



II Jornada sobre
**Interoperabilidad
y Archivo Electrónico**

II Conference on
**Interoperability
and E-Archive**

#interOP17

26 de septiembre de 2017
26 September 2017



GOBIERNO
DE ESPAÑA

MINISTERIO
DE HACIENDA
Y FUNCIÓN PÚBLICA

SECRETARÍA DE ESTADO DE
FUNCIÓN PÚBLICA

SECRETARÍA GENERAL DE
ADMINISTRACIÓN DIGITAL



II Jornada sobre
Interoperabilidad
y **Archivo Electrónico**

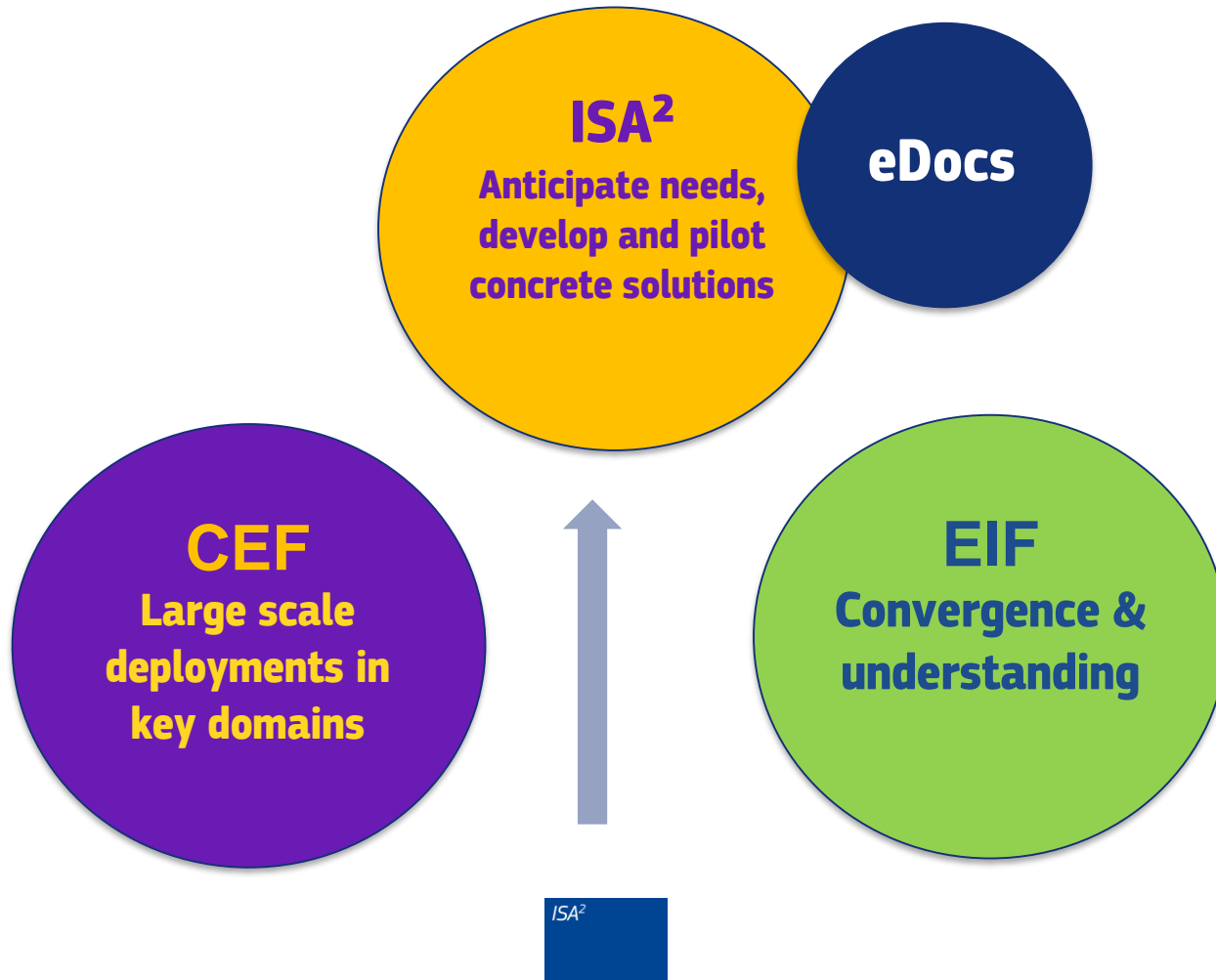
II Conference on
Interoperability
and **E-Archive**

Interoperability & Archives in the European Commission

By Natalia ARISTIMUÑO PEREZ

Head of Interoperability Unit at Directorate- General for Informatics
(DG DIGIT) European Commission

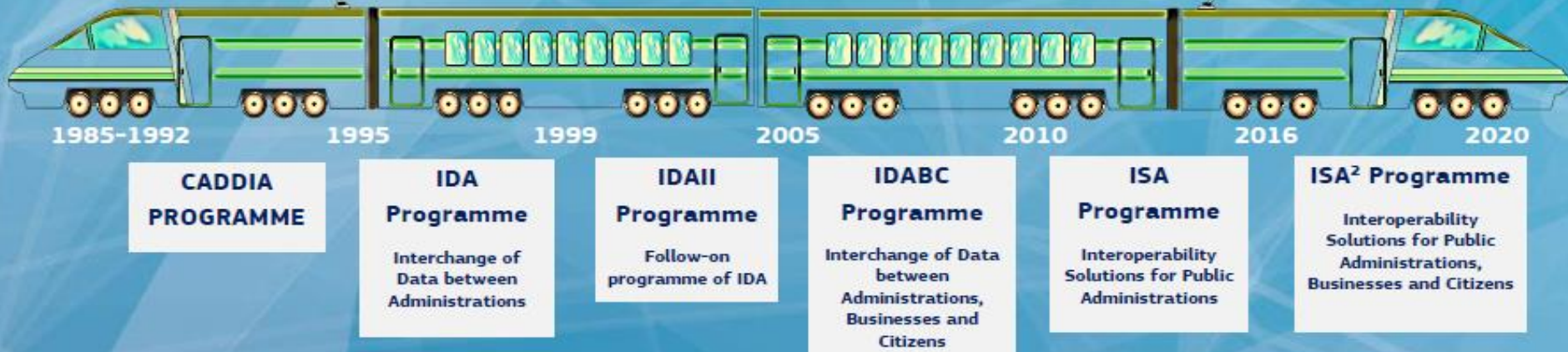
High value added Services for everybody





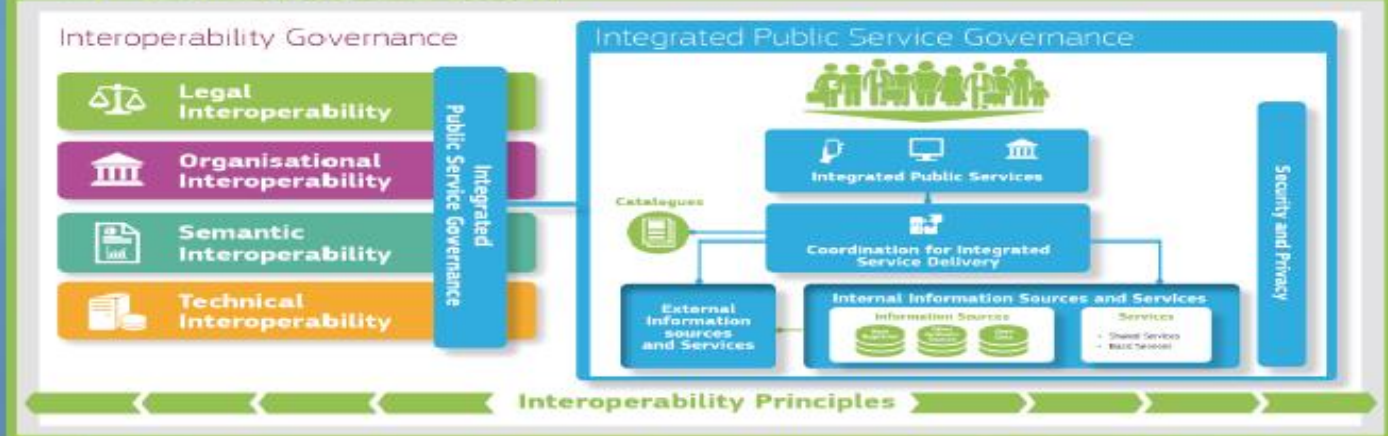
ISA² PROGRAMME

More than 30 years digitising public administrations across the EU



CONNECTING PUBLIC ADMINISTRATIONS, BUSINESSES AND CITIZENS SINCE 2005 WITH THE EUROPEAN INTEROPERABILITY FRAMEWORK (EIF)

EIF Conceptual Model





European
Commission

Check out and download ISA² solutions: ec.europa.eu/isa2



EU Survey

Multilingual online surveys

More than 5,400 surveys in 2016

JOINUP

Collaborative platform to share
and reuse IT solutions

Single access point to 2830 IT solutions
72 communities
30,219 users



DCAT-AP

Metadata management and reuse of
semantic assets

83,000 datasets from 15 national
data portals



CPSV-AP

A data model for describing
public services and the associated
life and business events

1,100 times downloaded until January 2017



OCS for ECIs

Gather statements of support online

33 out of 41 European Citizens
Initiatives launched in 2016



e-TrustEX

A secure document exchange platform

500,000 electronic messages in 2014
Used by:

European Commission & EU bodies
7 National Parliaments
8 Permanent Representations



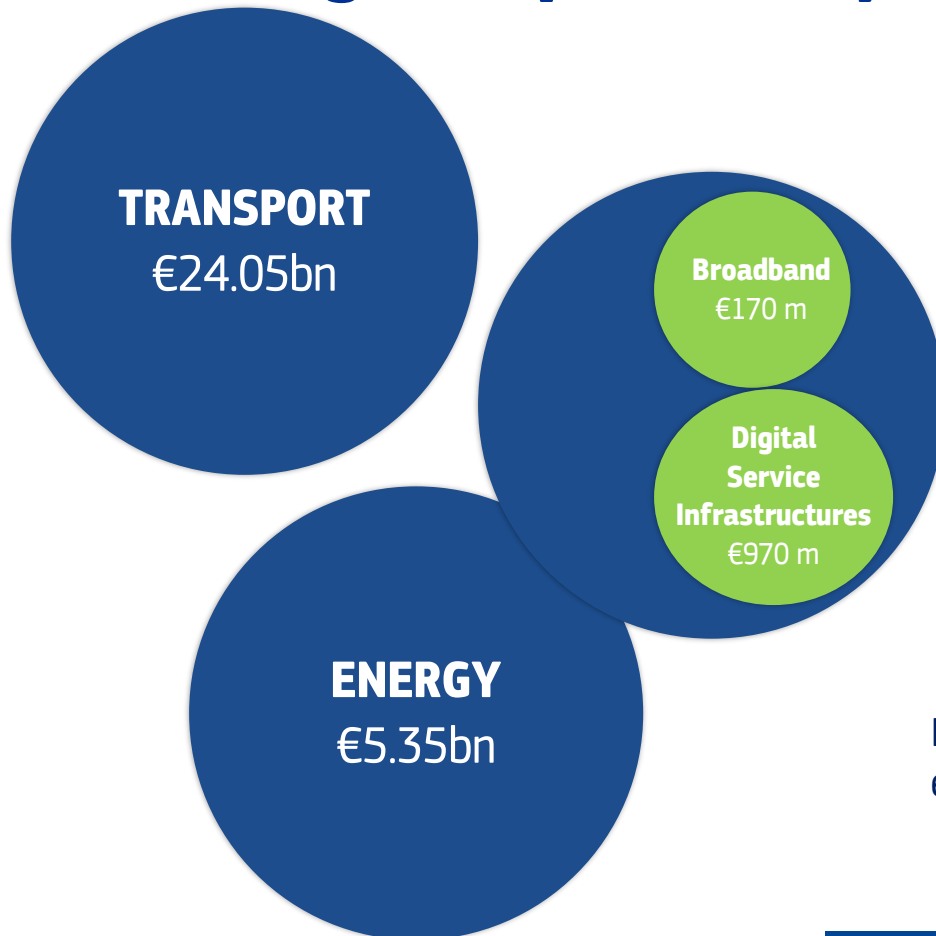
TESTA

A data communication network service,
operated by the European Commission

80 applications in various EU policies domains
10 services at Member State level



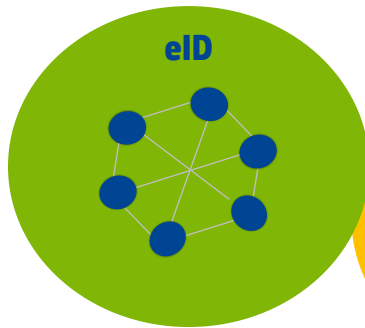
Connecting Europe Facility (CEF)



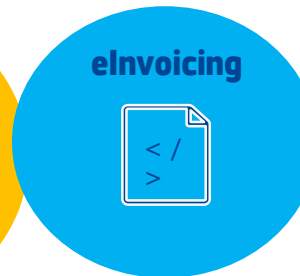
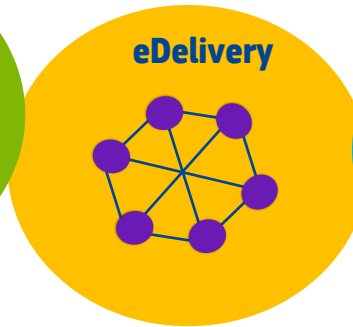
Infrastructure programme supporting the establishment of **trans-European networks**

CEF Building Blocks

Building blocks provide basic functionality and are reusable by sector-specific services



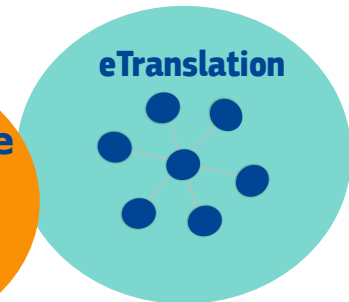
Secure cross-border authentication



Compliance with EU invoicing standards



Create and validate electronically signed documents



Secure automated translation of text

Next Step:

Moving E-ARK from a project to a CEF Building Block





EIF

EUROPEAN INTEROPERABILITY FRAMEWORK

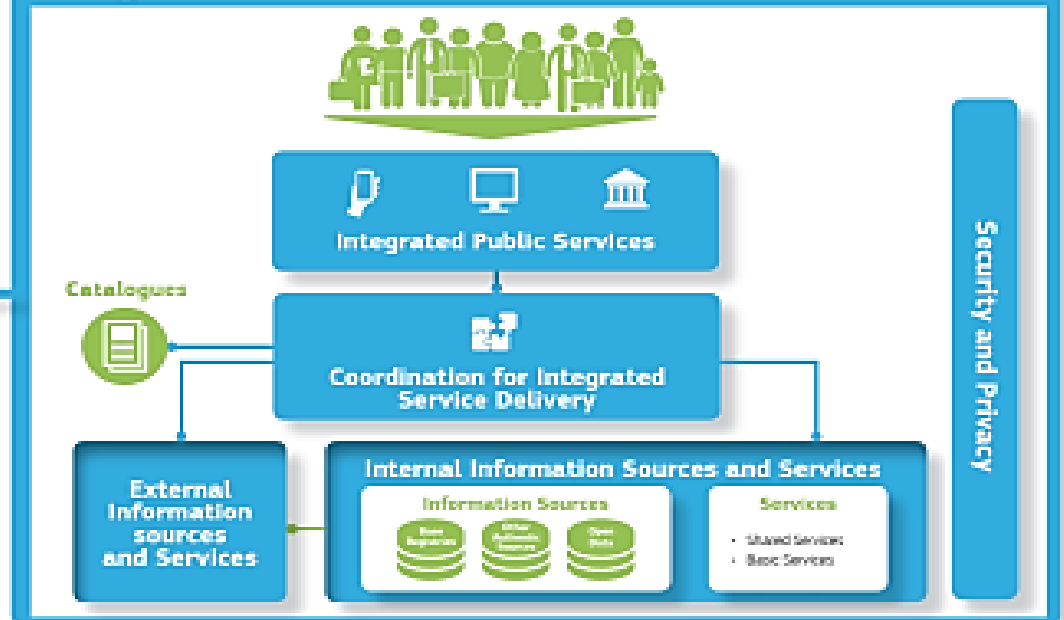
**Connecting public administrations, businesses and
citizens**

EIF Conceptual Model

Interoperability Governance



Integrated Public Service Governance



Interoperability Principles

Principle 11

Preservation of information



"Formulate a long-term preservation policy for information related to European public services and especially for information that is exchanged across borders."



ISA² action on interoperability agreements on electronic documents and electronic files

Develop a common approach to electronic documents and to electronic files.
Attain an interoperability agreement for electronic documents defining a common approach to describing e-Documents, including content, electronic signatures and minimum required metadata

Over view of work done under the action

- Survey on standardised eDocuments and eFiles formats
- Report on Semantics for eDocuments based on the Core Vocabularies



- Report on Semantics for e-Documents based on the Core Vocabularies and other data standards

- Report on Architectural and Solution Building Blocks for e-Documents used in Member States
- Reference Architecture for e-Documents



- Extended analysis of e-Documents solutions
- Maintenance of the Reference Architecture for e-Documents

- XML schemas for the standard forms defined by the Public Documents Regulation
- Analysis of cross-border use and usability of e-Documents solutions



Study on electronic documents (LOST VIEW)

Legal view

e-Documents are legally valid:

equating the **status** of e-docs with the one of paper documents

Signatures needed where paper equivalent needs signature

eIDAS regulation provides the basis

Obstacle: Availability and use of electronic signatures for citizens

Organisational view

Important problems to solve:

Communication with Citizens
Receiving: digitisation of paper or creation of structured Documents in a portal
Sending: (e.g secure mailboxes)
Exchange between administrations
harmonisation of metadata
secure transport infrastructures ("e-delivery")
equivalence of documents in different Member States
(long term) preservation
Long-time availability of formats
Validity of signatures (re-signing)

Semantic view

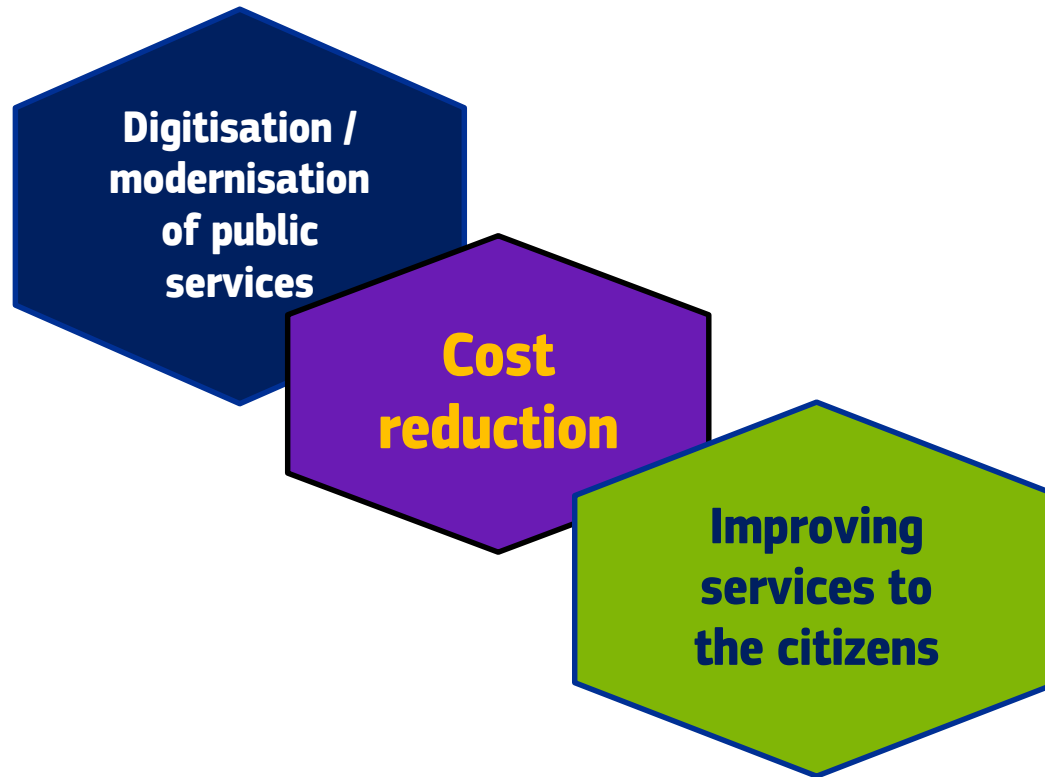
Interoperability between Document management systems through harmonisation of metadata
For unstructured text documents widely accepted industry standards are used (e.g. PDF)
Structured content facilitates machine processing

Technical view

Technical solutions address requirements identified in the other layers:
Legal validity (eSignatures, eSeals)
Procedural requirements
 Life cycle (time stamps, preservation)
 Exchange (transport, encryption)
 Specific requirements of citizens (verification code)
Semantic interoperability
DMS support metadata import/export

Conclusions

- Most important business drivers:



- Different types of solutions are used to fulfil the same objectives



The digital archives repository at the European Commission



European
Commission

Archives in the European Commission

Until 2002

Absence of binding rules



2002

e-Domec policy (decision 2002/47/EC, ECSC, Euratom)



2003

Common Nomenclature (SEC 2003/903/1)



2007

Common Retention Schedule (SEC/2007/970)

- **Clear rules and procedures for the whole document life cycle**
- **Clear responsibilities for stakeholders**
- **Building efficient IT tools**



Today

Drafts EU legislation and submits it to Parliament and Council

Manages and implements EU policies and budget

Enforces EU law (with the Court of Justice)

Represents the EU on the international stage (with EEAS)

- College of 28 Commissioners and their private offices

Staff: ± 30.000 (28 Member States, multilingual)

DG/Departments/Agencies: ± 40, in diff. locations/countries
- documents, databases, websites, tools for the management of specific business processes, audit control, HR applications, etc



European Commission

Document life cycle

1

CURRENT RECORDS
=
Non closed files



2

INTERMEDIATE ARCHIVES
=
Closed files under ARP



INTERMEDIATE ARCHIVES
=
PP or 2nd review



3

HISTORICAL ARCHIVES
=
Permanent preservation



Service Office



Central DG repository or Service



HAS repository



HAS - EUI Florence

Create, register, file

ARES, HRS

Close files & preserve as intermediate records

NomCom, HPS I

Transfer to central archives, 1st review

NomCom, HPS I

Transfer to a-REP, long-term preservation

a-REP, A2A

Archives management, public access, 2nd review

HPS III

ISA²



We are here

Document Lifecycle implemented in EC

HPS II-III

Hermes Preservation Services.
Offers preservation and
archiving

HRS

Hermes Repository
services. Offers web
services to applications
that delegate document
management to HERMES

ARES

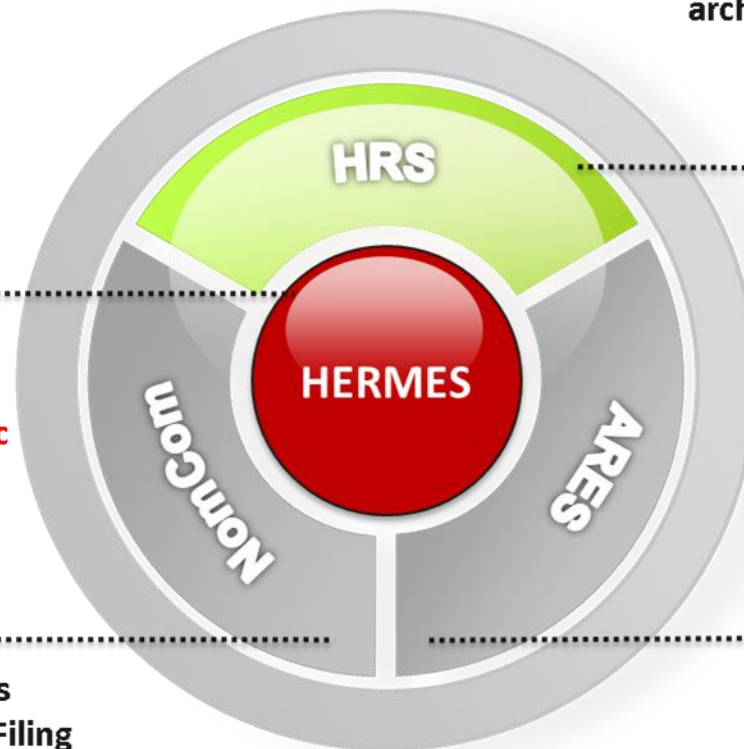
Web user interface.
Provides user access to
Hermes repository &
document management
operations

HERMES

Central Document
Repository. Implements
business rules of eDomec

NomCom, HPS I

Web user interface. Offers
functions to manage the Filing
Plan and retention policies



Preservation systems @ EC

Some key challenges we "knew about"

- Do something with the metadata
- Do something with file formats
- Ingest & access
- Storage
- Integrate with HAN platform ...
...& other source systems (digitisation starts here)

So ... learn, learn & ... learn (and continued)

- Literature (proceedings) & conferences (ICA, DLM, ...)
- OAIS ... again
- Other institutions (EU and more)
- Expert meeting
- Study existing examples (Antwerp, TNA, Scandinavian countries)

How to deal with the metadata ?

- Analysis of metadata in source systems – decide what to take
 - HAN
 - Adonis
- Define general concepts to be used in the repository
- Map your system metadata to the concepts
- Finetune & finalise >> the "HPS data model" is born
- Re-iterate and add missing elements when adding new source systems

SIP creation

**Data is exported
out of HAN after
1st review
acceptance
Metadata 400
elements**

**SIP = Submission
Information Package
(OAIS model)**

SIP creation is built into the system (HAN)
1 SIP can contain many "dossiers« ;
Metadata stored as XML files;
Metadata structure = General + specific
Other mechanisms to produce SIP
Adonis / Scanning / ... through specific tools

a-REP ingest process - preservation

AIP 2 locations / 3 copies / cloud & data centre
Metadata stored in the a-REP database for quick access
Objects stored in XML files next to the digital objects

Fixity information

FixityInfo	
FixityValue	920170b92b489888c7f67033e81d3826922a6bdd
FormatInfo	
FormatPUID	fmt/12
FormatName	Portable Network Graphics

File format as PUID (PRONOM's Persistent Unique Identifier)

All file formats are accepted in a-REP

Definition of preservation workflows

Definition of migration upon ingest

ISA² action: **Standards-based archival data management, exchange and publication**

- **1st phase: study**
 - Identify existing data standards and exploring IT tools and services supporting those.
 - How these standards are applied in different national and European contexts
 - Interoperability requirements among Archives Portal Europe, Europeana, and the Historical Archives of the European Union (run by European University Institute)
 - Best practices for publishing in an Open Data format, following LODLAM (Linked Open Data in Libraries, Archives and Museums) recommendations
- **2nd phase: PoC**
 - Set up PoC to assess feasibility based in output of the 1st phase.
 - Reusable solution for "two ways" data exchange with Florence



ISA² programme

You click, we link

Run by the ISA Unit at DIGIT (European Commission) with 131€M budget, the ISA² programme provides public administrations, businesses and citizens with specifications and standards, software and services to reduce administrative burdens.



@EU_ISA2

isa2@ec.europa.eu

ec.europa.eu/isa2



Annexes



@EU_ISA2

isa2@ec.europa.eu

ec.europa.eu/isa2

a-REP ingest process – progress steps ... AIP

Hash values added and checked in order to control authenticity

Identification of file formats through bitstream verification (Pronom)

HAS manual validation step = final check

Step Progress

State	Name	Progress	Started	Finished	Messages
✓	Copy XIP Package	<div style="width: 100%;"></div>	19.01.17 15:59:14	19.01.17 15:59:16	
✓	Virus Check	<div style="width: 100%;"></div>	19.01.17 15:59:16	19.01.17 16:00:22	
✓	Metadata Integrity	<div style="width: 100%;"></div>	19.01.17 16:00:23	19.01.17 16:00:25	
✓	Content Integrity	<div style="width: 100%;"></div>	19.01.17 16:00:25	19.01.17 16:00:28	
✓	Fixity Check	<div style="width: 100%;"></div>	19.01.17 16:00:28	19.01.17 16:00:31	
✓	Ingest target update	<div style="width: 100%;"></div>	19.01.17 16:00:31	19.01.17 16:00:37	
✓	Validate SIP	<div style="width: 100%;"></div>	19.01.17 16:00:38	19.01.17 16:00:40	
✓	Validate SIP against Database	<div style="width: 100%;"></div>	19.01.17 16:00:40	19.01.17 16:00:43	
✓	Characterise	<div style="width: 100%;"></div>	19.01.17 16:00:44	19.01.17 16:00:53	View
✓	Ingest validation report generation	<div style="width: 100%;"></div>	19.01.17 16:00:53	19.01.17 16:00:55	
👤	Ingest validation	<div style="width: 100%;"></div>	19.01.17 16:00:55	19.01.17 16:01:15	
✓	Ingest validation submission	<div style="width: 100%;"></div>	19.01.17 16:01:15	19.01.17 16:01:16	
✓	Store Files	<div style="width: 100%;"></div>	19.01.17 16:01:16	19.01.17 16:01:22	
✓	Store Metadata	<div style="width: 100%;"></div>	19.01.17 16:01:22	19.01.17 16:01:25	
✓	Store Metadata File	<div style="width: 100%;"></div>	19.01.17 16:01:25	19.01.17 16:01:28	
✓	Update Search Index	<div style="width: 100%;"></div>	19.01.17 16:01:28	19.01.17 16:01:31	View



European Commission

a-REP search & access - explorer



a-REP Archives Repository

BAERT Lieven

English

Dashboard

Ingest

Access

Preservation

Data Management

Administration

Help



bogdan

Sync Tree

Tools

View



Manifestation

Manifestation



- Agences décentralisées et autres organes de l'UE (1990 - 2016)
- Comité Consultatif de la Communauté européenne du charbon et de l'acier (1952 - 1967)
- Commission de Communauté européenne de l'énergie atomique (1958 - 1967)
- Commission de la Communauté économique européenne (1958 - 1967)
- Commission européenne (1967 -)
- Ecoles européennes (1953 -)
- Haute Autorité de la Communauté européenne du charbon et de l'acier



Agences déce...



Comité Consu...



Commission d...



Commission d...



Commission e...



Ecoles europé...



Haute Autorité...



Service europ...

Filter

Apply



Show accrued files



Show children



Show deprecated



Catalogue Ref:

Scope and Content:

Type:

Size:

Reference:





European Commission

a-REP search & access – metadata view



a-REP Archives Repository

Dashboard Ingest Access Preservation Data Management Administration Help

Root Commission Europeenne Informatique HAN Files and Documents Files from DIGIT and OIB A-REP test in -En

A-REP test in -En

Description History Actions

Basic Metadata

Deliverable Unit

Deliverable Unit Title	A-REP test in -En
Catalogue Reference	A-REP test in -En
Coverage From	2016-09-19T14:49:42.000+02:00
Coverage To	2016-09-20T10:08:15.000+02:00
Digital Surrogate	False <input type="checkbox"/>
Scope and Content	n/a

Relationships

Deliverable Unit	Relationship
postarp(2016)30	Parent
Children	

HPS File

Identifiers	View
File code	2016-AA0118
Specific code	DIGIT-2016/5587.02
Titles	
EN	A-REP test in -En
FR	A-REP test in -fr

Categories

Category	10.3 Contrib	Version	Common Retention List, SEC (2007)970: 1
Identifier (UniqueIdentifier)		080126268042194f	
Identifier (Decimalisation)		10.3	
Category type		CRL	
Title EN		Merger cases	
Title FR		Affaires "Fusions"	
Description EN		Prior checking of concentrations which may substantially hinder effective competition.	
Description FR		Contrôle a priori des opérations de concentration susceptibles d'entraver de manière significative une concurrence effective.	

Actions

Type	PostTHA
Name	SecondReview
Type	PostARP
Name	SamplingSelection
Comment Observation EN	
Comment Observation FR	
Comment Retention EN	
Comment Retention FR	
Status	Active
Version	1

Events

Creation	
Date	2015-06-23T10:20:10+02:00



European Commission

a-REP search & access - objects



BAERT Lieven

English

Dashboard Ingest Access Preservation Data Management Administration Help

bogdan

Root > Commission européenne (1967 -) > Informatique (2003 -) > HAN > test the new acc env > 2016-AA5040 > Ares(2013)1253

Sync Tree

Tools View

Manifestation Preservation 1 (Active, Original)

- Informatique (2003 -)
 - HAN
 - 19122016
 - File titles
 - Jan-TH/PP
 - JAN- THA/SR
 - test for transfer of adm elim info
 - test the new acc env
 - 2016-AA5040
 - Ares(2013)1253
 - Transfer DIGIT (AGA&TIM) - a-REP training
 - Transfer DIGIT - a-REP training

0_Ares_TestC...	0_Ares_TestC...	200 Persons	Αβιούδ.xlsx	Αβιούδ.xlsx[R]...
Wrong Word.xls	Wrong Word.x...			

Filter Apply Show accrued files Show children Show deprecated



Catalogue Ref:
Scope and Content:
Type:

Size:

Reference:





European
Commission

A2A: Browsing Collections (Fonds Group)



 browse archive

Home > Root

Search Our Archives



Commission de la
Communauté
économique
européen...

[Details](#)



Haute Autorité de la
Communauté
européenne du c...

[Details](#)



Commission de la
Communauté
européenne de l'é...

[Details](#)



Commission
Européenne

[Details](#)