



ASSESSMENT SUMMARY v1.0.0

ETSI TS 119 512¹

European Telecommunication Standards Institute (ETSI)²

¹ETSI TS 119 512 specification: [TS 119 512 - V1.1.2 - Electronic Signatures and Infrastructures \(ESI\); Protocols for trust service providers providing long-term data preservation services \(etsi.org\)](#)

² ETSI webpage: [ETSI - Welcome to the World of Standards!](#)

Change Control

Modification		Details
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1. INTRODUCTION

The present document is a summary of the assessment of the **Electronic Signatures and Infrastructures (ESI); Protocols for trust service providers providing long-term data preservation services** 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.

providing long-term data preservation services

2. ASSESSMENT SUMMARY

The **ETSI TS 119 512** specifies protocols for Trust Service Providers to provide long-term preservation of digital signatures and transactional data (unsigned or signed data), using digital signature technology. ETSI TS 119 512 provides different preservation scheme profiles, which may implement different preservation and validation technologies.

The specification has been developed by the European Telecommunication Standards Institute (ETSI) which is a European Standards Development Organization concerned with the development of standards that support European regulations and legislation such as the Electronic Signatures and Infrastructure (ESI) Family of specifications, of which ETSI TS 119 512 takes part.

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 does not supports the principles setting context for EU actions on interoperability:

- **Subsidiarity and proportionality**

No Member State that includes the ETSI TS 119 512 in their national catalogue with Their National Interoperability Framework (NIF) in alignment with the three categories 1. Conceptual model for integrated public services provision, 2. interoperability layers, and 3. interoperability principles.

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

- **Openness**

ETSI 119 512 is part of the Electronic Signatures and Infrastructures family of specifications. It provides a set of policy and security protocols for trust service providers providing long-term preservation of digital signatures and of general data. The specification has been developed by ETSI, whose IPR policies are royalty-free and it is also licensed under a (F)RAND basis. Moreover, ETSI is the developer community in charge of maintaining the specification.

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

⁴EIF website: https://ec.europa.eu/isa2/eif_en

Given the long history of the development of the ESI family of specifications, as well as the central role it plays in the validation and authentication system for electronic signatures in public administrations, ETSI TS 119 512 is considered to be sufficiently mature for the development of digital solutions and services.

- **Transparency**

ETSI TS 119 512 can contribute to a better comprehensibility and visibility of administrative procedures as it provides an interface between users and preservation services used by trust service providers. Nonetheless, its full potential is achieved if the specification is to be implemented with its companion document ETSI TS 119 511⁵.

- **Reusability**

ETSI TS 119 512 is publicly available for its use for free at ETSI's website. Although It is mostly suited for public administrations, the specification's protocols can be used and implemented in any business domain. As an example, the eIDAS⁶ project uses some of the preservation schemes defined by this specification.

- **Technological neutrality and data portability**

Considering that ETSI TS 119 512 is part of the larger family of Electronic Signatures and Infrastructures (ESI) specifications, it is not fully technology agnostic, nonetheless, it does not rely on any specific platform and it can be implemented partially as well as it is developed to support custom-made implementations depending on the sector-specific needs where it is to be applied. It is worth noting that ETSI TS 119 512 can be considered it supports the evolution of European public services by providing means to store and preserve electronic signatures evidences. An example can be found in the case of the TR-ESOR⁷ middleware from Germany

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

- **User-centricity**

ETSI TS 119 512 has been developed to provide services for the long-term preservation of data in general. The specification fosters the implementation of the once-only principle by ensuring data is well preserved and stored, and that it can also be retrieved when needed.

⁵ ETSI TS 119 511 specification: [TS 119 511 - V1.1.1 - Electronic Signatures and Infrastructures \(ESI\); Policy and security requirements for trust service providers providing long-term preservation of digital signatures or general data using digital signature techniques \(etsi.org\)](https://www.etsi.org/standards-store/publication/ETSI%20TS%20119%20511%20V1.1.1%20-%20Electronic%20Signatures%20and%20Infrastructures%20(ESI)%20Policy%20and%20security%20requirements%20for%20trust%20service%20providers%20providing%20long-term%20preservation%20of%20digital%20signatures%20or%20general%20data%20using%20digital%20signature%20techniques)

⁶ Eidas blog: [ETSI TS 119 512 | eIDAS Blog](https://blog.etsi.org/2019/05/20/ETSI-TS-119-512-eIDAS-Blog/)

⁷ TR-ESOR Preservation of Evidence of Cryptographically Signed Document: [BSI - Technical Guideline BSI TR-03125 \(bund.de\)](https://www.bsi.de/EN/Standards/Technical%20Guidelines/BSI-TR-03125/bund.de)

- **Inclusion and accessibility**

The purpose of ETSI TS 119 512 is not related to e-accessibility. Therefore, this criterion is considered not applicable to this specification.

- **Security and privacy**

Cryptographic algorithms are the basis of e-signatures encryption. ETSI TS 119 512 is furthermore developed for trust service providers for the storing and retrieval of information and data that require a high degree of security in their processing and exchange. Therefore, ETSI TS 119 512 can be considered to directly tackle matters of security and privacy.

- **Multilingualism**

The purpose of ETSI TS 119 512 is not related to the delivery of multilingual European Public Services. Therefore, this criterion is considered not applicable to this specification.

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

- **Administrative Simplification**

E-signature implementation has been said to be an important asset that helps the reduction of the administrative burden as it allows administrations and stakeholders to exchange digital data, and at the same time, fosters the reuse of data across borders. Moreover, ETSI TS 119 512 contributes to this simplification by facilitating the storage and preservation of data, ensuring that document signatures remain valid over time.

- **Preservation of information**

The main purpose of ETSI TS 119 512 is to provide protocols for trust service providers providing long-term data preservation services of e-signatures and general data. Therefore, the preservation of information is explicitly addressed, and the specification gives complete provisions for its fulfilment.

- **Assessment of effectiveness and efficiency**

Although there has not been found any assessment proving its effectiveness or efficiency, ETSI TS 119 512 has been found to perform effectively and efficiently following the TR-ESOR middleware technical guidelines.

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

- **Interoperability governance**

ETSI TS 119 512 is already associated with EIRA ABBs in the EIRA Library Of Interoperability Specifications (ELIS). More specifically, ETSI TS 119 512 can define the "e-Signature Creation Service" and the "e-Signature Verification and Validation Service" ABB of the EIRA Technical view. Despite not being found recommended by any member state, ETSI TS 119 512 is being used in the eIDAS project, which focuses on the creation of e-signature services aiming to enable secure cross-border transactions. In terms of implementation conformity, there is no available validation tool provided by ETSI or any other platform or developer.

- **Legal Interoperability**

ETSI TS 119 512 has been developed by the European Telecommunication Standards Institute (ETSI), an independent, not-for-profit, standardization organization in the field of information and communications. Moreover, it has been also mentioned to be an important component in Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market⁸.

- **Organisational interoperability**

ETSI TS 119 512 can facilitate the modelling of business processes when it comes to defining the relationships among the preservation schemes, preservation profiles and their related policies on a given business-specific trust service. Being a component derived from the actions implemented based on regulation No 910/2014, ETSI TS 119 512 is also an enabler of organisational interoperability agreements.

- **Semantic Interoperability**

ETSI TS 119 512 specification is distributed from the ETSI platform. ETSI supports European regulations and legislation through the creation of Harmonised European Standards. ETSI's mission is to provide platforms where interested parties come together and collaborate on the development and promotion of standards for Information and Communication Technology (ICT) systems and services.

⁸ Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market: [EUR-Lex - 32014R0910 - EN - EUR-Lex \(europa.eu\)](https://eur-lex.europa.eu/lex.europa.eu)

3. ASSESSMENT RESULTS

This section presents an overview of the results of the CAMSS assessments for **ETSI TS 119 512**. 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	20/100 (20%)	100%	Ad-hoc
Core interoperability principles	1800/2100 (86%)	95%	Seamless
Principles related to generic user needs and expectations	500/500 (100%)	60%	Seamless
Foundation principles for cooperation among public administrations	420/500 (84%)	100%	Seamless
Interoperability layers*	900/1100 (82%)	100%	Seamless
Overall Score	3340/4000 (84%) ⁹	93%	

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

With a 93% of assessment strength, this assessment can be considered representative of the specification compliance with the EIF principles and recommendations.

The Overall Automated Score of 84% (3340/4000) demonstrates that the specification supports the European Interoperability Framework in the domains where it applies.

⁹ 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>