CAMSS ASSESSMENT EIF SCENARIO v5.0.0

METHODOLOGY

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European Commission

Directorate-General for Informatics
Directorate D – Digital Public Services, Unit D2 – Interoperability Unit
Contact: Raul-Mario Abril-Jimenez – Project Officer for the CAMSS action
E-mail: Raul-Mario.ABRIL-JIMENEZ@ec.europa.eu
European Commission
B-1049 Brussels

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1. Introduction

1.1 What is the purpose of this document?

The purpose of this document is to provide guidance for assessing standards and specifications using the Common Assessment Method for Standards and Specifications (CAMSS)[1]. The main objective of CAMSS is achieving interoperability and avoiding vendor lock-in by establishing a neutral and unbiased method for the assessment of technical specifications and standards in the field of ICT. This method is compliant with the Regulation 1025/2012 on European Standardisation.

Note that CAMSS is the European guide for assessing and selecting standards and specifications for eGovernment projects, a reference when building an architecture, and an enabler for justifying the choice of standards and specifications in terms of interoperability needs and requirements. It is fully aligned with the European Standardisation Regulation 1025/2012.

Reviewing this document will lead the reader to the following.

- Understand what the CAMSS Assessment EIF scenario is and how an assessment can be carried out using it.
- Know which inputs are expected per scenario to properly assess the standard or specification.
- Understand the relevance of criteria established by the scenario and its scope.

The CAMSS Assessment EIF Scenario – which this document supports – can be found [here](#) together with the different release components for each release.

1.2 Who is this document meant for?

This document applies to different user profiles with the need to analyse and assess a standard or a specification. This is possible as the document provides different elements for the development and understanding of assessments and their insights.

Examples of these profiles are as follows.

- **Solution Architect** is the person in charge of leading the practice, and introducing the overall technical vision for a particular solution.
- **Government Official** is an official who works for a government department.
- **Policymaker** is a member of a government department who is responsible for making new rules and laws.
- **Public Procurer** is a person who is involved in procurement processes.

You will find more information about how these profiles can leverage this document later on in the "Use cases" Section.

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[1]CAMSS Collection Homepage: https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/about

Moreover, it is worth mentioning that all users doing assessments by themselves can afterwards use the CAMSS as a Service (CAMSSaaS[2]) to ensure the assessment is compliant with the different requirements. For more information about the service, here is the Joinup space for the solution and service.

1.3 What is the value of CAMSS?

CAMSS is an established European guide for assessing and selecting standards and specifications for eGovernment projects. It can be used as a reference when building an ICT architecture, and for justifying the selection of standards and specifications.

The use of CAMSS allows for the following.

- Improvement of quality by increasing transparency, efficiency, and accountability in public administrations.
- Increase reusability by reusing existing assessments or specifications already recommended by EU Member States.
- Saving time by reducing administrative burden, speeding up assessment processes.
- Being compliant by assessing the compliance of cutting-edge specifications with reference frameworks.

The CAMSS method provides a comprehensive method and guidance for the assessment and selection of standards and specifications. It is focused on fostering interoperability and avoiding the vendor lock-in within the context of European Interoperability.

Moreover, the CAMSS Assessment EIF Scenario is available for use on self-assessments and can be accessed via Joinup. The CAMSS Team uses the CAMSS Assessment EIF Scenario on a regular basis to produce assessments using this scenario. The use by CAMSS Team allows for the detection and improvement of the scenario as well as the current document.

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[2] CAMSSaaS access point: https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/camss-service-camssaas

2. Use cases

This methodology can be applied to different use cases. The following diagram presents three main profiles that can use the CAMSS Tools.
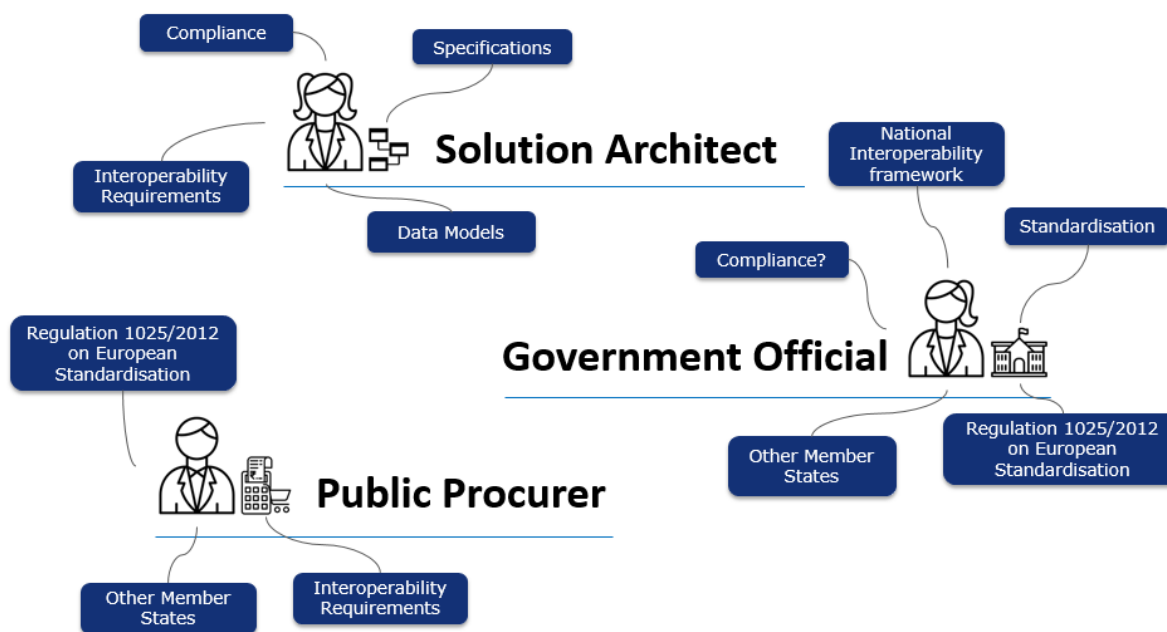

Figure 1: Diagram of possible users that are involved in the use cases

- **Solution Architect** is the person in charge of leading the practice and introducing the overall technical vision for a particular solution.
- **Government Official** is an official who works for a government department.
- **Public Procurer** is a person who is involved in procurement processes.

2.1 Solution Architect

As a Solution Architect, I want to assess a technical specification so I can determine its suitability as an interoperability enabler by evaluating it against the requirements of the European Interoperability Framework.

2.2 Government Official

As a Government Official in a Member State, in charge of developing the national catalogue of standards, I want to assess a technical specification so I can collect the evidence that it complies with the principles of the European Interoperability Framework (EIF) [3].

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[3] European Interoperability framework: https://ec.europa.eu/isa2/sites/isa/files/eif_brochure_final.pdf

As a Government Official in a Member State, I want to assess a (national) technical specification in an effort to support its developmental improvement towards their recognition as EU or at least cross-border standards.

2.3 Public Procurer

As a Public Procurer, I want to assess the compliance of a specification with the requirements laid out in the standardisation regulation 1025/2012[4] to determine if I can reference it in my public procurement documents (e.g. Terms of Reference).

As a Public Procurer, I want to provide clear technical requirements in the procurement requests I issue in terms of specifications for a solution's building blocks.

3. EIF Scenario

The EIF Scenario contains different sections according to the insights and recommendations of the European Interoperability Framework (EIF).

The different sections of the scenario are organised according to criteria, which are declared as Criterion 1 (A1), Criterion 2 (A2), and so on. For every criterion, there is an instruction or guidance on how to answer, as detailed below.

3.1 Description

The European Interoperability Framework (EIF) provides guidance to public administrations on how to improve the governance of their interoperability activities, establish cross-organisational relationships, streamline processes supporting end-to-end digital services, and ensure that existing and new legislation does not compromise interoperability efforts. This CAMSS Scenario allows for the assessment of <u>the compliance of interoperability specifications with the EIF</u>. The objective of the obtained assessment is to determine the suitability of the assessed interoperability specification for the delivery of interoperable European public services.

3.2 Categories and Criteria

The different criteria in the EIF scenario are divided considering the recommendations of the European Interoperability Framework (EIF).

3.1.2.1 PRINCIPLES SETTING THE CONTEXT FOR EU ACTIONS ON INTEROPERABILITY
This category is related to the first underlying principle (UP)[5] of the EIF Subsidiarity and Proportionality (UP1). The basis of this principle is to ensure that the EU Actions are taken or stated

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to improve national actions or decisions. Specifically, it aims to know if National Interoperability Frameworks are aligned with the EIF.

SUBSIDIARITY AND PROPORTIONALITY

Criterion 1 (A1) – To what extent has the specification been included in a national catalogue from a Member State whose National Interoperability Framework has a high performance on interoperability according to National Interoperability Framework Observatory factsheets?

Search for the specification in the National catalogue of Member States. Only Member States with aligned NIFO factsheets are considered for this criterion.

NIFO factsheets can be found in the following link:
https://joinup.ec.europa.eu/collection/national-interoperability-framework-observatory-nifo/nifo-factsheets

3.1.2.2 EIF CORE INTEROPERABILITY PRINCIPLES

In this category, elements related to the core interoperability principles (UP) are encompassed, which are: openness (UP 2), transparency (UP3), reusability (UP4), technological neutrality and data portability (UP5).

OPENESS

Criterion 2 (A2) – Does the specification facilitate the publication of open data?
The evidence used to justify this criterion will typically come from the function of the specification or a specific implementation of it. The specification must meet at least one level of the Tim Berners-Lee 5-star to be positive.

The 5-star of Tim Berners-Lee can be found in the following link:
https://5stardata.info/en/

Criterion 2a (A2) – To what extent does the specification facilitate the publication of public data as open data?
The evidence used to justify this criterion will typically come from the function of the specification or a specific implementation of it. The specification must meet at least one level of the Tim Berners-Lee 5-star to be positive.

The 5-star of Tim Berners-Lee can be found in the following link:
https://5stardata.info/en/

Criterion 3 (A3) – To what extent do stakeholders have the opportunity to contribute to the development of the specification?
The evidence to justify this criterion can typically be found on the webpage of the SDO that developed the standard or specification. The SDO must confirm that all stakeholders can contribute to developing their solutions.

Criterion 4 (A4) – To what extent is a public review part of the release lifecycle?

The evidence to justify this criterion will typically be found on the webpage of the SDO that developed and/or maintains the standard or specification. The SDO must confirm that a public review is part of the development and approval of the specification.

Criterion 5 (A5) – Is the specification available with any restrictions related to Fair, Reasonable, and Non-Discriminatory ((F)RAND)?
The evidence to justify this criterion will typically be available on the webpage of the SDO developing and/or maintaining the standard or specification. FRAND shall be understood according to the description provided in the Communication from the Commission to the European Parliament, the Council and the European Economic, and Social Committee setting out the EU approach to Standard Essential Patents.

For more information:
https://ec.europa.eu/jrc/en/publication/eur-scientific-and-technical-research-reports/fair-reasonable-and-non-discriminatory-frand-licensing-terms-research-analysis-controversial

Criterion 6 (A6) – Is the specification licensed on a royalty-free basis?
The evidence to justify this criterion will typically be available on the webpage of the SDO developing and/or maintaining the standard or specification.

Criterion 7 (A7) – To what extent is the specification sufficiently mature for its use in the development of digital solutions/services?
The evidence to justify this criterion will typically consist of providing implementations of the specification or providing information about the creation date and the updates of the specification.

Criterion 8 (A8) – To what extent has the specification sufficient market acceptance for its use in the development of digital solutions/services?
The evidence to justify this criterion will typically consist of providing implementations of the specification or providing information about the creation date and the updates of the specification.

Criterion 9 (A9) – To what extent has the specification support from at least one community?
The evidence to justify this criterion will typically consist of checking if any work or development has been carried out by any developer community regarding the standard or specification.

TRANSPARENCY

Criterion 10 (A10) – To what extent does the specification enable the visibility of administrative procedures, rules data, and services?
The evidence to justify this criterion will typically consist of providing examples of implementations or plans for the inclusion of the standard or specification in any process related to public administration. A common use case is the digitalisation of public services.

Criterion 11 (A11) – To what extent does the specification scope comprehensibly administrative procedures, rules data, and services?
The evidence to justify this criterion will typically consist of providing implementations or plans for the inclusion of the standard or specification in any process related to a public administration. A common use case is the digitalisation of public services.

Criterion 12 (A12) – To what extent does the specification enable the exposure of interfaces to access the public administration's services?

The evidence to justify this criterion will typically consist of providing evidence of services that implemented the specification to exchange and make use of information more efficiently and overcome interoperability barriers.

Criterion 13 (A13) – To what extent does the specification ensure the protection of personal data managed by Public Administrations?

The evidence to justify this criterion will typically consist of supporting the data management according to Data Protection directives.

REUSABILITY

Criterion 14 (A14) – To what extent is the specification usable beyond the business-specific domain, allowing its usage across business domains?

The evidence to justify this criterion will typically consist of providing examples of usage of the standard or technical specifications in domains different from the one for which it was originally developed. For example, DCAT-AP – which was developed under a specific purpose and domain – describes public sector datasets for open data portals. However, it has been commonly reused for the creation of other specifications and solutions rather than data portals in Europe.

Criterion 15 (A15) – To what extent is the specification usable beyond the business-specific domain, allowing its implementation across business domains?

The evidence to justify this criterion will typically consist of providing examples of usage of the standard or technical specifications in domains different from the one for which it was originally developed. For example, DCAT-AP – which was developed under a specific purpose and domain – describes public sector datasets for open data portals. However, it has been commonly reused for the creation of other specifications and solutions rather than data portals in Europe.

TECHNOLOGICAL NEUTRALITY AND DATA PORTABILITY

Criterion 16 (A16) – Is the specification technology agnostic?

The evidence to justify this criterion will typically consist of checking that the implementation of the standard or specification does not rely/depend on any other standard or specification mainly focused on proprietary technologies or vendors. However, it should be considered whether the specification is dependent on other specifications, even if they are open source. Meaning that the specification requires other specification/platform to run.

Criterion 17 (A17) – Is the specification platform agnostic?

The evidence to justify this criterion will typically consist of checking that the implementation of the standard or specification does not rely/depend on any other standard or specification mainly focused on proprietary technologies or vendors. However, it should be considered whether the specification is dependent on other specifications, even if they are open source. Meaning that the specification requires another specification/platform to run.

Criterion 18 (A18) – To what extent does the specification allow for partial implementations?

The evidence to justify this criterion will typically consist of checking that the specification documentation includes considerations concerning partial implementations.

Criterion 19 (A19) – Does the specification allow customisation?

The evidence to justify this criterion will typically consist of checking that the specification documentation supports partial implementations.

Criterion 20 (A20) – Does the specification allow extension?

The evidence to justify this criterion will typically consist of checking that the specification documentation allows the extension of the specification

Criterion 21 (A21) – To what extent does the specification enable data portability between systems / applications supporting the implementation of European public services?

The evidence to justify this criterion will typically consist of documentation about the characteristics of the specification which proves that it positively impacts interoperability.

Criterion 22 (A22) – To what extent does the specification enable data portability between systems / applications supporting the evolution of European public services?

The evidence to justify this criterion will typically consist of documentation about the characteristics of the specification which proves that it positively impacts interoperability.

3.1.2.3 EIF PRINCIPLES RELATED TO GENERIC USER NEEDS AND EXPECTATIONS

This category includes all underlying principles from the EIF which are related to user needs. Principles included here are user-centricity (UP6), inclusion and accessibility (UP7), security and privacy (UP8), and multilingualism (UP9).

USER-CENTRICITY

Criterion 23 (A23) – To what extent does the specification allow relevant information to be reused when needed?

This criterion shall be interpreted within the context of European solutions that help to implement the Once-Only Principle (OOP) (i.e. CEF). For this reason, the evidence to justify this criterion will typically consist of implementations or mentions to the specification in these solutions.

INCLUSION AND ACCESSIBILITY

Criterion 24 (A24) – To what extent does the specification enable the e-accessibility?

The evidence to justify this criterion will typically consist of documentation proving that the standard or specification fosters e-accessibility. Moreover, it can be positively justified if the specification document deals with e-accessibility, at some point. The specification shall foster the creation of digital services accessible to all citizens, including people with disabilities, the elderly, and other disadvantaged groups.

An example of specification can be considered WCAG: https://www.w3.org/TR/WCAG20/

SECURITY AND PRIVACY

Criterion 25 (A25) – To what extent does the specification enable the secure exchange of data?

For the provision of evidence to justify this criterion, data exchange can be understood as publication by the administration of data for its later consumption by citizens. The specification must ensure that the data exchange is completely secure and that the data has not been altered.

Criterion 26 (A26) – To what extent does the specification enable the secure processing of data?

For the provision of evidence to justify this criterion, data exchange can be understood as publication by the administration of data for its later consumption by citizens. The specification must ensure that the data exchange is completely secure and that the data has not been altered.

MULTILINGUALISM

Criterion 27 (A27) – To what extent could the specification be used in a multilingual context?

The evidence to justify this criterion will typically consist of documentation proving that the standard or specification fosters multilingualism in public services. Moreover, the specification can contribute to the European public service by enabling a development in different languages, for example HTML can be configured to make a website information in many languages.

3.1.2.4 EIF FOUNDATION PRINCIPLES FOR COOPERATION AMONG PUBLIC ADMINISTRATIONS

This category includes the criteria aiming to evaluate principles related to collaboration amongst public organisations, business, and citizens. This is related to the underlying principles of administrative simplification (UP10), preservation of information (UP11), and assessment of effectiveness and efficiency (UP12).

ADMINISTRATIVE SIMPLIFICATION

Criterion 28 (A28) – Does the specification simplify the delivery of European public services?

The evidence to justify this criterion will typically consist of documentation proving that the standard or specification streamlines administrative processes. Specifications easing and fostering digital exchanges while avoiding the non-digital exchange of information can be considered as part of the reduction of administrative burden. For instance, the implementation of HTML as part of the information exchange fosters the creation of digital services allowing digital data exchange and consumption, while avoiding the non-digital processes.

Criterion 29 (A29) – Does the specification enable digital service delivery channels?

The evidence to justify this criterion will typically consist of documentation proving that the standard or specification streamlines administrative processes. Specifications easing and fostering digital exchanges while avoiding the non-digital exchange of information can be considered as part of the reduction of administrative burden. For instance, the implementation of HTML as part of the information exchange fosters the creation of digital services allowing digital data exchange and consumption, while avoiding the non-digital processes.

PRESERVATION OF INFORMATION
Criterion 30 (A30) – To what extent does the specification enable the long-term preservation of data/information/knowledge (electronic records included)?

In order to provide evidence to justify this criterion, the documentation of the specification must emphasise the long-term preservation of information and ensure its preservation.

ASSESSMENT OF EFFECTIVENESS AND EFFICIENCY

Criterion 31 (A31) – To what extent are there assessments of the specification's effectiveness?

The evidence to justify this criterion will typically consist of already performed assessments of the

standard or technical specification considering its effectiveness. Commonly, these can be studies that compare the effectiveness with other specifications. An example of studies or documentation could be articles in research journals (e.g., Researchgate, amongst others) or posts in specialised forums.

Criterion 32 (A32) – To what extent are there assessments of the specification's efficiency?
The evidence to justify this criterion will typically consist of already performed assessments of the standard or technical specification considering its efficiency. Commonly, these can be studies that compare the efficiency with other specifications. An example of studies or documentation could be articles in research journals (e.g., Researchgate, amongst others) or posts in specialised forums.

3.1.2.5 EIF INTEROPERABILITY LAYERS
This category is aligned with the related interoperability models described in the EIF and apply to all the public services. It includes six layers: interoperability governance, integrated public service governance, legal interoperability, organisational interoperability, semantic interoperability, and technical interoperability covered by criteria A2 to A10 under the Openness category.

INTEROPERABILITY GOVERNANCE

Criterion 33 (A33) – Is the (or could it be) specification mapped to the European Interoperability Architecture (EIRA)?
The evidence to justify this criterion will typically consist of a narrative sustaining the possibility for the association of the standard or specification to an EIRA ABB.

Criterion 34 (A34) – To what extent can the conformance of the specification's implementations be assessed?
The evidence to justify this criterion will typically consist of free existing testing tools or certifications that assess the standard or specification.

Criterion 35 (A35) – Is the specification recommended by an European Member State?
The evidence to justify this criterion will typically consist of a recommendation by a Member State for the implementation of the standard or specification. This recommendation can come from the administration of the Member State or from the entity in charge of standardization in that particular Member State (e.g. Difi in Norway as could be the following assessment of standard and specifications for the secure exchange of data, https://www.digdir.no/digitalisering-og-samordning/standarder-sikker-informasjonsutveksling-pa-internett/1406, or this catalogue of recommended specifications:
 https://www.digdir.no/digitale-felleslosninger/arkivstandarder/1482).

Criterion 36 (A36) – Is the specification selected for its use in an European Cross-border project/initiative?
The evidence to justify this criterion will typically consist of documentation of an implementation of the standard or specification in the context of a cross-border project or initiative (e.g., look through CEF Digital, CEF Building Blocks, TESTA, etc.).

Criterion 37 (A37) – Is the specification included in an open repository/catalogue of standards at national level?
The evidence to justify this criterion will typically consist of evidence of the standard or specification being included in a national catalogue of standards.

It can be checked in the CAMSS List of Standards: https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-list-standards

Criterion 38 (A38) – Is the specification included in an open repository/catalogue of standards at European level?

The evidence to justify this criterion will typically consist of evidence of the standard or specification being included in a supra-national catalogue of standards. The specification can be searched in European platforms, for example in CEN or CENELEC.

LEGAL INTEROPERABILITY

Criterion 39 (A39) – Is the specification a European Standard?

The evidence to justify this criterion will typically consist of an assessment of the standard or specification in regards to Regulation 1025/2012.

ORGANISATIONAL INTEROPERABILITY

Criterion 40 (A39) – Does the specification facilitate the modelling of business processes?

The evidence to justify this criterion will typically consist of evidence of the standard or specification supporting a common way of modelling business processes – meaning that the specification is involved or commonly used for the design of instances of flowcharts, etc. An example of this could be UML, or ITIL, which are specifications used for the definition of different steps or moments related to the business development.

Criterion 41 (A39) – To what extent does the specification facilitate organisational interoperability agreements?

The evidence to justify this criterion will typically consists of checking whether the specification impacts positively in the creation or adoption of organisation interoperability agreements.

SEMANTIC INTEROPERABILITY

Criterion 42 (A39) – Does the specification encourage the creation of communities along with the sharing of their data and results on national platforms?

The evidence to justify this criterion will typically consists of checking whether the specification supports the creation of national platforms/communities to share and include the findings and results of extending and implementing digital solutions/services.

Criterion 43 (A39) – Does the specification encourage the creation of communities along with the sharing of their data and results on European platforms?

The evidence to justify this criterion will typically consists of checking whether the specification supports the creation of European platforms/communities to share and include the findings and results of extending and implementing digital solutions/services.

4. Glossary

The following table list acronyms mentioned in the current document.

Acronym	Definition
ABB	Architecture Building Blocks
CAMSS	Common Assessment Method for Standards and Specifications
CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
EIF	European Interoperability Framework
EIRA	European Interoperability Reference Architecture
ETSI	European Telecommunications Standards Institute
EU	European Union
FRAND	Fair, Reasonable And Non-Discriminatory
ISA	Interoperability Solutions for public Administrations
IPR	Intellectual Property Rights
MS	Member State
NIF	National Interoperability Framework
NIFO	National Interoperability Framework Observatory
OOP	Once-Only Principle
SDO	Standards Developing Organisation

Table 1: Acronyms and Terms used in the document