



# ASSESSMENT SUMMARY v1.0.0

**publiccode.yml<sup>1</sup>**

Developers Italia - Team for Digital Transformation<sup>2</sup>

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<sup>1</sup> Publiccode.yml specification: <https://docs.italia.it/italia/developers-italia/publiccode.yml-en/en/master/index.html>

<sup>2</sup> Developers Italia - Team for Digital Transformation: <https://developers.italia.it/en/>

# 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 **publiccode.yml** carried out by CAMSS using the CAMSS Assessment EIF scenario<sup>3</sup>. The purpose of this scenario is to assess the compliance of a standard or specification with the European Interoperability Framework (EIF)<sup>4</sup>.

## 2. ASSESSMENT SUMMARY

The publiccode.yml specification is a metadata standard for repositories containing software developed or acquired by the Public Administration, aimed at making them easily discoverable and thus reusable by other entities. Furthermore, it has been developed by the Developers Italia – Team for Digital Transformation organisation.

Moreover, in the context of the new paradigm that the Interoperable Europe Act, it shows as a candidate specification for the description of solutions developed by Public Organisations all around Europe. The specification can help the discoverability and reuse of these solutions.

### EIF Interoperability Principles

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

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

- **Subsidiarity and proportionality**

Italy has reached a good performance when it comes to the EIF monitoring mechanisms, and specifically the last NIFO Factsheets<sup>5</sup>. According to the specification documentation, there is also Germany<sup>6</sup> which is starting to use the standard for describing software. In this case, Germany achieves good levels for the elements that there is data available, but exist a significant quantity of principles that Germany does not have information to analyse it, therefore, it is difficult to consider the results positive.

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<sup>3</sup> CAMSS Assessment EIF Scenario: <https://ec.europa.eu/eusurvey/runner/CAMSSAssessmentEIFScenario6>

<sup>4</sup> Isa2 programme website: [https://ec.europa.eu/isa2/eif\\_en](https://ec.europa.eu/isa2/eif_en)

<sup>5</sup> Italy NIFO Factsheets: [https://interoperable-europe.ec.europa.eu/sites/default/files/inline-files/NIFO%20-%20Factsheet%20Italy\\_2016\\_v1\\_0.pdf](https://interoperable-europe.ec.europa.eu/sites/default/files/inline-files/NIFO%20-%20Factsheet%20Italy_2016_v1_0.pdf)

<sup>6</sup> Germany NIFO Factsheets: [https://interoperable-europe.ec.europa.eu/sites/default/files/inline-files/NIFO%20-%20Factsheet%20Germany\\_2016\\_v1\\_0.pdf](https://interoperable-europe.ec.europa.eu/sites/default/files/inline-files/NIFO%20-%20Factsheet%20Germany_2016_v1_0.pdf)

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

- **Openness**

The purpose of the specification is to help describe software using a metadata schema based on YAML<sup>7</sup>. The publiccode.yml file is the output of applying the specification and is intended to be published in the repository where the solution is hosted. This facilitates the easy discoverability and automatic processing of solution information, enabling its reuse, evaluation, or inclusion in catalogues.

The specification is developed and maintained on GitHub in a public repository. Anyone can participate by proposing changes through issues or pull requests. Additionally, the specification is free to use, with no royalties or fees required, as it is licensed under the CC0 1.0 Universal license<sup>8</sup>. Finally, it is important to note that, although the specification is not yet widely known or adopted, its first version has already been implemented at the national level in Italy. It serves as the foundation for the creation of a national software catalogue, and compliance with it is mandatory for all software developed in the country. This has enabled the creation of a national software catalogue by crawling the content of the publiccode.yml files available in software repositories. As a result, the specification has the potential to significantly impact European interoperability.

- **Transparency**

The purpose of the specification is not directly related to the visibility and comprehensibility of public administrations' procedures, rules, data or services. Publiccode.yml focuses on the reuse of software developed by public bodies, ensuring the efficiency and effectiveness of the budget dedicated to address specific needs. So, administrations can benefit from other administrations services with the implementation of the specification, however, it is not directly impacting visibility and comprehensibility.

- **Reusability**

Publiccode.yml is domain agnostic, it is made to describe software independently from the domain of the solution. The publiccode.yml provide a basic but useful metadata schema that makes easy to describe solutions.

- **Technological neutrality and data portability**

Publiccode.yml is a YAML-based specification that is independent of any specific technology or platform. Moreover, it supports partial or incremental implementation and customisation, allowing optional fields to be tailored to meet specific needs.

In addition, the publiccode.yml specification is relevant to data portability because it standardises essential information about public sector software, making it easier to share, adapt, and integrate such software across different platforms and jurisdictions.

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<sup>7</sup> YAML specification: <https://yaml.org/spec/1.2.2/>

<sup>8</sup> CC0 1.0 Universal license: <https://creativecommons.org/publicdomain/zero/1.0/legalcode.en>

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

- **User-centricity**

The specification focuses on the reuse of software from public administrations, but not data. Even though public services and software can be planned and implemented to foster and support the once only principle, the specification being analysed does not focus on that aspect.

- **Inclusion and accessibility**

The publiccode.yml specification does not directly address e-accessibility, as it primarily focuses on metadata for cataloguing public sector software. However, by promoting software transparency, reuse, and sharing, publiccode.yml can indirectly support the development of digital public services that adhere to accessibility standards, such as WCAG<sup>9</sup>. The specification could facilitate the discovery and adoption of accessible software components, encouraging developers to prioritise e-accessibility principles in the creation and reuse of public sector software.

- **Privacy**

The publiccode.yml specification does not address the protection of personal data nor restrict access to information. Despite this, the specification has been used in Italy to describe software developed in the country. This has enabled the creation of a national catalogue by crawling the content of publiccode.yml files available within software repositories.

- **Security**

The specification is intended solely for documenting metadata related to public code projects and does not address some of the security aspects. Publiccode.yml does not establish mechanisms for addressing data exchange or authentication of agents involved in data transactions.

- **Multilingualism**

The publiccode.yml specification does support multilingualism by allowing metadata entries in multiple languages. This ensures that software documentation can be accessible and understandable to a diverse audience, aligning with the principle of making public services more inclusive across language barriers. By enabling multilingual entries, it caters to the needs of various user groups and supports interoperability at an international level, which is consistent with the EIF's recommendation on multilingualism.

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<sup>9</sup> WCAG Standard: <https://www.w3.org/WAI/standards-guidelines/wcag/>

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

- **Administrative Simplification**

The publiccode.yml specification can significantly facilitate the simplification of public administration processes while supporting the digitalisation and modernisation of public services. By establishing a standard for documenting public sector software, it enhances interoperability and encourages reuse among various administrations. This shared framework helps to mitigate administrative complexity.

Moreover, by streamlining access to information and services, it allows public administrations to respond effectively and promptly to user requests, facilitating the delivery of digital services.

- **Preservation of information**

The publiccode.yml could indirectly contribute to the preservation of software information by providing a consistent framework for cataloguing software metadata. Although it does not explicitly address archival standards, this structured metadata can serve as a useful record of software assets, ensuring that key information about software is retained for informational and historical purposes.

- **Assessment of effectiveness and efficiency**

The specification is in a very early stage, and it is being implemented in Italy and Germany. However, at the moment there are no assessment of the specifications effectiveness and efficiency.

## **2.1. EIF Interoperability Layers**

The interoperability model which is applicable to all digital public services includes:

- Four layers of interoperability: legal, organisational, semantic and technical;
- A cross-cutting component of the four layers, 'integrated public service governance';
- A background layer, 'interoperability governance'.

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

- **Interoperability governance**

At the time of writing this assessment, the publiccode.yml specification is not included in EIRA Library of Interoperability Specifications (ELIS)<sup>10</sup>. However, it can be associated with building blocks related to metadata and data models.

It is also important to note that publiccode.yml does not currently include a full conformance testing suite. However, the documentation clearly specifies which elements are mandatory,

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<sup>10</sup> EIRA Library of Interoperability Specifications (ELIS): <https://interoperable-europe.ec.europa.eu/collection/common-assessment-method-standards-and-specifications-camss/solution/elis/release/v610>

allowing users to check and correct their publiccode.yml files accordingly. In addition, various YAML syntax validators<sup>11</sup> are available to help ensure that files are properly constructed.

Furthermore, the specification is relevant in both national and European contexts, even though it has not yet been adopted in a European cross-border initiative. It is already included in the Italian repository for public documents and holds significant potential to support interoperability in European projects in the future.

- **Legal Interoperability**

publiccode.yml is a specification developed by the Italian Government. Even though the specification can be reusable and potentially included at European level as an asset, at the moment of the assessment it is not considered a European Standard.

- **Organisational interoperability**

The publiccode.yml specification, by establishing a standard for software documentation, it can indirectly contribute to organisational interoperability. The shared metadata framework allows public administrations to organise and align software-related information, which can complement business process models and support a cohesive approach to delivering European public services. Moreover, by providing a standardised framework for documenting software within public administrations, it also indirectly supports organisational interoperability

- **Semantic Interoperability**

The publiccode.yml specification can indeed foster the creation of collaborative communities that share software information on national and European platforms. By standardising metadata for public sector software, it allows for easy exchange and visibility of projects, which can encourage collaboration, co-creation, and reuse among different administrations and sectors.

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<sup>11</sup> YAML Validator Checker: <https://yamlchecker.com/>



### 3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **publiccode.yml**. 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 is used to calculate the “Automated Score” per category and an “Overall Score”.

Category	Automated Score	Assessment Strength	Compliance Level
EIF Principle setting the context for EU actions on interoperability	80/100 (80%)	100%	Sustainable
EIF Core interoperability principles	1340/1700 (79%)	100%	Sustainable
EIF Principles related to generic user needs and expectations	1090/1200 (91%)	100%	Seamless
EIF Foundation principles for cooperation among public administrations	320/500 (64%)	100%	Sustainable
EIF Interoperability layers*	760/1000 (76%)	100%	Sustainable
Overall Score	3590/4500 (80%) <sup>12</sup>	100%	

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

With an 100% 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% (3590/4500) demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.

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<sup>12</sup> See the “results interpretation” section of the 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/results-visualisation-and-interpretation>