Remote Kick-off Meeting – Finland workshop

16 September 2019

EUROPEAN COMMISSION

Directorate-General for Informatics (DIGIT)

European Interoperability Architecture. Maintenance

ISA² action 2016.32

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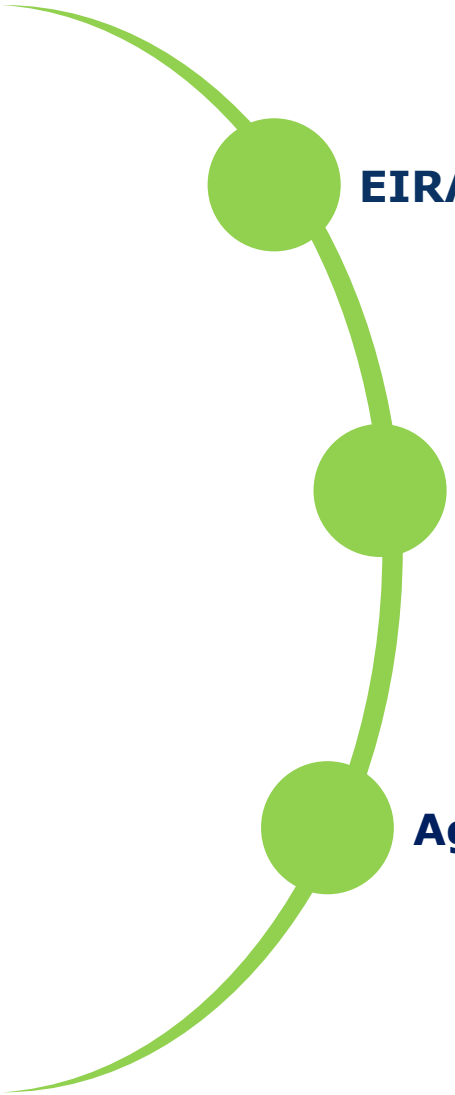
Kick-off goals



EIRA and CarTool overview

Get a clear understanding of your expectations (use cases selection)

Agree on the way we will work together

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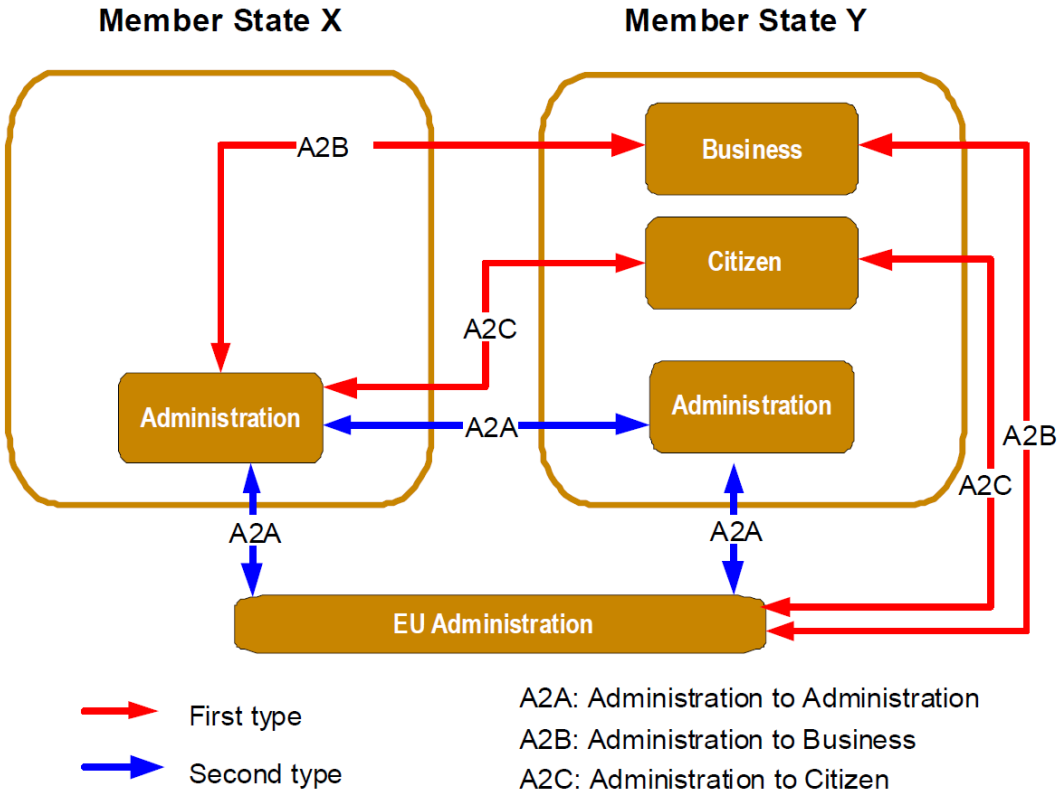
Introduction on the EIRA© and the CarTool ©

AGENDA

- Context
- EIRA Value proposition
- EIRA overview
- EIRA use cases
- Potential use cases
- CarTool Overview
- CarTool value proposition
- EIRA & CarTool key areas of support
- How the EIRA© & CarTool© support IoP in e-Government?

Context
Scenarios



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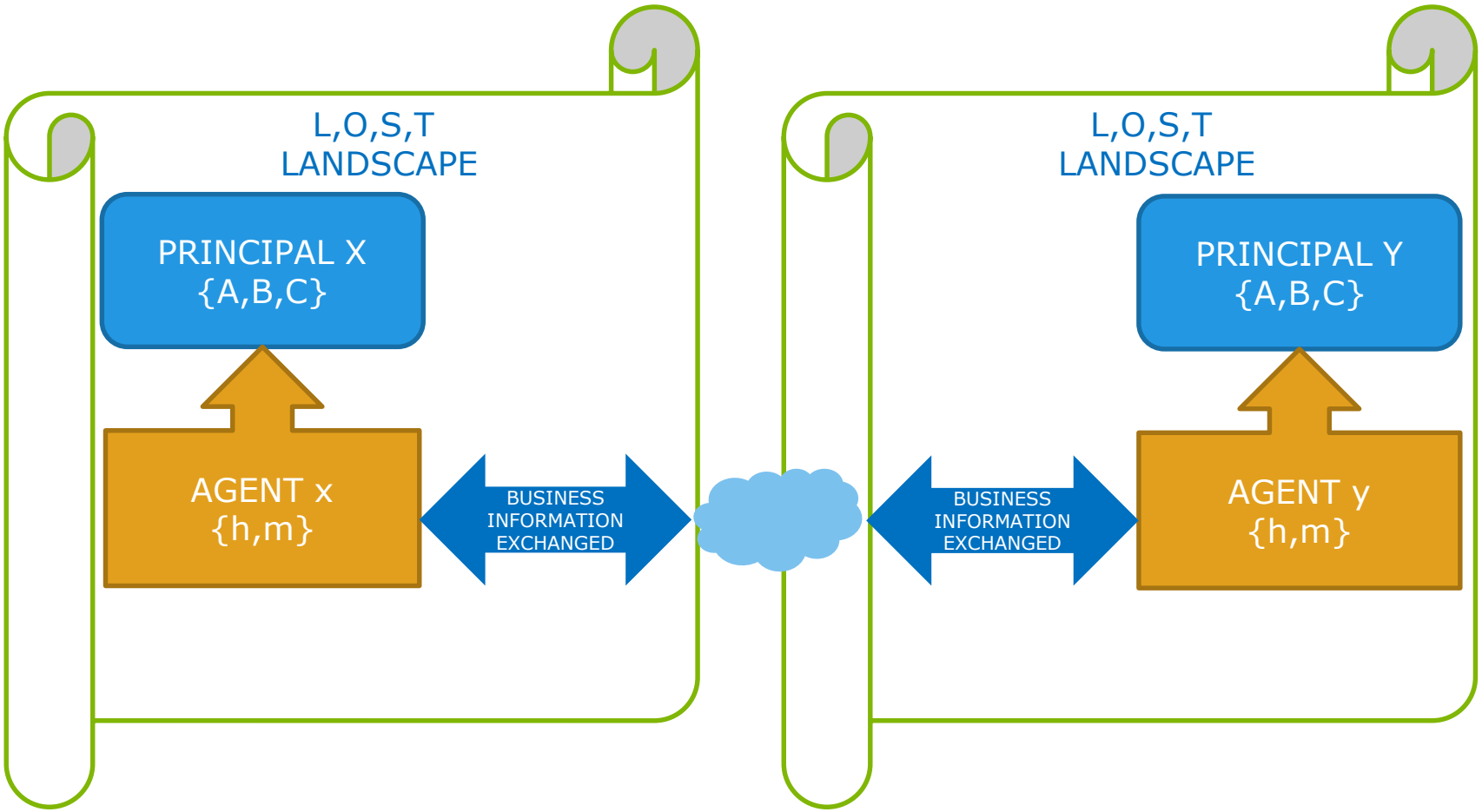
Context

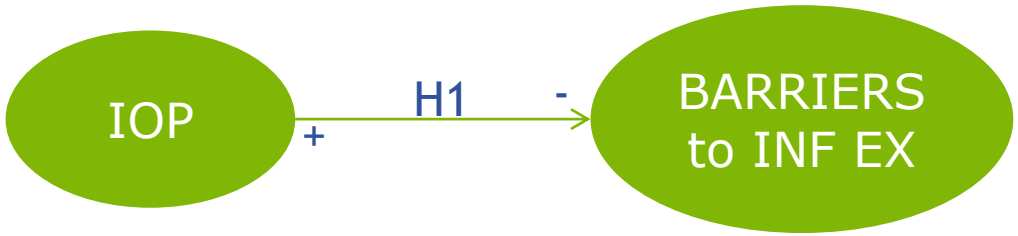
The IOP challenge: lost landscapes of agents



A: Public Administration (local, regional, national, European); B: Business; C: Citizen

IOP is a mean to eliminate barriers in business information exchange (it is not the goal)

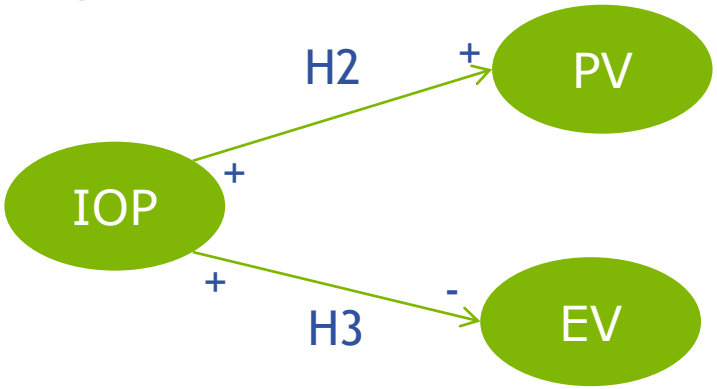
H1: ”There is a negative correlation between IOP and barriers to business information exchange”



IOP is the independent variable [of performance/economic cost variables]

H2: "There is a positive correlation between IOP and [**performance variable**] (i.e. # requests/hr) of public service delivery to public administrations citizens and businesses"

H3:"There is a negative correlation between IOP and [**economic cost variable**] (i.e. # rejection cost) of public service delivery for public administrations, businesses and citizens"

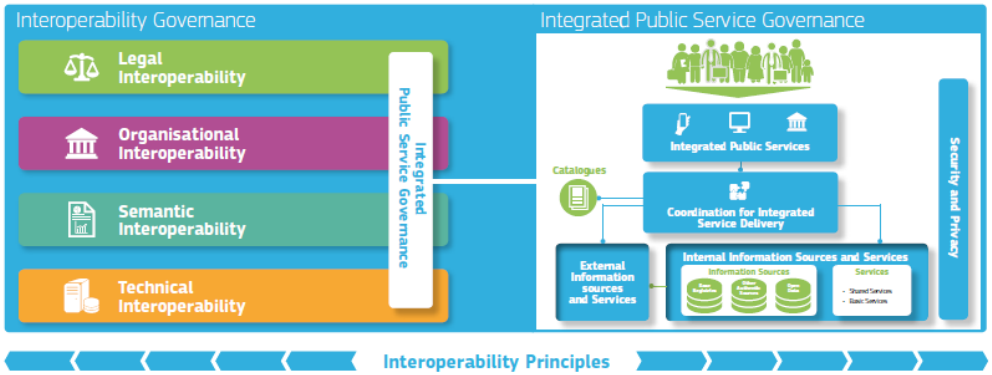


EIRA Value proposition

European Commission

EIRA
EUROPEAN INTEROPERABILITY REFERENCE ARCHITECTURE

The revised EIF Conceptual Model



iMAPS
INTEROPERABILITY MATURITY ASSESSMENT OF A PUBLIC SERVICE

ASSESSING EIF CONFORMANCE IN PUBLIC SERVICE

EIRA
EUROPEAN INTEROPERABILITY REFERENCE ARCHITECTURE

CarTool
[EIRA]
CARTOGRAPHY TOOL

IQAT© Interoperability Quick Assessment Toolkit

ASSESSING EIF CONFORMANCE IN SW COMPONENT

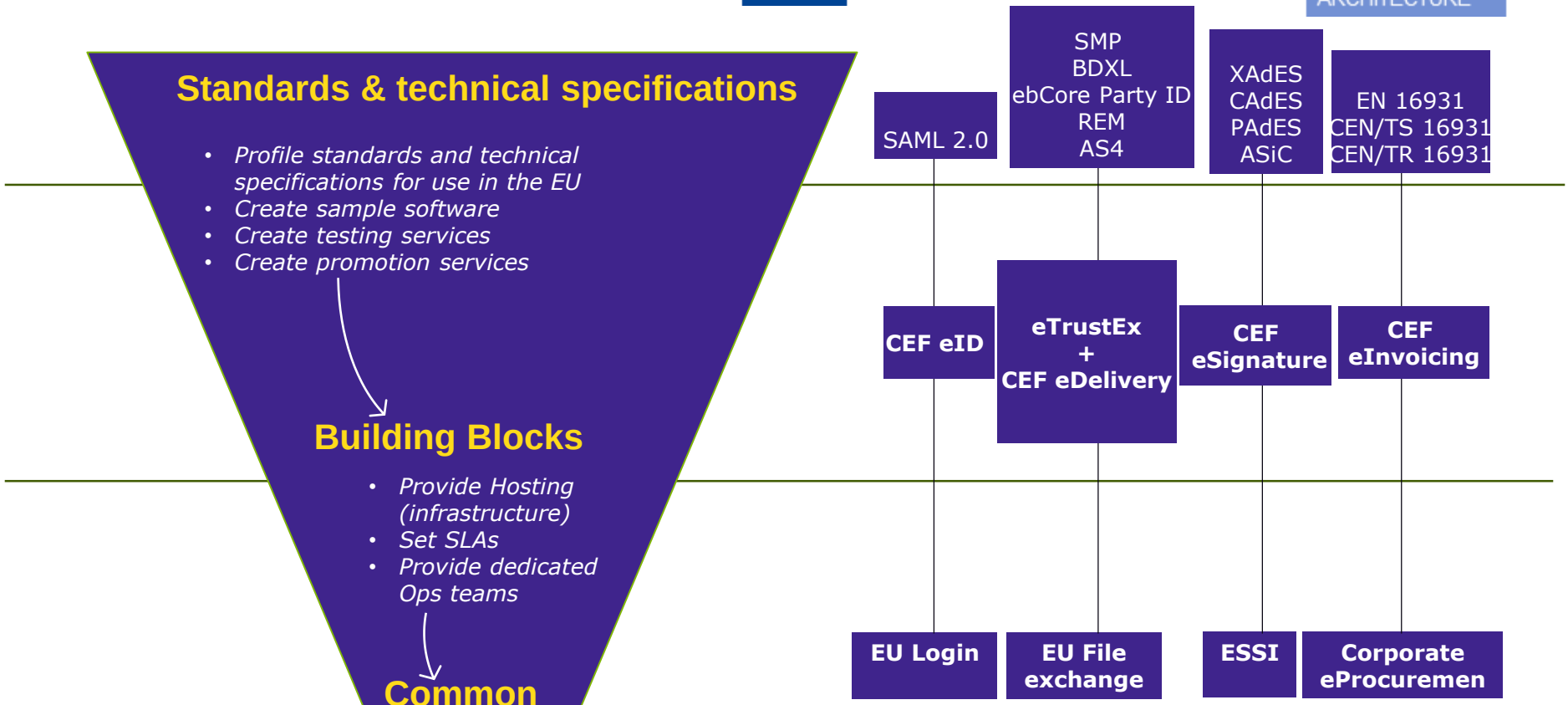
CAMSS

ASSESSING STANDARDS

ISA²

EIRA Value proposition

EIRA supports EIF implementation



Available at:
https://www.youtube.com/watch?v=RWhoy3ilYEA
https://joinup.ec.europa.eu/collection/european-interoperability-reference-architecture-eira/about
(*) DECISION (EU) 2015/2240 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

EIRA overview

Why EIRA? ISA² legal bases (*)

"…. The ISA²programme shall support and promote:

f) the mapping and analysis of the overall interoperability landscape in the Union ***through the establishment, maintenance and improvement of the EIRA and the EIC as instruments to facilitate the re-use of existing interoperability solutions and to identify the areas where such solutions are still lacking****;*

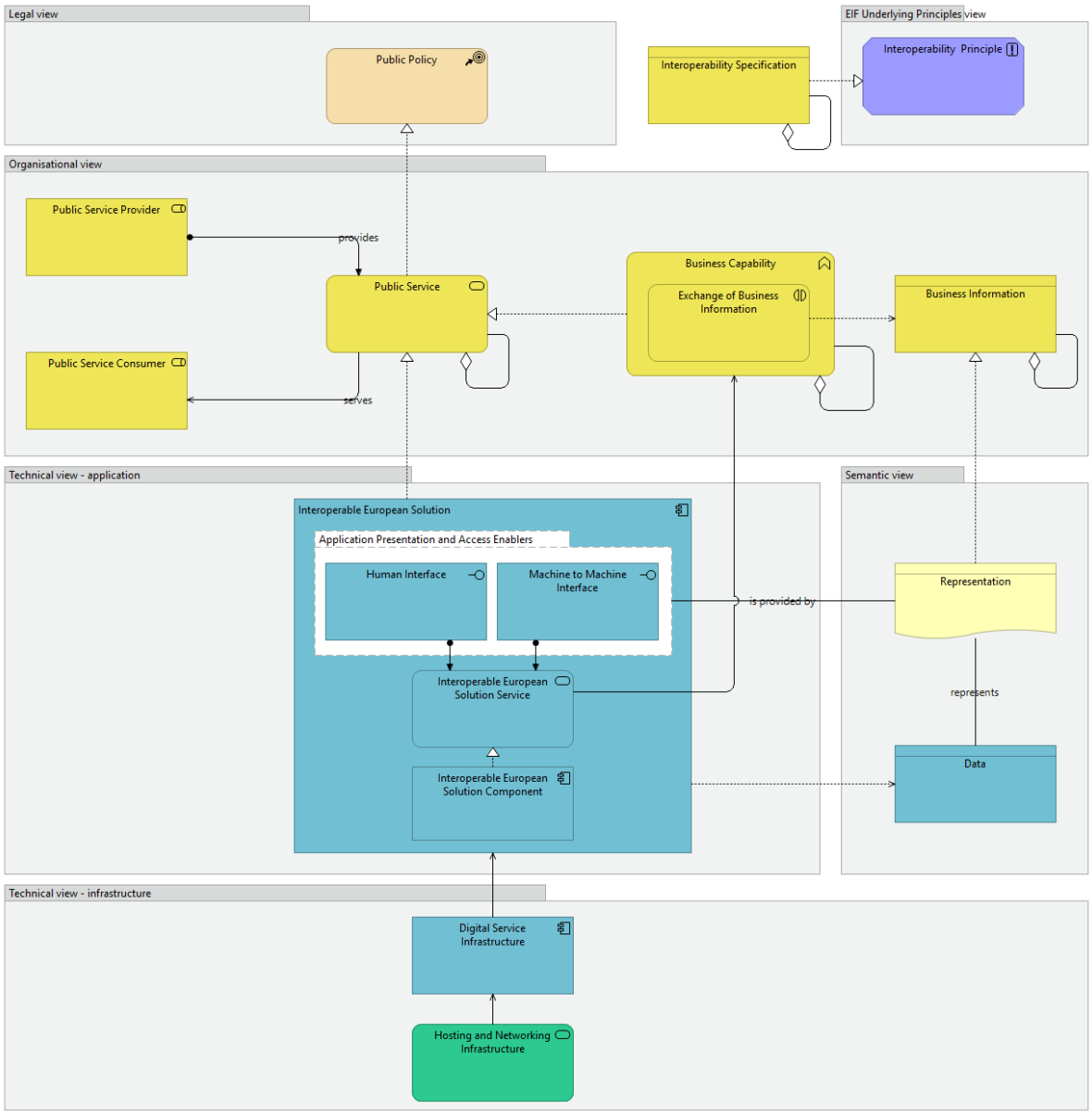
(g) ***the maintenance, updating, promotion and monitoring of the implementation of the EIS, the EIF and the EIRA****"*

(*) DECISION (EU) 2015/2240 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2015

What is EIRA©?

- ✓ **Architecture content metamodel**
- ✓ Defining the most salient **architectural building blocks (ABBs)** needed **to build interoperable solutions** supporting public services
- ✓ Each **ABB models** a decoupled functionality
- ✓ Result of a **collaborative effort of MS**
- ✓ As any RA
  - Has a focus: **Interoperability**
  - Has an Reference Model/Ontology: **ArchiMate ©**
  - Has an Architecture Style: **SOA**

EIRA v3.0.0
High-Level viewpoint



EIRA© EIF Alignment

European Commission

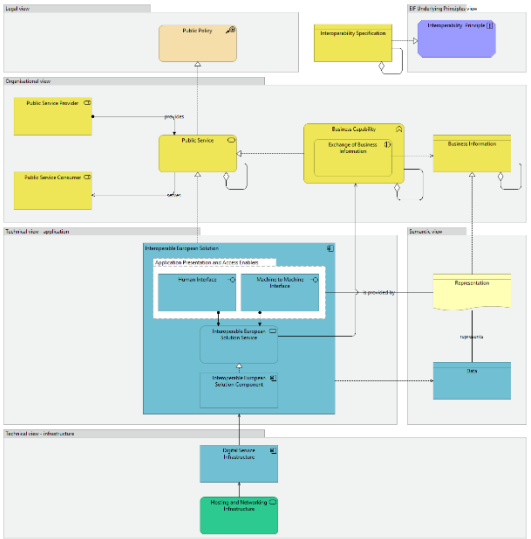
EIRA
EUROPEAN INTEROPERABILITY REFERENCE ARCHITECTURE

EIF

Framework and principles

EIRA© v3.0.0

Implementation guidelines and specifications



EIRA
Value proposition

The European Interoperability Reference Architecture (EIRA) is an architecture content metamodel defining the most salient architectural building blocks (ABBs) needed to build interoperable eGovernment systems. The EIRA provides a common terminology that can be used by people working for public administrations in various architecture and system development tasks.

EIRA use cases

Design	Assess	Communicate & Share	Discover & Reuse
Accelerate the design of systems that support the delivery of interoperable digital public services (across borders and sectors)	Provide a reference model for comparing existing architectures in different policy domains and thematic areas, to identify focal points for convergence and reuse	Help documenting the most salient interoperability elements of complex systems and facilitate the sharing of reusable solutions	Ease the discovery and reuse of interoperability solutions through the TES Cartography using the **CarTool**

Available at: https://joinup.ec.europa.eu/collection/european-interoperability-reference-architecture-eira/about

EIRA use cases

Potential use cases

EIRA

Cart

Designing

- Design solution architectures
- Create portfolio

Assessing

- Compare solution architectures
- Rationalise portfolio
- Manage portfolio

Communicating and Sharing

- Support Impact Assessment on ICT
- Document interoperability solutions

Discovering and Reusing

- Search for interoperability solutions

CarTool overview (1/2)

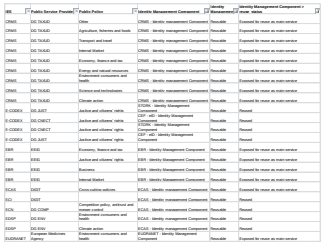
A solution owner or an service acting on his/her behalf uses the CarTool in any of the use cases. He/She might work on the basis on the documentation on an existing solution

The CarTool is the response of the EC to a request of the MS
In order to allow them to document solutions in compliance to EIRA
Iis an open SW pluggin developed for the ARCHI SW

Documentation on a Solution in production

CarTool
[EIRA]
CARTOGRAPHY TOOL

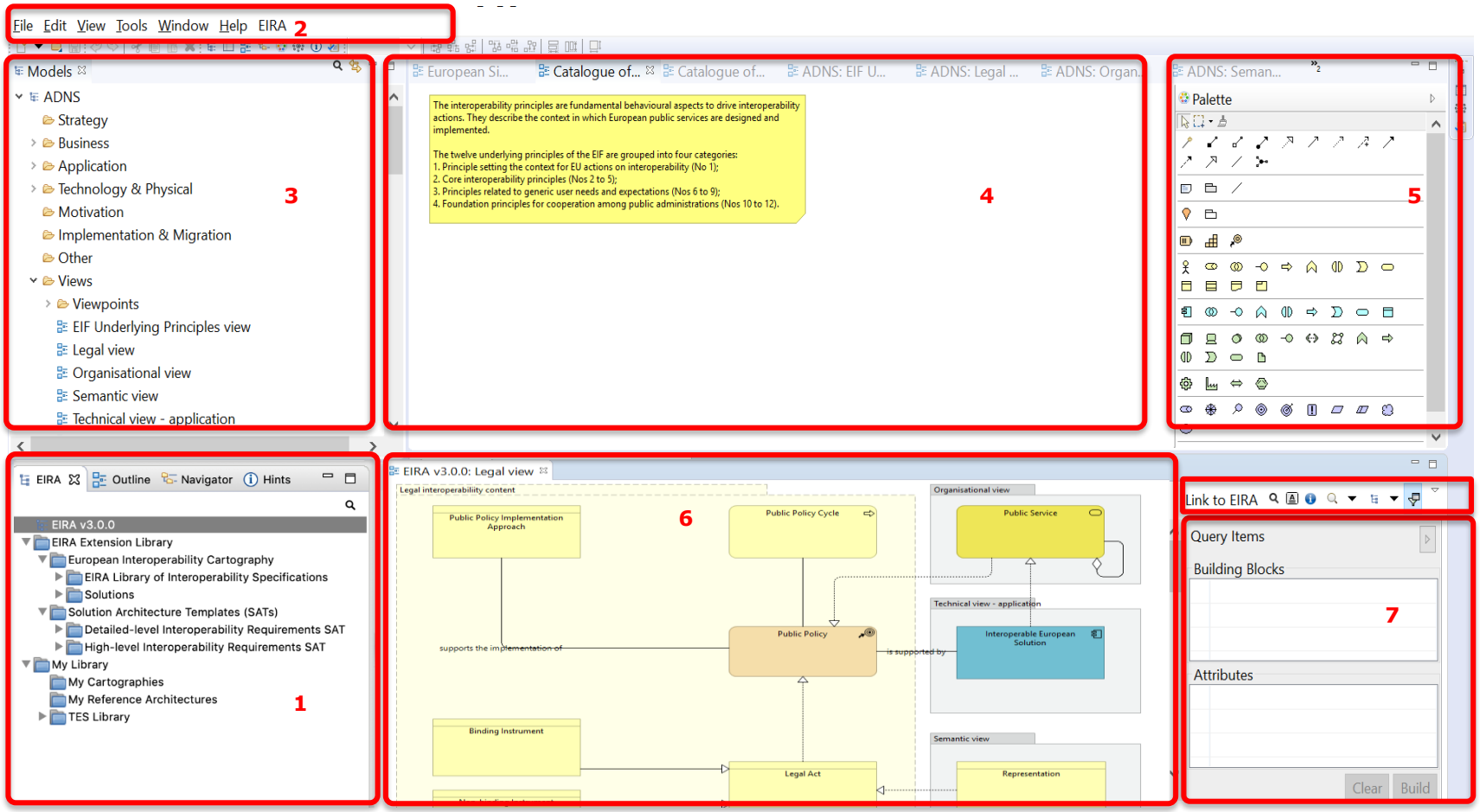
The CarTool supports 1) to design, document and search solutions according to EIRA and 2) to export descriptions of solutions in MEF standard format



Cartography

A cartography is the outcome of mapping/decomposing existing solutions or documenting new ones against a taxonomy (EIRA in our case)

CarTool Overview (2/2)



Navigation online of EIRA ABBs description using Persistent URIs (PURIs)

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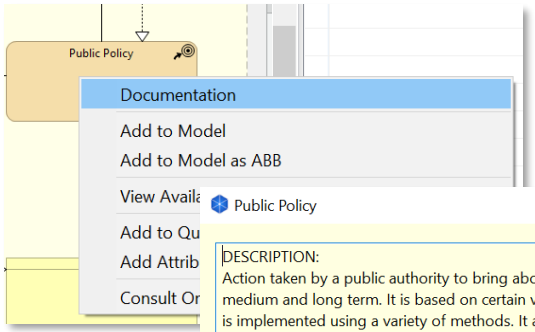

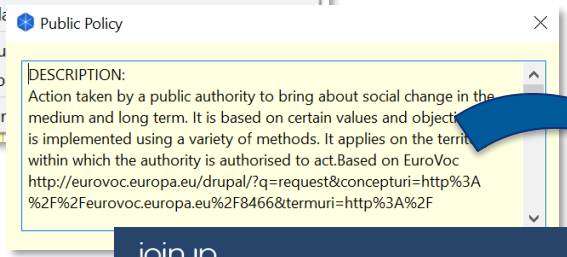

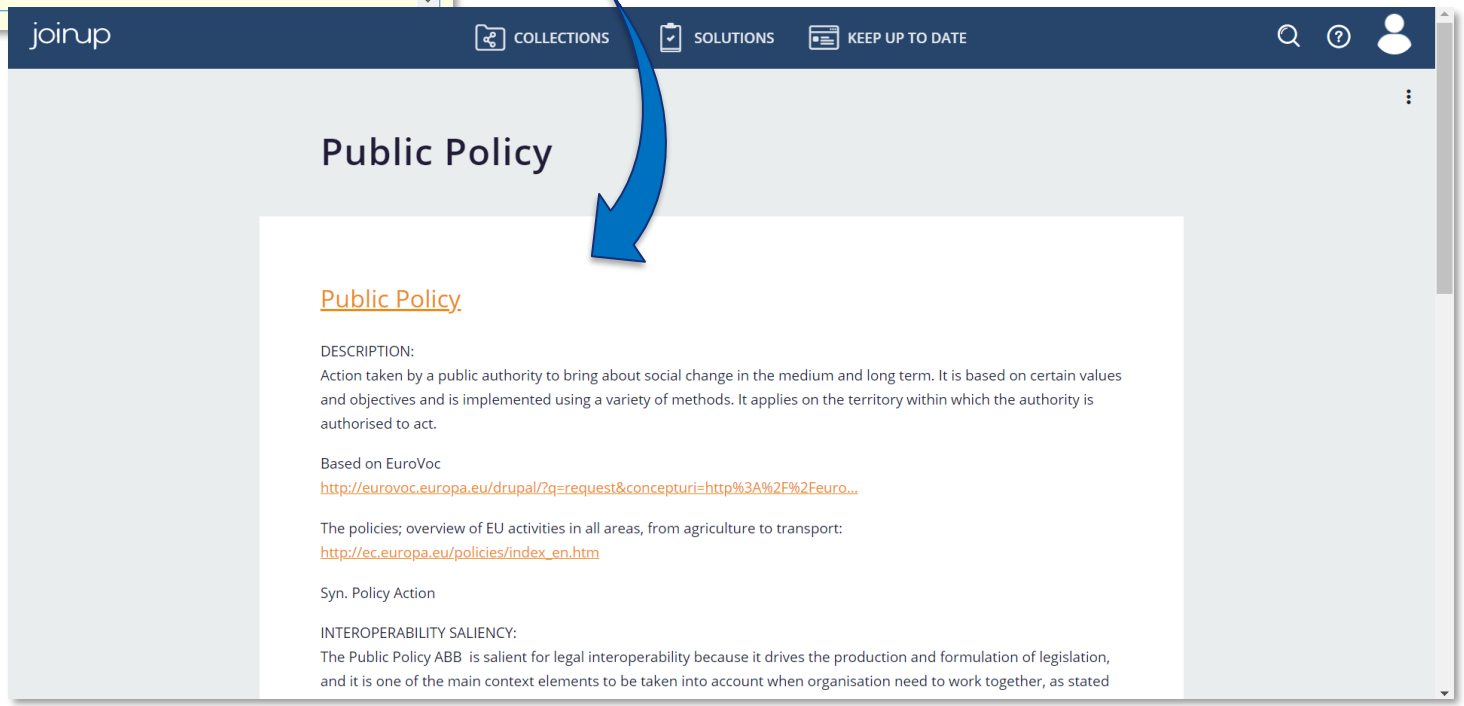

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CarTool
Value proposition

The **Cartography Tool (CarTool)** brings together high level support for the EIRA **as a plug-in** for the popular **ArchiMate modelling tool Archi®.** It includes both editing features, to model solutions using the EIRA, and querying features to query an **EIRA-based Cartography of solutions**.

CarTool use cases

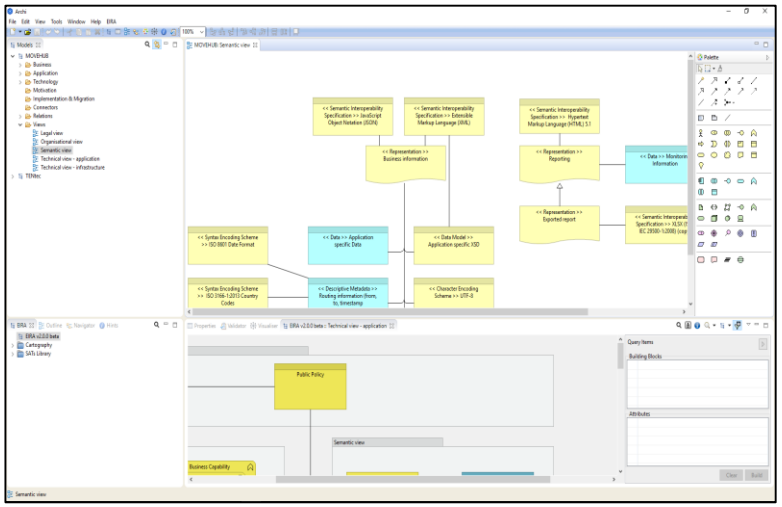
Search

- Query Cartographies, such as the EIC and the TESCart for used solutions
- Consult a list of proposed IoP Specifications

Model

- Model new solutions based on either the EIRA, SATs or existing TES
- Model SATs based on the EIRA

CarTool view



Available at: https://joinup.ec.europa.eu/solution/cartography-tool/about

EIRA & CarTool key areas of support

EIRA
EUROPEAN INTEROPERABILITY REFERENCE ARCHITECTURE

CarTool
[EIRA]
CARTOGRAPHY TOOL

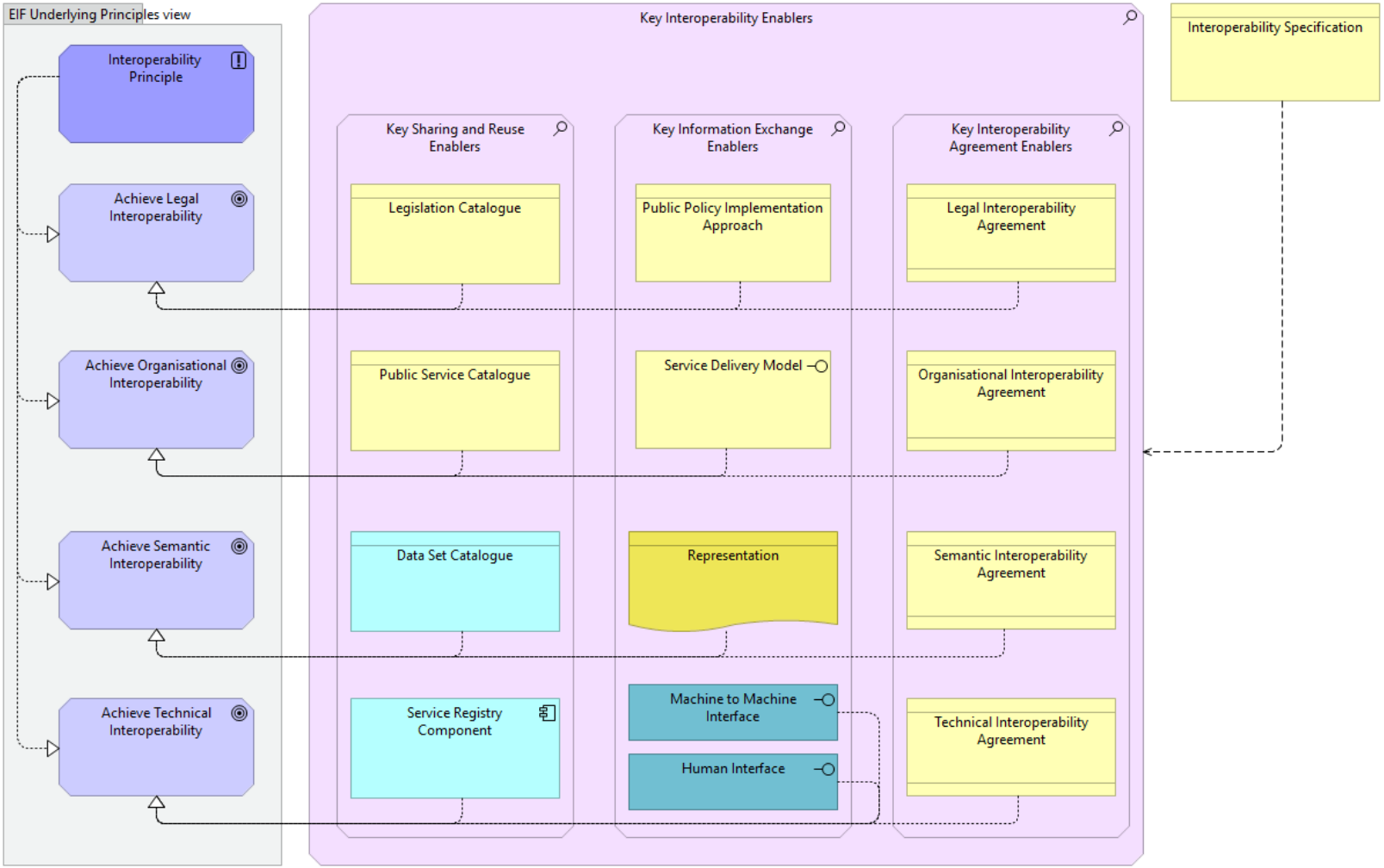
European Commission

	Design	Assess	Communicate & Share	Discover & Reuse
Providing a controlled vocabulary	● ●	● ●	● ●	● ●
Decoupling functionalities in Architectural Building Blocks	● ●	● ●	● ●	● ●
Facilitating the identification of IOP specifications	● ●	● ●	● ●	● ●
Providing the key Interoperability enablers ABBs	● ●	● ●	● ●	● ●
Accelerating development cycle	● ●	○ ○	○ ○	● ●
Enabling cartographies	○ ●	○ ●	○ ●	○ ●
Promoting discovery/reusability	● ●	● ●	● ●	● ●
Supporting Portfolio Mgmt Decision Making	○ ●	○ ●	○ ●	○ ●
Supporting Public Policy formulation	○ ●	○ ●	○ ●	○ ●

ISA²

How the EIRA© & CarTool© support IoP in e-Government?

Key Interoperability enablers ABBs

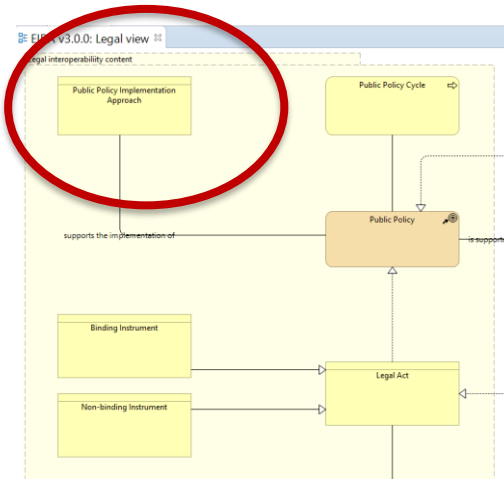


How EIRA supports IOP in e-Government? LOST IOP support

"Public Policy Implementation Approach ABB is influenced by the regulatory state and the delegation of powers"

Example: Focus on the public policy implementation approach of a national PA including references to TOGAF v 9.1

PUB POLICY IMPL REGULATORY STATE	TOP/CENTRALISED PUBLIC POLICY IMPL	DOWN/DELEGATED DELEGATION OF POWERS
STRONGLY/ LOW LEVEL REGULATED	**THE CONTROLLED SCENARIO** FOCUS ON SEMANTIC INTEROPERABILITY (i.e. data architecture, base registries)	**THE NORMATIVE SCENARIO** FOCUS ON TECHNOLOGY INTEROPERABILITY (i.e. interoperability specifications)
SOFTLY/HIGHL LEVEL REGULATED	**THE FEDERATED SCENARIO** FOCUS ON ORGANIZATIONAL INTEROPERABILITY (i.e. interoperability governance)	**THE SUBSIDIARITY SCENARIO** FOCUS ON LEGAL INTEROPERABILITY (i.e. interoperability frameworks, interoperability reference architecture)



Do you have an understanding of EIRA© and its benefits?

Do you understand the use of the CarTool©?

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AGENDA

- Potential use cases
- Use case design solution architecture
- Next steps
- Proposed approach for the technical work on the use case in scope

Potential use cases

European Commission

User's Needs

Use Cases

- Design Solution architectures (*HL-SAT*)
- Document interoperability solutions
- Compare solution architectures

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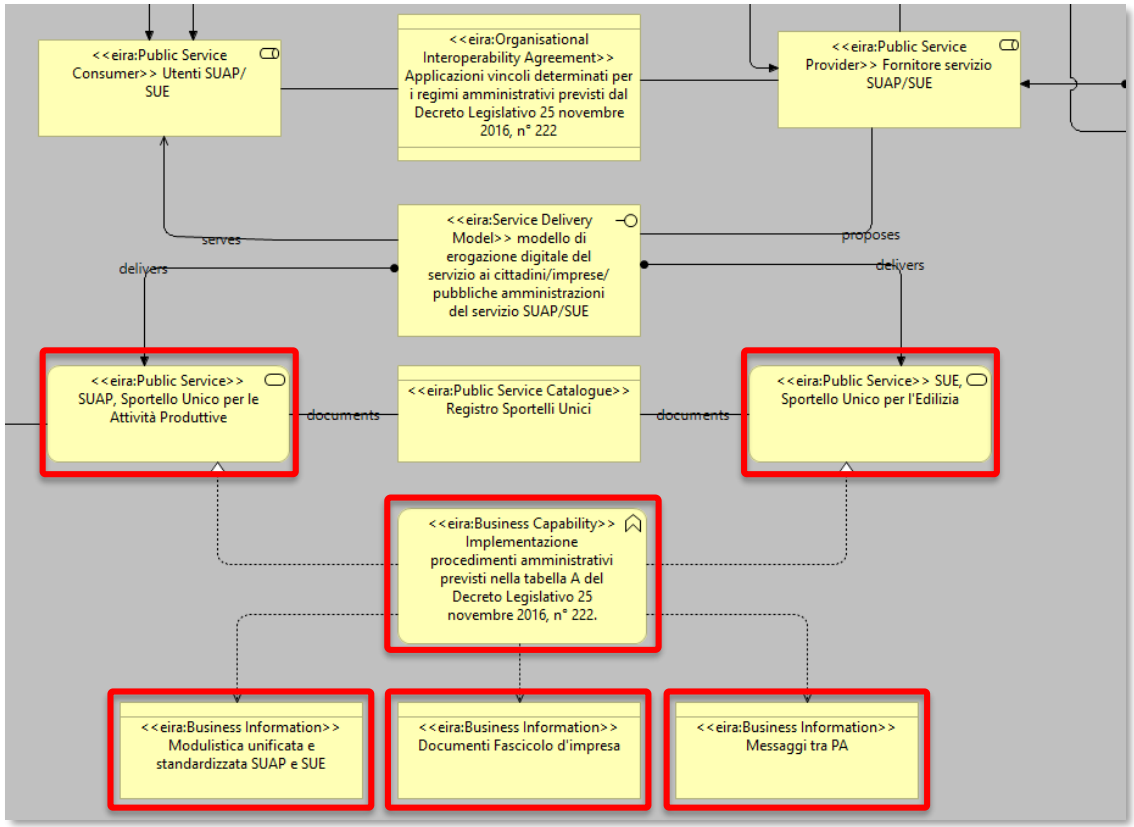
Use case design solution architecture

Example of AgID SUAP/SUE

European Commission

- **Objective:** Design Detail-Level interoperability requirements of a target solution supporting a/one public service
- **Unit of Analysis:** Public Service
- **Output:** identification of the interoperability requirements for the evolution the target solution supporting Public Service;



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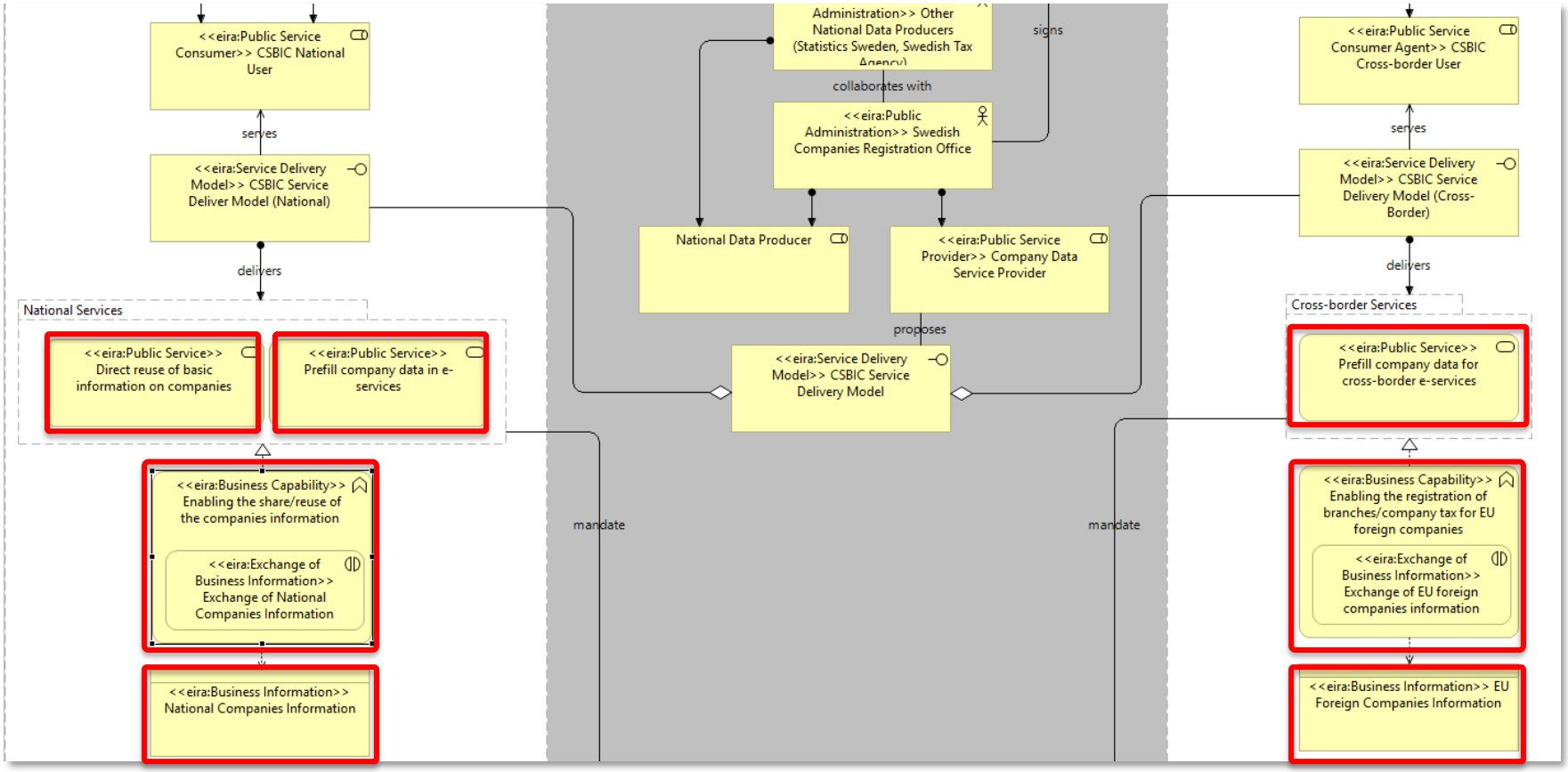
Use case document interoperability solutions

Example of DIGG CSBIC

European Commission

- **Objective:** Document/model the architecture of an existing solution with the objective to identify interoperability gaps at legal, organisational, semantic and technical levels
- **Unit of Analysis:** Public Service
- **Output:** identification of potential interoperability gaps of the existing solution



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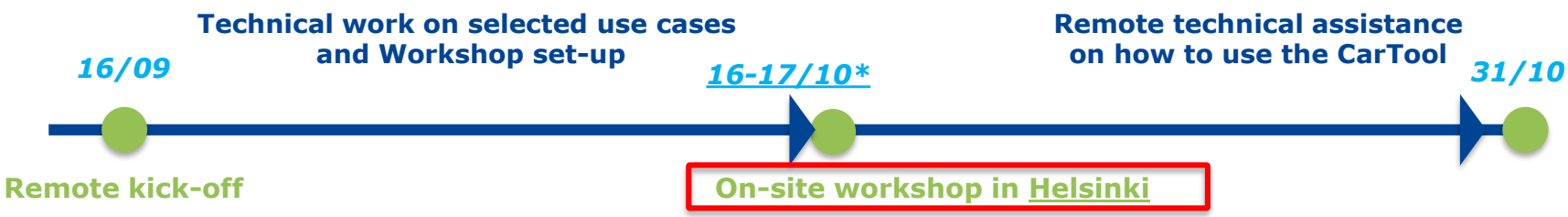
Next steps



- **Output:**
  - *Post workshop report (Archi models and recommendations)*
  - *Gathering of the feedback (will be tracked on JIRA)*

(*) (workshop duration: one day and a half).

Proposed approach for the technical work

Milestone	Activity	Notes
after 16/09	Provisioning of *upfront documentation*, related to the use case in scope, to help us support the technical work	*We used to receive info in English and starts working requesting clarifications by email.*
23-24/09 *(tentative date)*	Mapping of the *Architecture Building Blocks* related to the Legal and Organisational views of the EIRA	*We used to start identifying and tracking all the relevant "architectural building blocks" through an Excel file and then jointly discussing and consolidating it through remote sessions (via Webex, Skype, etc.).* *Tools: Excel*
30/09 – 01/10 *(tentative date)*	Mapping of the *Architecture Building Blocks* related to the Semantic and Technical view of the EIRA	*We used to start identifying and tracking all the relevant "architectural building blocks" through an Excel file and then discussing and consolidating it through remote sessions (via Webex, Skype, etc.).* *Tools: Excel*
7-8/10 *(tentative date)*	Modelling of the identified *Architecture Building Blocks*, using an ARCHI model through the CarTool.	*We used to draft the identified Architecture Building Blocks using an Archi model through the CarTool and then then jointly discussing and consolidating it through remote sessions (via Webex, Skype, etc.).* *Tools: CarTool v3.0.0*
16-17/10	1,5 days' workshop of Illustration of the main achievements.	• *Interactive session: proactive participation of your domain-experts to work with us on the pilot;* • *Consolidation of the model with the experts.* *Tools: Workshop*

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Is the way of collaboration (kick-off, workshop, final presentation) acceptable?

Do we agree on the expected outcome and deliverables?

Questions?

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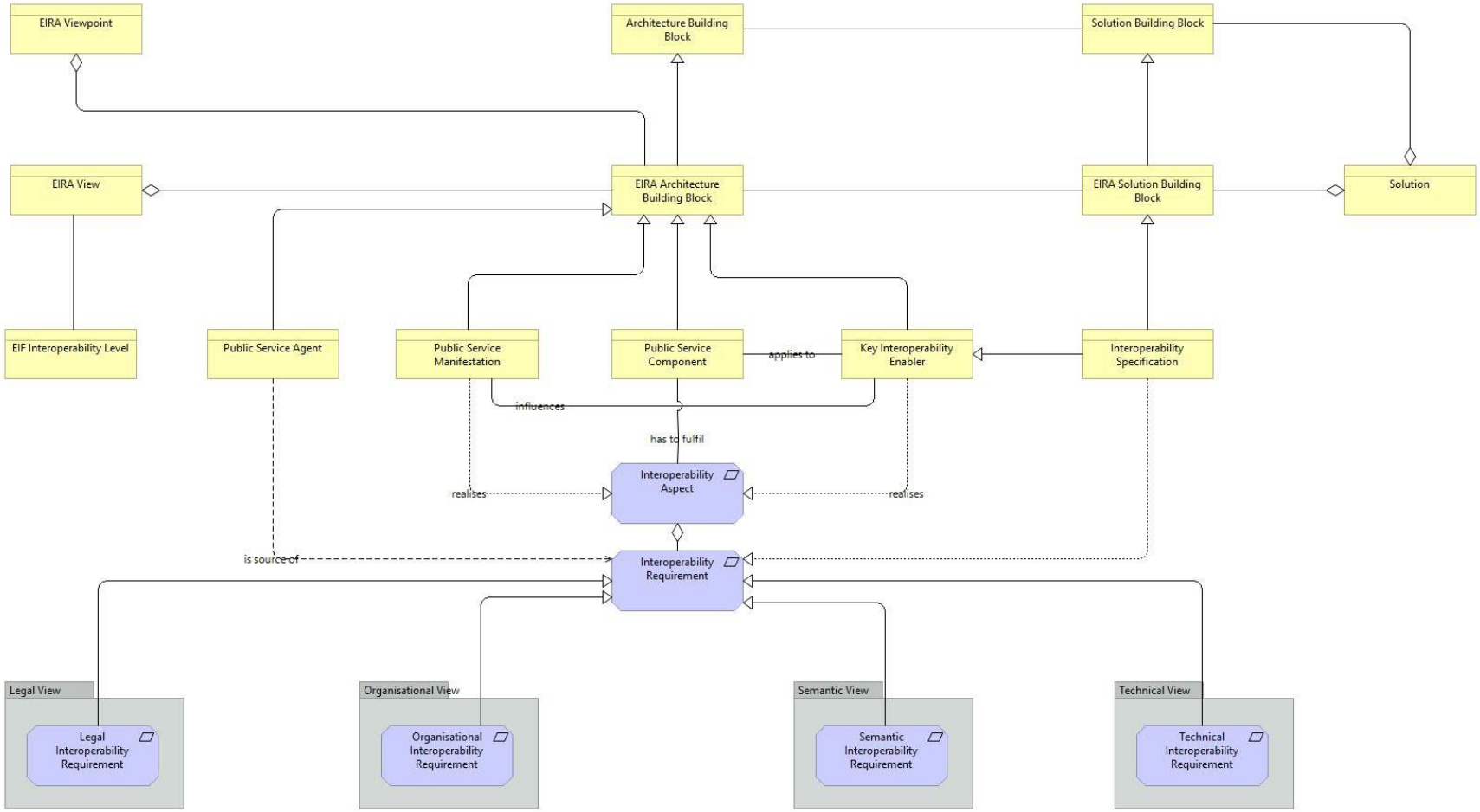
EIRA Metamodel