

ASSESSMENT SUMMARY v1.0.0

Portable Document Format/A¹

International Organization for Standardization (ISO)²

¹ <https://www.iso.org/standard/38920.html>

² <https://www.iso.org/home.html>

Change Control

Modification	Details
Version 1.0.0	
Initial version	

TABLE OF CONTENT

1. INTRODUCTION	4
2. ASSESSMENT SUMMARY	4
2.1. Interoperability Principles.....	4
2.2. Interoperability Layers.....	6
3. ASSESSMENT RESULTS	7

TABLE OF FIGURES

Figure 1. Interoperability principles Results	7
Figure 2. Interoperability layers Results	8

1. INTRODUCTION

The present document is a summary of the assessment of the **Portable Document Format/A (PDF/A)** carried out by CAMSS using the CAMSS EIF assessment scenario. The purpose of this scenario is assessing the compliance of a standard or specification with the European Interoperability Framework (EIF)³.

2. ASSESSMENT SUMMARY

The **Portable Document Format/A (PDF/A)** was published in 2005, it specifies how to use the Portable Document Format (PDF) 1.4 for long-term preservation of electronic documents. PDF/A is highly adopted as a document format for exchange information, which is technological independent.

2.1. 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 fully supports the principles setting context for EU actions on interoperability:

- **Subsidiarity and proportionality**

PDF/A is included in 3 national catalogues of recommended specifications. They belong to Estonia, Spain and Sweden. The National Interoperability Framework (NIF) aligned with at least 4 out of 5 sections of the European Interoperability Framework (EIF) according to the National Interoperability Framework Observatory (NIFO)⁴ factsheets.

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

- **Openness**

The ISO 19005-1:2005 and ISO 19005-2:2011 which refers to PDF/A are not available for free for everyone to study. Payment is needed to reach access to the standard. In ISO, all the stakeholders have the opportunity to contribute to the development of PDF/A and the decision-making process includes a public review. It has a significant market acceptance that demonstrates that it is mature enough for the development of products and services. However, it does not foster the creation of innovative solutions. Moreover, there are no disclosures of ISO IPR Database to identify the licensing under the specification. The specification cannot be considered as an asset to foster data as open data.

- **Transparency**

As a document exchange format, PDF/A is a valuable tool for sharing information through the internet. Allowing sharing data and information the standard foster the visibility and comprehensibility of administration data and services. However, PDF/A is not related to the availability of interfaces with internal information systems.

³ https://ec.europa.eu/isa2/eif_en

⁴ <https://joinup.ec.europa.eu/collection/national-interoperability-framework-observatory-nifo/nifo-factsheets>

- **Reusability**
PDF/A is a business agnostic document format that can be reused in a cross-domain way. However, it is not available for free. It needs to be paid to get access to the specification's text.
- **Technological neutrality and data portability**
The main objective of the PDF/A is to allow text format and images to be independent and work for any software, hardware or operating system. Moreover, the adoption of PDF/A as a document format for exchanging information does not hamper the scalability of systems. Furthermore, it supports data portability between systems.

The specification does not support the principles related to generic user needs and expectations:

- **User-centricity**
The purpose of PDF/A is not related to the implementation of the once-only principle. Therefore, this criterion does not apply to this specification.
- **Inclusion and accessibility**
The purpose of PDF/A is not related to e-accessibility. Therefore, this criterion is considered not applicable to this specification.
- **Security and privacy**
PDF/A provides security features that foster the trustworthy data exchange between administration and stakeholders. It protects in itself data integrity, but also provides capabilities to protect with passwords and user roles the access to the document.
- **Multilingualism**
The purpose of PDF/A is not related to the delivery of multilingual public services. Therefore, this criterion is not applicable to this specification.

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

- **Administrative Simplification**
By allowing the exchange of digital documents, PDF/A avoids sharing non-digital documents and then helps to the reduction of administrative burden. Additionally, as a format fostering the preservation of digital information, ensures the possible reuse and exchange of data over time.
- **Preservation of information**
PDF/A is designed for this purpose. It is an Electronic document file format for long-term preservation of data.

- **Assessment of effectiveness and efficiency**
After carrying out information retrieval, no document or study has been found assessing the PDF/A in terms of efficiency or effectiveness.

2.2. 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:

- **Interoperability governance**
PDF/A is already associated to an EIRA ABB in the European Library Of Specifications (ELIS). More specifically, PDF/A can define the interoperability aspects of the "e-Archiving Component" and "e-Archiving Service" ABBs of the EIRA Technical Infrastructure View. 5 Member States are recommending PDF/A in their ICT National Catalogues. After searching in the different official European websites, there is no evidence of any cross-border project that use PDF/A nor explicit agreements involving the usage of the specification. After checking the different standard catalogues at supra-national level, there is no evidence of the inclusion of PDF/A within any European catalogue of standards.
- **Integrated public service governance & Legal Interoperability**
PDF/A has been assessed previously by the Netherlands using the Technical scenario which is fully aligned with the European Standardisation Regulation 1025/2012. As the result of the assessment is positive, PDF/A can be considered compliant with the European regulation. However, no evidences have been found of the specification being included in a formal interoperability agreement between organisations involved in the European public services provision.
- **Organisational interoperability**
The purpose of PDF/A is not related to the modelling of business processes and it is not related to organisational interoperability. Therefore, these criteria are not applicable to the specification..
- **Semantic Interoperability**
PDF/A does not define a cross-sector reusable data model, but defines a file format for representing electronic documents. Moreover, it is not supporting the main principles for the publication of data as Linked Open Data.
- **Technical interoperability**
PDF/A is highly adopted as a document format for exchange information, which is technological independent.

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **PDF/A**. 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	# Favourable	# Unfavourable	# Not Applicable
Principle setting the context for EU actions on interoperability	100%	100%	1	0	0
Core interoperability principles	61%	95%	11	7	1
Principles related to generic user needs and expectations	100%	25%	1	0	3
Foundation principles for cooperation among public administrations	67%	100%	2	1	0
Interoperability layers*	50%	91%	10	10	2
Overall Score	61%	85%	20	13	6

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

With an 85% of assessment strength, this assessment can be considered representative of the specification in compliance with the EIF principles and recommendations.

The Overall Automated Score of 61% demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.

INTEROPERABILITY PRINCIPLES

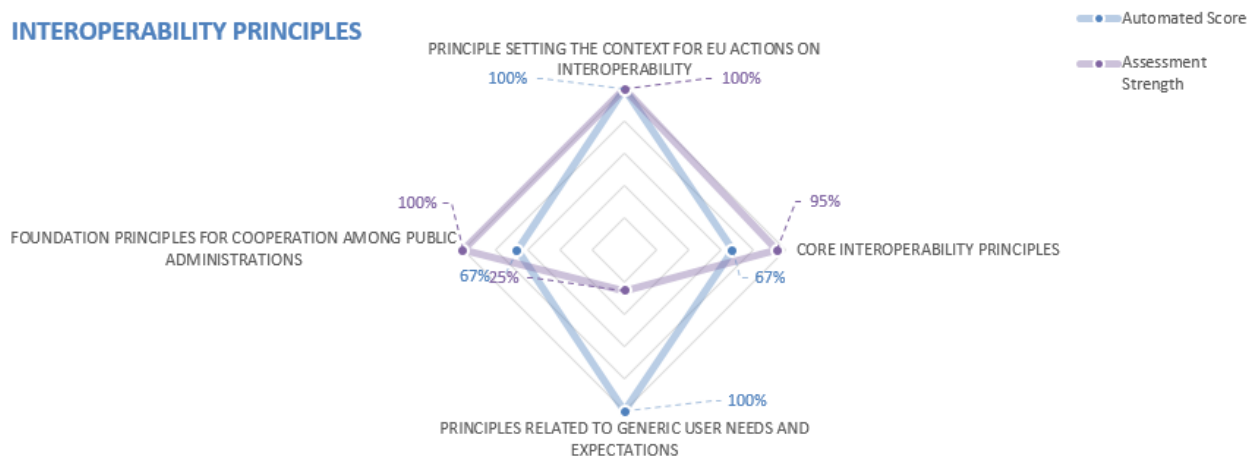


Figure 1. Interoperability principles Results

INTEROPERABILITY LAYERS

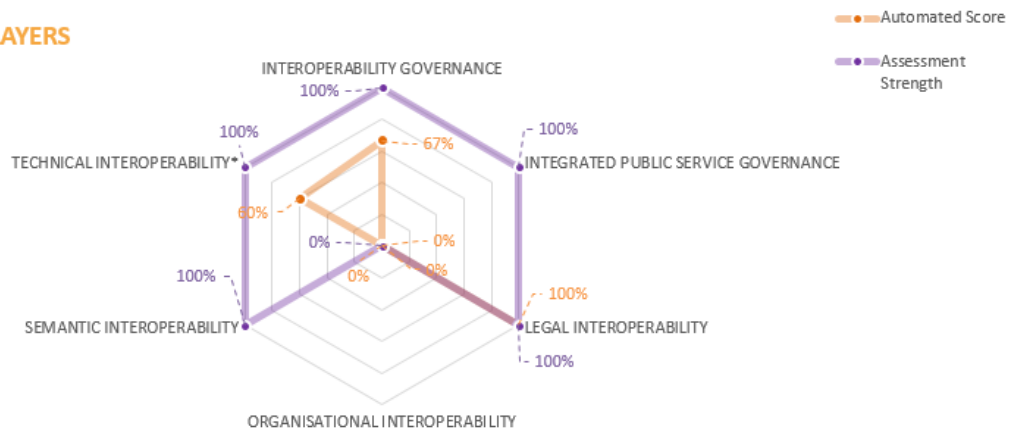


Figure 2. Interoperability layers Results