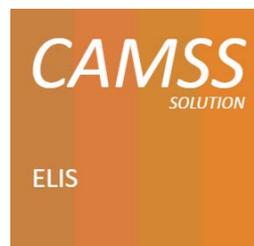


# **An introduction to the European Library of Interoperability Specifications (ELIS) v1.0.0 BETA**



## TABLE OF CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
<b>2</b>	<b>BACKGROUND .....</b>	<b>3</b>
<b>3</b>	<b>POPULATION PROCESS .....</b>	<b>3</b>
3.1	SELECTION .....	3
3.2	ASSOCIATION OF SPECIFICATIONS TO ABBs.....	5
<b>4</b>	<b>ELIS V1.0.0 BETA .....</b>	<b>6</b>
<b>5</b>	<b>REFERENCES .....</b>	<b>7</b>

## **1 INTRODUCTION**

The ELIS is a library containing the standards and specifications defining the interoperability aspects of the architectural building blocks (ABBs) contained in the European Interoperability Reference Architecture (EIRA). The aim of this library is supporting solutions architects when modelling using EIRA.

This document is an introduction document of the ELIS for its inclusion as an interoperability specification within the European Interoperability Cartography (EIC). It describes the ELIS by explaining the context in which it has been developed and the methodology followed for the inclusion of specifications in it. Additionally, it includes link to the ELIS v1.0.0 BETA release components.

## **2 BACKGROUND**

The ISA<sup>2</sup> programme of the European Commission supports the development of solutions that enable the cross-border delivery of interoperable public services in Europe. In order to ensure the interoperability of those services, the EIA action works as an integrator between the Member States and other departments of the European Commission for the development of a joint interoperability architecture for public services. The main output of this action is the European Interoperability Reference Architecture (EIRA<sup>©</sup>), which implements the European Interoperability Framework (EIF) in the Legal, Organisational, Semantic and Technical (LOST) views of interoperability.

EIRA introduces the concept of “interoperability specification” and defines it as “a document containing agreed normative statements for Solution Building Blocks used in an information exchange context. They can refer to existing standards or specifications”<sup>1</sup>.

As an element of the EIRA<sup>©</sup>, the ELIS provides a set of interoperability specifications that can be used to define the different interoperability requirements of European public services. The ELIS constitutes a tool for supporting architects on the process of modelling public services using EIRA, as it defines the interoperability requirements of the ABBs contained in it.

Additionally, it allows them, once implemented in a modelling tool, to work simultaneously with other local libraries, allowing the description of the interoperability of the building blocks of any other architecture with the specifications contained in the ELIS.

## **3 POPULATION PROCESS**

The process through which the ELIS was populated with specifications consisted of the following steps:

- Selection of specifications
- Association of the selected specifications with the corresponding EIRA ABBs
- Research for additional information required by the ELIS data model.

### **3.1 Selection**

Certain sources of specifications have been identified as reusable for the population of the ELIS. These sources are considered trusted sources of information, and therefore the specifications

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<sup>1</sup> [https://joinup.ec.europa.eu/sites/default/files/document/2017-01/how\\_does\\_eira\\_support\\_interoperability\\_v1\\_0\\_0.pdf](https://joinup.ec.europa.eu/sites/default/files/document/2017-01/how_does_eira_support_interoperability_v1_0_0.pdf)

extracted from them are considered sufficiently mature to be included in the European Library of Interoperability Specifications.

The table below lists the sources of specifications considered for the population of the ELIS:

Source	Description
Advice from experts	Experts in a domain covered by an EIRA ABB may be consulted for the provision of relevant specifications.
CAMSS List of standards	List of the specifications recommended by the member states. A specification recommended by 2 Member states is considered having sufficient interest for its inclusion in the ELIS. <sup>2</sup>
Cartool Library of Interoperability specifications (CLIS)	Previous version of the ELIS, the CLIS is a library of interoperability specifications used in the Cartool to support architects when modelling solutions.
CEF Technical specifications	The CEF building blocks offer basic capabilities that can be used in any European project to facilitate the delivery of digital public services across borders. <sup>3</sup> For each building block, there is a layer of technical specifications and standards that have to be complied with.
EIRA Solution Architecture Templates (SATs). <sup>4</sup>	A Solution Architecture Template (SAT) is a specification extending the EIRA© providing support to solution architects in a specific solution domain in the form of a template that can be used to design related solutions. A SAT contains the following elements: <ul style="list-style-type: none"> <li>- A motivation in the form of principles and requirements.</li> <li>- A goal and a description of the supported functionalities.</li> <li>- A sub-set of the EIRA© core Architecture Building Blocks (ABBs) covering the four EIF layers.</li> <li>- A set of specific ABBs extending EIRA©'s views enabling specific functionalities to be provided by implementations derived from the SAT.</li> <li>- The interoperability specifications of selected ABBs and a narrative for each EIRA© view.</li> </ul>
European Interoperability Cartography (EIC)	At European level, the European interoperability cartography (EIC), available via the Joinup platform, is a valuable tool for identifying reusable interoperability solutions.
European Standards	Standard adopted by a European Standardization organization. <sup>5</sup> (CEN, CENELEC or ETSI).
ICT Technical specifications	The rules on European standardization allow the European Commission (EC) to identify ICT technical specifications - that

<sup>2</sup><https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-list-standards>

<sup>3</sup><https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/What+is+a+building+Block>

<sup>4</sup><https://joinup.ec.europa.eu/collection/european-interoperability-reference-architecture-eira/about#SAT>

<sup>5</sup><https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:316:0012:0033:EN:PDF>

identified by commission decision to be eligible for referencing in procurement <sup>6</sup>	are not national, European or international standards - to be eligible for referencing in public procurement. This allows public authorities to make use of the full range of specifications when buying IT hardware, software and services, allowing for more competition in the field and reducing the risk of lock-in to proprietary systems. Prior to their identification by the EC, these specifications must be assessed by the Multi Stakeholder Platform (MSP), which is an advisory body of the EC. The tool used by the MSP for the assessment of these specifications is CAMSS.
International standards	Standards adopted by an international standardization body (e.g. ISO <sup>7</sup> )
Technical specifications assessed through CAMSSaaS <sup>8</sup>	CAMSS-as-a-Service consists of a service which aims at assessing standards and specifications on demand through the use of CAMSS Tools. The author of the assessments is the CAMSS Team.
Trans-European Solutions (TES)	TES cartography means a repository of Trans-European interoperability solutions for European public administrations provided by European Union institutions, presented in a common format and modelled using the European Interoperability Reference Architecture. <sup>9</sup>

### 3.2 Association of specifications to ABBs

In EIRA, interoperability specifications can be used to define the interoperability requirements of any of its ABBs. This relationship is modelled using an “association” relationship.

ArchiMate® 3.0.0 is the specification defining the language used by EIRA 2.1.0 as a notation for modelling. It defines an association relationship as “an unspecified relationship, or one that is not represented by another ArchiMate relationship. An association relationship is always allowed between two elements, or between a relationship and an element. The association relationship can be used when drawing a first high-level model where relationships are initially denoted in a generic way, and later refined to show more specific relationship types”<sup>10</sup>.

In order to associate the specifications with ABBs, this definition of the association relationship has been used. The specifications compliant with the criteria of selection have been studied and compared with the EIRA ABBs’ descriptions to find relationships between them.

<sup>6</sup> [https://ec.europa.eu/growth/industry/policy/ict-standardisation/ict-technical-specifications\\_en](https://ec.europa.eu/growth/industry/policy/ict-standardisation/ict-technical-specifications_en)

<sup>7</sup> <https://www.iso.org/home.html>

<sup>8</sup> <https://joinup.ec.europa.eu/release/camssaas/v100>

<sup>9</sup> [https://joinup.ec.europa.eu/sites/default/files/distribution/access\\_url/2018-07/f1aa6a1c-f241-4b03-86a4-fd6342629efe/CarTool%20v2.2.0%20Userguide.pdf](https://joinup.ec.europa.eu/sites/default/files/distribution/access_url/2018-07/f1aa6a1c-f241-4b03-86a4-fd6342629efe/CarTool%20v2.2.0%20Userguide.pdf)

<sup>10</sup> [http://pubs.opengroup.org/architecture/archimate3-doc/chap05.html#\\_Toc489946003](http://pubs.opengroup.org/architecture/archimate3-doc/chap05.html#_Toc489946003)

The aforementioned EIRA ABBs having potential interoperability specification associated can be found on section 8.2 of the EIRA\_v2\_1\_0\_Overview<sup>11</sup>.

In the context of this this BETA version of the ELIS, the vast majority of ABBs in the S and T views of EIRA have been associated to at least one interoperability specification.

#### **4 ELIS v1.0.0 BETA**

This version of the ELIS consists of the following release components:

- [ELIS Overview v1.0.0](#); Document for the introduction to the ELIS catalogue.
- [ELIS catalogue v1.0.0 BETA.ttl](#); The EIRA Library of Interoperability Specifications in TTL format.
- [ELIS catalogue v1.0.0 BETA.xlsx](#); The EIRA Library of Interoperability Specifications in Microsoft Excel format.
- [ELIS Interoperability Specification Domain Type v1.0.0](#); The list of all the domains used in the ELIS catalogue.
- [ELIS MIME Type v1.0.0](#); The format type of content of the distribution files.
- [ELIS CISSV Entity Type v1.0.0](#); The constituent entities of the ELIS.
- [EIRA v3.0.0 SKOS](#); The EIRA as controlled vocabulary in SKOS format.
- [CAMSS Info Package v3.0.0](#); Set of informative documents about CAMSS.
- [ELIS Release Notes v1.0.0](#); The release notes of this ELIS release.
- [EUPL License v1.2](#); The license under which ELIS will be released.
- [ELIS v1.0.0 BETA Release](#); An archive containing each of the above mentioned files.

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<sup>11</sup> [https://joinup.ec.europa.eu/sites/default/files/distribution/access\\_url/2018-02/b1859b84-3e86-4e00-a5c4-d87913cdcc6f/EIRA\\_v2\\_1\\_0\\_Overview.pdf](https://joinup.ec.europa.eu/sites/default/files/distribution/access_url/2018-02/b1859b84-3e86-4e00-a5c4-d87913cdcc6f/EIRA_v2_1_0_Overview.pdf)

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