



eArchiving Reference Architecture in the mapping of existing standards and regulations

Christian Dubourg – TC CEN 468 WG1 Convenor and TR
Mapping project leader

eArchiving and Interoperability

CEN/TC 468 - Preservation of digital information

What is CEN/TC 468 ?

- European standardization (CEN-CENELEC) Technical Committee on preservation of digital information
- European counterpart of ISO/TC 171/SC 1 “Quality, preservation and integrity of information” and ISO/TC 46 “Information and documentation”
- Approved by CEN members on December 1st, 2020, with a weighted majority of 74%
- 1st meeting in may 2021, plenary meetings twice a year

CEN/TC 468 - Preservation of digital information

Scope

- Standardization of the functional and technical aspects of the preservation of digital information.

Goal

- Develop a structured set of standards, specifications and reports, addressing business requirements, including compliance with the European legislation and regulation framework (e.g. GDPR, eIDAS).

CEN/TC 468 - Preservation of digital information

Expected benefits

- Adopt a 360° approach of the sector and market of information preservation in Europe, with a focus on governance, risks and compliance;
- Ensure a higher level of trust on electronic evidence and information integrity in data spaces in Europe;
- Provide interoperability and portability between existing solutions and services using data exchange protocols to allow data sharing and distribution
- Provide guidance on important challenges with regards to the compliance with European legal and regulatory requirements

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Startegy

- Identify existing activities and standards in use within the European market, whether national or international deliverables in a **mapping**
- Define a common vocabulary for the sector and its multiple concepts
- Complete suitable standards and technical specifications by **developing European standards in areas including Preservation, Integrity, Sustainability, Security**
- Develop **relationships with key stakeholders, including the European Commission and the eArchiving initiative**

CEN/TC 468 / WG1 – TR Mapping

Mapping standards in European countries on digital or electronic archiving and preservation

Goals

- **Discover** standards and regulations used in European countries for digital archiving and preservation;
- Define a **methodology for mapping** subjects found in digital archiving and preservation standards and national regulations;
- Map functional, technical and organizational aspects in a mapping table based on **main Axis and examples of topics** in each axis defined by a combination of 4 models : **OAIS, ISO 16363, ETSI (ESI) and eArchiving reference architecture.**

TR Mapping – Contents (1/3)

- **General models**
- **Stakeholders and Motivations**

- **PRE INGEST AXIS AND TOPIC LIST**
- **INGEST AXIS AND TOPIC LIST**
- **PRESERVATION PLANNING AXIS AND TOPIC LIST**
- **ARCHIVAL STORAGE AXIS AND TOPIC LIST**
- **DATA MANAGEMENT AXIS AND TOPIC LIST**
- **ADMINISTRATION AXIS AND TOPIC LIST**
- **ACCESS AXIS AND TOPIC LIST**
- **DRIVERS AND GOALS AXIS**
- **STRATEGIC AXIS AND TOPIC LIST**

TR Mapping – Contents (2/3)

Summary table of recommended standards on Electronic Archiving and preservation by country

- Belgium (BE)
- Denmark (DK)
- France (FR)
- Germany (DE)
- Italy (IT)
- Luxembourg (LU)
- Netherlands (NL)
- Slovenia (SI)
- Spain (ES)

6.10 Spain (ES)

	Description
Main Standard	Catalogue of Standards / Electronic document Interoperability Standard / Digitisation of Documents Interoperability Standard / Electronic File Interoperability Standard / eDocument Management Policies Interoperability Standard / Electronic signature Policy Interoperability Standard
Title	<ul style="list-style-type: none"> • Technical Interoperability Standard for the Catalogue of standards (NTI -STA) • Technical Interoperability Standard for E-Documents (NTI-DOC) • Technical Interoperability Standard for Document Digitisation (NTI-DIG) • Technical Interoperability Standard for E-Files (NTI-FIL) • Technical Interoperability Standard for E-Document Management Policies (NTI-POL) • Technical Interoperability Standard for the Spanish Public Administration E-Signature and Certificate Policy (NTI-SIG)
Available in	English, Spanish
Body	Ministerio de Hacienda y Administraciones Públicas
Referenced Standards	<p>Record and archives management :ISO 30300, ISO 30301, ISO 15489, ISO 23081</p> <p>Electronic Signatures :ETSI TS 101 733, ETSI TS 102 176-1, ETSI TS 102 778-3, ETSI TS 101 903, ETSI TR 102 038, ETSI TR 102 272, ETSI TS 102 023</p> <p>File formats : ISO 19136, ISO 19142, ISO 19128, ISO/IEC 14496-14, ISO/IEC 15444, ISO/IEC 26300, ISO/IEC 29500, ISO 32000, ISO 19005, ISO/IEC 15948, ISO 12639, ISO/IEC 11172, ISO/IEC 14496,</p> <p>Metadata : PREMIS,</p>
Certification process based on the national standard	NO
National Regulation	In Spain, the regulation of electronic archiving is embedded in the National Interoperability Schema (defined by law), and developed by different Interoperability Technical Standards (NTI) published with the range of law (not by the National Standardization Body). There are some of these NTI which are the basis for the electronic archiving in public sector. Translations to English are publicly available here (note: translation is not using equivalent OAIIS terms):
Detailed presentation and links	<ul style="list-style-type: none"> • Catalogue of Standards https://administracionelectronica.gob.es/pae/Home/dam/jcr:9e2c2877-5103-4934-8440-c60ba2e10c48/Catalogue_of_Standards_NIF_Spain.pdf • Electronic document Interoperability Standard https://administracionelectronica.gob.es/pae/Home/dam/jcr:c8e7c87f-c33d-4b91-b4d2-ef2a39f09582/2011-13169_E-documents_NIF_Spain_NIPO-630-12-088-X.pdf • Digitisation of Documents Interoperability Standard https://administracionelectronica.gob.es/pae/Home/dam/jcr:bd8cca08-3fab-4306-a56f-17269d414fd6/Digitisation_of_Documents_Interoperability_Standard_NIF_Spain.pdf

TR Mapping – Contents (3/3)

Mapping table for each country on all Axis and topics examples defined in the Technical Report

7.5 DATA MANAGEMENT AXIS AND TOPICS MAPPING

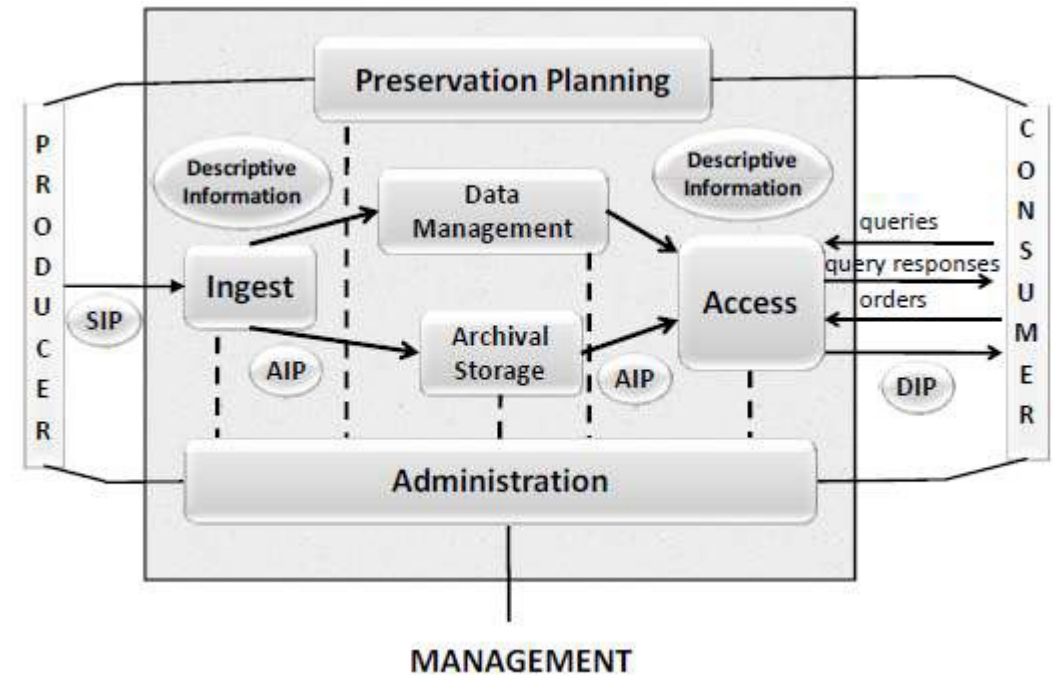
	BE	FR	DE	IT	SI	ES
<p>➤ Definition of the data management system</p> <ul style="list-style-type: none"> ❖ Discovery metadata ❖ Association with AIP descriptive information 		NF Z42-013:2020 § 5.2, §7.6	[TR-ESOR-F]	<p>AGID Linee guida</p> <p>- § 4.7</p> <p>AGID Regulation</p> <p>- Criteria RG3, RG4, RG5, RG6, RG7</p>	UTR - §32	NTI-POL UNE ISO 16175-1 2
<p>➤ Database updates</p> <ul style="list-style-type: none"> ❖ Addition of elements, update of metadata, associated justifications ❖ Metadata Anonymization (if applicable) ❖ Setting up the receivers (Storage tenants, database, ...) 		NF Z42-013:2020 § 7.1, §6.4, §7.5	[TR-ESOR-E] § 3.2	<p>AGID Regulation</p> <p>- Criteria RG3, RG4, RG5, RG6, RG7</p>	UTR - §29-31	NTI-POL UNE ISO 16175-1 2
➤ Search and generate	A-98,	NF Z42-	TR-	AGID Linee	UTR - §158, §159,	NTI-POL

CEN/TC 468 / WG1 – TR Mapping - Models

OAIS - ISO 14721

Used to define main Axis:

- INGEST
- ACCESS
- PRESERVATION PLANNING
- DATA MANAGEMENT
- ARCHIVAL STORAGE

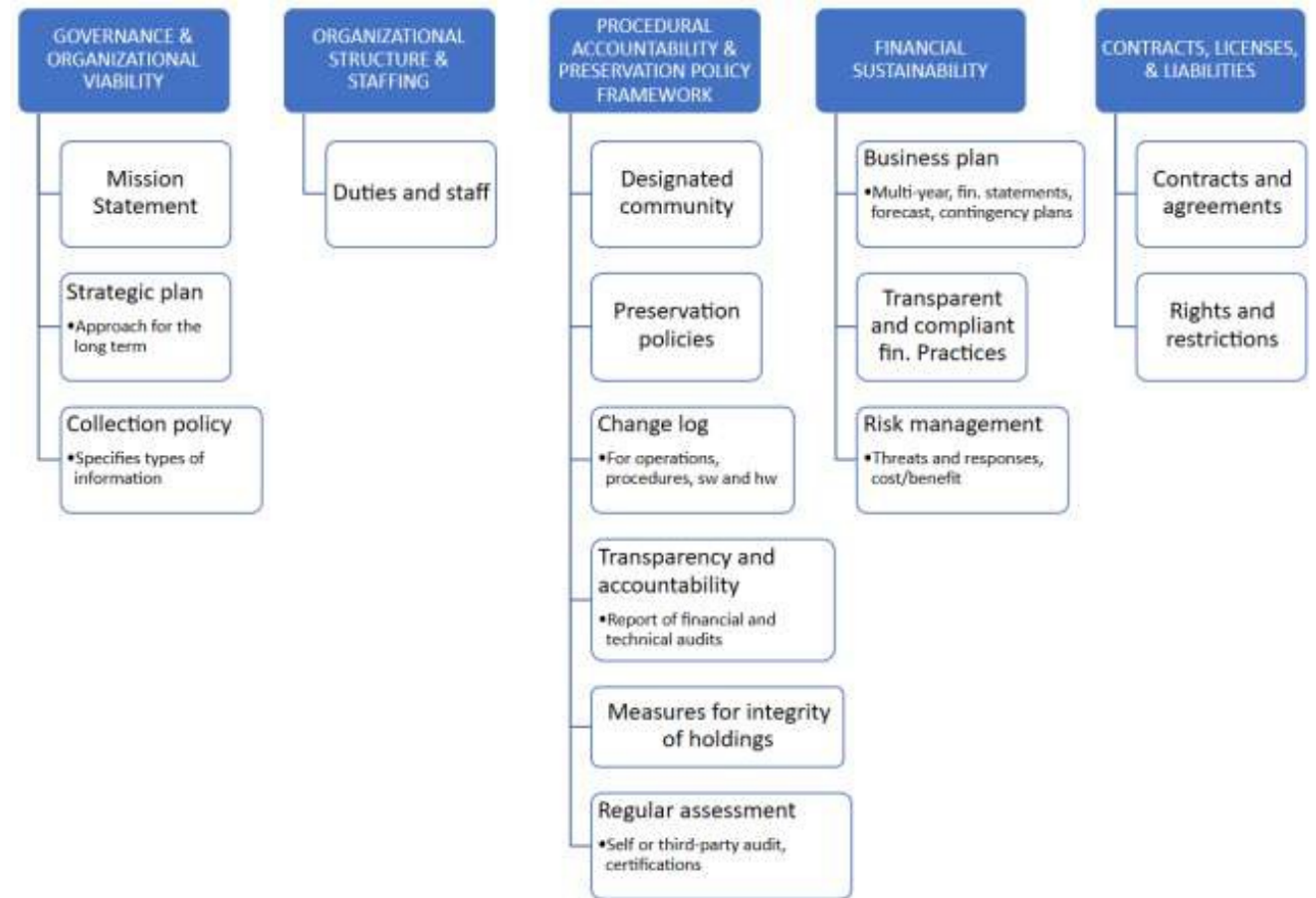


CEN/TC 468 / WG1 – TR Mapping - Models

ISO 16363

Used to define topics based on organizational infrastructure.

- Governance & organizational viability
- Organizational structure & staffing
- Procedural accountability & preservation policy framework
- Financial sustainability
- Contracts, licenses & liabilities

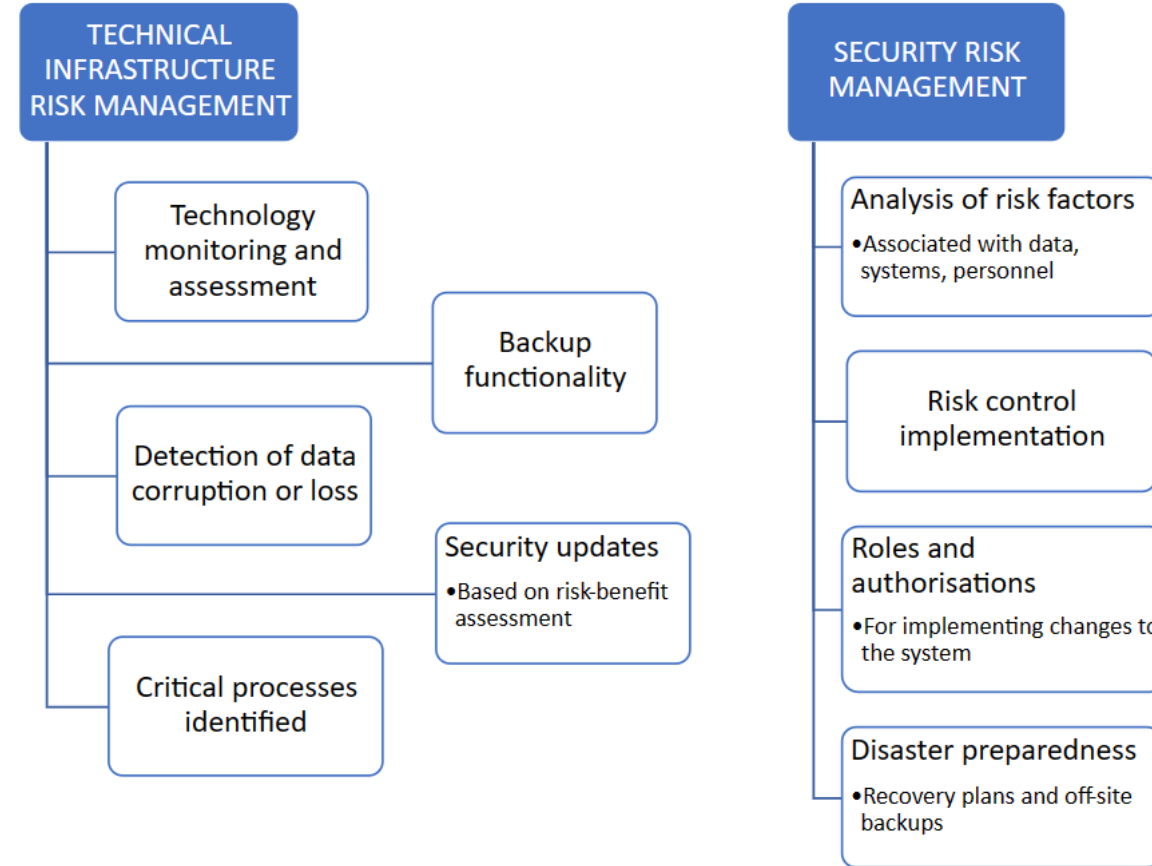


CEN/TC 468 / WG1 – TR Mapping - Models

ISO 16363

Used to define topics based on infrastructure and security risk management.

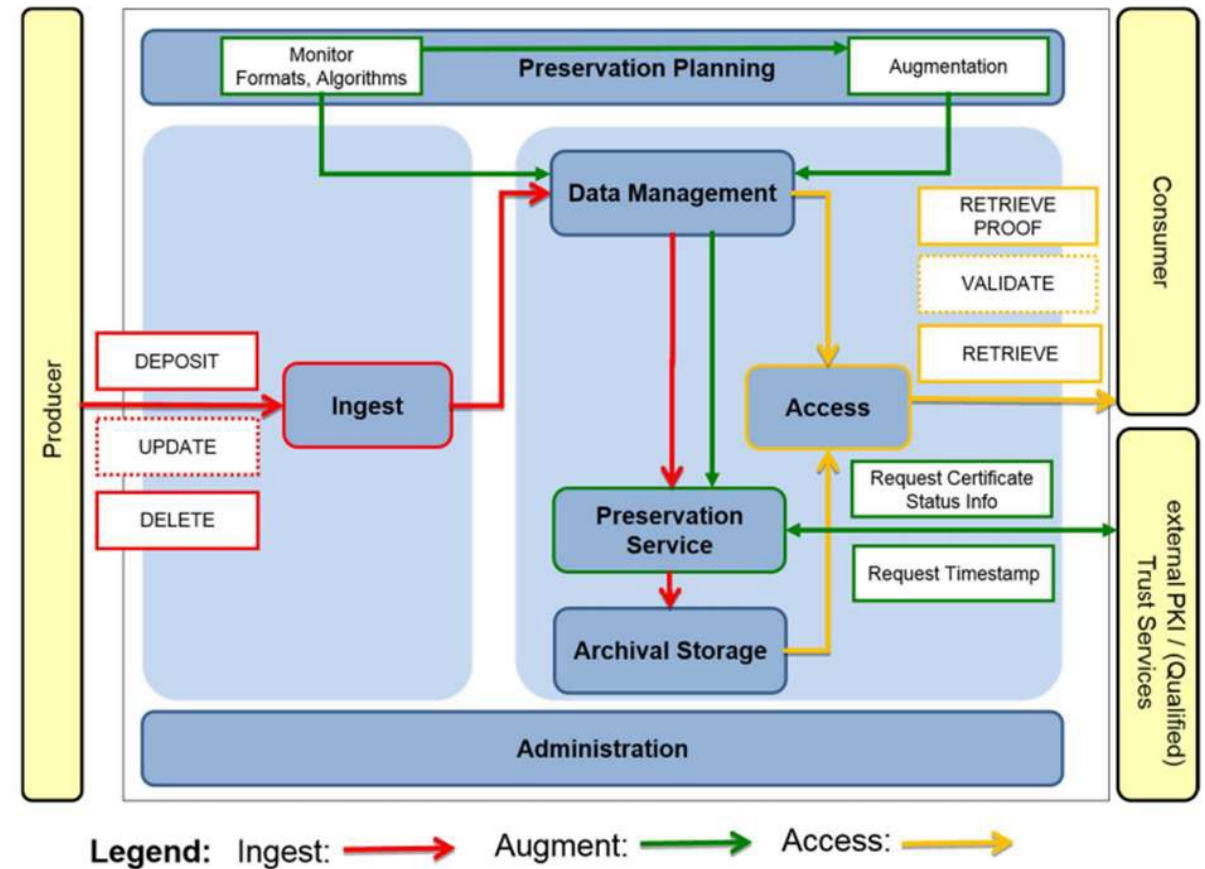
- Technical Infrastructure Risk Management
- Security Risk Management



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ETSI SR 019 510

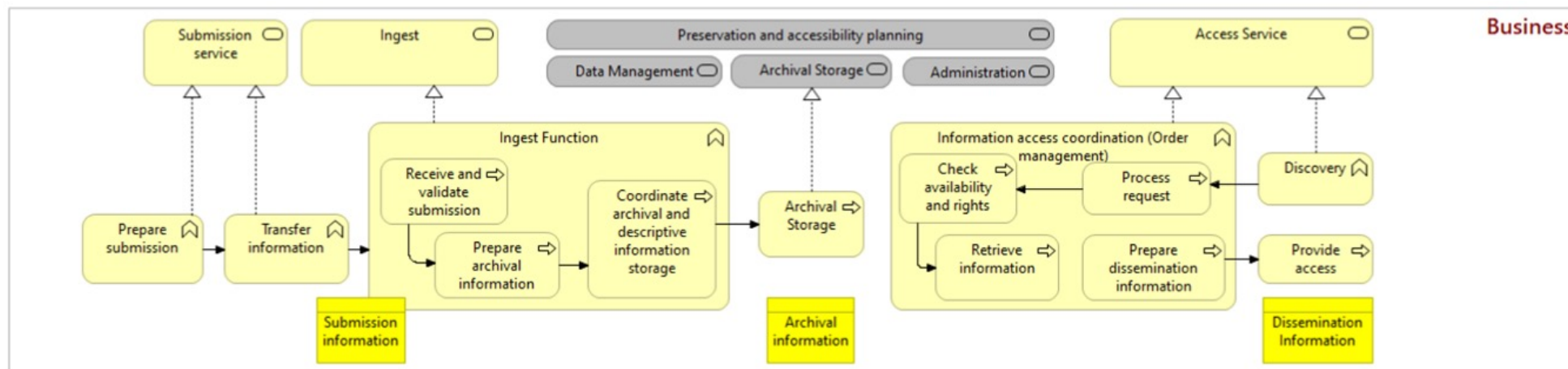
Used to define technical aspects including **signature augmentation capabilities** to preserve signed or unsigned documents during the preservation period.



CEN/TC 468 / WG1 – TR Mapping - Models

eArchiving Reference Architecture (Business)

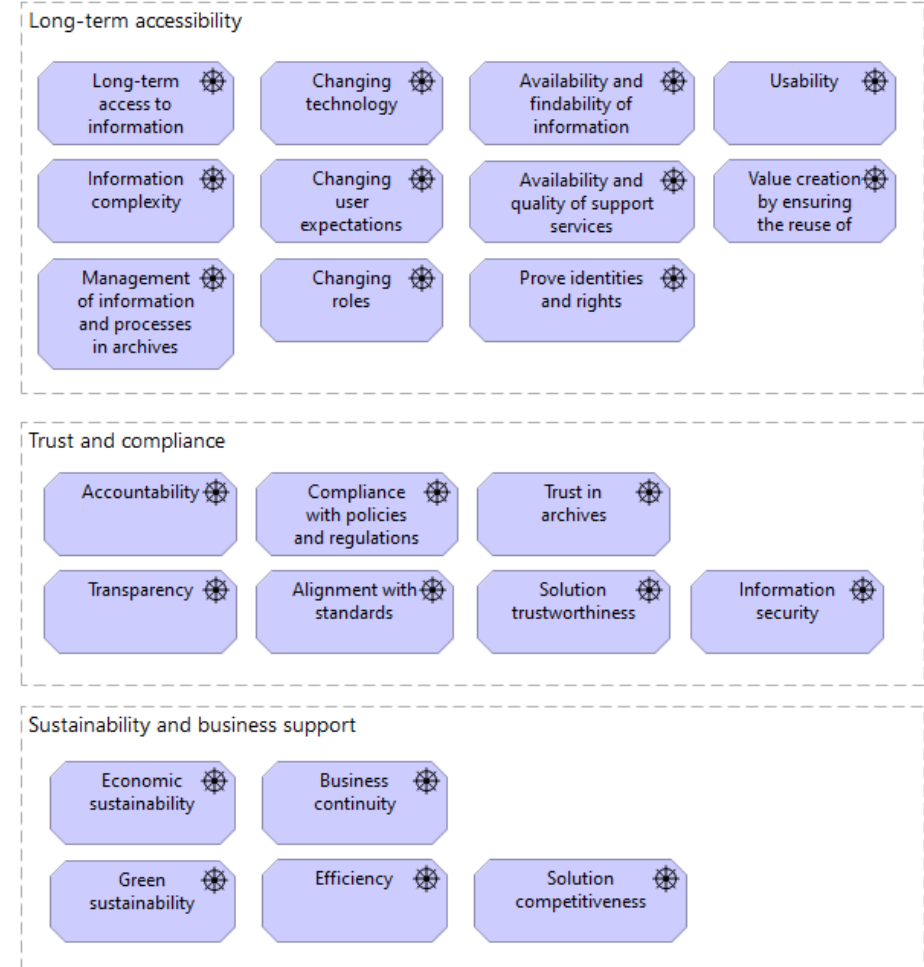
Multiple parts of “eArchiving Reference Architecture” are used in the TC CEN468/WG1 TR Mapping to **define subject examples in the different Axis based on process and use cases that should be implemented for eArchiving.**



CEN/TC 468 / WG1 – TR Mapping - Models

eArchiving Reference Architecture (Motivation)

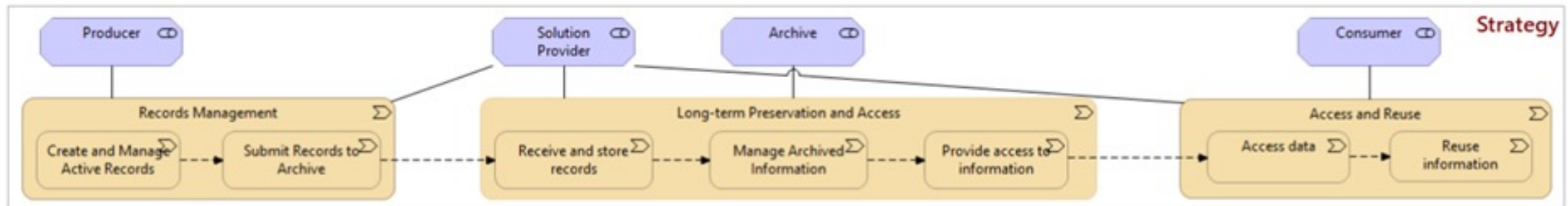
Important part used to complete our mapping model to define the “**drivers and goals**” axis and topics examples belonging to this Axis.



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eArchiving Reference Architecture (Strategy)

Used to define the “**Strategic**” axis and topics examples.



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eArchiving Reference Architecture (Usage exemple)

5.5 DATA MANAGEMENT AXIS AND TOPIC LIST

The **Data Management Functional** Entity provides the services and functions for populating, maintaining, and accessing both Descriptive Information which identifies and documents Archive holdings and administrative data used to manage the Archive. Data Management functions include administering the Archive database functions (maintaining schema and view definitions, and referential integrity), performing database updates (loading new descriptive information or Archive administrative data), performing queries on the data management data to generate query responses, and producing reports from these query responses.

(OAIS Model)

➤ Definition of the data management system

The Administer and Update Database process is responsible for maintaining the integrity of the data management database. This process is also responsible for creating any schema or table definitions required to support Data Management functions; for providing the capability to create, maintain and access customized user views of the contents of this storage; and for providing internal validation (e.g., referential integrity) of the contents of the database. This process is carried out in accordance with policies received from Administration.

- ✓ Discovery metadata
- ✓ Association with AIP descriptive information

(eArchiving Reference
Architecture)

➤ Database updates - Modify data

The modify data process adds, modifies or deletes information in the Data Management persistent database. The Collect / Prepare additional data process is a preliminary step before modifying the metadata database, where additional data is collected and analysed. As a result, this new data might influence which metadata is modified and the modification process

- ✓ Addition of elements, update of metadata, associated justifications
- ✓ Metadata Anonymization (if applicable)
- ✓ Setting up the receivers (Storage tenants, database, ...).

TC CEN 468 – TR Mapping – A Consensual work

Congratulations to each country for this consensual work

- December 2022 : France suggest a first draft
- During 10 months, each country made suggestions and contributions
- October 2022 - After 15 versions (0.1 to 1.0) all contributions had been included

TC CEN 468 – Next Step

- TR Mapping Publication (november 2023)
- Next TC CEN468 / WG1 meeting mid of november 2023
- Next step : Analyse gap and overlap points using the TR Mapping to see what we need to define for eIDAS electronic archiving services.

Thank you



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