



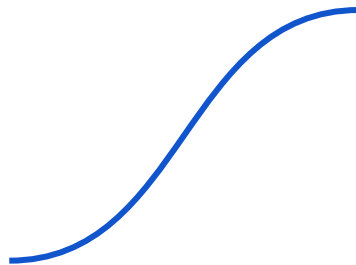
Tiziana Possemato
@Cult - Casalini Libri

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

Charleston Conference, November 14th 2022



Linked
Data
Environment



*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

Knowledge is shared by member libraries

Why Share...



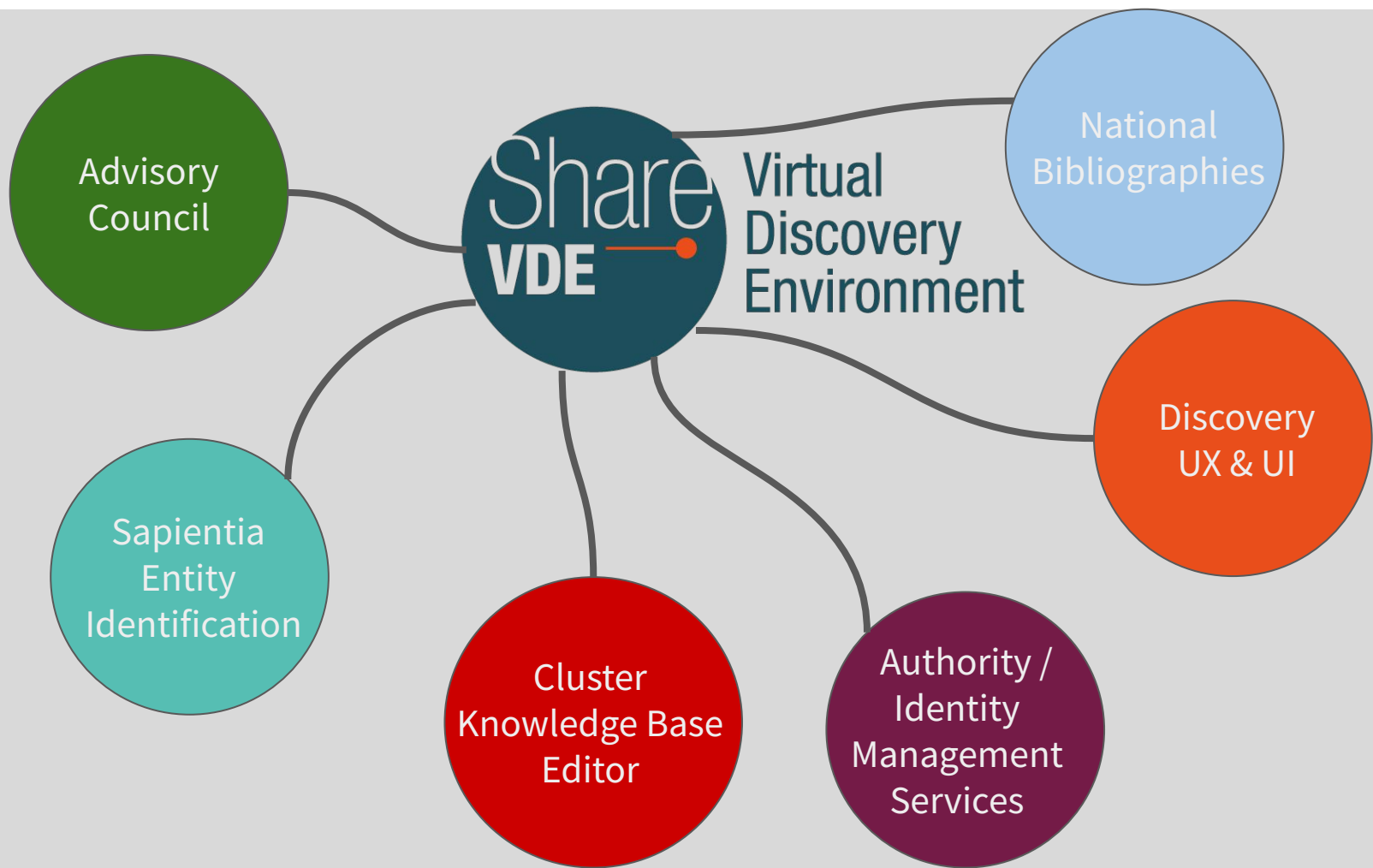
Establishes a library-driven initiative steered by member institutions, to share knowledge, experience and skills



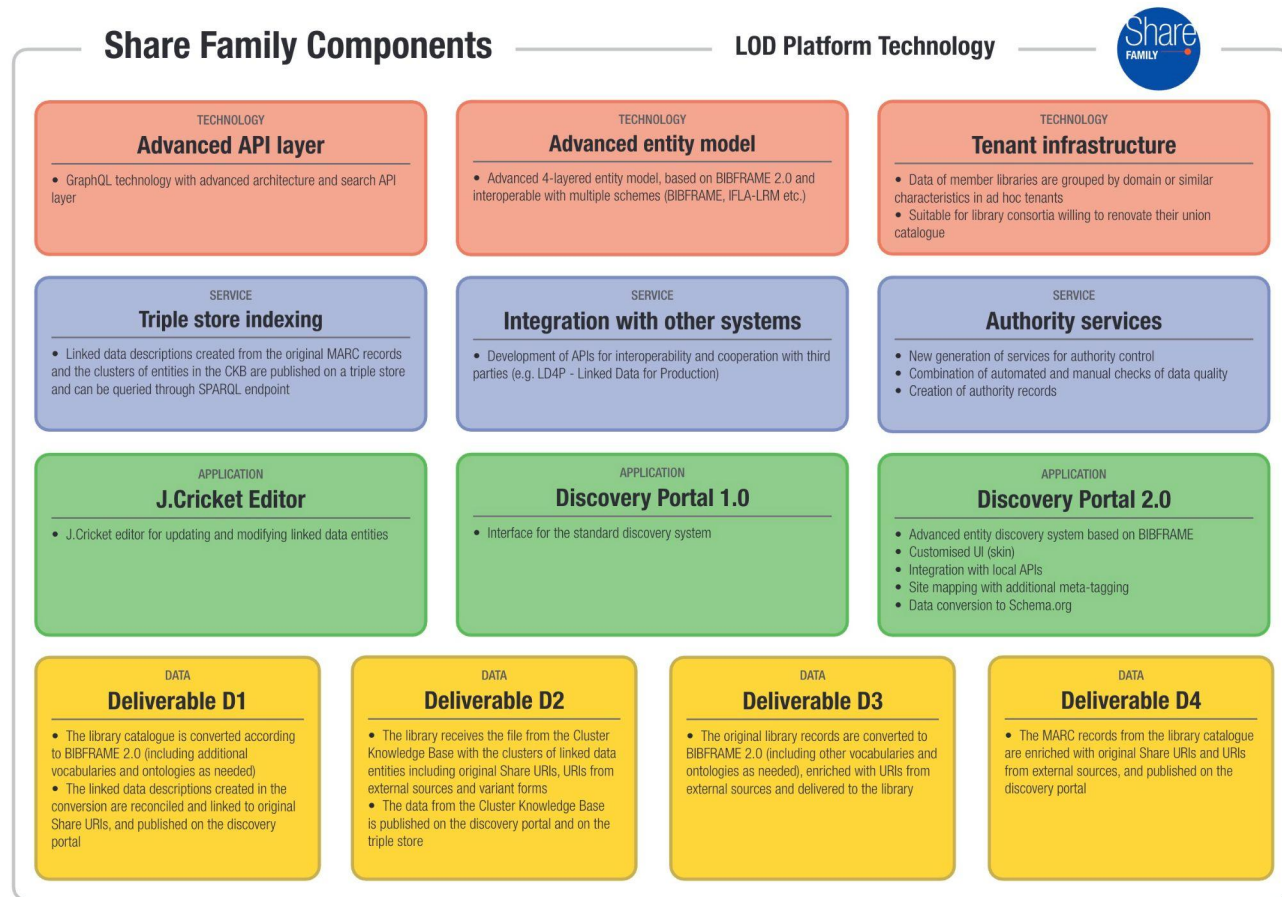
provides librarians and information professionals with advanced tools that allow direct interaction with data, extending and enhancing metadata services, that can be provided locally or in a shared environment



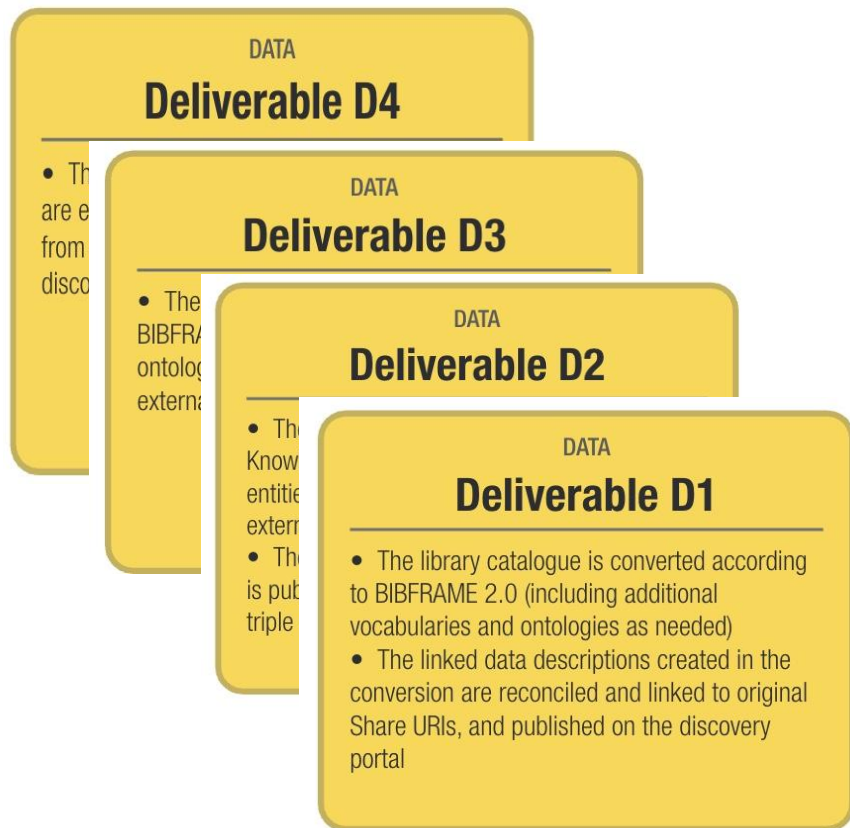
enables libraries, archives and museums to keep pace with web technology as it evolves



The options for your library



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

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.

The screenshot displays the J.Cricket Editor interface. The top panel, titled 'Share-VDE', shows a search bar and a message: 'Manual review needed - This cluster was automatically created and is likely in need of manual review'. Below this is a profile for 'Isaiah Thomas' with a placeholder image. The bottom panel, titled 'Connect external IDs', shows a search bar and a table of external IDs for 'Isaiah Thomas'. The table has columns for Source, ID, Name, Born, Died, and Confidence. The table lists several entries, including OCLC, VIAF, and Wikidata. A 'Connect' button is visible at the bottom right of the table.

Source	ID	Name	Born	Died	Confidence
OCLC	121321261	Isaiah Thomas	1989		Manually added
VIAF	1568409	Isaiah Thomas	1989		Automatic
LC	8925663	Isaiah Thomas	1989		Automatic
Wikidata	Q5532233	Isaiah Thomas	1773	1819	Automatic

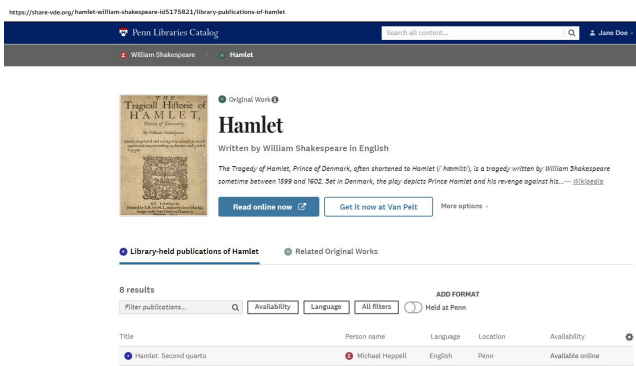
APPLICATION

J.Cricket Editor

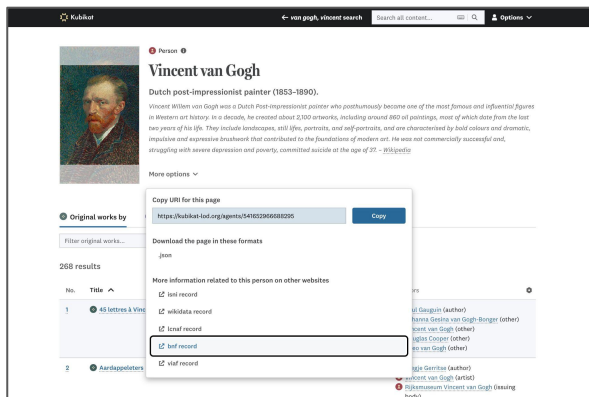
- J.Cricket editor for updating and modifying linked data entities

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



Enhanced Authority Services

The screenshot displays the OCLC Authority Services Web interface. On the left, there are input fields for 'Authority Record' and 'Update Record', along with a 'Search' button. The main area features a table with columns for 'POSITION', 'TAG', 'INDICATORS', and 'CONTENT'. The table contains 13 rows of data, each representing an authority record. A 'Name XXX' button is visible at the bottom right of the table.

POSITION	TAG	INDICATORS	CONTENT
1	000		00000000000000000000
2	001		00000000000000000000
3	003		00000000000000000000
4	005		00000000000000000000
5	008		00000000000000000000
6	010	1 1	\$a 8521003
7	040	1 1	\$a 00000000000000000000
8	100	1 1	\$a Sugerman, Alan D.
9	070	1 1	\$a High tech real estate, c1985-80 p. (Alan D. Sugerman, Merrill Lynch Realty)
10	070	1 1	\$a High Commercial tenant's leasing transactions guide, 1991-92 (Alan D. Sugerman) data sheet (p. 12-20-45)
11	020	1 1	\$a http://id.loc.gov/authorities/names/n8521003
12	021	1 1	\$a http://vial.org/vial/02091032
13	022	1 1	\$a http://enr.org/enr/0000000067400818

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

SERVICE

Integration with other systems

- Development of APIs for interoperability and cooperation with third parties (e.g. LD4P - Linked Data for Production)

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

```
<http://id.loc.gov/vocabulary/mstatus/c> <http://www.w3.org/2000/01/rdf-schema#label> "changed" <https://svde.org/agents/UPENN> .  
<https://svde.org/AdminMetadata/upenn9916551383503681>  
<http://id.loc.gov/ontologies/bflc/encodingLevel> <http://id.loc.gov/vocabulary/menclvl/f>  
<https://svde.org/agents/UPENN> .  
<http://id.loc.gov/vocabulary/menclvl/f> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type> <http://id.loc.gov/ontologies/bflc/EncodingLevel>  
<https://svde.org/agents/UPENN> .  
<http://id.loc.gov/vocabulary/menclvl/f> <http://www.w3.org/2000/01/rdf-schema#label>  
"full" <https://svde.org/agents/UPENN> .  
<https://svde.org/AdminMetadata/upenn9916551383503681>  
<http://id.loc.gov/ontologies/bibframe/descriptionConventions>  
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>  
<https://svde.org/agents/UPENN> .  
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>  
<http://www.w3.org/1999/02/22-rdf-syntax-ns#type>  
<http://id.loc.gov/ontologies/bibframe/DescriptionConventions>  
<https://svde.org/agents/UPENN> .  
<http://id.loc.gov/vocabulary/descriptionConventions/aacr>  
<http://id.loc.gov/ontologies/bibframe/code> "aacr" <https://svde.org/agents/UPENN> .  
<https://svde.org/AdminMetadata/upenn9916551383503681>  
<http://id.loc.gov/ontologies/bibframe/identifiedBy>  
<https://svde.org/UPENN9916551383503681_Local_001/83d25d24-2db9-4d7a-868e-8d7d11827a4b> <https://svde.org/agents/UPENN> .  
<https://svde.org/UPENN9916551383503681_Local_001/83d25d24-2db9-4d7a-868e-8d7d11827a4b> <http://www.w3.org/1999/02/22-rdf-syntax-ns#type>
```

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

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

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

- 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



Tenant infrastructure - Community and autonomy

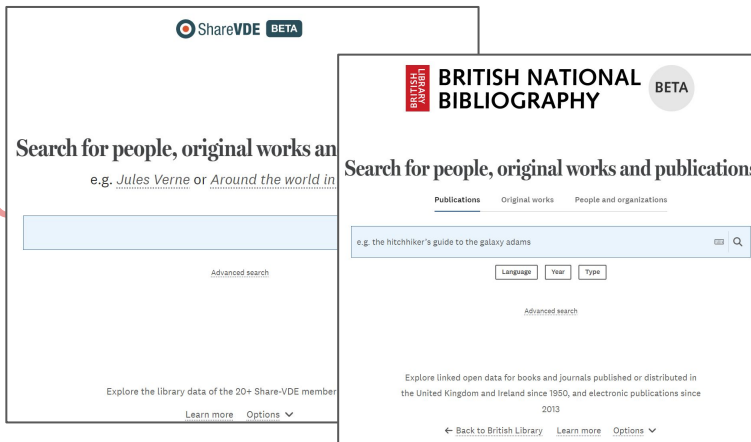
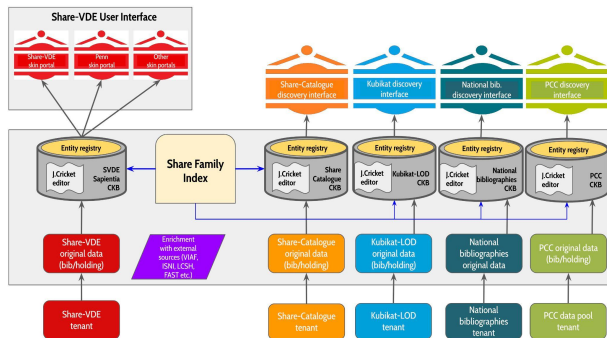
TECHNOLOGY

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.

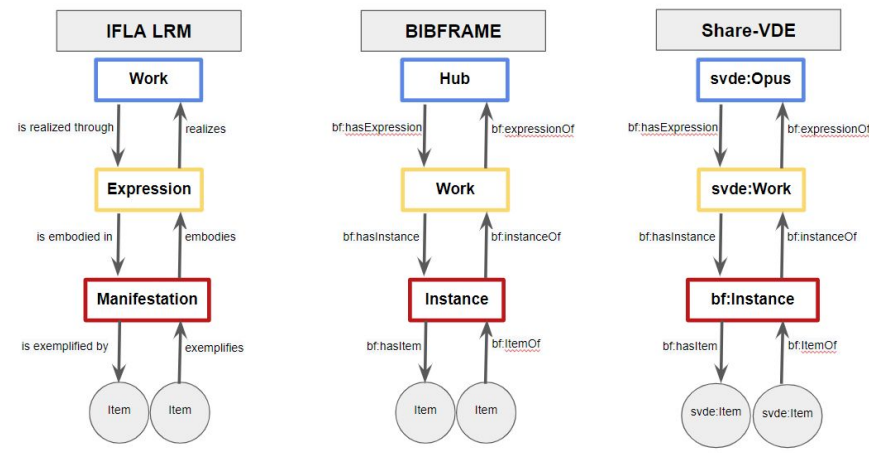
This structure ensures autonomy of approach to data management for each tenant, but also cooperation, because all tenants are connected as part of the same “family”, and long term sustainability.



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.

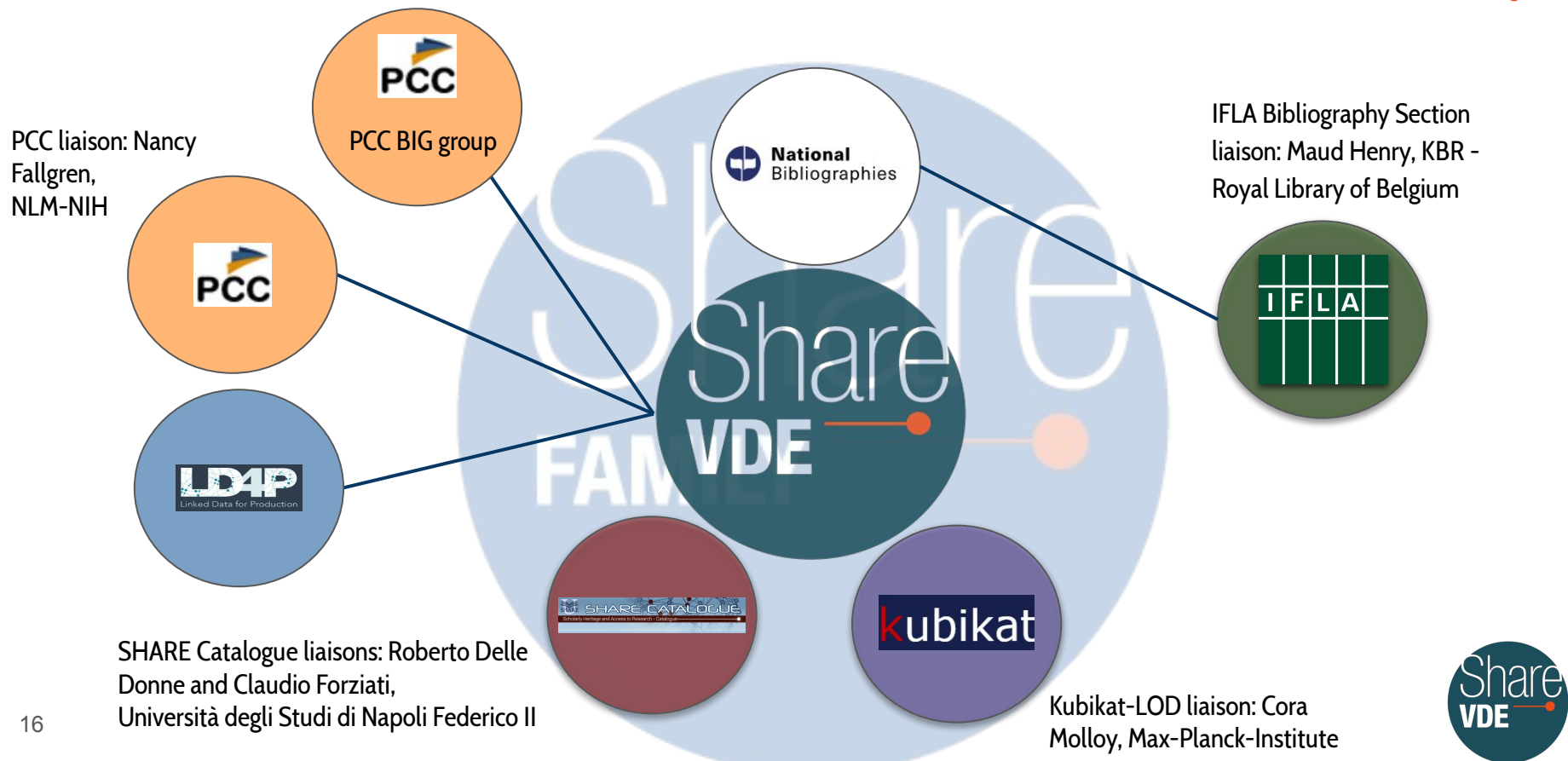


TECHNOLOGY

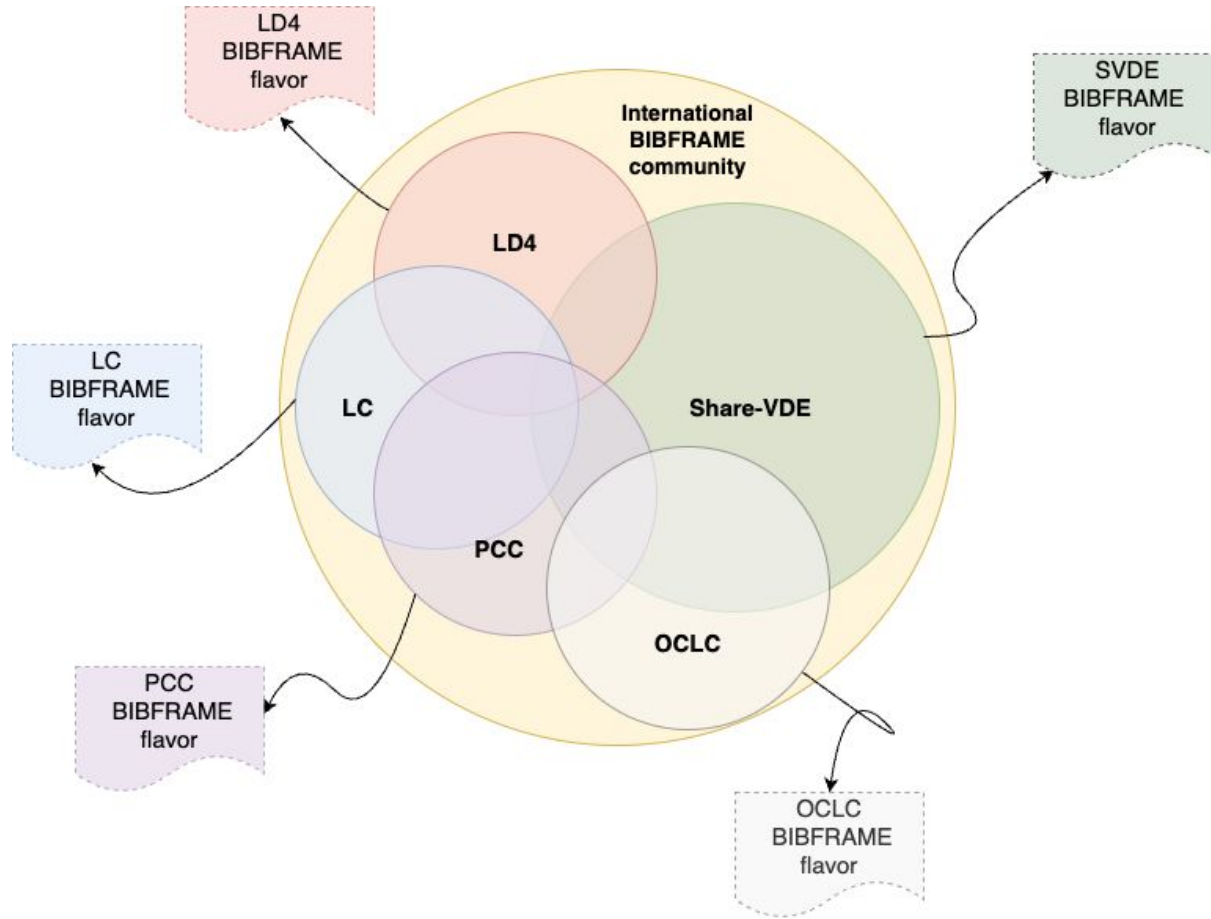
Advanced entity model

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

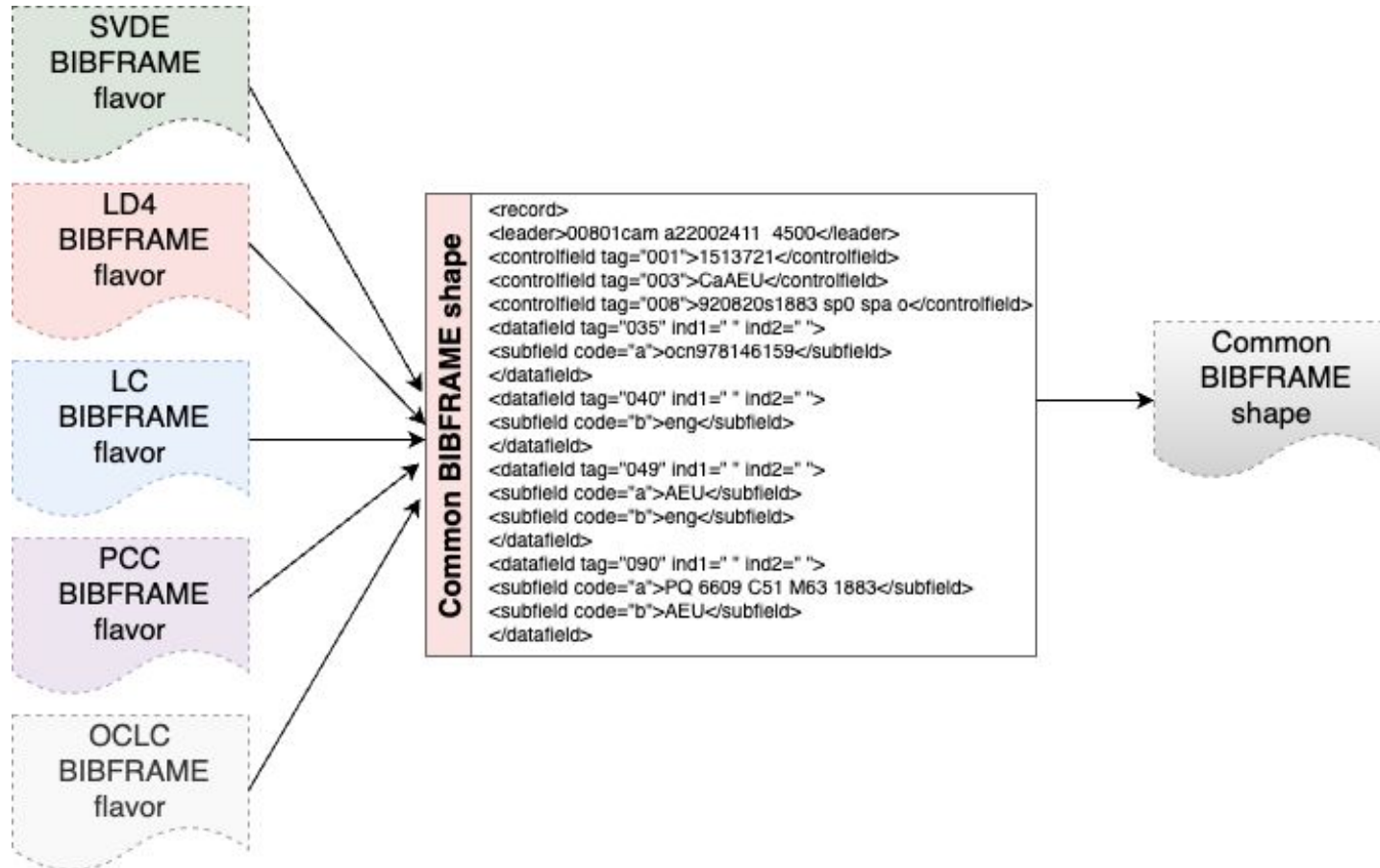
Share Family and Share-VDE liaisons



BIBFRAME communities engagement - Various BF flavors



BIBFRAME communities engagement - Various BF flavors





Linked
Data
Environment

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

Share - News & Updates on Wiki

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Share Family news and updates

Last edited 22 days ago by Anna Lionetti

Find out the latest news about the [Share Family](#) of initiatives and the most relevant updates on the developments going on within the various branches of the family.

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Share-VDE achievements in 2019

Share-VDE and Share Family Summer and Autumn 2022 events (September 2022)

September and the coming autumn are continuing a rich set of conferences where Share-VDE and the wider Share Family community will contribute with presentations and speeches. As you might already know, on September 20th – 21st the BIBFRAME Workshop in Europe will take place in Budapest, with a pre-meeting on Monday 19th specific to SVDE.

After visiting Frankfurt, Florence and Stockholm, and two online editions, the 2022 workshop will be a free hybrid event, hosted by the National Széchényi Library. This year's focus will be on BIBFRAME in operation, new developments and interoperability.

The aim of the BIBFRAME Workshop in Europe is to be a forum for sharing knowledge about planning, practice and production relating to BIBFRAME implementation. The intention is to bring together the community working or interested in the transition from MARC to Linked Data

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

