



Share-VDE

Share Virtual Discovery Environment in Linked Data

<https://svde.org>
info@svde.org
<https://wiki.svde.org/>

The initiative and its goals



From pilot project...

Phase 1

October 2016 – January 2017

1985 and 2015 imprint titles; 2,249,397 bib-records and 3,601,327 auth-records.

Phase 2

March 2017 – May 2018

The entire catalogues for all resource types; 94,378,728 bib-records and 24,150,238 auth-records.

Phase 3

Production environment: January 2019 - in progress

Share-VDE triplestore currently contains 24 billion quads of converted data and 400 million triples of clustered entities.

...to active initiative



Share-VDE is a library-driven initiative to establish an **effective working environment** for the use of linked data by libraries within a global context.

Library data are **enriched** with additional information and relationships, and bibliographic and authority data are converted into linked data.



A **virtual discovery platform** with the structure based on **BIBFRAME** data model is created to simplify the way in which that data is consumed.

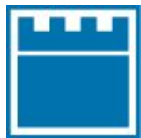
The network of resources created is the basis for the **Share-VDE Sapiientia Cluster Knowledge Base**, the common authoritative source of clusters accessible in RDF, open to the entire Share-VDE community.

...in a cooperative environment

Share-VDE is a collaborative endeavour based on the needs of libraries, developed by:



the joint effort of the **Share-VDE Advisory Council** and of the **Working Groups**;



Casalini Libri, provider of bibliographic and authority data as member of the Program for Cooperative Cataloguing;



@Cult, provider of ILS, Discovery tools and Semantic web solutions for the cultural heritage sector;



influenced by the vision of the **Linked Data for Production initiative**;



with input and active participation from an **international group of research libraries**.



Share-VDE overall goals

Enrichment of MARC records with URIs

Conversion from MARC to RDF using the BIBFRAME vocabulary (and other ontologies)

Data publication according to the **BIBFRAME** data model

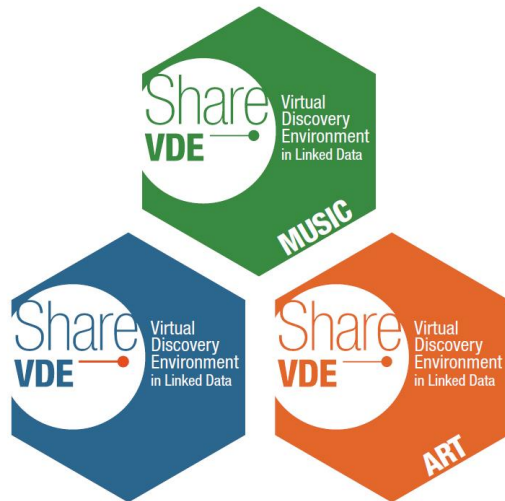
Batch/automated **data updating** procedures

Batch/automated **data dissemination** to libraries

Progressive implementation of **use cases**, with priorities defined by the Share-VDE community

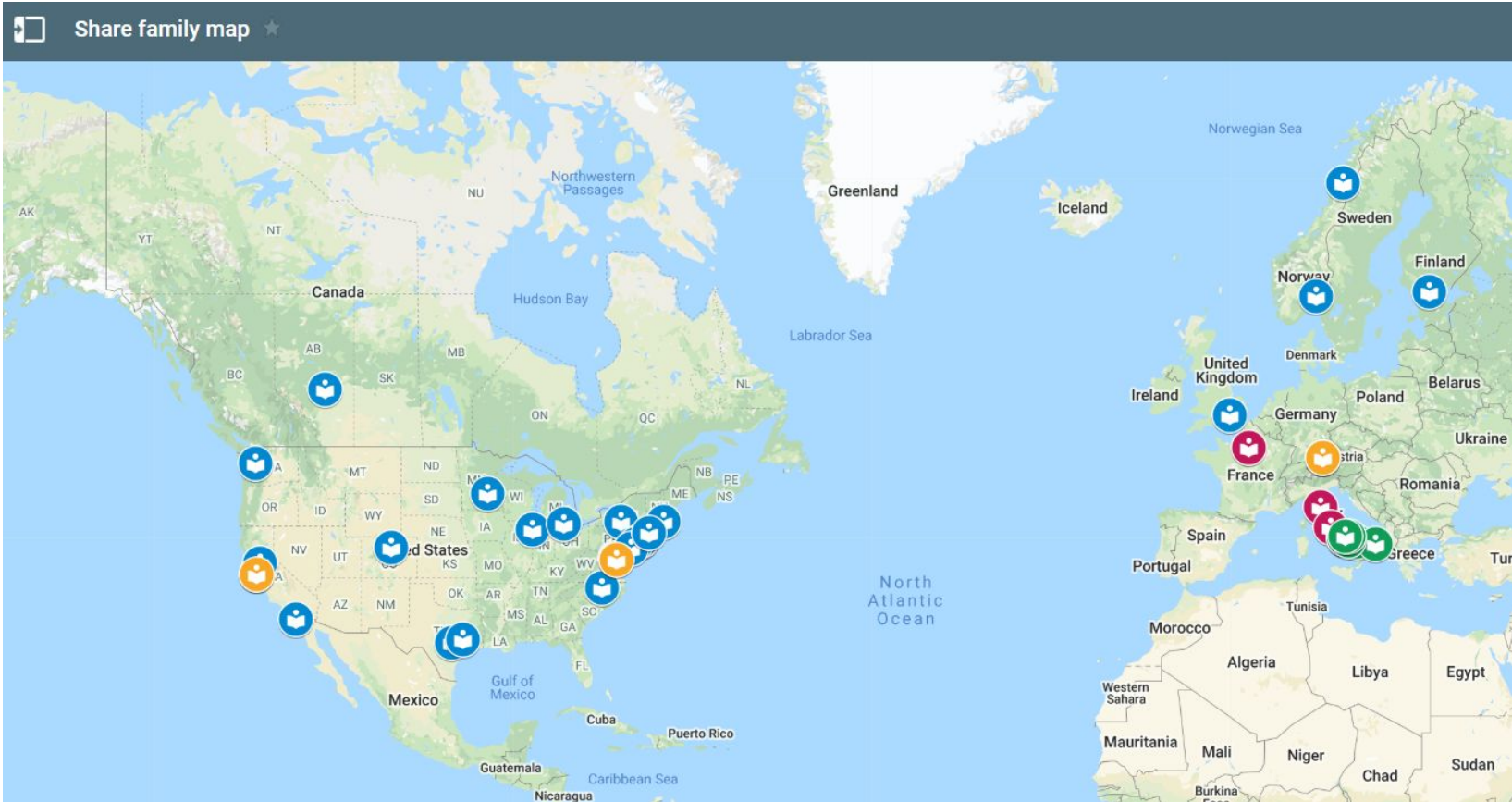


The Share family



The [Share family of initiatives](#) based on linked data currently comprises [Share-VDE](#) (Virtual Discovery Environment), [Share-Catalogue](#) (the Italian network of university libraries applying the Share principles), [Share-Art](#) and the Kubikat-LOD project of the Art History libraries of the Max Planck Institut, and other projects. The different characteristics of each field are a useful asset that can be used to the advantage not only of the Share family as a whole, but for each single discipline.

The Share family map around the world



The Share family participating institutions

Share-VDE Full members - university libraries

Duke University
New York University
Stanford University
University of Alberta
University of Chicago
University of Michigan at Ann Arbor
University of Pennsylvania
Yale University

Share-VDE Full members - national Libraries

Library of Congress
National Library of Finland
National Library of Norway
Smithsonian Institution
The British Library

LD4P Cohort members

Cornell University
Frick Art Reference Library
Harry Ransom Center Texas A&M
Harvard University
National Library of Medicine
Northwestern University
Princeton University
University of California Davis
University of California San Diego
University of Colorado at Boulder

University of Minnesota
University of Texas A&M
University of Washington

Share-Music project

Bayerische Staatsbibliothek
Library of Congress
Stanford University

Share-Catalogue Institutions

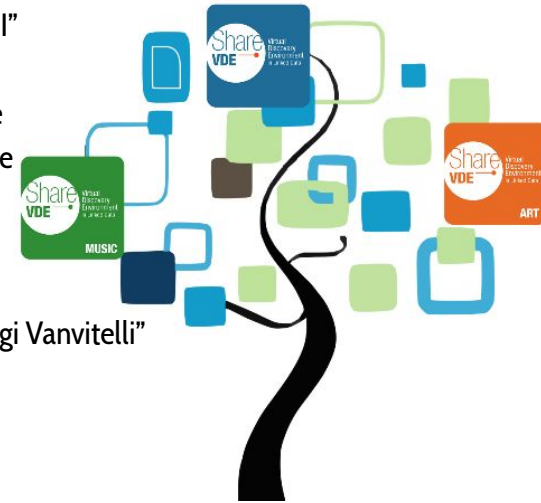
Università degli Studi di Napoli “Federico II”
Università degli Studi della Basilicata
Università degli Studi di Napoli L’Orientale
Università degli Studi di Napoli Parthenope
Università del Salento
Università degli Studi di Salerno
Università degli Studi del Sannio RCost
Università degli Studi della Campania “Luigi Vanvitelli”

Share-Art (Kubikat-LOD) project

Max-Planck-Institut:
Kunsthistorisches Institut in Florenz
Biblioteca Hertziana Rome
Central Institute of Art History Munich
Deutsches Forum für Kunstgeschichte Paris

See also

https://wiki.share-vde.org/wiki/ShareVDE:Main_Page/SVDE_institutions



Why Share-VDE

Facilitates **cataloguing and exposition** of bibliographic records through a **linked data** based approach.

The platform www.svde.org **enhances the discovery potential** of library resources to scholars and students and unveils information that would otherwise have been hidden in archives → access to a **rich amount of data** that can be exported and re-imported by the participating institutions.

It's an **authoritative source** thanks to the data enrichment with external URIs (ISNI, VIAF, Wikidata etc.) and internal ones (the URI created by Share-VDE for each entity).

Enhances the cooperation with the **Linked Data for Production (LD4P)** initiative and the **Program for Cooperative Cataloging (PCC)** for the study and application of linked data.

Fosters the **collaboration among institutions** and the information exchange with the **broader linked data community** in the library, archive and museum domains.

Major benefits



Quality: enrichment with data from other authoritative sources and share responsibility for and contribute to maintenance of quality data



Use: better exposition, data analysis opportunity, reuse in other projects, improve visibility of hidden resources



Integration: intersection of different and multiple authoritative sources, increase circulation of data



Engagement: facilitate information exchange and collaboration with other communities

Linked data experience

The Testaments

Get a copy

Author/creator

"Atwood, Margaret, 1939- author." [Search catalog for text "Atwood, Margaret, 1939- author." →](#)

Format / description

Book, 419 pages ; 25 cm

Published by

London, England : Chatto & Windus, 2019. , ©2019
[Search catalog for text "London, England : Chatto... →](#)

Summary

"More than fifteen years after the events of The Handmaid's Tale, the theocratic regime of the Republic of Gilead maintains its grip on power, but there are signs it is beginning to rot from within. At this crucial moment, the lives of three radically different women converge, with potentially explosive results. Two have grown up as part of the first generation to come of age in the new order. The testimonies of these two young women are joined by a third voice: a woman who wields power through the ruthless accumulation and deployment of secrets. As Atwood unfolds The Testaments, she opens up the innermost workings of Gilead as each woman is forced to come to terms with who she is, and how far she will go for what she believes."—Publisher description.

Notes

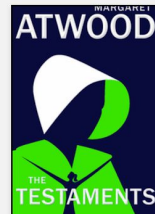
Sequel to: "The Handmaid's tale." [Search catalog for text "The Handmaid's tale" →](#)

Contains

Sequel to: Atwood, Margaret, 1939-. Handmaid's tale.

Experience without linked data.

Search for text string → View a record → Search for text string → View...



The Testaments

The Testaments is a 2019 novel by Margaret Atwood. It is a sequel to The Handmaid's Tale (1985). The novel is set 15 years after the events of The Handmaid's Tale... [Wikipedia](#)

2 editions at our library. 14 editions at other libraries.

Get a copy



AUTHOR

Margaret Atwood (Canadian writer)

Margaret Eleanor Atwood CC OOnt CH FRSC (born November 18, 1939) is a Canadian poet, novelist, literary critic, essayist, inventor, teacher, and environmental activist. [Wikipedia](#)

Learn more about this author

View 34 works by this author

RELATED TO THESE WORKS



"The Handmaid's tale"

...a dystopian novel by Canadian author Margaret Atwood, originally published in 1985. It is set in a

View this work →

PRIZES

2019 Man Booker Prize



Show 12 books from other winners

REVIEWS



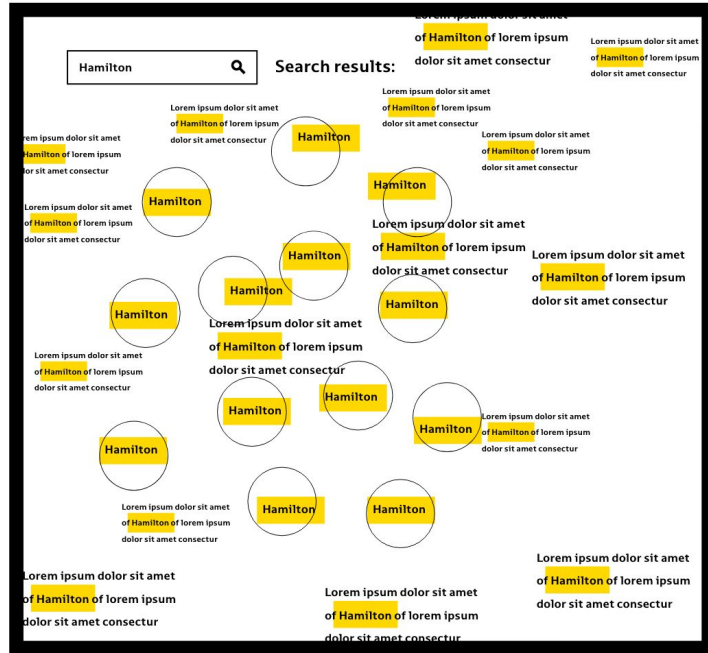
"A fitting sequel to The Handmaid's Tale. The characters in this book are different, but the world is the same. The world becomes more fleshed out, as the author adds details

Experience with linked data.

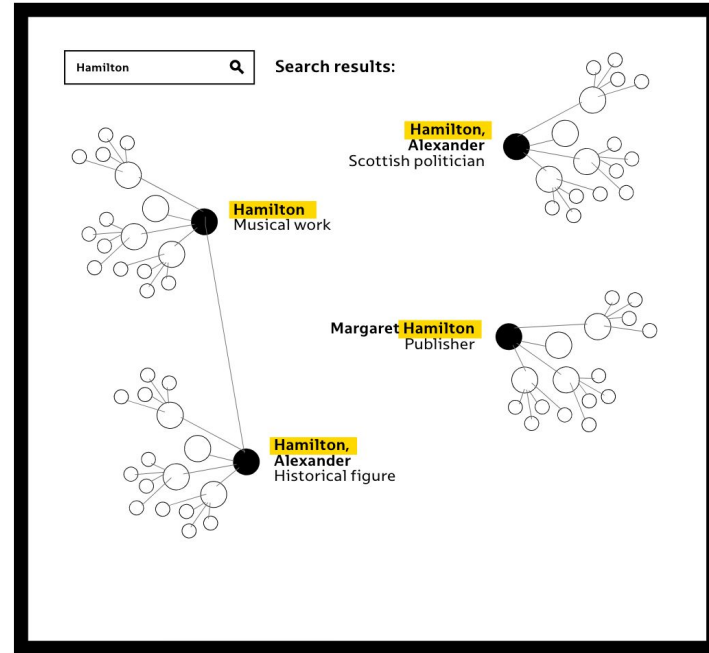
Search for known entities → Explore by moving from entity to entity directly.

Linked data means interconnections

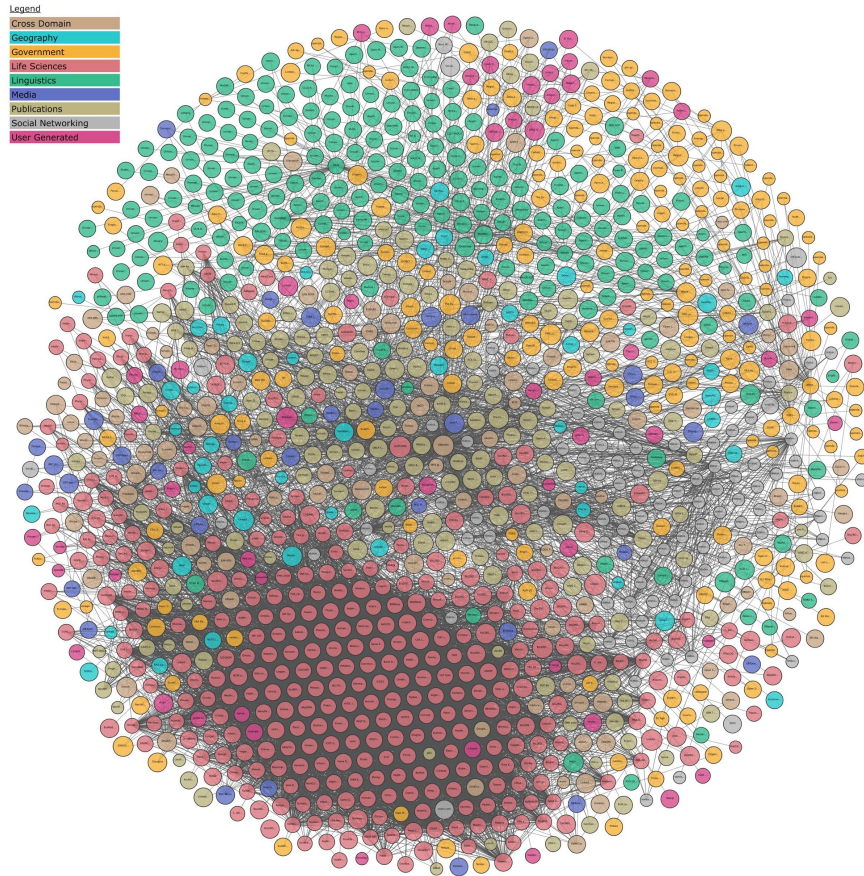
Without linked data



With linked data



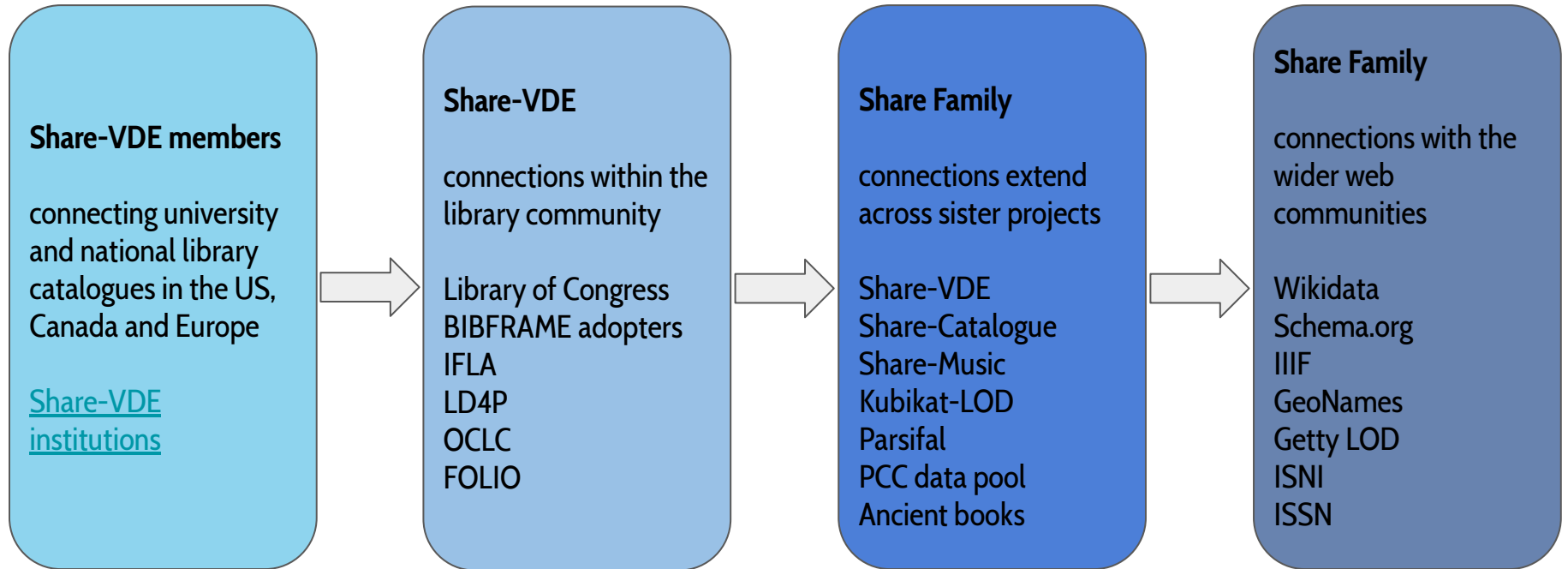
A network of interconnected data



A network of interconnected libraries



The diffusion in the worldwide communities



What data is available

The new SVDE 2.0 is now live at <https://svde.org>

- new back-end infrastructure for the Linked Data Management and the Cluster Knowledge Base
- new Entity Discovery Interface (web portal)

Progressive load of SVDE member libraries data into the new system:

- Share-VDE 2.0 is available at <https://svde.org>
- Share-VDE 1.0 is available at <https://share-vde.org>

SVDE 1.0 and 2.0 will coexist until clustering iterations and data load on the new version will be completed.

Useful materials

Wiki resources to learn more <https://wiki.svde.org/>

Share-VDE data can be queried through several methods:

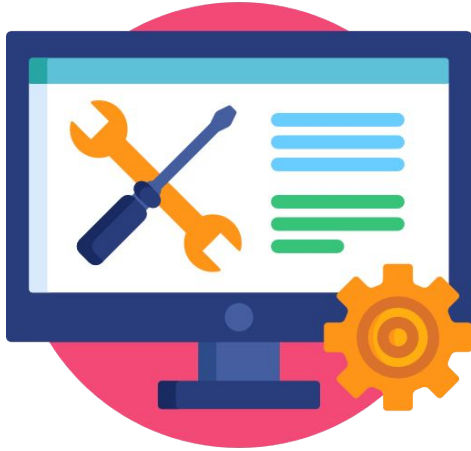
- entity discovery portal (web user interface available at <https://svde.org>)
 - <https://www.svde.org/about/about-share-vde>
- via API through GraphQL and RESTful API endpoints
- via Stardog triple store (the Stardog db including the new CKB 2.0 will soon be available)

Report bugs and suggestions on the forum <https://forum.svde.org/>

The Share core technology



The LOD platform



The **LOD Platform** is a highly innovative framework of applications and components for handling bibliographic catalogues and transforming them in Linked Open Data.

The LOD Platform uses **BIBFRAME** as main ontology but is able to combine and add other ontologies and data models as required by each specific project.

The LOD platform

The system allows:

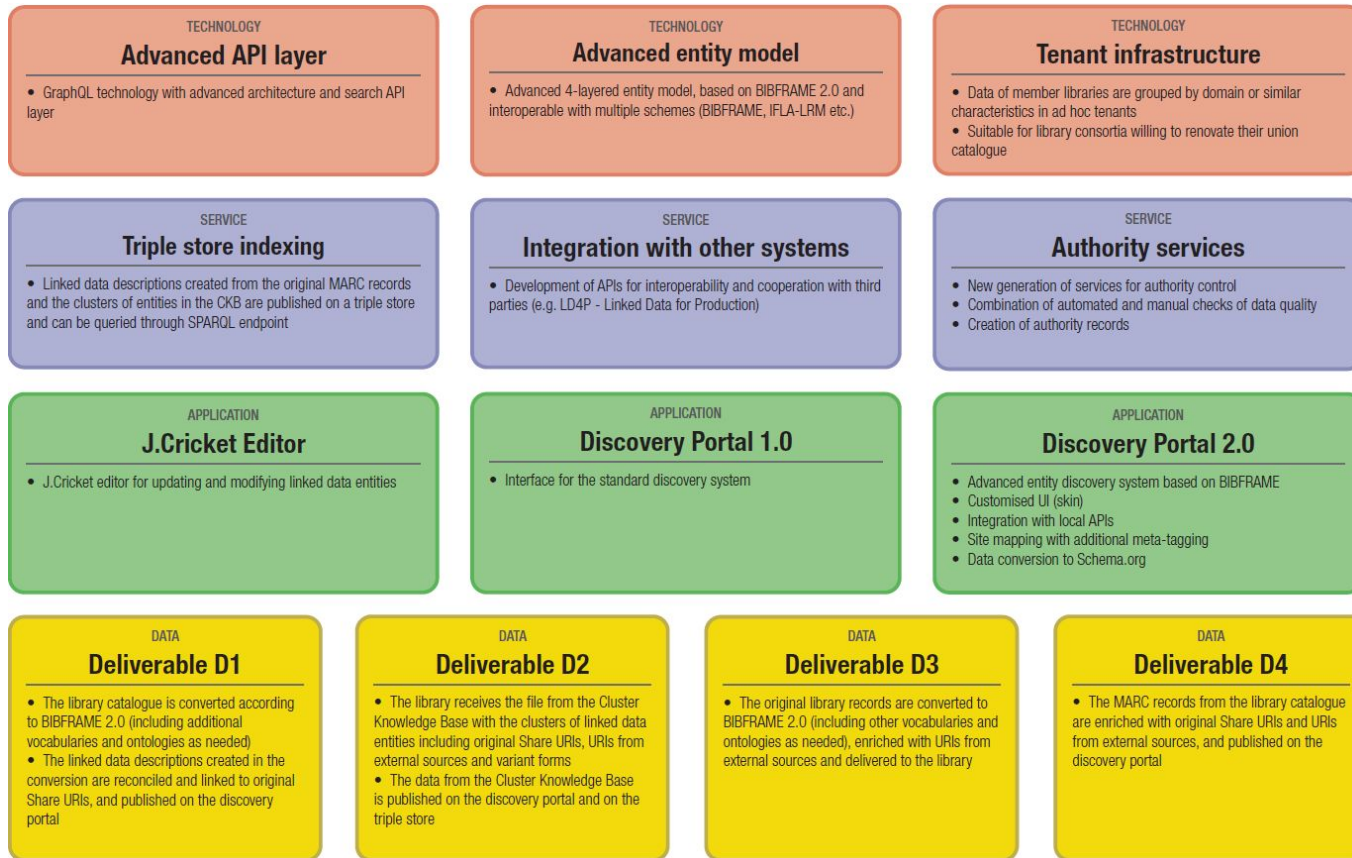
- data **analysis and management**, to identify and group the entities (clusterization process);
- data **enrichment** through links with URIs from external data sources;
- bibliographic and authority data **conversion** to RDF (Resource Description Framework, the standard model by the W3C for LOD), using vocabularies and ontologies;
- **publication** of the RDF dataset on a triplestore;
- user-friendly **discovery portal** based on BIBFRAME.

The LOD platform modules

Main modules of the technological architecture:

- **AUTHIFY**, RESTful module that provides bibliographic and authority search services and full text of external datasets, mainly related to Authority files (VIAF, Library of Congress Name Authority file...) but also extendable to other types of datasets;
- **CLUSTER KNOWLEDGE BASE**, on PostgreSQL database, is the result of data identification, enrichment, and clusterization processes;
- **LODIFY**, RESTful module that automates the entire process of data conversion in RDF format;
- **TRIPLESTORES** for storing RDF files;
- **DATA PRESENTATION PORTAL**, the personalized portal on which data is published.

The LOD Platform components



Share family technology in 5 steps

The **initiative** is steered by the **community of participating libraries**, with the aim of setting up linked data based workflows.

The Share family technology, based on the [LOD platform](#), makes available:

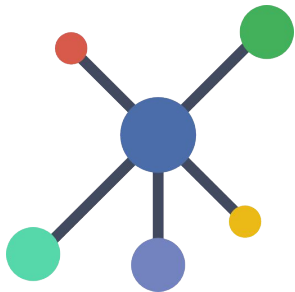
1. **enrichment** of original MARC records with identifiers from external sources (e.g. ISNI, VIAF) and with original Share-VDE entity URIs;
2. **reconciliation and clusterization** of entities identified in the MARC data;
3. **conversion** of library catalogues from MARC to linked data;
4. **delivery of converted and enriched data** to libraries for reuse in their systems;
5. **publication** of linked data descriptions on the discovery platform www.svde.org.

Enrichment, reconciliation and clusterization



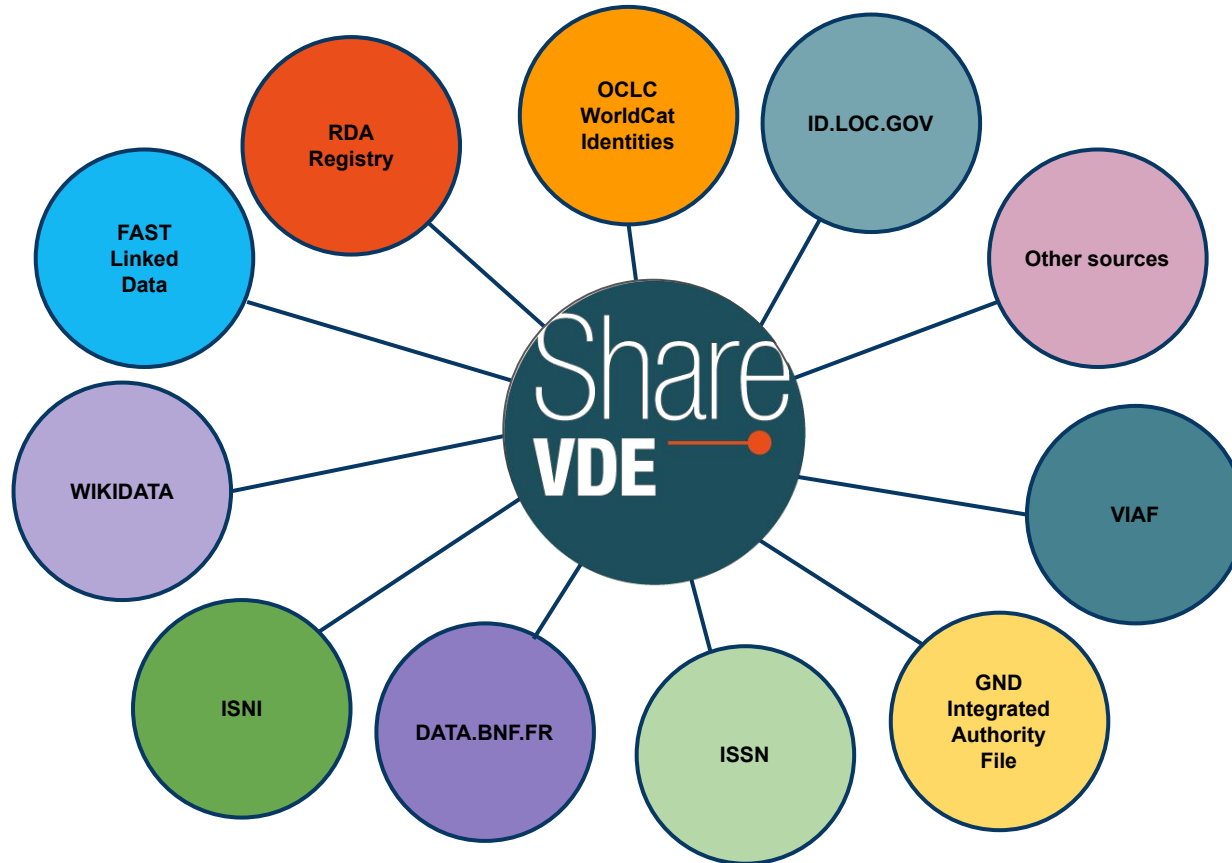
Enrichment: SVDE adds to the original MARC records of member libraries the entity **identifiers** (authors, works, subjects etc.) from **external data sources** (ISNI, Wikidata etc.) to facilitate the reuse of records in linked data. Also the data resulting from the conversion in BIBFRAME is enriched in the same way.

Added value: SVDE creates **original URIs** assigned to the entities managed by the system (authors, works etc.): this further benefits data enrichment and makes **SVDE an authoritative data source**.

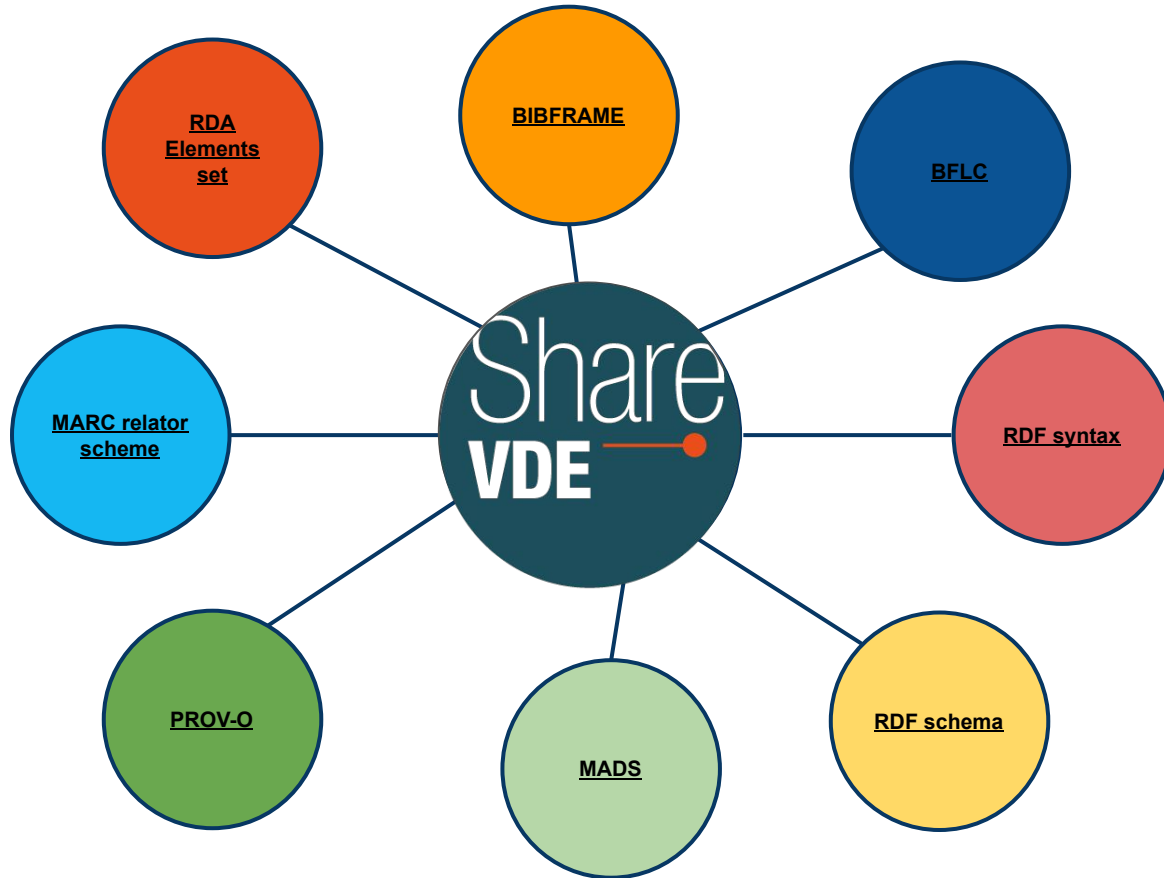


Reconciliation and clusterization: SVDE reconciles data from MARC records in order to identify **groups of entities (clusters)**. Example: starting from a set of library records describing the same book, SVDE creates a single cluster with its own original SVDE URI that groups together the manifestations of the same work. The same happens for authors, e.g. [William Shakespeare](#).

Some of the external sources

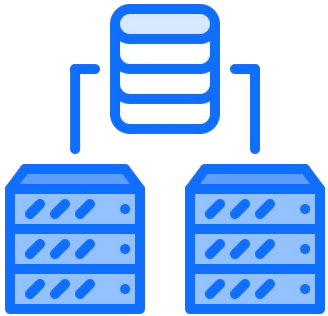


The main Share-VDE ontologies



Conversion

Share-VDE converts library data **from MARC to linked data**. The ontology currently in use is **BIBFRAME**, one of the major standards in use in the transition from original MARC-based workflows to linked data cataloguing.



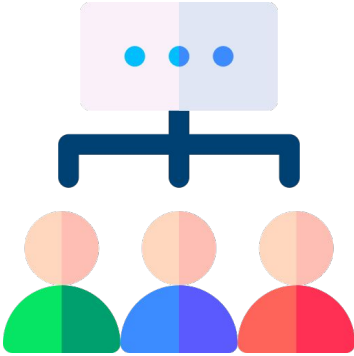
Share-VDE entity model includes the **Opus level**, in order to keep continuity with IFLA-LRM and BIBFRAME models.

This facilitates the conversion from MARC to linked data and viceversa and allows **Share-VDE infrastructure** to be **in line with** the developments of the **Library of Congress** that has released the Hub property as highest level of abstraction in BIBFRAME model.

Reuse and publication



Reuse: the network of SVDE resources is the base of the SVDE **Cluster Knowledge Base** (named Sapientia). The CKB is an **authoritative source of entities** (works, authors etc.), accessible in RDF format and open to the entire SVDE community. The CKB can be queried and can be used in the local systems of SVDE member libraries. Also the MARC records enriched can be reused by libraries, that continue handling their own data independently.



Publication: the linked data descriptions resulting from the conversion of library records are published on the discovery platform www.svde.org (currently available for **full member libraries** https://wiki.share-vde.org/wiki/ShareVDE:Main_Page/SVDE_institutions). SVDE **interface** is being **renewed** as far as user experience and discoverability potential, and ad hoc **branding options** of the interface are available.

Technical advancements

Optimisation of LD workflows in production

Conversion from MARC to RDF using BIBFRAME and other ontologies

SVDE authoritative Cluster Knowledge Base

Original MARC records enriched with URIs from different sources

RDF data enriched with URIs from different sources

Infrastructure, data storage, indexing and queries

Internal PostGres RDBMS

Triplestore with SPARQL query endpoint

Solr inverted index

Tenant infrastructure with Share Family Index across Share Family CKBs

Data publication and exchange

Union catalogue and advanced entity discovery platform

API layer for CRUD operations

Interoperability layer with external systems (e.g. LD4P)

Advanced services

New generation authority control

Shared entity editing tool for update and management of linked data entities: [JCricket editor](#)

Cross-tenant services

Apply Share principles to other domains (e.g. archives, museums, music)

303 URIs forwarding to Different Documents



Accept: text/html

<https://share-vde.org/agents/17282>

Accept: application/json

Accept: application/rdf+xml

0110
1001
1010

303 See Others

<https://share-vde.org/page/agents/17282>



William Shakespeare

1564-1616, English writer

William Shakespeare (died 26 April 1616 – 23 April 1616) was an English poet, playwright and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist. He is often called England's national poet and the "Bard of Avon". His extant works, including collaborations, consist of approximately 39 plays, 154 sonnets, two long poems (154 lines).

More options

Original Works by Shakespeare Original Works about Shakespeare Related people

42 results

Filter original works... Format Year of publication

Title	Format	Year of publication	External links
A Midsummer Night's Dream	Physical book	1595	External links

<https://share-vde.org/data/agents/17282.json>

```
{
  "preferredHeading": "Eaton conference on science fiction and fantasy literature",
  "alternateHeadings": [
    "J. Lloyd Eaton Conference on Science Fiction and Fantasy Literature ",
    "Fifteenth Annual Eaton conference on science fiction and fantasy literature",
    "Nursery realms children in the worlds of science fiction, fantasy, and horror"
  ],
  "type": "http://id.loc.gov/ontologies/bibframe/Family",
  "startDate": 1993,
  "_links": {
    "self": [
      {
        "href": "https://share-vde.atcult.it:6443/families/1"
      },
      {
        "href": "https://share-vde.atcult.it:6443/agents/1"
      }
    ]
  }
}
```

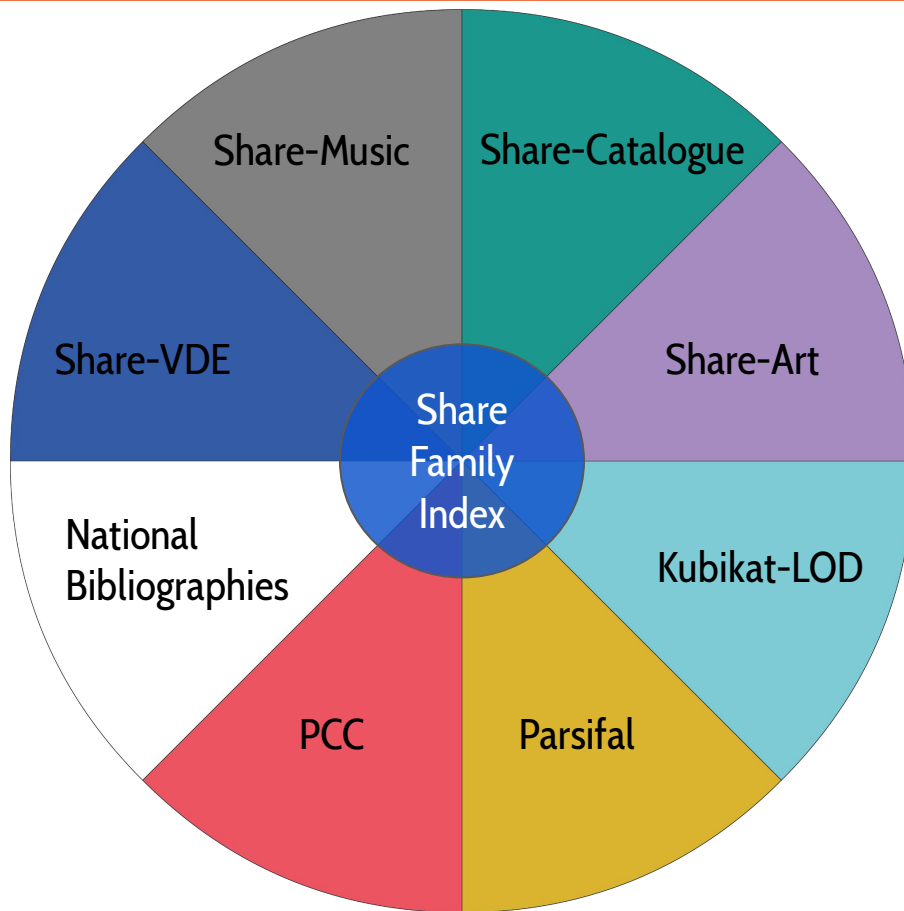
<https://share-vde.org/data/agents/17282.rdf>

```
<rdft:type rdt:resource="http://www.wikidata.org/entity/Q36180"/>
<rdf:type rdf:resource="http://dbpedia.org/ontology/Agent"/>
<rdf:type rdf:resource="http://www.ontologydesignpatterns.org/ont/
<rdf:type rdf:resource="http://dbpedia.org/class/yago/WikicatSen
<rdf:type rdf:resource="http://dbpedia.org/class/yago/Holder1101
<rdfs:label xml:lang="it">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="pt">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="pl">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="de">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="ja">アレッサンドロ・マンゾーニ</rdfs:label>
<rdfs:label xml:lang="fr">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="es">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="en">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="nl">Alessandro Manzoni</rdfs:label>
<rdfs:label xml:lang="ar">ألساندرو مانزونى</rdfs:label>
<rdfs:label xml:lang="zh">亚历山达罗·孟佐尼</rdfs:label>
<rdfs:label xml:lang="ru">Мандзони, Алессандро</rdfs:label>
<rdfs:comment xml:lang="pt">
```

Alessandro Francesco Tommaso Manzoni (Milão, 7 de março de 1781 italiano - um dos mais importantes nomes da literatura de seu com o título Os noivos). Foi ainda senador do Reino da Itália.

Reference: <https://www.w3.org/TR/cooluris/> (Par. 4.2)

Participation and autonomy in the Share Family



Tenant architecture

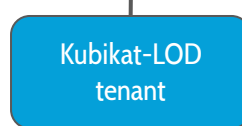
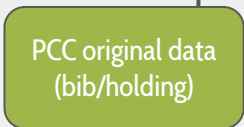
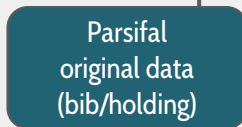
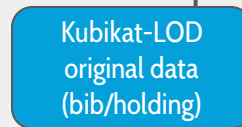
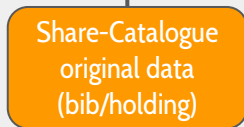
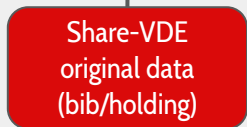
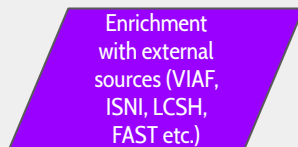
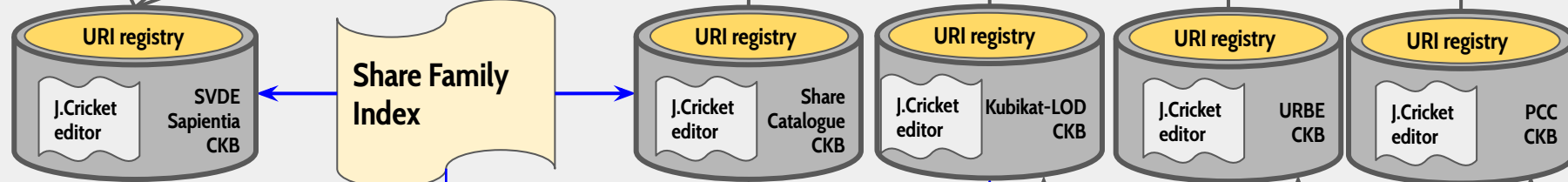
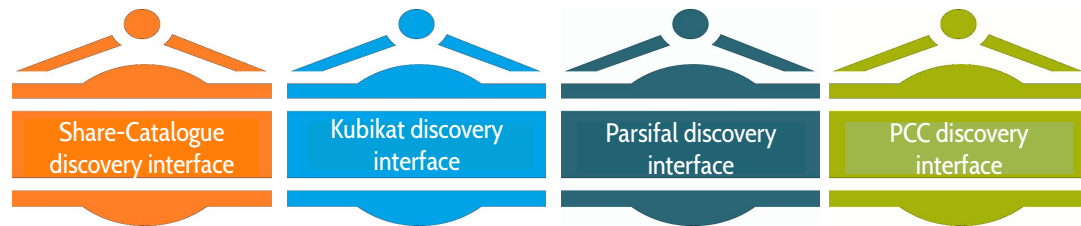
Definition of tenant from [Wikipedia](#):

- “The term **software multitenancy** refers to a software architecture in which a single instance of software runs on a server and serves multiple tenants”.
- “A **tenant** is a group of users who share a common access with specific privileges to the software instance. With a multitenant architecture, **a software application is designed to provide every tenant a dedicated share of the instance** - including its data, configuration, user management, tenant individual functionality” etc.

Share tenants:

- data of Share member libraries are **grouped by similar requirements/characteristics** (e.g. the tenant for art libraries → Share-Art);
- purpose:
 - more **efficient data management**;
 - **technological sustainability**: lighter RDF graph of Share libraries' data.

Common Share-VDE User Interface



The Cluster Knowledge Base and the CKB editor

Sapientia Cluster Knowledge Base:

- Sapientia includes the clusters of entities created in the reconciliation and conversion to linked data of the catalogues of all Share-VDE participating libraries;
- the first release of Sapientia is online and the database is constantly enriched with the new data created by libraries and converted by Share-VDE;
- **more than 100 millions of bibliographic records and 24 millions of authority records** have been processed;
- Sapientia contains **400 millions triples** in its triplestore, and **24 billions quads** of converted bibliographic records.

J.Cricket Cluster Knowledge Base editor:

- J.Cricket is the module dedicated to the editing of the SVDE entities, essential for the management of Share-VDE database;
- the initial model of the J.Cricket Cluster Knowledge Base Editor has been analysed from a functional perspective, along with the design of its user interface;
- the result will be a collaborative environment enabling the editing of the entities managed in Share-VDE (works, authors etc.).

Continuous R&D in the Share-VDE community



Active participation



NYU



THE UNIVERSITY OF CHICAGO



UNIVERSITY OF ALBERTA LIBRARY



Yale

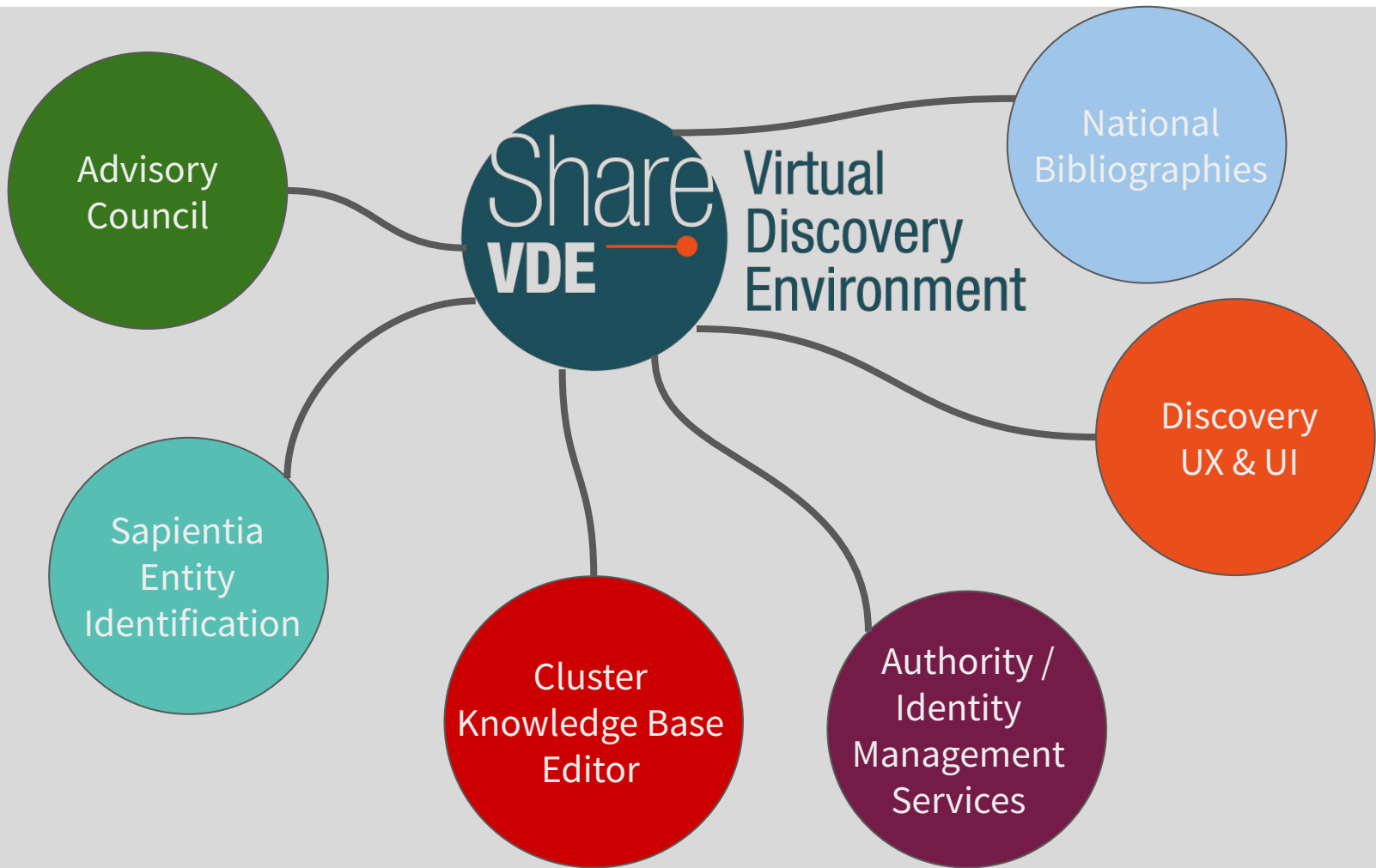
Stanford University



LIBRARY LIBRARY OF CONGRESS



Libraries members of SVDE and Share Family working groups and parallel projects are constantly contributing with their Subject Matter Experts to requirements gathering, functional analysis and feedback to developments.



Share-VDE and Share Family Working Groups

Libraries members of Share-VDE and Share Family Working Groups and parallel projects are constantly contributing with their Subject Matter Experts to requirements gathering, functional analysis and feedback to developments.

Share-VDE Advisory Council and Working Groups:

- Share-VDE Advisory Council
- Sapientia Entity Identification WG
- Authority/Identifier Management Services WG
- Cluster Knowledge Base Editor WG
- User experience/User Interface WG

Share Family Working Groups:

- National bibliographies Working Group involving SVDE members and external institutions
- Italian group for the conversion UNIMARC - BIBFRAME
- discussions in the field of photo libraries and audio-visual collections

Share-VDE Advisory Council

The [Share-VDE AC](#) takes an active role in determining future uses and vision for the Share-VDE initiative; Develop future use cases for Share-VDE, and set development priorities as needed; Monitor and lead the work of the various Advisory Council Working Groups; Maintain communication among the Share Family member institutions.

Main outcomes: [Share-VDE Statement](#), September 2021:

- edited and approved by the Share-VDE Advisory Council;
- explanation of position in the broader context of Library Linked Open Data;
- Share-VDE has been a reference point in library linked open data since the initial R&D and prototype phase in 2016;
- cooperation: member libraries have contributed their data and are actively involved in the developments of the initiative.

Authority/Identifier Management Services WG

The [AIMS WG](#) defines guidelines and best practices for Authority/Identifier management; defines scope and data-flow for the creation and implementation of automated services based on preliminary documentation; proposes additional use cases identified as essential for effective knowledge base management.

Main outcomes: new generation of services for the authority control

- definition of use cases;
- functional analysis;
- analysis of interaction with Wikidata and ISNI (joint work with CKBE WG to design J.Cricket functionalities);
- pilot of MARC-based authority services with Stanford University Libraries;
- initial analysis of services for authority control in linked data workflows.

Focus on Authority Services

Services for the authority control that combine automated and manual processes

For record environments:

- validation of MARC bibliographic records (correction of MARC fields and obsolete forms, update of tags and subfields etc.);
- enrichment of MARC fields with SVDE original URIs and URIs from external sources according to ad hoc profiling, including LCNAF, VIAF, ISNI;
 - Casalini Libri is ISNI registration agency creating and assigning ISNI to persons and organisations (e.g. publishers)
- matching processes on external authority files;
- import of authority records;
- reporting features providing complete details of the validation and corrections done to the records.

→ **initial release** of the authority control features for MARC records delivered to Stanford.

Next step developments: Authority Services fully integrated in the Linked Open Data environments.

Cluster Knowledge Base Editor WG

The [CKBE WG](#) analyses how libraries interact with the *Sapientia* Cluster Knowledge Base (CKB) and their use of the J.Cricket Editor for modifying (correcting / enriching), deleting, merging and separating clusters.

Main outcomes: back-end developments for J.Cricket entity editor started

- definition of use cases;
- design of manual editing features;
- analysis of interaction with Wikidata and ISNI to be incorporated into J.Cricket and authority dataflows that feed the Cluster Knowledge Base (joint work with AIMS WG to design J.Cricket functionalities);
- back-end developments almost completed; respective front-end features will follow.

Sapientia Entity Identification WG

The [SEI WG](#) reviews use of entities, identifiers, and associated modelling in the Sapientia CKB; reviews and refine processes for Sapientia entity clustering in Share-VDE and the creation of associated open and stable URI for use in Share-VDE and the library community; reviews MARC to BIBFRAME and BIBFRAME to MARC conversion; engage with the library community to identify and/or develop best practices for use of Sapientia identifiers in BIBFRAME and MARC data.

Main outcomes: `svde:Instance` as entity under definition

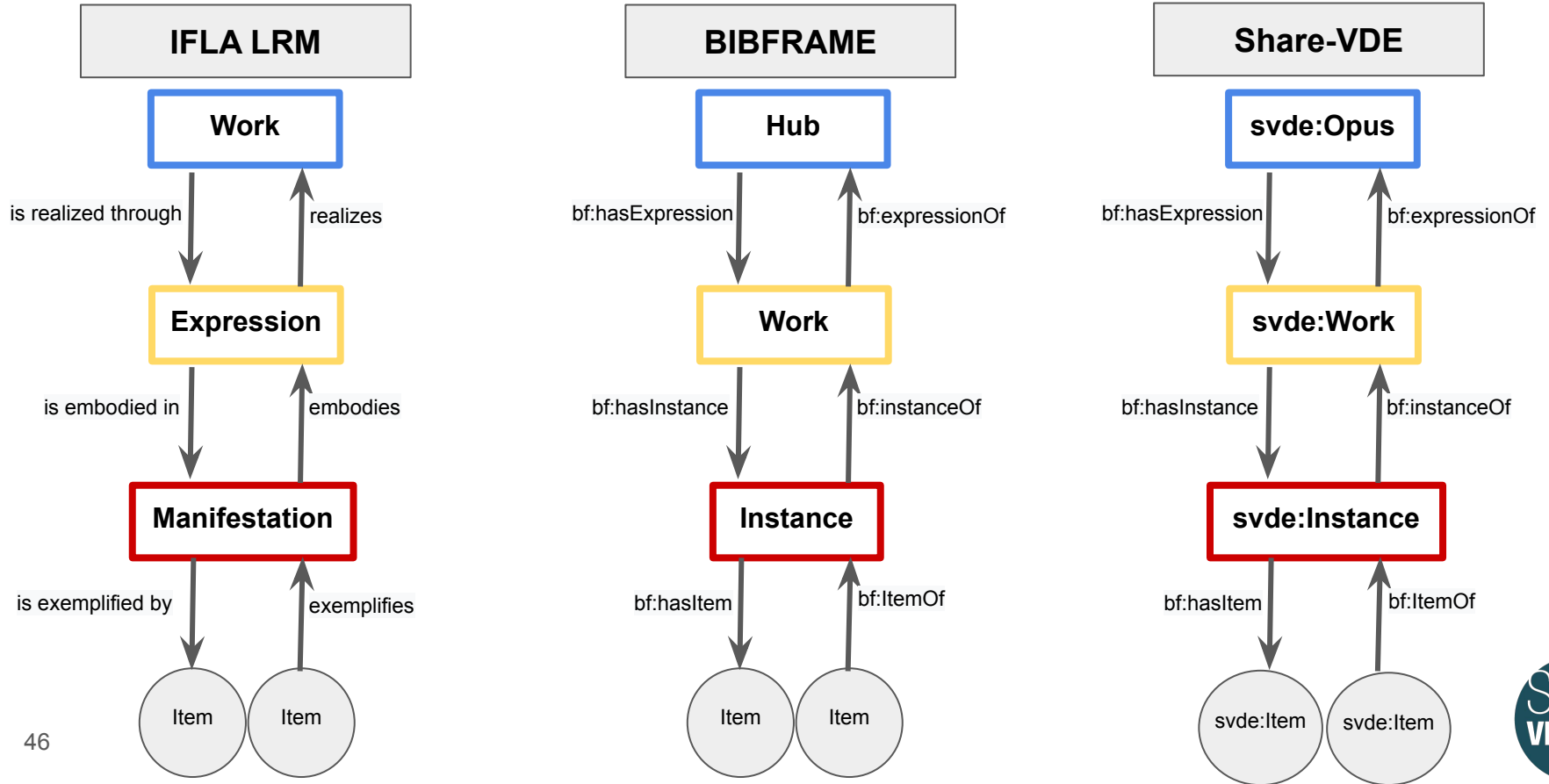
- 4 layers in [SVDE entity model](#): `svde:Opus` | `svde:Work` | `svde:Instance` | `svde:Item`;
- `svde:Opus` and `svde:Work` are types of `bf:Work` → this ensures interoperability;
- consolidating the definition of `svde:Instance` entity properties;
- review of clustering and conversion rules.

Focus on entity model

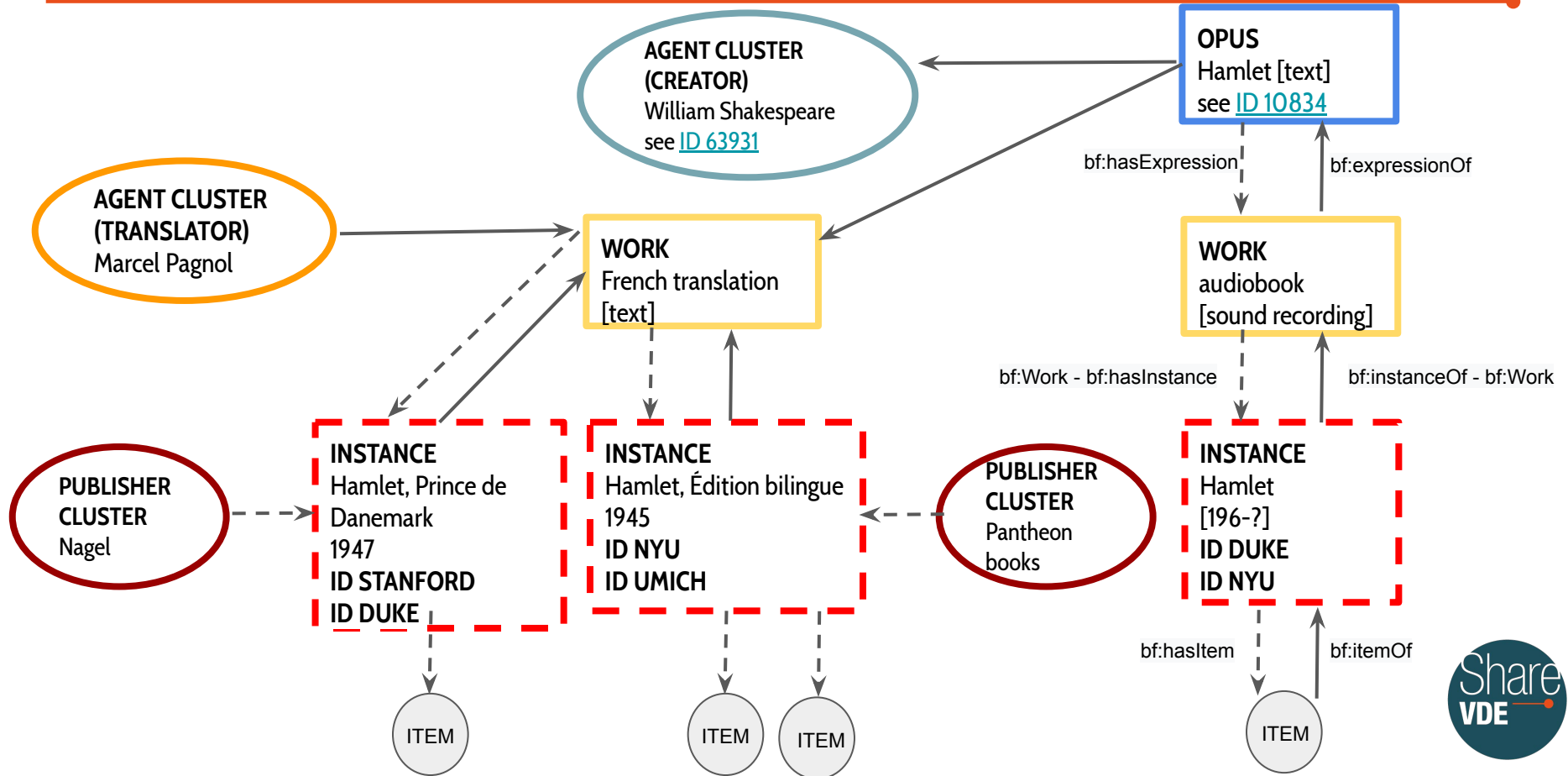
Share-VDE as a BIBFRAME node to put BIBFRAME into practice:

- Share-VDE provides enriched data that is [interoperable](#) with other BIBFRAME nodes and with other models;
- the Share-VDE working groups have reviewed algorithms and processed, and expanded the BIBFRAME model to meet real-world needs;
- focus on cooperation also in the IFLA context: the mapping UNIMARC-BIBFRAME is being prepared and a formal liaison with SVDE has been approved by the IFLA Bibliography Section Standing Committee.

Comparison IFLA-LRM/BIBFRAME/Share-VDE



Share-VDE model (simplified version)



User Experience/User Interface WG

The [UX-UI WG](#) has re-designed Share-VDE user interface to respond to both patrons and library staff requirements and expectations. SVDE 2.0 entity discovery interface:

- reflects the components of the Share-VDE data model infrastructure;
- harnesses the potential of linked data and deliver wide-ranging and detailed search results;
- provides an intuitive user experience hiding the complexity of the underlying data model;
- embeds partner APIs for the interoperability with local library services (e.g. lending);
- allows dedicated skins, ie. customised sub-portals dedicated to individual institutions.

Main outcomes: Share-VDE 2.0 Entity Discovery <https://svde.org>

- new Entity Discovery Portal and new back-end infrastructure for Linked Data Management;
- other [Share Family discovery portals](#) supported by the same technology;
- review and enhancements of portal features, in conjunction with the National Bibliographies Working Group.

Focus on Share-VDE 2.0 Entity Discovery

The screenshot displays the Share-VDE 2.0 interface. At the top, there is a search bar with the text "william shakespeare" and a search icon. Below the search bar, the profile of William Shakespeare is shown, including a portrait and a brief biography. The biography text reads: "English playwright and poet (1564-1616). Born in 1564. Died in 1616. William Shakespeare was an English playwright, poet, and actor, widely regarded as the greatest writer in the English language and the world's greatest dramatist. He is often called England's national poet and the 'Bard of Avon'. His extant works, including collaborations, consist of some 39 plays, 154 sonnets, three long narrative poems, and a few other verses, some of uncertain authorship. His plays have been translated into every major living language and are performed more often than those of any other playwright. They also continue to be studied and reinterpreted. - Wikipedia". Below the biography, there is a "More options" button. Underneath, there are tabs for "Original works" and "Publications". Below the tabs, there are filters for "Contributor" and "Genre". The results section shows "30 results" and a "Sort by (A - Z)" dropdown. The first result is "(The) tempest" by William Shakespeare (autore). The second result is "Lacy's acting edition of plays, dramas, extravaganzas, farces, etc., etc., as performed at the various theatres (Drama)" by George Daniel (altro); Thomas Hailes Lacy (altro); William Shakespeare (altro).

A (much more) complex system with entity-based presentation layer, reflecting BIBFRAME and the ad hoc SVDE extensions

Improved user experience

Back-end infrastructure based on APIs and enhanced with a new version of the [LOD Platform framework](#) and of the CKB



National bibliographies WG

The [National bibliographies WG](#) is dedicated to the practical cooperation among the National Bibliographies, to address the needs of National Libraries and institutions that hold National Bibliographies in the framework of a shared entity discovery environment such as the Share Family of initiatives.

Main updates:

- involvement of SVDE / Share Family members and external institutions;
- IFLA Bibliographic Section liaison (Maud Henry from KBR - Royal Library of Belgium);
- discussion around topics of interest for an ad hoc tenant hosting national bibliographies;
- main tenant of the shared discovery environment for national bibliographies:
<https://natbib-lod.org/>
- analysis of use cases for specific features.

National bibliographies WG - latest outcomes

- Study and address the needs of institutions that hold National Bibliographies WRT linked data platforms;
- goal: build a shared discovery environment hosting LOD National bibliographies dataset;
- British Library is early adopter: the British National Bibliography will be the first national bibliography tenant for the Share-VDE virtual discovery environment
 - **National Bibliographies tenant** - <https://natbib-lod.org>
 - with the skin for the British National Bibliography <https://bl.natbib-lod.org> (*Note: the skin for the British National Bibliography is a preview of a beta site*)
- the group is currently analysing use cases for ad hoc features of the shared National Bibliographies portal;
- review and enhancements of portal features, in conjunction with the SVDE UX-UI Working Group.

Share-VDE approach



Share-VDE pillars



Integration



Autonomy

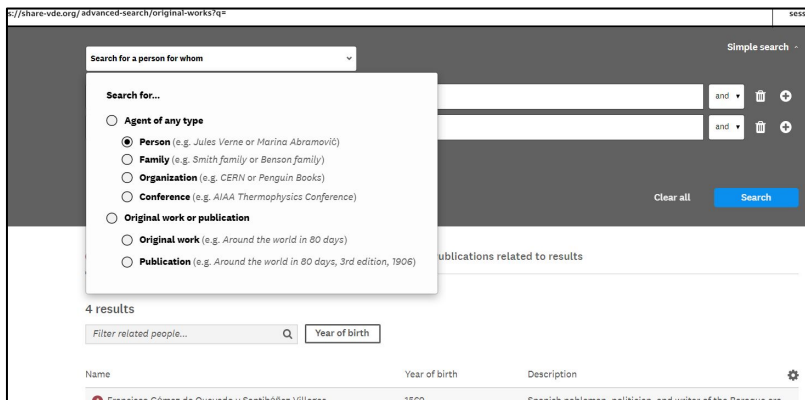


Community engagement

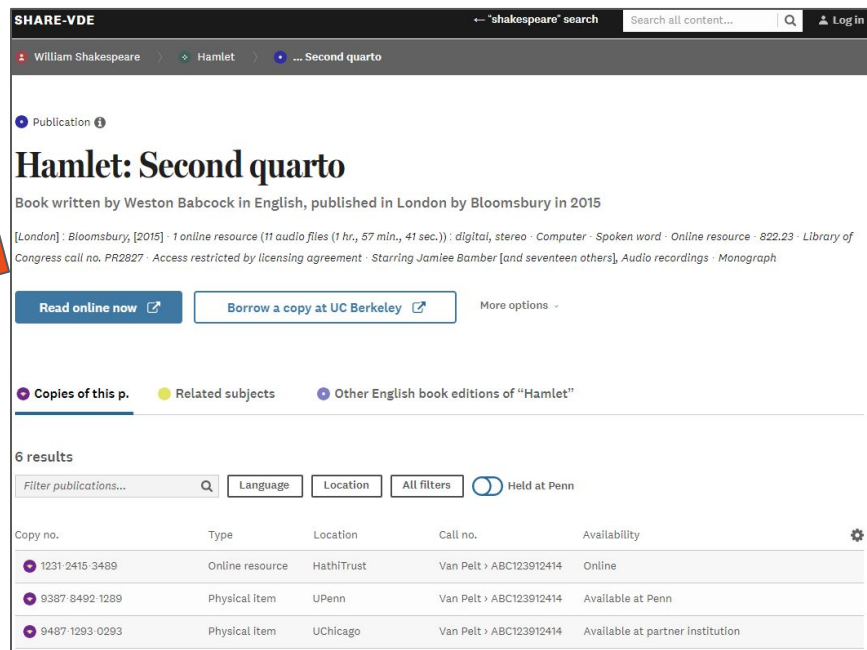


Shared vision

Integration - the end user perspective




Integration is the core of the SVDE platform that aggregates data from multiple libraries to form clusters of entities.



From the end user perspective: the discovery platform has to accurately represent the entity model, but also provide an intuitive experience, seamless navigation and rich resources to the end users. A new, advanced discovery interface is being developed to harness the potential of linked data.

Integration - J.Cricket: the professional perspective



SHARE-VDE Search all content...

Person
William Goulding
British novelist, poet, playwright and Nobel Prize for Literature laureate

Sir William Gerald Goulding, CBE (19 September 1911 – 19 June 1993) was a British novelist, playwright, and poet. Best known for his debut novel *Lord of the Flies* (1954), he would go on to publish another eleven novels in his lifetime. In 1980, he was awarded the Booker Prize for *Rites of Passage*, the first novel in what became his sea trilogy, *To the Ends of ...* — [Wikipedia](#)

More options ▾

Original works by Original works about Related people

Filter... Location Language All filters

Publication title	Contributors	Language	Year
<input type="checkbox"/> Lord of the flies	William Goulding	English	1954
<input checked="" type="checkbox"/> Pincher Martin, 1956 novel.	William Goulding	English	1956
<input checked="" type="checkbox"/> Pincher Martin	William Goulding	English	1956

↕ End of list

Click to add to merge list

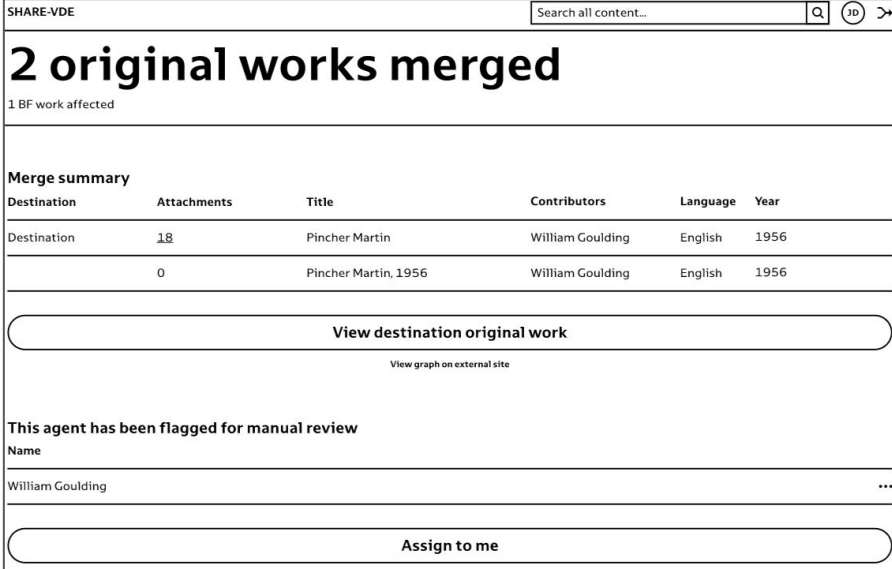
2 original works selected View selected ▾ Deselect all Add relationship Merge Add to my merge list

SVDE is evolving from a discovery platform that converts MARC data of libraries in Linked Open Data to an interactive authoritative source providing real services for libraries. This transition is happening through the editor named J. Cricket, that is the new application dedicated to the editing of SVDE data in a collaborative environment.

Integration - J.Cricket: the professional perspective

The editing tool J.Cricket will allow for editing the SVDE Cluster Knowledge Base, Sapiaientia, enabling several actions on the clusters of entities saved in SVDE database, including creation, modification, merge of clusters of works, of agents etc.

J.Cricket will extend authority capabilities through the integration with external data sources such as Wikidata and ISNI.



SHARE-VDE 🔍 ⓘ ➔

2 original works merged

1 BF work affected

Merge summary

Destination	Attachments	Title	Contributors	Language	Year
Destination	18	Pincher Martin	William Goulding	English	1956
	0	Pincher Martin, 1956	William Goulding	English	1956

[View destination original work](#)

[View graph on external site](#)

This agent has been flagged for manual review

Name

William Goulding ...

[Assign to me](#)

Integration - Wikidata



Wikidata is increasingly authoritative and is used in the library community as a source for entity identification (SVDE property on Wikidata [Share-VDE author ID](#))



Query the source and enrich SVDE data with Wikidata entities information and vice versa → connection with [Casalini participation in the PCC Wikidata pilot](#)



Ad hoc SVDE working group is studying the use cases for interaction (e.g. starting points for the analysis are [API:Main page](#) + [Wikibase/API](#), and other documentation)



Major challenge: alignment between Wikidata and SVDE entities

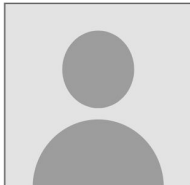
How J.Cricket interacts with Wikidata

← → Edit: "Isaiah Thomas" · Share-VDE

Share-VDE

Isaiah Thomas > Edit



Manual review needed · This cluster was automatically created and is likely in need of manual review [Verify this](#) ×

 Person
Isaiah Thomas

Cluster metadata **Connected external IDs** Actions

Source	ID	Name	Born	Died	Confidence	
OCLC	21X1241	Isaiah Thomas	1989		Manually added by Anna Doe 4 months ago (June 2nd, 2021 at 04:32PM) View log	...
VIAF	15684Y9	Isaiah Thomas	1989		Automatically added on June 2nd, 2021 at 04:32PM based on identical LC authority ID in VIAF and SVDE Validate	...
LC	89Z5663	Isaiah Thomas	1989		Automatically added on June 2nd, 2021 at 04:32PM based on identical LC authority ID in VIAF and SVDE Validate	...
Wikidata	Q55322233	Isaiah Thomas	1773	1819	Automatically added on June 2nd, 2021 at 04:32PM based on identical LC authority ID in VIAF and SVDE Validate	...

SUGGESTION

 **Isaiah Thomas** (or Isaiah Jamar Thomas)
American basketball player · Born 1989 · [Q336030](#) 

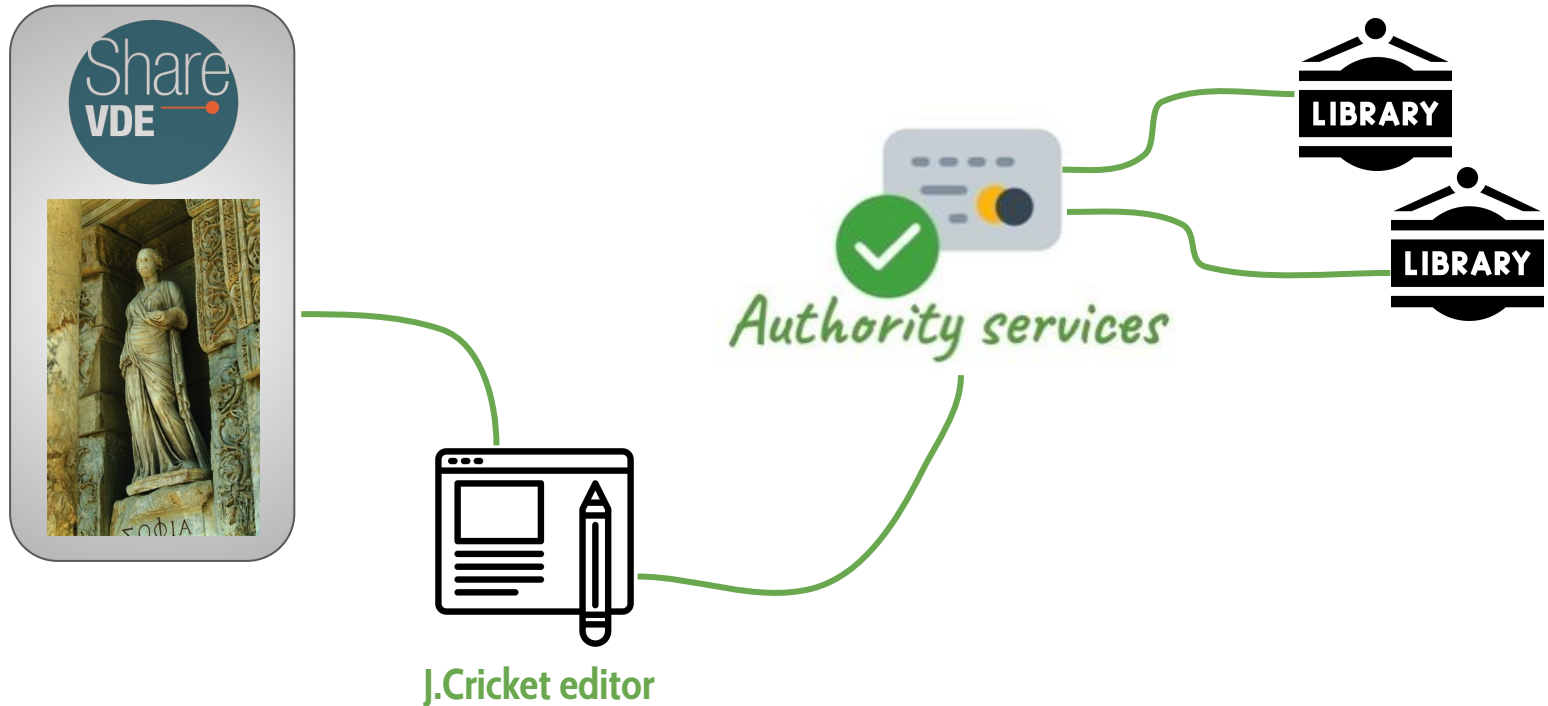
[Add this](#)

[Add another external URI](#)

Integration - the technological perspective



Integration - new Authority services generation



Autonomy - the end user perspective

SVDE localisation for the University of Pennsylvania

The screenshot shows the Penn Libraries Catalog interface for the record of William Shakespeare's Hamlet. The page includes a search bar, user name 'Jane Doe', and navigation breadcrumbs for 'William Shakespeare' and 'Hamlet'. A book cover for 'Tragical Historie of HAMLET, Prince of Denmark' is displayed. The title 'Hamlet' is prominently shown, followed by 'Original Work' and 'Written by William Shakespeare in English'. A descriptive paragraph states: 'The Tragedy of Hamlet, Prince of Denmark, often shortened to Hamlet (/ˈhæmlɪt/), is a tragedy written by William Shakespeare sometime between 1599 and 1602. Set in Denmark, the play depicts Prince Hamlet and his revenge against his...'. Below the text are buttons for 'Read online now', 'Get it now at Van Pelt', and 'More options'. A section for 'Library-held publications of Hamlet' is active, showing 8 results with filters for Availability, Language, and All filters. A table lists the results:

Title	Person name	Language	Location	Availability
Hamlet: Second quarto	Michael Heppell	English	Penn	Available online

Kubikat-LOD project platform

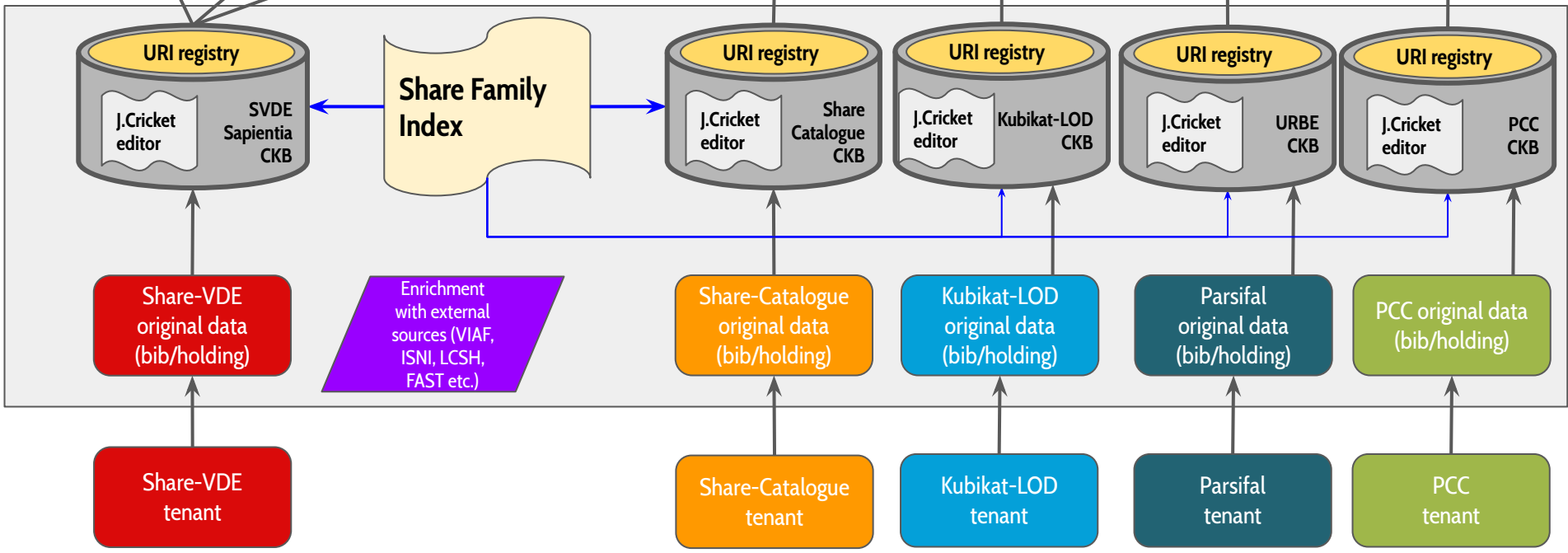
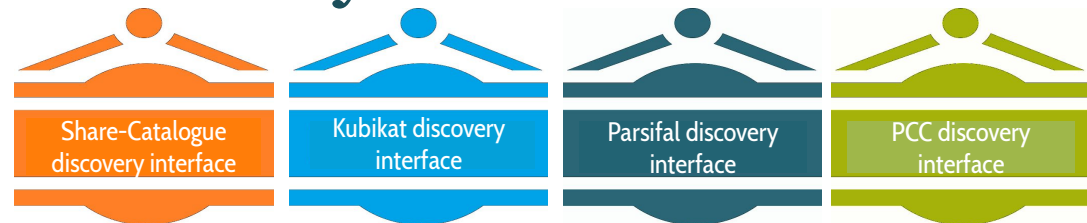
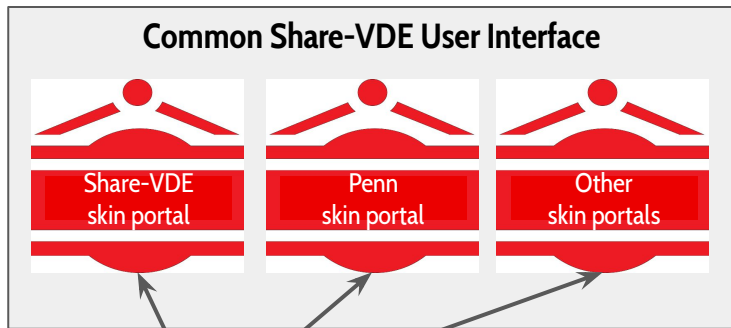
The screenshot shows the Kubikat-LOD project platform interface. The header features the 'Kubikat-LOD' logo and a 'Browse' button. Below the header are search fields for 'Person' and 'Work'. The main content area is titled 'THE KUBIKAT-LOD PROJECT' and contains the following text:

The Kubikat-LOD project is a collaborative venture to unite and connect the resources of the Kubikat union catalogue in a discovery platform based on the BIBFRAME Linked Data model.

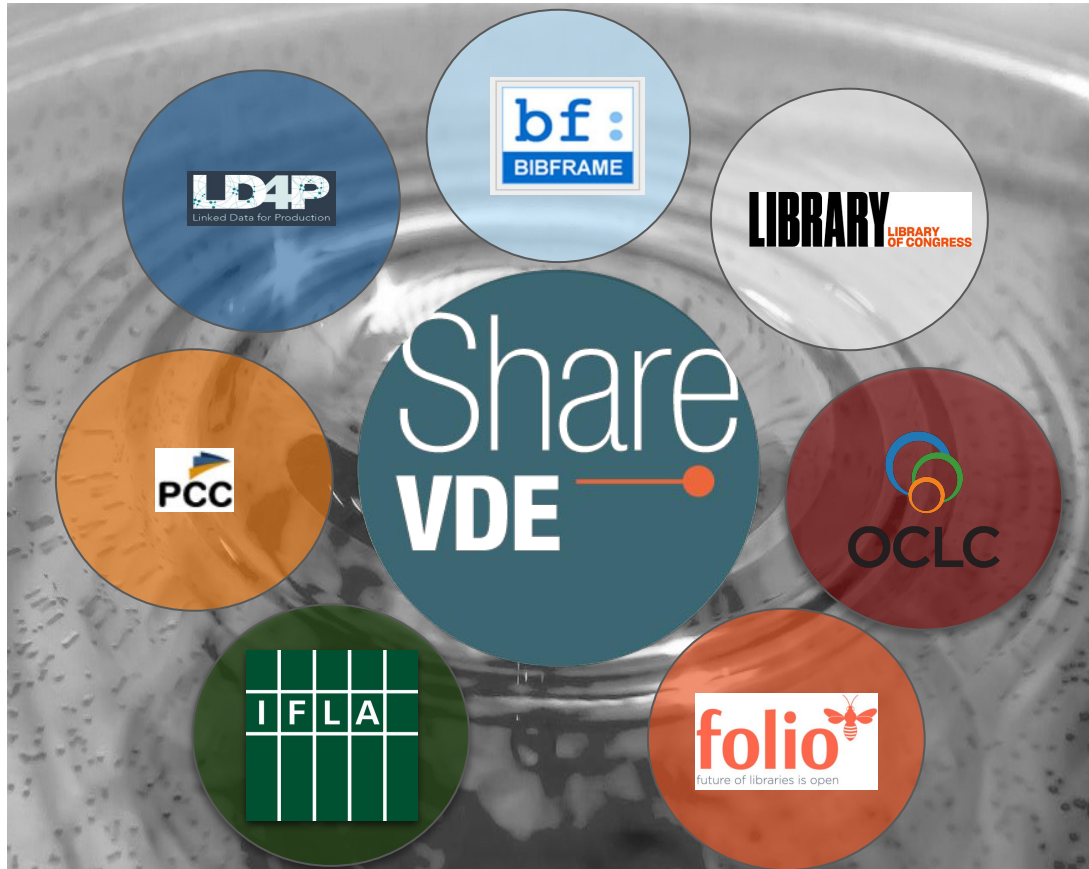
The aim of this initiative is to offer to users of the catalogue - scholars, researchers, students - interoperability, visibility and discoverability for all types of resources, providing a single, shared point of access to the catalogues of the participating institutions through a rich search environment in which bibliographic data is displayed in a structured and comprehensible way. One of the key elements of the project is the identification and reconciliation of entities, which allows the data to be enriched with information from authoritative sources, and form progressively connections among library, museum and archive domains. The catalogue is, for example, enhanced by the Gemeinsame Normdatei (GND) and its data is enriched through integration with numerous external sources.

The current prototype contains bibliographic data held by the Kubikat member libraries updated to February 15th 2019.

Autonomy: Share-VDE tenants



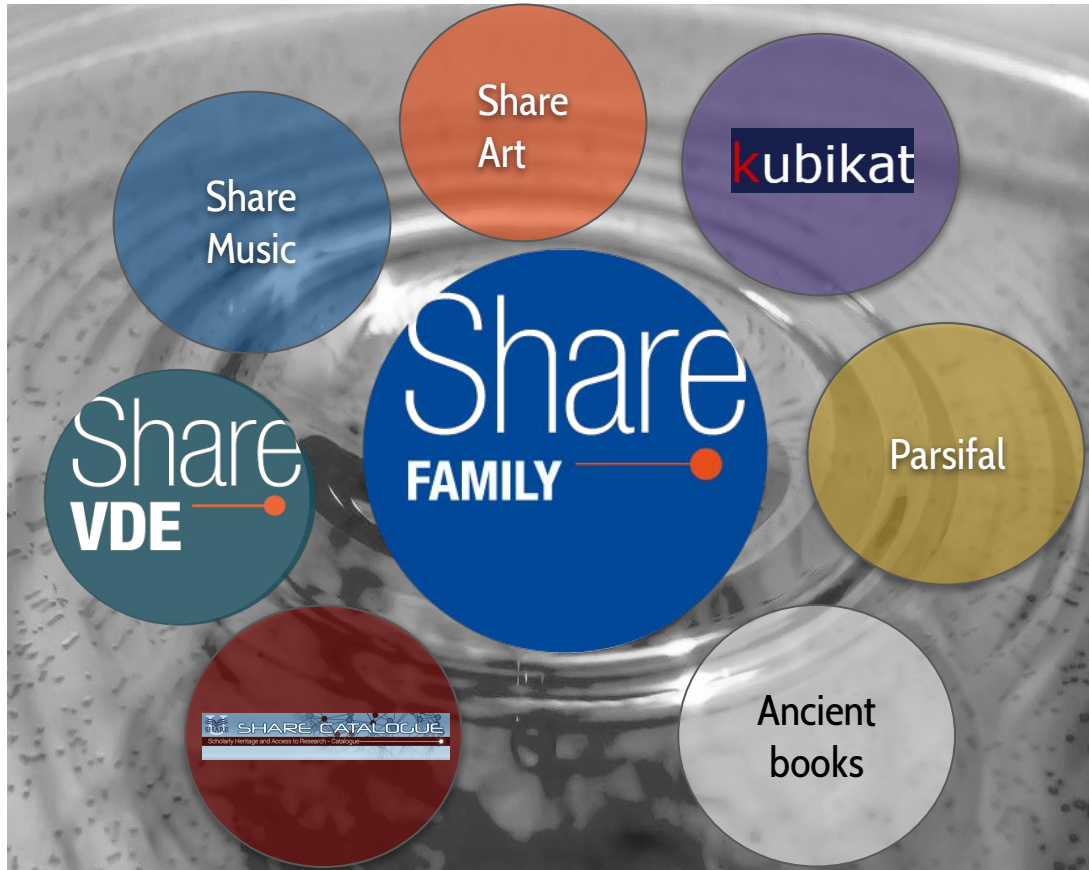
Community engagement: library community



Extended community: collaboration with heterogeneous initiatives and institutions in the library domain

Scientific value: sharing of data and services in different technological environments and diverse bibliographical and cultural context

Community engagement: SVDE sister projects



Homogeneous community: collaboration with projects and institutions applying the Share Family principles and technologies

Scientific value: shared vision whereby each initiative contributes with tools and practices that benefit everyone

Community engagement: World Wide Web



Mixed community:
cross-domain cooperation
across the Web community

Scientific value: same
solutions serve scopes of
different communities, data
reuse

Share-VDE latest achievements



The Share-VDE development team expanded

The **SVDE IT team has been restructured and enlarged** in order to cope with the increasing complexity of the developments, meet the needs of the community and interconnect with several projects. Five main development teams:



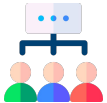
Infrastructure & Architecture



SVDE Backend (Database and Indexing, APIs development)



SVDE Frontend (Frontend components, APIs development, SVDE portal and J.Cricket search functions)



APIs for Penn's localisation and other skin portals

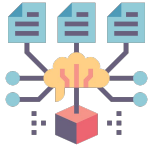


J.Cricket Editing functions

Latest achievements



The **design of the UI** has been **completed and enhanced** by the activities around the J.Cricket Cluster Knowledge Base editor, the requirements for the University of Pennsylvania localisation and for the Kubikat-LOD parallel project



Backend infrastructure rearranged to respond to many layers and complex search logic
→ general revision of the development plans



The **CKB is being enhanced** with new attributes and new controlled vocabularies as a result of the UI design and the revision of the backend infrastructure



Tenant modelling: skins and tenant architecture to assure benefits from cooperation without forgetting the independence of the libraries (e.g. National Bibliography and Kubikat tenants)

Latest achievements



Design of the **J.Cricket** Cluster Knowledge Base Editor with the CKB Editor working group



Analysis of **authority services** with the Authority Identifier Management Services working group **and initial release** of the authority control features delivered to Stanford



Analysis for the **integration with Wikidata** and ISNI in AIMS and CKB working groups



Revision of the **entity model** with the Sapiientia Entity Identification working group:

svde:Opus approved

4 layers in SVDE entity model: svde:Opus | svde:Work | svde:Instance | svde:Item

svde:Opus and svde:Work are types of bf:Work → this ensures **interoperability**

work on **svde:Instance** implementation

Next steps: developing interconnections



LD4P and the PCC



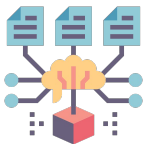
MARC records converted in linked data by SVDE are delivered to Sinopia cataloguing module



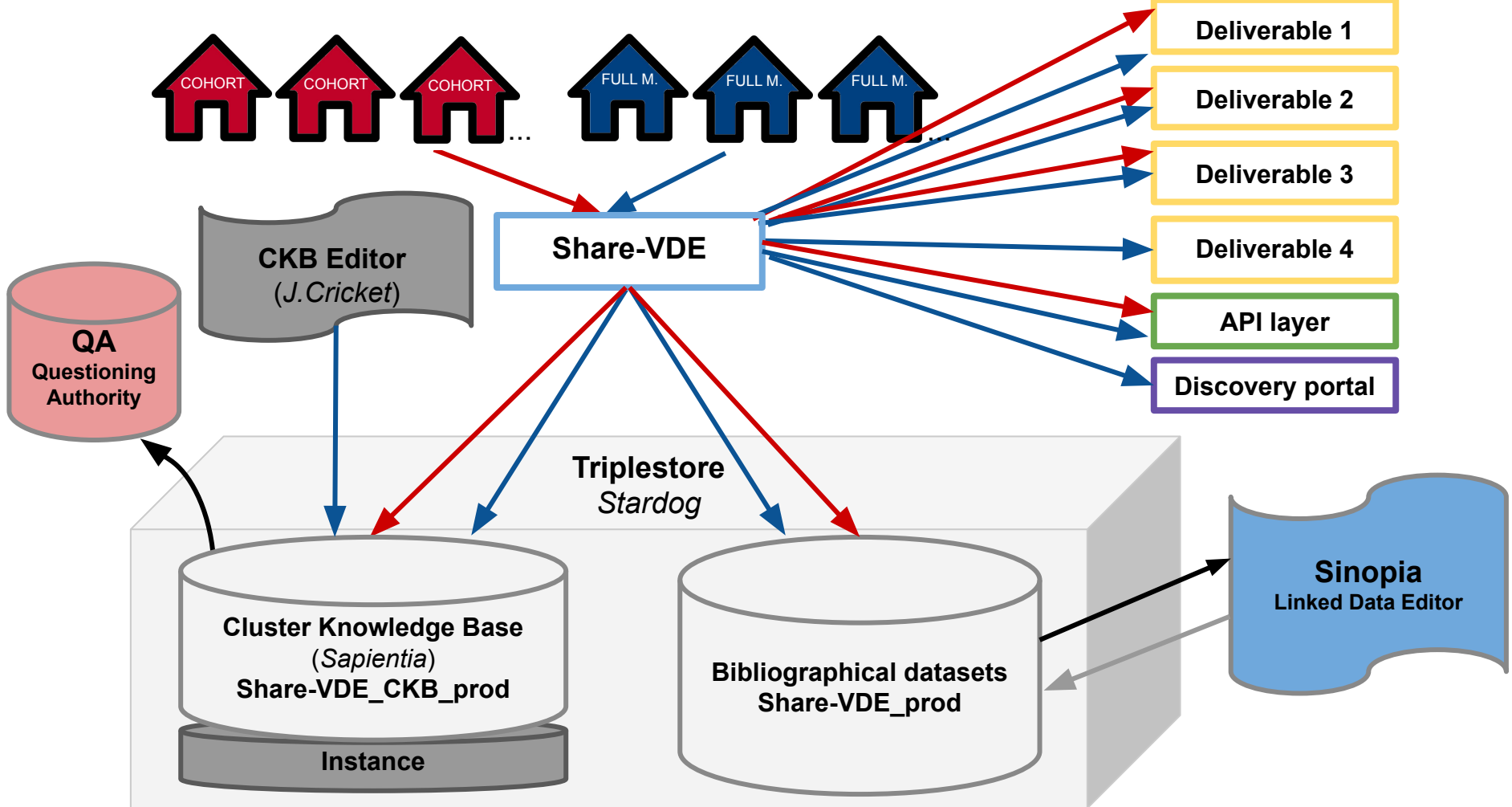
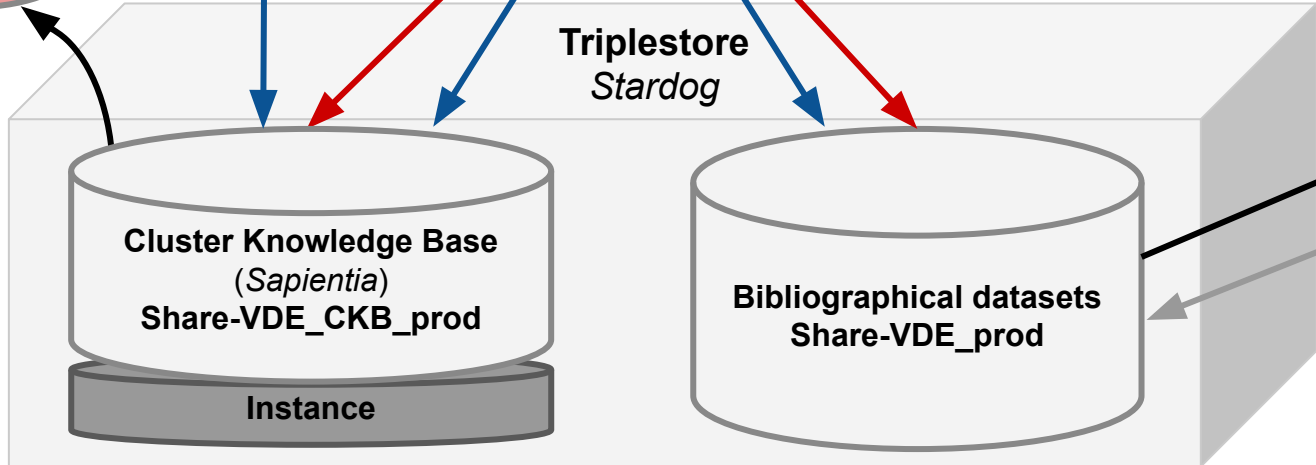
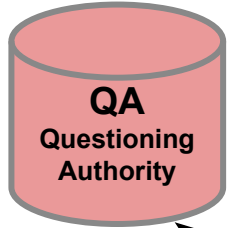
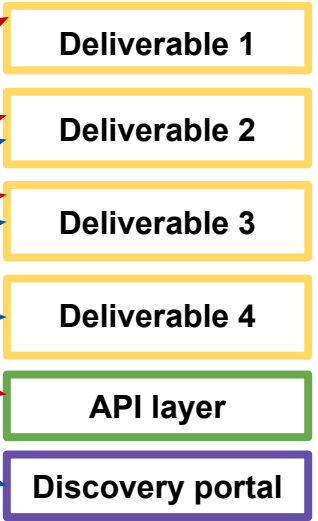
In LD4P3 an API based two-ways flow Sinopia-SVDE will be put in place to optimize interaction and close the loop between the systems



Conversion and housing of PCC data in SVDE in a dedicated data pool

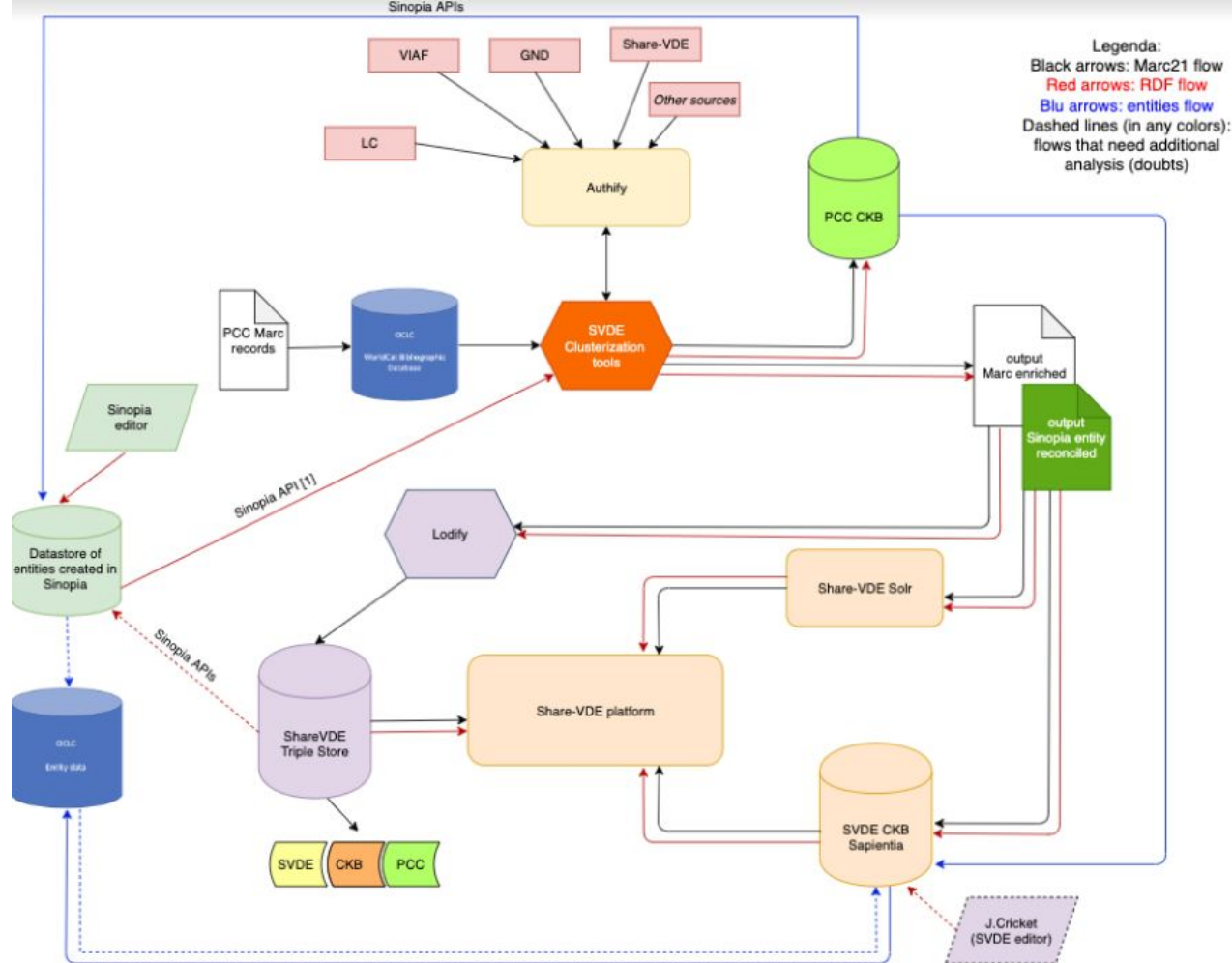


PCC data will be in an autonomous tenant with a dedicated namespace for PCC URIs and enrichment from other sources (URIs from SVDE, LC, GNF, VIAF, Wikidata etc.)



Participation in LD4P3: towards closing the loop

[See the diagram online here](#)

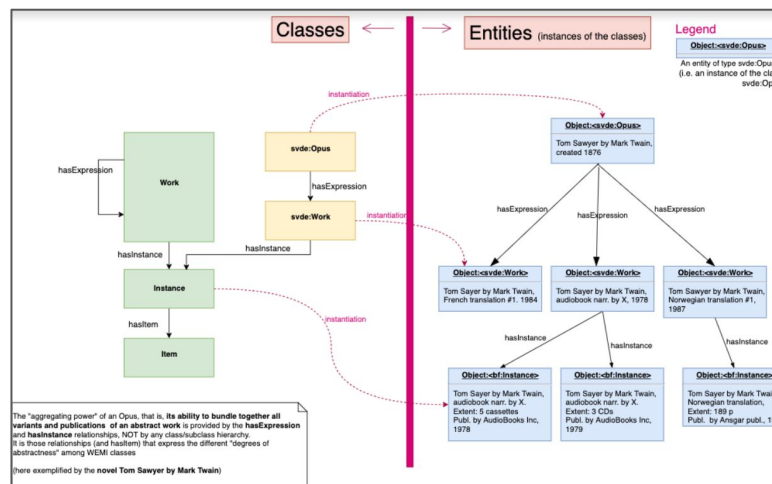
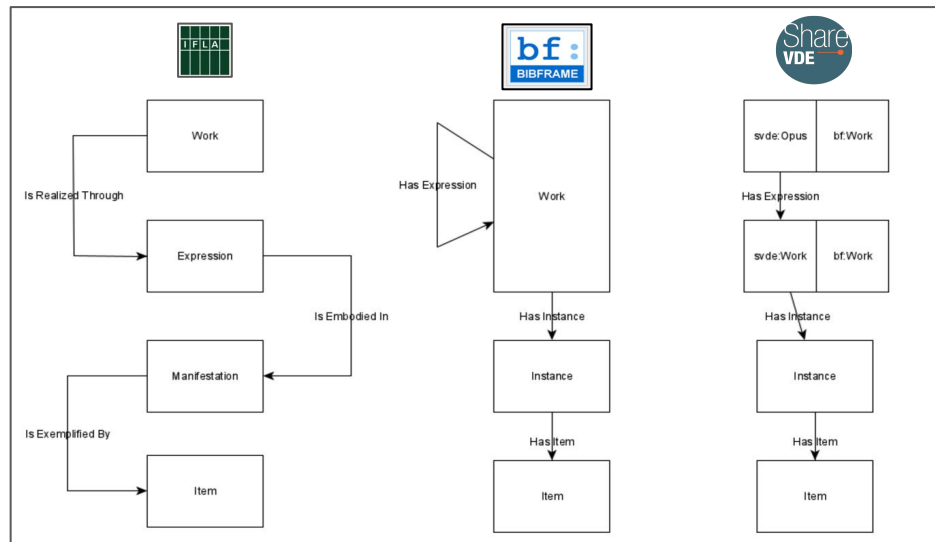


[1] - SVDE queries Sinopia that returns a list of records via API then SVDE would pull the individual records from the API → https://docs.google.com/document/d/1xbS9X8oP7e8tzKb6QlqbsiU_aQAaDnq-82YuzrH_s/edit#



Participation in LD4P3: the challenge of data models interoperability

See the [SVDE entity model](#) compared to [BF](#) and [LRM](#) and an example of application of the model



Integration of Wikidata IDs in SVDE with J.Cricket


← → Connect external IDs · Share-VDE


Share-VDE


Connect to external IDs

Name

OCLC VIAF Wikidata LC GND BNF Other...


 **Isaiah Thomas** (or Isaiah Jamar Thomas)
American basketball player · Born 1989
Q336030 [✎](#)
★ VIAF ID match

 **Isaiah Thomas** (or Isaiah Thomas, Sr. · I. Thomas · I. T. · T. I.)
Massachusetts printer, publisher and journalist · 1749-1831
Q15503493 [✎](#)
✓ Birth place match


 **Isaiah Thomas** (or Isaiah Thomas, Jun. · I. Thomas, Jun.)
(1773-1819) · 1773-1819
Q55322233 [✎](#) Connected

+ Create new wikidata item for "John Doe" [✎](#)

Wikidata item **Q336030** ...

 This Wikidata entity has a potential duplicate on Wikidata [Review for merge](#)

Isaiah Thomas
American basketball player
1954-2017



Sex or gender
Male

Country of citizenship
United States of America

Country for sport
United States of America

Birth name
Isaiah Jamar Thomas (English)

Date of birth
7 February 1989

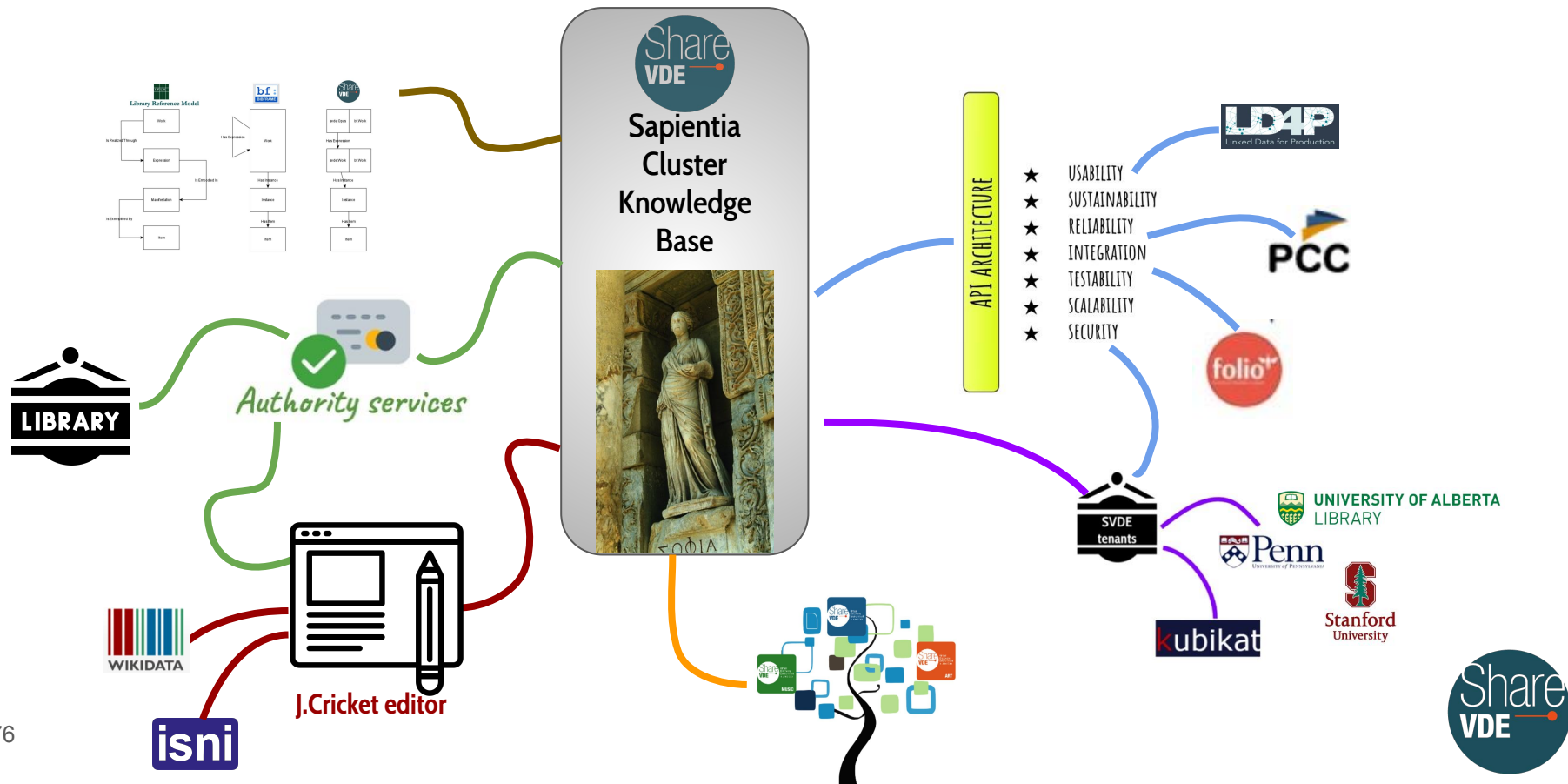
Place of birth
Tacoma

Occupation
Basketball player

Position played on team / speciality
Point guard

Connect to this ID

Towards the Share-VDE Sapientia CKB ecosystem



What comes next

- **API layers** for ILS, external applications and other LD systems (such as BF editors and triplestores);
- **Authority Management** and services;
- **Reporting** to serve library needs;
- **Internationalization** of the Share-VDE environment in relationship with new projects;
- Strategies to make the Share-VDE environment a **trusted source of identifiers** and to facilitate interaction with international initiatives as Wikidata, VIAF, ISNI etc.
- Application of further **Wikidata entity properties**.



November 2022

<https://svde.org>
info@svde.org
<https://wiki.svde.org/>