ASSESSMENT SUMMARY v1.0.0

Asset Description Metadata Schema (ADMS)[1]

World Wide Web Consortium (W3C)[2]

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[1] https://www.w3.org/TR/vocab-adms/

[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 **Asset Description Metadata Schema (ADMS)** 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 **Asset Description Metadata Schema (ADMS)** is a profile of DCAT for the description of "assets" defined as highly reusable metadata and reference data used in eGovernment system development. An example of its usage is Joinup, the European Platform for the reusability of interoperability solutions.

The ADMS's use, meaning use a standard and vocabulary for asset descriptions eases the consumption and aggregation of metadata. This fact works to increase the discoverability of interoperability solutions, assets or services, and the federated research through different catalogues and sites.

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**
  ADMS is included in the national catalogue of Slovakia. The National Interoperability Framework (NIF) of this Member State 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**
  ADMS is a profile of DCAT that allows to publish data related to the assets in a repository as open data. Moreover, it helps to improve the discoverability and promotes the reusability of these assets. The development process has been developed by W3C[5] to make it accessible to the

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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

[5] https://www.w3.org/2018/Process-20180201/#Policie

different stakeholders and it also includes a public review. Moreover, W3C is the developer community that maintains this specification.

It is interesting to remark that ADMS has support from interest groups that are involved in the development of cross-border initiatives. Also, it has been extended to meet the specific requirements that the European ICT environment required, the result is the ADMS-AP used in Joinup. In terms of availability, ADMS is publicly available for free at W3C's webpage[6] and Joinup[7]. It is licensed under the royalty-free basis for its implementation or study.

- **Transparency**
  ADMS allows the reusability of interoperability solutions/assets, increasing the discoverability and searchability of them. As an example, initiatives applying ADMS are Metadata Registry (MDR)[8] or Joinup[9].

- **Reusability**
  The ADMS is publicly available for its use for free at W3C's website, and Joinup. Additionally, even though it was developed under the scope of the eGovernment System Development, as it happens with DCAT it can be reused for the description of assets beyond the domain for which was developed.

- **Technological neutrality and data portability**
  ADMS can be used for large amounts of data without the risk of hampering the interoperability of systems nor the scalability. Also, is worth to note that ADMS is supporting the evolution of European Public Service by enhancing the discoverability and reuse of interoperable solutions. However, as other vocabularies, ADMS reuses existing ones (e.g. "foaf"). This creates a risk of hampering interoperability when new releases of involved vocabularies involved are not backward compatible.

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

- **User-centricity**
  The specification is focused on the description of assets and solutions, enhancing the discoverability and reuse by administrations across borders. However, it is not focused on the implementation of the OOP.

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

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[6] https://www.w3.org/TR/vocab-adms/

[7] https://joinup.ec.europa.eu/solution/asset-description-metadata-schema-adms/about

[8] https://op.europa.eu/en/web/eu-vocabularies

[9] http://joinup.ec.europa.eu/asset/adms/asset_release/adms-application-profile-joinup

- **Security and privacy**

  ADMS supports trustworthy data exchange by providing metadata on the different solutions and assets. This metadata allows the assurance and reliability of the data being exchanged.

- **Multilingualism**

  The purpose of ADMS is not related to the delivery of multilingual European Public Services. Therefore, this criterion is considered not applicable to this specification.

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

- **Administrative Simplification**

  By fostering the reuse and cooperation on the development of interoperability solutions at the European level, ADMS helps the administration simplification by easing the digital transformation and the implementation of digital solutions.

- **Preservation of information**

  The specification's purpose is not directly the long-term preservation, but it can be used to document and store interoperability specifications or semantic assets.

- **Assessment of effectiveness and efficiency**

  After researched whether exist studies or documentation assessing the efficiency and effectiveness, any study or documentation has been found assessing the specification in terms of effectiveness and efficiency.

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**

  ADMS can be mapped with the EIRA's ABB "Data" from the Semantic View, and "Metadata Management Component", "Metadata Management Service", "Data Publication Component", and "Data Publication Service" ABBs of the EIRA Technical View. Moreover, the specification is

recommended and included in the Slovakian catalogue[10]. Despite having been included in MS's catalogues, it is not included in any catalogue at European Level. In terms of implementation conformity, there is no available validation tool provided by the W3C.

- **Integrated public service governance & Legal Interoperability**
ADMS is the basis of the Application Profile that is used for the description of the assets and distributions published in Joinup[11]. It is a cross-border initiative to promote the cooperation and reuse of assets towards a better interoperability environment. After checking assessments carried out in order to verify ADMS's compliance with European Standardisation regulation 1025/2012, no assessments have been found verifying DCAT's compliance.

- **Organisational interoperability**
The purpose of ADMS is not related to defining organisational interoperability aspects.

- **Semantic Interoperability**
ADMS is available for its use and implementation on Joinup, the collaborative platform for created by the European Commission for its use and implementation. Also, the specification has been developed to describe semantic assets within repositories, aiming to enhance the discoverability and reuse. It is worth to note that ADMS defines a vocabulary schema that can be reused in any sector to describe assets included in a repository.

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

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[10] https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/camss-list-standards

[11] https://joinup.ec.europa.eu/release/adms-application-profile-joinup

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **ADMS**. 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	89%	100%	17	2	0
Principles related to generic user needs and expectations	50%	50%	1	1	2
Foundation principles for cooperation among public administrations	67%	100%	2	1	0
Interoperability layers*	80%	91%	16	4	2
Overall Score	80%	90%	28	7	4

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

With a 90% of assessment strength, this assessment can be considered representative of the specification compliance with the EIF principles and recommendations.

The Overall Automated Score of 80% demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.
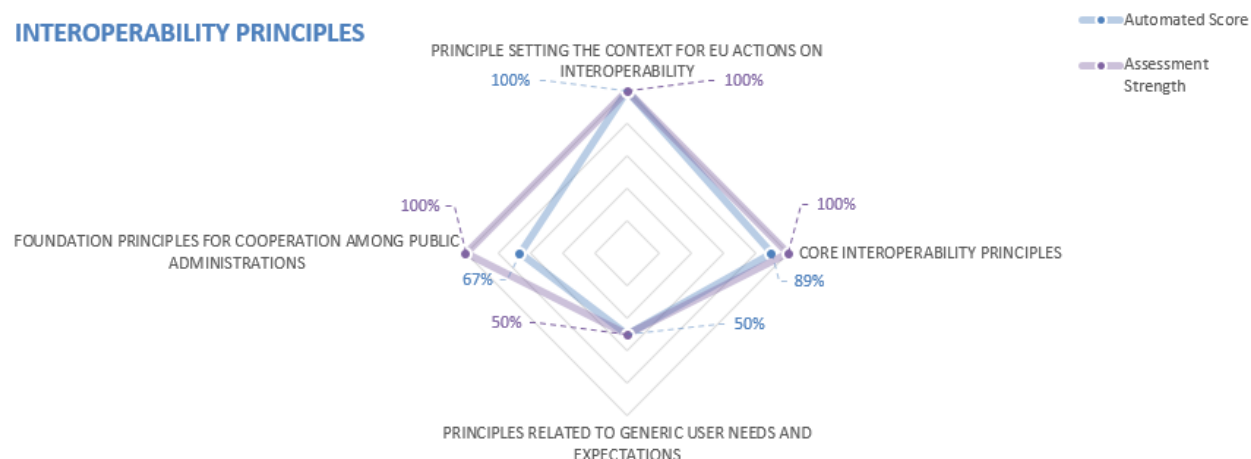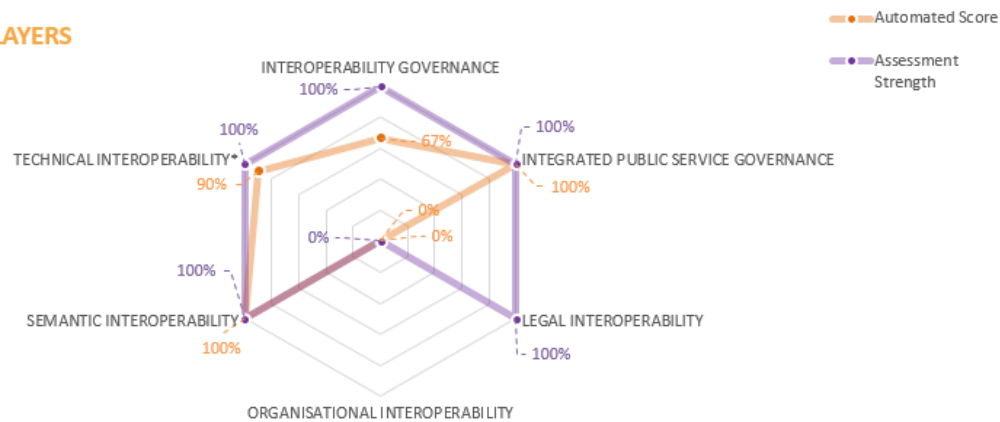

Figure 1. Interoperability principles Results

INTEROPERABILITY LAYERS

Figure 2. Interoperability layers Results