Update and Validation of EIRA

European Interoperability Architecture (EIA) action of ISA

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Project Owner	*Margarida Abecasis*
Project Manager	*Raul-Mario Abril-Jiminez*
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Raul-Mario Abril-Jimenez	*Project Officer*		

Document History

Revision	Date	Created by	Short description of the change
V0.01	*04/04/2014*	*Deloitte Consulting CVBA*	*Draft version sent for review*
v1.02	*04/04/2014*	*Deloitte Consulting CVBA*	*Revised version sent for review, including comments of Project Officer*
v2.00	*19/05/2014*	*Deloitte Consulting CVBA*	*Beta version of the EIRA, including the feedback received from the ISA WG meeting*
v2.10	*20/05/2014*	*Deloitte Consulting CVBA*	*Added the generic narratives and the entry and exit building block matrix*
v2.11	*26/05/2014*	*Deloitte Consulting CVBA*	*Added Key take-away messages of the EIRA*
v3.00	*28/05/2014*	*Deloitte Consulting CVBA*	*Revised version implementing comments of HoU*
v3.01	*04/06/2014*	*Deloitte Consulting CVBA*	*Final version*

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Key take-away messages of the EIRA

Key take-away messages of the EIRA

- The European Interoperability Reference Architecture (EIRA) is an application of Enterprise Architecture with a focus on **interoperability in the public sector.**
- The European Interoperability Reference Architecture is based on the **Service Oriented Architecture** style and uses the **Archimate** modelling notation.
- EIRA implements the **European Interoperability Framework** (EIF). There is a full alignment between the EIRA and the EIF.
- Each view of the European Interoperability Reference Architecture is defined in terms of the **interoperability aspects** that are supported.
- Views of the European Interoperability Reference Architecture are linked through designated **entry and exit building blocks** following a layered approach.
- The ambition of the EIRA is to provide **real value to the European public administration**, both at the Member States level as to the European Institutions level. The EIRA is developed in collaboration with the Member States.

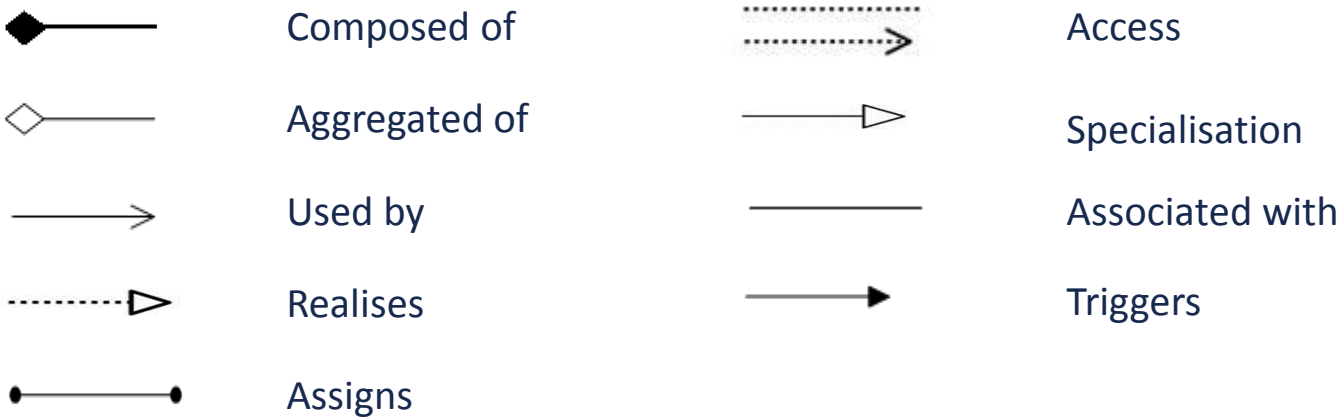
European Interoperability Reference Architecture

Notation used in the EIRA

Building block colours

active structure element	An active structure element is defined as an entity that is capable of performing behaviour.
behaviour element	A behaviour element is defined as a unit of activity performed by one or more active structure elements.
passive structure element	A passive structure element is defined as an object on which behaviour is performed.

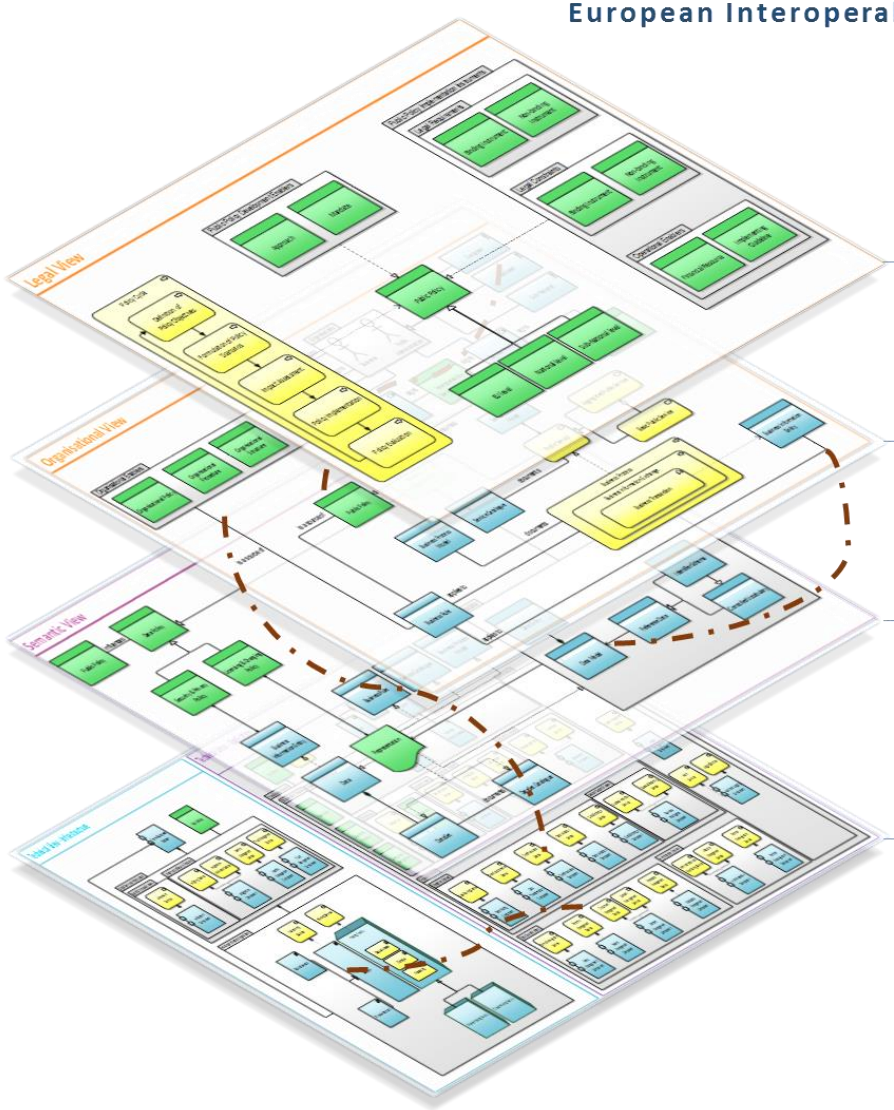
Relationships between building blocks



European Interoperability Reference Architecture

European Commission

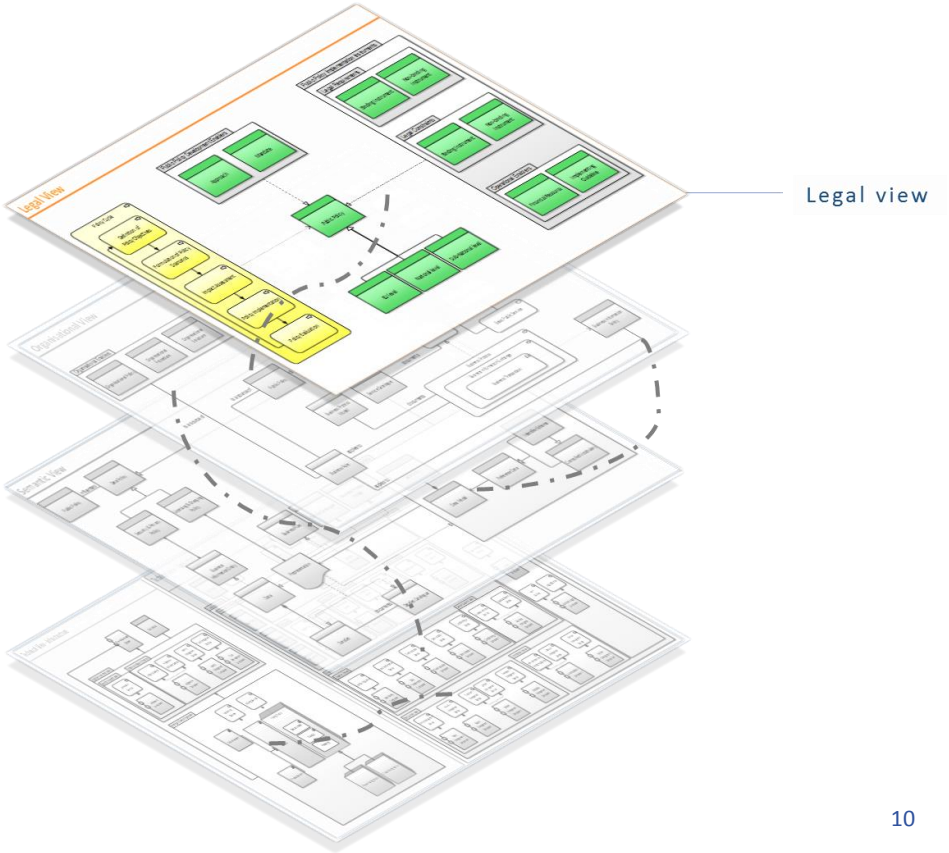
European Interoperability Reference Architecture



Legal view

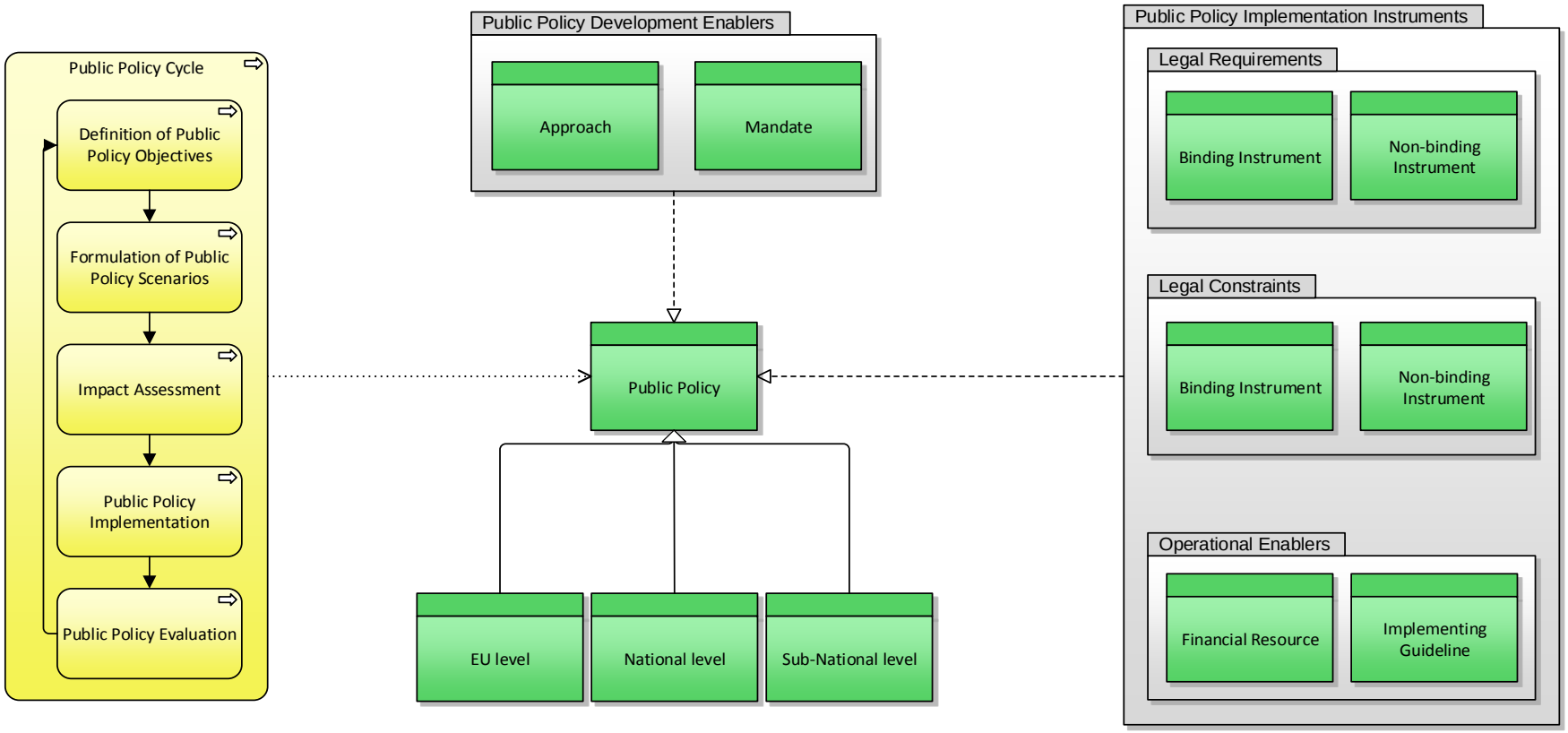
- The Legal view models the most salient public policy development enablers and implementation instruments that shall be considered in order to support legal interoperability in the public policy cycle.

Entry points	• *'policy cycle'* from *political context*
Exit points	• '*public policy*' to '*Organisational view', 'semantic view', 'technical view – application', and 'technical view – infrastructure'*



Legal view

Legal View



Narrative of the Legal view

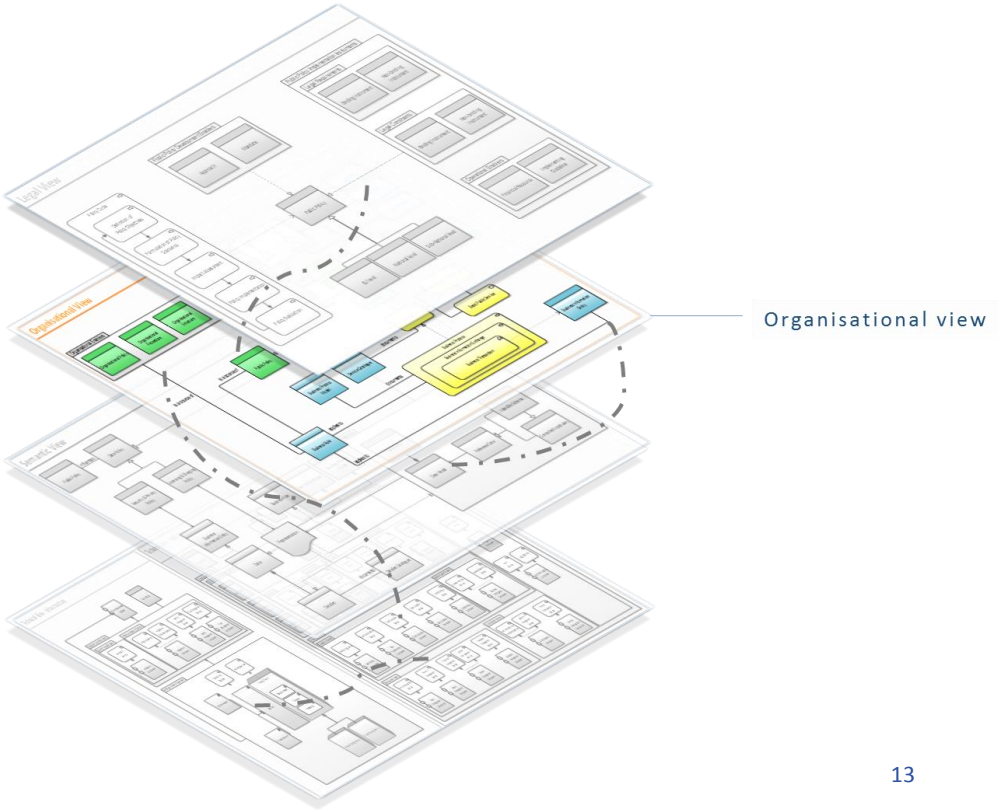
A [public policy], at [EU level, National level or Sub-national level], is the outcome of a specific public policy cycle, that aims at addressing the needs of a / a group of stakeholders. The public policy cycle consists of the following subsequent steps: [Definition of Public Policy Objectives], [Formulation of Public Policy Scenarios], [Impact Assessment], [Public Policy Implementation], [Public Policy Evaluation].

The public policy is developed taking into account public policy development enablers, which include a specific [Approach] (centralised/decentralised) and a [Mandate]. The policy is implemented through policy instruments, which can be [binding / non-binding] [legal requirements or constraints], or operational enablers, in the form of [financial resources] and [implementing guidelines].

Organisational view

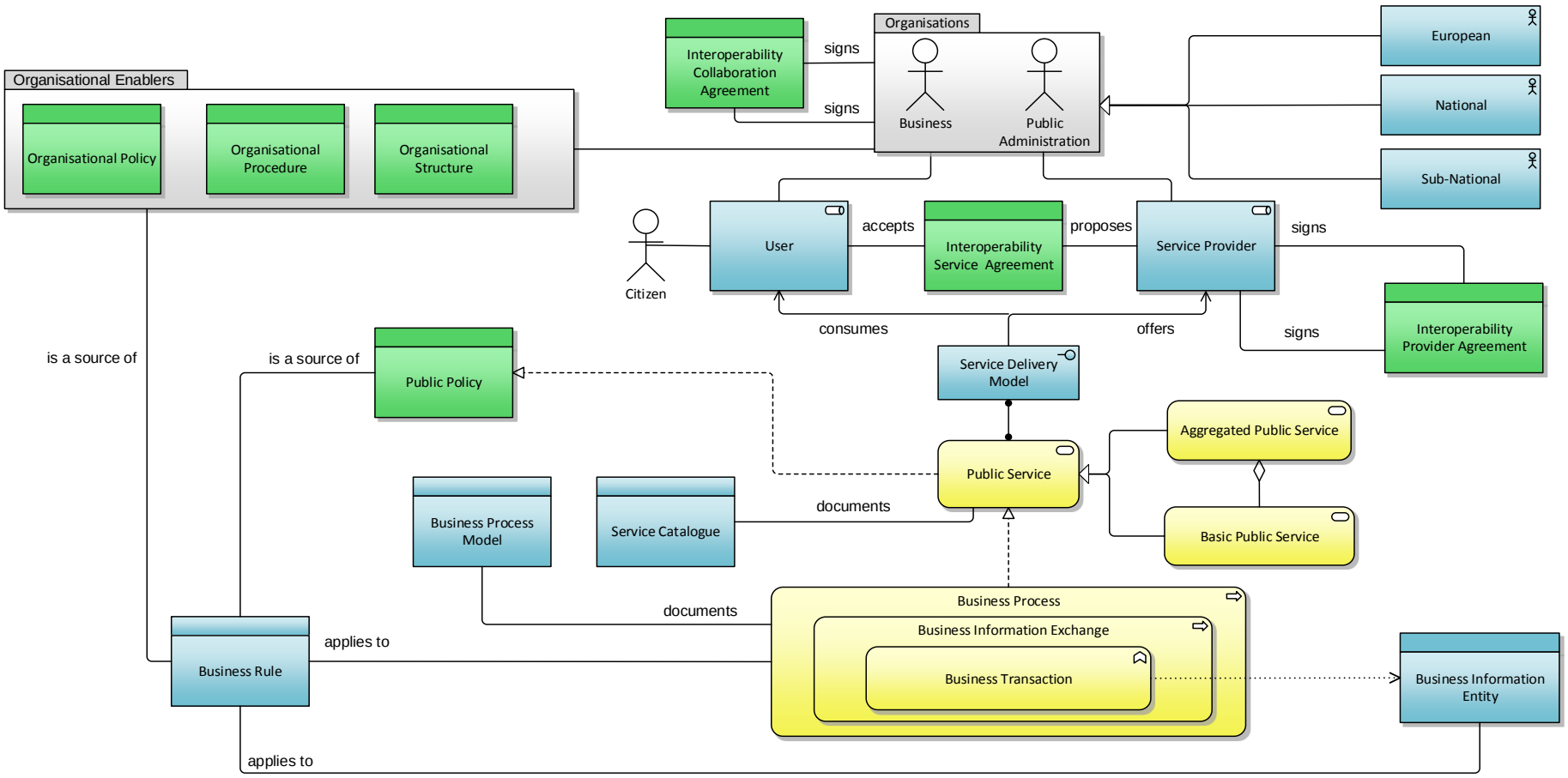
- The Organisational view models the most salient building blocks that shall be considered in order to support organisational interoperability among providers and users of a public service.

Entry points	• *'public policy'* from *'legal view'*
Exit points	• '*business information entity*' to *'semantic view'* • '*business rule*' to *'semantic view'* • '*service catalogue*' to '*semantic view'* • '*business process model*' to *'semantic view'* • *'public service'* to *'technical view – application'*



Organisational view

Organisational View



Narrative of the Organisational view

[Organisations] on [EU / national / sub-national level] in the role of Service Providers supply [Public Services] of the [Service Catalogue] to [Public Administrations] and/or [Businesses] and/or [Citizens] in the role of Users according to a [Service Delivery Model]. Organisations which are collaborating on interoperability projects or assignments, can sign an [Interoperability Collaboration Agreement]. With the aim of delivering the public service, the service provider proposes and the user accepts an [interoperability service agreement]. [Service providers] can sign an [Interoperability supplier agreement] to agree on how to deliver a service to their users.

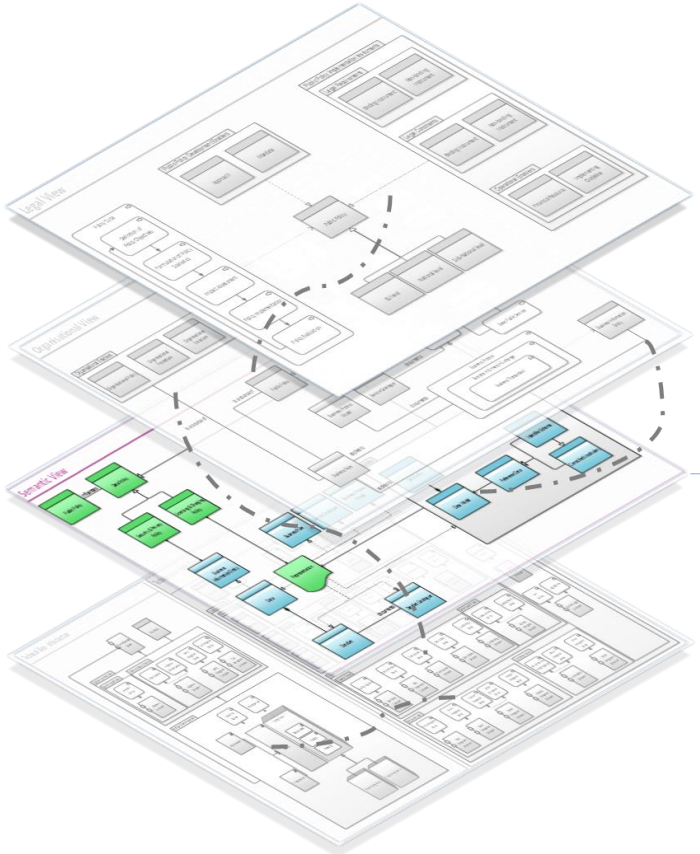
The delivery of these services is realised through [Business Processes] following a [Business Process Model]. Business processes contain [Business Information exchange], which enclose [Business Transactions] of defined [Business Information Entities].

Business processes and business information entities are subject to [Business Rules] originating from the [public policy] and [Organisational Policies] which echo [Organisational Structures] and [Organisational procedure] of the [Organisations] involved.

Semantic view

- The Semantic view models the most salient building blocks that shall be considered in order to support semantic interoperability of business information entities processed by an IES.

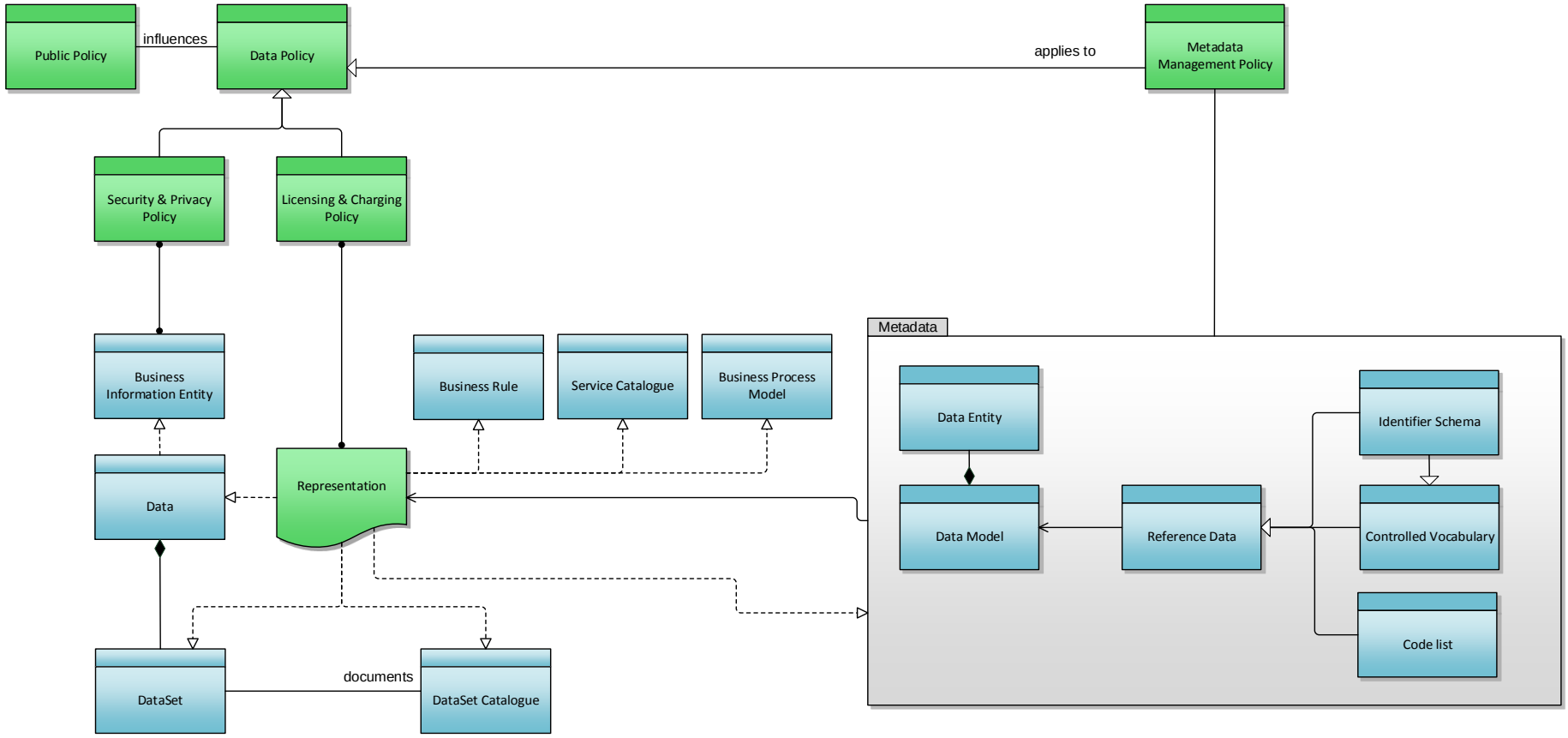
Entry points	• *'public policy'* from *'legal view'* • *'business information entity'* from *'organisational view'* • *'business rule'* from *'organisational view'* • *'service catalogue'* from *'organisational view'* • *'business process model'* from *'organisational view'*
Exit points	• *'data'* to *'technical view – application'*



Semantic view

European Commission

Semantic View



Narrative of the Semantic view

[Data], which is grouped in [data sets] and documented in the [data set catalogue], is represented using a specific [representation] format. [Business rule], [service catalogue] and [business process model] are also subject to a representation.

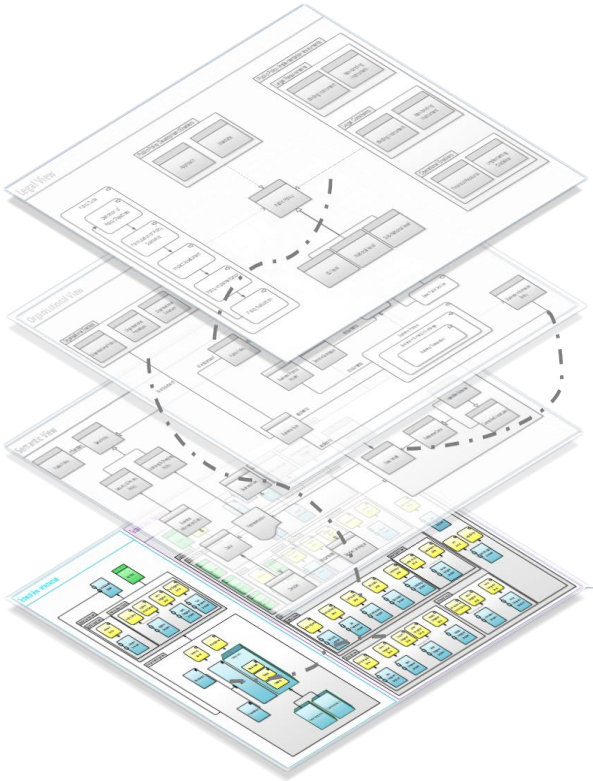
[Metadata], composed of [Data models] and [Reference data], provide the structure for a [representation]. The reference data include [Identifier Schemas], [Controlled Vocabularies], and/or [Code lists].

Data is classified according to a [Security & Privacy Policy]. A [Licensing & Charging Policy] can be [applied / not applied], which can depend on the specific representation of data. [Metadata] are managed through a specific [metadata management policy].

Technical view – Application

- The Technical view - Application models the most salient policy-specific application building blocks that need to be considered in order to support technical interoperability when building an Interoperable European System (IES). An IES can support one or several policies.

Entry points	• *'public policy'* from *'legal view'* • *'public service'* from *'organisational view'* • *'data'* from *'semantic view'*
Exit points	• *'Interoperable European System'* to *'technical view – infrastructure'*



Technical view – Application

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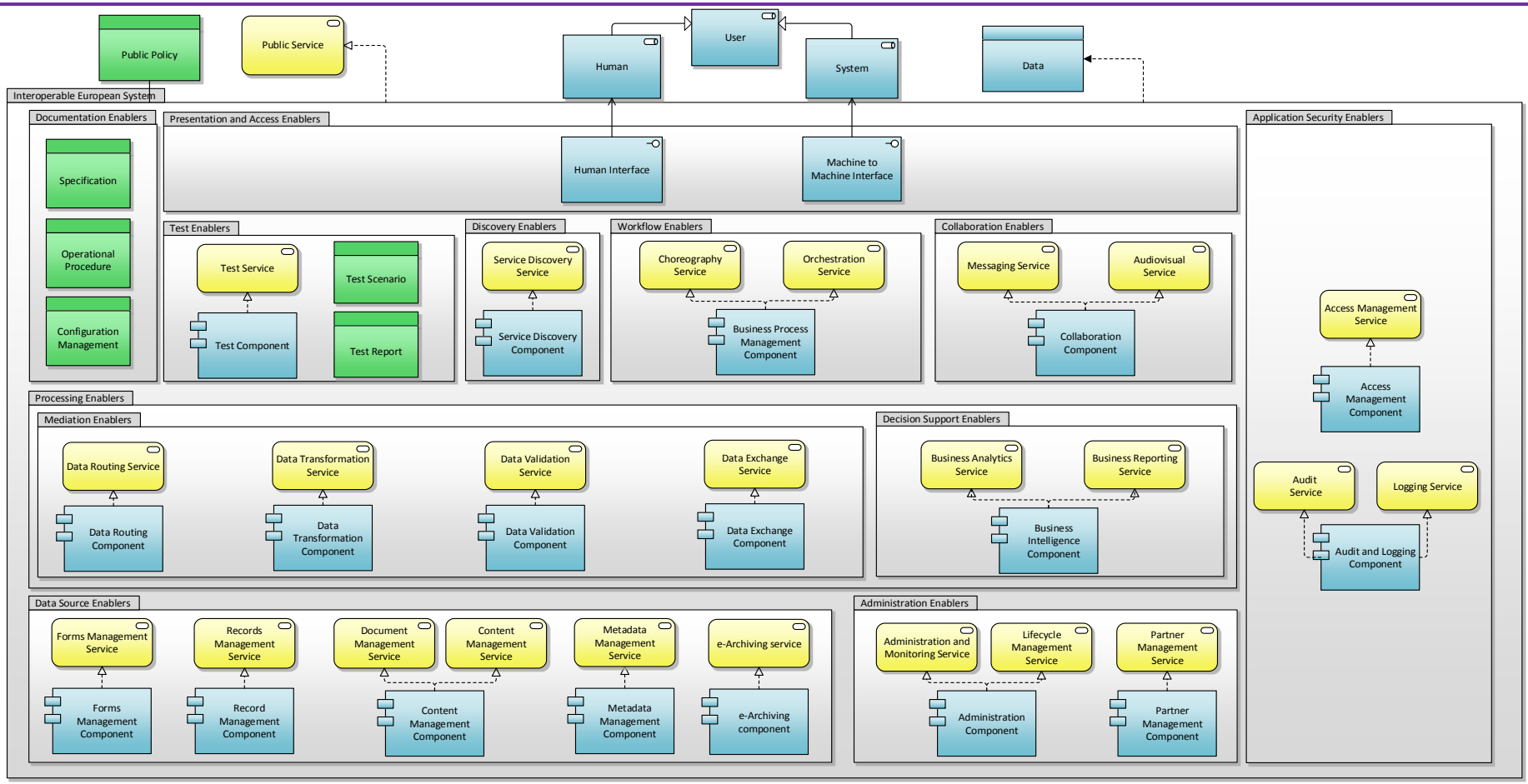
Technical View - Application



Narrative of the Technical view – Application

[Interoperable European Systems (IESs)] implement [Public Services] and are supporting one or multiple [Public Policies]. They can be accessed by [Users], which can be [humans] or [systems], through [Presentation and Access enablers]. The IES is documented through [documentation enablers] and is tested through the use of [test enablers].

An IES provides access to data through [data source enablers]. Information can be exchanged, cross-border and cross-sector, with the support of [mediation enablers], or can be processed to make informed decisions with the help of [decision support enablers].

IESs can execute complex business processes through [workflow enablers] and can support interaction among humans through [collaboration enablers]. The information related to the services provided by an IES can be discovered by users or systems through the [discovery enablers].

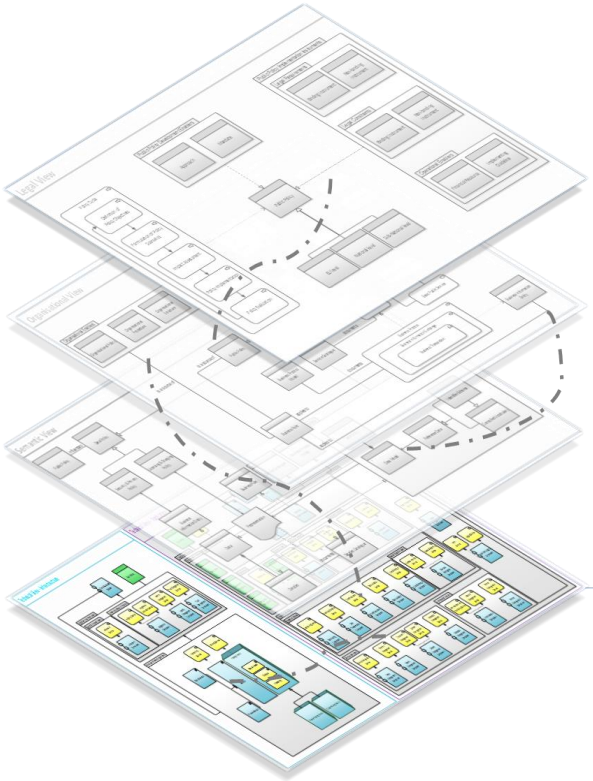
Access control and data security are managed through the services offered by [application security enablers], involving [access management components] and [audit and logging components].

The administration and operational management of an IES system is performed through [administration enablers].

Technical view – Infrastructure

- The Technical view - Infrastructure models the most salient infrastructure services that shall be considered in order to support technical interoperability when building an IES.
- Infrastructure building blocks are any type of building blocks providing cross-policy services or functionalities.

Entry points	• *'Interoperable European System'* from *'technical view – application'*
Exit points	/



Technical view
Application and Infrastructure

Technical view – Infrastructure

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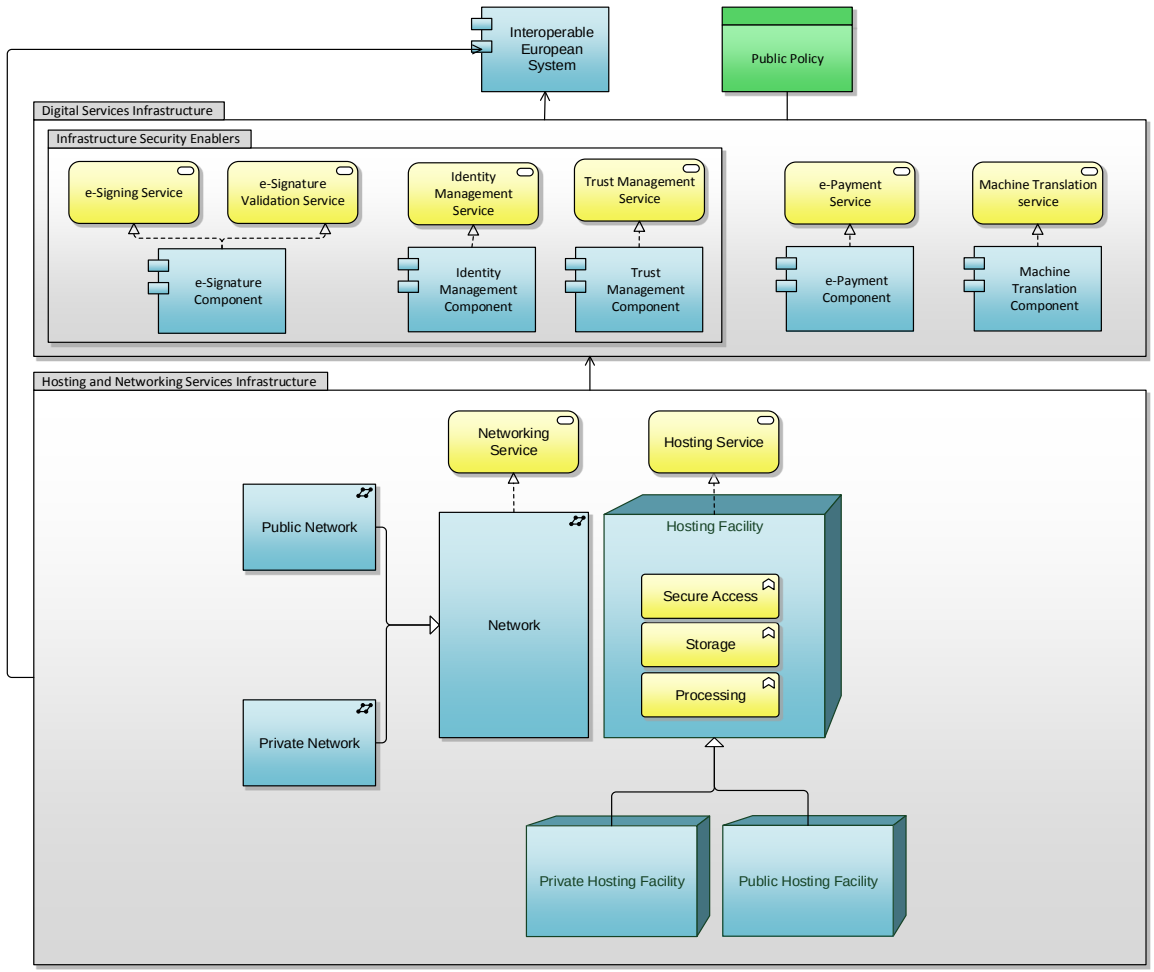
Technical View - Infrastructure



Narrative of the Technical view – Infrastructure

The [Interoperable European Systems] and its application components make use of cross-sectorial [digital services infrastructures], such as [infrastructure security enablers], [e-payment services], and [machine translation services]. The Interoperable European Systems and the digital services infrastructures are deployed and operated through [hosting and networking services infrastructures], provided by a [public / private hosting facility], and make use of a [public / private network] to exchange data.

Context view

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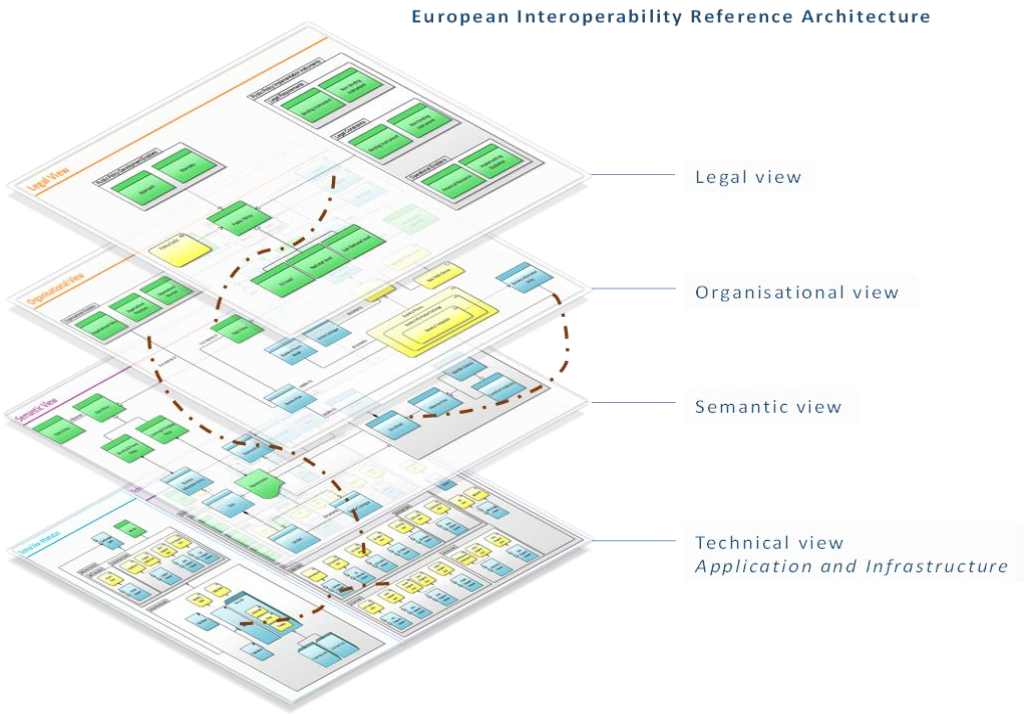
Context View

Information System Development Reference Architecture

National Reference Architecture

Other Reference Architectures



Summary of the entry/exit points between the views

- The number indicated in the cells of the table represents the number of entry building block(s), belonging to the “origin” view, that are included in the “destination” view;
- The sum of the numbers in a row indicates the number of exit building blocks in the corresponding “origin” view.

		DESTINATION				
		Legal view	Organisational view	Semantic view	Technical view - application	Technical view - infrastructure
ORIGIN	Legal view		1	1	1	1
	Organisational view	-		4	1	-
	Semantic view	-	-		1	-
	Technical view - application	-	-	-		1
	Technical view - infrastructure	-	-	-	-	

Contact us

Raul Abril Project officer

Raul-Mario.ABRIL-JIMENEZ@ec.europa.eu

For more information

EIA project collaborative space	https://webgate.ec.europa.eu/CITnet/confluence/display/EIA/EIA+Home
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