Share FAMILY Linked Data Environment

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... AND WHAT IF KNOWLEDGE WERE ~~OWNED~~ SHARED BY LIBRARIES?

Charleston Conference, November 14th 2022

WHY & WHAT

Knowledge is shared by member libraries

Why Share…

supports libraries, archives and museums in the transition from traditional cataloging environments to innovative models based on entity management

exploits the potential of linked open data to connect and present library information in enriched, integrated and dynamic ways

improves visibility of all resources, including those that may previously have remained hidden in a traditional catalogue

Share VDE

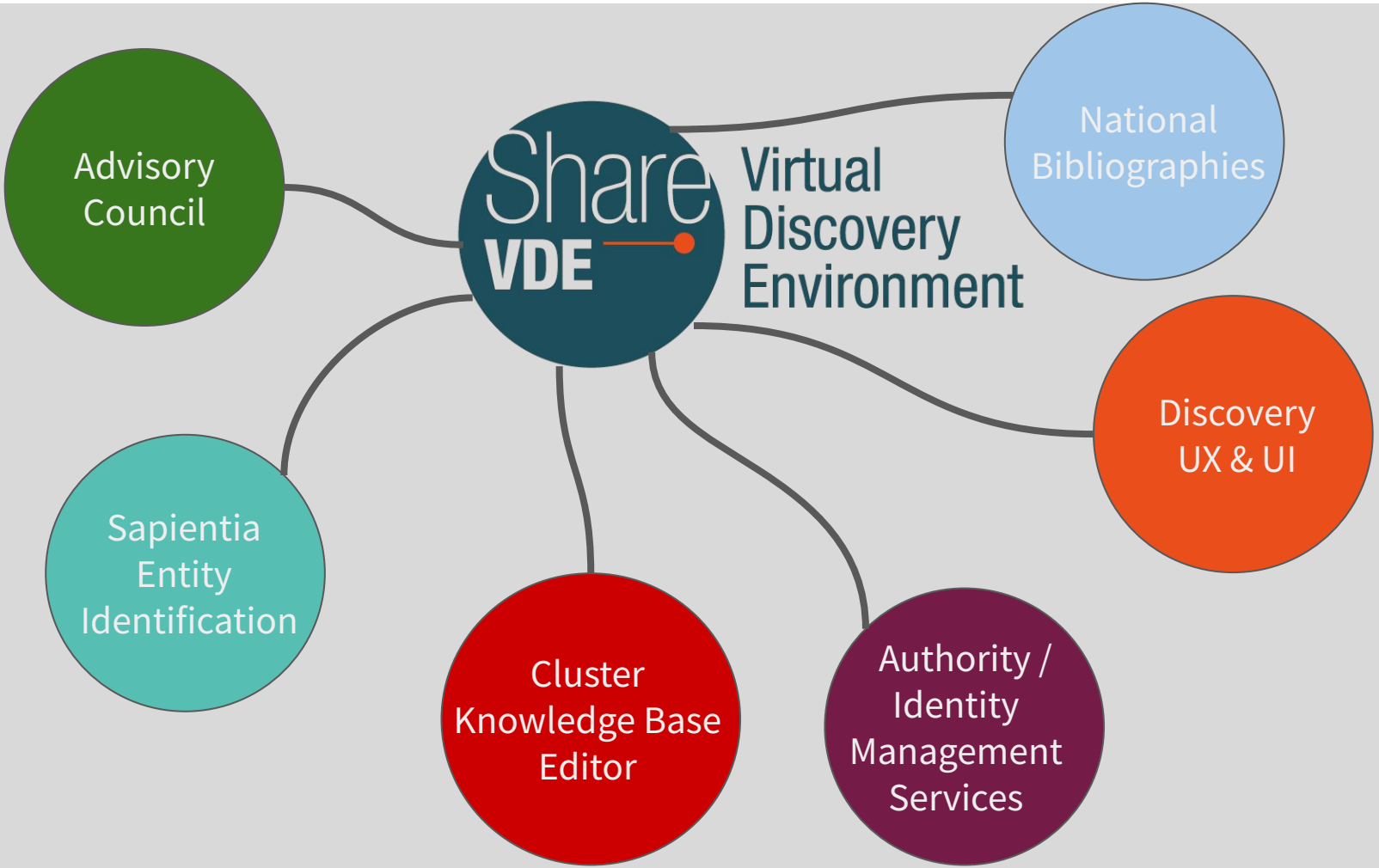
Knowledge is shared by member libraries

Why Share…

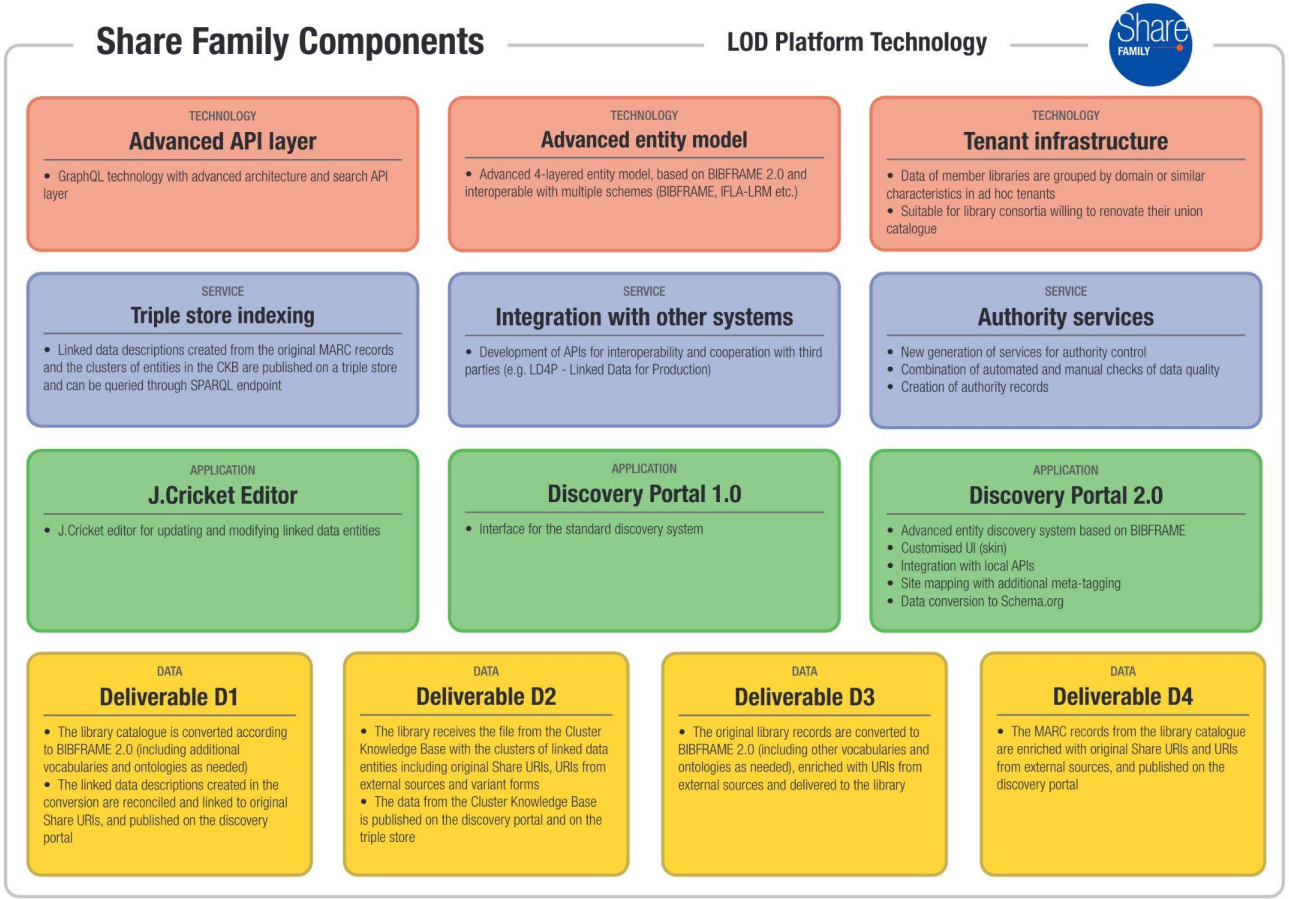
Establishes a library-driven initiative steered by member institutions, to share knowledge, experience and skills

provides librarians and information professionals with advanced tools that allow direct interaction with data, extending and enhancing metadata services, that can be provided locally or in a shared environment

enables libraries, archives and museums to keep pace with web technology as it evolves

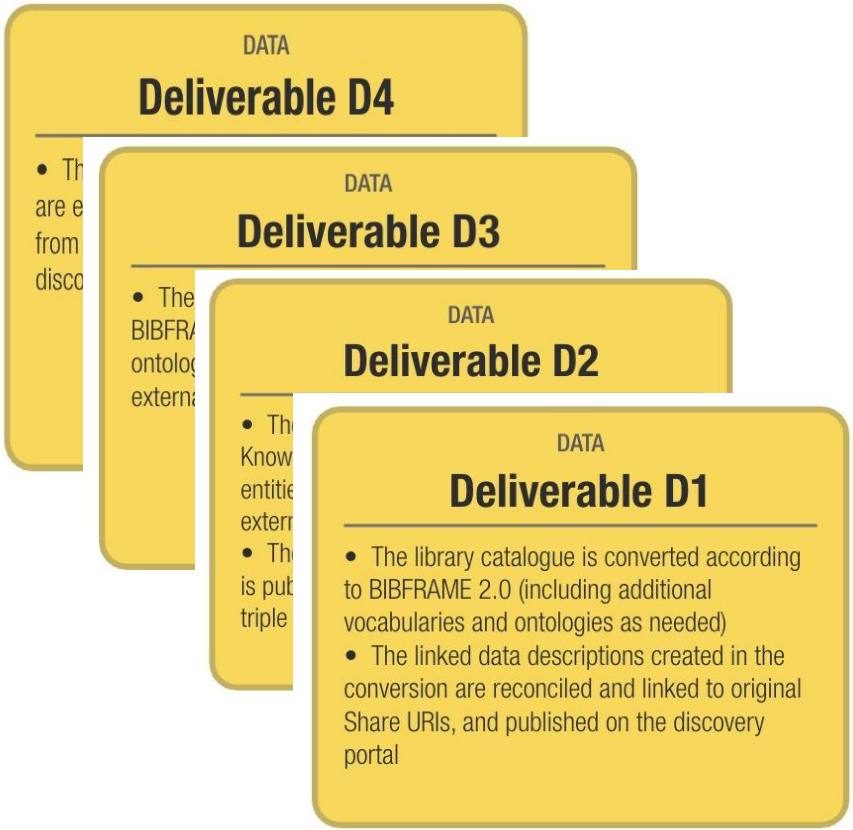

Advisory Council
Share VDE
Virtual Discovery Environment
National Bibliographies
Discovery UX & UI
Sapientia Entity Identification
Cluster Knowledge Base Editor
Authority / Identity Management Services

The options for your library



Share VDE

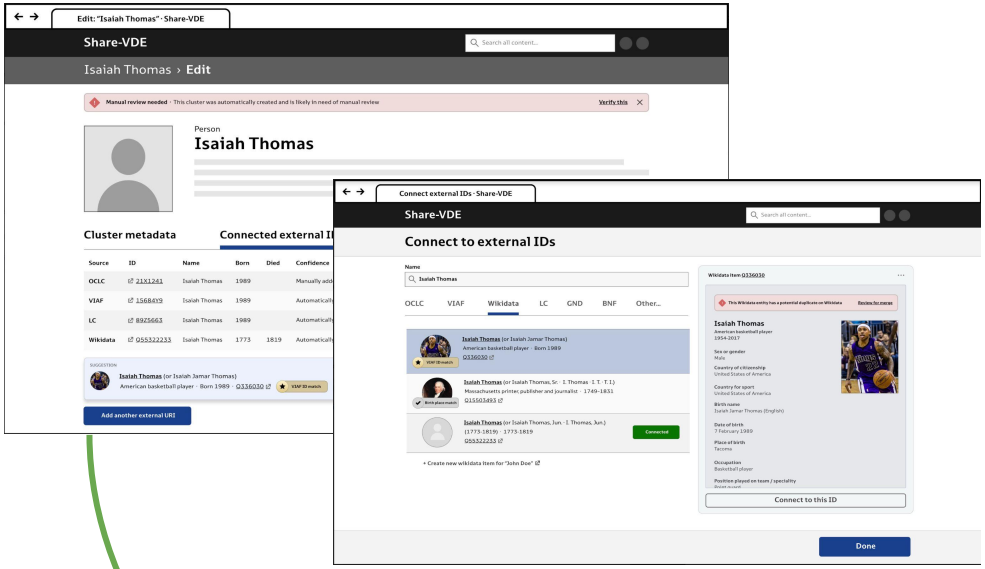
Deliverables



Data, enriched with information (URIs and values) from external authoritative sources and converted following the BIBFRAME data model, are available for the publication on the Share portal and for other library projects, both in Marc 21 enriched and in RDF.

Data can be enriched with specific sources selected by each library, following their special and local needs

J.Cricket Editor - The Entity Management System



APPLICATION

J.Cricket Editor

- J.Cricket editor for updating and modifying linked data entities

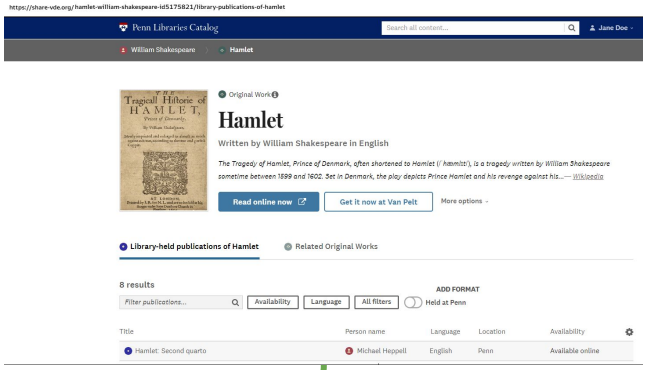
J.Cricket is an entity editor that carries out the transition from Marc to a real Entity Management System.

J.Cricket acts on the entity database (CKB) created through Entity Resolution and clustering processes

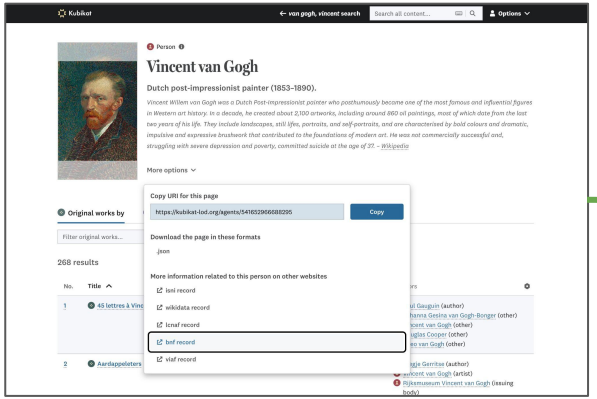
"*The more the merrier*" it's a perfect vision in a collaborative community. But each library has also local needs: the architecture of J.Cricket allows to operate locally or centrally, creating a collaborative group that does not forget local specificities.

Entity Discovery Portal

SVDE 2.0 is supported by entity-based presentation layer reflecting BIBFRAME and the ad hoc SVDE extensions. The user experience is highly improved, hiding complexity to the end users



Each library can choose its own skin, to present a personalized image of its profile and its services, extending the functionality of the Portal from the shared environment to the local context



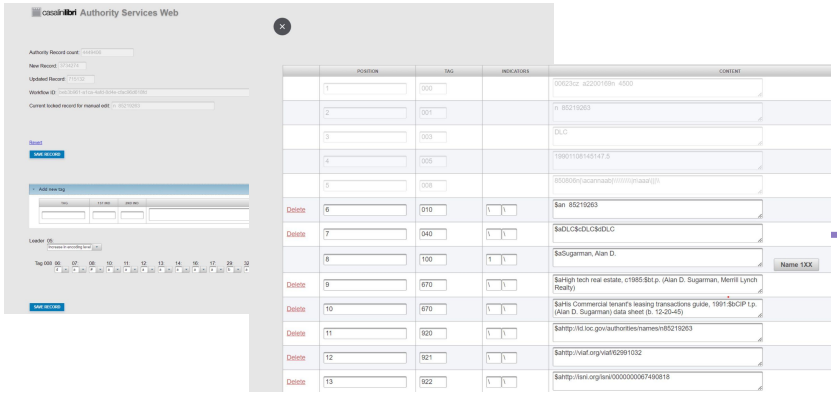
APPLICATION

Discovery Portal 2.0

- Advanced entity discovery system based on BIBFRAME
- Customised UI (skin)
- Integration with local APIs
- Site mapping with additional meta-tagging
- Data conversion to Schema.org

Share VDE

Enhanced Authority Services



The next step is to make Authority Services available also for linked data-based workflows - a truly new generation of features for the authority control

Innovative solutions that facilitate and improve authority control through automatic and manual procedures.

Libraries to receive constantly updates on their bibliographic and authority records from authoritative sources.

Authority Services currently available for MARC-based workflows offer automated URI enrichment, reconciliation and validation of library data.

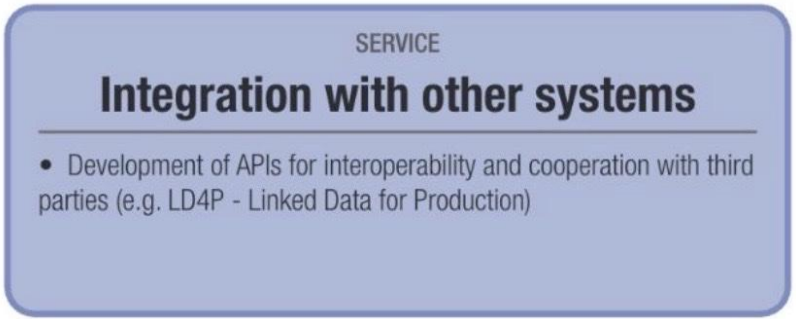
SERVICE

Authority services

- New generation of services for authority control
- Combination of automated and manual checks of data quality
- Creation of authority records

Cooperation & Interoperability

Cooperation and interoperability are key to Share technology: the use and the reuse of data, tools, ideas maximizes results and minimizes efforts



Tools and protocols are being set-up for third parties' usage and data harvesting, including OAI-PMH, Atom feeds and Activity stream

Triple store publication - an open query endpoint

SVDE data are open, and usable through an open endpoint to retrieve them in RDF format through SPARQL queries

SERVICE

Triple store indexing

- Linked data descriptions created from the original MARC records and the clusters of entities in the CKB are published on a triple store and can be queried through SPARQL endpoint

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<http://id.loc.gov/vocabulary/mstatus/c> <http://www.w3.org/2000/01/rdf-schema#label> "changed" <https://svde.org/agents/UPENN> .
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The core of SVDE integrated catalogue, ie. the Cluster Knowledge Base of linked data entities created from SVDE institutions' data, is published on a public query interface

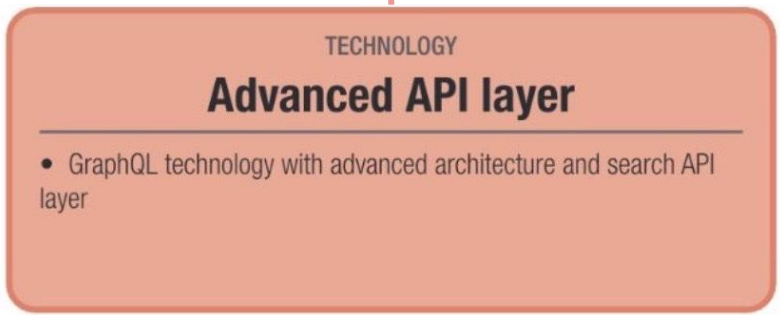
Share VDE

Advanced API layer - Easily use our data!

SVDE 2.0 back-end infrastructure leverages an advanced API layer orchestrating queries to SVDE data from the web discovery portal and from machine to machine applications

- Two API protocols: GraphQL API and REST API
- All Share-VDE entities are exposed through (read-only) API
- Search API provide several shapes / context behaviour (e.g. simple, advanced search, partial or full match, exact matches suggestions, terms modifiers, results explanation)
- Three query languages: TermsQL, SVDEQL, StructQL

The API layer is designed to respond to the increasingly complex search logic, the update to the entity model and the enhancement to the Cluster Knowledge Base



Tenant infrastructure - Community and autonomy

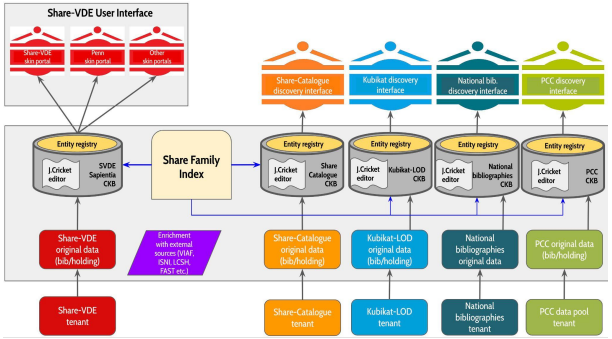
TECHNOLOGY

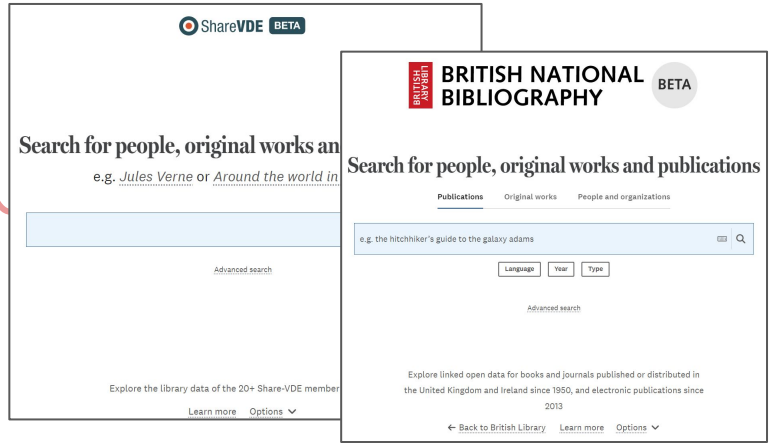
Tenant infrastructure

- Data of member libraries are grouped by domain or similar characteristics in ad hoc tenants
- Suitable for library consortia willing to renovate their union catalogue

The Share Family community includes different branches and sister projects, supported by the same technology. Each branch is hosted in a specific tenant of the system, ie. a group of institutions contributing to the same data pool.

This structure ensures autonomy of approach to data management for each tenant, but also cooperation, because all tenants are connected as part of the same “family”, and long term sustainability.

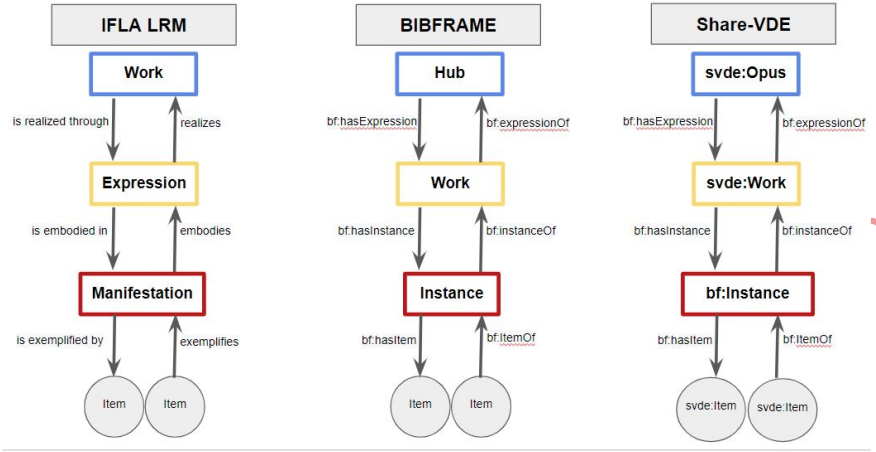




Interoperable entity model

The approach to the SVDE entity model is to make it as much interoperable as possible, to facilitate data exchange with other systems.

It is based on BIBFRAME ontology, with ad hoc extensions to support interaction with IFLA LRM-based models.

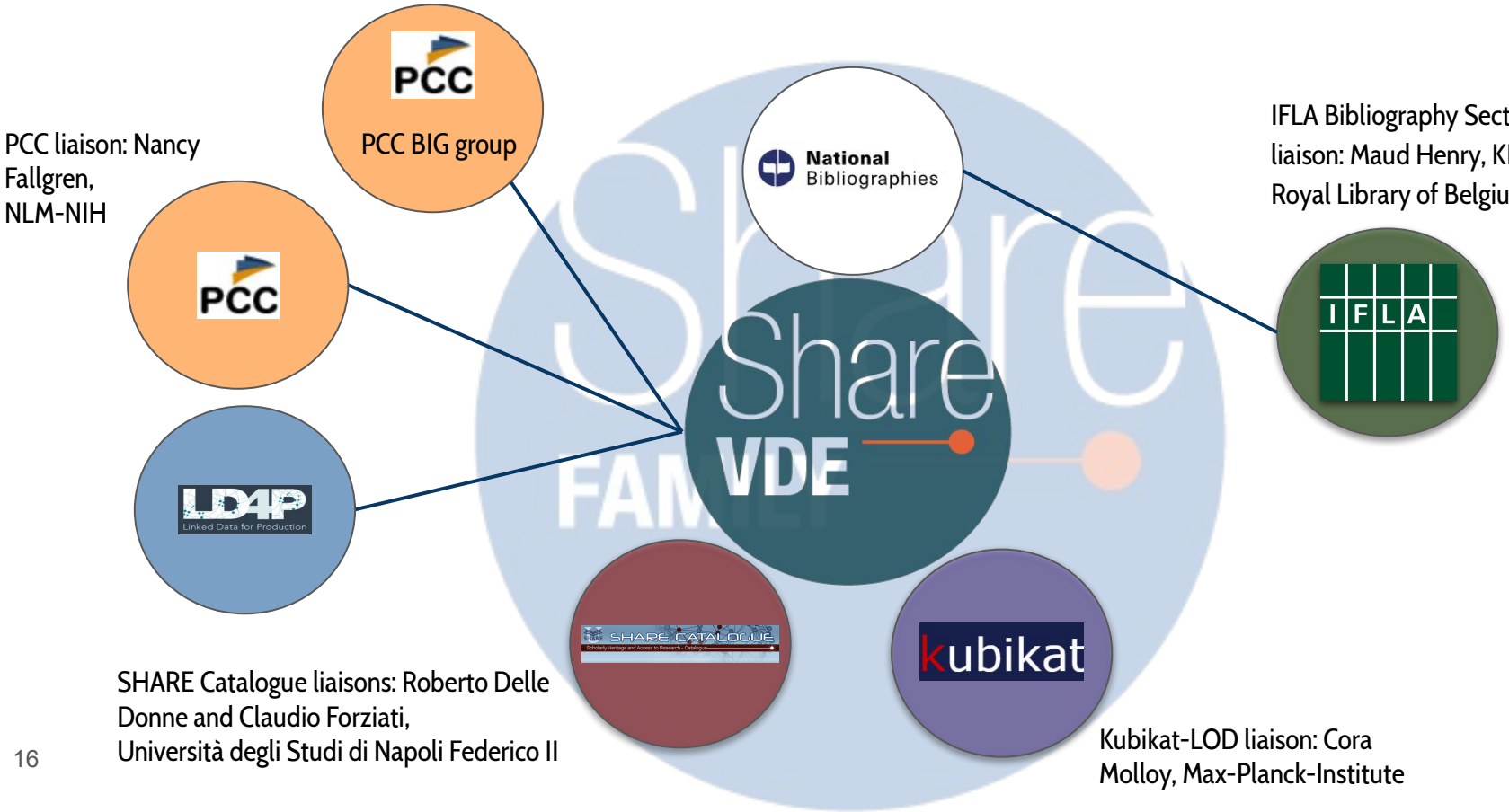


TECHNOLOGY

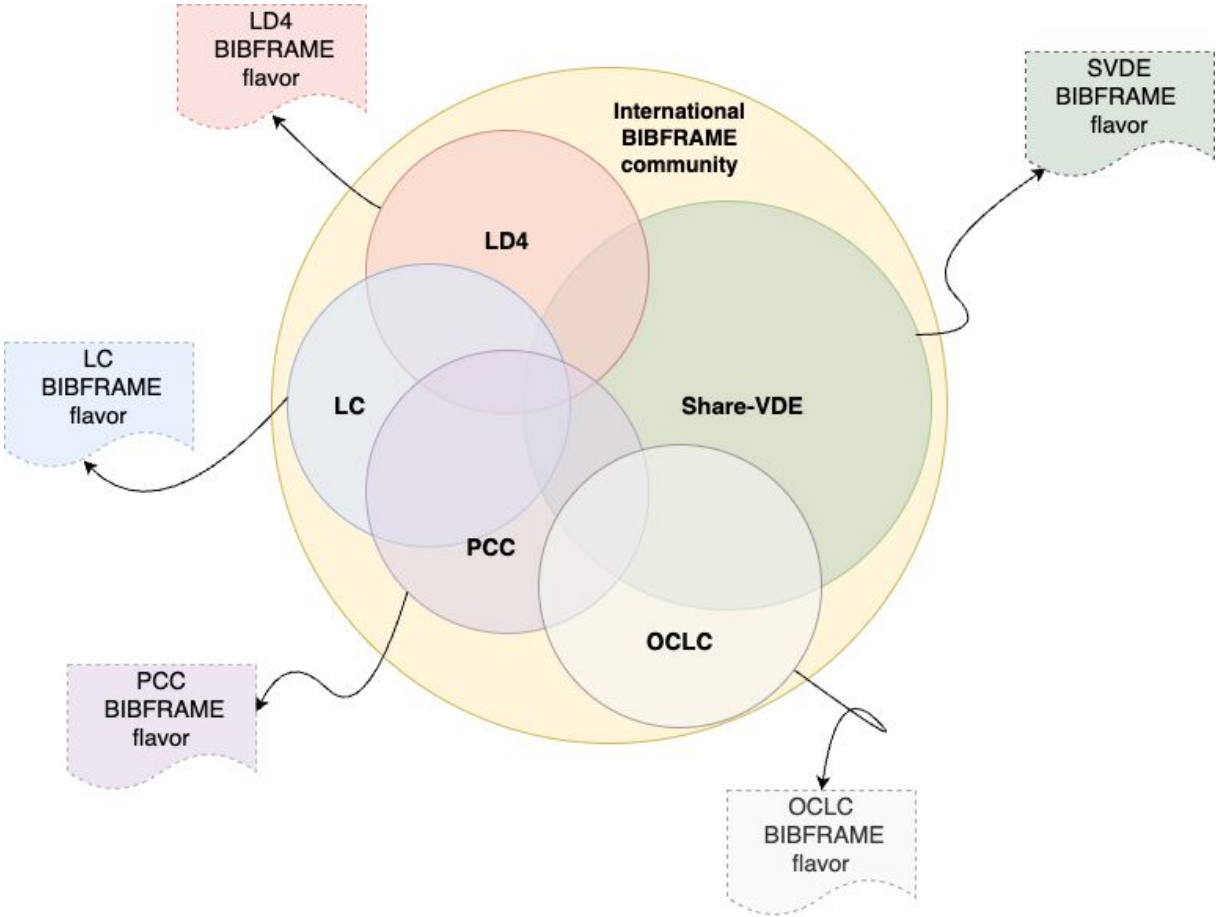
Advanced entity model

- Advanced 4-layered entity model, based on BIBFRAME 2.0 and interoperable with multiple schemes (BIBFRAME, IFLA-LRM etc.)

Share Family and Share-VDE liaisons



BIBFRAME communities engagement - Various BF flavors



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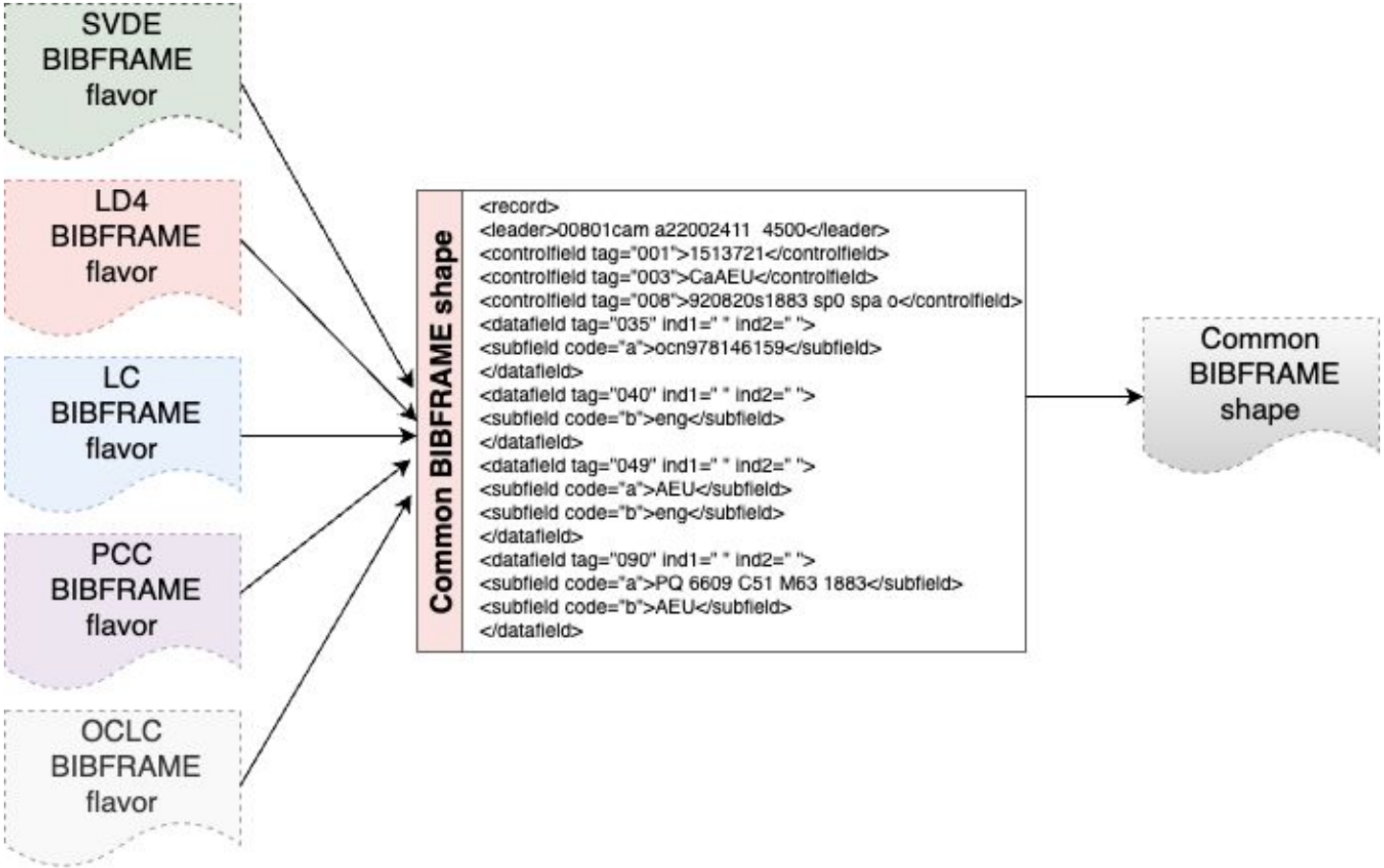
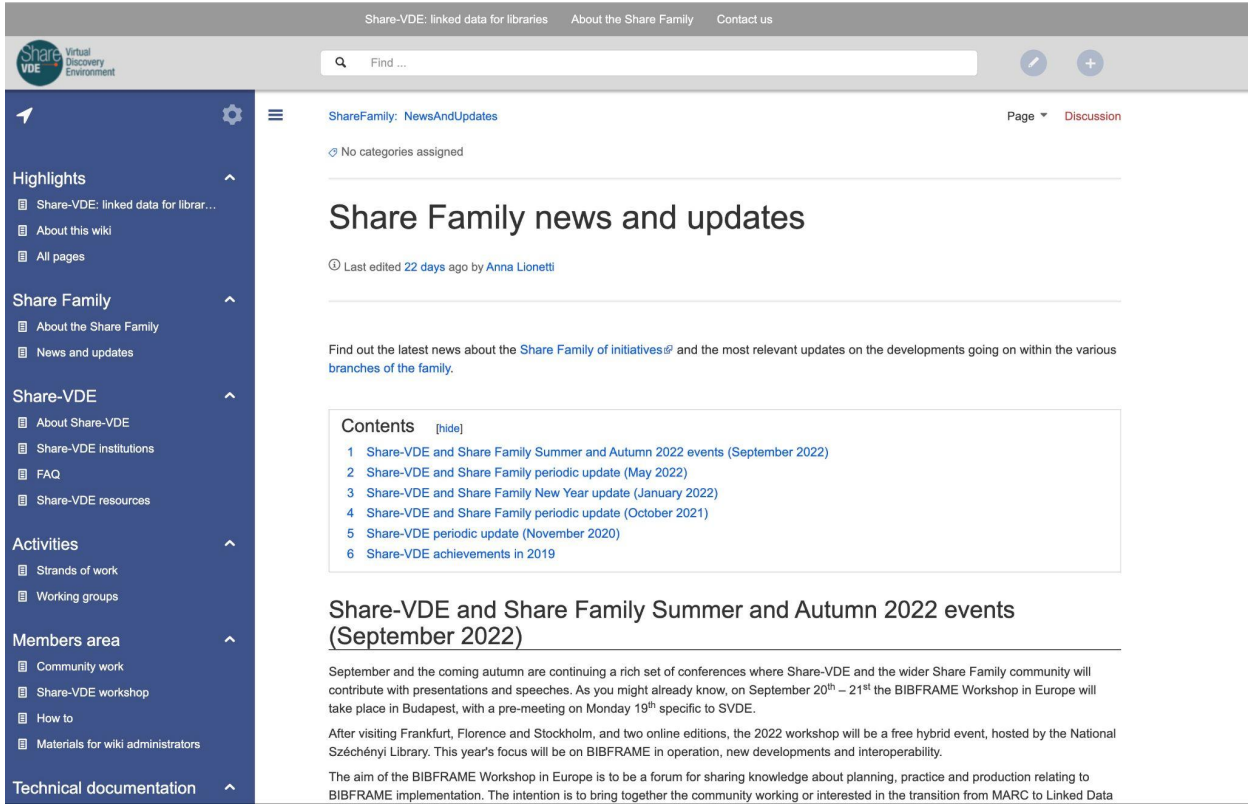


"When someone asks: what is Share-VDE? The answer that comes to mind is: Share-VDE is many things together" [*]

[*] Cit. Beth Picknally Camden (University of Pennsylvania Libraries)

Share - News & Updates on Wiki



https://wiki.share-vde.org/wiki/ShareFamily:NewsAndUpdates