

# EIRA v3.1.0

Release notes



**EIRA**

EUROPEAN  
INTEROPERABILITY  
REFERENCE  
ARCHITECTURE

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## 1 INTRODUCTION

### 1.1 Purpose of this document

This document contains the description of the release version 3.1.0 of the EIRA.

EIRA is an architecture content metamodel defining the most salient architectural building blocks (ABBs) needed to build interoperable e-Government systems (Decoupled functionalities).

### 1.2 Release date

This version of the EIRA has been released on the 24<sup>th</sup> of July 2020 in [Joinup](#).

### 1.3 Description

EIRA v3.0.0 was released on the 23<sup>rd</sup> of March 2019 after which the EIRA has been tested by writing Solution Architecture Templates and by modelling solutions at Member States. About one year later, version 3.1.0 of the EIRA has been released, containing upgrades related to the definition of its interoperability viewpoints, ABBs and related examples. The content of the release has been developed through an agile project management approach. Tickets from EC internal and external stakeholders have been analysed in order to address their feedback and requirements.

### 1.4 List of acronyms used in this document

Table 1-1

ABB	Architectural Building Block
EC	European Commission
EIRA	European Interoperability Reference Architecture.
IoP	Interoperability
SKOS	Simple Knowledge Organization System

## 2 RELEASE COMPONENTS

The EIRA consists of the following release components

### 2.1 [EIRA v3 1 0 ArchiMate.xml](#)

The Open Group ArchiMate Exchange File Format, containing the model.

Modification	Details
Version 3.1.0	
ABBs definition update	All the ABBs definitions have been reviewed, new ABBs have been created and obsolete ABBs have been deprecated based on the feedback received by EC internal and external stakeholders through an agile project management approach.
ArchiMate notation (v3.1.0)	Update of the EIRA to the new version of the ArchiMate notation (v3.1.0)
Introduction of the multidimensional nature of interoperability	Introduction of the multidimensional nature of interoperability involving structural interoperability, behavioural interoperability and governance Interoperability. Each ABB has been mapped with one or more interoperability dimension.
Update of the key interoperability viewpoint	Update of the key interoperability viewpoint introducing four key concepts "Shared Legal Framework", "Shared Governance Framework", "Shared Knowledge Base" and "Shared Platform", which enable the achievement of structural, behavioural and governance interoperability.
Version 3.0.0	
ABBs definition update	All the ABBs definitions have been reviewed in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach. A section referring the interoperability saliency has been introduced in order to state the ABBs interoperability relevance for EU integrated public services. EIF is the fundamental framework on which has been developed ABBs interoperability saliency.
EIRA viewpoints update	EIRA viewpoints have been updated in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach.
Introduction of new viewpoints: EIRA Metamodel viewpoint and Interoperability Privacy viewpoint	New viewpoints have been added to match the "EIRA Metamodel viewpoint" as it is provided in the New European Interoperability Framework and to match the "Interoperability GDPR viewpoint" as it is stated in the "EU General Data Protection Regulation (GDPR)".

## EIRA version 3.1.0 release notes

Modification	Details
Examples	ABB examples have been reviewed. In particular, obsolete examples have been replaced with up-to-date ones.
Version 2.1.0	
ABBs definitions Update	All the ABBs definitions have been reviewed and now include a synonym to the ABB name and an example of an existing Solution Building Block specializing this ABB.
Introduction of a new viewpoint: Conceptual Model for Integrated Service Provisioning	A new viewpoint has been added to match the "Conceptual Model for Integrated Service Provisioning" as it is provided in the New European Interoperability Framework.
Examples	Architecture Building Blocks have received examples to guide the user in the type of implementation that can be imagined for these building blocks.
Version 2.0.0	
ArchiMate® 3 upgrade	EIRA© v1.2.2 was aligned with ArchiMate® 2.1, EIRA© v2.0.0 is aligned with ArchiMate® 3.0
Alignment with the new version of the EIF (the New European Interoperability Framework)	<p>Introduction of new viewpoints to align with the cross-cutting concerns that are introduced in the new version of the "European Interoperability Framework (EIF):</p> <ul style="list-style-type: none"> <li>• "Interoperability Governance viewpoint"</li> <li>• "Integrated Public Service Governance"</li> <li>• "Security and privacy viewpoint"</li> </ul> <p>Introduction of a new view:</p> <ul style="list-style-type: none"> <li>• "EIF Underlying Principles"</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Organisational Interoperability Enablers" on the "Organisational View":</p> <ul style="list-style-type: none"> <li>• "Security Policy"</li> <li>• "Security Framework" (as specialisation of "Security Policy")</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Data" on the "Semantic View":</p> <ul style="list-style-type: none"> <li>• Open Data</li> </ul> <p>Base Registry (as specialisation of "Master Data")</p>
Better use of in Interoperability Specifications	<ul style="list-style-type: none"> <li>• Each view has a grouping to which Interoperability Specifications have been attached, indicating that any Architecture Building Block can be associated with any Interoperability Specification.</li> <li>• The "Data standards" ABB on the "Semantics view" has been removed as parent ABB, the implementing ABBs have been recognised as ABBs specialising the Semantic Interoperability Specifications ABB.</li> </ul>

## EIRA version 3.1.0 release notes

Modification	Details
	<ul style="list-style-type: none"> <li>• The "Interoperability Specification Underpinning view" has become a viewpoint with some adaptations to support these changes.</li> <li>• The "Technical Interoperability Specification" is no longer attached to the "Service Registry Component" in the "Technical view – infrastructure", but associated to the entire "Digital Service Infrastructure", via its more generic parent class "Interoperability Specification".</li> </ul>
Simplification of the Legal View	Simplification of the "Public Policy Cycle", the internals have been removed in order to remove the process restrictions that were implicitly present. The "Public Policy Development Enabler" has been removed.
Descriptions of all the ABBs have been revised	References have been verified and updated where possible
Minor changes	<ul style="list-style-type: none"> <li>• Change of the ArchiMate® icon of representation.</li> <li>• The High-level overview has become a viewpoint.</li> <li>• The "Hosting and Networking Infrastructure" has been implemented as grouping for the different attached services.</li> <li>• Introduction of a "Service Discovery Component" on the "Technical view – application".</li> </ul>
Version 1.1.0	
Added IoP spec attributes	The Interoperable European Solution building block now includes attributes to record the interoperability assessment results.
Added GovIS 2 ID attribute	The Interoperable European Solution building block now includes the GovIS2 ID as an attribute for EC solutions. Govis2 is an internal EC portfolio management solution.
Changed relation between Public Policy Formulation and Implementation Instrument	The relation is now : "is realised by"
Completed documentation of "assign" relations	
Added TES attributes	All building blocks are updated to define the attributes used by the data collection and analysis activities of the ISA TES Action (2.14).

## EIRA version 3.1.0 release notes

Modification	Details
Additional relationship in the semantic view	[Data policy] influences [Data]
All services in the technical view are now considered application services	
All components in the technical view are now considered DSI components	
Version 1.0.0	

### 2.2 [EIRA v3 1 0 ArchiMate.archimate](#)

The 'Archi' version of the model.

**Table 2-1**

Modification	Details
Version 3.1.0	
ABBs definition update	All the ABBs definitions have been reviewed, new ABBs have been created and obsolete ABBs have been deprecated based on the feedback received by EC internal and external stakeholders through an agile project management approach.
ArchiMate notation (v3.1.0)	Update of the EIRA to the new version of the ArchiMate notation (v3.1.0)
Introduction of the multidimensional nature of interoperability	Introduction of the multidimensional nature of interoperability involving structural interoperability, behavioural interoperability and governance Interoperability. Each ABB has been mapped with one or more interoperability dimension.
Update of the key interoperability viewpoint	Update of the key interoperability viewpoint introducing four key concepts "Shared Legal Framework", "Shared Governance Framework", "Shared Knowledge Base" and "Shared Platform", which enable the achievement of structural, behavioural and governance interoperability.
Version 3.0.0	
ABBs definition update	All the ABBs definitions have been reviewed in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach. A section referring the interoperability saliency has been introduced in order to state the ABBs interoperability relevance for EU integrated public services. EIF is the fundamental framework on which has been developed ABBs interoperability saliency.



## EIRA version 3.1.0 release notes

Modification	Details
EIRA viewpoints update	EIRA viewpoints have been updated in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach.
Introduction of new viewpoints: EIRA Metamodel viewpoint and Interoperability Privacy viewpoint	New viewpoints have been added to match the "EIRA Metamodel viewpoint" as it is provided in the New European Interoperability Framework and to match the "Interoperability GDPR viewpoint" as it is stated in the "EU General Data Protection Regulation (GDPR)".
Examples	ABB examples have been reviewed. In particular, obsolete examples have been replaced with up-to-date ones.
Version 2.1.0	
ABBs definition update	All the ABBs definitions have been reviewed and now include a synonym to the ABB name and an example of an existing Solution Building Block specializing this ABB.
Introduction of a new viewpoint: Conceptual Model for Integrated Service Provisioning	A new viewpoint has been added to match the "Conceptual Model for Integrated Service Provisioning" as it is provided in the New European Interoperability Framework.
Examples	Architecture Building Blocks have received examples to guide the user in the type of implementation that can be imagined for these building blocks.
Version 2.0.0	
ArchiMate® 3 upgrade	EIRA© v1.2.2 was aligned with ArchiMate® 2.1, EIRA© v2.0.0 is aligned with ArchiMate® 3.0
Alignment with the new version of the EIF (the New European Interoperability Framework)	<p>Introduction of new viewpoints to align with the cross-cutting concerns that are introduced in the new version of the "European Interoperability Framework (EIF):</p> <ul style="list-style-type: none"> <li>• "Interoperability Governance viewpoint"</li> <li>• "Integrated Public Service Governance"</li> <li>• "Security and privacy viewpoint"</li> </ul> <p>Introduction of a new view:</p> <ul style="list-style-type: none"> <li>• "EIF Underlying Principles"</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Organisational Interoperability Enablers" on the "Organisational View":</p> <ul style="list-style-type: none"> <li>• "Security Policy"</li> <li>• "Security Framework" (as specialisation of "Security Policy")</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Data" on the "Semantic View":</p> <ul style="list-style-type: none"> <li>• Open Data</li> </ul>

## EIRA version 3.1.0 release notes

Modification	Details
	Base Registry (as specialisation of "Master Data")
Better use of in Interoperability Specifications	<ul style="list-style-type: none"> <li>• Each view has a grouping to which Interoperability Specifications have been attached, indicating that any Architecture Building Block can be associated with any Interoperability Specification.</li> <li>• The "Data standards" ABB on the "Semantics view" has been removed as parent ABB, the implementing ABBs have been recognised as ABBs specialising the Semantic Interoperability Specifications ABB.</li> <li>• The "Interoperability Specification Underpinning view" has become a viewpoint with some adaptations to support these changes.</li> <li>• The "Technical Interoperability Specification" is no longer attached to the "Service Registry Component" in the "Technical view – infrastructure", but associated to the entire "Digital Service Infrastructure", via its more generic parent class "Interoperability Specification".</li> </ul>
Simplification of the Legal View	Simplification of the "Public Policy Cycle", the internals have been removed in order remove the process restrictions that were implicitly present. The "Public Policy Development Enabler" has been removed.
Descriptions of all the ABBs have been revised	References have been verified and updated where possible
Minor changes	<ul style="list-style-type: none"> <li>• Change of the ArchiMate® icon of representation.</li> <li>• The High-level overview has become a viewpoint.</li> <li>• The "Hosting and Networking Infrastructure" has been implemented as grouping for the different attached services.</li> <li>• Introduction of a "Service Discovery Component" on the "Technical view – application".</li> </ul>
Version 1.1.0	
Added IoP spec attributes	The Interoperable European Solution building block now includes attributes to record the interoperability assessment results.
Added GovIS 2 ID attribute	The Interoperable European Solution building block now includes the GovIS2 ID as an attribute for EC

## EIRA version 3.1.0 release notes

Modification	Details
	solutions. Govis2 is an internal EC portfolio management solution.
Changed relation between Public Policy Formulation and Implementation Instrument	The relation is now : "is realised by"
Completed documentation of "assign" relations	
Added TES attributes	All building blocks are updated to define the attributes used by the data collection and analysis activities of the ISA TES Action (2.14).
Additional relationship in the semantic view	[Data policy] influences [Data]
All services in the technical view are now considered application services	
All components in the technical view are now considered DSI components	
Version 1.0.0	

### 2.3 [EIRA\\_v3\\_1\\_0\\_ArchiMate.html.zip](#)

A compressed folder containing the web-version of the EIRA model.

**Table 2-2**

Modification	Details
Version 3.1.0	
ABBs definition update	All the ABBs definitions have been reviewed in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach. A section referring the interoperability saliency has been introduced in order to state the ABBs interoperability relevance for EU integrated public services. EIF is the fundamental framework on which has been developed ABBs interoperability saliency.
Archimate notation (v3.1.0)	Update of the EIRA to the new version of the Archimate notation (v3.1.0)
Version 3.0.0	
ABBs definition update	All the ABBs definitions have been reviewed in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach. A section referring the interoperability saliency has been introduced in order to state the ABBs interoperability relevance for EU integrated public

## EIRA version 3.1.0 release notes

Modification	Details
	services. EIF is the fundamental framework on which has been developed ABBs interoperability saliency.
Version 2.1.0	
ABBs definition update	All the ABBs definitions have been reviewed and now include a synonym to the ABB name and an example of an existing Solution Building Block specializing this ABB.
Version 2.0.0	
ArchiMate® 3 upgrade	EIRA© v1.2.2 was aligned with ArchiMate® 2.1, EIRA© v2.0.0 is aligned with ArchiMate® 3.0
Alignment with the new version of the EIF (the New European Interoperability Framework)	<p>Introduction of new viewpoints to align with the cross-cutting concerns that are introduced in the new version of the "European Interoperability Framework (EIF):</p> <ul style="list-style-type: none"> <li>• "Interoperability Governance viewpoint"</li> <li>• "Integrated Public Service Governance"</li> <li>• "Security and privacy viewpoint"</li> </ul> <p>Introduction of a new view:</p> <ul style="list-style-type: none"> <li>• "EIF Underlying Principles"</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Organisational Interoperability Enablers" on the "Organisational View":</p> <ul style="list-style-type: none"> <li>• "Security Policy"</li> <li>• "Security Framework" (as specialisation of "Security Policy")</li> </ul> <p>Introduction of new Architecture Building Blocks (ABBs), specialising "Data" on the "Semantic View":</p> <ul style="list-style-type: none"> <li>• Open Data</li> </ul> <p>Base Registry (as specialisation of "Master Data")</p>
Better use of in Interoperability Specifications	<ul style="list-style-type: none"> <li>• Each view has a grouping to which Interoperability Specifications have been attached, indicating that any Architecture Building Block can be associated with any Interoperability Specification.</li> <li>• The "Data standards" ABB on the "Semantics view" has been removed as parent ABB, the implementing ABBs have been recognised as ABBs specialising the Semantic Interoperability Specifications ABB.</li> <li>• The "Interoperability Specification Underpinning view" has become a viewpoint with some adaptations to support these changes.</li> <li>• The "Technical Interoperability Specification" is no longer attached to the "Service Registry</li> </ul>

## EIRA version 3.1.0 release notes

Modification	Details
	Component" in the "Technical view – infrastructure", but associated to the entire "Digital Service Infrastructure", via its more generic parent class "Interoperability Specification".
Simplification of the Legal View	Simplification of the "Public Policy Cycle", the internals have been removed in order remove the process restrictions that were implicitly present. The "Public Policy Development Enabler" has been removed.
Descriptions of all the ABBs have been revised	References have been verified and updated where possible
Minor changes	<ul style="list-style-type: none"> <li>• Change of the ArchiMate® icon of representation.</li> <li>• The High-level overview has become a viewpoint.</li> <li>• The "Hosting and Networking Infrastructure" has been implemented as grouping for the different attached services.</li> <li>• Introduction of a "Service Discovery Component" on the "Technical view – application".</li> </ul>
Version 1.1.0	
Added IoP spec attributes	The Interoperable European Solution building block now includes attributes to record the interoperability assessment results.
Added GovIS 2 ID attribute	The Interoperable European Solution building block now includes the GovIS2 ID as an attribute for EC solutions. Govis2 is an internal EC portfolio management solution.
Changed relation between Public Policy Formulation and Implementation Instrument	The relation is now : "is realised by"
Completed documentation of "assign" relations	
Added TES attributes	All building blocks are updated to define the attributes used by the data collection and analysis activities of the ISA TES Action (2.14).
Additional relationship in the semantic view	[Data policy] influences [Data]
All services in the technical view are now considered application services	
All components in the technical view are now considered DSI components	
Version 1.0.0	

## EIRA version 3.1.0 release notes

Modification	Details

### 2.4 [EIRA v3 1 0 Online documentation](#)

A Joinup page containing an introduction to the EIRA, including its key concepts, used ArchiMate notation, tool support and views.

Modification	Details
Version 3.1.0	
Migration to Joinup	The EIRA Overview document has been migrated from a PDF file to a Joinup page.
ABBs definition update	All the ABBs definitions have been reviewed, new ABBs have been created and obsolete ABBs have been deprecated based on the feedback received by EC internal and external stakeholders through an agile project management approach.
ArchiMate notation (v3.1.0)	Update of the EIRA to the new version of the ArchiMate notation (v3.1.0)
Introduction of the multidimensional nature of interoperability	Introduction of the multidimensional nature of interoperability involving structural interoperability, behavioural interoperability and governance Interoperability. Each ABB has been mapped with one or more interoperability dimension.
Update of the key interoperability viewpoint	Update of the key interoperability viewpoint introducing four key concepts "Shared Legal Framework", "Shared Governance Framework", "Shared Knowledge Base" and "Shared Platform", which enable the achievement of structural, behavioural and governance interoperability.
Version 3.0.0	
ABBs definition update	All the ABBs definitions have been reviewed in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach. A section referring the interoperability saliency has been introduced in order to state the ABBs interoperability relevance for EU integrated public services. EIF is the fundamental framework on which has been developed ABBs interoperability saliency.
EIRA Viewpoints update	EIRA viewpoints have been updated in relation to the feedback provided by EC internal and external stakeholders through an agile project management approach.
Introduction of new viewpoints: EIRA Metamodel viewpoint and Interoperability GDPR viewpoint	New viewpoints have been added to match the "EIRA Metamodel viewpoint" as it is provided in the New European Interoperability Framework and to match the "Interoperability GDPR viewpoint" as it is stated in the "EU General Data Protection Regulation (GDPR)".

## EIRA version 3.1.0 release notes

Examples	ABB examples have been reviewed. In particular, obsolete examples have been replaced with up-to-date ones.
Version 2.1.0	
ABBs definition update	All the ABBs definitions have been reviewed and now include a synonym to the ABB name and an example of an existing Solution Building Block specializing this ABB.
Version 2.0.0	
Alignment to EIRA v2.0.0	Added the new Views, Viewpoints with their descriptions.
Added additional ArchiMate© elements and their description	Addition of Goal, Assessment and Principle coming from the ArchiMate© motivation extension.
Additional section "How EIRA supports Interoperability in eGovernment"	
Version 1.1.0	
Readability improvements	Improvement of the readability in the Overview document by introducing minor phrasing changes throughout all sections in the document.
Improvement of EIRA background section 2.1	Refined the text of the requirements of interoperability coordination across borders and sectors.
Improvement of EIRA's expected benefits section 2.4	<p>Stronger link to the advantages of Enterprise Architecture principles and further elaboration of the EIRA's specific benefits.</p> <p>Highlighted how the development of more interoperable e-Government solutions requires consideration of interoperability on multiple levels and the transition to digital service delivery (Section 2.4.1).</p> <p>Provided more information on how cost-savings on portfolios can be made due to better assessment of solution portfolios by highlighting the importance of Interoperability Specifications (Section 2.4.2)</p> <p>Provided more information on how cost-savings can be increased through the reusability assessment of solutions (Section 2.4.3).</p>
Additional section (Section 2.6) on the application of the EIRA.	
Additional section (3.3.2) introducing the Cartography Tool.	

## EIRA version 3.1.0 release notes

Improvement of the Key Concepts of the EIRA (Section 3.1)	Provided more information to define what a reference architecture is in the context of the EIRA with a link to Enterprise Architecture.
Updated EIRA meta model	EIRA meta model updated in Key Concepts in EIRA (Section 3.1)
Version 1.0.0	

### 2.5 [EIRA v3 1 0 SKOS.rdf](#)

The EIRA as controlled vocabulary in SKOS format.

Modification	Details
Version 3.1.0	
Alignment with EIRA v3.1.0	
Version 3.0.0	
Alignment with EIRA v3.0.0	
Version 2.1.0	
Alignment with EIRA v2.1.0	
Version 2.0.0	
Alignment with EIRA v2.0.0	
Version 1.1.0	
Creation of the controlled vocabulary	
Version 1.0.0	

### 2.6 [ISA Product License v1.3.zip](#)

The license under which the EIRA is released.

Modification	Details
Version 1.3.0	
Replacement of specific ISA Product licenses by a generic license	
Version 1.2.0	
Typo "hereafter"	
"or later versions" replaced by "which replaces earlier versions"	
Version 1.1.0	
Typo "above" replaced by "below".	



## EIRA version 3.1.0 release notes

Version or ArchiMate explicitly mentioned (i.e. 2.1).	
Reference to citizens of the EU included.	
Version 1.0.0	

### 2.7 [Joinup](#)

The public web-page (<https://joinup.ec.europa.eu/asset/eia/description>) containing information on the EIRA.

Modification	Details
Version 1.1.0	
Version 1.0.0	

### 2.8 [EIRA v3 1 0 release.zip](#)

An archive containing each of the above mentioned files.

Modification	Details
Version 3.1.0	
Release package of all new components – EIRA v3.1.0	
Version 3.0.0	
Release package of all new components – EIRA v3.0.0	
Version 2.1.0	
Release package of all new components – EIRA v2.1.0	
Version 2.0.0	
Release package of all new components – EIRA v2.0.0	
Version 1.1.1	
Replacement of specific ISA Product licenses by a generic license	
Version 1.1.0	
Update version of components	
Add EIRA_v_1_1_0_SKOS.rdf	
Version 1.0.0	

