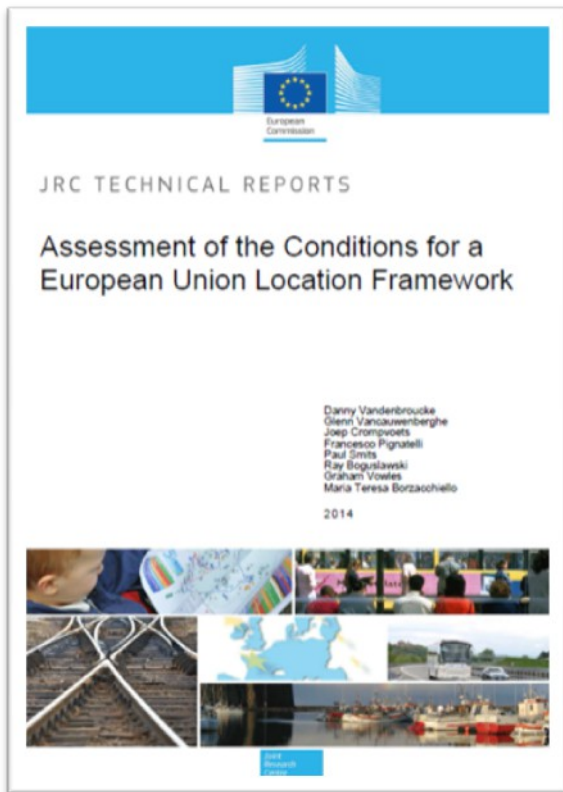
"More **effective e-services**, savings in time and money, and **increased growth and employment** will result from adopting a coherent European framework of guidance and actions to foster interoperable **cross-sector** and **cross-border** sharing and use of **location information**"

http://ec.europa.eu/isa/actions/documents/isa-2.13_eulf-strategic-vision-lite-v0-3_final_en.pdf



EULF Assessment

http://ec.europa.eu/isa/documents/assessment-of-the-conditions-for-an-eulf-v1_en.pdf



- Assessment of the **state-of-play** in the five focus areas of the EULF
- Based on **survey among EU member states**, analysis of best practices, document analysis and interviews

EULF Survey

on the use and integration of location information within e-Government

Contacts

- INSPIRE National Contact Points
- e-Government National Contact Points



Investigate

- Use and Integration of location in Public Administration processes and service delivery to citizens and businesses
- Observed benefits of a wider and better use of location information
- Existing actions, initiatives and strategies at the national level to support integration of location in e-Government
- Assessment of barriers to and enablers of the use of location information in e-Government



Collect

- Best practices
- Examples of documented initiatives and strategies



Il questionario EULF sull'uso e l'integrazione dell'informazione territoriale nei servizi di e-government

- L'informazione geografica è usata e integrata nei processi delle pubbliche amministrazioni negli Stati Membri dell'UE? In che modo?
- Quali sono i benefici osservati dall'utilizzo più ampio ed efficace dell'informazione geografica in tali processi?
- Quali iniziative sono prese dagli Stati Membri per supportare e realizzare l'integrazione della componente territoriale nei servizi di e-gov?

Key barriers from the EULF survey

Key Barriers	Avg Score
Lack of funding	1.85
Lack of skills and knowledge	1.45
Lack of coordination	1.45
Little integration of location in government processes	1.33
Absence of user driven approach	1.33
Difficulties with business case	1.18
Lack of cooperation	1.11
Restrictive or inconsistent data policy	1.10
Lack of common standards	1.00
Non-supportive legal framework	0.95
Absence of tools or guidance	0.89
Lack of good practice examples	0.89

0 = no barrier

1 = minor barrier

2 = major barrier

Key issues from the EULF survey

Key Issues	Avg Score
e-Government process integration	2.52
Leadership and governance	2.52
User driven approach	2.50
Training and awareness raising	2.48
Funding	2.43
Costs and benefits	2.30
Partnerships	2.24
Open and balanced data policy	2.22
Standardisation and interoperability	2.17
Policy alignment	2.09

0 = not important

1 = somewhat important

2 = important

3 = very important

Key benefits from the EULF survey

Public Administrations	Avg Score
Increased collaboration	3.91
Cost and time savings	3.86
Simplified processes	3.73
Better quality processes	3.55
Better policy making	3.41

Citizens and Businesses	Avg Score
Cost and time savings	3.64
Better services	3.59
New services / products	3.59
Improved transparency	3.32
Greater participation	3.23

Broader Benefits	Avg Score
Open government	3.65
Citizen engagement	3.32
New companies	3.09
Job creation	3.00
Improved trust	2.91

1 = not at all
2 = not yet
3 = low
4 = medium
5 = high

Current use of location information in public sector processes

	Strongly integrated	Partly integrated	Used in support	Not used	Don't know
Registration of citizens	3 13,5%	2 9,0%	7 31,5%	9 41,0%	1 4,5%
Building permissions*	6 30,0%	3 15,0%	10 50,0%	0 0%	1 5,0%
Maintenance of addresses	13 59,0%	5 22,5%	3 13,5%	1 4,5%	0 0,0%
Registration of a new company*	1 5,0%	4 20,0%	9 45,0%	4 20,0%	2 10,0%
Taxation for citizens*	4 20,0%	2 10,0%	8 40,0%	2 10,0%	4 20,0%
Issuing environment-related permits	6 27,0%	8 36,5%	5 22,5%	1 4,5%	2 9,0%
Registration of real property	16 72,5%	2 9,0%	2 9,0%	1 4,5%	1 4,5%
Management of patients' health records*	0 0,0%	1 5,0%	5 25,0%	8 40,0%	6 30,0%
Planning of public transport	9 41,0%	6 27,0%	6 27,0%	0 0,0%	1 4,5%
Design of spatial zoning plans	10 45,5%	8 36,5%	4 18,0%	0 0,0%	0 0,0%

* not measured in test surveys (20 answers)

Processi e servizi: valutazione preliminare

Utilizzo dell'informazione geografica nei processi delle PA

- Integrazione FORTE: *registrazione delle proprietà immobiliari, pianificazione territoriale e gestione degli indirizzi, pianificazione dei trasporti*
- Integrazione PARZIALE: *permessi ambientali e pianificazione territoriale*
- Integrazione ASSENTE: *anagrafe dei cittadini e delle aziende, gestione delle tasse e gestione dei pazienti ospedalieri*

→ C'è poca integrazione dell'informazione geografica in processi legati a servizi amministrativi "di base" (*ma qualche buona pratica*)

Servizi tipici che utilizzano l'informazione geografica

- Ai cittadini: pianificazione di viaggi su più modi di trasporto e notifica di eventi di rischio naturale
- Alle aziende: accesso a dati immobiliari e servizi di richiesta di sussidi
- In molti stati membri esistono applicazioni innovative e cross-border

Benefici: valutazione preliminare

Benefici dell'informazione geografica integrata nei servizi e-gov

- Principali benefici per le PA: *maggiore collaborazione e coordinamento, risparmio di tempo e costi, e semplificazione dei processi*
 - Principali benefici per cittadini e aziende: *servizi più efficaci, risparmio di tempo e costi, e nuovi prodotti e servizi*
 - Principali benefici per la società in genere: *PA più aperta e trasparente, e maggiore partecipazione e impegno dei cittadini*
- Benefici per le PA > benefici per cittadini e aziende > benefici per la società

Misura e monitoraggio dei benefici dell'informazione geografica

- Principalmente nell'ambito di INSPIRE
- Input anche da progetti europei e studi del mercato privato della geomatica (es. smeSpire) o di armonizzazione dati con estensione modelli (es. eENVplus, ELF)

EULF Blueprint



The **EULF Blueprint** is a multi-part document consisting of:

- ✓ Recommendations
- ✓ Actions
- ✓ Guidelines
- ✓ Methodologies
- ✓ Best practices

It provides a “**Framework for Action**” for *working together* to implement interoperable cross-sector and cross-border sharing and use of location information

EULF Guideline Development in Progress

Giving you (PAs in MS)
practical help in
creating location-enabled
e-government services



EULF Guidelines in
Development

EULF Proposed
Guidelines for the
future

EULF Recommendations: Policy and Strategy Alignment

1. Location information as an essential part of an e-Government strategy
2. An approach for aligning the use of location information and INSPIRE in different thematic policies
3. Guidance on how to refer to INSPIRE and geospatial standards in public procurement

EULF Actions



EULF Recommendations: e-Government integration

4. Location data and information for better service delivery
5. A process-based approach for SDIs

EULF Actions



EULF Recommendations: Standardisation and interoperability

6. Architectural document to explain the relationship between relevant location information and e-Government standards

7. Establishing the link between the EULF and the EIF and EIRA

8. An EU approach to linked data for location information

9. An EU wide approach on authentication, authorisation and accounting

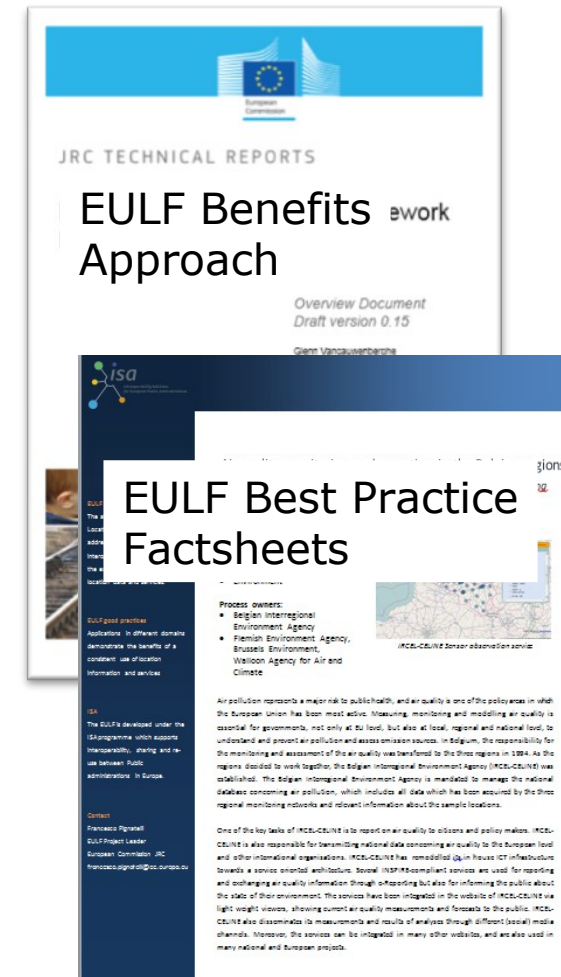
EULF Actions



EULF Recommendations: Return on investment

10. Monitoring the use and integration of location information in a consistent and systematic way
11. Communicating the benefits of the integration of location information
12. Stimulating the creation of new applications and services by the private sector

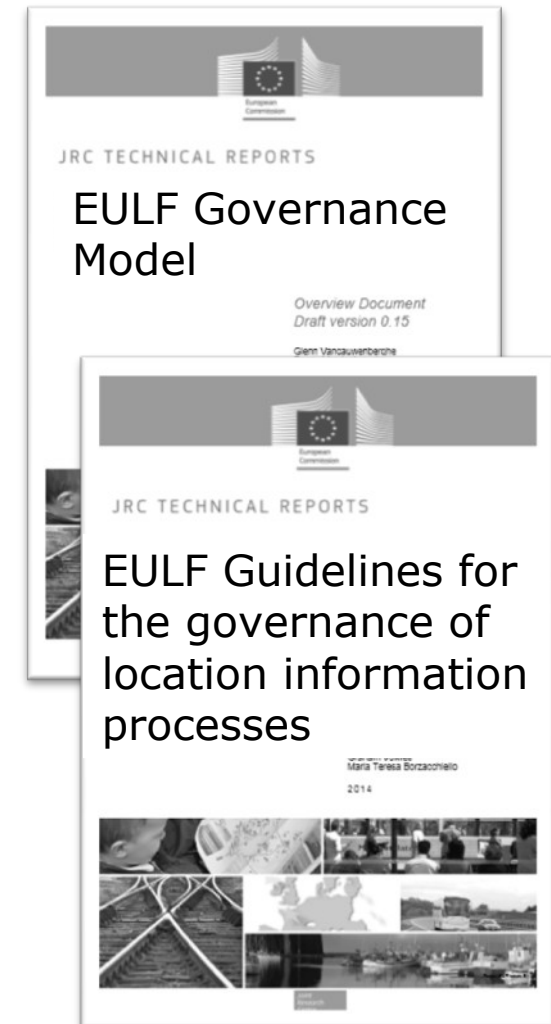
EULF Actions



EULF Recommendations: Effective governance and partnerships

13. An effective approach for consulting and involving all relevant communities and stakeholders
14. Adopting a governance model for the EULF
15. Governance of location information processes

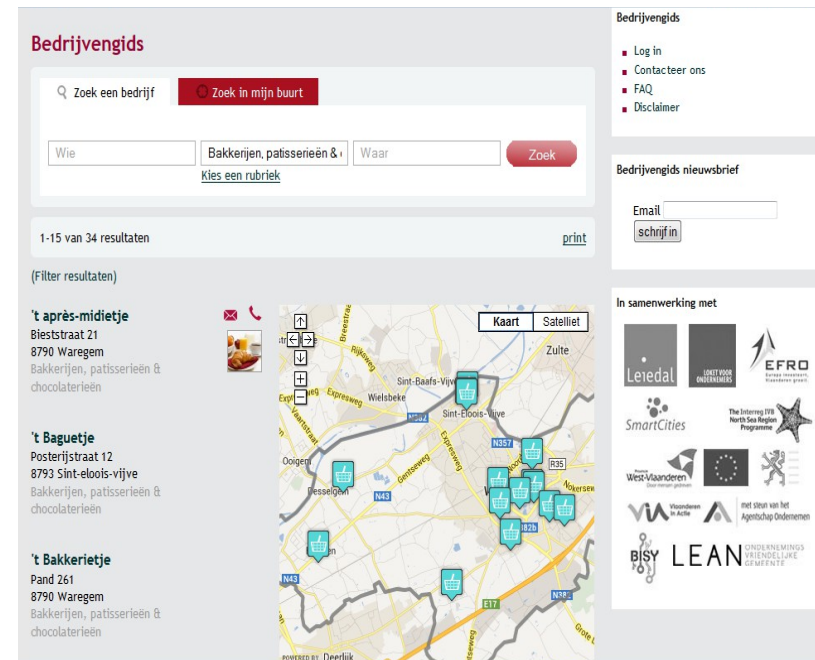
EULF Actions



Example of a EULF good practice

LOG-In (Belgium)

- Cross-border e-Gov project
- Local SDI that supports
 - Governments
 - Businesses
 - Citizens
- Process owners
 - Intercommunale Leiedal
 - Landkreis Rotenburg-Wümme
 - Norfolk County Council
- Development of several location enabled e-Gov services
 - E.g. Local business guide supporting the exchange of information between Government and Business (G2B)



Example of a EULF good practice

LOG-In (Belgium)



E-Gov Integration

- Back and front office
- Location and other data
- Embedded in services supporting G2G, G2B and G2C interactions



Standard & Interoperability

- Use of common ICT standards
 - OGC interfaces
 - Open API
- Re-use of components



Policy Alignment

- E-Government and GI strategy
 - Policies and settings different stakeholders
- Application of INSPIRE principles



Effective Governance & Partnerships

- 35 municipalities involved
- Broker role process owners
- Cooperation public-private sector

Example of a EULF good practice

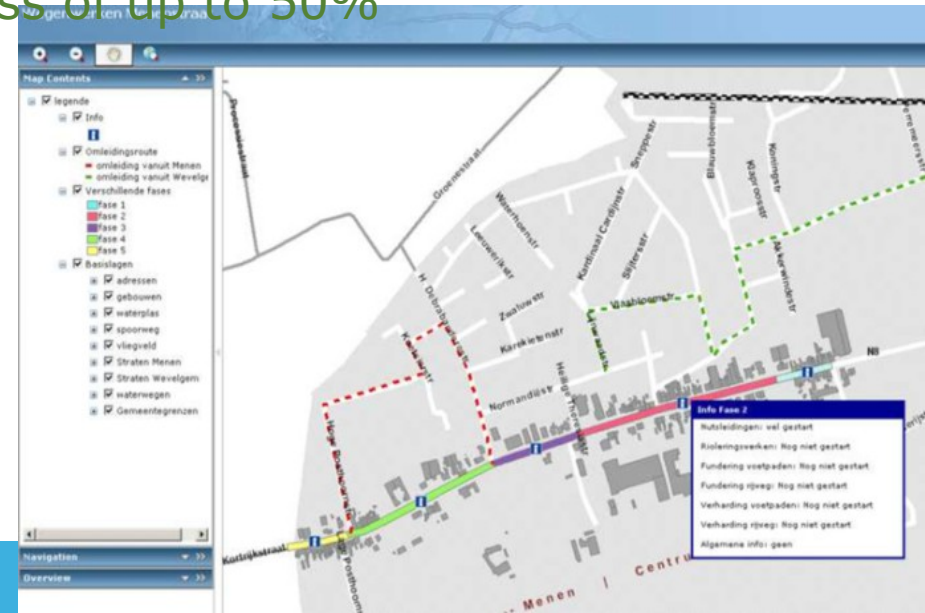
LOG-In (Belgium)



- Benefits observed
 - For citizens & business
 - Companies become visible for government, citizens and other businesses
 - For public administration
 - Saving of over 1,5 million euro and 15 FTE staff to date (2013)
 - Improvement in effectiveness of up to 50%
 - Broader benefits
 - Empowerment of public employees
 - Open Government

Return on Investment

Winner of the
Flemish
e-Government Award



EULF Pilots



**INSPIRE
Directive**

**Environmental
Sector**



EULF: provides the strategic framework with emphasis on policy and strategy alignment for e-Government enabled location applications



**Transport
Sector**

**ITS
Directive**



**Marine
Sector**

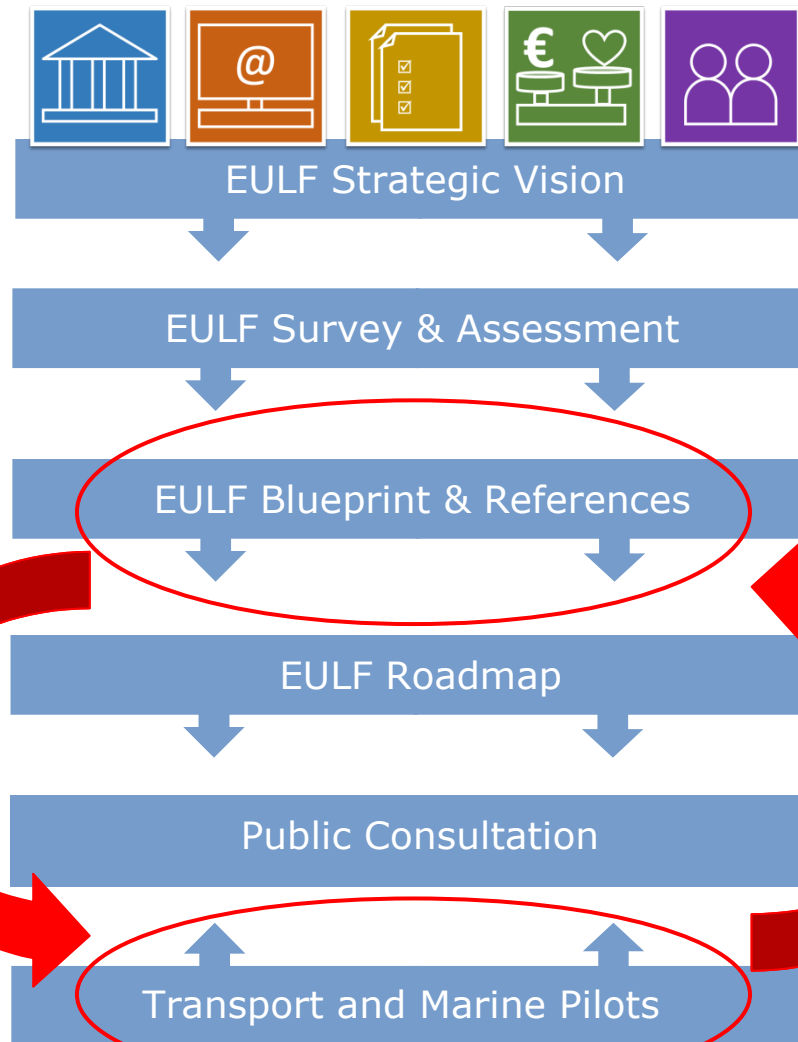
**MSFD
Directive**



**Energy
Sector**

**EPBD, EESD
Directives**

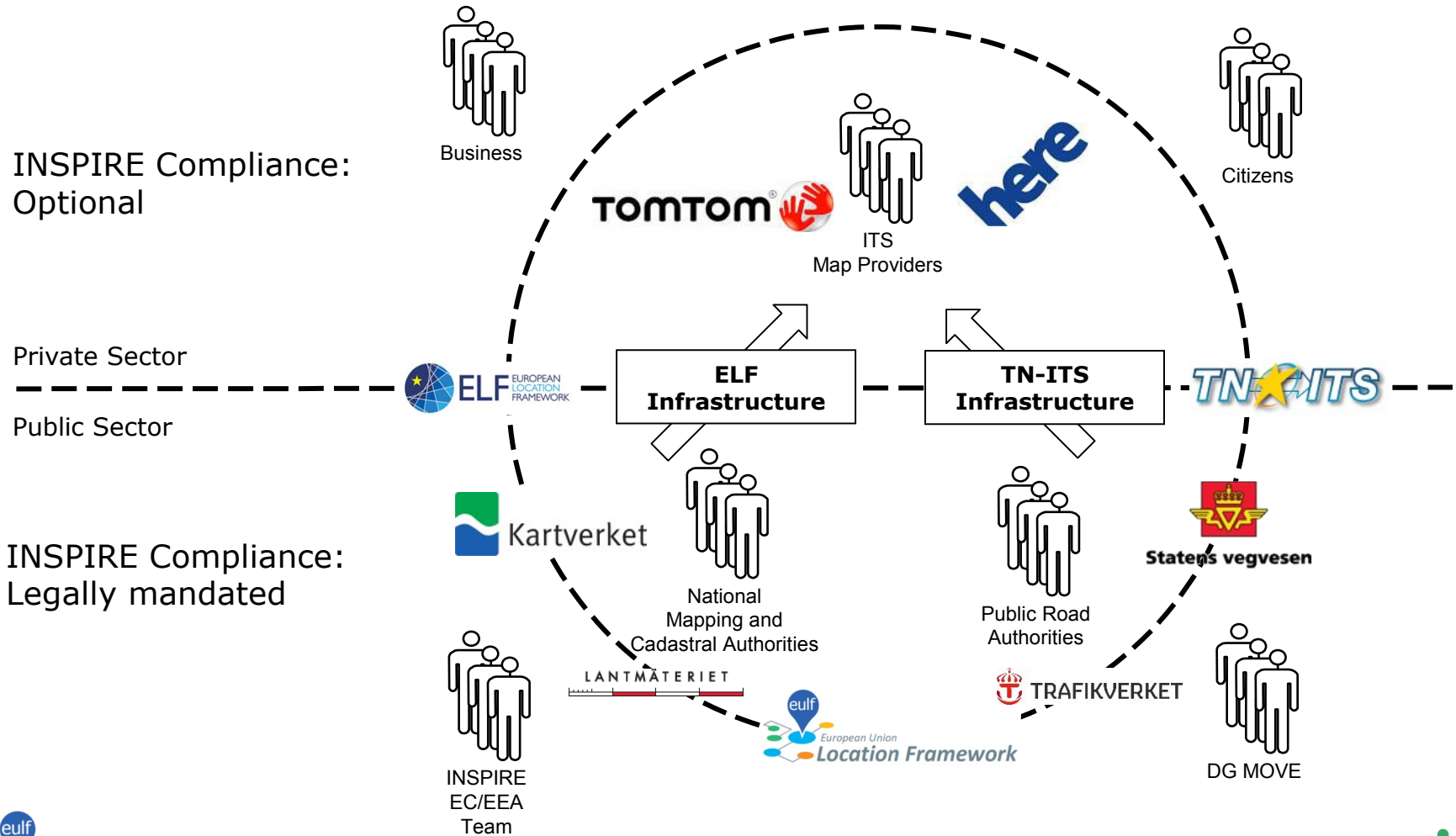
Pilots Context



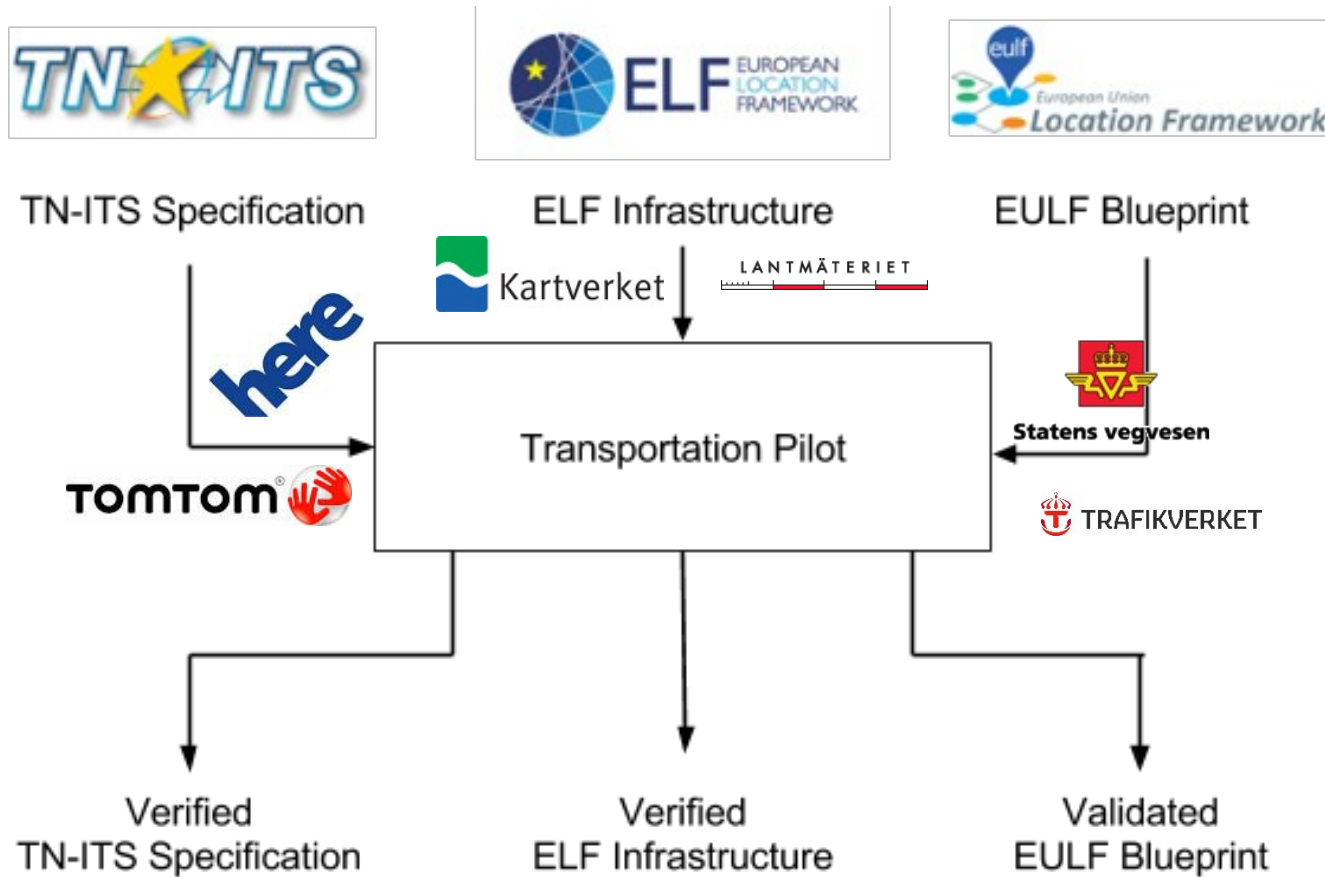
Validating the EULF Blueprint within the **different policy domains**

Contributing to the different focus areas of the EULF Blueprint. For example, **clarifying expected benefits**

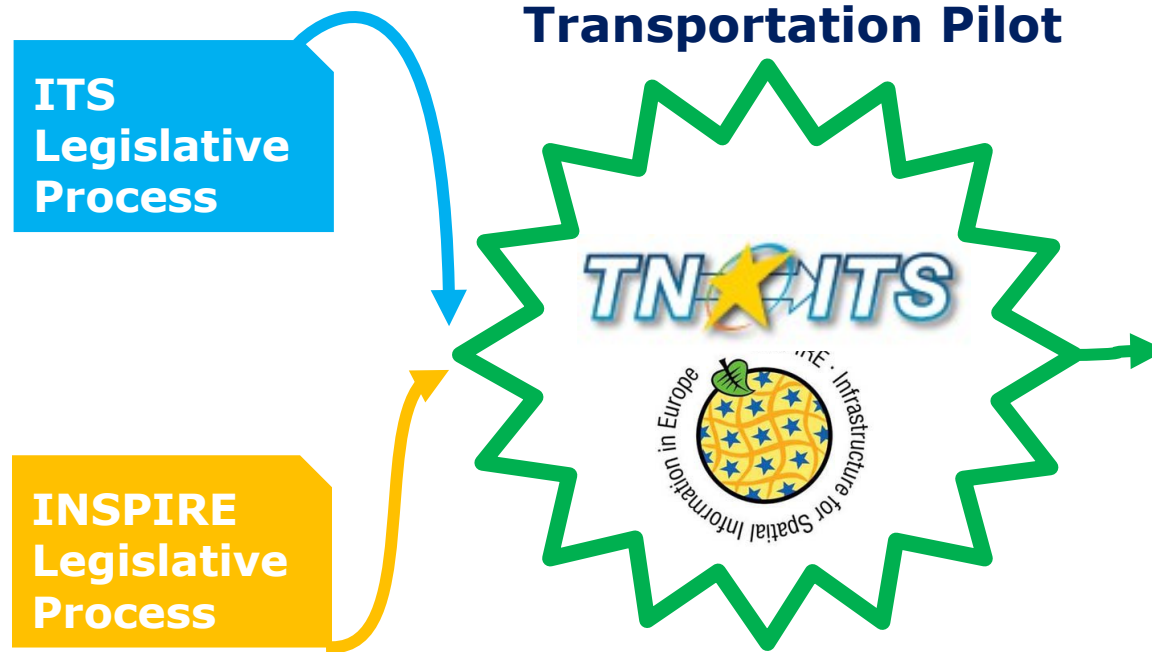
Transportation Pilot: partners



Transportation Pilot



The challenge is...



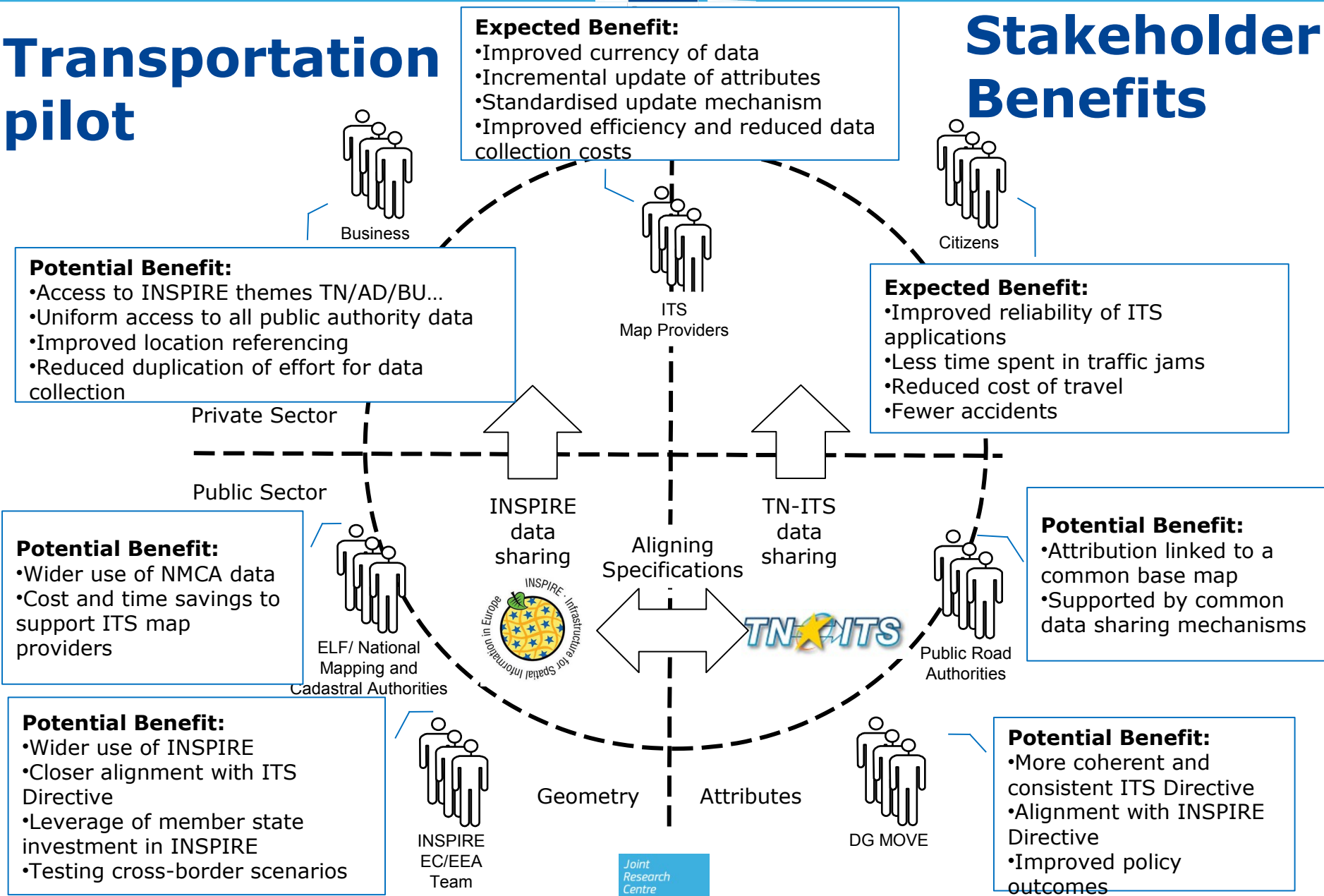
- Extension of Inspire framework
- Convergence of data and flows
- Pooling of resources
- Costs and benefits for all stakeholders

**Implement the Transportation Pilot
and report back at the
ITS World Congress
(Bordeaux, 5-9 October 2015)**

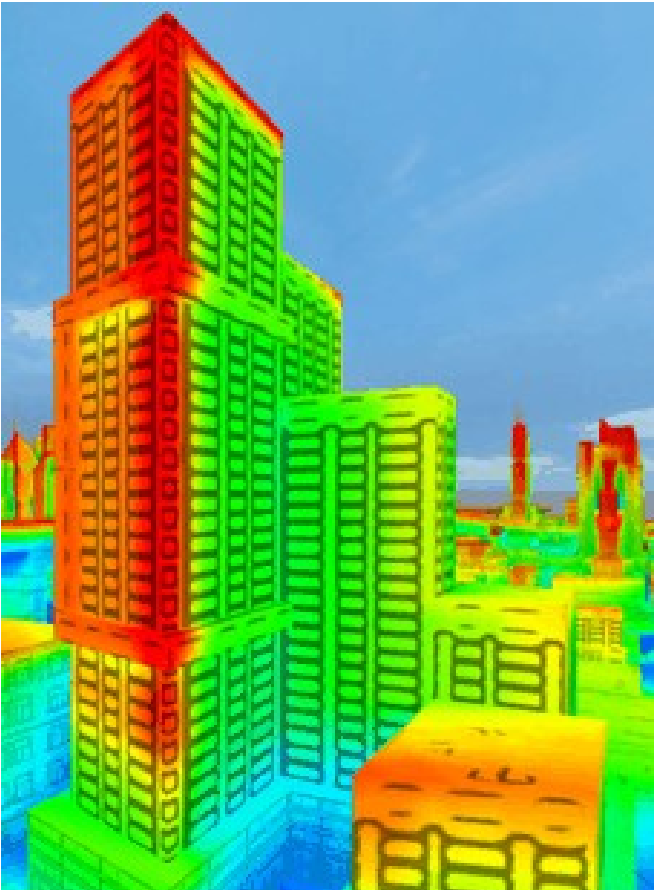


Transportation pilot

Stakeholder Benefits



Scope of the feasibility study



- Location information is relevant to many EU policy areas and one of the aims of the EULF action is to extend INSPIRE into these domains
- Based on inputs received during ISA WG meetings, JRC is working on a feasibility study on “Energy and Location”
- Goal of this feasibility study is to produce an assessment for setting up a pilot project next year
- In the pilot project Member States and ISA SIS WG members will be actively involved

Energy policy

- The European energy policy is best reflected by **several Directives**; the most important documents concerning the energy use in the building sector are listed hereafter:
 - Directive 1989/106/CE. Construction Product Directive (or CPD)
 - White Paper COM (97) 599. Energy for the future: Renewable sources of Energy – White Paper for a Community Strategy and Action Plan
 - Directive 2002/91/EC Energy Performance of Buildings (EPBD)
 - Directive 2007/2/EC **INSPIRE** infrastructure for spatial information
 - Directive 2009/28/EC on the promotion of the use of energy from renewable sources
 - Directive 2009/125/EC Ecodesign; recast of the Ecodesign Directive 2005/32/EC
 - Directive 2010/31/EU Energy Performance of Buildings (recast-EPBD)
 - Regulation (CPR) Construction Products Regulation (EU) No 305/2011
 - Directive 2012/27/EU Energy Efficiency Directive (updated EESD)

The goal

- The overall goal is to point out any gaps and inconsistencies between these Directives, also considering the Covenant of Mayors requirements
- Local governments, indeed, play a crucial role in mitigating the effects of climate change, all the more so when considering that 80% of energy consumption and CO2 emissions is associated with urban activity

Tasks of feasibility study

- The study started in July 2014 and will be concluded in **March 2015**, with the following main tasks:
 - **Analysis of existing projects** and initiatives related to “energy and location”, at EU/national/extra-EU levels
 - Analysis of **data requirements** related to energy performance of buildings, from INSPIRE and “energy” directives, as well as from the Covenant of Mayors SEAP
 - **Survey** on the GeoICT sector dealing with energy
 - **Study of existing open data platforms** to be considered for collecting and **providing geo-information on energy**

EPBD and INSPIRE

- Energy Performance is one of the use cases described in the INSPIRE Data Specification on Buildings
- Another use case described is the promotion of CO2 reduction:
"some Member States or local governments are willing to have more pro-active policy and to encourage citizens to improve heating efficiency of their buildings (by better isolation). Better insulation not only reduces the emissions of greenhouse gases but also contributes in long-term to money saving for inhabitants and to reduce the energy dependency of European countries."

Sources:

- http://inspire.ec.europa.eu/documents/Data_Specifications/INSPIRE_DataSpecification_BU_v3.0.pdf

Covenant of Mayors, Sustainable Energy Action Plan (SEAP) and Baseline Emission Inventory (BEI)

- Within the Covenant of Mayors frame, BEI is a detailed inventory of the energy consumption and CO2 emissions of those sectors which are under the direct influence of municipalities:
 - Municipal buildings, equipment and facilities
 - Tertiary (non municipal buildings, equipment and facilities);
 - Residential buildings
 - Municipal public lighting
 - Urban road transportation (municipal fleet, public transport, private transport)

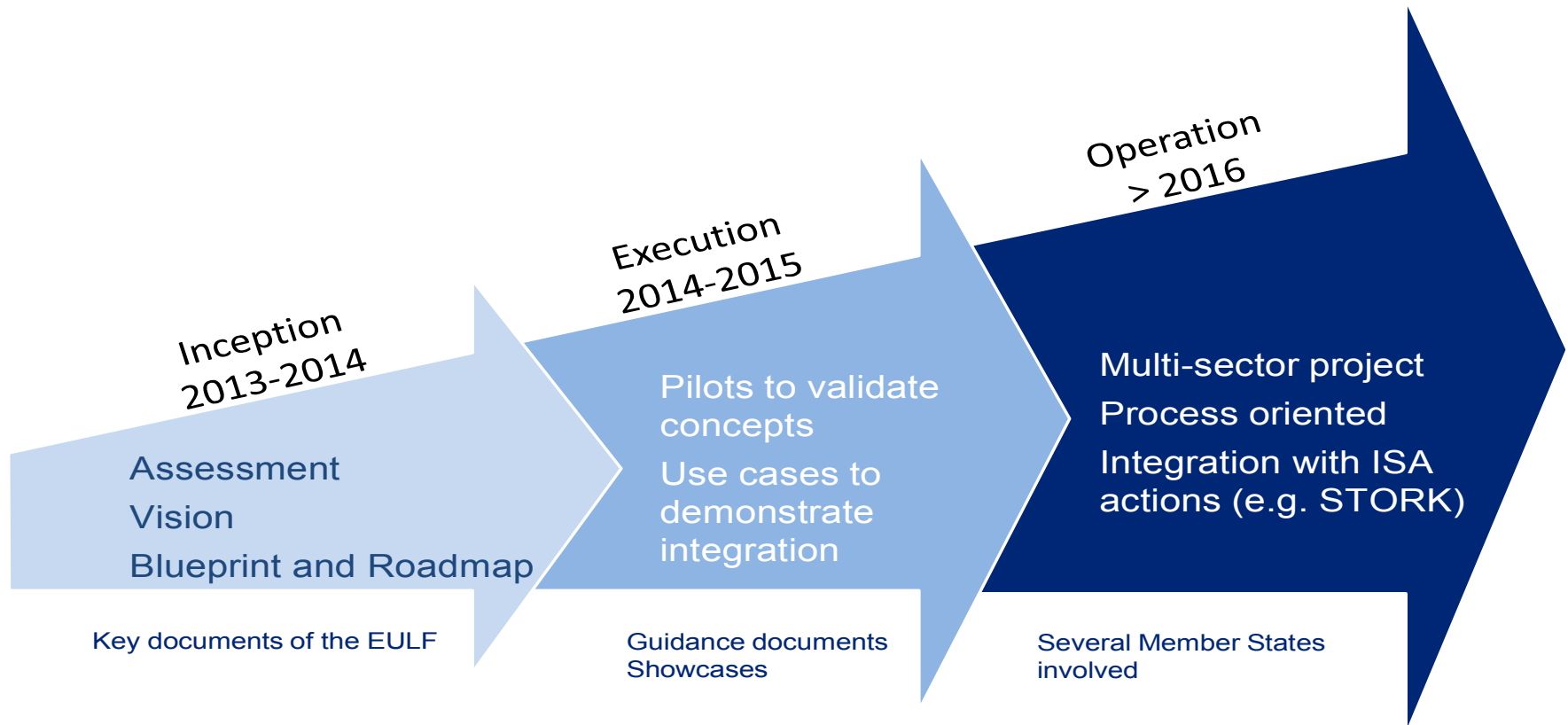
Covenant of Mayors signatories

- www.covenantofmayors.eu
- More than 5500 signatories
Signatories represent cities that vary in size from small villages to major metropolitan areas such as London or Paris. Within a year following their signature, Covenant signatories commit to implement Sustainable Energy Action Plans on their territory, with the aim of cutting CO2 emissions by at least 20% by 2020.
- 51% are from Italy



source: <http://www.covenantofmayors.eu/>

EULF Roadmap



What can Italy learn from and contribute to the EULF? - Introduction

It provides a “**Framework for Action**” for *working together* to implement interoperable cross-sector and cross-border sharing and use of location information

- EULF creates a structure for the collaboration to take place at EU level
- Member States can reuse the approach used by EULF, documented in the EULF deliverables
- The selected EULF best practices can be used as an example for concrete actions within national contexts
- The ISA SIS Working group, with e-Gov and GI representatives, gives a valuable steer on key issues

What can Italy learn from and contribute to the EULF? – Learning

- Use EULF recommendations, guidelines and best practices that best suit the national context to location enable e-Government services
- Help bind together processes and services at different levels of administration applying the EULF
- Reusing best practices from other Member States, promoted within the EULF

What can Italy learn from and contribute to the EULF? – **Selected Recommendations**

- e-government and location strategies should be closely integrated
- services should be designed from a user perspective, optimising the use of location data and services
- procurement and funding should be targeted at priority services, using INSPIRE
- relevant standards are vital in achieving interoperability and efficiency: technical standards, identifiers, metadata etc

Guidance and best practices relate to the recommendations

What can Italy learn from and contribute to the EULF? – Contributions

- Contribute Italian best practices to the EULF
- Provide contributions to the EULF energy pilot and possibly other pilots and use cases
- The groups created in this workshop could form the foundation of a National Working Group contributing to the ISA SIS WG, through the national representatives
- A National Working Group could make a valuable contribution to the Stakeholder Consultation, helping define the future of the EULF

Input to the WG discussions

- Italy could propose an interesting “EULF use case”:
 - The impetus of this initiative coming from the community should be complemented with connection with the institutional level
 - Private sector and users from different communities could put forward their needs, that need to be taken into account into the EULF as well
- Possible frameworks for future discussions
 - According to the five EULF focus areas
 - According to the EIF interoperability levels (e.g. technical, legal, organisational)

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>



<http://inspire-forum.jrc.ec.europa.eu/pg/groups/228519/european-union-location-framework-the-study/>



<https://twitter.com/EULocation>
#EULF



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