

# CAMSS Assessment EIF Scenario v6.0.0

Fields marked with \* are mandatory.

# CAMSS Assessment EIF Scenario v6.0.0

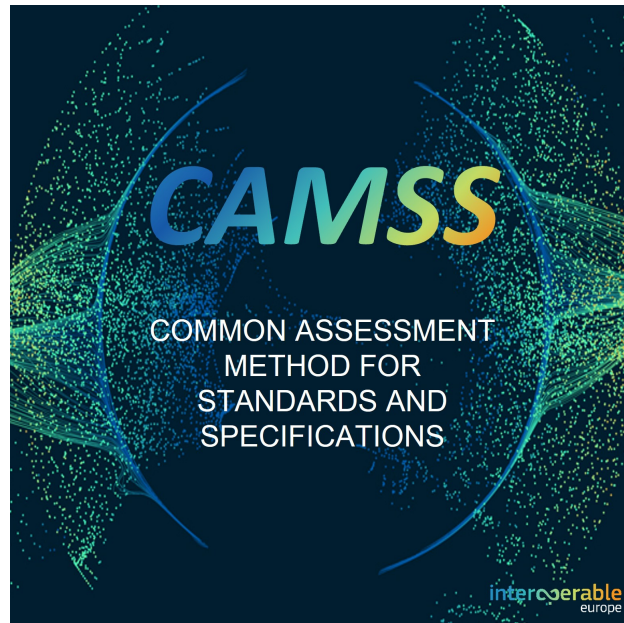


**Release Date:** 14/04/2023

**Scenario Version:** 6.0.0

**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
<b>Principles setting the context for EU Actions on Interoperability</b>	20	40	60	80	100
<b>EIF Core Interoperability Principles</b>	0 to 340	341 to 680	681 to 1020	1021 to 1360	1361 to 1700
<b>EIF Principles Related to generic user needs and expectations</b>	0 to 240	241 to 480	481 to 720	721 to 960	961 to 1200

**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 200                      201 to 400                      401 to 600                      601 to 800                      801 to 1000

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

Compliance Level	Description
<b>Ad-hoc</b>	Poor level of conformance with the EIF - The specification does not cover the requirements and recommendations set out by the EIF in this area.
<b>Opportunistic</b>	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.
<b>Essential</b>	Essential level of conformance with the EIF - The specification covers the basic aspects set out in the requirements and recommendations from the European Interoperability Framework.
<b>Sustainable</b>	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.
<b>Seamless</b>	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](mailto: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 Assessment EIF Scenario 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.*

The CAMSS Assessment EIF Scenario is based on EU Survey, by accepting the CAMSS Privacy Statement 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 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

\* 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

### \* Specification type

**Specification:** Set of agreed, descriptive, and normative statements about how a specification should be designed or made.

**Standard:** Specification that is largely adopted and possibly endorsed.

**Application Profile:** An application profile “customises one or more existing specifications potentially for a given use case or a policy domain adding an end to end narrative describing and ensuring the interoperability of its underlying specification(s)”.

**Family:** A family is a collection of interrelated and/or complementary specifications, standards, or application profiles and the explanation of how they are combined, used, or both.

- Specification
- Standard
- Application Profile
- Family of Specification

### \* Title of the specification

Training Data Markup Language for Artificial Intelligence (TrainingDML-AI)

### \* Version of the specification

1.0

### \* Description of the specification

The Training Data Markup Language for Artificial Intelligence (TrainingDML-AI) Standard aims to develop the UML model and encodings for geospatial machine learning training data. Training data plays a fundamental role in Earth Observation (EO) Artificial Intelligence Machine Learning (AI/ML), especially Deep Learning (DL). It is used to train, validate, and test AI/ML models. This Standard defines a UML model and encodings consistent with the OGC Standards baseline to exchange and retrieve the training data in the Web environment.

### \* URL from where the specification is distributed

<https://www.ogc.org/standard/trainingdml-ai/>

### \* 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:

OGC

\* and, provide its URL:

<https://www.ogc.org/>

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 Information

The OGC TrainingDML-AI Standard enhances interoperability by standardizing geospatial training data formats and metadata for AI/ML applications, facilitating data exchange and integration across different systems and platforms within the geospatial and AI/ML communities.

## 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

---

**\* 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 use 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-2021>

- 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 middle-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

OGC TrainingDML-AI is not included in any national catalogue of recommended specifications whose Member State National Interoperability Framework has a high performance on interoperability according to NIFO factsheets.

CAMSS List of Standards:

<https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss>

## 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 data on the web?**

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
- The specification does not support the publication of data on the web.
- The specification supports the publication of data on the web but under a non-open license.
- The specification supports the publication of data on the web with an open license, but in an unstructured format.
- The specification supports publication of data on the web with an open license and in a structured, machine-readable format.
- In addition to the previous question, the specification does not require proprietary software for the processing of its related data.
- In addition to the previous question, the specification is or incorporates open standards (e.g. W3C).

\* Justification

TrainingDML-AI does not directly facilitate the publication of the data on the web but it is used to train, validate, and test AI/ML models defining a UML model and encodings consistent with the OGC Standards baseline to exchange and retrieve the training data in the Web environment.

TrainingDML-AI OGC reference:

[https://docs.ogc.org/is/23-008r3/23-008r3.html#\\_ba9834c4-89de-4391-8aba-042e48d74fa1](https://docs.ogc.org/is/23-008r3/23-008r3.html#_ba9834c4-89de-4391-8aba-042e48d74fa1)

\* **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

The TC(Technical Committe) is the primary group where OGC Standards and many Products are developed, discussed, approved, and maintained. The TC members are responsible for the development and maintenance of all Standards and related technical documents and supporting deliverables.

OGC Technical Committee Policies and Procedures:

<https://www.ogc.org/join/>

<https://docs.ogc.org/pol/05-020r29/05-020r29.html>

\* **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

The OGC TrainingDML-AI working group values all feedback received but maintains confidentiality of feedback and contributors' identities to foster an inclusive and open process and protect intellectual property rights. However, the final standard will be publicly accessible, reflecting changes based on feedback received. Subscribers to the Distribution List may access open feedback.

OGC Policies reference:

<https://www.ogc.org/about-ogc/policies/>

OGC Distribution list subscription:

<https://www.ogc.org/requests/ogc-seeks-public-comment-on-new-standard-for-training-data-for-ai-ml-applications/>

**\* A5 - To what extent do restrictions and royalties apply to the specification's use?**

**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
- The specification has no public definition of its Intellectual Property Right (IPR) policy or licence.
- Use of the specification is restricted and requires the payment of royalty fees.
- Use of the specification is royalty-free but imposes an Intellectual Property Right (IPR) policy or licence that goes against Fair, Reasonable and Non-Discriminatory (F/RAND) principles.
- Use of the specification is royalty-free and its Intellectual Property Right (IPR) policy or licence is aligned with Fair, Reasonable and Non-Discriminatory (F/RAND) principles.

**\* Justification**

The OGC TrainingDML-AI standard is available under the OGC Community Standard License, which allows for free use, modification, and distribution of the standard. There are no restrictions or royalties associated with the use of the standard. However, the OGC Community Standard License does not apply to any software or other implementations of the standard.

OGC Community:

<https://www.ogc.org/about-ogc/community/>

OGC Policies reference:

<https://www.ogc.org/about-ogc/policies/ipr>

**\* A6 - 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

The OGC TrainingDML-AI standard is a developing framework with the goal of offering a universal language for describing AI models and their data. Although still in the process of widespread adoption, it has undergone multiple iterations and testing phases. Despite its current limited usage, there is potential for it to enhance the development of AI-driven digital solutions, especially as several OGC members are interested in developing similar standards.

Moreover, the specification encompasses published documentation regarding supporting processes like change management and release management.

OGC TrainingDML-AI Standard:

<https://www.opengeospatial.org/standards/trainingdml-ai>

OGC Member List:

<https://www.ogc.org/about-ogc/ogc-member-list/>

OGC Technical Committee Policies and Procedures reference:

<http://docs.opengeospatial.org/pol/05-020r29/05-020r29.html>

\* **A7 - 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 used to implement innovative solutions, then, the specification should not be considered as failing to meet the requirements of the criterion.

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

\* Justification

The OGC TrainingDML-AI standard, despite being in its early development stages, has attracted significant interest from both the geospatial and AI communities. This indicates a robust market acceptance for its utilization in the development of digital solutions/services. The focus on deep learning and emerging technologies implies that the standard is well-positioned to have a substantial impact on shaping future technological advancements within the geospatial domain.

OGC TrainingDML-AI Standard:

<https://www.opengeospatial.org/standards/trainingdml-ai>

OGC TrainingDML-AI Implementations:

<https://www.ogc.org/resources/implementations/>

**\* A8 - 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 exist around 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**

The Open Geospatial Consortium (OGC) provides public support for the specification and manages its maintenance through a community-driven process. The OGC has a dedicated Working Group (WG) for Training and Education, which is responsible for developing and maintaining the Training Data Markup Language.

OGC Community:

<https://www.ogc.org/about-ogc/community/>

## Transparency

---

**\* A9 - 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

TrainingDML-AI Standard does not explicitly address the visibility of administrative procedures, rules data, and services. Its primary focus is on the development of a UML model and encodings for geospatial machine learning training data. However, the detailed metadata provided by the TrainingDML-AI Standard could potentially be used to inform such procedures and rules, particularly in the context of preparing and managing training data for AI/ML applications

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\* **A10 - 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

In terms of administrative procedures, rules data, and services, the OGC TrainingDML-AI standard does not explicitly mention these aspects. However, the detailed metadata it provides could potentially be used to inform such procedures and rules, particularly in the context of preparing and managing training data for AI /ML applications.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\* **A11 - 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 TrainingDML-AI Standard primarily focuses on creating a UML model and encodings for geospatial machine learning training data. However, the specification's goal of facilitating the exchange and retrieval of training data in a web environment indirectly supports the creation of web interfaces. These interfaces are crucial for manipulating and accessing geospatial data.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Reusability

---

\* **A12 - 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 implemented or used in other domains.
- The specification is associated with a specific domain but its implementation and/or use in other domains is difficult.
- The specification is associated with a specific domain but could be partially implemented and/or used in other domains.
- The specification is associated with a specific domain but could be implemented and/or used 'as-is' to other domains.
- The specification is domain-agnostic, designed to be implemented and/or used in any domain.

\* Justification

The TrainingDML-AI Standard is primarily design for geospatial machine learning training data. While it facilitates the development and deployment of AI/ML applications within the geospatial realm, it also provides valuable guidelines applicable across various industries. These guidelines can enhance data management and AI/ML model development practices beyond the geospatial domain.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Technological Neutrality and Data Portability

---

### \* A13 - Is the specification technology 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.

Technology-neutrality relates to not being dependent on any other ("sister") specifications, and platform-neutrality, not being dependent on any specific environment, web platform, operating system.

- Not Answered
- Not Applicable
- NO
- YES

### \* Justification

The TrainingDML-AI Standard is designed to be technology agnostic. It defines a UML model and encodings for machine learning training data, which can be implemented in various technologies.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

### \* A14 - 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.

Technology-neutrality relates to not being dependent on any other ("sister") specifications, and platform-neutrality, not being dependent on any specific environment, web platform, operating system.

- Not Answered
- Not Applicable
- NO
- YES

### \* Justification



The TrainingDML-AI Standard is also platform agnostic. It provides a model and encodings for exchanging and retrieving training data via the Web, which can be implemented on any platform that supports web technologies.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

**\* A15 - 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 defined in the documentation.

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.
- 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**

There's no explicit mention of partial implementations in the available documentation. However, the standard does provide flexibility in how the training data is prepared and how different metadata is specified for different Machine Learning (ML) tasks.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

**\* A16 - 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 TrainingDML-AI Standard allows for customisation in terms of how the training data is prepared, how different metadata is used for different ML tasks, and how to introduce external classification schemes.

OGC TrainingDML-AI Standard:

<https://docs.ogc.org/is/23-008r3/23-008r3.html>

**\* A17 - 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 extension is Core Vocabularies, which are a set of general requirements fitting in different contexts that can complement each other in a sort of extensibility practice to fit specific business requirements in any implementation.

- Not Answered
- Not Applicable
- NO
- YES

**\* Justification**

TrainingDML-AI Standard allows for extension. It provides a high-level training data information model and allows for extended information models specific to various ML applications.

OGC TrainingDML-AI Standard:

<https://docs.ogc.org/is/23-008r3/23-008r3.html>

**\* A18 - To what extent does the specification enable data portability between systems/applications supporting the implementation or 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 TrainingDML-AI Standard enables data portability by defining a model and encodings for exchanging and retrieving training data via the Web. This could potentially support the implementation or evolution of European public services that use AI/ML, by enabling the standardized exchange of training data between different systems and applications.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## 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

---

**\* A19 - 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.

First European Data Space, Once Only Technical System (OOTS):

<https://ec.europa.eu/digital-building-blocks/wikis/display/DIGITAL/Once+Only+Technical+System>

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**

The TrainingDML-AI standard aims to maximize the interoperability and reusability of geospatial training data. It provides detailed metadata for formalizing the information model of training data. This includes aspects such as how the training data is prepared, how to specify different metadata used for different ML tasks, and how to differentiate the high-level training data information model and extended information models specific to various ML applications

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Inclusion and Accessibility

---

### \* A20 - 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 OGC TrainingDML-AI is not related to e-accessibility. Therefore, this criterion is considered not applicable to this specification.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Privacy

---

### \* A21 - To what extent does the specification ensure the protection of personal data managed by Public Administrations?

**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.

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 OGC TrainingDML-AI Standard does not specifically mention the protection of personal data managed by Public Administrations. Therefore, this criterion is considered not applicable to this specification.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\* **A22 - Does the specification provide means for restriction of access to information/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.

The principle of confidentiality defines that only the sender and the intended recipient(s) must be able to create the content of a message. Confidentiality have compromised if an unauthorized person is able to create a message.

- Not Answered
- Not Applicable
- The specification prevents or does not support the implementation of confidentiality mechanisms/features.
- The specification neither addresses confidentiality nor prevents it.
- The specification addresses confidentiality but without specific provisions to enable it.
- The specification introduces certain aspects that can contribute to enabling confidentiality.
- The specification explicitly addresses and enables the implementation of features to guarantee confidentiality.

\* Justification

The available information does not specifically mention any means for restriction of access to information /data. Therefore, this criterion is considered not applicable to this specification.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\*

## A23 - Is the specification included in any initiative at European or National level covering privacy aspects?

**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.

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.

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.

For example, the ETSI (Electronic Signatures and Infrastructures) family of specifications are part of the trust establishment of the eDelivery solution, ensuring that its implementation is salient to guarantee security and privacy.

- Not Answered
- Not Applicable
- Yes, but at national or regional level.
- Yes, at European level.

### \* Justification

The available information does not specifically mention if the specification is included in any initiative at European or National level covering privacy aspects. Therefore, this criterion is considered not applicable to this specification.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Security

---

### Data processing and exchange

#### \* A24 - 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.

This 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 TrainingDML-AI is not related to the secure exchange of data. While it doesn't explicitly mention security, the use of standardized protocols and formats can contribute to secure data exchange.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\* **A25 - 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 TrainingDML-AI is not related the secure processing of data. However, secure processing of data is typically ensured by implementing appropriate security measures at the application level.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

**Data authenticity**

\* **A26 - To what extent the specification guarantees the authenticity and authentication of the roles agents involved in the data transactions?**

**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.

Authentication defines that users are who they request to be. Availability defines that resources are available by authorized parties; "denial of service" attacks, which are the subject matter of national news, are attacks against availability. The concerns of information security professionals are access control and Nonrepudiation.

Authorization defines the power that it can have over distinguishing authorized users from unauthorized users, and levels of access in-between. Authenticity defines the constant checks that it can have to run on the system to make sure sensitive places are protected and working perfectly.”

- Not Answered
- Not Applicable
- The specification prevents or does not support the implementation of authentication features.
- The specification neither addresses authenticity nor prevents it.
- The specification addresses the implementation of authenticity features but without specific provisions to enable it.
- The specification introduces certain aspects that can contribute to enabling authenticity features.
- The specification explicitly addresses and enables the implementation of authenticity features.

\* Justification

The available information does not specifically mention the authenticity and authentication of the roles agents involved in the data transactions. Therefore, this criterion is considered not applicable to this specification.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Data integrity

\* **A27 - To what extent information is protected against unauthorised changes?**

**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.

Integrity defines that information is protected against unauthorized changes that are not perceptible to authorized users; some incidents of hacking compromise the integrity of databases and multiple resources.

- Not Answered
- Not Applicable
- The specification prevents or does not support the implementation of data integrity mechanisms /features.
- The specification neither addresses data integrity nor prevents it.
- The specification addresses data integrity but without specific provisions to enable it.
- The specification introduces certain aspects that can contribute to enabling data integrity.
- The specification explicitly addresses and enables the implementation of features to guarantee data integrity.

\* Justification

While the standard doesn't explicitly outline mechanisms for safeguarding against unauthorized changes, incorporating detailed metadata and provenance information can enhance data integrity by enabling tracking and auditing of modifications. This structured data management approach inherently contributes to maintaining data integrity.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>



## Data accuracy

### \* A28 - To what extent does the specification ensure and enable data processing accuracy?

**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.

The accuracy and completeness of information systems and the data supported within the systems should be an administration concern. The information which has been inappropriately changed or destroyed (by external or employees) can impact the organization. Each organization should make controls to provide that data entered into and saved in its automated files and databases are complete and accurate and provide the accuracy of disseminated data.

- Not Answered
- Not Applicable
- The specification prevents or does not support the implementation of data accuracy mechanisms/features.
- The specification neither addresses data accuracy nor prevents it.
- The specification addresses data accuracy but without specific provisions to enable it.
- The specification introduces certain aspects that can contribute to enabling data accuracy.
- The specification explicitly addresses and enables the implementation of features to guarantee data accuracy.

### \* Justification

The OGC TrainingDML-AI Standard indirectly supports data accuracy by defining standardized formats and detailed metadata for geospatial training data, which helps ensure the quality and reliability of data used in AI /ML applications.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Access Control

### \* A29 - To what extent does the specification provide an access control mechanism?

**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.

The principle of access control decides who must be able to access what. For example, it must be able to define that user A can view the data in a database, but cannot refresh them. User A can be allowed to create updates as well. An access-control mechanism can be installed to provide this. Access control is associated with two areas including role management and rule management. Role management applies on the user side, whereas rule management targets the resources side.

- Not Answered
- Not Applicable
- The specification does not provide access control mechanisms.
- The specification neither addresses nor prevents access control mechanisms.
- The specification addresses access control mechanisms but without specific provisions to enable them.
- The specification introduces certain aspects that can contribute to enabling access control mechanisms.

- The specification explicitly foresees a set of requirements for the enabling of access control mechanisms.

\* Justification

The specification does not explicitly address whether it includes an access control mechanism. Regarding data quality and provenance, the specification likely incorporates elements to ensure data reliability.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Multilingualism

---

\* **A30 - 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

The available information does not specifically mention if the specification could be used in a multilingual context. However, the principles of the standard, such as the use of standardized formats and protocols, could potentially support multilingual data. For instance, it could be possible to use the standard to manage training data for machine learning models that work with text data in multiple languages.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

Multilingual Multimodal Learning with Machine Translated Text study:  
<https://deepai.org/publication/multilingual-multimodal-learning-with-machine-translated-text>

## 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

---

### \* A31 - 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.

A positive answer would cover every specification easing digitalisation and administrative simplification by for example helping an Identification service access a Digital Portfolio with citizens information.

- Not Answered
- Not Applicable
- NO
- YES

### \* Justification

The TrainingDML-AI Standard primarily centers on crafting a UML model and encodings for geospatial machine learning training data. Its adoption can indirectly enhance the efficiency, effectiveness, and inclusivity of public service delivery. By offering a framework for the standardized utilization of geospatial training data, it supports the creation of AI/ML applications capable of revolutionizing the design and delivery of public services.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

### \* A32 - 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.

A positive answer would cover that a specification eases or provides better means of delivering public services as a good asset for digitalisation and administrative simplification. For instance, a specification directly related to API performance easing and improving the delivery of a Digital Public Service through an API.

- Not Answered
- Not Applicable
- NO
- YES

### \* Justification

The OGC TrainingDML-AI standard facilitates online access and retrieval of data, enhancing accessibility and potentially streamlining digital service delivery channels. By establishing a foundation for efficient AI/ML applications and guaranteeing interoperable, high-quality data, the standard indirectly fosters the advancement of digital services in diverse domains, including public administration and environmental management.

## Preservation of Information

---

**\* A33 - 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 TrainingDML-AI Standard provides detailed metadata for formalizing the information model of training data, which could potentially support the long-term preservation of data.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

## Assessment of Effectiveness and Efficiency

---

**\* A34 - 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 when 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

TrainingDML-AI Standard's effectiveness has undergone a internal rigorous review and approval process. The effectiveness of the standard would likely depend on factors such as its adoption rate, the performance of AI/ML models trained using data prepared according to the standard, and feedback from the user community.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

OGC TrainingDML-AI approach for making EO training datasets ready in deep learning frameworks paper:  
<https://ieeexplore.ieee.org/document/10233498>

\* **A35 - 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

TrainingDML-AI Standard's efficiency has undergone a internal rigorous review and approval process. The effectiveness of the standard would likely depend on factors such as its adoption rate, the performance of AI /ML models trained using data prepared according to the standard, and feedback from the user community.

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

OGC TrainingDML-AI approach for making EO training datasets ready in deep learning frameworks paper:  
<https://ieeexplore.ieee.org/document/10233498>

# 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

---

**\* A36 - 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**

At the time of elaborating this assessment, this specification is included in the "Machine Learning" ABB under the Technical Infrastructure View and "Artificial Intelligence" ABB under the Technical Application View.

EIRA Library of Interoperability Specifications (ELIS):

<https://joinup.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/elis/release/600>

**\* A37 - 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

The specification outlines conformance as requirements that are manually measurable. An abstract test suite has been developed to manually verify the conformity of classes, with its feasibility confirmed through testing across multiple distinct implementations.

OGC TrainingDML-AI, Abstract Test Suite section:

[https://docs.ogc.org/is/23-008r3/23-008r3.html#\\_5097f072-1f22-4e93-be63-429921ab323a](https://docs.ogc.org/is/23-008r3/23-008r3.html#_5097f072-1f22-4e93-be63-429921ab323a)

OGC TrainingDML-AI Implementations:

[https://github.com/opengeospatial/TrainingDML-AI\\_SWG/tree/main/Implementations](https://github.com/opengeospatial/TrainingDML-AI_SWG/tree/main/Implementations)

\* **A38 - Is the specification recommended by a 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 evidence that the specification has been explicitly endorsed by any European Union member state.

OGC TrainingDML-AI:

<https://www.ogc.org/standard/trainingdml-ai/>

\* **A39 - Is the specification selected for its use in a 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](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

OGC-TrainingDML-AI isn't confirmed to be part of a European project, but the Open Geospatial Consortium (OGC) works globally, including in Europe, to create and promote geospatial data and technology standards. Elements of OGC standards, like TrainingDML-AI, might be used in European projects on geospatial data and AI.

OGC Implementations:  
<https://www.ogc.org/resources/implementations/>

OGC TrainingDML-AI Standard:  
<https://docs.ogc.org/is/23-008r3/23-008r3.html>

\* **A40 - 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 that the specification has been included in an open repository/catalogue of standards at national level.

OGC TrainingDML-AI:  
<https://www.ogc.org/standard/trainingdml-ai/>

\* **A41 - Is the specification included in an open repository/catalogue of standards at European 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 that the specification has been included in an open repository/catalogue of standards at European level

OGC TrainingDML-AI:

<https://www.ogc.org/standard/trainingdml-ai/>

## Legal Interoperability

---

### \* A42 - Is the specification a European Standard?

**EIF Recommendation 27:** Ensure that legislation is screened by means of 'interoperability checks', to identify any barriers to interoperability. When drafting legislation to establish a European public service, seek to make it consistent with relevant legislation, perform a 'digital check', and consider data protection requirements.

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

The Open Geospatial Consortium (OGC) is an international Standards Development Organization headquartered in the United States. While it is based in the U.S., the OGC collaborates with organizations and experts from around the world to develop its standards and specifications.

OGC Home:

<https://www.ogc.org/>

## Organisational Interoperability

---

### \* A43 - 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

While the OGC TrainingDML-AI Standard does not directly model business processes, its contribution to standardizing geospatial training data for AI/ML applications indirectly supports more efficient, reliable, and collaborative business processes within organizations that depend on geospatial analysis and AI/ML technologies.

OGC TrainingDML-AI:

<https://www.ogc.org/standard/trainingdml-ai/>

**\* A44 - 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**

It could serve as a valuable facilitator of European organizational agreements regarding geospatial data by providing a common framework for data management and exchange. This support can help reduce barriers to interoperability and promote collaboration among entities involved in geospatial data processing. Additionally, integrating machine learning capabilities within this framework could further enhance data analysis, decision-making, and innovation in geospatial applications across Europe.

OGC TrainingDML-AI:

<https://www.ogc.org/standard/trainingdml-ai/>

OGC TrainingDML-AI Implementations:

[https://github.com/opengeospatial/TrainingDML-AI\\_SWG/tree/main/Implementations](https://github.com/opengeospatial/TrainingDML-AI_SWG/tree/main/Implementations)

## Semantic Interoperability

---

**\* A45 - Does the specification encourage the creation of communities along with the sharing of their data and results in national and/or European 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
- Yes, but at national or regional level.
- Yes, at European platforms.

\* Justification

The specification facilitates the creation of communities by enabling the sharing of data and results on national and/or European platforms. It promotes collaboration and interoperability among stakeholders through standardized data management and exchange. This fosters the formation of focused communities in geospatial topics, enhancing the sharing of insights and best practices. Moreover, it supports integrating data and results from various sources, enriching collective knowledge within these communities.

OGC Community:

<https://www.ogc.org/about-ogc/community/>

## Useful links

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

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

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

CAMSS@everis.com





# CAMSS Assessment EIF Scenario v6.0.0 - 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	Compliance Level				
	Ad-hoc	Opportunistic	Essential	Sustainable	Seamless
<b>Principles setting the context for EU Actions on Interoperability</b>	20	40	50	80	90
<b>EIF Core Interoperability Principles</b>	0 to 340	341 to 681	681 to 1020	1021 to 1360	1361 to 1700
<b>EIF Principles Related to generic user needs and expectations</b>	0 to 240	241 to 480	481 to 720	721 to 960	961 to 1200

**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 200      201 to 400      401 to 600      601 to 800      801 to 1000

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
<b>Ad-hoc</b>	Poor level of conformance with the EIF - The specification does not cover the requirements and recommendations set out by the EIF in this area.
<b>Opportunistic</b>	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.
<b>Essential</b>	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.
<b>Sustainable</b>	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.
<b>Seamless</b>	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 1800 points.
2. In the middle table – the Section Compliance Conversion Table – see that this number correlates to a column. In our example, the 1800 points of Core Interoperability Principles fall in the EIF Core Interoperability Principles row, and ‘1441 to 1800’ 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** 3320

**Maximum Score** 4500



Section	Score for this Section	
EIF PRINCIPLES SETTING THE CONTEXT FOR EU ACTIONS ON INTEROPERABILITY	20/100	
EIF CORE INTEROPERABILITY PRINCIPLES	1360 /1700	
EIF PRINCIPLES RELATED TO GENERIC USER NEEDS AND EXPECTATIONS	1040 /1200	
EIF FOUNDATION PRINCIPLES FOR COOPERATION AMONG PUBLIC ADMINISTRATIONS	460 /500	
EIF INTEROPERABILITY LAYERS	440 /1000	

## 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: 1360/1700

**A2 - Does the specification facilitate the publication of data on the web?**

Your answer **✓** The specification does not support the publication of data on the web.

0 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 registration, fees, and membership approval.

40  
out of  
100  
points



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

Your answer **✓** All major and minor releases foresee a public review during which collected feedback is publicly visible.

100  
out of  
100  
points



**A5 - To what extent do restrictions and royalties apply to the specification's use?**

Your answer **✓** Use of the specification is royalty-free and its Intellectual Property Right (IPR) policy or licence is aligned with Fair, Reasonable and Non-Discriminatory (F/RAND) principles.

100  
out of  
100  
points






**A6 - To what extent is the specification sufficiently mature for its use in the development of digital solutions/services?**

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


100 out of 100 points



**A7 - To what extent has the specification sufficient market acceptance for its use in the development of digital solutions/services?**

Your answer ✔ The specification does not have market acceptance because it is directly used to create innovative solutions.


100 out of 100 points



**A8 - To what extent has the specification support from at least one community?**

Your answer ✔ There is a community providing public support linked to the specification but in a best-effort manner.


80 out of 100 points



**A9 - To what extent does the specification enable the visibility of administrative procedures, rules data, and services?**

Your answer ✔ The specification can contribute and promote the visibility of administrations, but it is not its main purpose.


60 out of 100 points



**A10 - To what extent does the specification scope comprehensibly administrative procedures, rules data, and services?**

Your answer ✔ The specification can contribute and promote the comprehensibility of administrations, but it is not its main purpose.


60 out of 100 points



**A11 - To what extent does the specification enable the exposure of interfaces to access the public administration's services?**

Your answer ✔ The specification enables exposure of such interfaces.

100 out of 100 points



**A12 - To what extent is the specification usable beyond the business-specific domain, allowing its usage across business domains?**

Your answer  The specification is associated with a specific domain but could be implemented and/or used 'as-is' to other domains.

80  
out of  
100  
points



**A13 - Is the specification technology agnostic?**

Your answer  YES

100  
out of  
100  
points



**A14 - Is the specification platform agnostic?**

Your answer  YES

100  
out of  
100  
points



**A15 - To what extent does the specification allow for partial implementations?**

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

60  
out of  
100  
points



**A16 - Does the specification allow customisation?**

Your answer  YES

100  
out of  
100  
points



**A17 - Does the specification allow extension?**

Your answer  YES

100  
out of  
100  
points



**A18 - To what extent does the specification enable data portability between systems/applications supporting the implementation or evolution of European public services?**

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

80  
out of  
100  
points



# EIF PRINCIPLES RELATED TO GENERIC USER NEEDS AND EXPECTATIONS


---

Score for this Section: 1040/1200

## A19 - To what extent does the specification allow relevant information to be reused when needed?

Your answer  Information is provided once-only and reused as needed.

100 out of 100 points



## A20 - To what extent does the specification enable the e-accessibility?

Your answer  Not Applicable

100 out of 100 points



## A21 - 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



## A22 - Does the specification provide means for restriction of access to information/data?

Your answer  Not Applicable

100 out of 100 points



## A23 - Is the specification included in any initiative at European or National level covering privacy aspects?

Your answer  Not Applicable

100 out of 100 points



## A24 - To what extent does the specification enable the secure exchange of data?

Your answer  Not Applicable

100 out of 100 points



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

Your answer  Not Applicable

100  
out of  
100  
points



**A26 - To what extent the specification guarantees the authenticity and authentication of the roles agents involved in the data transactions?**

Your answer  Not Applicable

100  
out of  
100  
points



**A27 - To what extent information is protected against unauthorised changes?**

Your answer  The specification introduces certain aspects that can contribute to enabling data integrity.

80  
out of  
100  
points



**A28 - To what extent does the specification ensure and enable data processing accuracy?**

Your answer  The specification introduces certain aspects that can contribute to enabling data accuracy.

80  
out of  
100  
points



**A29 - To what extent does the specification provide an access control mechanism?**

Your answer  The specification neither addresses nor prevents access control mechanisms.

40  
out of  
100  
points



**A30 - To what extent could the specification be used in a multilingual context?**

Your answer  The specification could be used in a multilingual context but has no specific provisions to facilitate this.

40  
out of  
100  
points



**EIF FOUNDATION PRINCIPLES FOR COOPERATION AMONG PUBLIC ADMINISTRATIONS** Score for this Section: 460/500

---


**A31 - Does the specification simplify the delivery of European public services?**

Your answer  YES 100 out of 100 points 


**A32 - Does the specification enable digital service delivery channels?**

Your answer  YES 100 out of 100 points 


**A33 - To what extent does the specification enable the long-term preservation of data/information /knowledge (electronic records included)?**

Your answer  The specification addresses the long-term preservation of electronic resources (information, data, etc) in a limited manner. 60 out of 100 points 

**A34 - To what extent are there assessments of the specification's effectiveness?**

Your answer  There are such assessments directly addressing the specification. 100 out of 100 points 

**A35 - To what extent are there assessments of the specification's efficiency?**

Your answer  There are such assessments directly addressing the specification. 100 out of 100 points 


**EIF INTEROPERABILITY LAYERS**

Score for this Section: 440/1000

**A36 - Is the (or could it be) specification mapped to the European Interoperability Architecture (EIRA)?**

Your answer  YES 100 out of 100 points 

**A37 - To what extent can the conformance of the specification's implementations be assessed?**

Your answer  The specification defines conformance as requirements that can be measured manually. 60 out of 100 points 

**A38 - Is the specification recommended by a European Member State?**

Your **✘** NO  
answer

20  
out of  
100  
points



**A39 - Is the specification selected for its use in a European Cross-border project/initiative?**

Your **✘** NO  
answer

20  
out of  
100  
points



**A40 - Is the specification included in an open repository/catalogue of standards at national level?**

Your **✘** NO  
answer

20  
out of  
100  
points



**A41 - Is the specification included in an open repository/catalogue of standards at European level?**

Your **✘** NO  
answer

20  
out of  
100  
points



**A42 - Is the specification a European Standard?**

Your **✘** NO  
answer

20  
out of  
100  
points



**A43 - Does the specification facilitate the modelling of business processes?**

Your **✔** YES  
answer

100  
out of  
100  
points



**A44 - To what extent does the specification facilitate organisational interoperability agreements?**

Your **✔** The specification defines most elements to  
answer facilitate such agreements.

80  
out of  
100  
points



**A45 - Does the specification encourage the creation of communities along with the sharing of their data and results in national and/or European platforms?**

Your ✘ Not Answered  
answer

0 out  
of 100  
points



Contact [CAMSS@everis.com](mailto:CAMSS@everis.com)

[CAMSS Joinup Page](#)

Useful links [CAMSS Library of Assessments](#)

[CAMSS Assessment EIF Scenario - User Guide](#)

Contribution ID c09b9ced-3e8b-485b-96b2-323d97c0b0c8

Completed at 16/02/2024 12:47:42

Completion time -