ASSESSMENT SUMMARY v1.0.0

Scalable Vector Graphics (SVG) 1.1 (Second Edition)[1]

World Wide Web Consortium (W3C)[2]

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[1] https://www.w3.org/TR/SVG11/

[2] https://www.w3.org/

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 **Scalable Vector Graphics (SVG)** 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

Scalable Vector Graphics (SVG) is an Extensible Markup Language (XML)-based vector image format for two-dimensional graphics with support for interactivity and animation.

SVG images and their behaviors are defined in XML text files. This means that they can be searched, indexed, scripted, and compressed. As XML files, SVG images can be created and edited with any text editor, as well as with drawing software.

The specification has been developed by **World Wide Web Consortium (W3C)**, which is an international community concerned with evolving the World Wide Web by developing protocols and guidelines to ensure and enhance its growth. It is worth to note, that it has been developed in close collaboration with the ISA2 programme of the European Commission.

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**
  SVG is included in 4 national catalogues of recommended specifications. They belong to Estonia, the Netherlands, Spain and Sweden. The National Interoperability Framework (NIF) of this Member States is fully 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**
  Scalable Vector Graphics (SVG) is an Extensible Markup Language (XML)-based vector image format for two-dimensional graphics with support for interactivity and animation. The SVG specification is an open standard developed by the World Wide Web Consortium (W3C) since 1999.

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[3] https://ec.europa.eu/isa2/eif_en

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

SVG images and their behaviors are defined in XML text files. This means that they can be searched, indexed, scripted, and compressed. As XML files, SVG images can be created and edited with any text editor, as well as with drawing software.

- **Transparency**
SVG is a valuable tool for sharing information through the internet. Allowing to share data and information the standard foster the visibility of administration data and services. However, it does not foster ensuring the availability of interfaces with internal information systems of a public administration.

- **Reusability**
SVG is a business agnostic document format that can be reused in a cross-domain way. In addition, SVG is made available for its reuse, the document defining the standard is available for free, and the specification is licensed under royalty-free basis and (F) RAND.

- **Technological neutrality and data portability**
It is a widely adopted and used for this purpose and, moreover, it is independent from any platform or software. Therefore, SVG proportionated to the users' needs and at the same time. The standard or specification is proportionate to the needs of its users, the adoption of SVG as a document format for exchanging information does not hamper the scalability of systems. It is a widely adopted and used for this purpose and, moreover, it is independent from any platform or software. The standard or specification fosters data portability between systems.

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

- **User-centricity**
SVG does not foster the once-only principle. The purpose of the specification is not related to user-centricit.

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

- **Security and privacy**
SVG fosters inclusion e-accessibility. It can help the understanding of the information provided allowing all people to access electronic public services.

- **Multilingualism**
SVG does not include security features to foster secure and trustworthy data exchange between administrations and stakeholders.

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

- **Administrative Simplification**
  By allowing the exchange of digital documents, SVG avoids to share non-digital documents and then helps to the reduction of administrative burden.

- **Preservation of information**
  SVG does not foster the long-term preservation of electronic records and other kinds of information. The purpose of the specification is not related the preservation of information.

- **Assessment of effectiveness and efficiency**
  Numerous documents and studies are assessing the effectiveness and efficiency of the SVG while rendering images and textures.

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**
  Ten Member States are recommending SVG in their ICT National Catalogues. However, SVG is not included in any EIRA ABB in the current European Library Of Specifications (ELIS). There are no tools that assess the conformity of the specification.

  After searching in the different official European websites, there is no evidence of any cross-border project that use SVG nor explicit agreements involving the usage of the specification. Moreover, there is no tool that assess the conformity of this specification.

- **Integrated public service governance & Legal Interoperability**
  No formal agreement has been found established between organisations or administrations involved in European public service provision including the usage of SVG.

- **Organisational interoperability**
  The purpose of SVG is not related to the modelling of business processes and it is is not related to organisational interoperability. Therefore, these criteria are not applicable to the specification.

- **Semantic Interoperability**

    SVG does not defines a cross-sector reusable data model, but defines a file format for representing electronic documents. Moreover, the specification neither supports the main principles for the publication of data as Linked Open Data.

- **Technical interoperability**

    This technical interoperability layer is covered by the core interoperability principle ''Openness''.

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **SVG**. 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	95%	100%	18	1	0
Principles related to generic user needs and expectations	50%	50%	1	1	2
Foundation principles for cooperation among public administrations	100%	67%	2	0	1
Interoperability layers*	55%	91%	11	9	2
Overall Score	71%	87%	24	10	5

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

With an 87% of assessment strength, this assessment can be considered representative of the specification compliance with the EIF principles and recommendations.

The Overall Automated Score of 71% demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.
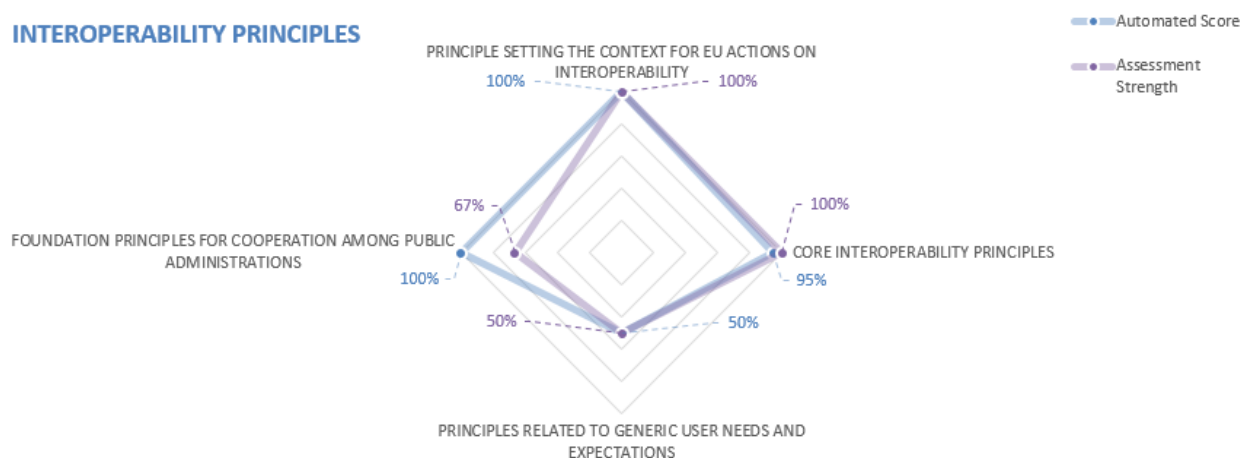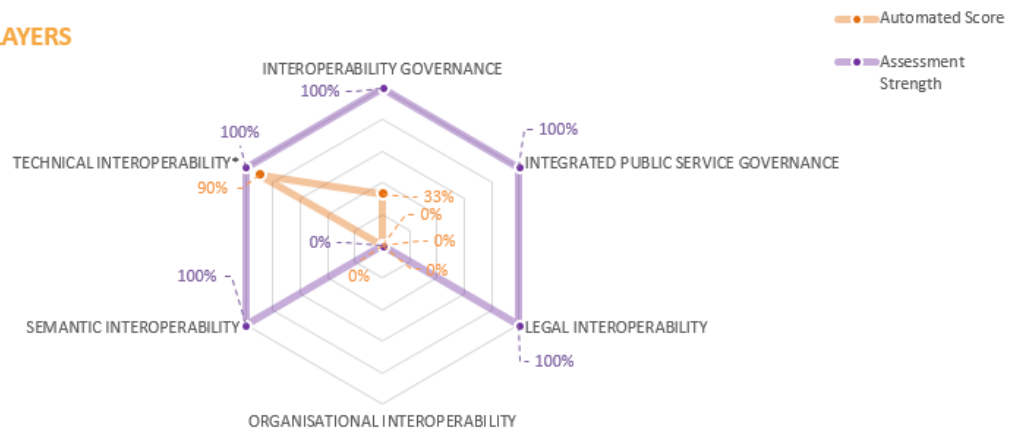

Figure 1. Interoperability principles Results

INTEROPERABILITY LAYERS

Figure 2. Interoperability layers Results