Interoperability Solutions for European Public Administrations

A Commission-driven EU programme (2010-2015)

Margarida Abecasis
European Commission
• Presentation of the ISA programme
• Flash-back
• ISA defining and promoting interoperability specifications
  - The European Interoperability Strategy and the European Interoperability Framework
  - Semantic interoperability
  - Common assessment method for standards and specifications (CAMSS)
• ISA supporting interoperability solutions between European public administrations
• ISA supporting sharing and re-use of software solutions
ISA: the vision

Efficient

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

European public administrations

... share and re-use existing successful eGovernment solutions.

Flexible and interlinked

...IT systems allow smooth implementation of Community policies and activities.
ISA: the objective

The efficient and effective electronic cross-border and cross-sector interaction between European public administrations

... enabling the delivery of electronic public services supporting the implementation of Community policies and activities

How?

- Development of generic building blocs
- Development, operation and maintenance of common services and generic tools
- Share and re-use solutions

- Assessment of ICT implications of proposed or adopted Community legislation
- Raising awareness

Actions in the ISA 2012 Workplan contribute directly to:

- The Digital Single Market (interoperability, eProcurement, eSignature, ...)
- eGovernment
- Various EU policies (eHealth, INSPIRE, CISE, ECI, ...)

The budget: €164,1 million (2010-2015)
Pooling of resources across the Member States through:

- coordination
- exchange of experiences
- good practices
The beneficiaries

**Directly**

- The services of the European Commission
- National Public Administrations from Member States
- National Public Administrations from Candidate Countries
- Countries of the European Economic Area
- Regional and local administrations
  - Third countries - but their costs are not covered

**Indirectly**

European businesses and citizens - profiting from a more efficient delivery of public services.
Management of the ISA work programme

- Through a **rolling work programme** revised annually, by the European Commission with the Member States.
- Assistance by a **management committee** - the ISA committee, representing the Member States.
- **Coordination group**, nominated by the ISA committee, to ensure continuity and consistency.
- **Expert groups** for guidance in specific work programme actions.
The life cycle of ISA actions

Annual request to Member States and Commission services for proposals of actions.

Commission decision

Discussion of proposed actions by the ISA committee.

Implementation by the Commission - in co-operation with the Member States.

Favorable opinion of the ISA committee: Inclusion of the action within the work programme.
Proposals can be funded, if...

- Support co-operation between European Public Administrations.
- based on a concrete business case
- linked to Commission policy priorities
- demonstrate interest and interoperability
  - Cross-border AND Multi-sector
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• **1994**: A Council Resolution underlines the need for enhanced synergies between European and national information systems.

• **1995**: The IDA Programme is established with a Community Decision, with a primary objective of setting up IT empowered networks for information exchanges in the different community policy areas.

  The IDA Programme pioneered the use of IT in public administrations and facilitated the transition from paper-based to electronic exchanges across Europe.

• **1999**: Start of a second phase of the Programme (IDA II) until the end of 2004 with two interrelated Decisions:
  • The 'Projects of Common Interest' (PCIs) Decision continued to extend the implementation of networks in different Community policy areas
  • The 'Interoperability' or Horizontal Actions and Measures (HAMs) Decision focused on measures and services to be applied and used to ensure seamless interaction within and across networks at the trans-European level
ISA: flashback

- **January 2005**: New IDABC Decision moving the emphasis from 'networks' to 'services', i.e. putting the results of the pan-European administrative networks to the service of European citizens and businesses: “Interoperable Delivery of European eGovernment services to public Administrations, Business and Citizens”.

  Maintains the two IDA II mechanisms: Projects of Common Interest and Horizontal measures

- **January 2010**: ISA (« Interoperability Solutions for European public Administrations ») decision of the European Council and the Council enters into force.
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“A key action to promote interoperability between public administrations will be the Commission’s adoption of an ambitious European Interoperability Strategy and the European Interoperability Framework to be drawn up under the ISA programme (Interoperability Solutions for European Public Administrations)”

The Commission adopted the Communication “Towards interoperability for European public services”
- European Interoperability Strategy (EIS)
- European Interoperability Framework (EIF)

➔ In December 2010
• In the context of European Public Service delivery
  - Interoperability means:
    • "the ability of disparate and diverse organisations to interact towards mutually beneficial and agreed common goals, involving the sharing of information and knowledge between the organisations, through the business processes they support, by means of the exchange of data between their respective ICT systems"

  - An interoperability framework is:
    • "an agreed approach to interoperability for organisations that wish to work together towards the joint delivery of public services. Within its scope of applicability, it specifies a set of common elements such as vocabulary, concepts, principles, policies, guidelines, recommendations, standards, specifications and practices"
Interoperability: the global picture

INITIATIVES

EIS

EIF

EIA

EIIS

EUROPEAN PUBLIC SERVICES ACTIVITIES

Governance

Conception

Implementation

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

Aligned legislation so that exchanged data is accorded proper legal weight

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

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

Planning of technical issues involved in linking computer systems and services
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• Increasing the awareness on the importance of semantic interoperability and appropriate metadata management policies

• Federation of National Semantic Assets Repositories: To tap on, promote, and reuse national efforts and results

• Asset Description Metadata Schema (ADMS)

• EGovernment Core Vocabularies: To start alignment on common core definitions at EU level
ISA defining and promoting semantic interoperability

- National initiatives to create repositories/libraries/catalogues
- Standardization bodies and third party initiatives generate valuable and highly reusable specifications

How can we promote and support reuse of these semantic assets at an European level?
... by enabling a federation of semantic assets repositories
- Supporting cross-querying and discovery
- Respecting the autonomy of each repository

... by using common semantics to describe a “semantic asset”

We need a *common schema for assets description*

Asset Description Metadata Schema (ADMS)
The Asset Description Metadata Schema is a specification to be used for describing semantic assets (e.g. metadata standards, taxonomies)

The specification is being drafted by the ADMS Working Group (Feb. 2012)

The WG kicked-off early November with 12 MSs participating

Confirmed participation of W3C, OASIS, IEEE, CEN, UN/CEFACT, ETSI, Open Group and many other EC units

ADMS will be used for the federation of semantic assets repositories. DE, DK, EE, FI have already repositories that could participate. Other countries are encouraged to set up similar infrastructures.

March 2012: Workshop on sharing experiences on Metadata Management

Currently the specification is available in UML, XML, RDF formats for public review at https://joinup.ec.europa.eu/asset/adms/release/08
ISA defining and promoting semantic interoperability

- Via the federation, Joinup.eu will give access to a large number of reusable assets (June 2012) that may be useful to reuse.
- Joinup is the platform to use for promoting your own assets
- Do you have vocabularies, codelists, taxonomies, ontologies, RDFS, XML schemata, data models, or any other semantic interoperability asset you want to increase their visibility, share and reuse?

- Publish them in Joinup.eu
Semantic definitions should be **commonly agreed** on fundamental, highly reusable concepts

1. Is it possible for 27 MSs to agree on common semantics?

2. Is it possible to define an entity (concept) in a way that remains relevant in different contexts?
• Definitions should first be agreed on fundamental concepts (Core), where diverged and/or conflicting views are less intense.

• A Core Concept/Vocabulary
  - Is highly reusable: the specification is simple and captures basic and generic characteristics of an information entity, regardless of the context this entity is used
  - Is extensible: domain specific specialisations can be drafted on top of the core representation.
Current status:

- **Core Address TF**: chaired by JRC/H6 Spatial Data Infrastructures (INSPIRE Directive). The address specification is already an important element on the INSPIRE data models.

- **Core Business TF**: chaired by DG MARKET/F2, responsible for European Business Registry project.

- **Core Person TF**: chaired by Eurojust. Eurojust via the EPOC IV project promotes interoperability in the judicial domain amongst MSs.
Next steps:

• Finalize the 3 Core Vocabularies specifications

• Endorsement of the 3 Core Vocabularies by the MSs

• Promote the Core Vocabularies in the MSs and particularly in their National Interoperability Frameworks

• Further liaison with standardization bodies and relevant initiatives (e.g. W3C, Standard Vocabularies for Government Linked Data)
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The purpose of CAMSS: to help European Public Administrations in the assessment of formal specifications in public procurement in the area of eGovernment services.

CAMSS comprises:

1) Process, 2) Criteria and 3) Assessment Library.

The process describes how to complete an assessment from start to finish using CAMSS criteria.

In the assessment process, the criteria are expressed as a series of qualitative questions for the evaluators to answer. The answers are then combined to create the full CAMSS assessment.

Completed assessments are planned to be made available in an assessment library helping Member States to share and re-use assessments partially or in full depending on the business needs in question.
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Internal Market Information System

- Cooperation platform
- Helps competent authorities in Member States to overcome important practical barriers to communication by providing:
  - a search engine to **identify the right partner** in another MS
  - a complete **multilingual** system
  - a flexible workflow hiding the complexity of administrative structures in the other MS
- Covers 27 Member States and 3 EFTA countries
- Developed by the European Commission in partnership with the Member States, funded by IDABC, ISA and DG MARKT
Internal Market Information System

Multilingual web application for cross-border exchange of information between public authorities

- allows fast, structured, traceable exchange of information among competent authorities in different member states in the context of administrative cooperation
- supports all official EU languages

- Search for the right counterpart in another Member State
- Secure bilateral exchange of information (one-to-one)
- Alerts about dangerous situations regarding service providers (one-to-many)
- Search for national registers
Internal Market Information System

- IMI is also a flexible tool which can be re-used for other Internal Market legislation and also legislation in other policy areas
  - the Commission develops one-single system
  - The MS uses only one system for administrative co-operation

- Currently used in the context of:
  - Professional Qualifications directive
  - Services directive
  - Posting of Workers directive

- Future:
  - Cross-border health care (DG SANCO)
  - Cash in Transit (DG ECFIN)
  - Professional Cards (DG MARKT)
Internal Market Information System

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<tr>
<td>Registered Authorities</td>
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<td>Answered/closed Requests</td>
<td>2445</td>
<td>5302</td>
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Common Information Sharing Environment for the surveillance of the EU maritime domain

- Interoperable and trusted cross-sector data exchange between public administrations within the EU maritime domain

- 7 policy areas:
  - Maritime safety and security
  - Maritime environment and pollution preparedness and response
  - Fisheries control
  - Border control
  - Law enforcement
  - Customs and defence

- Expected synergies with other solutions like the INSPIRE reference platform
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European Citizens Initiative: On-line collection of statements

- Helps organisers build their online collection systems (free, downloadable open source software)
- Provides a user-friendly tool for citizens to sign-up online and for organisers to manage their online collection
- Available in all 23 official languages
- Complies with the relevant security requirements of the regulation
- Facilitates certification by the Member States
- Facilitates the export of data to the Member States
- Facilitates the verification by Member States authorities
Prepare your initiative and set up your citizens’ committee.

Register your initiative. Max. 2 months

You have at least one million signatories? Submit your initiative to the Commission

The Commission decides to follow your initiative: the legislative procedure starts.

The Commission examines your initiative and replies. Max. 3 months

The Commission examines your initiative and replies.

Max. 3 months

European Citizens Initiative: On-line Collection of Statements
European Citizens Initiative: On-line
Collection of Statements

You wish to collect online?
Get your system certified.
Max. 1 month

Collect statements of support in
at least 7 member states.
Max. 12 months

Get statements of support certified
by member states.
Max. 3 months
Get informed
• News
• Events
• Cases
• Guidelines
Repository to share and re-use

- Asset repository
- OSS repository
- Project federation - ongoing
- Asset federation - to come
Platform for collaboration

- **Communities**
  - wiki, mailing lists, issue manager, forum, blogs, news version control (svn), updates.

- **Virtual forges**
  - From jan 2012

- **People**
Need more information?

ISA-website: http://ec.europa.eu/isa

European Commission
Directorate-General for Informatics
European eGovernment Services
B-1049 Brussels - Belgium
isa@ec.europa.eu

Thank you!
• ISA Programme, Action on semantic interoperability: http://ec.europa.eu/isa/actions/01-trusted-information-exchange/1-1action_en.htm
• Joinup platform: https://joinup.ec.europa.eu/
• Core Vocabularies: https://joinup.ec.europa.eu/elibrary/document/egovernment-core-vocabularies
• Federation of semantic assets repositories: https://joinup.ec.europa.eu/elibrary/document/federation-semantic-assets-repositories