



ASSESSMENT SUMMARY v1.0.0

Nomenclature of territorial units for statistics (NUTS)¹

European Commission (EUROSTAT)²

¹ The NUTS specification homepage: <https://ec.europa.eu/eurostat/web/nuts/history>

² The development organisation homepage: <https://ec.europa.eu/eurostat/web/main/home>

Change Control

Modification	Details
Version 1.0.0	
Initial version	

TABLE OF CONTENT

- 1. INTRODUCTION..... 4**
- 2. ASSESSMENT SUMMARY 4**
 - 2.1. EIF Interoperability Principles.....4
 - 2.2. EIF Interoperability Layers7
- 3. ASSESSMENT RESULTS 9**

1. INTRODUCTION

The present document is a summary of the assessment of the NUTS carried out by CAMSS using the CAMSS Assessment EIF scenario³. The purpose of this scenario is assessing the compliance of a standard or specification with the European Interoperability Framework (EIF)⁴.

2. ASSESSMENT SUMMARY

The **Nomenclature of territorial units for statistics (NUTS)** is a geographical nomenclature that subdivides the economic territory of the European Union (EU) and other non-EU Member States into regions at three different levels (NUTS 1, NUTS 2 and NUTS 3). The specification addresses interoperability in what respects statistical and geospatial information at European level, and contributes to the development of specific policies. It is the case of GISCO's database, which supports the availability of data and the capacity to implement national and European policies efficiently.

The specification has been developed by the European Commission (EC), which is the supranational institution concerned with the development of the European Single Market and the promotion of the general interest of the European Union. It is worth to note that the NUTS specification started to be used within the European Union's territory as a reference coding system in 1999, although its use dates back to the 1970's. This specification has gone through different amendments since 1999, some of these changes resulting from the adhesion of new Member States and the consequent addition of new codes.

2.1. 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**

NUTS is included in the national catalogue of Ireland. The National Interoperability Framework (NIF) of this Member State is partially aligned with the European Interoperability Framework (EIF) according to the National Interoperability Framework Observatory (NIFO)⁵ factsheets. There is middle-low performance in the Interoperability Governance, Legal and Organisational layers, and there exist some shortcomings in the Conceptual Model with regards to Internal Information sources and services, Base Registries and the conceptual model, compared to the EU average.

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

³ EUSurvey EIF Scenario: https://ec.europa.eu/eusurvey/runner/EIFScenario_v500

⁴ The EIF homepage: https://ec.europa.eu/isa2/eif_en

⁵ National Interoperability Framework (NIF): <https://joinup.ec.europa.eu/collection/national-interoperability-framework-observatory-nifo/nifo-factsheets>

- **Openness**

NUTS does not facilitate the publication of open data. The specification has a clear purpose which is to provide a statistical classification to address the needs for data harmonisation in terms of conducting surveys, applying policies and comparing data across the European Union. According to the Regulation (EC) 1059/2003⁶, only Member States, in collaboration with the European Commission, are in charge of submitting any amendment on the NUTS classification. This specification has gone through different amendments since 1999, some of these changes resulting from the adhesion of new Member States and the consequent addition of new codes. All the documentation on NUTS releases is publicly available in EUROSTAT⁷. The specification is maintained by a large community within the European Commission (EC) and all the EC patents are available with any restrictions related to (F)RAND and it is licensed under the royalty-free basis for its implementation.

- **Transparency**

NUTS has not any specific provision for ensuring the transparency of public administration's services. NUTS was conceived for statistical and decision-making purposes. At the time being the specification can contribute to overcome interoperability barriers and enable the exposure of public administration's services' interfaces, as well as contribute to the comprehensibility of administrative procedures, rules data and services. However, no evidence was found on this regard.

- **Reusability**

NUTS could be used 'as-is' to other domains beyond the archiving domain. NUTS' territorial divisions are also interesting in other statistical research areas, such as tourism⁸, and not only limited to the fields of policy and demography. However, at the time being, there is no reference to any implementation use case in the public service domain.

- **Technological neutrality and data portability**

Although the NUTS classification is not dependent on any other specification, operating system or web platform, there is no possibility of tailoring nor extending NUTS coding system, and any kind of authorising process or partial implementation will be allowed, as NUTS was conceived for a unique purpose. Moreover, the specification goals are not related to data portability.

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

- **User-centricity**

⁶ Regulation (EC) 1059/2003: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1405939838475&uri=CELEX:32003R1059>

⁷ EUROSTAT homepage (NUTS versions documents): <https://ec.europa.eu/eurostat/web/nuts/history>

⁸ NUTS in research (tourism domain): <https://journals.sagepub.com/doi/abs/10.1177/0047287520979673>

The specification is intended to serve as a device to identify administrative zones in the EU and non-EU regions. However, it is not focused on the implementation of the OOP.

- **Inclusion and accessibility**

The purpose of NUTS is not related to e-accessibility. Therefore, this criterion does not apply to this specification.

- **Security and privacy**

The purpose of NUTS is not related to the secure exchange and processing of data. Therefore, this criterion does not apply to this specification.

- **Multilingualism**

NUTS could be used in a multilingual context beyond a statistical purpose. The specification could be useful in determining the sociolinguistic and dialectical areas when establishing a specific European public service.

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

- **Administrative Simplification**

In the context of the implementation of the persistent URI policy for EU institutions⁹, NUTS contributes to the simplification of delivery of European public services as the NUTS classification allows to link data files (datasets) to a specific region, enhancing data discovery within the EU via HTTP scheme. However, the specification does not enable digital service delivery channels.

- **Preservation of information**

The purpose of NUTS is not related to enabling the long-term preservation of data, information nor knowledge. Therefore, this criterion does not apply to this specification.

- **Assessment of effectiveness and efficiency**

There is no evidence of available studies directly assessing the specification's effectiveness and efficiency; however, there are some use case evaluations submitted by (non-)European administrations where both effectiveness and efficiency are analysed. It is the case of Croatia¹⁰ and Scotland¹¹, which sponsored and depicted the implementation process of NUTS and explicitly

⁹ ISA Programme (Revise the NUTS RDF model): <https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/document/supportingimplementation-persistent-uri-policy-eu-institutions>

¹⁰ EconStor Publications (Croatia's NUTS implementation): https://www.econstor.eu/bitstream/10419/115958/1/ERSA2003_096.pdf

¹¹ Scotland's NUTS implementation: <https://www.gov.scot/publications/review-nomenclature-units-territorial-statistics-nuts-boundaries/>

shows the way in which the specification can be implemented and adapted to disparate territories.

2.2. 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 fully supports the implementation of digital public services complying with the EIF interoperability model:

- **Interoperability governance**

NUTS can be mapped with the EIRA's ABB "Controlled Vocabulary" from the Semantic View. The specification is included in one Member State' catalogue of recommended specifications. This Member State is Ireland¹² which also recommends it. In terms of implementation conformity, criteria used to define NUTS codes do exist¹³, but there is not a reference document to this end. It is worth noting that the NUTS classification counts for funding projects within the EU, that is the European Regional Development Fund, the European Social Fund Plus and the Cohesion Fund¹⁴. Besides, the specification could be mapped to a European Legislation Identifier (ELI)¹⁵, and as a consequence the NUTS classification can be linked to other EU Vocabularies and used in other European cross-border initiatives.

- **Legal Interoperability**

NUTS has been developed and deployed by the European Commission¹⁶; therefore, the specification is a European Standard.

- **Organisational interoperability**

¹² National catalogue of Ireland: <https://data.gov.ie/pages/opendatatechnicalframework#recommended-standards-for-open-data>

¹³ EUROSTAT (NUTS 1981 – NUTS 1999 document): <https://ec.europa.eu/eurostat/web/nuts/history>

¹⁴ Commission Implementing Decision (EU) 2021/1130: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32021D1130>

¹⁵ ISA Programme (Revise the NUTS RDF model): <https://joinup.ec.europa.eu/collection/semantic-interoperability-community-semic/document/supportingimplementation-persistent-uri-policy-eu-institutions>

¹⁶ Regulation (EC) 1059/2003: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1405939838475&uri=CELEX:32003R1059>

NUTS designates geographical areas within a legal and institutional framework in which an administrative authority is empowered to take administrative or policy decisions¹⁷. In this sense, the specification facilitates the modelling of business processes by defining administrative or policy requirements within a legal and institutional framework. Moreover, NUTS facilitates organisational interoperability agreements as some of its elements are mappable to other EU Vocabularies; however, provisions easing the drafting of such agreements are not provided in the specification official documentation.

- **Semantic Interoperability**

EUROSTAT (European Commission) ensures the maintenance of the NUTS classification. EUROSTAT makes available a Linked Open Data¹⁸ section where the European Commission publishes data and all kinds of statistical analysis based on the NUTS classification, encouraging the creation of communities around the specification at European level. However, NUTS does not encourage the creation of communities nor does it promote the sharing of data and results in any national platform, except for some (non-)European states that have individually shared their data and results on their respective national platforms.

¹⁷ Regulation (EC) 1059/2003: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1405939838475&uri=CELEX:32003R1059>

¹⁸ NUTS Linked Open data (EUROSTAT): <https://ec.europa.eu/eurostat/web/nuts/linked-open-data>

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **NUTS**. The CAMSS “Strength” indicator measures the reliability of the assessment by calculating the number of answered (applicable) criteria. On the other hand, the number of favourable answers and the number of unfavourable ones are used to calculate the “Automated Score” per category and an “Overall Score”.

Category	Automated Score	Assessment Strength	Compliance Level
Principle setting the context for EU actions on interoperability	60/100	100%	Essential
Core interoperability principles	1580/2100	76%	Sustainable
Principles related to generic user needs and expectations	440/500	20%	Seamless
Foundation principles for cooperation among public administrations	400/500	60%	Sustainable
Interoperability layers*	920/1100	100%	Seamless
Overall Score	3400/4300	75%	

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

With a 75% of assessment strength, this assessment cannot be considered representative of the specification compliance with the EIF principles and recommendations.

The Overall Automated Score of 79,07% (3400/4300) demonstrates that the specification partially supports the European Interoperability Framework in the domains where it applies.