Introducing the new eArchiving Building Block

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E-ARK4ALL Project
Talk Outline

1. The vision of E-ARK (KA)
2. Brief history (KA)
3. Introduction to the Connecting Europe Facility (CEF) (JA)
   ○ Digital Single Market (DSM)
   ○ the Building Blocks
   ○ the eArchiving Building Block: Governance / Expert Group / E-ARK4ALL
4. eArchiving Building Block: Overview (JA)
5. Components, Services (KA)
   ○ Specifications
   ○ Tools, Sample Software Portfolio
   ○ Service desk
   ○ Training
   ○ Outreach
   ○ DNA success story
6. Next Steps (JA/KA)
1. The vision of E-ARK

**E-ARK is about interoperability**

**Vision:**
All digital preservation systems receive, store and provide access to information regardless of its size, type or format according to a set of agreed principles which allow systems to identify, verify and validate the information in a uniform way.

**Goal:**
Interoperability between data sources, archives and reuse environments is improved to a point where digital preservation tools can be reused across borders and institutions.
2. Brief history

Nine years of effort and ongoing..

2010 - 2011: discussions on practical interoperability at DLM Forum meetings
2011: multiple requests to the EC to fund “digital archiving in practice”
2012: EC consultations
2013: EC ICT PSP work programme to include a call for “e-Archiving”
2014.02 - 2017.01: the E-ARK project
2016 - 2017: proposing E-ARK outcomes to become a “CEF Building Block”
2017.02.01: the establishment of the DILCIS Board
2018.06 - 2019.05: the E-ARK4ALL project
2018.12: eArchiving Building Block officially announced
2. Brief history

E-ARK outcomes

Specifications for
- Common Specification, SIP, AIP, DIP
- relational database, records and geodata archiving

Sample tools
- to check if the specifications work
- to demonstrate to everyone that the specification work

Pilots
- to implement the specifications and tools in operational environments

Knowledge Centre
- E-ARK Maturity Model and Assessment Tool
- E-ARK General Model

* all available at http://eark-project.com/
2. Brief history

DILCIS Board

- Specifications are the core of E-ARK!!!
- DILCIS Board established immediately after the end of the E-ARK Project to guarantee the further maintenance of E-ARK specifications
- DILCIS: Digital Information LifeCycle Interoperability Standards
- More information available at www.dilcis.eu and during the OPF 22.01 webinar!
3. Digital Single Market

A Digital Single Market (DSM) is one in which the free movement of persons, services and capital is ensured and where the individuals and businesses can seamlessly access and engage in online activities under conditions of fair competition, and a high level of consumer and personal data protection, irrespective of their nationality or place of residence.
3. The CEF 'Big Picture'

Funding for the EUROPEN COMMISSION

Services offered by the European Commission

- Justice
- Consumer Protection
- Information Society
- Internal Market
- Social Security

Building Blocks

- IDENTIFY with eID
- SIGN with eSignature
- INVOICE with eInvoicing
- EXCHANGE with eDelivery
- TRANSLATE with eTranslation
- ARCHIVE with eArchiving
3. What is a CEF Building Block?

DEFINITIONS

A Building Block is a package of technical specifications and/or services and/or sample software that can be reused in projects of any policy domain. In particular:

- The technical specifications of a Building Block are as much as possible open and market-driven.
- The services of a Building Block must be well defined i.e. documented, with SLAs, training, helpdesk, etc.
- The software of a Building Block must have sufficient maturity i.e. successfully piloted for cross-border transactions.
3. Research* shows that reuse of building block like solutions:

**REDUCES COSTS**

20% to 40% cost savings

By benefiting from common services and proven technology

**SHORTENS TIME TO MARKET**

40% to 50% performance gains

Value-add time  Total lead time

**PROMOTES SIMPLIFICATION**

At all levels

Including the allocation and mobility of human resources (expertise pools)

* Gartner Research: The Advantages, Economics and Value of Reuse
3. eArchiving Building Block Governance

**CEF Policy**

**CEF IT Strategy & Coordination**

**CEF DSIs Implementation**

- DSI TACTICS
  - DSI Expert Group
    - Policy Expert Group
    - User Communities

- DSI OPERATIONS
  - Operational Management Board
    - DSI Owner
    - DSI Solution Providers
    - (Users: Commission Services)

**CEF DSIs Stakeholders**

- Standardisation Bodies
  - DILCIS Board
    - eg., INESC-ID
  - eg., OPF

- Private Sector
  - Commercial solution providers

- Open Source Communities
  - Research institutions
  - Data creators
  - Repository owners

**Legend**

- eArchiving
- European Commission
3. E-ARK4ALL Consortium

- **The Danish National Archives** (Coordinator)
- The Swedish National Archives
- The DLM Forum MTÜ
- Austrian Institute of Technology (AIT)
- Keep Solutions

**DLM Project Members:**

- National Archives of Estonia, Norway, Slovenia; Federal Archives of Germany, Switzerland
- OPF, ES Solutions; Geoarh, Gregor Zavrsnik, s.p.; Easy Lean OÜ; Poliphon; Mikkeli University of Applied Sciences; Instituto de Engenharia de Sistemas e Computadores (INESC-ID); Highbury Associates IVS; Gabinete UMBUS SL
4. eArchiving Building Block Overview: Objectives

Experts in national archiving setting out with a common purpose

- **Collaboration**
  The services offered are a result of strong collaboration between numerous Member State national archives.

- **Facilitate research**
  Through the use of common standards, exchanging information on topics of choice can empower researches, law and order...

- **Promote cross-border adoption**
  By offering out of the box tools, technical support, training and testing services.

- **Broaden areas of application**
  eArchiving aims to be used in sectors such as healthcare, environment, finance, safety-critical systems, etc.
4. eArchiving Building Block Overview: Goals

**Reduced cost of implementation**
The services provided by CEF Digital are open source.

**Long-term solution**
Common set of specifications for packaging digital information, supported by the main European digital archives.

**Interoperability**
Cross-border collaboration on data analysis, including big data analysis.

**Guidance on legal landscape**
Numerous individual legislations at Member State level can confuse the citizens; we can help them navigate through these legislations.
## 5. eArchiving Components and Services

### ENABLING SERVICES
*enable the adoption of the core services*

<table>
<thead>
<tr>
<th>SOFTWARE</th>
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<tbody>
<tr>
<td>Sample software</td>
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<td>Relational Database archiving and reuse tools</td>
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<td>Pre-ingest and SIP creation tools</td>
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<td>Long-term Repository solutions</td>
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<td>Access and Reuse tools</td>
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<th>OPERATIONS SERVICES</th>
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<tr>
<td>Managed services</td>
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<td>Testing services</td>
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<td>Supporting services</td>
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<th>Compliance Testing and Validation</th>
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<td>Service desk</td>
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<td>Training service</td>
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### ENHANCING SERVICES
*enhance customer experience*

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<tr>
<th>STAKEHOLDER MANAGEMENT SERVICES</th>
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<tbody>
<tr>
<td>Stakeholders follow-up</td>
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<td>Community management services</td>
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<td>Awareness raising &amp; stakeholder engagement</td>
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<td>Knowledge Centre</td>
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<td>Maturity Assessment Service</td>
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<td>E-ARK General Model</td>
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### TECHNICAL SPECIFICATIONS

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<th>European Profiles</th>
<th>Implementing Acts</th>
<th>Implementing Guidelines</th>
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<td>E-ARK Common Specification for Information Packages</td>
<td>SIARD specification</td>
<td>E-ARK Geo-data specification</td>
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<td>E-ARK Profile for Submission Information Package (SIP)</td>
<td>E-ARK Profile for Dissemination Information Package (DIP)</td>
<td>E-ARK Profile for Archival Information Package (AIP)</td>
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<td>E-ARK Profile for Archival Information Package (AIP)</td>
<td>E-ARK ERMS specification</td>
<td>CEN Standards</td>
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### CORE SERVICES
*facilitate cross-border/cross-sector technical interoperability among heterogeneous information systems*
5. Standards are the core of the Building Block
5. eArchiving Sample Software

Purpose

● to serve as guidance and example on how to implement E-ARK specifications
● to show that tools with different background, regional coverage and user base can all implement E-ARK specifications equally (and thus be interoperable with each other)
  ○ NB! Multiple tools for the same task
● to be the primary implementers voice within the specification development activity, and
● serve as the primary implementation testbed for specifications

● to provide and maintain the most crucial components as open-source libraries (to date: IP validation component in Java and Python)
5. eArchiving Sample Software

eArchiving BB currently features:

- **Pre-Ing est**: RODA-In
  - Database Preservation toolkit
- **Ingest**: ESSArch Tools for Archive
  - RODA
  - E-ARK Web
- **Storage**: ESS Preservation Platform
  - RODA
  - E-ARK Web
- **Access**: Search and Display GUI
  - Order Management Tool
- **View**: IP Viewer
  - Database Visualisation toolkit

A solution for natural persons.
5. eArchiving Service Desk

Helps you to:
- Get an overview of,
- learn about,
- implement,
- participate in...

In regard to:
- E-ARK specifications,
- sample software,
- training offering,
- community

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eArchiving

eArchiving provides the core specifications, software, training and knowledge to tackle the challenge of short, medium and long-term data management and reuse in a sustainable, authentic, cost-efficient, manageable and interoperable way.
5. Training

Responding to community needs via consultation
https://ec.europa.eu/eusurvey/runner/EARK4ALL_training_needs_analysis

Current training available:
http://e-ark4all.eu/training/

Plans for continuous training development beyond E-ARK4ALL to support eArchiving BB

Training currently under development for each E-ARK4ALL activity and product

Masterclass talks to go online during 2019

Bespoke training available
5. Outreach

- **CEF webpage**
  https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving

- **Launch event 7th December, Brussels**
  https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL

- **Targeted Stakeholder groups**

- **LinkedIn Group**
  https://www.linkedin.com/groups/8343650/
  please apply to join

- **Twitter** @EARKProject

- **E-ARK4ALL** http://e-ark4all.eu/
5. Success Story: Danish National Archives

With over 5,500 databases and growing amounts of data, the DNA needs a sustainable solution to operate on a daily basis.

- 22TB of information archived in 2017, 45TB in 2018, so far
- Database Preservation Toolkit (DBPTK) helps records creators with submission to the archives
- Focus on scalable solutions as the amount of data being processed rises
- Common standards will reduce costs of development of tools over time
6. Next steps

What are we doing next

- CEF and the eArchiving Building Block will continue at least until 2021
- eArchiving BB to focus on
  - Continuous maintenance of the specifications
  - Implementing E-ARK specifications in preservation software (and beyond)
  - Growing the E-ARK community - come and join us!

What can you do?

- **Review the specifications:**
  - [http://e-ark4all.eu/activities/activity%202/](http://e-ark4all.eu/activities/activity%202/)
- Contact us to take up the eArchiving Building Block
- Use the service desk for training, discussing the specifications, help with implementation
- Visit the websites
  - [https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving](https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving)
  - [http://e-ark4all.eu/](http://e-ark4all.eu/)
- Join the LinkedIn Group
  - [https://www.linkedin.com/groups/8343650/](https://www.linkedin.com/groups/8343650/)
- Follow us on twitter
  - @EARKProject
Questions
Please share your thoughts with us!