



ISA: Interoperability Solutions for European public Administrations

**An holistic approach to the
modernisation of European public
administrations**

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Margarida Abecasis
margarida.abecasis@ec.europa.eu



Modernisation of public administrations – the Interoperability case

EU approach to interoperability among public administrations:
the ISA programme

Alignment and contribution to other EU policy instruments



Growth and Jobs

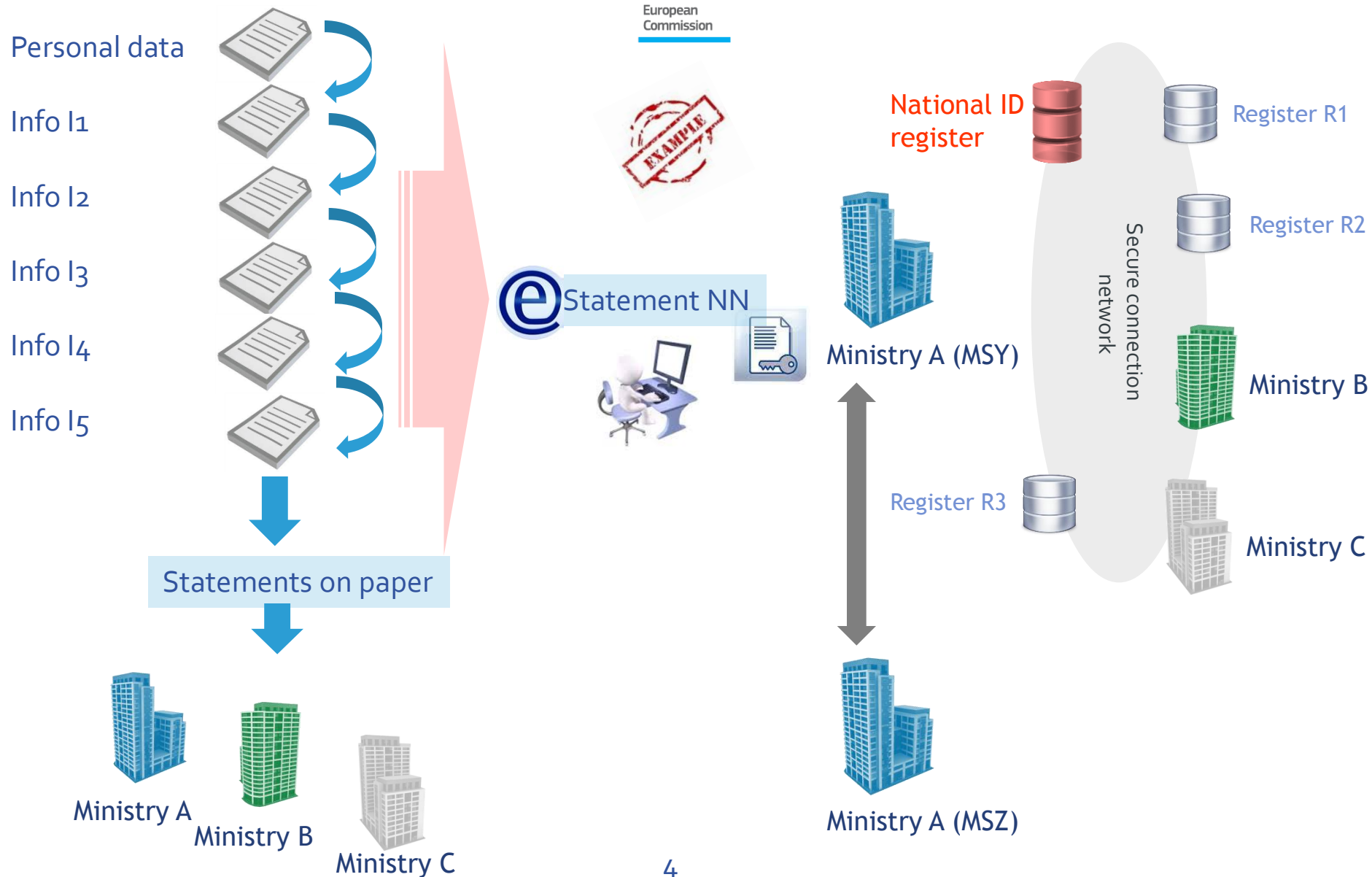
- EU 2020 Strategy
- Digital Single Market
- Digital Agenda for Europe
- Annual growth surveys 2011, 2012, 2013
- European Semester
- Modernisation of European public administrations

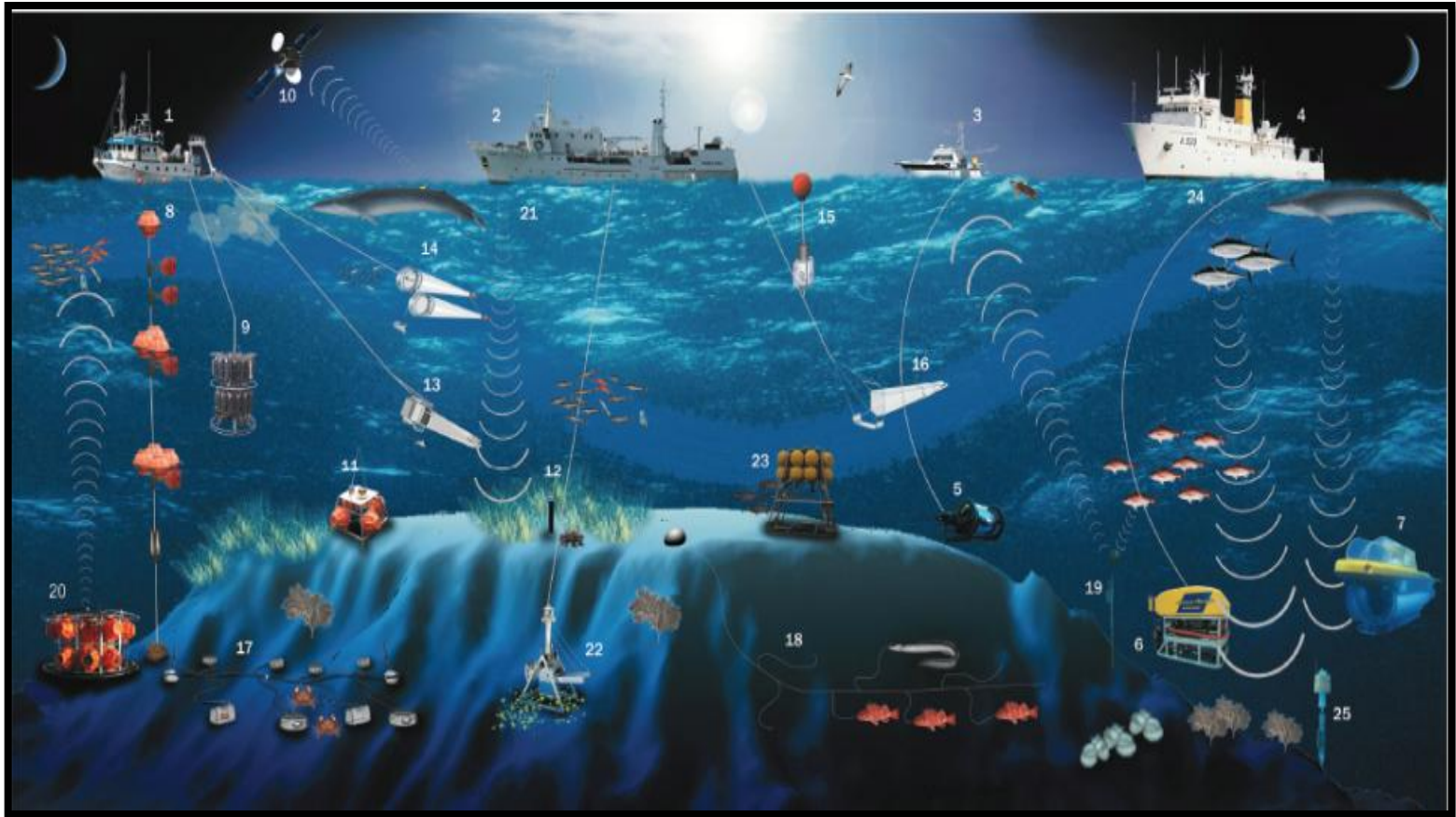
Public Sector – A big player in Europe

- Public sector: nearly half of EU GDP
- Public procurement: 19% of EU GDP
- By using e-procurement:
 - ✓ savings of 5%-20% (€100- € 400bn /year)
- Public sector: more than 25% of the total employment in EU

Public sector is part of the solution to the economic crisis

End-to-end Public Services





Does Interoperability matter?

Walk the extra mile
... towards an
interconnected
government model

- Develop synergies among institutions
- Unlock data across sectors
- Share services and solutions
- Optimize and simplify across ministerial boundaries



Enabler = Interoperability



Does Interoperability matter?

74% of the EU countries consider interoperability as a high priority in their political agenda

Extract from the European Interoperability Strategy (EIS) implementation review, October 2012

"The modernisation of public administrations should continue ... Open data is an untapped resource with a huge potential ... **Interoperability** and the **re-use of public sector information** shall be promoted actively. "

Extract from Council Conclusions, October 2013



Does Interoperability matter?

Country	2010 GDP (USD Millions)	Impact 0.50%
World	60,449,499	
Australia	368,736	
Belgium	469,374	\$2.347 billion
Brazil	2,087,890	
Canada	1,577,040	
China	5,926,612	
France	2,560,002	\$12.8 billion
Germany	3,280,530	\$16.4 billion
India	1,727,111	
Italy	2,051,412	\$10.26 billion
Japan	5,458,837	
Mexico	1,034,804	
Netherlands	779,356	\$3.9 billion
Russia	1,479,819	

Minutes to execute	Number of activities per year per citizen				
	10	15	20	25	30
5	0.04%	0.06%	0.08%	0.10%	0.13%
10	0.08%	0.13%	0.17%	0.21%	0.25%
15	0.13%	0.19%	0.25%	0.31%	0.38%
20	0.17%	0.25%	0.33%	0.42%	0.50%
25	0.21%	0.31%	0.42%	0.52%	0.63%
30	0.25%	0.38%	0.50%	0.63%	0.75%
35	0.29%	0.44%	0.58%	0.73%	0.88%
40	0.33%	0.50%	0.67%	0.83%	1.00%
45	0.38%	0.56%	0.75%	0.94%	1.13%
50	0.42%	0.63%	0.83%	1.04%	1.25%
55	0.46%	0.69%	0.92%	1.15%	1.38%
60	0.50%	0.75%	1.00%	1.25%	1.50%

Wasted time
due to "waiting in the line" or
delay produced
due to "lack of interoperability"
when citizens/businesses are served
by a public administration
results to **impact** on the GDP

(*) The Economic Impact of Interoperability, Microsoft research study

If the benefits are clear why are we not yet there?

Digital
services

....



eGovernment indicators for Sweden (2013):

% of households with Internet access: 93%

% of individuals using the Internet for interaction with public authorities to obtain information: 72%

% of individuals using the Internet for interaction with public authorities to return filled forms: 46%

- **Legal and political**
 - Enforcement
- **Organisational**
 - Country size
 - Institutional complexity
 - Lack of interaction
 - Resources (time, financial, skills ...)
- **Technical:**
 - Legacy technology
 - Replacing older systems



... and more

- Lack of visibility of existing available solutions including standards and specifications
- Language
- Lack of information and documentation
- Lack of trust
- Lack of technical and semantic IOP



Collaboration

Streamlining



Clear Framework

Holistic
approach

Leveraging
Instruments



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Interoperability Solutions for Public Administrations Objectives

Efficient

... and effective electronic
cross-border and **cross-sector**
interaction between
European
public administrations.

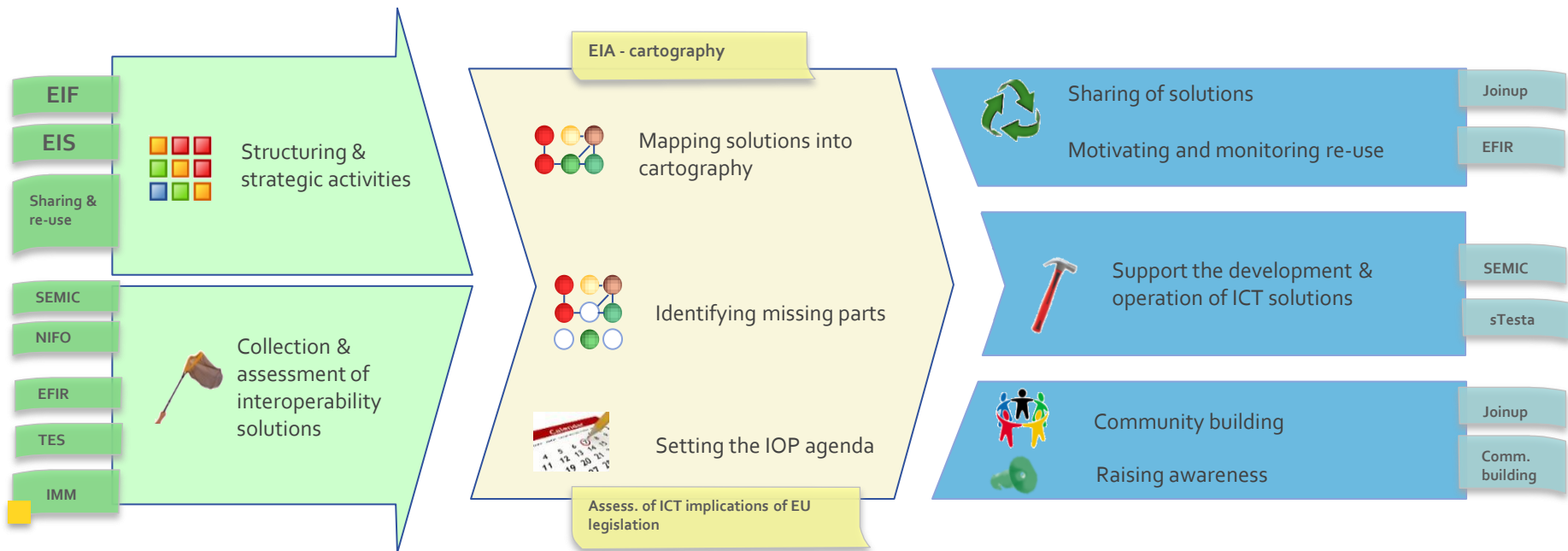
European public
administrations

... share and re-use
existing successful or
new
Interoperability
solutions, common
services and **generic**
tools.

Flexible and
interlinked

...IT systems allow
smooth
implementation of
Community policies
and activities.

The ISA programme: an holistic approach





→ Acting at all levels of interoperability

The European Interoperability Framework (EIF) comprises a set of recommendations covering all **four interoperability levels**

EIF recommendations for organisational interoperability

Recommendation 15: Public administrations should document their business processes and agree on how these processes will interact to deliver a European public service.

Recommendation 16: Public administrations should clarify their organisational relationships as part of the establishment of a European public service.

Recommendation 17: Public administrations working together to provide European public services should agree on change management processes to ensure continuous service delivery.

Cooperating partners with compatible visions, aligned priorities, and focused objectives

Political Context

Aligned legislation so that exchanged data is accorded proper legal weight

Legal Interoperability

Legislative Alignment

Coordinated processes in which different organisations achieve a previously agreed and mutually beneficial goal

Organisational Interoperability

Organisation and Process Alignment

Precise meaning of exchanged information which is preserved and understood by all parties

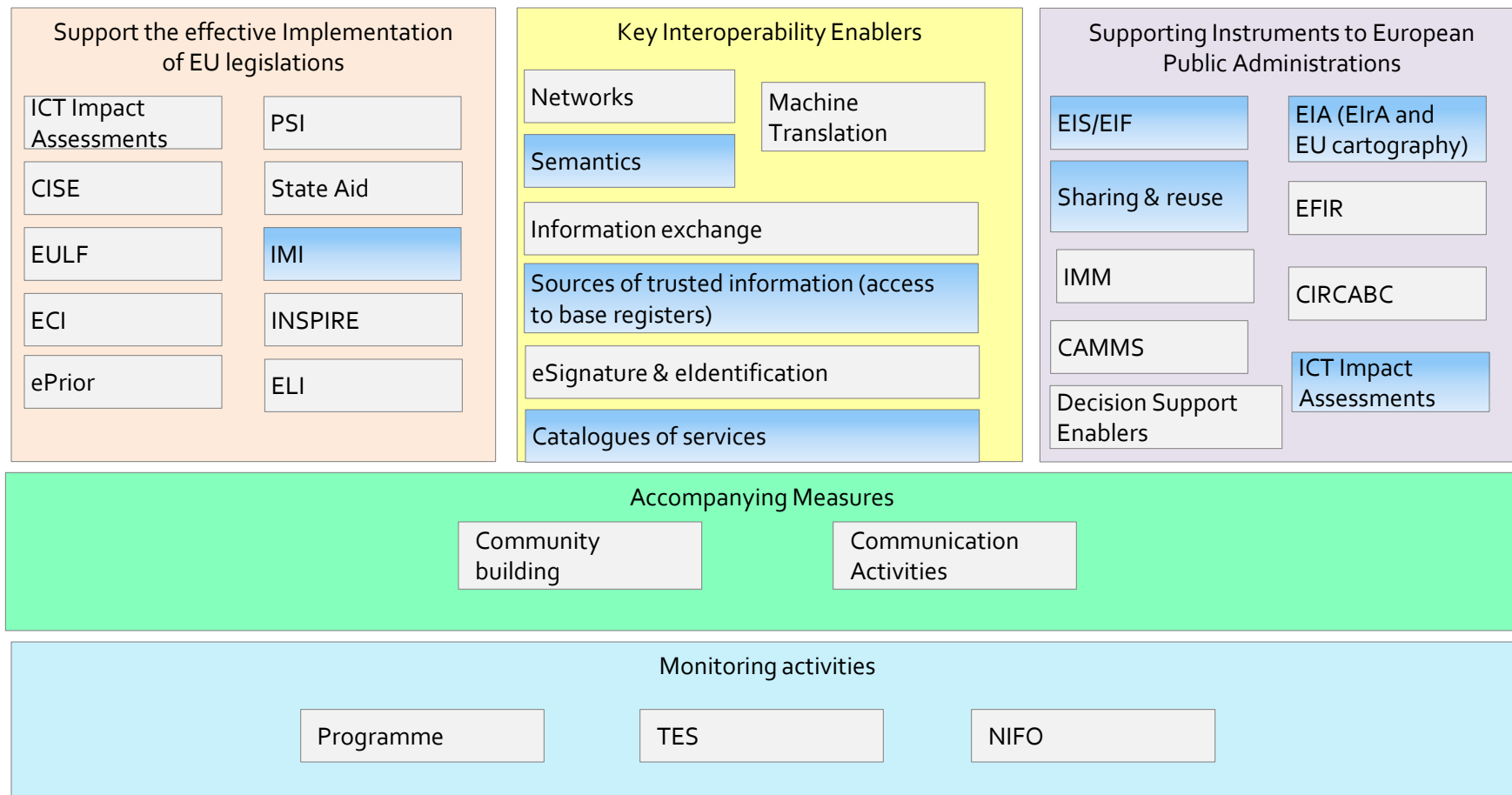
Semantic Interoperability

Semantic Alignment

Planning of technical issues involved in linking computer systems and services

Technical Interoperability

Interaction & Transport



The European Interoperability Reference architecture and EU cartography

A four-view reference architecture for digital public services (across borders and sectors). Contributing to:

Designing

Accelerate the design of systems that support the delivery of interoperable digital public services (across borders and sectors).

Assessing

Provide a reference model for comparing existing architectures in different policy domains and thematic areas, to identify focal points for convergence and reuse.

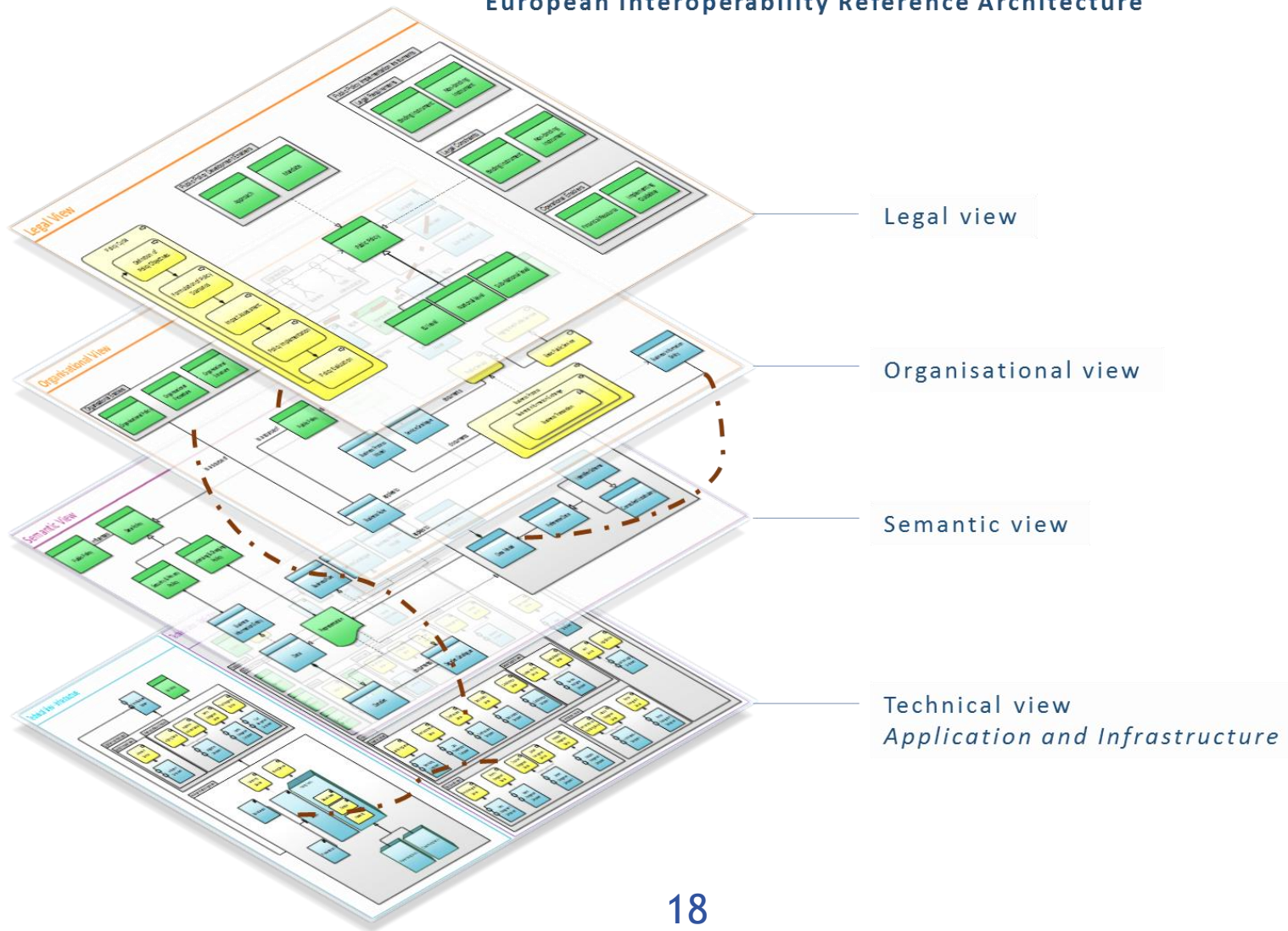
Communicating and Sharing

Help documenting the most salient interoperability elements of complex systems and facilitate the sharing of reusable solutions.

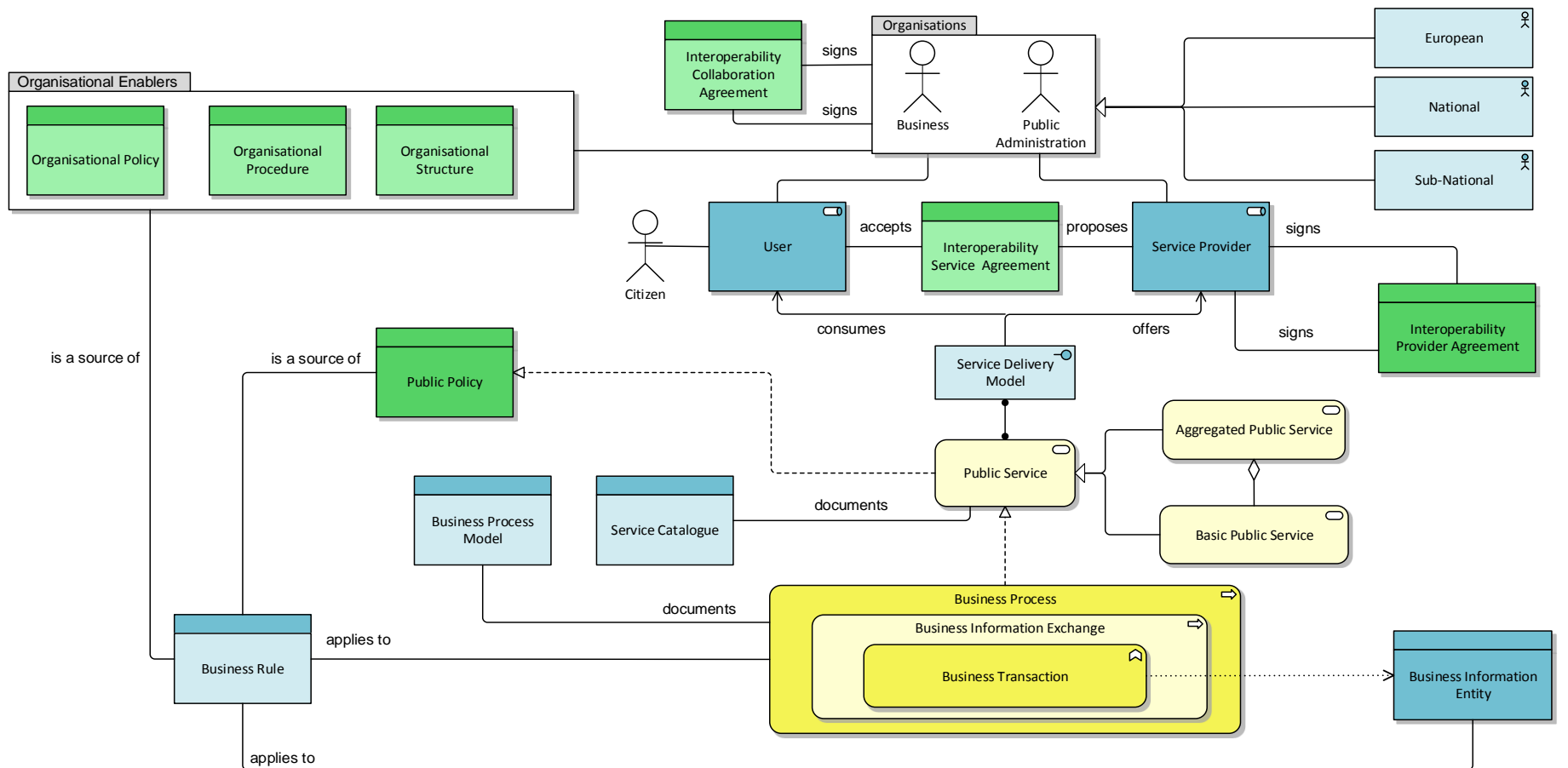
Discovering and Reusing

Ease the discovery and reuse of interoperability solutions through the European Interoperability Cartography – **EICart** in **Joinup** website.

European Interoperability Reference Architecture



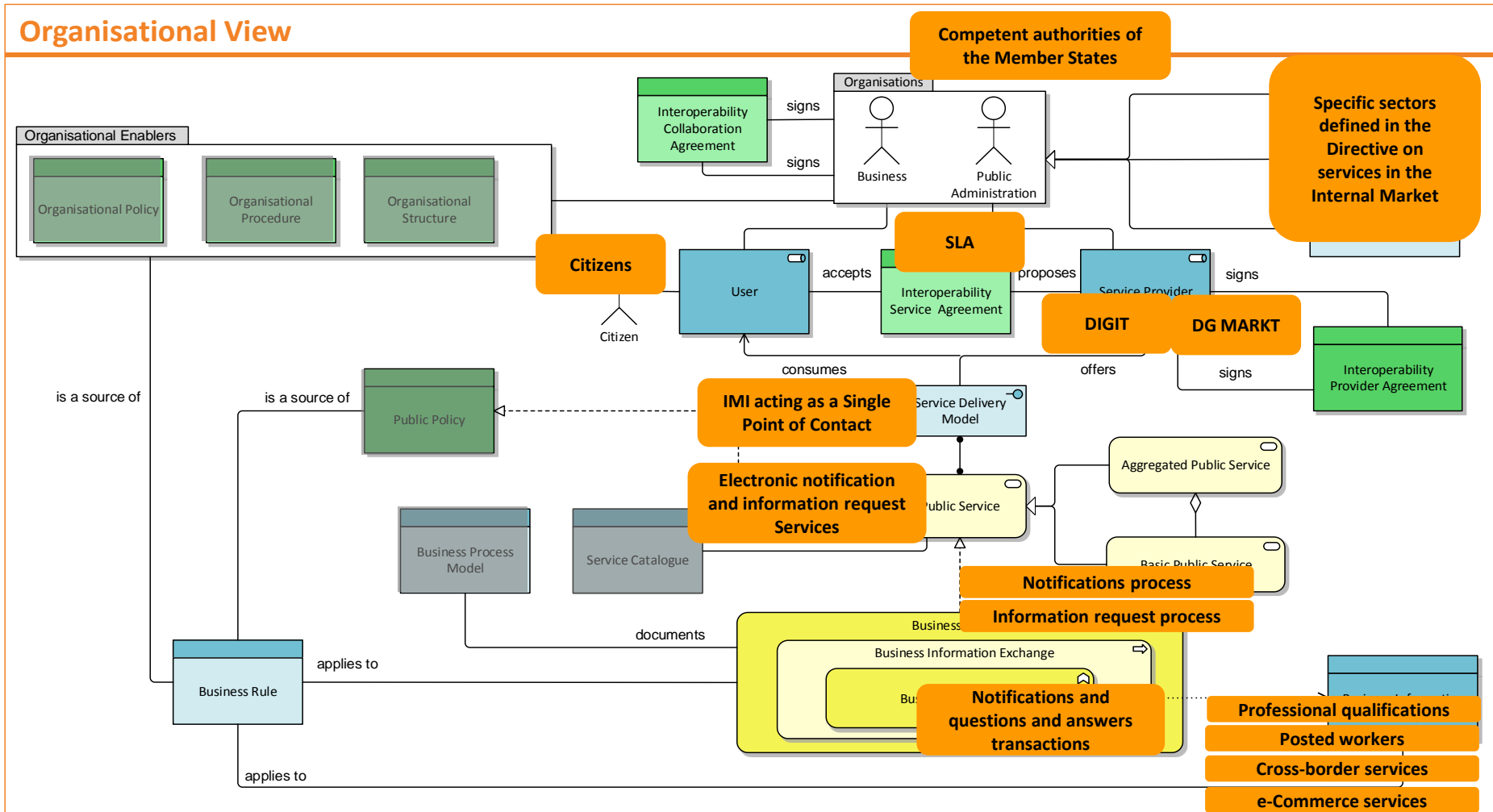
Organisational View

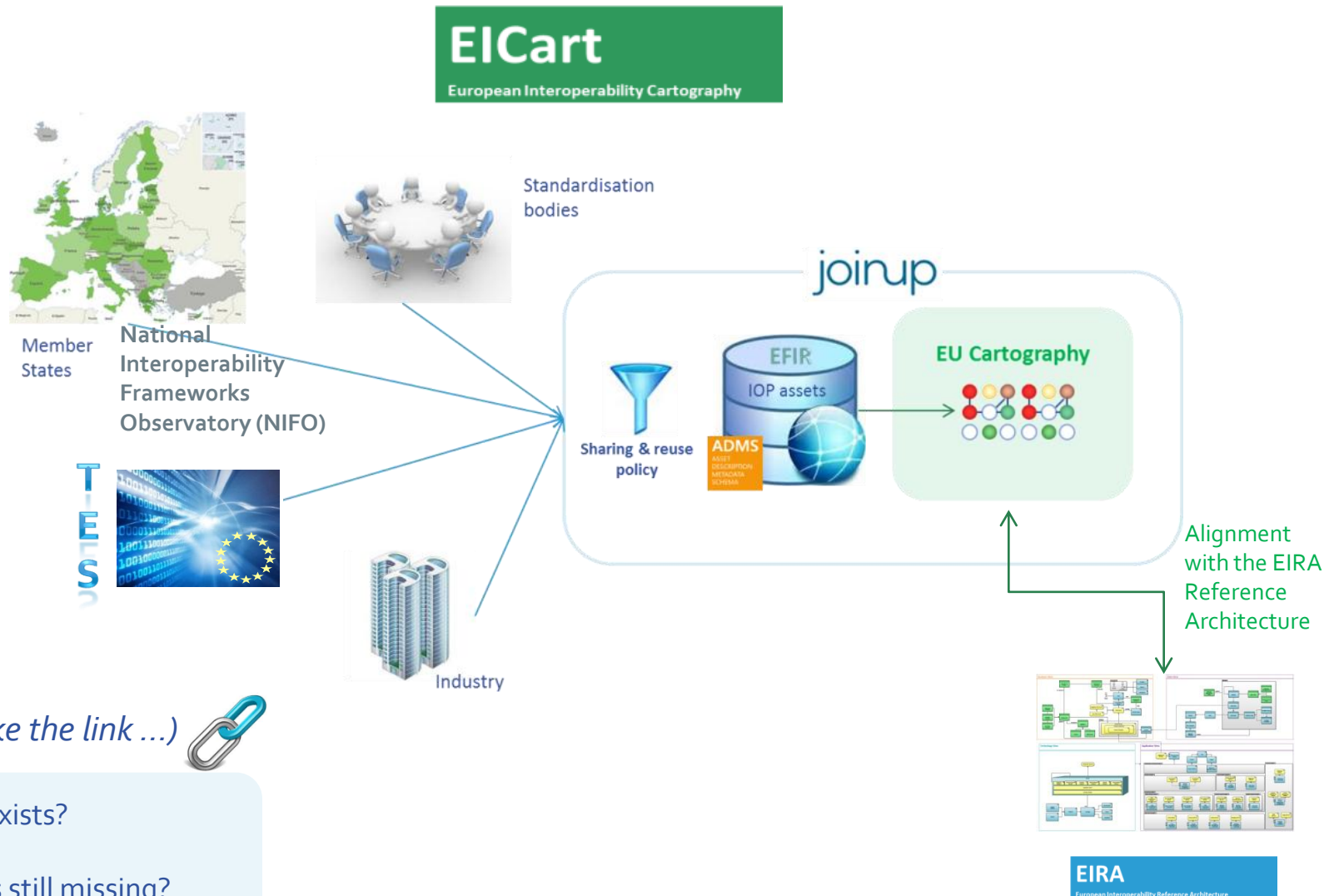


Example case – IMI

- The Internal Market Information System (IMI) is a Trans-European System which supports Administrative Cooperation between Member States.
- IMI provides a secure online accessible application which supports the communication of national, regional and local administrations with their equivalent instances in other countries.

Organisational View





3 types of collaboration - 12cases

Development and re-use of shared tools

EU: e-Prior and Open e-Prior

BE: IMIO: re-use and pooling of IT

SE: procurement framework for re-using free solutions

CH: Financing eGovernment priority projects

Development and use of shared services

EU: EC ICT Shared Services for EU services and other EU bodies

EU: sTesta data communication network service

UK: G-Cloud and Cloud store – shared services and procurement

Shared development of IT solutions

EU: Customs - Sunset project

EU: Customs - collaborative implementation of the Customs code

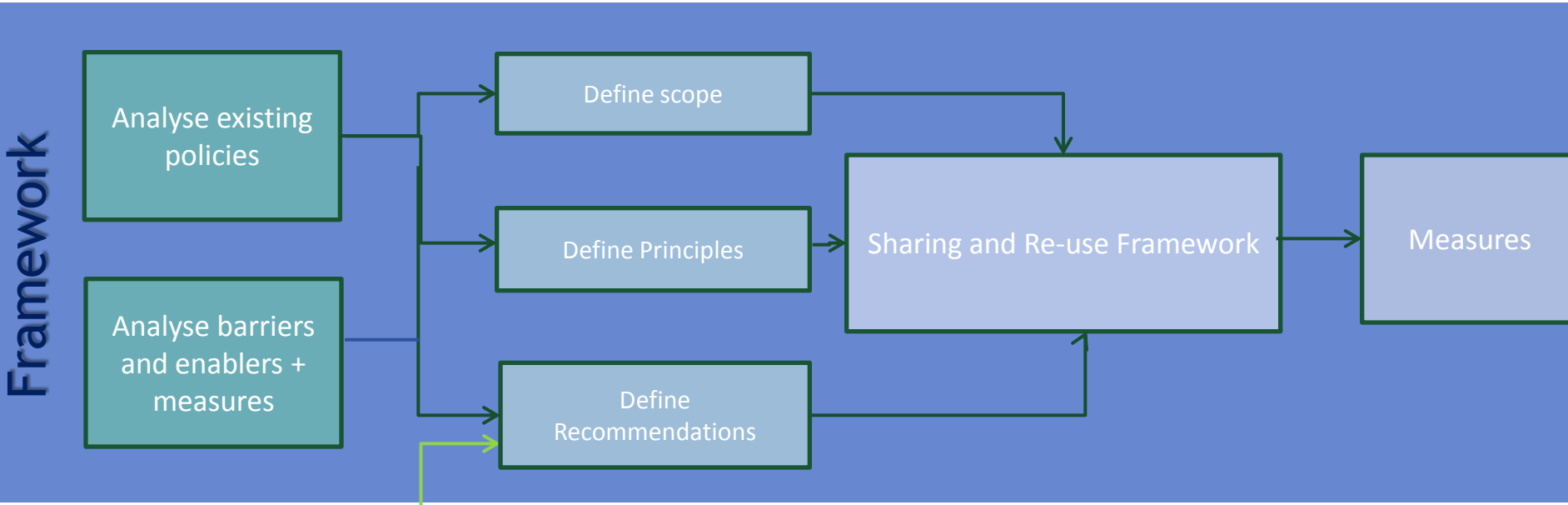
FR: OpenMairie framework

NO: Friproforeningen

FR: eBourgogne: Regional shared platform



Defining the Framework





EIF recommendations on base registers

"...**registries** are under the **legal control of public administrations** and are maintained by them, but the **information should be made available for wider reuse** with the appropriate security and privacy measures."

Source: European Interoperability Framework 2.0

RECOMMENDATION 11

"Public administrations should **make their authentic sources of information available to others** while implementing the appropriate access and control mechanisms to ensure security and privacy as foreseen in the relevant legislation."

Source: European Interoperability Framework 2.0

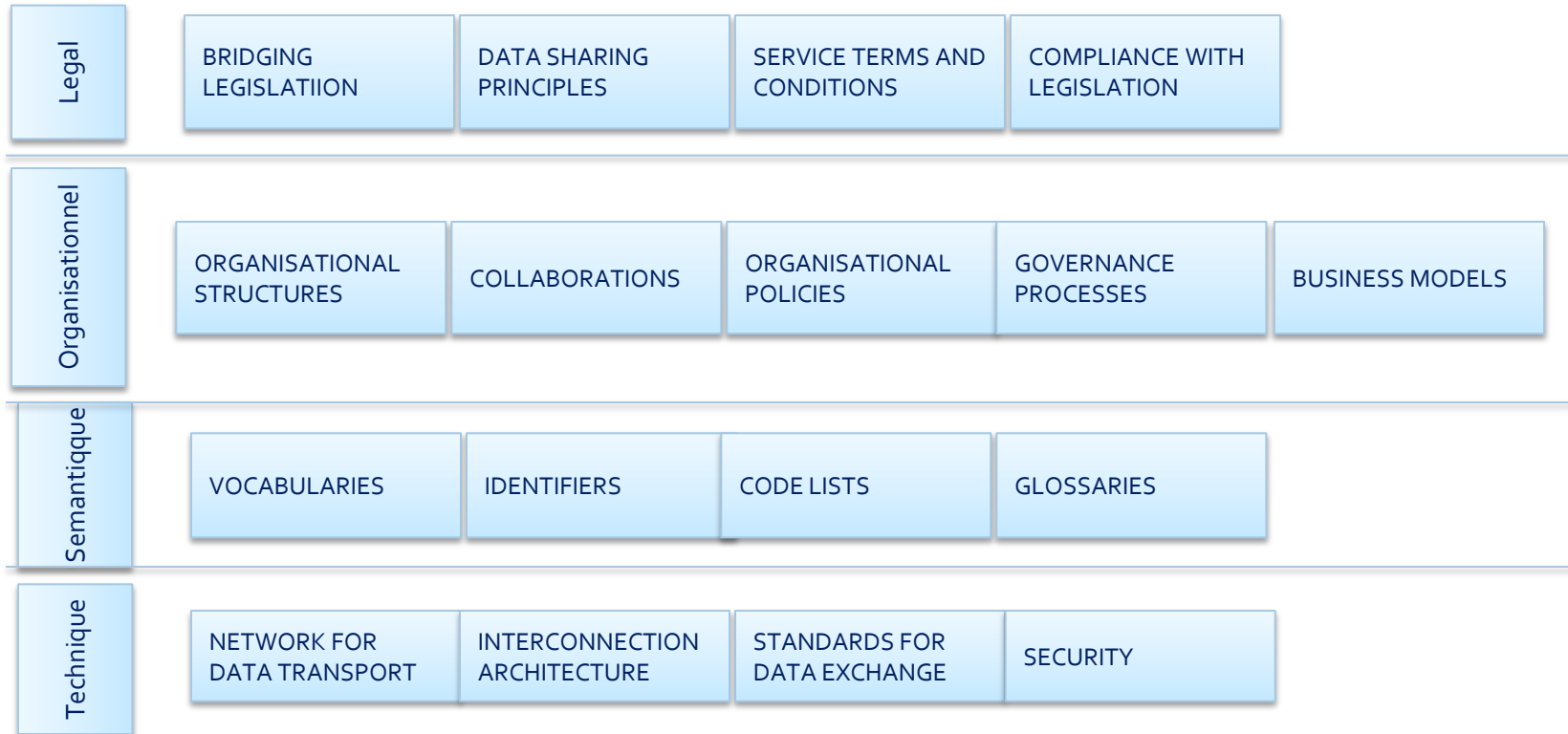
RECOMMENDATION 12

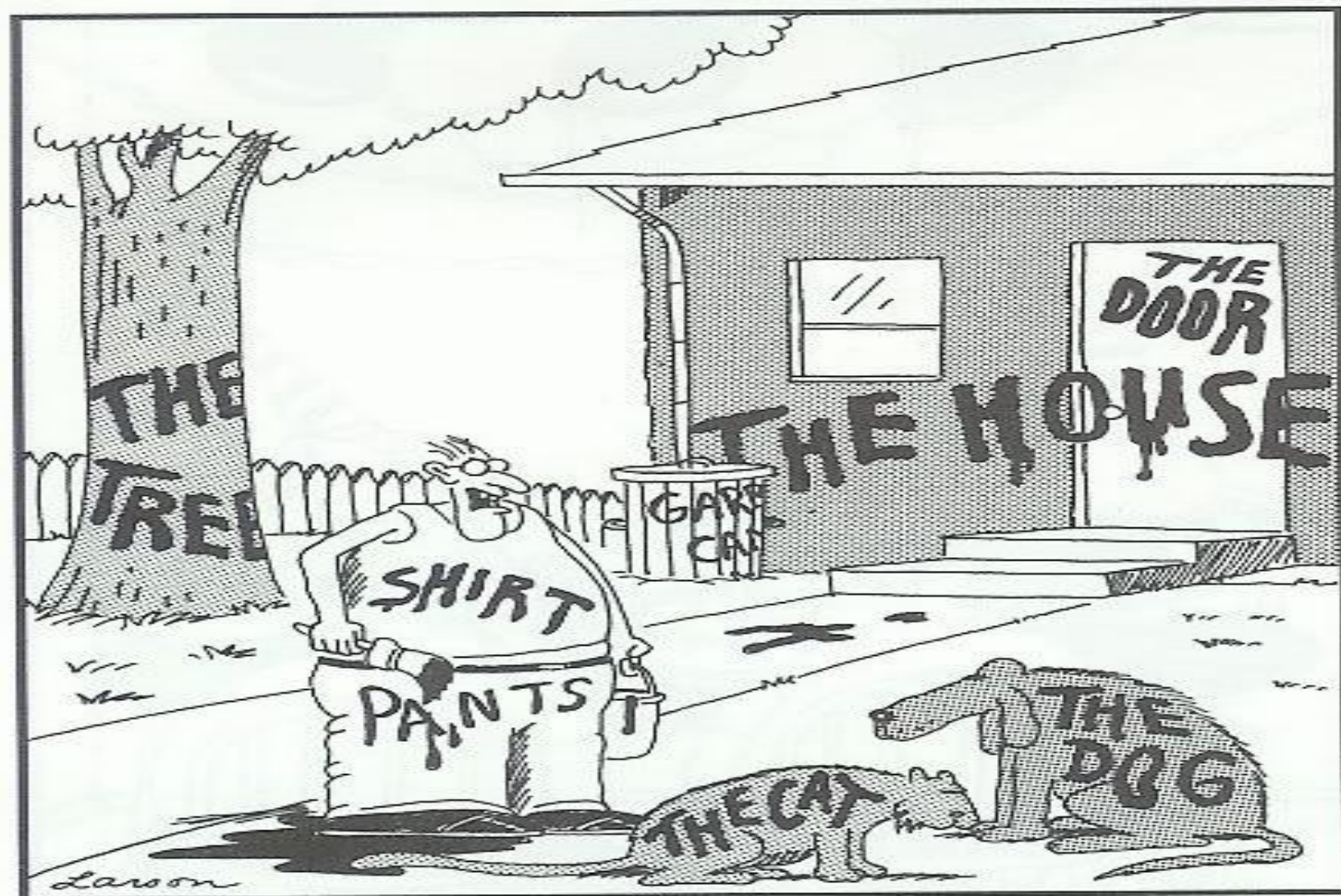
"Public administrations, when working to establish European public services, should **develop interfaces to authentic sources and align them at semantic and technical level.**"

Source: European Interoperability Framework 2.0

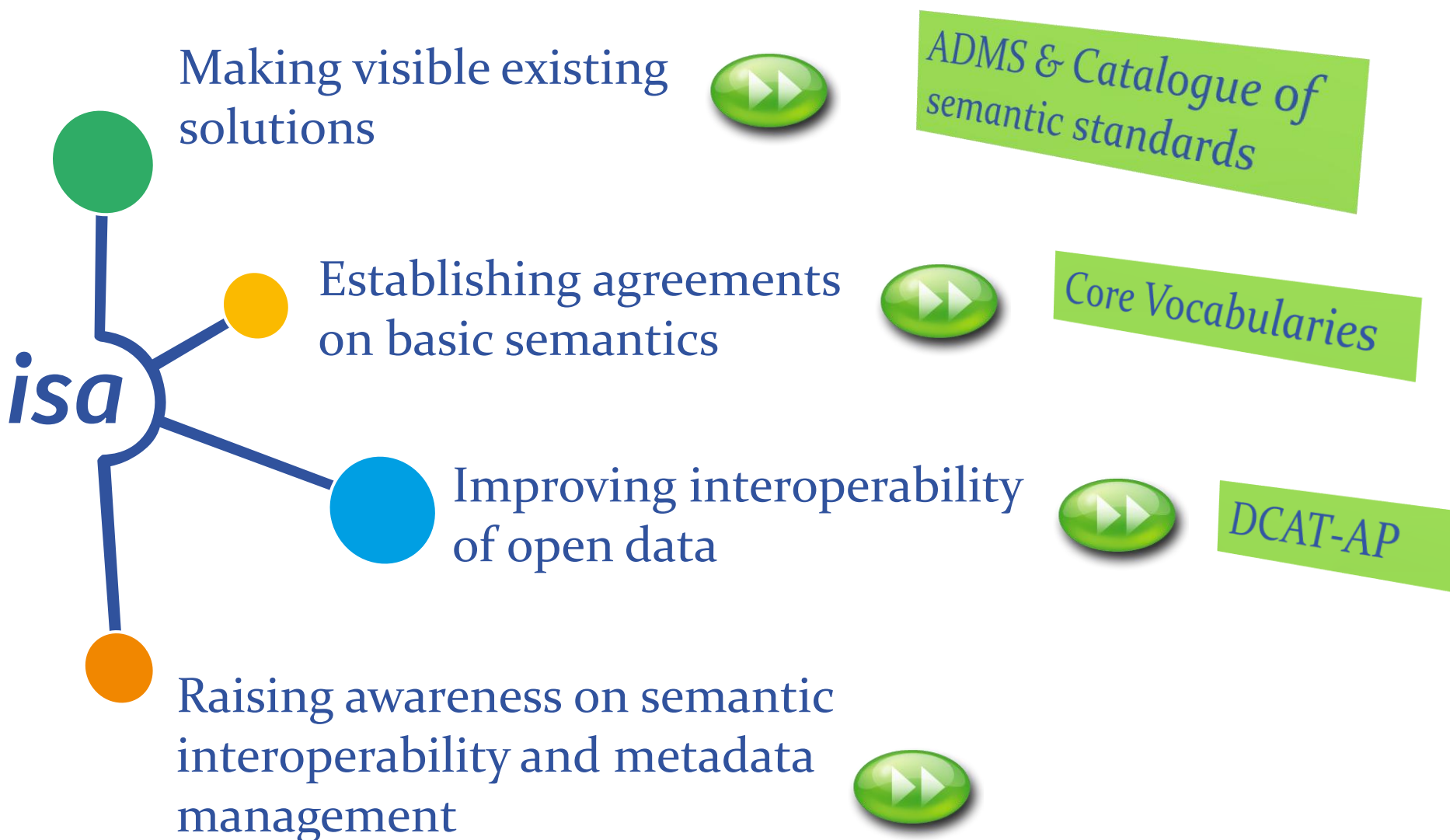


Good practices for the interconnection (and access to) base registers





*"Now! ... That should clear up
a few things around here!"*



- A multi-purpose platform:
 - Interoperability observatory
 - Communities of interest around interoperability
 - Collaborative work environment
 - Catalogue of interoperability solutions
- Aims to facilitate the **sharing and re-use** of interoperability solutions made for public administrations



<https://joinup.ec.europa.eu/elibrary/video/interoperable-europe-interested>





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- Contribution to the **DAE**:
 - **Pillar 2**, *"Interoperability & Standards"*
 - **Pillar 7**, *"ICT-enabled benefits for EU society"*
- **Services** directive
- **PSI** directive (and Open data)
- Collaboration with the European Structural and Investment Funds (**ESIF**):
 - **Thematic objective 2**, *"Information and Communication technologies"*
 - **Thematic objective 11**, *"Institutional capacity building & efficient public administrations"*
- Synergies with related networks such as the EU public administrations network – **EUPAN**

PSI directive and Open data

- Communication on Open Data ([COM\(2011\)882](#))
- A revision of the Decision governing the re-use of Commission's own information ([2011/833/EU](#))
- Revision of the Directive on the re-use of public sector information ([2013/37/EU](#))
 - ➔ To be transposed into national laws – by July 2015
- Open data-portals
 - [EU Open Data portal](#)
 - [pan-European portal](#)

Different
metadata
vocabularies

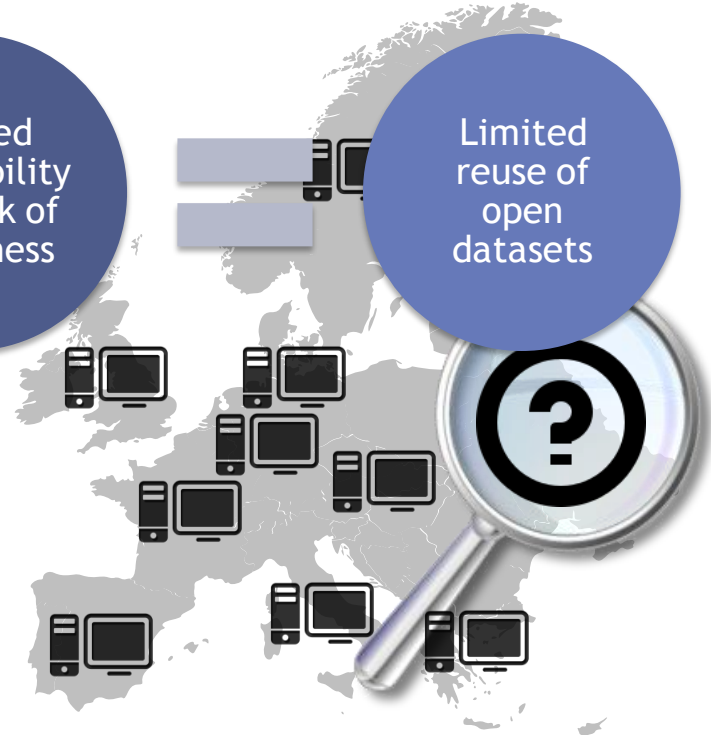


Limited
accessibility
and lack of
awareness



Limited
reuse of
open
datasets

How can I find and
combine public data
from various sources?



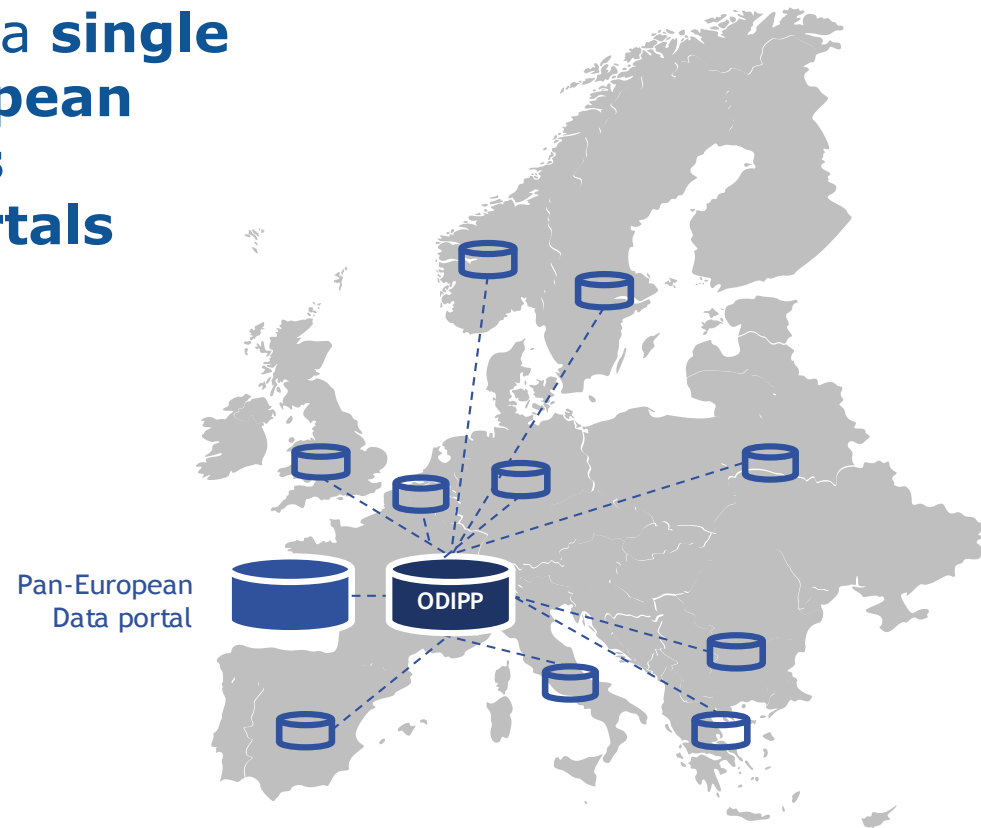
150+

Existing OGD Portal



DCAT-AP enables the provision of a **single point of access (aka Pan-European Open Data Portal)** to data sets published in national open portals

The DCAT Application profile (DCAT-AP) is a common template to describe public sector datasets and data catalogues



publicdata.eu

Services directive

Aims at releasing the untapped growth potential of **services markets** in Europe by removing legal and administrative barriers to trade in the services sector.

The Directive requires that **all procedures** involved in establishing a business and providing services in another EU country be **fully online**.

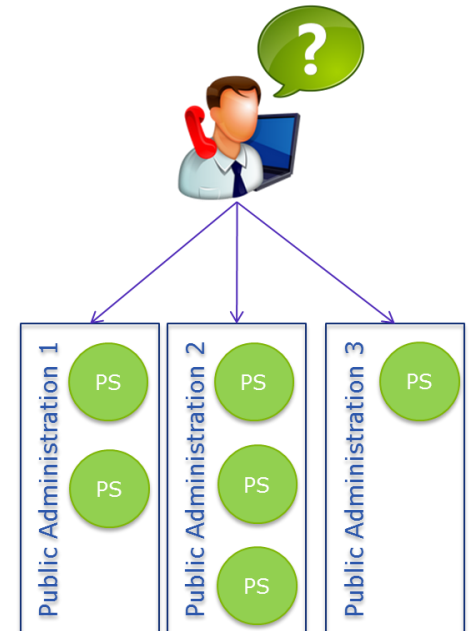
Point of Single Contact (PSC) - *supporting the implementation of the directive*

- overcoming administrative obstacles, streamlining procedures and offering seamless cross-border technology.



Points of Single Contact in EU Member States - challenges

- Several PSCs in 1 country;
- Different one-stop shops are **not integrated**;
- **Different ways of describing and representing** public services;
- **Redundant descriptions** of public services;
- **Lack of user-centric approach** for the PSCs;

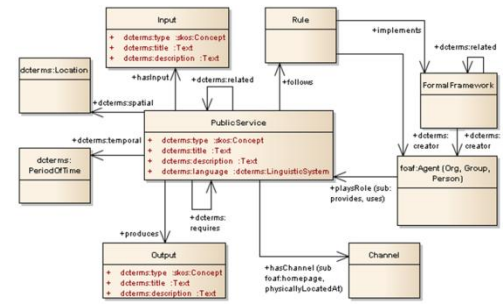




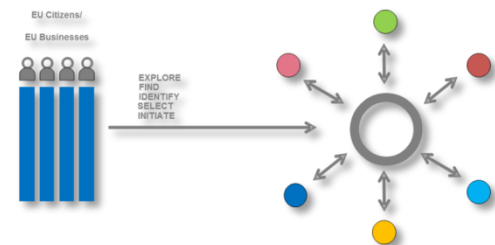
European
Commission

Catalogue of Public Services

- Organise PSCs around **key generic business events** – **harmonised** across the EU;
- **Standard and user-centric way** of describing key generic business events and public services;
- **Flexible ways of integrating/connecting** other one-stop-shops, such as PSCs, eGovernment portals, websites of Chamber of Commerce;
- Re-usable **tools** and **specifications**.



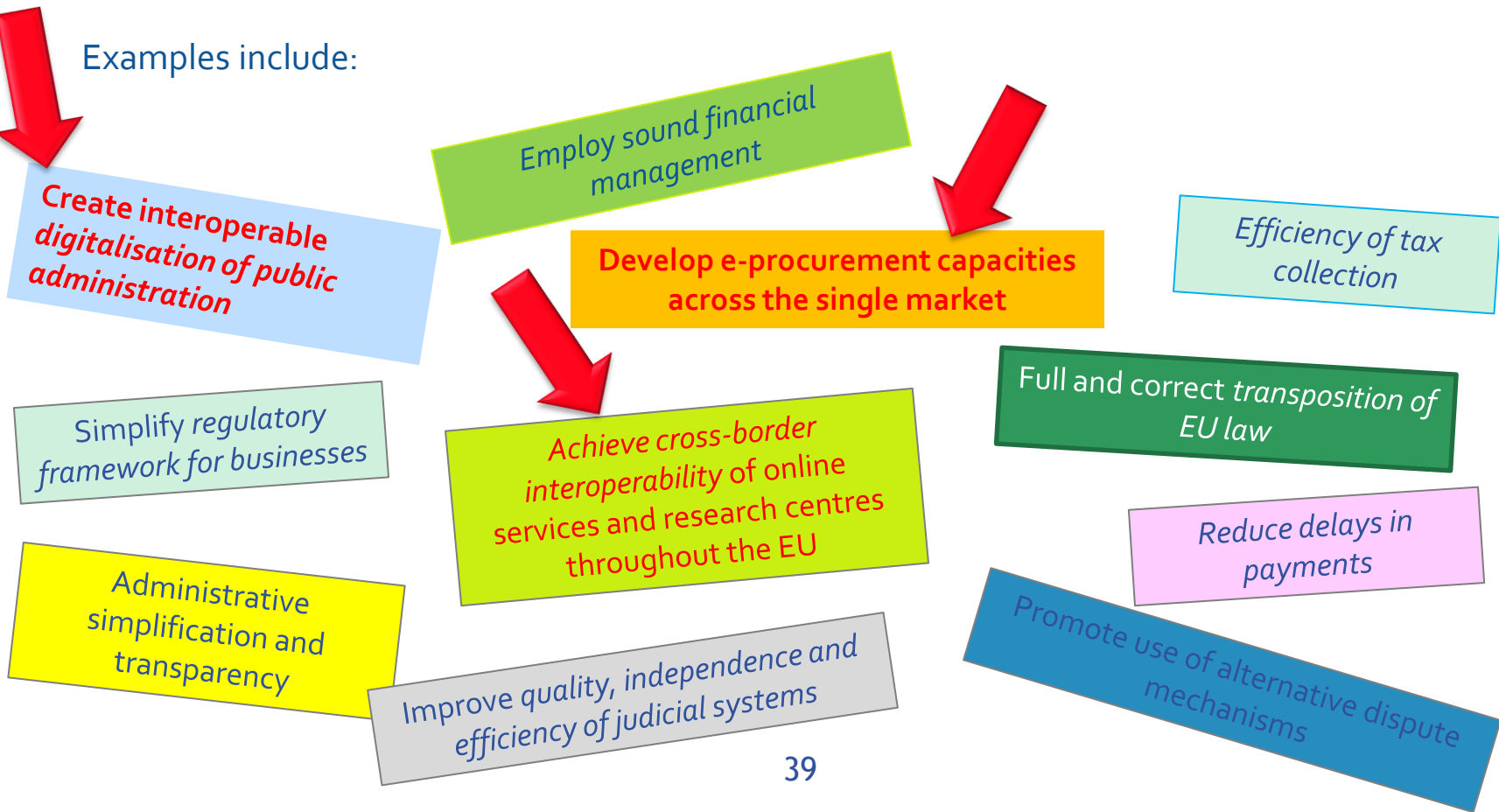
Working Group – subgroup of the EUGO network
Austria, Estonia, Finland, Latvia, Lithuania, Spain and
Greece



Country Position Papers

For many EU Member States, recommendations for: *"improvement of administrative capacity in order to foster growth and prosperity"*

Examples include:



Interoperability is not only a technical matter!

Collaboration

Streamlining

Clear
Framework

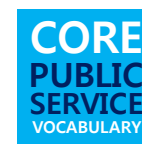
Holistic
approach



Leveraging
Instruments



Join ISA initiatives at: http://ec.europa.eu/isa/index_en.htm
and @ <http://joinup.ec.europa.eu>



<http://goo.gl/eK1EY>



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