



Implementing the E-ARK Specifications

Lesson Learned and Consequences

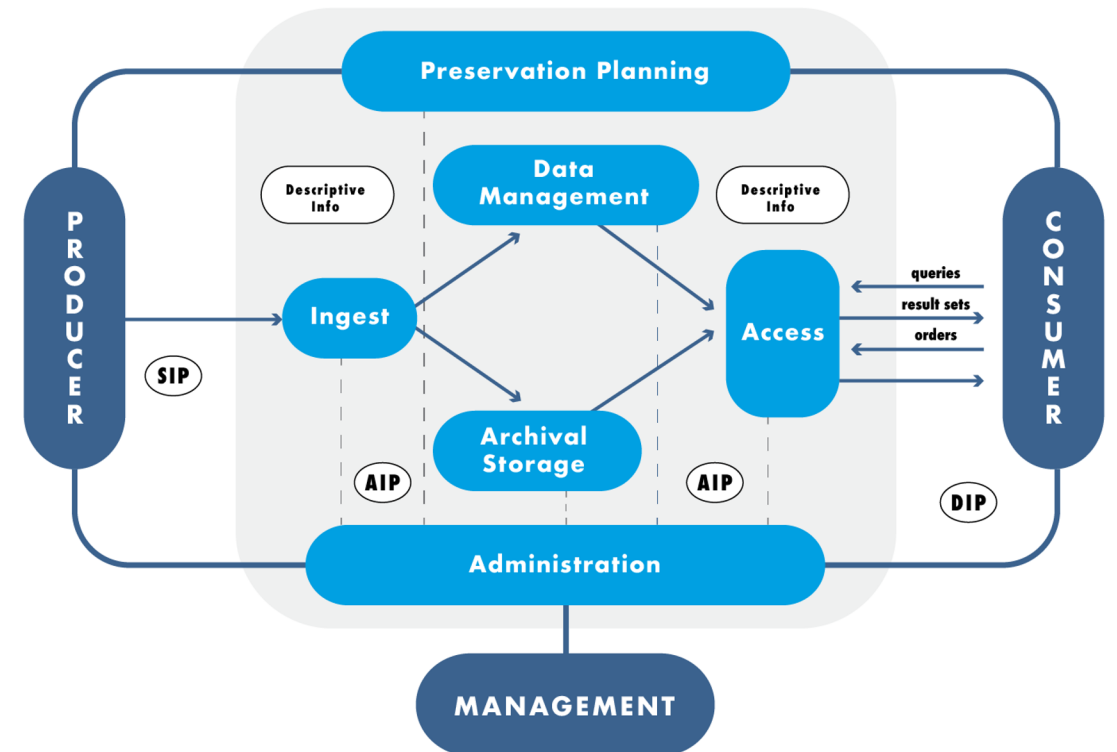
Frederik Rosseel & Michiel Van Driessche

Our Goal: The Most Complete and Versatile Digital Archiving solution

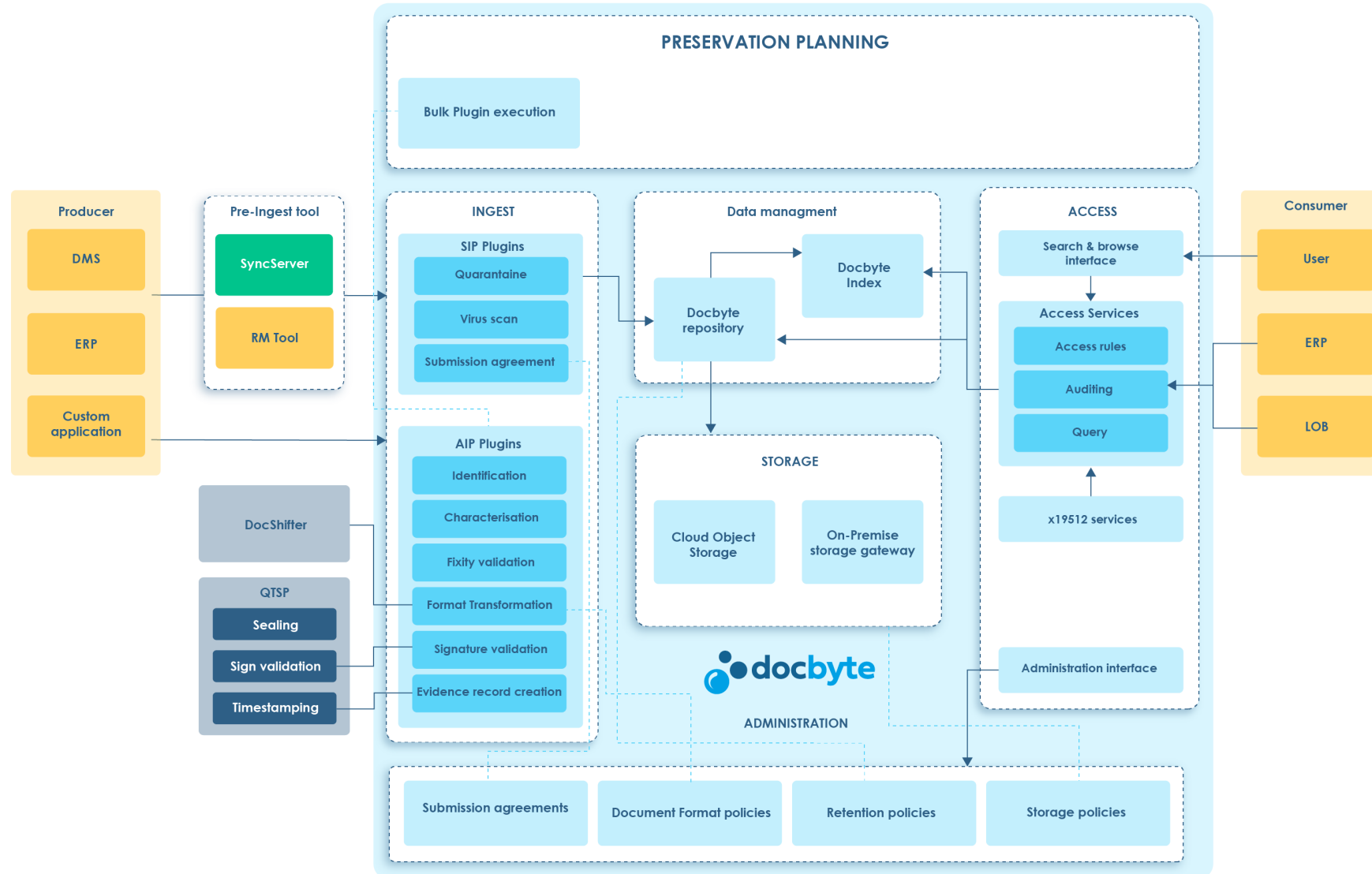
- Flexibility
 - Metadata schemes
 - Preservation Action
 - Very large volumes
- Resilient
 - Data Portability (Use of Information Packages)
 - “Exit-strategy”
 - No Vendor Lock-In
- Compliance

Trustworthy Repository

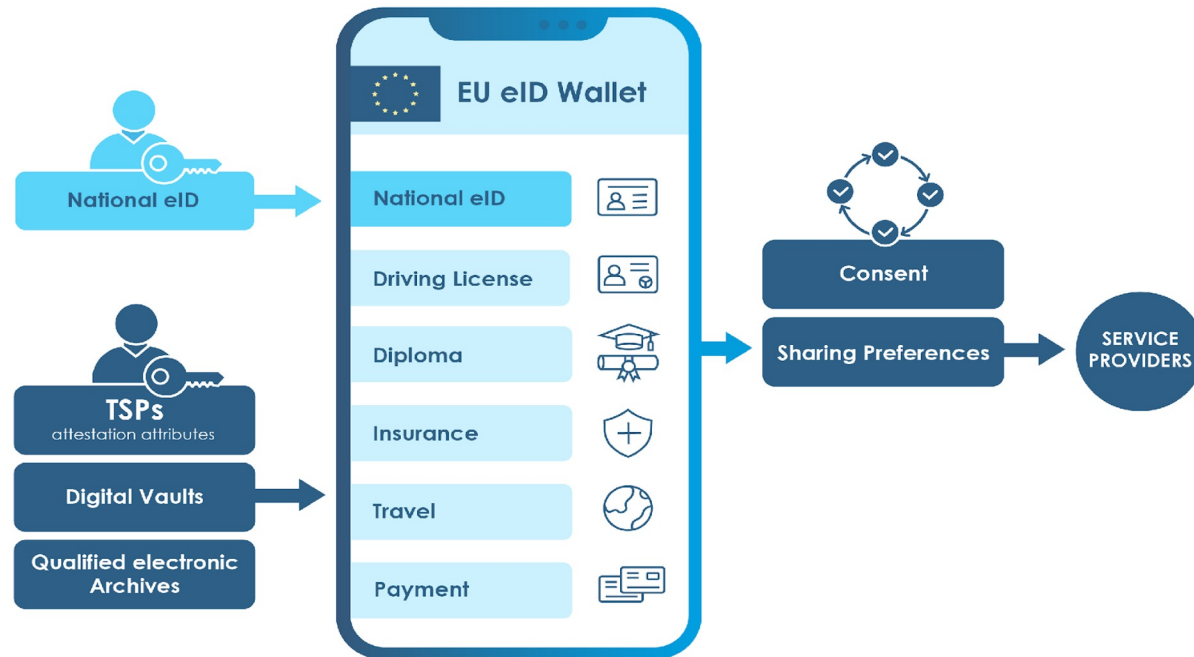
- ISO 14721 / ISO 14641
- Belgian Digital Act
- eIDAS Regulation
- E-ARK Specification 2.04
- ETSI 319.401
- ETSI 119.511 / 119.512



Docbyte Platform



eIDAS v2



Localisation



Browse

- Archive
- >Kaarten
- >MDTO Series
- ▼Notulen
 - 2014-02-24-besluit
 - 2018-11-19-Besluit
 - 2018-11-19-Mededeling Stad

Bladeren

- Archive
- >Kaarten
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- ▼Notulen
 - 2014-02-24-besluit
 - 2018-11-19-Besluit
 - 2018-11-19-Mededeling Stad
 - 2003-05-26-Besluit
 - 2021-10-25-Besluit
 - 2022-03-28-Besluit
 - 2017-06-26-Besluit
- >Projecten
- >Teamdocumenten
- >Vergaderstukken

2014-02-24-BESLUIT Archive > Archive

View Evidences Submissions Plugin reports Permissions

The document is under retention until January 8, 2033 2:27 PM

Representations

Metadata

| ID | Number of files | Content type | Descriptive | Other |
|----|-----------------|--------------|-------------|-------|
|----|-----------------|--------------|-------------|-------|

2014-02-24-BESLUIT Archive > Archive

Weergeven Bewijzen Inzendingen Plugin rapporten Toestemmingen

Het document is onder bewaring tot 8 januari 2033 14:27

Representaties

| ID | Aantal bestanden | Bestandstype |
|-------------------------|------------------|--|
| 2014-02-24-besluit.docx | 1 | • application/vnd.openxmlform officedocument.wordprocessi |

Metagegevens

| Beschrijvend | Andere |
|-----------------------|--|
| dc.xml | |
| Titel: | 2014-02-24-besluit |
| Maker: | SyncServer |
| Vervaldatum: | 2033-01-07T13:27:09Z |
| Taal: | NL |
| Bron: | Notulen |
| Onderwerp: | Notulen van de vergadering van de gemeenteraad van 22 en 23 mei 2017 - Goedkeuring |
| Beschrijving: | Aan de gemeenteraad wordt gevraagd zijn goedkeuring te verlenen aan de notulen van de vergadering van de gemeenteraad van 27 januari 2014. |
| Identificatie: | 2014_GR_00153 |

Metadata Schemes

- Schema agnostic
- Multiple schemas possible
- Flexible schema mapping for indexing
- Example
 - » Dublin core
 - » MDTO
 - » EAD
 - » PREMIS
 - » ...



MDTO



Integrating with E-ARK – SIP: commons-ip

- Validate SIP
- Simplify handling of METS files
- Read SIP contents and allows to map to AIP structure.

Challenges of Integrating with E-ARK - AIP

- Commons-IP
 - File Storage based
 - Not scalable / flexible
- METS = Not Easy
 - Maintain
 - Indexing
 - ...

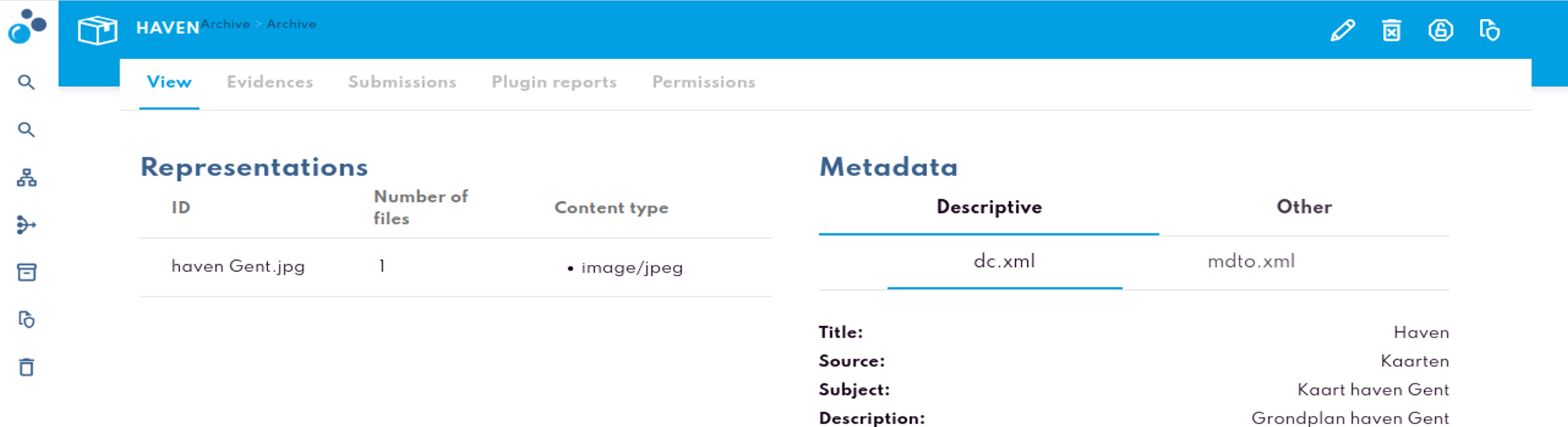
Integrating with E-ARK – AIP: More than just a metadata schema

- Map E-ARK AIP structure to functionality of Docbyte Platform
 - Security
 - Retention
 - Flexible storage layer
 - Scalable
 - Multi-tiered
 - Securable (WORM, Retention, ...)
 - System wide audit trail
- Upon AIP update
 - Reflect changes to METS & PREMIS

Managing E-ARK AIP

- Metadata
 - Multiple schemas possible
 - Index engine combines schemas
 - Updates through delta submissions
- Preservation
 - Renditions possible
 - Fixity stored in PREMIS
- Integrity evidence
 - Stored as preservation metadata

Visualising E-ARK AIP



The screenshot displays the HAVEN Archive interface. At the top, there is a blue header with the HAVEN logo and the text 'HAVEN Archive > Archive'. On the right side of the header, there are icons for edit, delete, share, and refresh. Below the header, there is a navigation menu with options: 'View', 'Evidences', 'Submissions', 'Plugin reports', and 'Permissions'. The 'View' option is currently selected.

The main content area is divided into two sections: 'Representations' and 'Metadata'.

Representations

| ID | Number of files | Content type |
|----------------|-----------------|--------------|
| haven Gent.jpg | 1 | • image/jpeg |

Metadata

| Descriptive | Other |
|-------------|----------|
| dc.xml | mdto.xml |

Below the metadata table, there are four fields:

- Title:** Haven
- Source:** Kaarten
- Subject:** Kaart haven Gent
- Description:** Grondplan haven Gent

Visualising E-ARK AIP

The screenshot displays the HAVEN Archive interface. At the top, there is a blue header with the HAVEN logo and the text 'HAVEN Archive > Archive'. On the right side of the header, there are icons for edit, delete, lock, and share. Below the header, there is a navigation bar with tabs for 'View', 'Evidences', 'Submissions', 'Plugin reports', and 'Permissions'. The 'View' tab is selected.

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Naam: haven Gent (situatieplan)

Omschrijving: Situatieplan Verlenen van een kapvergunning Hooigracht 21 Den Haag april 1985

Taal: • nl

Identificatie:

- Proza (OCW-DMS): Informatieobject-4661a-5a3526fh654ef

Trefwoorden:

Aggregatieniveau: : Archiefstuk

- MDTO begrippenlijsten versie 0.9


Waardering: V: Tijdelijk te bewaren

Visualising E-ARK AIP

HAVEN Archive > Archive

View Evidences Submissions Plugin reports Permissions

← haven Gent.jpg



Metadata

Preservation Other

premis.xml

PREMIS Object

| Field | Value |
|------------------------|------------------------------|
| objectIdentifierType | filepath |
| objectIdentifierValue | file:///data/haven Gent.jpg |
| compositionLevel | 0 |
| messageDigestAlgorithm | SHA256 |
| messageDigest | 2daeed6f401b37bccdc963176... |
| size | 216196 |
| formatName | JPEG File Interchange Format |
| formatVersion | 1.01 |
| PRONOM | fmt/43 |
| | |

Advantages of E-ARK Specification

- Flexible
- Covers best practices
- Open standards
- Available tooling
 - Creation
 - Validation

Future of E-ARK Specification?

- Upgrading to newer versions of eark standard
 - Backwards compatible?

Thank you