ASSESSMENT SUMMARY v1.0.0

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

(EN 16234-1 e-CF)[1]

European Committee for Standardization (CEN)[2]

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[1] The EN 16234-1 e-CF specification homepage:
https://standards.cencenelec.eu/dyn/www/f?p=205:110:0::::FSP_PROJECT:67073&cs=15E62ED24D608A5F10D6BEE8E6D50FA10

[2] The development organisation homepage: https://www.cencenelec.eu/

Change Control

Modification	Details
Version 1.0.0	
Initial version	

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1. INTRODUCTION

The present document is a summary of the assessment of the EN 16234-1 e-CF carried out by CAMSS using the CAMSS Assessment EIF scenario[3]. The purpose of this scenario is assessing the compliance of a standard or specification with the European Interoperability Framework (EIF)[4].

2. ASSESSMENT SUMMARY

The **CEN/TC 428 - ICT Professionalism and Digital Competences - European Competency Framework (The European Union's European e-Competence Framework) (EN 16234-1 e-CF)** is a framework that provides a common European description of the knowledge, skills and competences of the ICT professional workforce in all economic sectors. The specification 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 in the European digital market.

EN 16234-1 e-CF contributes to moving towards a comprehensive framework for ICT practitioners integrating different building blocks which, in combination with the e-CF User Guide (EN 16234-2) and the e-CF Methodologies (EN 16234-3), results in a common standardised framework for Europe-wide application.

The EN 16234-1 e-CF represents a CEN standardisation initiative funded by the European Commission. The European Committee for Standardization (CEN) is in charge of the publication of the specification and shares the development process with the IT Professionalism Europe (ITPE)[5] agency. ITPE was created in 2018 and performs all activities related to counselling and advice under this specification.

2.1. EIF Interoperability Principles

Interoperability principles are fundamental behavioural aspects that drive interoperability actions. They are relevant to the process of establishing interoperable European public services. They describe the context in which European public services are designed and implemented.

The specification does not support the principles setting context for EU actions on interoperability:

- **Subsidiarity and proportionality**
  There is no Member State that includes EN 16234-1 e-CF in their national catalogue with its National Interoperability Framework (NIF)[6] in alignment with the three categories: 1. Conceptual model for integrated public services provision, 2. interoperability layers, and 3. interoperability principles.

The specification partially supports the principles setting context for EU actions on interoperability:

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[3] EUSurvey EIF Scenario: https://ec.europa.eu/eusurvey/runner/EIFScenario_v500

[4] The EIF homepage: https://ec.europa.eu/isa2/eif_en

[5] IT Professionalism Europe (ITPE): https://itprofessionalism.org/about-us/

[6] National Interoperability Framework (NIF): https://joinup.ec.europa.eu/collection/national-interoperability-framework-observatory-nifo/nifo-factsheets

- **Openness**

EN 16234-1 e-CF does not facilitate the publication of open data. The specification has a clear purpose which is to serve as a device to represent the European e-Competence Framework, which focuses on skills and competences of the ICT professional workforce. Moreover, the specification aims to provide 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[7], 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. The development process (as well as the specification maintenance) has been developed by CEN/TC 428 - ICT Professionalism and Digital Competences[8] to make it accessible to the different stakeholders. The CEN/TC 428 also includes a public roadmap[9].

It is interesting to remark that EN 16234-1 e-CF has support from interest groups that are involved in the development of cross-border initiatives, though there is no evidence of any conducted public reviews. In terms of availability, only ITPE provides an e-CF preview through the Access e-CF Explorer service[10]. Even if the specification is licensed on the royalty-free basis for its implementation or study, the specification should be purchased from each of the national standardisation organisations' sales points[11].

- **Transparency**

EN 16234-1 e-CF 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). The specification then fosters the comprehensibility of administrative procedures, rules data and services to some extent;

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

[8] CEN/TC 428 - ICT Professionalism and Digital Competences section, 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

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

[10] Access e-CF Explorer (ITPE): https://itprofessionalism.org/about-it-professionalism/competences/the-e-competence-framework/

[11] National standardisation organisations reference: https://standards.cencenelec.eu/dyn/www/f?p=205:35:0::::FSP_SURR_WI:67073&cs=1D6A0AE3F4B33063EC3BB54B719082165

however, the specification does not relate to the visibility nor the exposure of interfaces of public administrations.

- **Reusability**
The use of EN 16234-1 e-CF will increase the development and promotion of ICT professionalism, digital skills and e-learning in all sectors of society and industry. The specification is not only usable beyond the business-specific domain, but is also designed to be implemented in any other domain.

- **Technological neutrality and data portability**
The EN 16234-1 e-CF framework represents the European e-Competence Framework. Although the specification might evolve in accordance with other frameworks such as the European Qualifications Framework (EQF)[12] or the global skills and competency framework for the digital world (SFIA)[13], the EN 16234-1 e-CF specification is not dependent on any specification, and can be considered technology-agnostic. Also, it is worth to note that the specification does not allow customisation, extension nor partial implementation as it was designed for a unique purpose. In terms of data portability, this criterion is not applicable to this specification.

The specification partially supports the principles related to generic user needs and expectations:

- **User-centricity**
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).

- **Inclusion and accessibility**
The purpose of EN 16234-1 e-CF is not related to e-accessibility. Therefore, this criterion is considered not applicable to this specification.

- **Security and privacy**
The purpose of EN 16234-1 e-CF is not related to the secure nor trustworthy exchange and processing of data. Therefore, this criterion does not apply to this specification.

- **Multilingualism**
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 in any language of the EU Member States.

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

[13] SFIA: https://sfia-online.org/en/about-sfia

The specification supports the foundation principles for cooperation among public administrations:

- **Administrative Simplification**
  By fostering digital transformation, 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[14] approach. According to the CN/TC 428 roadmap documentation[15], the specification can be well adapted to new digital service channels and is intended to help new digital service channels to be deployed.

- **Preservation of information**
  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.

- **Assessment of effectiveness and efficiency**
  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[16]. Besides, the specification's efficiency was positively evaluated in one of the Estonian Association of Information Technology and Telecommunications (ITL)[17] reports[18], demonstrating its accuracy in policy decision-making.

2.2. EIF Interoperability Layers

The interoperability model which is applicable to all digital public services includes:
- Four layers of interoperability: legal, organisational, semantic and technical;
- A cross-cutting component of the four layers, 'integrated public service governance';
- A background layer, 'interoperability governance'.

The Specification supports the implementation of digital public services complying with the EIF interoperability model:

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

[15] CEN/TC 428 "ICT Professionalism and Digital Competences" Business Plan 2022 (section 1.4): https://standards.cencenelec.eu/BPCEN/1218399.pdf

[16] 'e-CF for SME's – competence need analysis' document (Reports & Publications section, ITPE): https://itprofessionalism.org/app/uploads/2019/08/Competence-need-Analysis.pdf

[17] ITL: https://itl.ee/en/

[18] 'e-CF for EU & national policy makers' document (Reports & Publications section, ITPE): https://itprofessionalism.org/app/uploads/2019/08/for-EU-national-policy-makers.pdf

- **Interoperability governance**
  EN 16234-1 e-CF can be mapped with the EIRA's ABB "Interoperability Skill" from the Organisational View. There is no Member State recommending EN 16234-1 e-CF in its ICT National Catalogue, nor its inclusion in any open repository/catalogue of standards at national level. The specification is [19][OBJ]In addition, the specification promotes cooperation across Europe; 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. In terms of implementation conformity, there are no requirements for compliance and conformance analysis testing defined by the EN 16234-1 e-CF specification.

- **Legal Interoperability**
  According to the CEN/TC 428 roadmap, EN 16234-1 e-CF is a European standard since 2016 and is fully compliant with the European Standardisation regulation 1025/2012, although no assessments have been found verifying it.

- **Organisational interoperability**
  EN 16234-1 e-CF does facilitate the modelling of business processes. The Digital Organisational Frameworks and IT Professionalism (DigiFrame)[20] 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. Although the specification does not make any reference to interoperability issues, the specification aligns with different models and frameworks (e.g., SFIA), and attention has been paid to ensure that these relationships are well defined and published.

- **Semantic Interoperability**
  The ITPE conducts conferences and webinars[21] 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 and European participation.

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[19] CENELEC and CEN standard catalogue: https://standards.cencenelec.eu/dyn/www/f?p=CEN:105::RESET::::

[20] Workshops on the Digiframe (2018) – Presentations subsection (Reports & Publications section, ITPE): https://itprofessionalism.org/app/uploads/2021/01/DIGIFRAME_workshop-4-morningafternoon_report_201811205_final.pdf

[21] Events (ITPE): https://itprofessionalism.org/events/

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **EN 16234-1 e-CF**. The CAMSS "Strength" indicator measures the reliability of the assessment by calculating the number of answered (applicable) criteria. On the other hand, the number of favourable answers and the number of unfavourable ones are used to calculate the "Automated Score" per category and an "Overall Score".

Category	Automated Score	Assessment Strength	Compliance Level
Principle setting the context for EU actions on interoperability	20/100	100%	Ad-hoc
Core interoperability principles	1620/2100	71%	Sustainable
Principles related to generic user needs and expectations	480/500	40%	Seamless
Foundation principles for cooperation among public administrations	460/500	80%	Seamless
Interoperability layers*	800/1100	100%	Sustainable
Overall Score	3380/4300	77%	

The technical interoperability layer is covered by the criteria corresponding to the core interoperability principle ''Openness''.

With a 77% of assessment strength, this assessment can be considered representative of the specification compliance with the EIF principles and recommendations.

The Overall Automated Score of 78,60% (3380/4300) demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.