

# TC DATA

## The ETSI Initiative on Open, Trusted Distributed Data Infrastructures

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March 2026



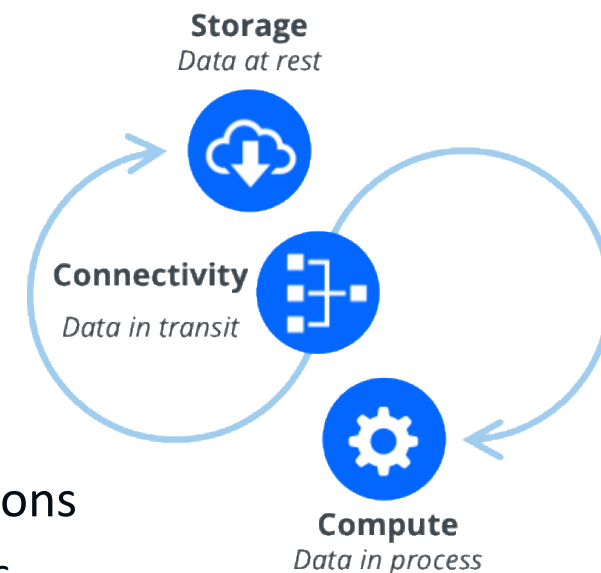
# Motivation

## Data Infrastructure

- Support the autonomous use of data by agent applications
- Aligned with **FAIR** principles: **F**indable, **A**ccessible, **I**nteroperable, **R**eusable
- According to appropriate data governance: data access control, data consistency, data privacy

A data infrastructure implies three independent dimensions:

- **Connectivity**: data transported through space
  - Data in transit
- **Storage**: data transported through time
  - Data at rest
- **Compute**: data acted upon
  - Data in process
- Current applications require to focus on data flows in all three dimensions
  - Whatever the stakeholder: Telcos, cloud providers, application developers...
- **Focus on Interoperability**



# Scope (Terms of Reference)

- Develop deliverables to support the deployment and operation of distributed data solutions
  - Connectivity: data in transit
  - Storage: data at rest
  - Compute: data in process
- Address European policy and regulatory requirements and engage with other regulatory bodies
  - Ensuring relevant global, regional, and national requirements
- Provide input on technical aspects of the ETSI responses to governmental requests on data solutions
  - Special emphasis on the European Data Act and to the data-related aspects of the European AI Act
- Collaborate with open-source initiatives relevant for the data domain standardization
  - Reference implementation and interoperability testing
- Cooperate with other European and international standards organizations
  - Avoid duplication of work and promote harmonization

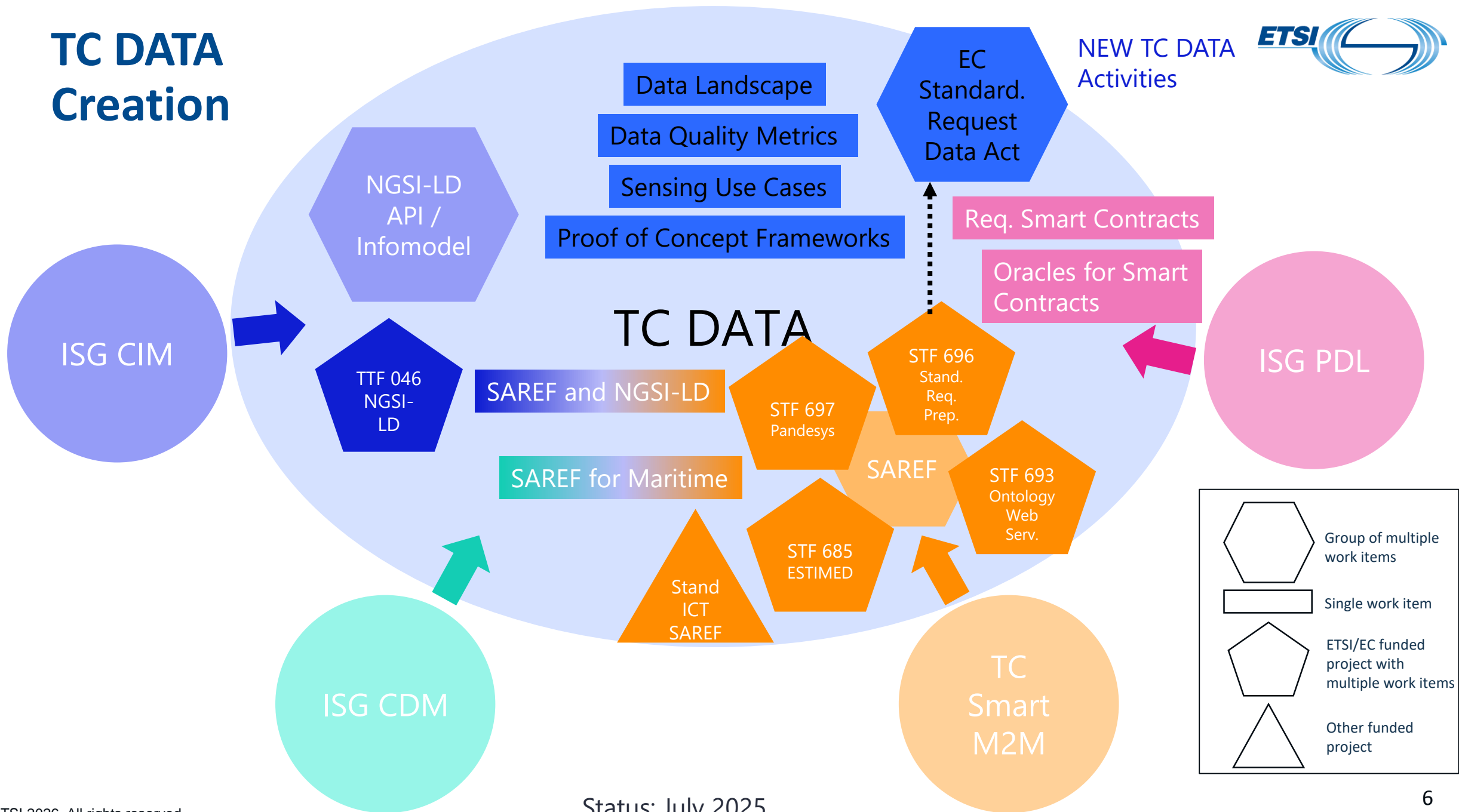
# Activities (Terms of Reference)

- Providing a centre of expertise in the area of data infrastructures, services and applications
  - In coordination with the other ETSI activities
- Developing technical standards to support data interoperability and semantic interoperability.
- Maintaining and evolving specifications related to data solutions and published by other ETSI TGs
  - TC SmartM2M
  - ISG CDM
  - ISG PDL
  - ISG CIM
- Supporting the development and the maintenance of semantic and data models
  - SAREF (including the SAREF open portal)
  - NGSI-LD
- Collaboration on digital identity (TC ESI) and retained data (TC LI)
- Supporting the transposition in ETSI of the outputs of oneM2M
- Analyzing data capabilities under discussion in 3GPP
- Supporting the maintenance and evolution of relevant industry data standards

# TC Data Overview and Timeline

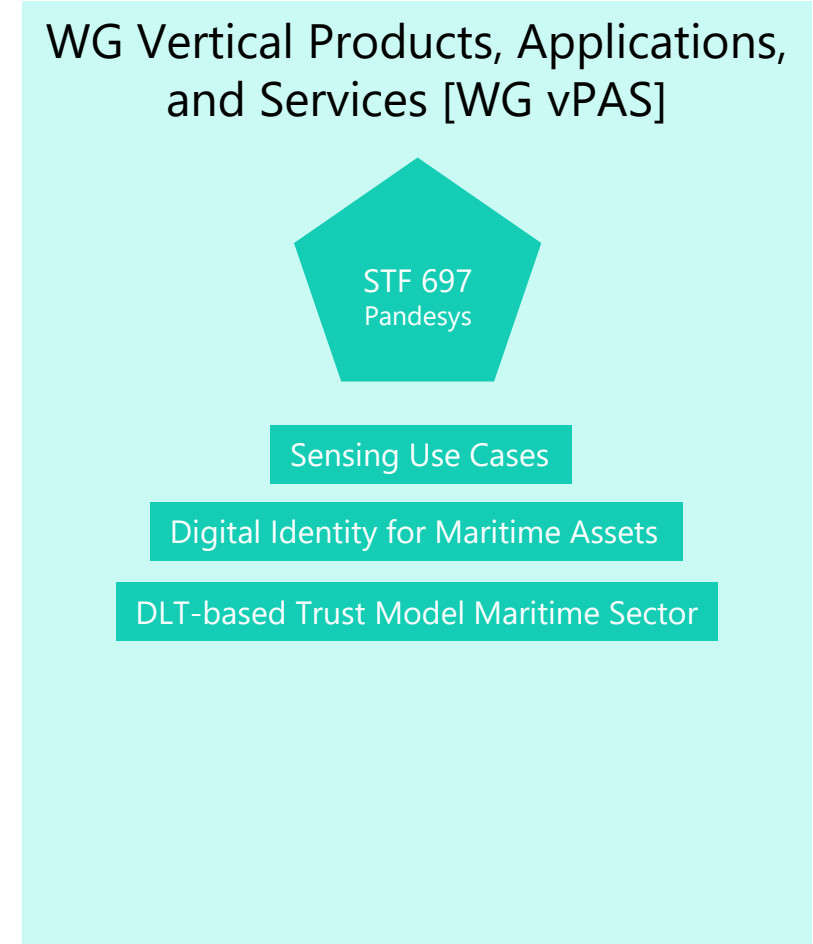
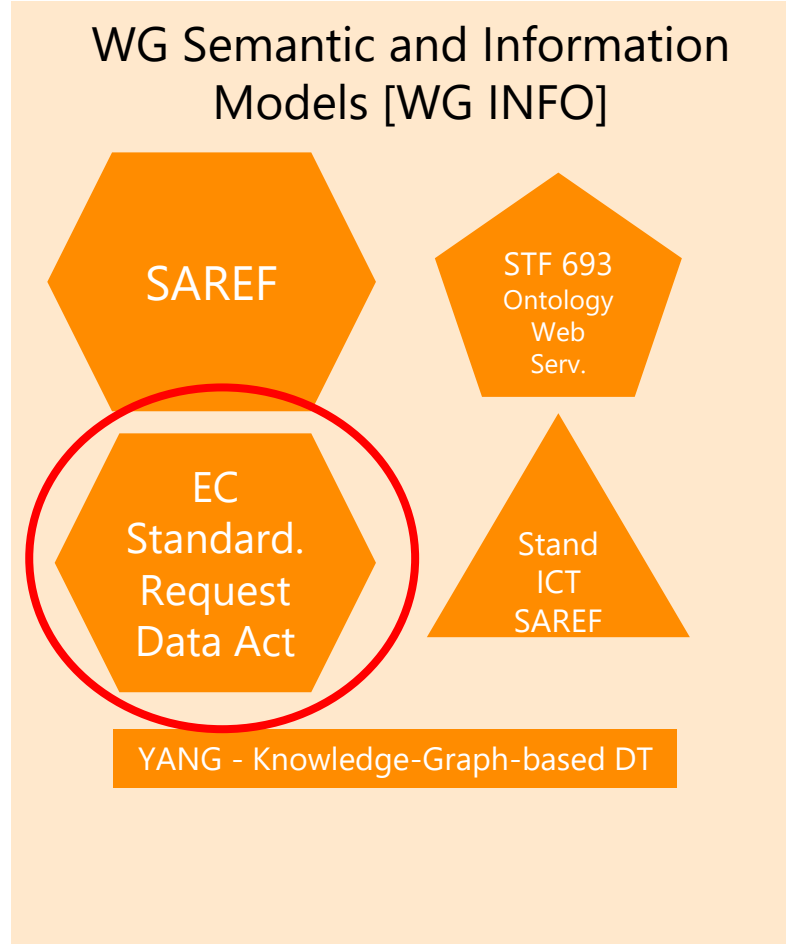
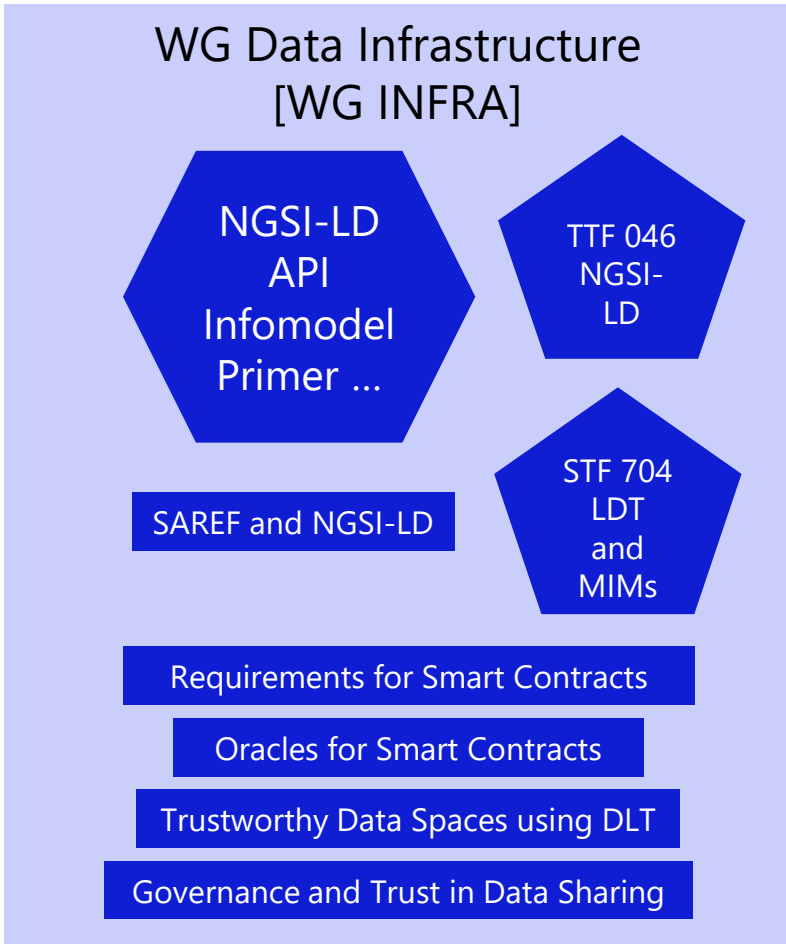
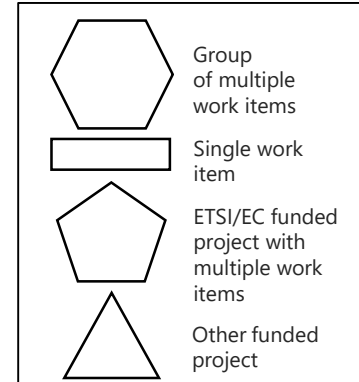
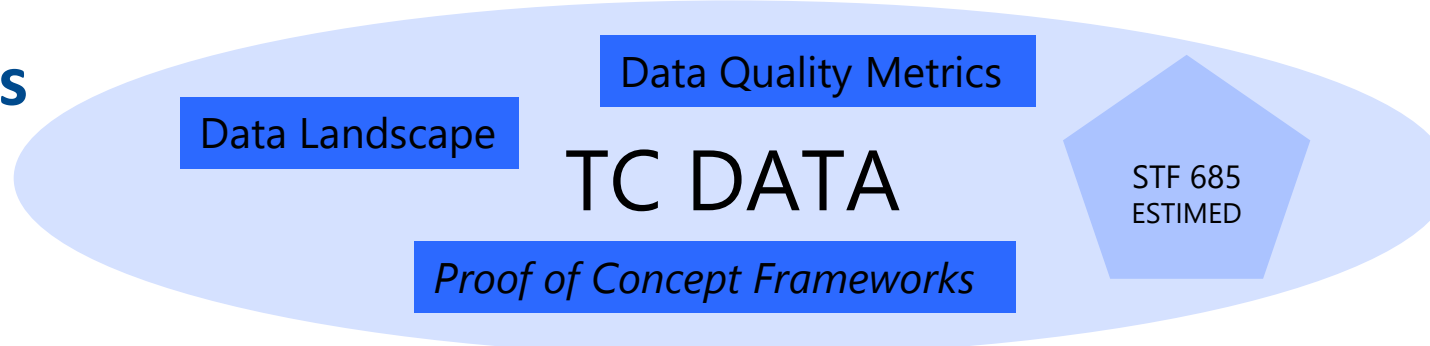
- TC DATA #01, Kick-off Meeting: 15-17 April 2025 in Sophia Antipolis
  - Chair: Diego Lopez, Telefonica
  - Vice-Chairs:
    - Enrico Scarrone, Telecom Italia
    - Ray Forbes, Dr. Ray Forbes Ltd.
    - Franck Le Gall, EGM
    - Paolo Pagano, CNIT
- TC DATA #02: 1-3 July 2025, Sophia Antipolis
- TC DATA #03: 21-23 October 2025, Sophia Antipolis
- TC DATA #04: 27-29 January 2026, Sophia Antipolis
- **TC DATA #05: 04-07 May 2026, IMDEA Networks Institute, Leganes (Spain)**
- TC DATA #06: 27-29 October 2026, tbc (default: Sophia-Antipolis)
- TC DATA #07: 15-17 December 2026, tbc (default: Sophia-Antipolis)

# TC DATA Creation



Status: July 2025

# TC DATA Activities Working Groups



Status: March 2026

# EC Standardization Request

## EC Data Act: Chapter VIII - Interoperability



### Standardization Request

- Article 33: Essential requirements regarding the interoperability of data, data sharing, and common European data spaces.
- Article 34: Interoperability for the purposes of in-parallel use of data processing services
- Article 35: Interoperability of data processing services
- Article 36: Essential requirements regarding smart contracts for executing data sharing agreements

# EC Standardization Request Requested Deliverables



Standardization Request

- Article 33: Essential requirements regarding the interoperability of data, data sharing, and common European data spaces.

- Trusted Data Transaction
- Data catalogue implementation framework
- Semantic assets implementation framework
- Data governance standard for data space participants
- Maturity model for Common European Data Spaces

Leading European SDO

CEN/CENELEC

ETSI

ETSI

CEN/CENELEC

CEN/CENELEC

# Data catalogue implementation framework

## EN 304 199 - Guidelines for Data Catalogue Framework



- **Full Title:** Data Solutions (DATA); Data catalogue implementation framework; Guidelines for Data Catalogue Framework; Guidelines for Data Catalogue Framework (WG INFO)
- **Scope:** This WI covers the ETSI work related to the EU Data ACT (art 33) Sreq on trusted data framework: Data catalogue implementation framework.
- **Status:** Approval process has started.  
[EN 304 199 - V1.0.0 - Data Solutions \(DATA\); Data catalogue implementation framework; Guidelines for Data Catalogue Framework](#)
- The specification aims at making the data within European data spaces visible, findable, and therefore ready for supporting the trusted data transactions concept.
- It ensures that data products, including data catalogues, datasets, and their distributions, are described in a consistent way.
- DCAT-AP is used as the basis for the catalogue metadata data model

# Semantic assets implementation framework

## EN 303 760 - Guidelines Semantic Interoperability



- **Full Title:** Implementation framework for semantic assets Guidelines for Semantic Interoperability; Develop, apply and evolve Smart Applications ontologies; Guidelines Semantic Interoperability (WG INFO)
- **Scope:**
  - This WI **covers the ETSI work related to the EU Data ACT (art 33) Sreq on trusted data framework:** Semantic assets implementation framework
  - The work has just started, and the content is not yet decided.
  - The intention is to re-use **ETSI EN 303 760** which focuses on the SAREF methodology, and to extend it as needed for the new broader scope.