> From ISA to ISA²

> The EIF revision

Joint Research Centre

Visitors' Centre

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From ISA

To ISA²

European Commission

Objectives

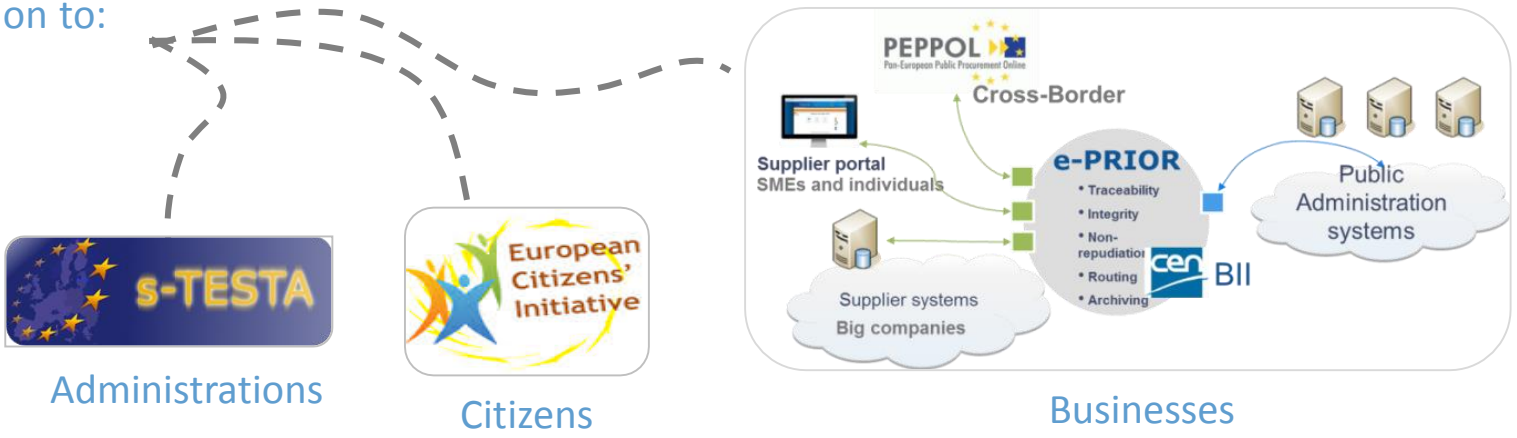
Efficient	European public administrations	Flexible and interlinked
… and effective electronic cross-border and cross-sector interaction between European public administrations.	… share and re-use existing successful or new Interoperability solutions, common services and generic tools.	…IT systems allow smooth implementation of Community policies and activities.

European Commission

Extended scope

Programme on interoperability solutions and common frameworks for European public administrations, businesses and citizens as a means for modernising the public sector

Administration to:



Administrations | Citizens | Businesses

Proposals from Member States and Commission services

~131M Euros 2016-2020

Execution by the European Commission

ISA² updated focus: Objectives

- Develop, maintain promote a holistic approach to IOP
- Implement the EIF
- Monitor EIF's implementation

- Identify, create and operate IOP solutions to support EU policies

- IOP cross-border or cross-sector
- Administrations, businesses and citizens
- Go down to regional and local administrations

- Facilitate re-use of IOP solutions by the EU public administrations

ISA² updated focus: extended scope

European Commission

Updated approach

- Holistic approach
- Global picture on IOP in Europe
- Instruments
  - Strategy
  - Framework
  - Architecture
  - Cartography
- Legislation Gaps

Scope extension

- Business
- Citizens
- **Identify, collect and respond to user needs**

Modernise PA at all levels

- EU and national level
- Drill down to regional and local

Links with other EU initiatives

- Connecting Europe facility
- Horizon2020
- European Structural and Investment Funds

Monitoring

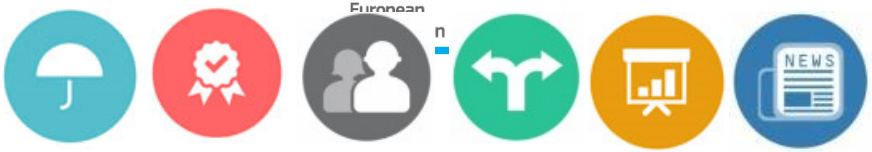
- **User satisfaction**
- **Quantification of benefits**

Communication

- Disseminate
- Engage

ISA² updated focus

Activities (1/2)



- Build new interoperability services and tools
- Maintain and operate existing ones

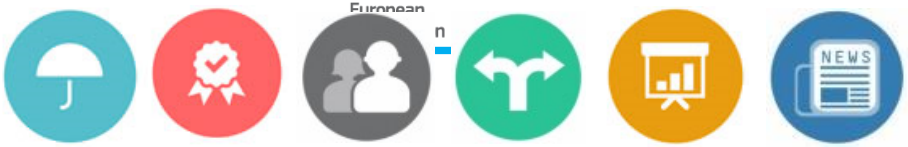
- Maintain, update, promote and monitor implementation of the EIS, the EIF and the EIRA
- Put in place a European Interoperability cartography (EIC) based on a European Interoperability Reference Architecture (EIRA) to ease reuse and identify gaps

- Monitor and evaluate progress

- Assess, update and promote existing common specifications and standards
- Develop new common & open specifications
- Collaborate with European and international standardisation bodies

ISA² updated focus

Activities (2/2)



- Assess the ICT implications of existing and proposed EU legislation
- Identify legislation gaps hampering interoperability

- **Develop a mechanism to measure and quantify the costs and benefits of interoperability**

- Identify and promote best practises, develop guidelines to coordination on interoperability and facilitate community building

- Put in place a platform to disseminate interoperability solutions, allow exchange of best practises and raise awareness

- Develop a communication strategy to raise awareness targeting businesses, SMEs and citizens

ISA² updated focus

Chosen actions shall …

be guided by principles:

be based on utility and driven by identified needs and programme objectives

- subsidiarity & proportionality;
- **user-centricity;**
- inclusion and accessibility;
- prevent digital divide;
- security, privacy & data protection;
- multilingualism;
- administrative simplification and modernisation;
- transparency;

- preservation of information;
- openness;
- re-usability and avoidance of duplication;
- technological neutrality, solutions which, insofar as possible, are future-proof, and adaptability;
- effectiveness and efficiency;

- be flexible, extensible and applicable to other business or policy areas;
- demonstrate financial, organisational and technical sustainability

ISA² updated focus

Prioritisation

- Criteria are of **equal value**
- Actions fulfilling **more criteria** are given **higher priority**

ISA² updated focus

Monitoring and Evaluation (1/2)

"The Commission shall monitor regularly the implementation and re-use of interoperability solutions across the Union"

+

Run an interim and a Final Evaluation

What to check

- Relevance (**also for local and regional administrations)**
- Effectiveness
- Efficiency
- **Utility including business & citizens satisfaction**
- Sustainability

- Coherence
- Coherence and synergies with other initiatives, i.e. CEF
- Benefits of actions to advancing the EU policies

Monitoring and Evaluation (2/2)

How to check

The achievement of the objectives shall be measured in particular in terms of the **number of key interoperability enablers** and through the **number of supporting instruments** delivered to and used by European public administrations

Evaluation should contain

1. Quantifiable and qualifiable benefits that the interoperability solutions deliver by linking ICT with the needs of end-users;
2. the quantifiable and qualifiable impact of the interoperable ICT-based solutions.

Completed or suspended actions shall remain subject to the overall programme evaluation and evaluated in terms of user uptake, utilisation and re-usability.

Updated focus

European Commission

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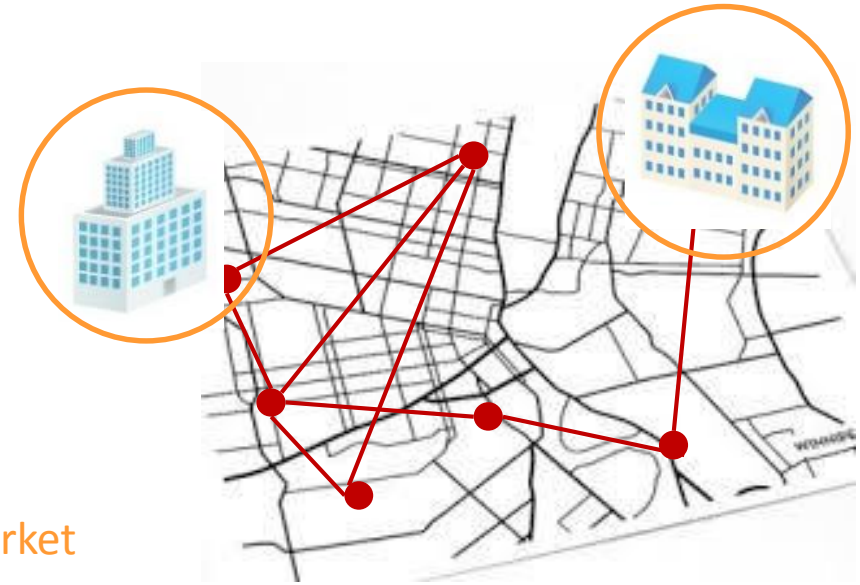
Work under ISA

- European IOP Strategy & Framework (EIS and EIF)
- European Interoperability Reference Architecture – EIRA
- European IOP Cartography – EIC
- ICT impact of EU legislation ("Digital check")
- Share and reuse framework

1 *Supporting instruments ("City planning")*

2 *Key interoperability enablers ("City utilities")*

3 *Support EU legislation and initiatives*



- Data exchange
- eID – eSignature
- Data semantics
- Base registries
- Catalogue of Services

- Digital Single Market
- INSPIRE

Work under ISA

https://joinup.ec.europa.eu/

Work under ISA

Financial Benefits

- Cost savings for users
- Increased revenue for owners
- Reduced operational costs for owners
- Vendor lock-in avoidance for owners
- Facilitate reuse, sharing and adoption of future solutions

Time Savings

- Owner time savings
- User time savings

Improved Service Quality

- Higher services satisfaction for users
- Improved compliance for owners
- Better data quality for owners
- Better data availability for users
- Improved security for owners

Spill-over effects

- Foster innovation
- Increase transparency
- Impact on growth and competitiveness
- Protection of fundamental rights for users and society
- Reduced CO_2 emissions
- Better decision making
- Furthering public and private policy goals

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Revision of
European Interoperability Framework
&
European Interoperability Strategy

Digital Single Market - DSM

European Commission

Interoperability

3 Creating an European Digital Economy and society with growth potential

Big data and cloud

Digital data stored in cloud:
2013: 20% - 2020: 40%

The use of big data by the top 100 EU manufacturers could lead to **savings worth €425 billion**

1 Better access for consumers and businesses to digital goods and services across Europe

Unlocking e-commerce potential

15% of consumers bought online from other EU countries in 2014 while **44%** did so **domestically**

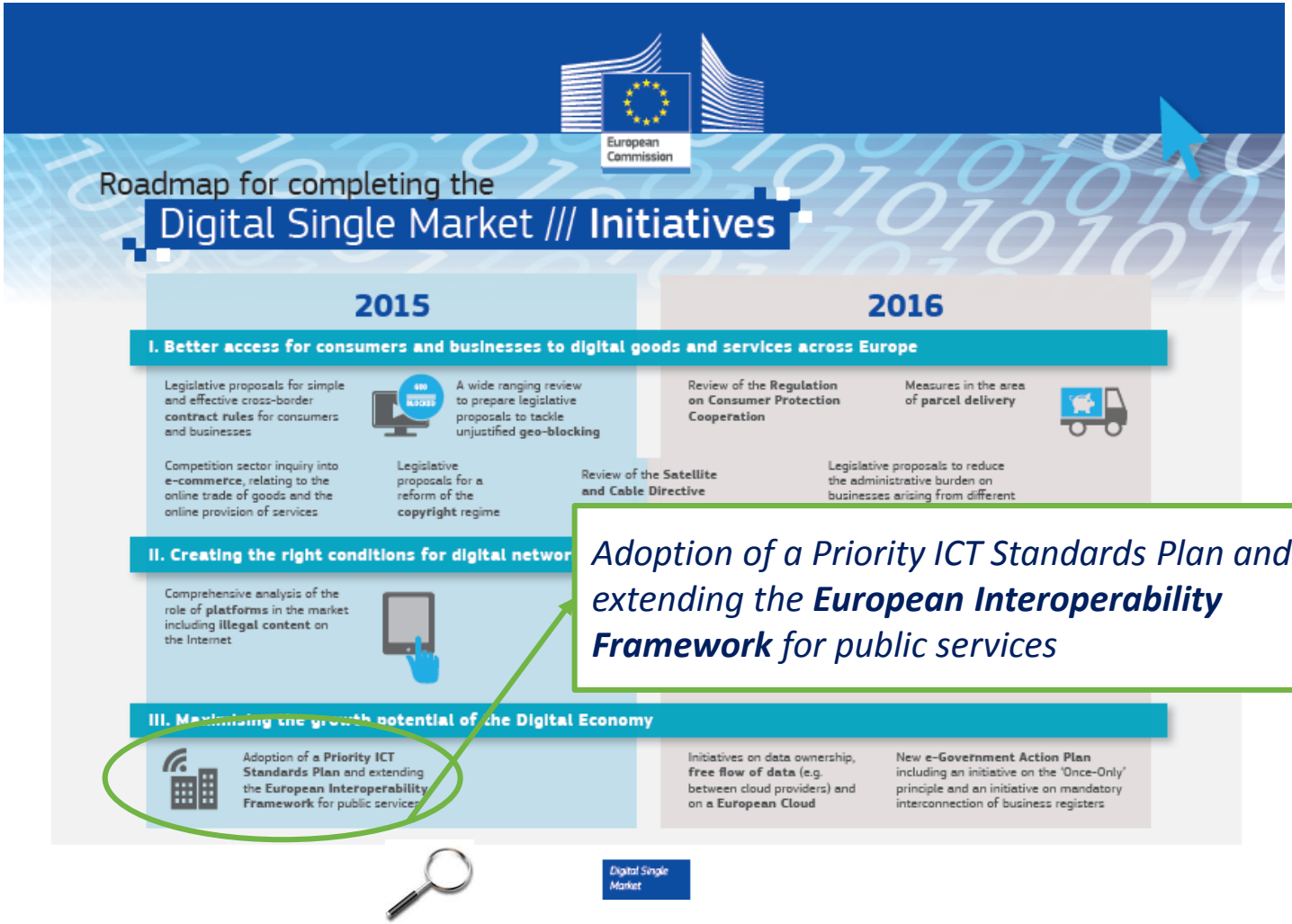
2 Shaping the right environment for digital networks and services to flourish

Strong European data protection rules to boost the digital economy

72% of Internet users in Europe still worry that they are being asked for too much **personal data online**

DSM Roadmap

European Commission



*Adoption of a Priority ICT Standards Plan and extending the **European Interoperability Framework** for public services*

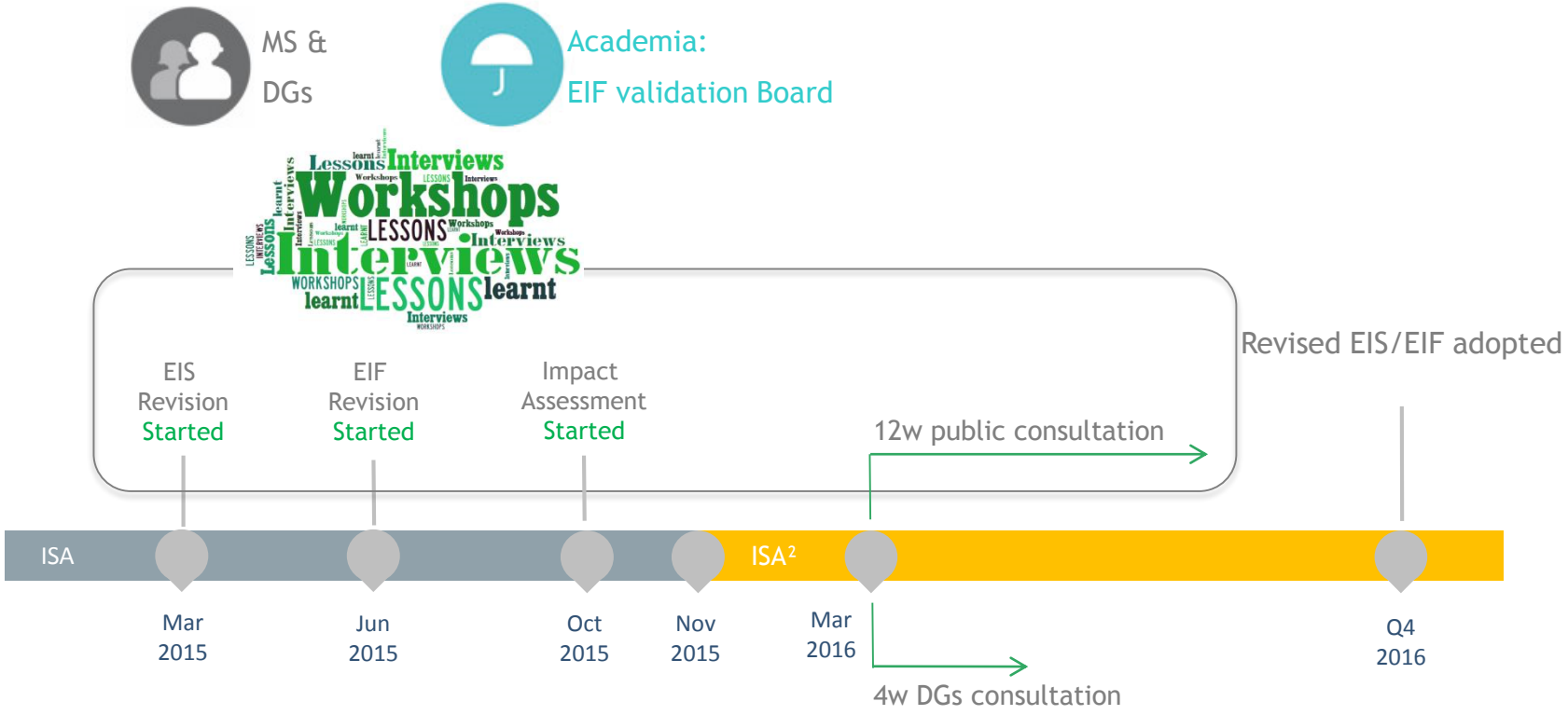
EIF Revision

European Commission

Guidance | Support | Best practices

- Avoiding the creation of new electronic barriers or silos when modernising public administrations in Europe
- Facilitating the interconnection of public services for citizens and businesses at national and EU level
- Improving quality of public services and transparency
- Coherence of open data from various sectors and countries

Consultation process



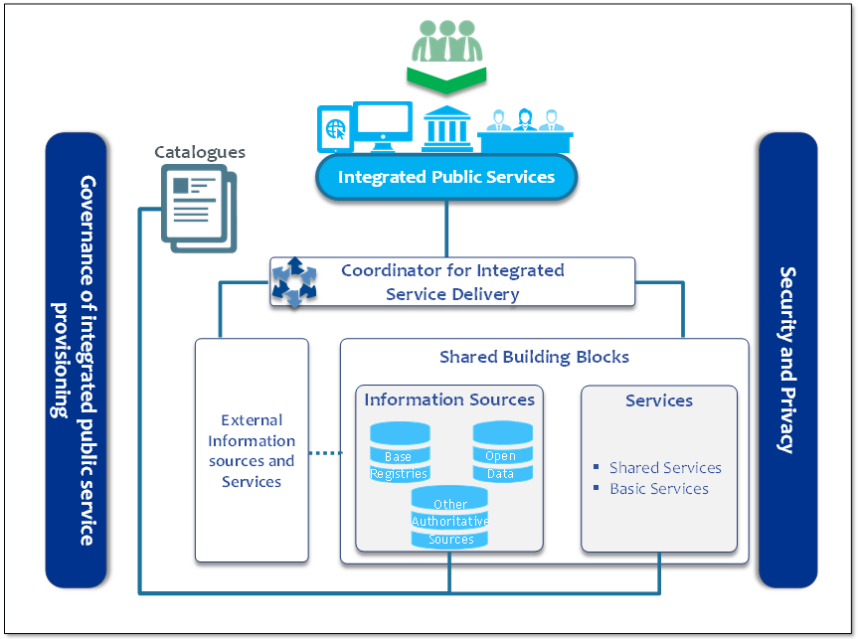
EIF revision
what is in it

European Commission

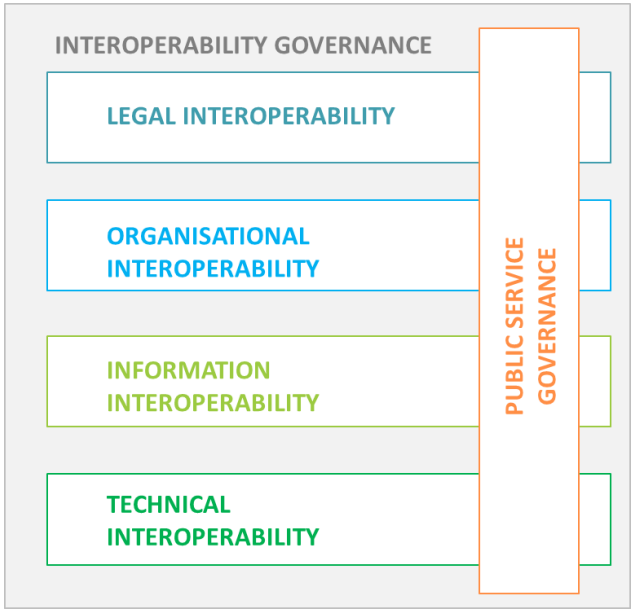
Updated IOP Recommendations

Recommendation 24. example

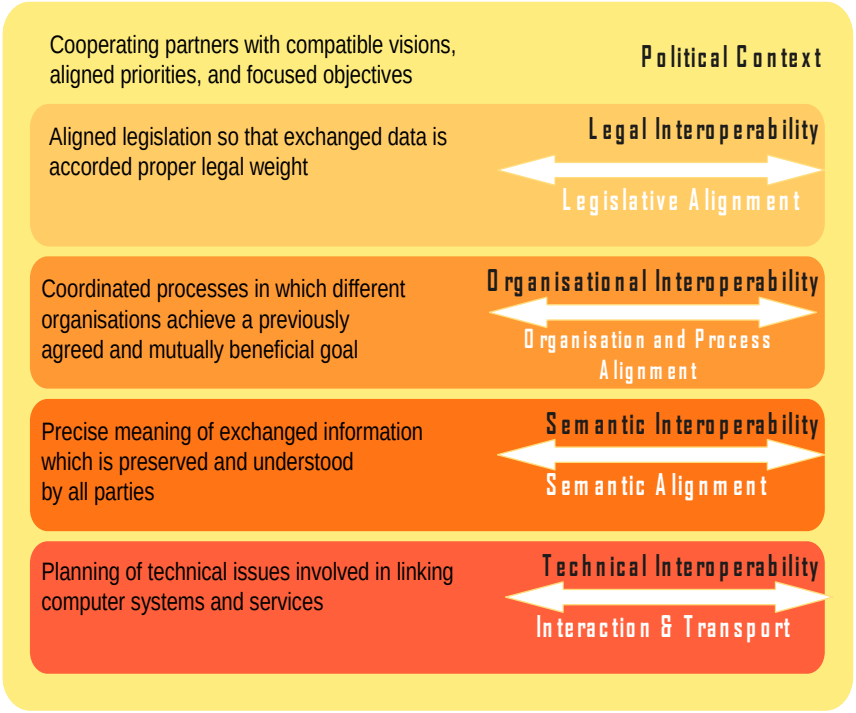
Public administrations should publish the data they own as open data unless certain restrictions apply. Open data should be published in machine-readable, non-proprietary formats.

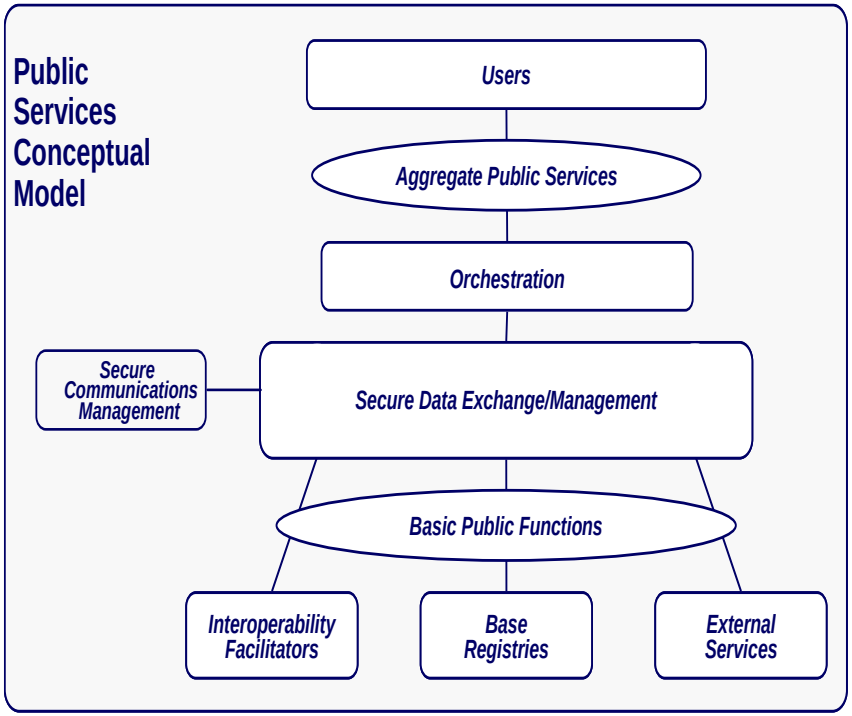


Updated IOP Models

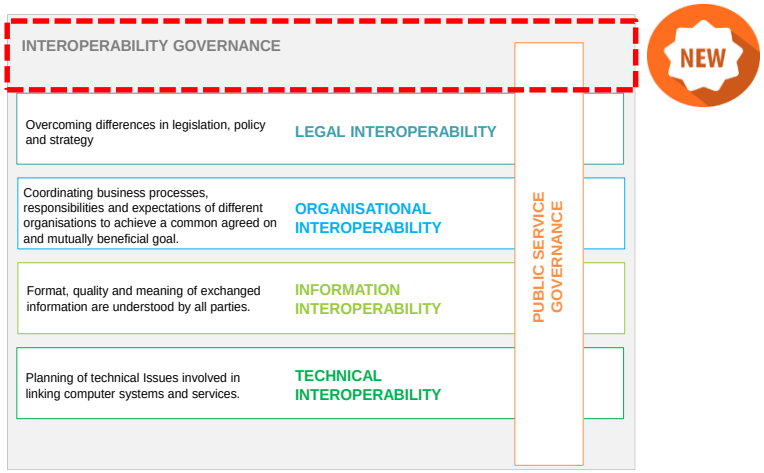


EIF models


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


Public Services Conceptual Model
Users
Aggregate Public Services
Orchestration
Secure Communications Management
Secure Data Exchange/Management
Basic Public Functions
Interoperability Facilitators
Base Registries
External Services

EIF revision: interoperability governance

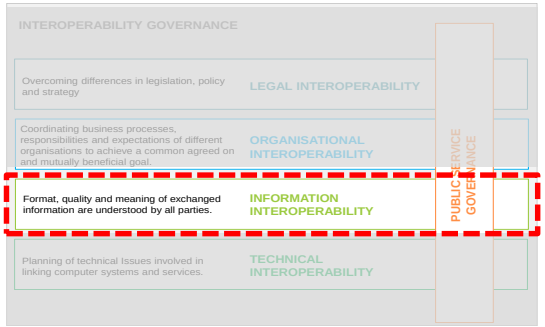


Interoperability Governance has been included in the model with a bigger scope, with a more clear definition and new recommendations.

Added new recommendations in order to suggest the:

- Establishment of a NIF for the governance of interoperability across administrative levels
- Alignment of the NIFs with the EIF
- Establishment of organisational structures for the governance and monitoring of the interoperability activities

EIF revision: information interoperability



Semantic Interoperability has changed to Information Interoperability

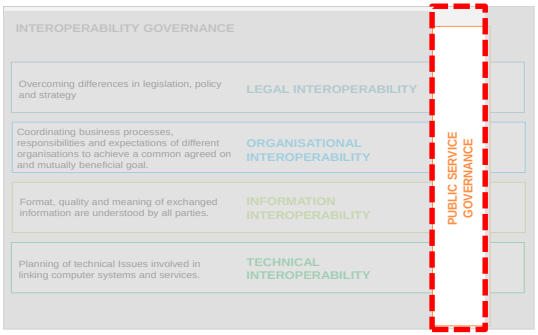
Recommendation 40. Public administrations should perceive data and information as a public asset which should be appropriately generated/collected, managed, shared, protected and preserved.

NEW

Recommendation 41. Public administrations should put in place an information management strategy at the higher possible level to avoid fragmentation. Metadata, master data and reference data management should be prioritised.

NEW

EIF revision: public service governance



Public Service Governance is the new crosscutting Layer added to the model, which includes:

NEW

- organisational structures and roles & responsibilities in governance
- interoperability agreements
- IT processes for the service management

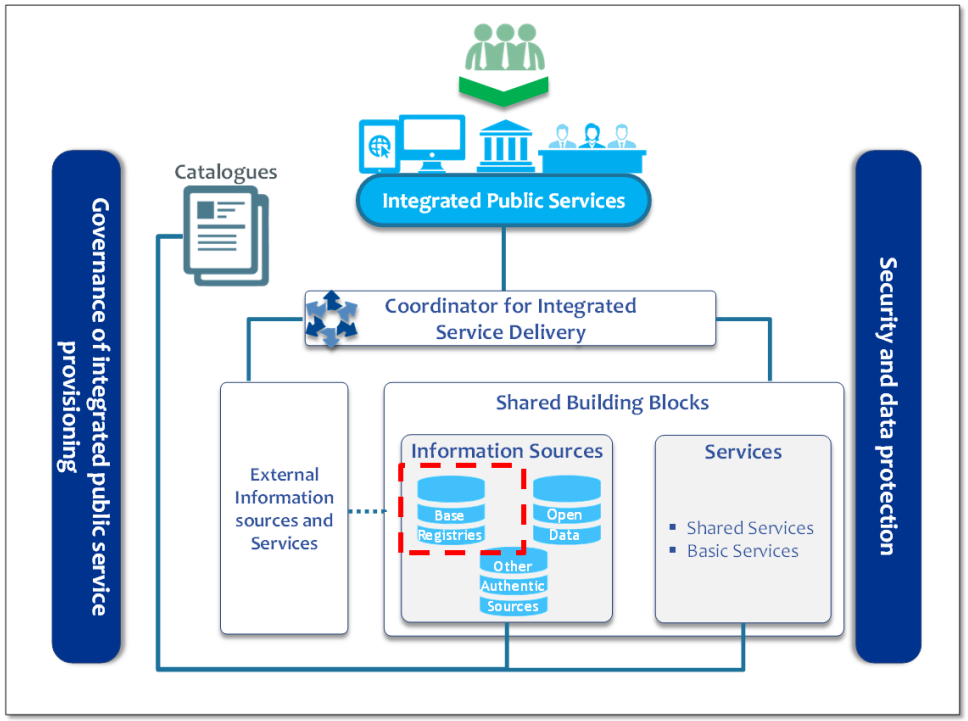
It was included because there was a need to involve all the topics related to organizational aspects that are cross-cutting and influencing all the IOP layers.

They were previously included in the Organizational Layer.

Recommendation 28. Public administrations should ensure that interoperability is ensured over time when operating and delivering a given European public service.

EIF revision:
Base registers

European Commission



Base registries are reliable sources of basic information on items such as persons, companies, vehicles, licences, buildings, locations and roads. This type of information constitutes the master data for public administration and European Public Service delivery.

EIF revision: Base registers

Recommendation 20.

Public administrations should make authoritative sources of information available to others while implementing access and control mechanisms to ensure security and privacy in accordance with the relevant legislation.

Recommendation 21.

Public administrations, when working to establish European Public Services, should develop interfaces to base registries and authoritative sources of information, and expose the semantic and technical data needed for others to connect and reuse the information. These data should be aligned whenever possible.

Recommendation 22.

Each base registry should be accompanied by description of its content, service assurance and responsibilities, type of master data it keeps, conditions of access, terminology, glossary, as well as which master data it consumes from other Base Registries (if any).

Recommendation 23.

Public administrations should create data quality assurance plans for base registries and related master data, execute them regularly and keep them updated.

EIS & EIF link up

Strategy - EIS

to guide

to implement in

Framework EIF

Recommendations
and
Conceptual models

EIS
what is in it

1. EIS should be more ''concrete'' with a clear shift towards "implementation".
2. Definitions, objectives and clusters of the EIS should be simplified and clarified.

Revision guidelines

Set up an implementation **roadmap** with milestones and measurable goals

Plan and **prioritise** roadmap's activities

Monitor implementation (e.g. uptake and reuse) both, EIS and EIF

EIS
focus areas

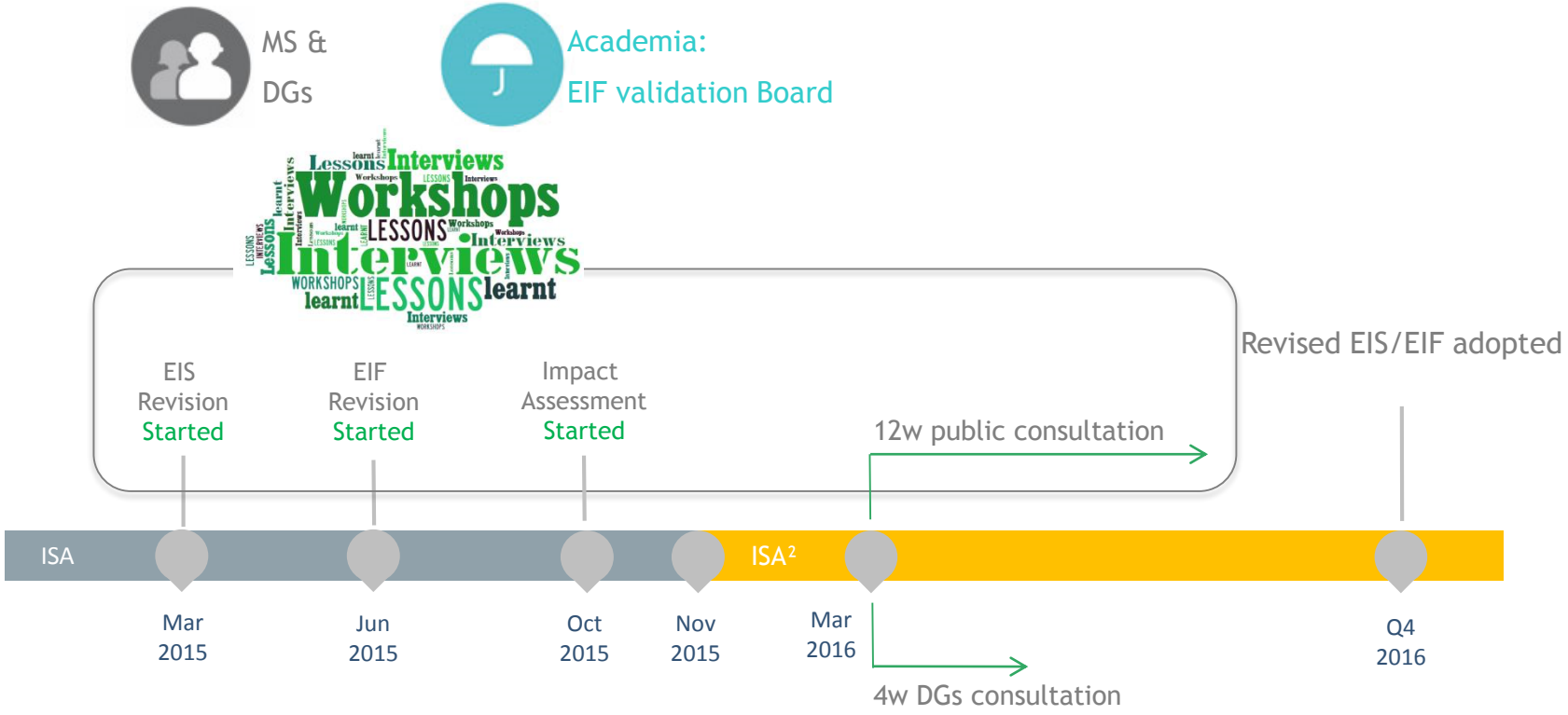
FOCUS AREA N° 1	FOCUS AREA N° 2	FOCUS AREA N° 3	FOCUS AREA N° 4	FOCUS AREA N° 5
Governance & Coordination	Organisational interoperability	Engagement/ Raising awareness	Key enablers	Supporting instruments

Include also actions coming from the ISA² legal basis

All actions should be user centered and needs driven

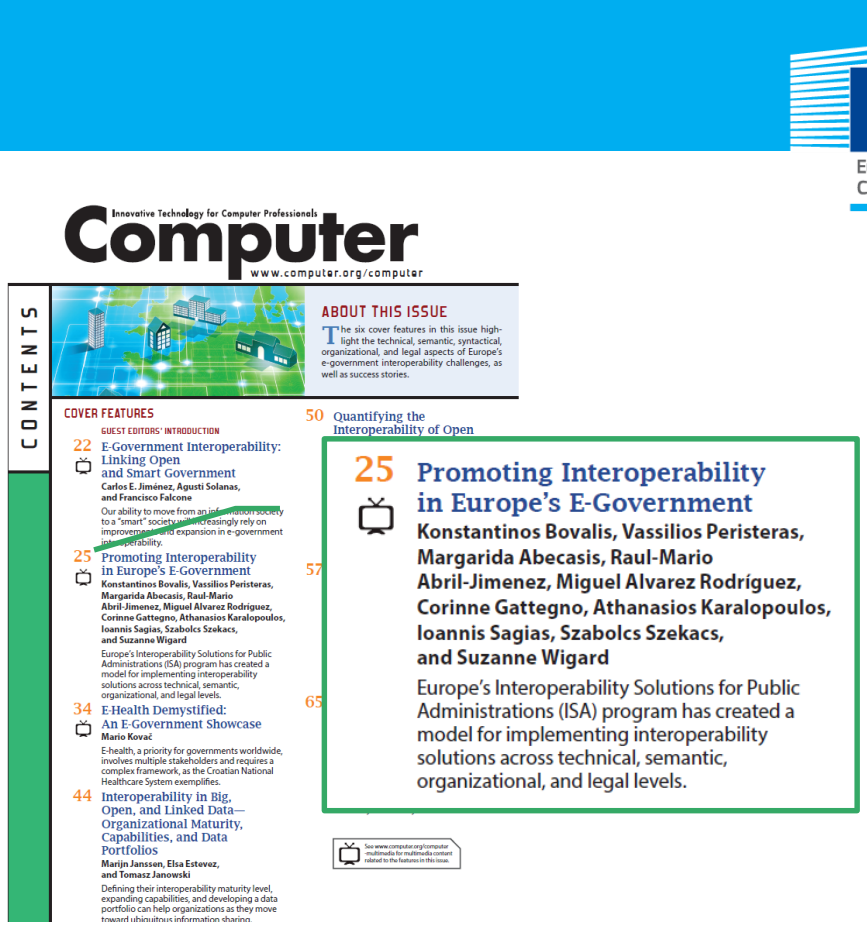
Proposed actions at both national and EU levels

Consultation process + next steps



Q&A

European Commission



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

http://goo.gl/eK1EY @SEMICeu http://joinup.ec.europa.eu