

# How to take up eArchiving?



How to take up eArchiving?

## Presentation of the Danish National Archives eArchiving journey

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National Archives of Denmark



## Uptake of eArchiving in Denmark

### How to take up eArchiving?

- [Digital archiving at the Danish National Archives](#)
- [The history of E-ARK and eArchiving](#)
- [Roadmap to full uptake](#)
- [eArchiving uptake in the public sector](#)
- [eArchiving uptake in the Danish realm](#)
- [eArchiving uptake – special focus - archives and access](#)
- [Managing three generations](#)
- [Funding, skills and staff](#)
- [Cooperation needed!](#)



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# Digital archiving at the Danish National Archives

- Digital archiving since 1973
  - Digital registers (databases) since 1973
  - Digital documents since 1997
- Ingest in 2019
  - 200 submissions and 35 TB ingested so far  
210 submissions and 45 TB expected ultimo 2019
- Holdings in 2019
  - 4,500 submissions, 300 TB expected ultimo 2019

# Digital archiving at the Danish National Archives

- Procedures
  - Notification, approval, appraisal, submission, transfer, ingest, preservation and access
  - Regulated by law and executive orders
    - Mandatory notification and approval for state authorities
    - Submission every 5th year (some annually)





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# The history of E-ARK and eArchiving at the Danish National Archives

- 2010: New IP specifications and SIARDDK
- 2012: Database preservation hackathon
- 2014-17: E-ARK
- 2018-19: eArchiving – E-ARK4ALL
- 2019-21: eArchiving – E-ARK3
  
- Currently: Increasing use of E-ARK open source database preservation toolkit and database visualisation toolkit made by KEEP Solutions



# Roadmap to full uptake

- 2019-21: E-ARK3
  - further develop, enhance and expand
    - Specifications for IP and Content Information Types
    - Sample software - IP creation and validation tools
    - Training, outreach and reference architecture
- 2021-22: E-ARK? eArchiving?
  - Depending on continuation of eArchiving activities either
    - common European or
    - national development of specifications and software
  - Regulations – new executive order implementing eArchiving



# eArchiving uptake in Denmark in the public sector

- Estimated coverage by 2023: 99%
  - E-ARK Submission Information Packages (SIPs) to be created by
    - All state level authorities – executive and judicial
      - All ministries
        - » All agencies
      - All courts
    - All regional and local authorities
      - 5 regions and 98 municipalities





# eArchiving uptake in the Danish realm

- Cooperation with Greenland and the Faroe Islands
  - Urge adoption of eArchiving soon after uptake in Denmark
  - Huge increase in geographical coverage – even outside the EU and Europe





## eArchiving uptake – special focus - archives and access

- E-ARK Archival Information Package (AIP) and Dissemination Information Package (DIP) specifications in use by all public archives by 2023
- Challenge: giving authorities access to their own data in public archives: interpretation of common EU GDPR and national implementation of GDPR legalisation regarding archives



# Managing three generations of digital archiving

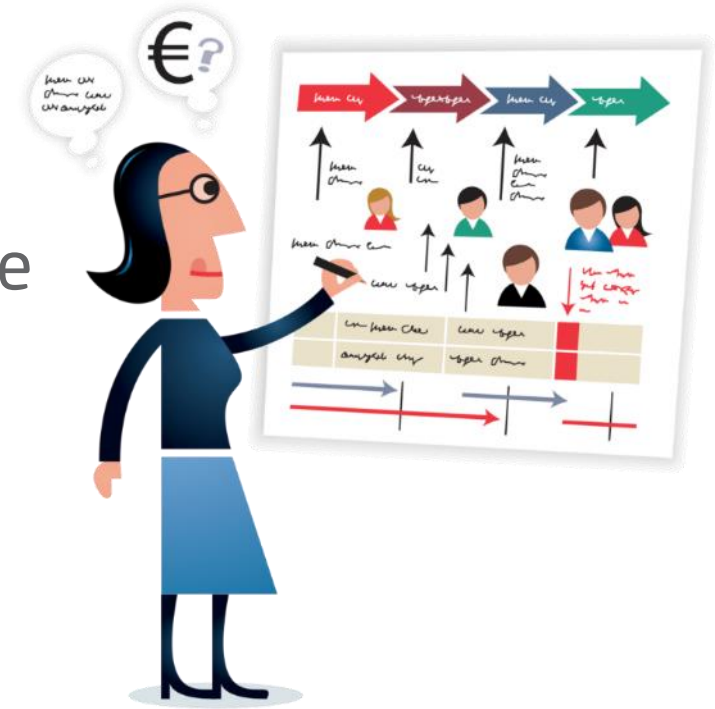
- Managing three generations of digital archiving
  - previous, current, future
  - IP specifications, tools and regulations, guidance
  - Migration of archives to current specifications



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# Funding, skills and staff needed

- The eArchiving building block is, and will continue to be, a work in progress
- eArchiving requires skills and expertise for a successful implementation
- Our need for software development based on the specifications and new content type specifications requires funding
- We need to have an active community that are willing to participate





# Cooperation needed!

- The use of technology in our governments develops rapidly and will continue to challenge the archives
- No archive can handle the challenges entirely on their own
- The eArchiving building block can help us handle the challenges together



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How to take up eArchiving?

## Presentation of the Publications Office eArchiving journey

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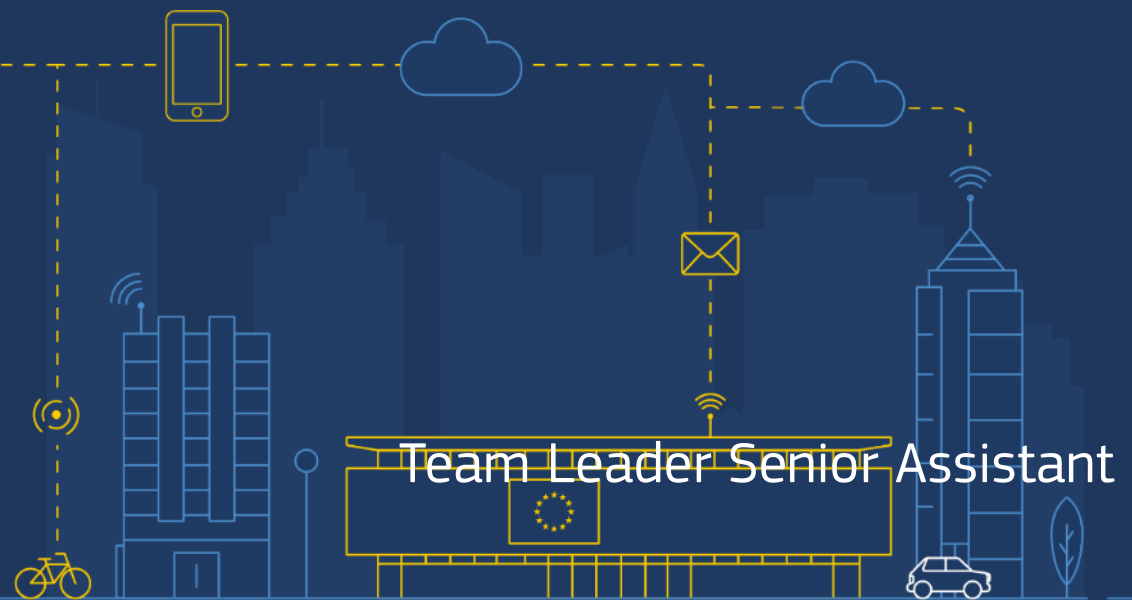
**Maria Kardami**

Archivist - electronic archiving and long term preservation,  
A4 - Publications Office of the European Union



**Corinne Frappart**

Team Leader Senior Assistant - electronic archiving and long term preservation,  
A4 - Publications Office of the European Union



# EU Publications Office eArchiving journey

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## OUTLINE

- **Presentation of OP**
- **Organisation of the long-term digital preservation service**
- **Implementation of the long-term digital preservation service**



# 1. PRESENTATION OF OP





# 1. What is the Publications Office ?

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- **What?** Interinstitutional service provider,  
evolving from traditional publisher to provider of  
information management services
- **When?** Established in 1969
- **What for?** To publish EU law + other information from EU  
institutions and make it available for easy long-term  
access and reuse
- **Why?** Mandate stems from Decision 2009/496/EC  
of 26 June 2009



## 2. Who does the Publications Office work for?

Around 150 'author services' from:

### ■ EU institutions



### ■ Other EU bodies



### ■ EU agencies



Etc.




## 4. OP's mission

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## 5. What does OP publish?

### Official Journal

Official Journal		L 306
of the European Union		
		
English edition	Legislation	Volume 62 27 November 2019
Contents		
II Non-legislative acts		
REGULATIONS		
* Commission Implementing Regulation (EU) 2019/1953 of 25 November 2019 on the reimbursement, in accordance with Article 265 of Regulation (EU) No 1306/2013 of the European Parliament and of the Council, of the appropriations carried over from financial year 2019 ..... 1		
DECISIONS		
* Council Decision (EU) 2019/1954 of 18 November 2019 establishing the position to be adopted, on behalf of the European Union, in the EPA Committee set up by the Interim Agreement with a view to an Economic Partnership Agreement between the European Community and its Member States, of the one part, and the Central Africa Party, of the other part, in connection with the adoption of the rules of procedure for mediation, the rules of procedure for arbitration and the code of conduct for arbitrators ..... 5		
* Council Decision (EU) 2019/1955 of 21 November 2019 on the position to be taken on behalf of the European Union within the General Council of the World Trade Organization as regards the adoption of a decision on the review of the Understanding on Tariff Rate Quota Administration Provisions of Agricultural Products (TRQ Understanding) ..... 20		
* Commission Implementing Decision (EU) 2019/1956 of 26 November 2019 on the harmonised standards for electrical equipment designed for use within certain voltage limits and drafted in support of Directive 2014/35/EU of the European Parliament and of the Council ..... 26		
* Commission Implementing Decision (EU) 2019/1957 of 25 November 2019 on the assessment made pursuant to Regulation (EU) 2018/1199 of the European Parliament and of the Council as regards an exemption from certain substantive requirements laid down in Commission Implementing Regulation (EU) No 925/2012 granted by the United Kingdom (notified under document C(2019) 8345) (1) ..... 35		
(1) Text with EEA reference.		
<p><b>EN</b> Acts whose titles are printed in light type are those relating to day-to-day management of agricultural matters, and are generally valid for a limited period. The titles of all other acts are printed in bold type and preceded by an asterisk.</p>		

### General publications



## 6. Access and reuse at OP

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**CORDIS**  
EU research results



## **2. ORGANISATION OF THE LONG-TERM DIGITAL PRESERVATION SERVICE**



# 1. OP's digital preservation mission & vision

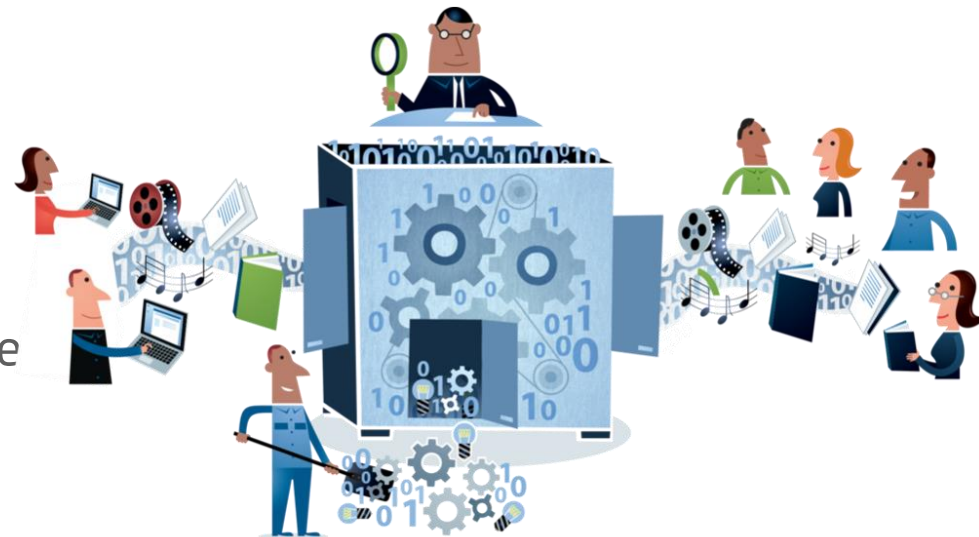
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## ■ Legal mandate:

- Preserve all EU law and all EU publications:
  - Identified by OP (with: international identifier (ISBN, ISSN, DOI, ...), or catalogue nbr)
  - In whatever form or carrier they are published
- Centralized preservation on behalf of EU institutions, agencies and bodies  
=> economies of scale

## ■ Vision:

- EU digital publications are preserved and remain accessible and authentic over time
- Extend scope as new content types emerge (e.g. web, social media etc.)



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## 2. OP's digital preservation resources

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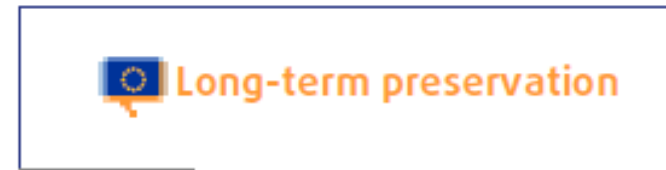
### ■ Staff:

#### ■ Unit 'Preservation and Legal deposit'

- Dedicated unit since 1.4.2018

#### ■ Section 'Long-term preservation'

- 12 staff members
- Activities:
  - Long-term digital preservation
  - Physical archive
  - Digitisation
  - Web archiving



#### ■ Section 'Metadata enrichment & identification'

- 13 staff members





## 2. OP's digital preservation resources

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### ■ Externalised service

#### Lot 1 - Long-term preservation service

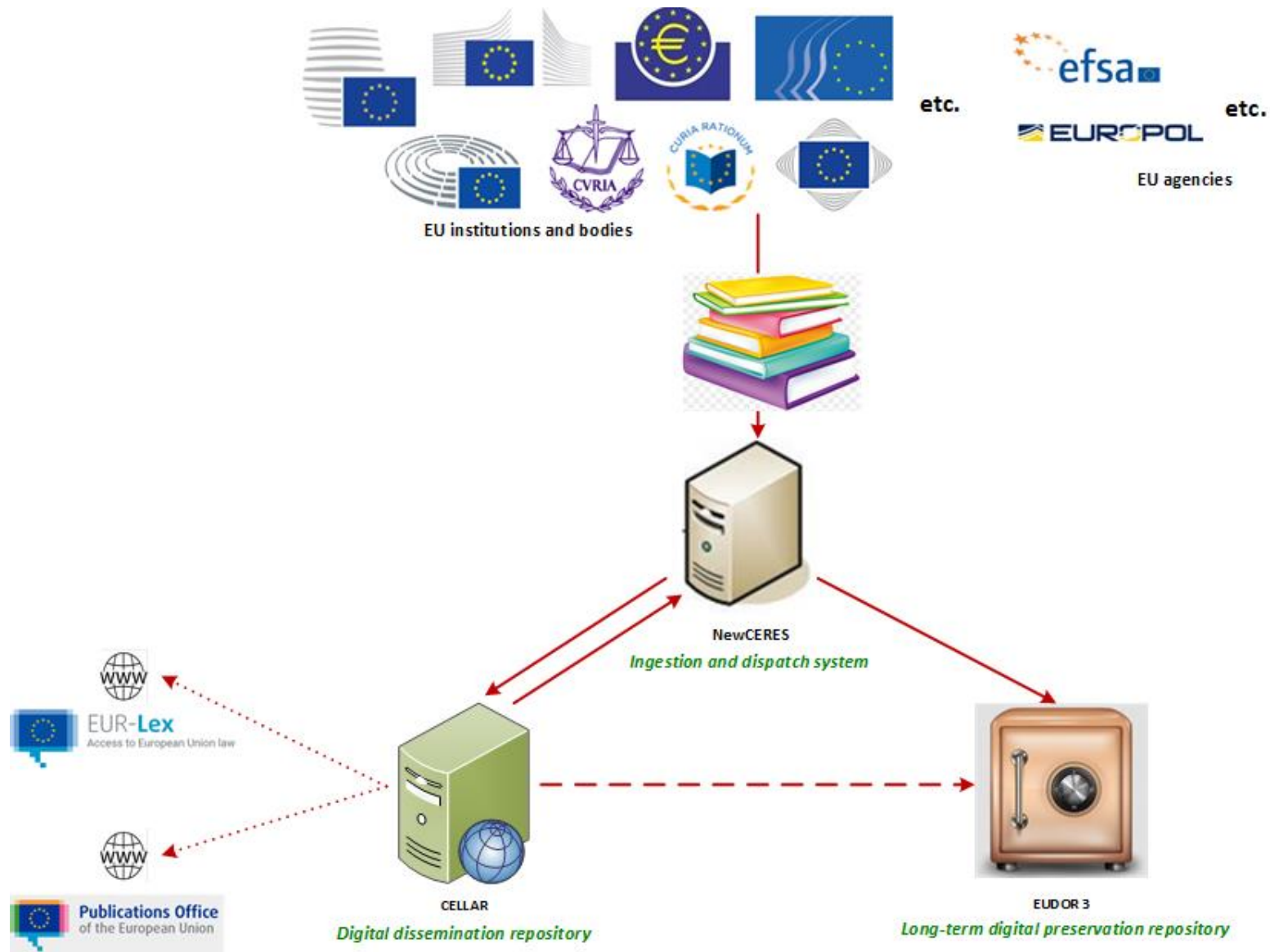
- **ISO 14721 - Open Archival Information Systems (OAIS)**
- Contractor:
  - Technical infrastructure
  - LTP service (ingestions, archival storage, preservation planning, access, etc.)
- OP:
  - Ownership of data, business orientations, monitoring of the contract

#### Lot 2 - Audit & consultancy

- **ISO 16363 - Trustworthy digital repositories**
- Audit:
  - Long-term digital preservation plan
  - Training
- Consultancy:
  - Policies, procedures, formats, migration



### 3. OP's digital preservation workflow



## 4. OP's digital preservation collections

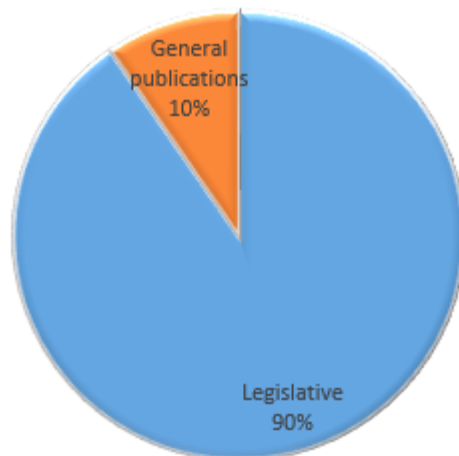
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### ■ Number of digital objects

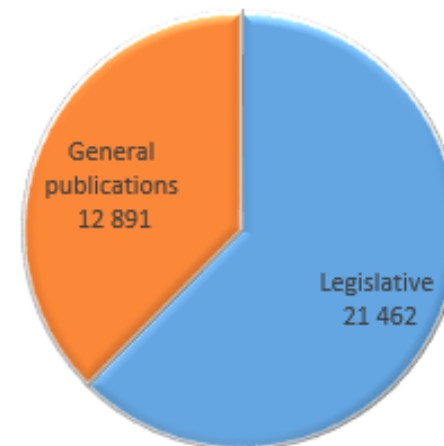
- **Publications:** 1 million
- **Language versions:** 10 million
- **Files (content):** 75 million

### ■ Share 'Legislative / general publications'

Number of publications



Size of content files (in GB)



## 4. OP's digital preservation collections

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### ■ Current coverage

- Legislative documents (OJ, case law, preparatory documents, etc.)
- General publications

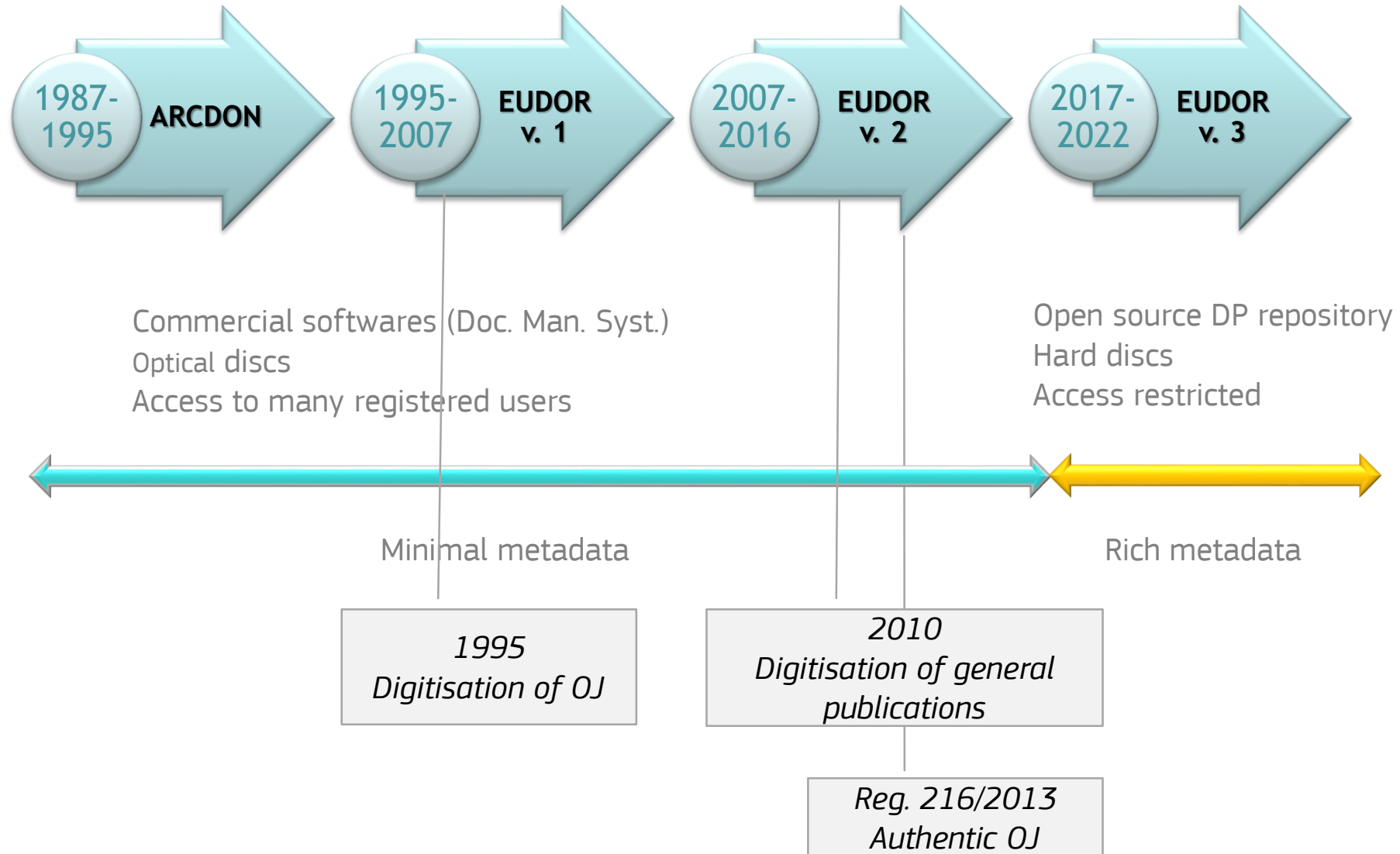
### ■ Next collections

- Public procurement (TED)
- Web archive of EU websites
- EU apps
- EU official social media



## 5. OP's digital preservation history

### Steps



## 5. OP's digital preservation history

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- **Transition from electronic archive to long-term digital repository**
  - **Drive:** get ISO 16363 certification
  - **Actions:**
    - Write the Digital Preservation Plan (policy document)
    - Migrate/clean the collections of Eudor2 + add metadata
    - Create a dedicated unit and team
    - Externalise the service

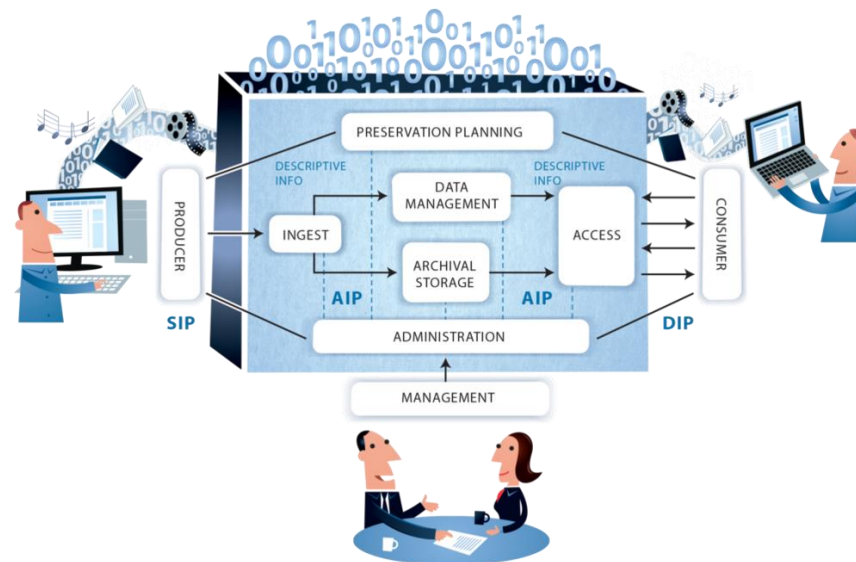


### **3. IMPLEMENTATION OF THE LONG-TERM DIGITAL PRESERVATION SERVICE**



# 1. Standards and specifications

- ISO 14721:2012: Open archival information system (OAIS)
- E-ARK specifications
- METS: Metadata Encoding and Transmission Standard
- PREMIS: Data Dictionary for Preservation Metadata
- ISAD (G): General International Standard Archival Description – Second edition and EAD: Encoded Archival Description
- ISO 16363:2012: Audit and certification of trustworthy digital repositories





## 2. Tools

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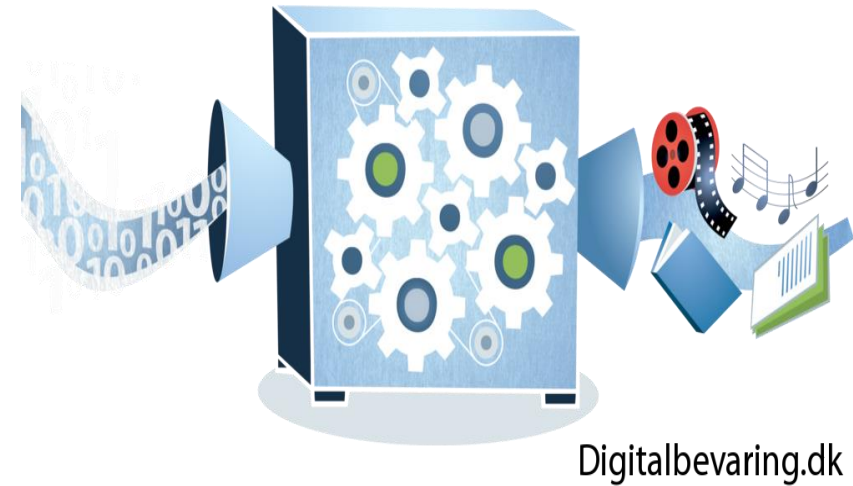
- RODA digital preservation repository



### 3. Digital preservation implementation

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- Information security
- Storage
- Message digest calculation and fixity check
- File format identification
- Data validation
- Metadata and documentation
- Collaboration with data producer
- Risk management
- Self-evaluation



## 4. Digital preservation community

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- Membership in Digital Preservation Coalition (DPC)
- Networking and knowledge sharing
- Attending trainings, webinars and conferences
- Following up mailing lists and twitter hashtags
- Maintaining a technology watch log



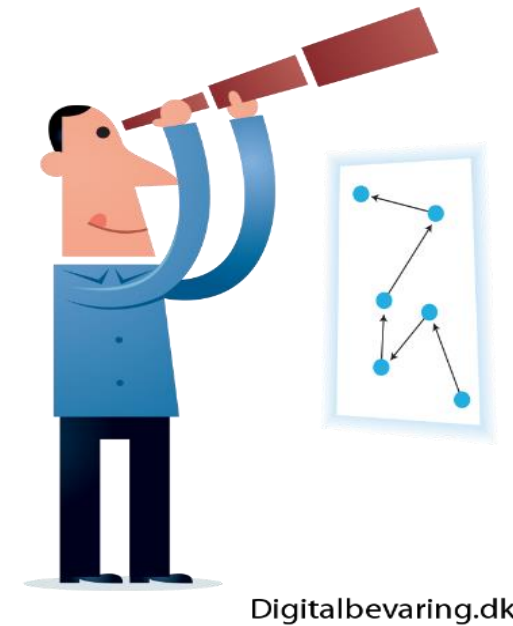
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## 5. What's next?

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- Digital signatures preservation
- PDF/A conformance
- Antivirus check
- Archive file formats (WARC, ZIP)
- Representation information
- Policies and documentation
- Context for collections
- ISO 16363 certification



## More information

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- Find out more about OP:

<https://op.europa.eu/>

- Main contacts:

- [OP-LONG-TERM-PRESERVATION@publications.europa.eu](mailto:OP-LONG-TERM-PRESERVATION@publications.europa.eu)
- [OPDL-PHYSICAL-ARCHIVE@publications.europa.eu](mailto:OPDL-PHYSICAL-ARCHIVE@publications.europa.eu)
- [op-web-preservation@publications.europa.eu](mailto:op-web-preservation@publications.europa.eu)
- [OP-DIGITISATION@publications.europa.eu](mailto:OP-DIGITISATION@publications.europa.eu)



# Conclusion & wrap up

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**Fulgencio Sanmartín**

Policy Officer – Digital Cultural Heritage and Interactive Technologies,  
DG CNECT G2 – European Commission



# Questions



## **1 How do you deal with the preservation of your data? What reuse do you do of it?**

- Digitisation? Websites, emails?
- Data Preservation Plan? Metadata?
- Cloud? Other outsourcing?



## **2 What kind of data are you dealing with, and what do you do with these opportunities?**

- Domain? File formats?
- Variety? Volumes? How often?
- Opportunities?



## **3 What are the potentials and barriers of eArchiving in your domain?**

- Legal? GDPR?
- Costs? Migration? Lock-in software?
- Potentials?

Thank you for joining us today, we look forward to seeing you tomorrow!

## Have a look at the agenda

<b>4 December</b>	<b>Activity</b>
09:30-09:35	<b>Welcome</b>
09:35-10:45	<b>eArchiving domain introduction</b> <b>Presentations</b> <ul style="list-style-type: none"><li>• Geographical data</li><li>• Taxation and customs domain</li></ul> <b>Panel Discussion</b>
11:00-12:30	<b>Break-out session: <i>What is the potential of eArchiving in your domain?</i></b>
12:30-12:35	<b>Conclusion and wrap-up</b>

