



International digital bevaring

præsenteret til Arkivforeningen

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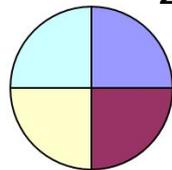
pmt@sa.dk

cand.scient.bibl fra 2015



RIGSARKIVET

25 % datamanager



25 % IT-projektleder

25 % ad hoc

25%
internationalt
samarbejde

8 år (3+5) hos Rigsarkivet





Mine mål for i dag:



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1. I kommer til at kende til Rigsarkivets arbejde for internationale standarder inden for digital bevaring.
2. I kommer til at se et af de værktøjer, der er udviklet

Hvis I har spørgsmål undervejs, må I meget gerne afbryde!





Min plan for i dag



- Præsentation af RA's digitale bevaring
 - Historisk overblik: "På vej mod internationale standarder"
- E-ARK-projektet (3-årigt projekt 2014-2017)
 - Formål, deltagere, standarder
- CEF eArchiving
 - Digitale indre marked
 - De forskellige byggeblokke
 - eArchiving - E-ARK4ALL 2018-2019 (1-årigt projekt)
 - Video (teaser) og fremtiden
 - E-ARK3 2019-2021
- Fremvisning Database Preservation Toolkit



RIGSARKIVETS
GRUND-
FORTÆLLING

Vores fælles hukommelse

Rigsarkivet bygger bro mellem fortid, nutid og fremtid. Her findes de originale kilder til det danske samfunds udvikling i tekst, billeder og tal. Vi har historier om høj og lav, om hverdagsliv og Danmarkshistoriens store begivenheder. Din historie er også en del af Danmarks historie.

Med os som nationalt arkiv, kultur- og forskningsinstitution og som informationsformidler

Som arkiv sikrer vi den skriftlige og digitale kulturarv nu og i fremtiden, så kommende generationer kan skrive og forstå deres historie. Rigsarkivet er videnscenter for Danmarks historie. Det kræver sikker bevaring, viden om forskningens metoder og kvalitet i formidlingen.

Som kultur- og forskningsinstitution formidler vi Danmarks historie og bidrager med ny forskning og viden. Vi giver digital og fysisk adgang til det historiske materiale. Det har betydning for forskere, studerende og for de borgere, der vil skrive og forstå deres egen historie.

Som informationsformidler er vi katalysator for samfundsdebatten. Politikere, medier og borgere har lige adgang til de historiske kilder. Det sikrer fri tolkning af historien og fremmer demokratisk debat om forudsætningerne for og udviklingen af nutidens samfund.



AUTENTISK

BRUGERORIENTET

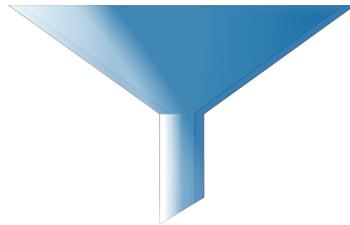
SAMARBEJDE

KOMPETENT

TROVÆRDIG

Vi modtager ESDH-systemer, fagsystemer, statistikker, registre mm. fra den offentlige forvaltning, domstole og private aktører.

Vi modtog i 2019 366 afleveringer som fyldte 172 TB



Vi godkendte i 2019 223 afleveringer som fyldte 62 TB

1973

Siden 1971-73 har vi arkiveret digitale/elektroniske arkivalier



1997, 2000, 2002, 2004

Siden 1997 har vi arkiveret digitale arkivalier, hvor den relationelle databasemodel har været bærende.

4 forskellige cirkulærer og bekendtgørelser (tekniske specifikationer om hvordan en datapakke skal se ud).



2005 - 2008

Format, Struktur og Konverteringsprojektet

https://www.sa.dk/wp-content/uploads/2015/05/Final_report_Evaluation_of_the_Format_and_Structure_Conversion_Project-1.pdf

Digital bevaring



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1973



1997-2010



2005 - 2008

Format and Structure Conversion Project.

https://www.sa.dk/wp-content/uploads/2015/05/Final_report_Evaluation_of_the_Format_and_Structure_Conversion_Project-1.pdf

2010- ?

Første internationalisering
SIARD (XML og SQL) databasebevaring efter schweizisk standard (med modifikationer).



2023



SIARD 2.1



E-ARK CEF



Software Independent Archiving of Relational Databases

SIARD 1.0

ARELDA project (2006-2008ish)

PLANETS project (2006-2010)

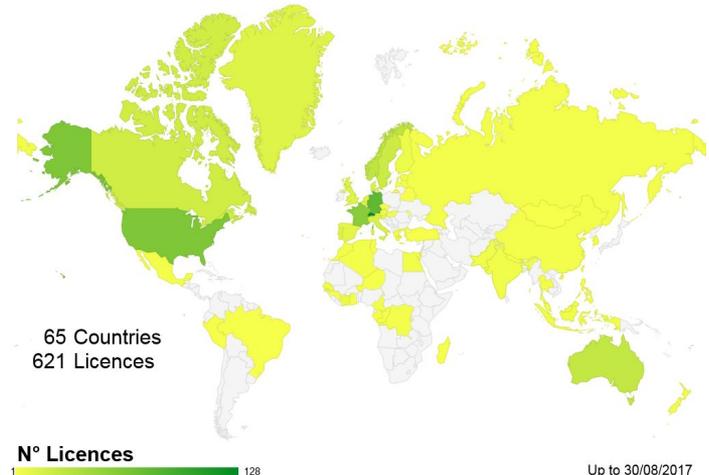
SIARD 2.0

E-ARK Project (2014-2017)

Swiss Federal Archives



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera



Links til SIARD



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DILCIS BOARD - GitHub

<https://github.com/DILCISBoard/SIARD>

DILCIS BOARD, SIARD

<http://www.dilcis.eu/content-types/siard>

E-ARK Project (2017), SIARD 2.0

<http://www.eark-project.com/resources/specificationdocs/32-specification-for-siard-format-v20>

ECH Government Standards (2017), SIARD standard

<https://www.ech.ch/vechweb/page?p=dossier&documentNumber=eCH-0165&documentVersion=1.0>

PLANETS (2011), Database Preservation Case Study: Review

<http://openpreservation.org/system/files/Database%20archiving%20review.pdf>

Voss & Kaufmann (2014), Swiss Federal Archives, Save your databases using SIARD

http://web.stanford.edu/group/dlss/pasig/PASIG_September2014/20140917_Presentations/20140917_15_Introduction_to_SIARD_Roger_Kaufmann_Andreas_Voss.pdf

E-ARK 2014-2017



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Arkiver

Archives of the Republic of Slovenia
The Danish National Archives
The National Archives of Hungary
The National Archives of Estonia
National Archival Services of Norway

Forskningsinstitutioner

University of Brighton
Austrian Institute of Technology GmbH
Universität zu Köln: The University of Cologne
University of Portsmouth
Lisbon Technical University

Firmaer

ES Solutions (Sweden)
Magenta (Denmark)
KEEP Solutions LDA (Portugal)

Andre

The DLM Forum Foundation
The Digital Preservation Coalition
Agency for Public Services Reform, IP (Portugal)
The Ministry of Finances and Public Administrations (Spain)



Finansiering 50/50

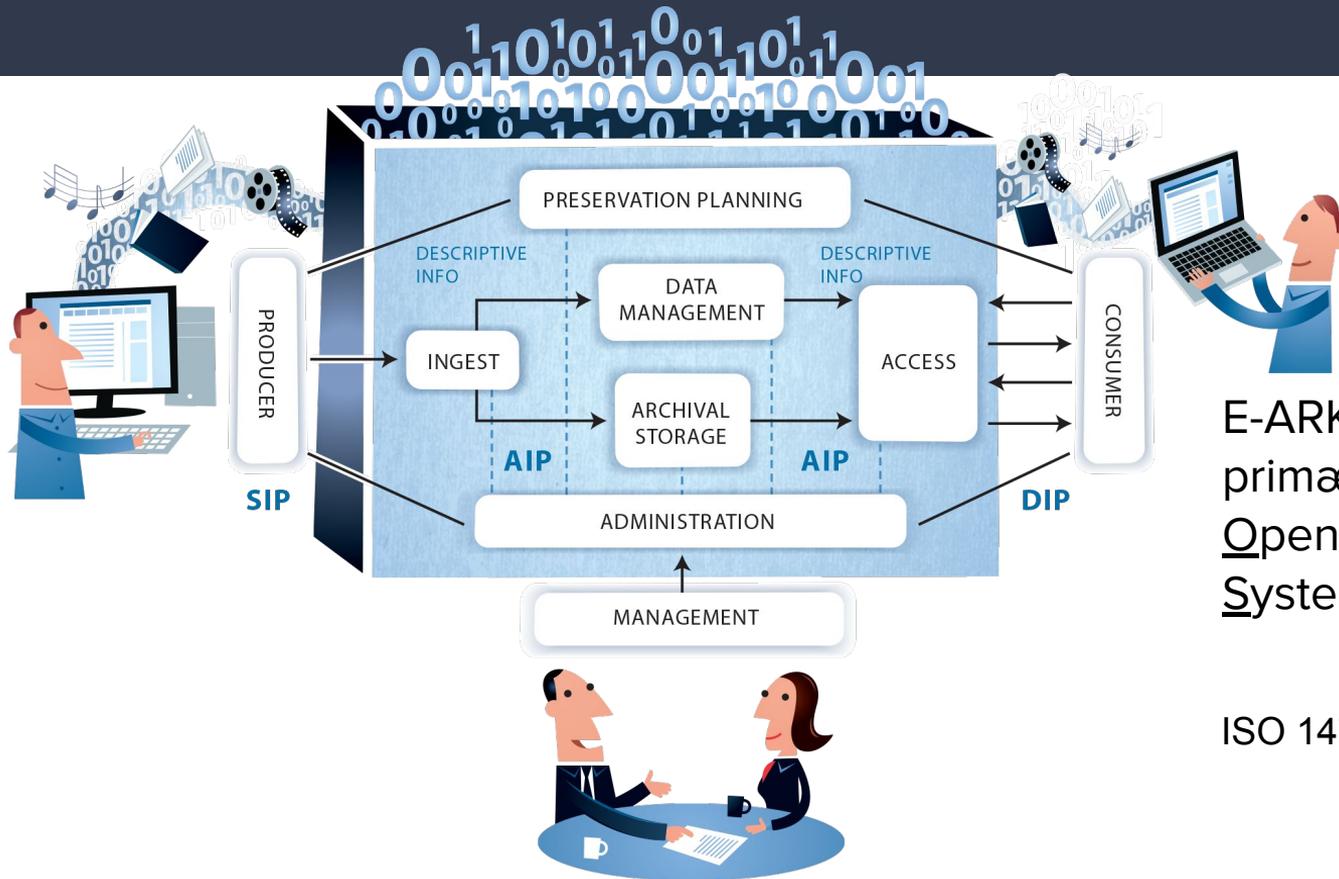


E-ARK is co-funded by the European Commission under its ICT Policy Support Programme (PSP) within its Competitiveness and Innovation Framework Programme (CIP)

E-ARK 2014-2017



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E-ARK projektet bygger primært på OAIS
Open Archival Information System

ISO 14721:2012



E-ARK 2014-2017



“As an interoperability standard, it must be possible to use the Common Specification regardless of the type and format of the content users need to handle. At the same time, each individual content type and file format can have specific characteristics which need to be taken into account for purposes of validation, preservation and curation.”

-Common Specification, p. 9.

DoW - Description of Work

WP1 - Project Co-Ordination

WP2 - Use Cases and Pilots

WP3 - Transfer of Records to Archives

WP4 - Archival Records Preservation

WP5 - Archival Records Access Services

WP6 - Archival Storage, Services and Integration

WP7 - Evaluation and Assessment

WP8 - Dissemination and Exploitation



(Organisation)

Pilotdrift af specifikationer og værktøjer

SIP specifikation + værktøjer

AIP specifikation + værktøjer

DIP specifikation + værktøjer

Software reference model (AIP)

(Organisation/vurdering)

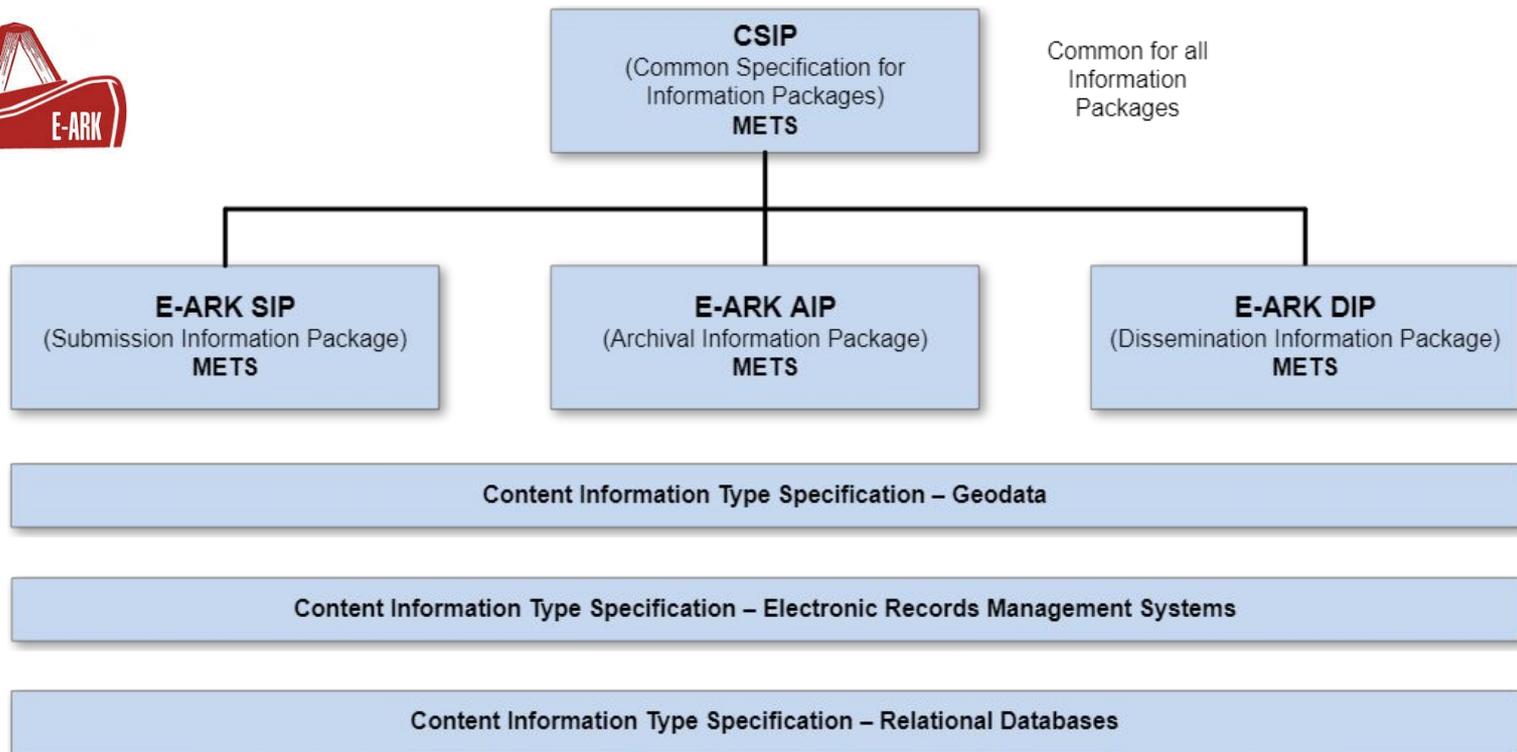
(Organisation/formidling)

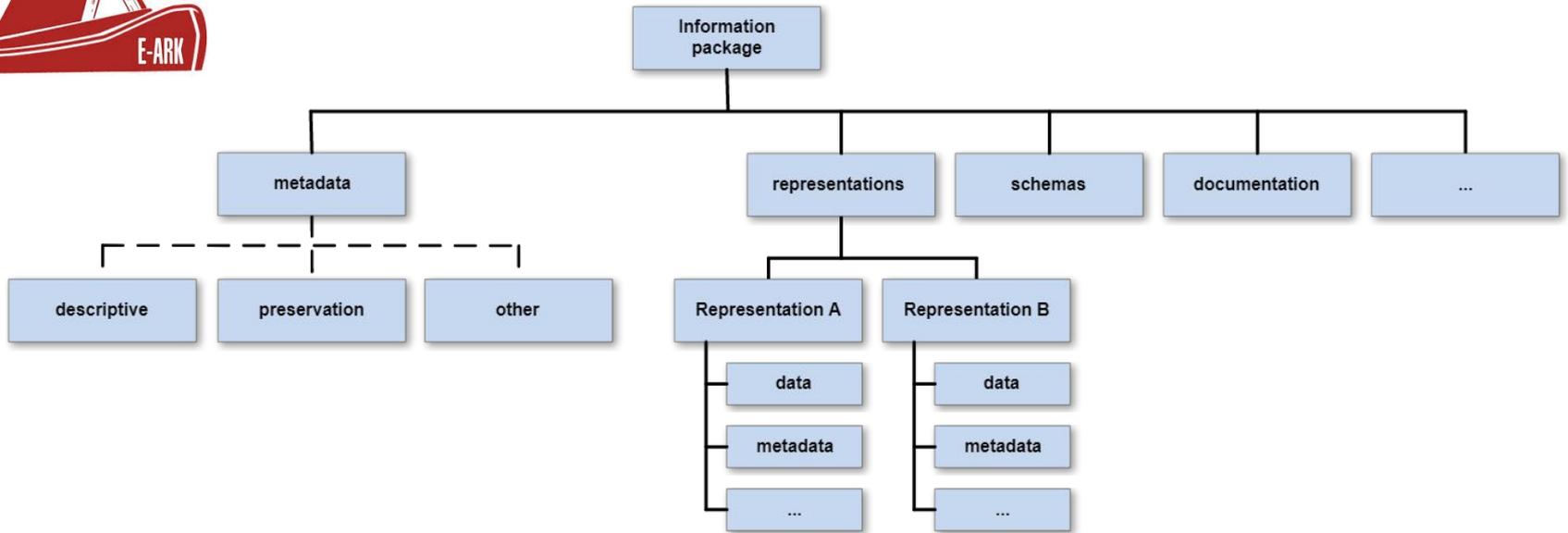


The E-ARK project has provided:

- **Guidelines** on pan-European e-archiving as part of EC e-infrastructure
- **Open archival products** (tools, services, framework, metadata specifications)
- **Open technical products** (tools, services, metadata specifications)
- **Open operational products** (ingest and access tools, services, metadata specifications)
- **Open access tools**, services, metadata specifications, including data mining tools for business intelligence
- **Open interfaces** from tools, services, metadata specifications to existing systems products
- **Outcomes of a legal study**
- **Outcomes of pilots**, especially where similar archival material to that under consideration was processed
- **Project papers** on the integration work undertaken





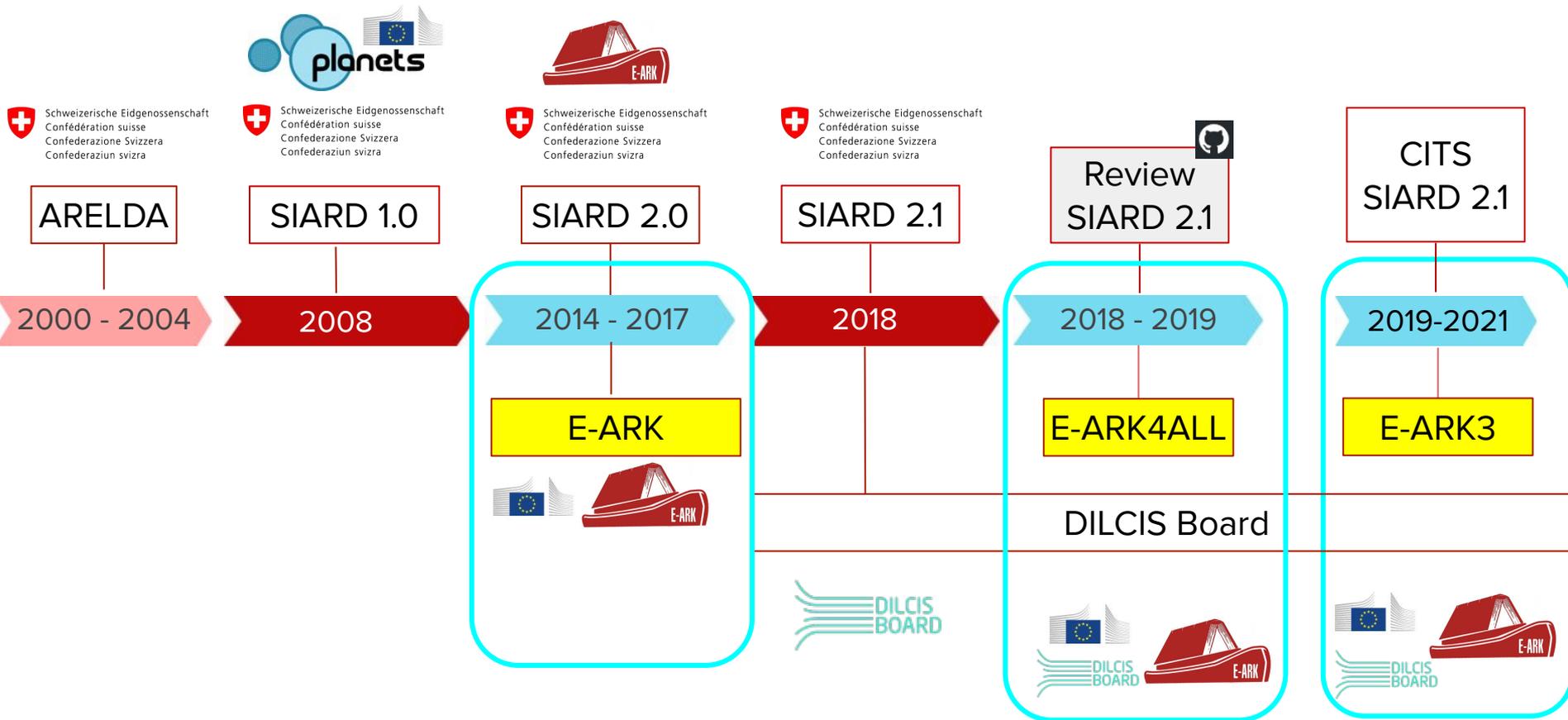


“E-ARK is a European showcase project – each partner contributed their strengths and assets and they were merged to really produce the impressive results of the project.

The final score is: **excellent.**”



Det historiske overblik - SIARD og E



E-ARK CEF - building blocks



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“To support the Digital Single Market in succeeding, the *Connecting Europe Facility (CEF) programme* is funding a set of generic and reusable **Digital Service Infrastructures (DSI)**, also known as **building blocks**. The CEF building blocks offer basic capabilities that can be reused in any European project to facilitate the delivery of digital public services across borders and sectors.”

<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/About+CEF+building+blocks>

E-ARK CEF - building blocks



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The CEF funding covers two elements:

- A **Core Service Platform**, provided and maintained by the *European Commission*. Depending on the building block, the Core Service Platform may include technical specifications, sample software and supporting services (funding for the European Commission)
- Generic services in the form of **Grants**, supporting the *Member States* in the implementation of projects that reuse the CEF building blocks (funding for the Member States)

<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/About+CEF+building+blocks>



<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Building+Blocks>

THE BUILDING BLOCKS

The building blocks are basic capabilities that can be reused in any project to facilitate the delivery of digital public services across borders and sectors.

eDelivery

Supporting electronic registered delivery of data and documents.

eInvoicing

Helping public entities adopt the European standard on electronic invoicing.

eTranslation

Exchanging information across language barriers in the EU Member States.

eID

Extending the use of online services to citizens of other EU Member States.

eSignature

Creating and verifying electronic signatures.

eArchiving

Specifications, software, training and knowledge to tackle the challenge of data management.



<https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Building+Blocks>

“The aim of eArchiving is to provide the core specifications, software, training and knowledge to help data creators, software developers and digital archives tackle the challenge of short, medium and long-term data management and reuse in a sustainable, authentic, cost-efficient, manageable and interoperable way.”

E-ARK 2018-2019 (1-årigt projekt)



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- Reference model for an Open Archival Information System (OAIS) ([OAIS Reference model](#))
- Metadata Encoding and Transmission Standard ([METS](#))
- Preservation Metadata Implementation Strategies ([PREMIS](#))
- General Data Protection Regulation 2016/679/EU (GDPR)
- A Content Information Type specification
- Data Entity Dictionary Specification Language (DEDSL) – XML/DTD: ISO 22643:2003 (CCSDS 647.3-B-1:2002)
- Information technology – Document Schema Definition Languages (DSDL) – Part 3: Rule-based validation – Schematron: ISO/IEC 19757-3:2016 (ISO standard)

E-ARK 2018-2019 (video)



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Quality control



From system to archived database

Tak for jeres tid - spørgsmål er velkomne



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