CAMSS Assessment EIF Scenario v5.0.0

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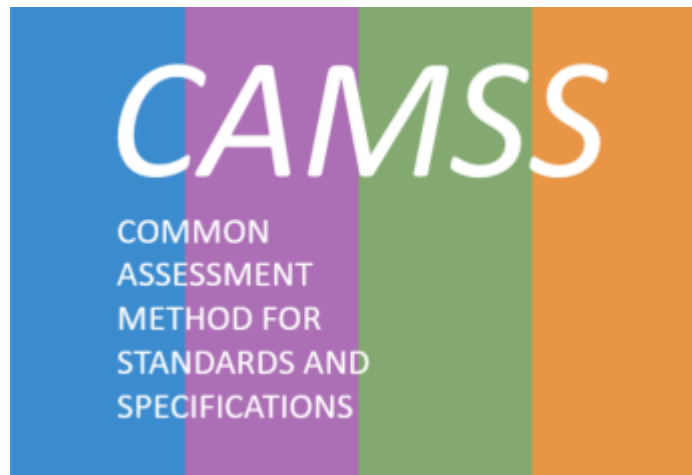
CAMSS Assessment EIF Scenario v5.0.0

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Scenario Version: 5.0.0

INTRODUCTION

EIF Scenario

The European Interoperability Framework (EIF) provides guidance to public administrations on how to improve governance of their interoperability activities, establish cross-organisational relationships, streamline processes supporting end-to-end digital services, and ensure that existing and new legislation do not compromise interoperability efforts.

This CAMSS Scenario allows to assess the compliance of **interoperability specifications** with the EIF. The objective of the obtained assessment is to determine the suitability of the assessed interoperability specification for the delivery of interoperable European public services.

Background

CAMSS is the European guide for assessing and selecting standards and specifications for an eGovernment project, 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.

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 will be compliant with Regulation 1025/2012 on European Standardisation.

While ICT solutions have specific characteristics at the political, legal, and organisational levels; semantic and technical interoperability are based mostly on technical specifications or standards. Within the context of the elaboration of their National Interoperability Frameworks, Member States organise the assessment of technical specifications or standards, in order to establish their national recommendations. Deciding on the recommended technical specifications or standards often calls for a resource-intensive and time-consuming assessment. In order to tackle this, the Digital Europe Programme (DEP) defines an action focused on the development of a common assessment method for standards and specifications (CAMSS).

The purpose of CAMSS is:

- to ensure that assessments of technical ICT specifications or standards and interoperability profiles are performed according to high and consistent standards;

- to ensure that assessments will contribute significantly to the confidence in the interoperability of systems implementing these specifications and profiles;
- to enable the reuse, in whole or in part, of such assessments;
- to continuously improve the efficiency and effectiveness of the assessment process for ICT technical specifications, standards, and interoperability profiles.

The expected benefits of the CAMSS are:

- Ensuring greater transparency throughout the selection of standards in the context of ICT strategies, architectures, and interoperability frameworks. This will be achieved through the establishment of a commonly agreed assessment method, assessment process, and a list of assessment attributes.

- Reducing resource and time requirements and avoiding duplication of efforts. (Partial) sharing of finalised assessments of standards and specifications.

- Allowing easier and faster assessments, and reusing the ones already performed through the creation and maintenance of a library of standards.

Your compliance level of the specification assessed depends on the scores you achieved in each section of the survey. Please see below the survey score conversion table below for guidance.

Section	Compliance Level				
	Ad-hoc	Opportunistic	Essential	Sustainable	Seamless
Principles setting the context for EU Actions on Interoperability	20	40	50	80	90
EIF Core Interoperability Principles	0 to 440	441 to 880	881 to 1320	1321 to 1760	1761 to 2200
EIF Principles Related to generic user needs and expectations	0 to 100	101 to 200	201 to 300	301 to 400	401 to 500
EIF Foundation principles for cooperation among public	0 to 100	101 to 200	201 to 300	301 to 400	401 to 500

administrations

EIF Interoperability Layers	0 to 220	221 to 440	441 to 660	661 to 880	881 to 1100

The following table shows the 'compliance levels' that a specification can reach depending on the assessment score.

Compliance Level	Description
Ad-hoc	Poor level of conformance with the EIF - The specification does not cover the requirements and recommendations set out by the EIF in this area.
Opportunistic	Fair level of conformance with the EIF - The specification barely covers the requirements and recommendations set out by the European Interoperability Framework in this area.
Essential	Essential level of conformance with the EIF - The specification covers the basic aspects set out in the requirement and recommendations from the European Interoperability Framework.
Sustainable	Good level of conformance with the EIF scenario - The specification covers all the requirements and recommendations set out by the European Interoperability Framework in this area.
Seamless	Leading practice of conformance level with the EIF - The specification fully covers the requirements and recommendations set out by the European Interoperability Framework in this area.

Contact: For any general or technical questions, please send an email to DIGIT-CAMSS@ec.europa.eu. Follow all activities related to the CAMSS on our CAMSS community page.

USER CONSENT

Disclaimer:

By no means will the Interoperability Specification assessment imply any endorsement of the EC to the assessed specification. Likewise, The use of CAMSS Tool implies that the user accepts that the EC is not liable on the assessment nor on any direct or indirect consequence/decision of such assesment.

CAMSS Tools are based on EU Survey, by accepting the CAMSS Privacy Statment the user also accepts EU Survey Privacy Statement and the Terms of use.

* Please, fill in the mandatory* information to start the assessment

☑ *I have read and agreed to the following CAMSS Privacy Statement: here

☐ I agree to be contacted for evaluation purposes, namely to share my feedback on specific DEP solutions and actions and on the DEP programme and the European Interoperability Framework in general.

This assessment tool is licensed under the European Union Public License (EUPL)

IDENTIFICATION

Information on the information provider

Your Last name

> CAMSS Team

Your First Name

>

Your Position / Role

>

* Your Organisation

> European Commission DG DIGIT

Your Contact phone number

>

* Would you like to be contacted for evaluation purposes in the context of your assessment? To see how your data is handled, please check again the Privacy statement here

In case you would like to be contacted, please select "yes" and provide your email.

- ◉ Yes
- ○ No

Contact Email

> DIGIT-CAMSS@ec.europa.eu

* Where did you learn about CAMSS?
- ○ DEP Programme (DEP website, DEP social media)
- ○ Joinup (e.g., CAMSS Collection, Joinup social media)
- ◉ European Commission
- ○ Public Administrations at national, regional or local level
- ○ Standards Developing Organizations (SDOs)
- ○ Other

If you answered "Other" in the previous question, please specify how:

>

Information on the specification

* Specificaton type

- ○ Specification
- ● Standard
- ○ Application Profile
- ○ Family of Specification

* Title of the specification

> CEN/TC 428 - ICT Professionalism and Digital Competences - European Competency Framework (The European Union's European e-Competence Framework (e-CF) (EN 16234-1 e-CF)

* Version of the specification

> 4.0

* Description of the specification

> This standard provides a reference of 41 competences as required and applied at the Information and Communication Technology (ICT) professional work environment, using a common language for competences, skills and proficiency levels that can be understood across Europe.

* URL from where the specification is distributed

> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0:::FSP_PROJECT:
> 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* Name and website of the standard developing/setting organisation (SDO/SSO) of the specification

- ○ W3C (https://www.w3.org)
- ○ OASIS (https://www.oasis-open.org/)
- ○ IEEE (https://standards.ieee.org/)
- ○ ETSI (https://www.etsi.org/)
- ○ GS1 (https://www.gs1.fr/)
- ○ openEHR (https://www.openehr.org/)
- ○ IETF (https://www.ietf.org/)
- ● Other (SDO/SSO)

* In case of Other SDO, please, provide its name:

> European Committee for Standardization (CEN)

* and, provide its URL:

>

https://www.cencenelec.eu/

Contact information/contact person of the SDO
a) for the organisation
b) for the specification submitted

Information on the assessment of the specification

Reason for the submission, the need and intended use for the specification

If any other evaluation of this specification is known, e.g. by member states or European Commission projects, provide a link to this evaluation.

Considerations

Is the functional area of application for the formal specification addressing interoperability and eGovernment?

- ⦿ YES
- ○ NO

Additional Info

This document was created for application in the private and public domain to boost European digital learning standards and facilitate large scale adoption of best practices and solutions.

EIF PRINCIPLES SETTING THE CONTEXT FOR EU ACTIONS ON INTEROPERABILITY

This category is related to the first underlying principle (UP) of the EIF Subsidiarity and Proportionality (UP1). The basis of this principle is to ensure that the EU Actions are taken or stated to improve national actions or decisions. Specifically, it aims to know if National Interoperability Frameworks are aligned with the EIF.

Please note that some of the questions have a prefilled answer depending on the SDO. To ensure it, please see that these questions include a help message that remarks it.

Subsidiarity and Proportionality

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* **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?**

EIF Recommendation 1: Ensure that national interoperability frameworks and interoperability strategies are aligned with the EIF and, if needed, tailor and extend them to address the national context and needs.

This criterion assesses if the specifications have been included within the National Catalogues of Specifications of the Member States that are highly aligned with the higher level of performance in terms of interoperability.

The Digital Public Administration Factsheets uses three categories to evaluate the level of National Interoperability frameworks in accordance with the EIF. The three categories are 1. CONCEPTUAL MODEL FOR INTEGRATED PUBLIC SERVICES PROVISION; 2 INTEROPERABILITY LAYERS, and 3. INTEROPERABILITY PRINCIPLES. National Interoperability Frameworks reports can be found here: https://joinup.ec.europa.eu/collection/nifo-national-interoperability-framework-observatory/digital-public-administration-factsheets-2020

- ○ Not Answered
- ○ Not Applicable
- ● The specification has not been included within the catalogue of any Member State.
- ○ The specification has been included within the catalogue of a Member State with a lower performance than stated in the Digital Public Administration Factsheets from the NIFO.
- ○ The specification has been included within the catalogue of a Member State with a middel-lower performance than stated in the Digital Public Administration Factsheets from the NIFO.
- ○ The specification has been included within the catalogue of a Member State with a middle-upper performance than stated in the Digital Public Administration Factsheets from the NIFO.
- ○ The specification has been included within the catalogue of a Member State with a higher performance than stated in the Digital Public Administration Factsheets from the NIFO.

* Justification

> There is no Member State that includes EN 16234-1 e-CF in their national catalogue with its National Interoperability Framework (NIF) in alignment with the three categories: 1. Conceptual model for integrated public services provision, 2. interoperability layers, and 3. interoperability principles.
>
> CAMSS List of Standards:
> https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-list-standards

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).

Openness

* A2 - Does the specification facilitate the publication of open data?

EIF Recommendation 2: Publish the data you own as open data unless certain restrictions apply

Relates to the ability of the specification to publish data as open data or not.

- ⚪ Not Answered
- 🔵 Not Applicable
- ⚪ NO
- ⚪ YES

* Justification

> The purpose of the EN 16234-1 e-CF framework is not related to facilitating the publication of open data. Therefore, this criterion is not applicable to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0:::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A3 - To what extent do stakeholders have the opportunity to contribute to the development of the specification?

EIF Recommendation 3: Ensure a level playing field for open-source software and demonstrate active and fair consideration of using open source software, taking into account the total cost of ownership of the solution.

Relates to in which measure the different stakeholders that a specification can benefit have the opportunity to participate in the working groups focused on the development of certain specifications.

- ⚪ Not Answered
- ⚪ Not Applicable
- ⚪ There is no information on the working group of the specification.
- ⚪ The working group is open to participation by any stakeholder but requires registration, fees, and membership approval.
- 🔵 The working group is open to participation by any stakeholder but requires fees and membership approval.
- ⚪ The working group is open to participation following a registration process.
- ⚪ The working group is open to all without specific fees, registration, or other conditions.

* Justification

> Only nationally recognised members as well as national and CEN-recognised working groups are allowed to contribute to the development of the EN 16234-1 e-CF specification. There is no evidence of external and

individual contributions, and there is no provision made for them in the CEN Internal Regulations (see CEN-CENELEC Internal Regulations reference, Part 2, section 3). Depending on the degree of involvement, financial contributions could be also applicable (CEN-CENELEC Internal Regulations reference, Part 1, CEN (1A) section, Annexes).

CEN-CENELEC Internal Regulations reference, CEN Statuses, Members (IV) section:
https://boss.cen.eu/reference-material/refdocs/pages/

CEN-CENELEC Internal Regulations reference, Part 2, section 3:
https://boss.cen.eu/reference-material/refdocs/pages/

CEN-CENELEC Internal Regulations reference, Part 1, CEN (1A) section, Annexes:
https://boss.cen.eu/reference-material/refdocs/pages/

* A4 - To what extent is a public review part of the release lifecycle?

EIF Recommendation 3: Ensure a level playing field for open-source software and demonstrate active and fair consideration of using open source software, taking into account the total cost of ownership of the solution.

A public review consists of the public availability of the specification's draft for stakeholders to provide inputs for the improvement and fix of possible bugs.

- ○ Not Answered
- ○ Not Applicable
- ● Specification releases do not foresee public reviews.
- ○ Public review is applied to certain releases depending on the involved changes.
- ○ All major releases foresee a public review.
- ○ All major and minor releases foresee a public review but, during which, collected feedback is not publicly visible.
- ○ All major and minor releases foresee a public review during which collected feedback is publicly visible.

* Justification

EN 16234-1 e-CF does not foresee public reviews. There is no direct evidence that a public review is conducted according to the CEN/TC 428 "ICT Professionalism and Digital Competences" and IT Professionalism Europe (ITPE) documentation.

CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference:
https://standards.cencenelec.eu/BPCEN/1218399.pdf

IT Professionalism Europe (ITPE) reference, Archive section:
https://itprofessionalism.org/resource-library/reports-publications/archive/

* A5 - Is the specification available with any restrictions related to Fair, Reasonable, and Non-Discriminatory ((F)RAND)?

EIF Recommendation 3: Ensure a level playing field for open-source software and demonstrate active and fair consideration of using open source software, taking into account the total cost of ownership of the solution.

The FRAND basis relates to fair, reasonable, and non-discriminatory IPR disclosures.

- ○ Not Answered
- ○

Not Applicable

○ NO

◉ YES

* Justification

> According to the CEN-CENELEX Guide 8, EN 16234-1 e-CF is available with any restrictions related to (F) RAND.
>
> CEN-CENELEC Guide 8 reference, section 5:
> https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide8.pdf

* A6 - Is the specification licensed on a royalty-free basis?

EIF Recommendation 3: Ensure a level playing field for open-source software and demonstrate active and fair consideration of using open source software, taking into account the total cost of ownership of the solution.

Additionally to the EIF's recommendation that refers to open-source software it applies to a specification in itself at any interoperability level (legal, organisational, semantic, or technical)

○ Not Answered

○ Not Applicable

◉ NO

○ YES

* Justification

> According to the CEN-CENELEX Guide 8, all patents, including EN 16234-1 e-CF, are licensed on a royalty-free basis. However, the specification should be purchased from each of the national standardisation organisations' sales points.
>
> CEN-CENELEC Guide 8 reference, section 4.1:
> https://www.cencenelec.eu/media/Guides/CEN-CLC/cenclcguide8.pdf
>
> National standardisation organisations reference:
> https://standards.cencenelec.eu/dyn/www/f?p=205:35:0::::FSP_SURR_WI:
> 67073&cs=1D6A0AE3F4B33063EC3BB54B719082165

* A7 - To what extent is the specification sufficiently mature for its use in the development of digital solutions/services?

EIF Recommendation 4: Give preference to open specifications, taking due account of the coverage of functional needs, maturity and market support, and innovation.

Maturity related to the stability of the specification, meaning that it has been evolved enough and mechanisms for its development have been put in place (Change Management processes, monitoring, etc.)

○ Not Answered

○ Not Applicable

○ The specification has no published releases and no publicly accessible information on its development state.

○ The specification is under development without published releases.

○ The specification is under development with published preview releases.

○ The specification has published major releases but without public documentation on its supporting processes (e.g. change management and release management).

○ The specification, in addition to having major releases available, has published documentation on its supporting processes (e.g. change management and release management).

* Justification

EN 16234-1 first appeared as a common framework of professional digital and IT competences, skills and knowledge in 2008, known as CEN Workgroup Agreement (CWA) 15893-1:2008 (see CEN Workshop on ICT Skills reference, List of CWAs section). EN 16234-1 v2.0 of the standard was launched in 2010 (known as CWA 16234-1:2010), and a third release in 2014 (CWA 16234-1:2014). In 2016, EN 16234-1 e-CF (EN 16234-1:2016) was adopted as a European Standard (see CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.1). The official lastest version of the EN 16234-1 e-CF specification was published in 2019 (EN 16234-1:2019), which corresponds to version 4.0. Although the specification meets the requirements for a mature specification, there is no documentation on its development processes.

CEN Workshop on ICT Skills reference, List of CWAs section:
http://relaunch.ecompetences.eu/cen-ict-skills-workshop/

CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.1:
https://standards.cencenelec.eu/BPCEN/1218399.pdf

*** A8 - To what extent has the specification sufficient market acceptance for its use in the development of digital solutions/services?**

EIF Recommendation 4: Give preference to open specifications, taking due account of the coverage of functional needs, maturity and market support, and innovation.

Relates to how the specification is supported by the market, taking as a reference whether or not the specifications are widely used or implemented. There is an exception, and it is when the specification is being used to create innovative solutions.

○ Not Answered

○ Not Applicable - The specification does not have market acceptance because it is directly used to create innovative solutions.

○ There is no information about the specification's market uptake.

○ The specification has known implementations but not enough to indicate market acceptance.

○ The specification has widespread use indicating market acceptance.

○ The specification has widespread use and relevant independent reports proving its market acceptance.

◉ The specification has widespread use, indicating market acceptance.

* Justification

As EN 16234-1 e-CF was designed as a common standardised framework for Europe-wide application, resulting from a common effort between the public and private domains, the specification has sufficient market acceptance for its use in the development of digital solutions and services. Nowadays the IT Professionalism Europe (ITPE) is in charge of carrying out all the consultive efforts regarding the EN 16234-1 e-CF specification (see CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.1).

CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.1:
https://standards.cencenelec.eu/BPCEN/1218399.pdf

IT Professionalism Europe (ITPE) reference, e-Competence Framework:
https://itprofessionalism.org/about-it-professionalism/competences/the-e-competence-framework/

*A9 - To what extent has the specification support from at least one community?

EIF Recommendation 3: Ensure a level playing field for open-source software and demonstrate active and fair consideration of using open source software, taking into account the total cost of ownership of the solution.

Related to whether or not communities are surrounding the specification at any level legal, organisational, semantic, or technical contributions to its enhancement and development.

- ○ Not Answered
- ○ Not Applicable
- ○ There is no community linked to the specification.
- ○ Specification support is available but as part of a closed community requiring registration and possibly fees.
- ○ There is no specific community to support the specification but there are public channels for the exchange of help and knowledge among its users.
- ○ There is a community providing public support linked to the specification but in a best-effort manner.
- ● There is a community tasked to provide public support linked to the specification and manage its maintenance.

* Justification

There exist two independent communities, one providing public support and the other one in charge of the EN 16234-1 e-CF specification maintenance (see CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022). On one side, there is the IT Professionalism Europe (ITPE), which was created in 2018 and performs all activities related to counselling and advice under this specification; and on the other side, there is the CEN/TC 428 - ICT Professionalism and Digital Competences which is in charge of the maintenance of the specification, although it is also responsible to provide public support. The CEN /TC 428 comprises participants from national and CEN-recognised working groups (see CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 5 and CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences section, CEN/TC 428 Subcommittees and Working Groups). Interestingly, only ITPE provides an e-CF preview through the Access e-CF Explorer service.

IT Professionalism Europe (ITPE) reference:
https://itprofessionalism.org/about-us/

CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference:
https://standards.cencenelec.eu/BPCEN/1218399.pdf

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences section, CEN/TC 428 Subcommittees and Working Groups:
https://standards.cencenelec.eu/dyn/www/f?p=205:29:0::::FSP_ORG_ID,FSP_LANG_ID:1218399,25 &cs=1C0456547BD827F5A977AD2936836C8DA#1

IT Professionalism Europe (ITPE) reference, Access e-CF Explorer:
https://itprofessionalism.org/about-it-professionalism/competences/the-e-competence-framework/

Transparency

* A10 - To what extent does the specification enable the visibility of administrative procedures, rules data, and services?

EIF Recommendation 5: Ensure internal visibility and provide external interfaces for European public services.

- ○ Not Answered
- ● Not Applicable
- ○ The specification hinders visibility.
- ○ The specification neither promotes nor hinders visibility.
- ○ The specification can contribute and promote the visibility of administrations, but it is not its main purpose.
- ○ The specification can enable the visibility of administrations if combined with other specifications.
- ○ The specification actively promotes and supports visibility.

* Justification

> The purpose of EN 16234-1 e-CF is not related to the visibility of administrative procedures, rules data and services. Therefore, this criterion is not applicable to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A11 - To what extent does the specification scope comprehensibly administrative procedures, rules data, and services?

EIF Recommendation 5: Ensure internal visibility and provide external interfaces for European public services.

- ○ Not Answered
- ○ Not Applicable
- ○ The specification hinders comprehensibility.
- ○ The specification neither promotes nor hinders comprehensibility.
- ○ The specification can contribute and promote the comprehensibility of administrations, but it is not its main purpose.
- ● The specification can scope the comprehensibility of administrations if combined with other specifications.
- ○ The specification actively promotes and supports comprehensibility.

* Justification

> EN 16234-1 e-CF provides a common European description of the knowledge, skills and competences of the ICT professional workforce in all sectors. It contributes to moving towards a comprehensive framework for ICT practitioners integrating different building blocks relying not only on the EN 16234-1 e-CF but also on the e-CF User Guide (EN 16234-2) and the e-CF Methodologies (EN 16234-3).
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:32:0::::FSP_ORG_ID,FSP_LANG_ID:1218399,25 &cs=1C0456547BD827F5A977AD2936836C8DA

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-2 User Guide:

https://standards.cencenelec.eu/dyn/www/f?p=CEN:110:0::::FSP_PROJECT,FSP_ORG_ID:70377,1218399&cs=13178F0C970F6172F57335317C3456DD8

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-3 Methodology:

https://standards.cencenelec.eu/dyn/www/f?p=CEN:110:0::::FSP_PROJECT,FSP_ORG_ID:70378,1218399&cs=192D0AD053B765C617E43CC16AD1D4019

* **A12 - To what extent does the specification enable the exposure of interfaces to access the public administration's services?**

EIF Recommendation 5: Ensure internal visibility and provide external interfaces for European public services.

Relates to ensuring availability of interfaces with internal information systems. As the EIF defines: *Public administrations operate a large number of what are often heterogeneous and disparate information systems in support of their internal processes. Interoperability depends on ensuring the availability of interfaces to these systems and the data they handle. In turn, interoperability facilitates the reuse of systems and data and enables these to be integrated into larger systems.*

- ○ Not Answered
- ◉ Not Applicable
- ○ The specification prevents the exposure of such interfaces.
- ○ The specification neither promotes nor hinders the exposure of such interfaces.
- ○ The specification can contribute to the exposure of interfaces, but it is not its main purpose.
- ○ The specification can enable the exposure of interfaces if combined with other specifications.
- ○ The specification enables exposure of such interfaces.

* Justification

The purpose of EN 16234-1 e-CF is not related to the exposure of interfaces to access the public administration's services. Therefore, this criterion is not applicable to this specification.

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:

https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* **A13 - To what extent does the specification ensure the protection of personal data managed by Public Administrations?**

EIF Recommendation 5: Ensure internal visibility and provide external interfaces for European public services.

Securing the right to the protection of personal data, by respecting the applicable legal framework for the large volumes of personal data of citizens, held and managed by Public administrations.

- ○ Not Answered
- ◉ Not Applicable
- ○ The specification hinders the protection of personal data.
- ○ The specification does not address the protection of personal data but neither prevents it.

○ The specification includes certain data protection considerations but without being exhaustive.

○ The specification explicitly addresses data protection but without referring to relevant regulations.

○ The specification explicitly addresses data protection and its alignment to relevant regulations.

* Justification

> The purpose of EN 16234-1 e-CF is not related to the protection of personal data in Public Administrations. Therefore, this criterion is not applicable to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

Reusability

* A14 - To what extent is the specification usable beyond the business-specific domain, allowing its usage across business domains?

EIF Recommendation 6: Reuse and share solutions, and cooperate in the development of joint solutions when implementing European public services.

Relates to the use of the specification beyond a specific business domain. E.g. a specification developed under the eHealth domain that can be used in other domains or not.

○ Not Answered

○ Not Applicable

○ The specification is tied to a specific domain and is restricted from being used in other domains.

○ The specification is associated with a specific domain but its use in other domains is difficult.

○ The specification is associated with a specific domain but could be partially used in other domains.

○ The specification is associated with a specific domain but could be used 'as-is' to other domains.

◉ The specification is domain-agnostic, designed to be used in any domain.

* Justification

> EN 16234-1 e-CF provides a common European description of the knowledge, skills and competences of the ICT professional workforce in any sector of activity. According to Joinup's Rolling Plan for ICT Standardisation, the use of the specification will increase the development and promotion of ICT professionalism, digital skills and e-learning in all sectors of society and industry.
>
> Joinup-2021 Rolling Plan for ICT Standardisation reference, Education, Digital skills and Digital learning section:
> https://joinup.ec.europa.eu/collection/rolling-plan-ict-standardisation/education-digital-skills-and-digital-learning

* A15 - To what extent is the specification usable beyond the business-specific domain, allowing its implementation across business domains?

- ○ Not Answered
- ○ Not Applicable
- ○ The specification is tied to a specific domain and is restricted from being implemented in other domains.
- ○ The specification is associated with a specific domain but its implementation in other domains is difficult.
- ○ The specification is associated with a specific domain but could be partially implemented in other domains.
- ○ The specification is associated with a specific domain but could be implemented 'as-is' to other domains.
- ◉ The specification is domain-agnostic, designed to be implemented in any domain.

* Justification

> As an organisational enabler, EN 16234-1 e-CF aims to provide a standard that includes some other essentials for any IT professional, such as their basic skill set, their education and training qualification and certification, and the ethics around worker development. In this sense, the specification is not only usable beyond the business-specific domain, but also is designed to be implemented in any other domain.
>
> Joinup-2021 Rolling Plan for ICT Standardisation reference, Education, Digital skills and Digital learning section:
> https://joinup.ec.europa.eu/collection/rolling-plan-ict-standardisation/education-digital-skills-and-digital-learning

Technological Neutrality and Data Portability

* A16 - Is the specification technology agnostic?

- ○ Not Answered
- ○ Not Applicable
- ○ NO
- ◉ YES

* Justification

> The EN 16234-1 e-CF framework represents the European e-Competence Framework, which focuses on skills and competences of the ICT professional workforce. Although the specification might evolve in accordance with different frameworks such as the European Qualifications Framework (EQF), European Skills, Competences, Qualifications and Occupations (ESCO), or the global skills and competency framework for the digital world (SFIA), the EN 16234-1 e-CF specification is not dependent on any other specification, and can be considered technology-agnostic (further information on CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 3).

CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 3: https://standards.cencenelec.eu/BPCEN/1218399.pdf

EQF reference:
https://europa.eu/europass/en/european-qualifications-framework-eqf?msclkid=4e01b391b58811ec86a2e49c305e4614

ESCO reference:
https://esco.ec.europa.eu/en/about-esco/what-esco

SFIA reference:
https://sfia-online.org/en/about-sfia

* A17 - Is the specification platform agnostic?

EIF Recommendation 8: Do not impose any technological solutions on citizens, businesses, and other administrations that are technology-specific or disproportionate to their real needs

Relates to the dependency of the specification to be implemented without relying on specific technologies or platforms.

- ○ Not Answered
- ○ Not Applicable
- ○ NO
- ● YES

* Justification

The EN 16234-1 e-CF framework is not dependent on any other specification, operating system or web platform; therefore, the specification is platform-agnostic.

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:

https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A18 - To what extent does the specification allow for partial implementations?

EIF Recommendation 8: Do not impose any technological solutions on citizens, businesses, and other administrations that are technology-specific or disproportionate to their real needs.

Partial implementations refer to the application of specifications, not in their whole, but part of the requirements or features it defines in the text.

It can also be understood as the implementation of different profiles, which is also related to a certain set of requirements depending on the context of implementation.

- ○ Not Answered
- ○ Not Applicable
- ● The specification is only meant to be used as a whole.
- ○ The specification could be partially implemented but does not make specific provisions towards this.
- ○

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The specification could be partially implemented but includes only guidelines towards this rather than sets of requirements.

○ The specification explicitly foresees sets of requirements that can be implemented incrementally.

○ The specification explicitly foresees sets of requirements that can be implemented incrementally or separately.

* Justification

> The EN 16234-1 e-CF framework is intended to serve as a device to represent the European e-Competence Framework, which focuses on skills and competences of the ICT professional workforce. There is no possibility of partial implementation of the specification, as EN 16234-1 e-CF has a single purpose.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A19 - Does the specification allow customisation?

EIF Recommendation 8: Do not impose any technological solutions on citizens, businesses, and other administrations that are technology-specific or disproportionate to their real needs.

A clear example of customizations is Core Vocabularies, which define a set of general requirements that could fit in any context and allow for the customization to fit specific business requirements in the implementation.

○ Not Answered

○ Not Applicable

◉ NO

○ YES

* Justification

> The EN 16234-1 e-CF framework is intended to serve as a device to represent the European e-Competence Framework, which focuses on skills and competences of the ICT professional workforce. EN 16234-1 e-CF has a self-contained structure and behaves as a single-purpose device; therefore, the specification does not allow customisation.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A20 - Does the specification allow extension?

EIF Recommendation 8: Do not impose any technological solutions on citizens, businesses, and other administrations that are technology-specific or disproportionate to their real needs.

A clear example of customizations is Core Vocabularies, which define a set of general requirements that could fit in any context and allow for the customization to fit specific business requirements in the implementation.

○ Not Answered

○ Not Applicable

◉

NO

○ YES

* Justification

> The EN 16234-1 e-CF framework is intended to serve as a device to represent the European e-Competence Framework, which focuses on skills and competences of the ICT professional workforce. There is no possibility to extend the specification, as EN 16234-1 e-CF has a single purpose.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A21 - To what extent does the specification enable data portability between systems/applications supporting the implementation of European public services?

EIF Recommendation 9: Ensure data portability, namely that data is easily transferable between systems and applications supporting the implementation and evolution of European public services without unjustified restrictions, if legally possible.

○ Not Answered

◉ Not Applicable

○ The specification prevents or does not support data portability.

○ The specification neither addresses data portability nor prevents it.

○ The specification addresses data portability but without specific provisions to enable it.

○ The specification introduces certain aspects that can contribute to enabling data portability.

○ The specification explicitly addresses and enables data portability.

* Justification

> The purpose of EN 16234-1 e-CF is not related to data portability. Therefore, this criterion is not applicable to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A22 - To what extent does the specification enable data portability between systems/applications supporting the evolution of European public services?

EIF Recommendation 9: Ensure data portability, namely that data is easily transferable between systems and applications supporting the implementation and evolution of European public services without unjustified restrictions, if legally possible.

○ Not Answered

◉ Not Applicable

○ The specification prevents or does not support data portability.

○ The specification neither addresses data portability nor prevents it.

○ The specification addresses data portability but without specific provisions to enable it.

○ The specification introduces certain aspects that can contribute to enabling data portability.

○   The specification explicitly addresses and enables data portability.

* Justification

> The purpose of EN 16234-1 e-CF is not related to data portability. Therefore, this criterion is not applicable to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
> 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

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

* A23 - To what extent does the specification allow relevant information to be reused when needed?

EIF Recommendation 13: As far as possible under the legislation in force, ask users of European public services once-only and relevant-only information.

The Once-Only Principle is related to making the operations or transactions between administrations and stakeholders more efficient. It implies avoiding the provision of certain data or information twice or more when this information is already available for public administrations.
Additional and relevant information can be found here: https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Once+Only+Principle

○   Not Answered
○   Not Applicable
○   Information needs to be provided whenever this is needed.
○   There is limited reuse of provided information.
○   Provided information is reused, but this is not consistently done.
◉   Provided information is reused, but not in all scenarios.
○   Information is provided once-only and reused as needed.

* Justification

> EN 16234-1 e-CF is a self-contained language intended to represent a common European description of the knowledge, skills and competences of the ICT professional workforce. In this sense, the specification allows relevant information to be reused. There is no evidence of any relation between e-CF and the Once-Only Principle (OOP).
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN

16234-1 e-CF:

https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:

67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

Inclusion and Accessibility

* A24 - To what extent does the specification enable the e-accessibility?

EIF Recommendation 14: Ensure that all European public services are accessible to all citizens, including persons with disabilities, the elderly, and other disadvantaged groups. For digital public services, public administrations should comply with e-accessibility specifications that are widely recognised at the European or international level.

Examples of specifications addressing e-accessibility are, for instance, WAI-ARIA (https://www.w3.org/WAI/standards-guidelines/aria/) included within Web Content Accessibility Guidelines (WCAG) Overview (https://www.w3.org/WAI/standards-guidelines/wcag/).

- ◯ Not Answered
- ◉ Not Applicable
- ◯ The specification prevents or does not support e-accessibility.
- ◯ The specification neither addresses e-accessibility nor prevents it.
- ◯ The specification can contribute and promote e-accessibility, but it is not its main purpose.
- ◯ The specification can enable e-accessibility if combined with other specifications.
- ◯ The specification explicitly addresses and enables e-accessibility.

* Justification

The purpose of EN 16234-1 e-CF is not related to e-accessibility. Therefore, this criterion does not apply to this specification.

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

Security and Privacy

* A25 - To what extent does the specification enable the secure exchange of data?

EIF Recommendation 15: Define common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses.

Relates to the actions that Public Administrations establish concerning sensitive information for the proper delivery of public services. The different actions imply the reception, classification, and exchange of such information.

- ◯ Not Answered
- ◉ Not Applicable

○ The specification prevents or does not support the secure and trustworthy exchange of data.

○ The specification introduces certain aspects that can contribute to enabling the secure exchange of data.

○ The specification addresses data security and trustworthy data exchange but does not foresee specific provisions to enable them.

○ The specification addresses data security and trustworthy data exchange but specific provisions to enable them are limited.

○ The specification explicitly addresses and enables the secure and trustworthy exchange of data.

* Justification

> The purpose of EN 16234-1 e-CF is not related to the secure exchange of data. Therefore, this criterion does not apply to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
> 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A26 - To what extent does the specification enable the secure processing of data?

EIF Recommendation 15: Define common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses.

Relates to the actions that Public Administrations establish concerning sensitive information for the proper delivery of public services. The different actions imply the reception, classification, and exchange of such information.

○ Not Answered

● Not Applicable

○ The specification prevents or does not support the secure and trustworthy processing of data.

○ The specification introduces certain aspects that can contribute to enabling the secure processing of data.

○ The specification addresses data security and trustworthy data processing but does not foresee specific provisions to enable them.

○ The specification addresses data security and trustworthy data processing but specific provisions to enable them are limited.

○ The specification explicitly addresses and enables the secure and trustworthy processing of data.

* Justification

> The purpose of EN 16234-1 e-CF is not related to the secure processing of data. Therefore, this criterion does not apply to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
> 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

Multilingualism

* A27 - To what extent could the specification be used in a multilingual context?

EIF Recommendation 16: Use information systems and technical architectures that cater to multilingualism when establishing a European public service. Decide on the level of multilingualism support based on the needs of the expected users.

- ○ Not Answered
- ○ Not Applicable
- ○ The specification cannot be used in a multilingual context.
- ○ The specification could be used in a multilingual context but has no specific provisions to facilitate this.
- ○ The specification foresees limited support for multilingualism.
- ○ The specification foresees support for multilingualism but this is not complete.
- ● The specification is designed to fully support multilingualism.

* Justification

> EN 16234-1 e-CF could be used in a multilingual context beyond its original purpose, which is the representation of a common and standardised e-Competence Framework at European level.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

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

* A28 - Does the specification simplify the delivery of European public services?

EIF Recommendation 17: Simplify processes and use digital channels whenever appropriate for the delivery of European public services, to respond promptly and with high quality to users' requests and reduce the administrative burden on public administrations, businesses and citizens.

- ○ Not Answered
- ○ Not Applicable
- ○ NO
- ● YES

* Justification

> EN 16234-1 e-CF provides a reference framework for the ICT workforce and contributes inter alia to the adoption of the Shaping Europe's digital future approach (see CEN/TC 428 "ICT Professionalism and Digital

Competences" Business Plan 2022 reference, section 1.4). Digital transformation sets out actions to the development of digital public services.

CEN/TC 428 "lCT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.4: https://standards.cencenelec.eu/BPCEN/1218399.pdf

Shaping Europe's digital future reference:
https://ec.europa.eu/info/strategy/priorities-2019-2024/europe-fit-digital-age/shaping-europe-digital-future_en

* A29 - Does the specification enable digital service delivery channels?

EIF Recommendation 17: Simplify processes and use digital channels whenever appropriate for the delivery of European public services, to respond promptly and with high quality to users' requests and reduce the administrative burden on public administrations, businesses and citizens.

- ◯ Not Answered
- ◯ Not Applicable
- ◯ NO
- ◉ YES

* Justification

EN 16234-1 e-CF can be well adapted to new digital service channels and is intended to help new digital service channels to be deployed as described in the Shaping Europe's digital future approach (see CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.4).

CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

CEN/TC 428 "lCT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.4:
https://standards.cencenelec.eu/BPCEN/1218399.pdf

Preservation of Information

* A30 - To what extent does the specification enable the long-term preservation of data/information /knowledge (electronic records included)?

EIF Recommendation 18: Formulate a long-term preservation policy for information related to European public services and especially for information that is exchanged across borders.

Relates to the capacity of the specification to contribute to the long-term preservation of information.

- ◯ Not Answered
- ◉ Not Applicable
- ◯ The specification prevents or does not support long-term preservation.
- ◯ The specification neither addresses the long-term preservation nor prevents it.
- ◯ The specification addresses the long-term preservation of electronic resources (information, data, etc) in a limited manner.

◉ The specification addresses long-term preservation of electronic resources (information, data, etc), but not in a complete manner.

◉ The specification explicitly addresses and enables long-term preservation.

* Justification

> The purpose of EN 16234-1 e-CF is not related to enabling the long-term preservation of data, information nor knowledge. Therefore, this criterion does not apply to this specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:
> 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

Assessment of Effectiveness and Efficiency

* A31 - To what extent are there assessments of the specification's effectiveness?

EIF Recommendation 19: Evaluate the effectiveness and efficiency of different interoperability solutions and technological options considering user needs, proportionality, and balance between costs and benefits.

Related to the degree to which the specification is effective while using it. There are indirect methods to determine that the specification is effective, for instance then a solution that has an effective performance and uses the specification to deliver the expected service.

Effectiveness: *the extent to which the specifications reach the expected action according to its purpose.*

◉ Not Answered

◉ Not Applicable

◉ There are no such assessments.

◉ There are such assessments that indirectly address the specification.

◉ There are such assessments evaluating digital solutions' effectiveness that involve the specification.

⦿ There are such assessments addressing the specification and its effectiveness together with other specifications.

◉ There are such assessments directly addressing the specification.

* Justification

> The IT Professionalism Europe (ITPE) publishes some analysis on the EN 16234-1 e-CF component in different sectors of the European economy. The e-Competence Framework is positively evaluated as an effective enabler of SME communications.
>
> IT Professionalism Europe (ITPE) reference, Reports & Publications section, 'e-CF for SME's – competence need analysis' document:
> https://itprofessionalism.org/app/uploads/2019/08/Competence-need-Analysis.pdf

* A32 - To what extent are there assessments of the specification's efficiency?

EIF Recommendation 19: Evaluate the effectiveness and efficiency of different interoperability solutions and technological options considering user needs, proportionality, and balance between costs and benefits.

Related to the good use of time and resources not wasted unnecessarily by a specification being used. There are indirect methods to determine that the specification is efficient, for instance, a solution delivering a service with an efficient performance that uses the specification.

Efficiency: times and means needed to achieve the results using the specification.

- ○ Not Answered
- ○ Not Applicable
- ○ There are no such assessments.
- ○ There are such assessments that indirectly address the specification.
- ○ There are assessments evaluating digital solutions' efficiency that involve the specification.
- ● There are such assessments addressing the specification and its efficiency together with other specifications.
- ○ There are such assessments directly addressing the specification.

* Justification

> The IT Professionalism Europe (ITPE) publishes some analysis on the EN 16234-1 e-CF component in different sectors of the European economy. The e-Competence Framework was positively evaluated by the Estonian Association of Information Technology and Telecommunications (ITL) which demonstrated that its application is efficient in policy decision-making.
>
> IT Professionalism Europe (ITPE) reference, Reports & Publications section, 'e-CF for EU & national policy makers' document:
> https://itprofessionalism.org/app/uploads/2019/08/for-EU-national-policy-makers.pdf
>
> Estonian Association of Information Technology and Telecommunications (ITL) reference:
> https://itl.ee/en/

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

* **A33 - Is the (or could it be) specification mapped to the European Interoperability Architecture (EIRA)?**

EIF Recommendation 20: Ensure holistic governance of interoperability activities across administrative levels and sectors.

The EIRA defines the required capabilities for promoting interoperability as a set of Architecture Building Blocks (ABBs). The association of specification to these ABBs means the capacity to enable Legal, Organisational,

Semantic, or Technical aspects needed for the development of interoperable public services. This association can be taken from ELIS the EIRA Library of Interoperability Specifications (ELIS) but also can be established ad-hoc.

○ Not Answered
○ Not Applicable
○ NO
◉ YES

* Justification

> EN 16234-1 e-CF is already associated with EIRA ABBs in the EIRA Library Of Specifications (ELIS). More specifically, the e-CF can define the interoperability aspects of the Interoperability Skill ABB of the EIRA Organisational View.
>
> EIRA Library of Interoperability Specifications (ELIS):
> https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss /solution/elis/release/v110

* A34 - To what extent can the conformance of the specification's implementations be assessed?

EIF Recommendation 21: Put in place processes to select relevant standards and specifications, evaluate them, monitor their implementation, check compliance and test their interoperability.

Relates to the implementation of the specification being conformant with the requirements established in the text of the specification. There are different methods to ensure the conformance of an implementation: check manually if the implementation meets the requirements in the specification text (if any), use additional methods or resources provided to this purpose or use specific tools provided by the SDO developing the specification.

○ Not Answered
○ Not Applicable
◉ The specification does not include a definition of conformance.
○ The specification defines conformance but not as a set of measurable requirements.
○ The specification defines conformance as requirements that can be measured manually.
○ The specification defines conformance as requirements with resources to enable automated measurement.
○ The specification is complemented by a conformance testing platform to allow testing of implementations.

* Justification

> There are no requirements for compliance and conformance analysis testing defined by the EN 16234-1 e-CF specification.
>
> CEN reference, CEN/TC 428 - ICT Professionalism and Digital Competences (Published standards), EN 16234-1 e-CF:
> https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT: 67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

* A35 - Is the specification recommended by an European Member State?

EIF Recommendation 23: Consult relevant catalogues of standards, specifications, and guidelines at the national and EU level, in accordance with your NIF and relevant DIFs, when procuring and developing ICT solutions.

Recommended specifications are these specifications that the Member States provide as examples for the

implementation of certain digital public services or for being used when procuring these digital public services or solutions.

- ○ Not Answered
- ○ Not Applicable
- ● NO
- ○ YES

* Justification

> There is no Member State recommending EN 16234-1 e-CF in its ICT National Catalogue.
>
> CAMSS List of Standards:
> https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-list-standards

* A36 - Is the specification selected for its use in an European Cross-border project/initiative?

EIF Recommendation 23: Consult relevant catalogues of standards, specifications, and guidelines at national and EU level, in accordance with your NIF and relevant DIFs, when procuring and developing ICT solutions.

The European Commission set up a process for the identification and assessment of specifications for its use in the development of IT solutions and also when procuring them. Find here the commission implementing decisions that include the specifications identified by the European Commission: https://ec.europa.eu/growth/single-market/european-standards/ict-standardisation/ict-technical-specifications_en

Additionally, there could be other situations where a specification can be selected for European projects or initiatives out of the scope of the above-mentioned context. These specifications can be considered positively in this assessment.

- ○ Not Answered
- ○ Not Applicable
- ○ NO
- ● YES

* Justification

> There exist different initiatives across Europe adopting the EN 16234-1 e-CF specification. It is the case of the Digital Competence Framework for Citizens (DigComp) initiative, which provides a common understanding of what digital competences, knowledge, skills and attitudes are, and helps citizens to engage with digital, new and emerging technologies.
>
> Digital Competence Framework for Citizens (DigComp) reference:
> https://joint-research-centre.ec.europa.eu/digcomp_en?msclkid=27a7a8f2b64611eca3ebf019d32a2764

* A37 - Is the specification included in an open repository/catalogue of standards at national level?

EIF Recommendation 23: Consult relevant catalogues of standards, specifications, and guidelines at the national and EU level, in accordance with your NIF and relevant DIFs, when procuring and developing ICT solutions.

EIF Recommendation 6: Reuse and share solutions, and cooperate in the development of joint solutions when implementing European public services.

- ○

Not Answered

○ Not Applicable

◉ NO

○ YES

* Justification

> There is no evidence of the inclusion of EN 16234-1 e-CF in an open repository/catalogue of standards at European level.
>
> EUOS repository of standards:
> https://www.standict.eu/standards-repository
>
> CENELEC and CEN search tool catalogue:
> https://standards.cencenelec.eu/dyn/www/f?p=CEN:105::RESET::::

* A38 - Is the specification included in an open repository/catalogue of standards at European level?

○ Not Answered

○ Not Applicable

○ NO

◉ YES

* Justification

> EN 16234-1 e-CF is included in the CEN-CENELEC repository of standards.
>
> CENELEC and CEN search tool catalogue:
> https://standards.cencenelec.eu/dyn/www/f?p=CEN:105::RESET::::

Legal Interoperability

* A39 - Is the specification a European Standard?

European Standards are those standards developed by certain organisations dedicated to this purpose. CEN, CENELEC, and ETSI are the principal organisations and all of them are developing their standards under the basis of meeting the requirements established within the European Standardisation Regulation. CEN-CENELEC homepage: https://www.cencenelec.eu/

○ Not Answered

○

Not Applicable

◯ NO

⦿ YES

* Justification

> According to the CEN/TC 428's Business Plan for 2022, EN 16234-1 e-CF is a European standard since 2016.
>
> CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 reference, section 1.1:
> https://standards.cencenelec.eu/BPCEN/1218399.pdf

Organisational Interoperability

* A40 - Does the specification facilitate the modelling of business processes?

EIF Recommendation 28: Document your business processes using commonly accepted modelling techniques and agree on how these processes should be aligned to deliver a European public service.

◯ Not Answered

◯ Not Applicable

◯ NO

⦿ YES

* Justification

> EN 16234-1 e-CF does facilitate the modelling of business processes. The Digital Organisational Frameworks and IT Professionalism (DigiFrame) seeks to reach a mutual agreement on new coordinated procedures for reliable, effective and efficient measurement and forecasting of the demand and supply of high-tech skills at European and national level.
>
> IT Professionalism Europe (ITPE) reference, Reports & Publications section, Workshops on the Digiframe (2018) – Presentations subsection:
> https://itprofessionalism.org/app/uploads/2021/01/DIGIFRAME_workshop-4-morningafternoon_report_201811205_final.pdf

* A41 - To what extent does the specification facilitate organisational interoperability agreements?

EIF Recommendation 29: Clarify and formalise your organisational relationships for establishing and operating European public services.

Relates to specifications' capacities to help and ease the creation and formalisation of Interoperability agreements. E.g. Memorandums of Understanding (MoUs), Services Level Agreements (SLAs).

◯ Not Answered

◯ Not Applicable

◯ The specification's definition hinders the drafting of such agreements.

⦿ The specification makes no provisions that would facilitate the drafting of such agreements.

◯ The specification defines certain elements to facilitate such agreements.

◯ The specification defines most elements to facilitate such agreements.

○ The specification explicitly identifies all elements to be used in drafting such agreements.

* Justification

Although the EN 16234-1 e-CF specification does not make any reference to interoperability issues, the CEN /TC 428 results are aligned with different models and frameworks, and attention has been paid to ensure that these relationships are well defined and published. For example, according to Joinup's Rolling Plan for ICT Standardisation, an update of EN-16234-1 e-CF is in progress, which is intended to add references to the SFIA (Skills Framework for the Information Age) model.

Joinup-2021 Rolling Plan for ICT Standardisation reference, Education, Digital skills and Digital learning section:
https://joinup.ec.europa.eu/collection/rolling-plan-ict-standardisation/education-digital-skills-and-digital-learning

Skills Framework for the Information Age (SFIA) reference:
https://www.sfia-online.org/en?msclkid=3c1ee036b64d11ec990d0b2d87d7154a

Semantic Interoperability

* A42 - Does the specification encourage the creation of communities along with the sharing of their data and results on national platforms?

EIF Recommendation 32: Support the establishment of sector-specific and cross-sectoral communities that aim to create open information specifications and encourage relevant communities to share their results on national and European platforms.

Relates to specifications that are narrowly related to the data/information being exchanged, its format, and structure. It would allow a common method/mechanism to improve its reuse and exchange removing possible limitations. An example of it could be RDF, which is used to describe information and its metadata using specific syntax and serialisation.

○ Not Answered
○ Not Applicable
○ NO
◉ YES

* Justification

The ITPE conducts conferences and webinars within various communities using the specification to give a voice to anyone who wants to give their opinion on the EN 16234-1 e-CF specification, including national participation.

IT Professionalism Europe (ITPE) reference, Events:
https://itprofessionalism.org/events/

* A43 - Does the specification encourage the creation of communities along with the sharing of their data and results on European platforms?

- ○ Not Answered
- ○ Not Applicable
- ○ NO
- ● YES

* Justification

> The ITPE conducts conferences and webinars within various communities using the specification to give a voice to anyone who wants to give their opinion on the EN 16234-1 e-CF specification, including European participation.
>
> IT Professionalism Europe (ITPE) reference, Events:
> https://itprofessionalism.org/events/

Useful links

CAMSS Joinup Page (https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss)

CAMSS Library of Assessments (https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-assessments-library)

CAMSS Assessment EIF Scenario - User Guide (https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/camss-assessment-eif-scenario/camss-assessment-eif-scenario-quick-user-guide)

Contact

DIGIT-CAMSS@ec.europa.eu

CAMSS Assessment EIF Scenario v5.0.0 - Results

CAMSS Assessment Result

Thank you for your contribution.

The score of the specification related to the scenario under which it is being evaluated depends on the scores achieved in each section of the survey. Please see the example below for guidance.

The following table shows the 'compliance levels' that a specification can reach depending on the assessment score.

EIF Scenario Compliance Level Conversion Table

Section	Ad-hoc	Opportunistic	Compliance Level Essential	Sustainable	Seamless
Principles setting the context for EU Actions on Interoperability	20	40	50	80	90
EIF Core Interoperability Principles	0 to 440	441 to 880	881 to 1320	1321 to 1760	1761 to 2200
EIF Principles Related to generic user needs and expectations	0 to 100	101 to 200	201 to 300	301 to 400	401 to 500

EIF Foundation principles for cooperation among public administrations	0 to 100	101 to 200	201 to 300	301 to 400	401 to 500
EIF Interoperability Layers	0 to 220	221 to 440	441 to 660	661 to 880	881 to 1100

The table below expresses the range of the score per section. When used in combination with the table above, the total score can be interpreted. See the example below for guidance.

Section Compliance Conversion Table

Compliance Level	Description
Ad-hoc	Poor level of conformance with the EIF - The specification does not cover the requirements and recommendations set out by the EIF in this area.
Opportunistic	Fair level of conformance with the EIF - The specification barely covers the requirements and recommendations set out by the European Interoperability Framework in this area.
Essential	Essential level of conformance with the EIF - The specification covers the basic aspects set out in the requirement and recommendations from the European Interoperability Framework.
Sustainable	Good level of conformance with the EIF scenario - The specification covers all the requirements and recommendations set out by the European Interoperability Framework in this area.
Seamless	Leading practice of conformance level with the EIF - The specification fully covers the requirements and recommendations set out by the European Interoperability Framework in this area.

Example – How to find the final Compliance Level

Using the score reached after the initial assessment, the interpretation can be made as follows.

1. In the summary table, observe the score for each section, e.g. EIF Core Interoperability Principles has 2200 points.

2. In the middle table – the Section Compliance Conversion Table – see that this number correlates to a column. In our example, the 2200 points of Core Interoperability Principles fall in the EIF Core Interoperability Principles row, and '1761 to 2200' point range, placing it in the column 'Compliance **Seamless**'.

3. Next, in the top table – the EIF Scenario Compliance Level Conversion Table – we see Compliance Level "**Seamless**", and from its description that the specification for the EIF Core Interoperability Principles 'fully covers the requirements and recommendations set out by the European Interoperability Framework in this area.'.

For additional calculation of the assessment strength, please follow the instruction provided in the User Guide, found [here](#).

Summary

Your Score   3380

Maximum Score   4300

Section	Score for this Section	
EIF PRINCIPLES SETTING THE CONTEXT FOR EU ACTIONS ON INTEROPERABILITY	20/100	
EIF CORE INTEROPERABILITY PRINCIPLES	1620 /2100	
EIF PRINCIPLES RELATED TO GENERIC USER NEEDS AND EXPECTATIONS	480 /500	
EIF FOUNDATION PRINCIPLES FOR COOPERATION AMONG PUBLIC ADMINISTRATIONS	460 /500	
EIF INTEROPERABILITY LAYERS	800 /1100	

Scores by Question

EIF PRINCIPLES SETTING THE CONTEXT FOR EU ACTIONS ON INTEROPERABILITY

Score for this Section: 20/100

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?

Your answer	❌ The specification has not been included within the catalogue of any Member State.	20 out of 100 points	

EIF CORE INTEROPERABILITY PRINCIPLES

Score for this Section: 1620/2100

A2 - Does the specification facilitate the publication of open data?

Your answer	✔ Not Applicable	100 out of 100 points	

A3 - To what extent do stakeholders have the opportunity to contribute to the development of the specification?

Your answer	✔ The working group is open to participation by any stakeholder but requires fees and membership approval.	60 out of 100 points	

A4 - To what extent is a public review part of the release lifecycle?

Your answer	❌ Specification releases do not foresee public reviews.	20 out of 100 points	

A5 - Is the specification available with any restrictions related to Fair, Reasonable, and Non-Discriminatory ((F)RAND)?

Your answer	✔ YES	100 out of 100 points	

A6 - Is the specification licensed on a royalty-free basis?

Your answer	❌ NO

20 out of 100 points

A7 - To what extent is the specification sufficiently mature for its use in the development of digital solutions/services?

Your answer	✔️ The specification has published major releases but without public documentation on its supporting processes (e.g. change management and release management).

80 out of 100 points

A8 - To what extent has the specification sufficient market acceptance for its use in the development of digital solutions/services?

Your answer	✔️ The specification has widespread use, indicating market acceptance.

100 out of 100 points

A9 - To what extent has the specification support from at least one community?

Your answer	✔️ There is a community tasked to provide public support linked to the specification and manage its maintenance.

100 out of 100 points

A10 - To what extent does the specification enable the visibility of administrative procedures, rules data, and services?

Your answer	✔️ Not Applicable

100 out of 100 points

A11 - To what extent does the specification scope comprehensibly administrative procedures, rules data, and services?

Your answer	✔️ The specification can scope the comprehensibility of administrations if combined with other specifications.

80 out of 100 points

A12 - To what extent does the specification enable the exposure of interfaces to access the public administration's services?

Your answer	✔ Not Applicable	100 out of 100 points

A13 - To what extent does the specification ensure the protection of personal data managed by Public Administrations?

Your answer	✔ Not Applicable	100 out of 100 points

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

Your answer	✔ The specification is domain-agnostic, designed to be used in any domain.	100 out of 100 points

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

Your answer	✔ The specification is domain-agnostic, designed to be implemented in any domain.	100 out of 100 points

A16 - Is the specification technology agnostic?

Your answer	✔ YES	100 out of 100 points

A17 - Is the specification platform agnostic?

Your answer	✔ YES	100 out of 100 points

A18 - To what extent does the specification allow for partial implementations?

Your answer	✖ The specification is only meant to be used as a whole.	20 out of 100 points

A19 - Does the specification allow customisation?

Your answer	❌ NO	20 out of 100 points

A20 - Does the specification allow extension?

Your answer	❌ NO	20 out of 100 points

A21 - To what extent does the specification enable data portability between systems/applications supporting the implementation of European public services?

Your answer	✔ Not Applicable	100 out of 100 points

A22 - To what extent does the specification enable data portability between systems/applications supporting the evolution of European public services?

Your answer	✔ Not Applicable	100 out of 100 points

EIF PRINCIPLES RELATED TO GENERIC USER NEEDS AND EXPECTATIONS

Score for this Section: 480/500

A23 - To what extent does the specification allow relevant information to be reused when needed?

Your answer	✔ Provided information is reused, but not in all scenarios.	80 out of 100 points

A24 - To what extent does the specification enable the e-accessibility?

Your answer	✔ Not Applicable	100 out of 100 points

A25 - To what extent does the specification enable the secure exchange of data?

Your answer ✔ Not Applicable

100 out of 100 points

A26 - To what extent does the specification enable the secure processing of data?

Your answer ✔ Not Applicable

100 out of 100 points

A27 - To what extent could the specification be used in a multilingual context?

Your answer ✔ The specification is designed to fully support multilingualism.

100 out of 100 points

EIF FOUNDATION PRINCIPLES FOR COOPERATION AMONG PUBLIC ADMINISTRATIONS

Score for this Section: 460/500

A28 - Does the specification simplify the delivery of European public services?

Your answer ✔ YES

100 out of 100 points

A29 - Does the specification enable digital service delivery channels?

Your answer ✔ YES

100 out of 100 points

A30 - To what extent does the specification enable the long-term preservation of data/information /knowledge (electronic records included)?

Your answer ✔ Not Applicable

100 out of 100 points

A31 - To what extent are there assessments of the specification's effectiveness?

| Your answer | ✔ There are such assessments addressing the specification and its effectiveness together with other specifications. | 80 out of 100 points |

A32 - To what extent are there assessments of the specification's efficiency?

| Your answer | ✔ There are such assessments addressing the specification and its efficiency together with other specifications. | 80 out of 100 points |

EIF INTEROPERABILITY LAYERS

Score for this Section: 800/1100

A33 - Is the (or could it be) specification mapped to the European Interoperability Architecture (EIRA)?

| Your answer | ✔ YES | 100 out of 100 points |

A34 - To what extent can the conformance of the specification's implementations be assessed?

| Your answer | ✘ The specification does not include a definition of conformance. | 20 out of 100 points |

A35 - Is the specification recommended by an European Member State?

| Your answer | ✘ NO | 20 out of 100 points |

A36 - Is the specification selected for its use in an European Cross-border project/initiative?

| Your answer | ✔ YES | 100 out of 100 points |

A37 - Is the specification included in an open repository/catalogue of standards at national level?

| Your answer | ✘ NO | 20 out of 100 points |

A38 - Is the specification included in an open repository/catalogue of standards at European level?

Your answer ✔ YES

100 out of 100 points

A39 - Is the specification a European Standard?

Your answer ✔ YES

100 out of 100 points

A40 - Does the specification facilitate the modelling of business processes?

Your answer ✔ YES

100 out of 100 points

A41 - To what extent does the specification facilitate organisational interoperability agreements?

Your answer ✔ The specification makes no provisions that would facilitate the drafting of such agreements.

40 out of 100 points

A42 - Does the specification encourage the creation of communities along with the sharing of their data and results on national platforms?

Your answer ✔ YES

100 out of 100 points

A43 - Does the specification encourage the creation of communities along with the sharing of their data and results on European platforms?

Your answer ✔ YES

100 out of 100 points

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