CLARIN-D

Requirements, Examples & Experiences

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für Bildung
und Forschung

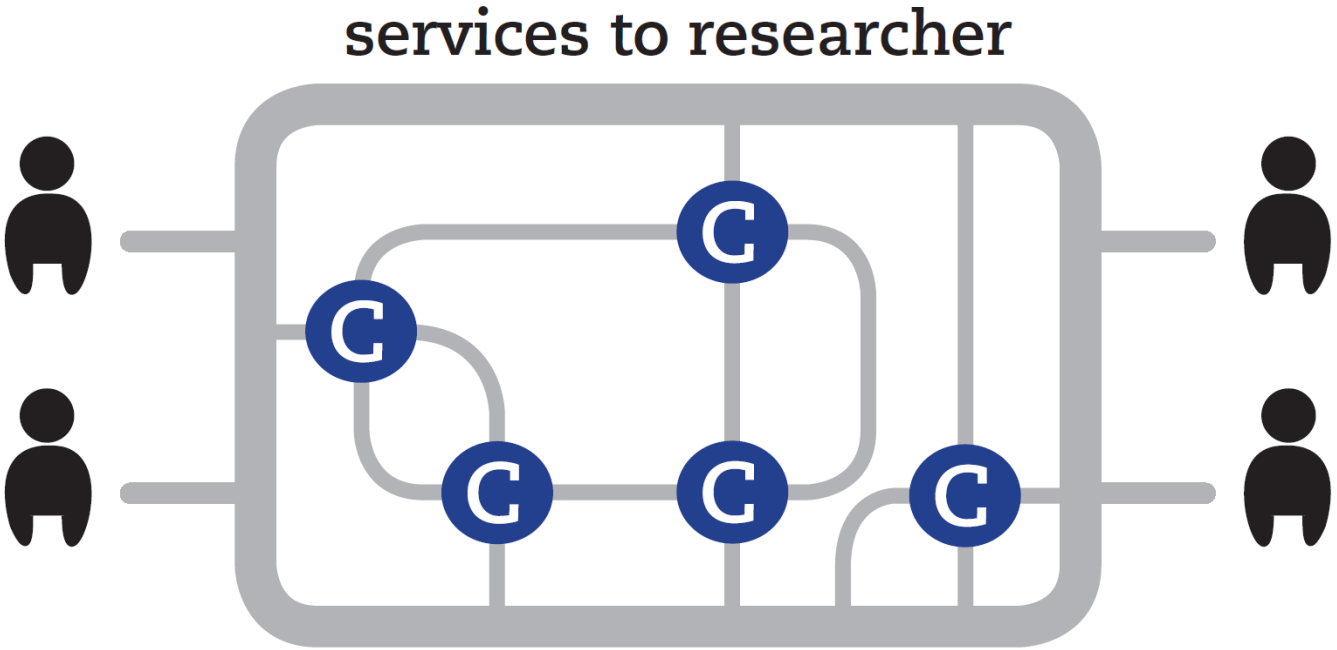
Overview

- CLARIN(-D):
  - A web and centres-based research infrastructure for the social sciences and humanities
  - Aims to provide relevant, useful data and tools in an integrated, interoperable and scalable way
  - Infrastructure is built in close collaboration with expert scholars in the humanities and social sciences, to ensure that it meets the needs of users in a systematic and easily accessible way

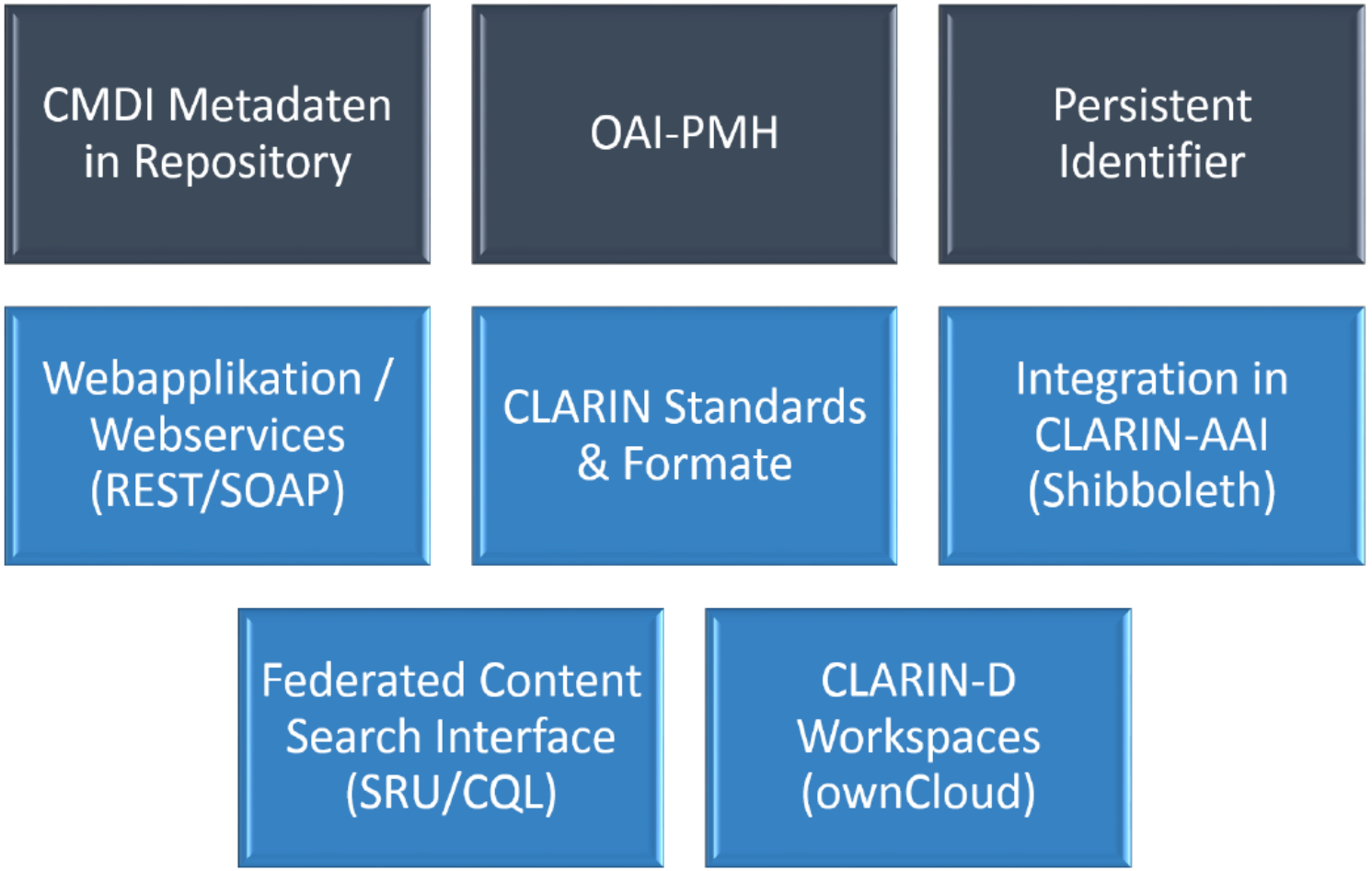
Requirements

Architecture

- Not one monolithic setup
- But using a well-working paradigm (think of the Internet): distributed architecture



Requirements or „means to get there“



Component MetaData Infrastructure

CLARIN-D

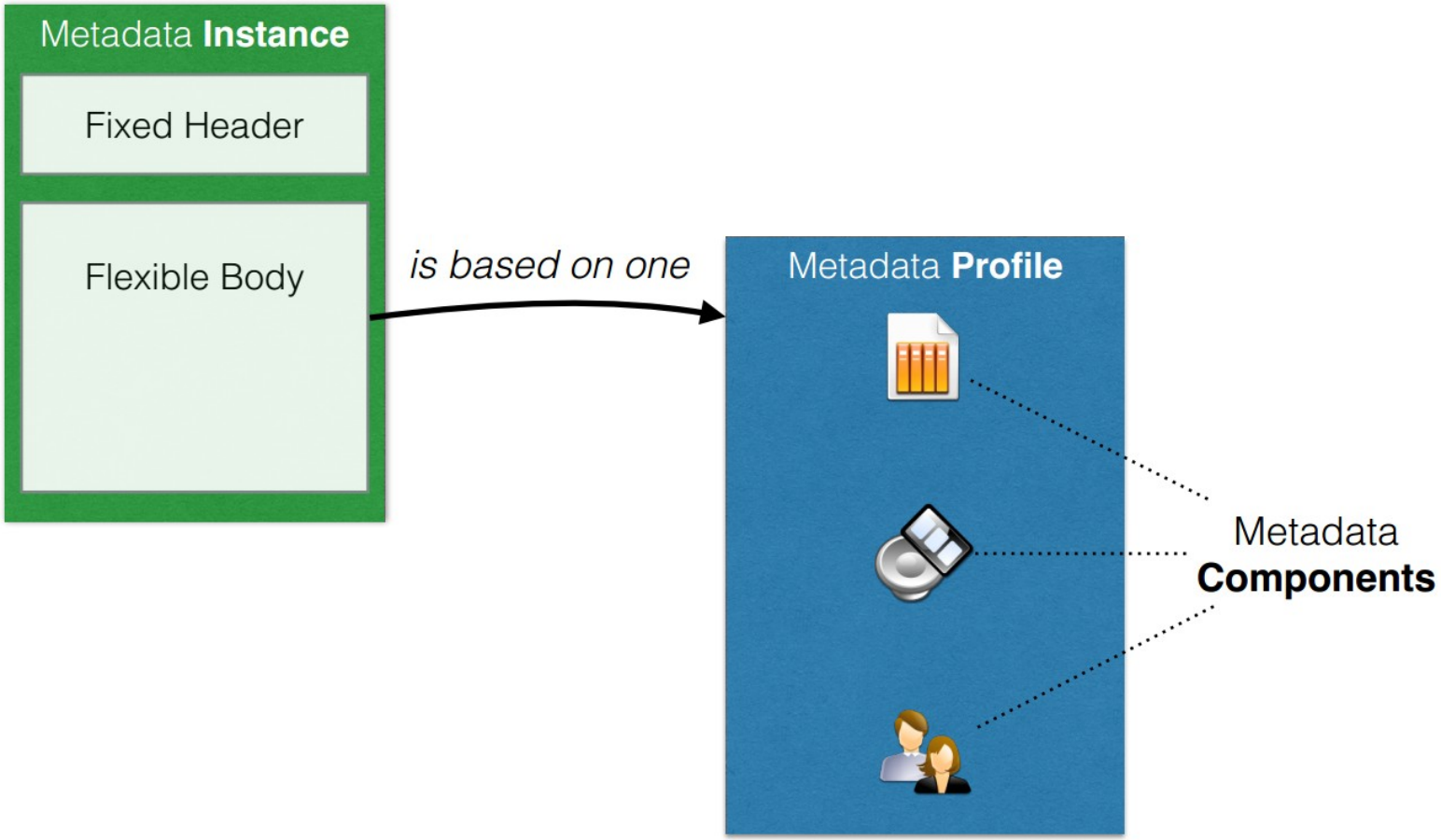
CLARIN chose for a component approach: CMDI

- NOT a single new metadata schema
- ...but rather allow coexistence of many controlled schemas
- ...with explicit semantics for interoperability
- Profiles for describing resources of the same type
- Reuse via components

How does it work?

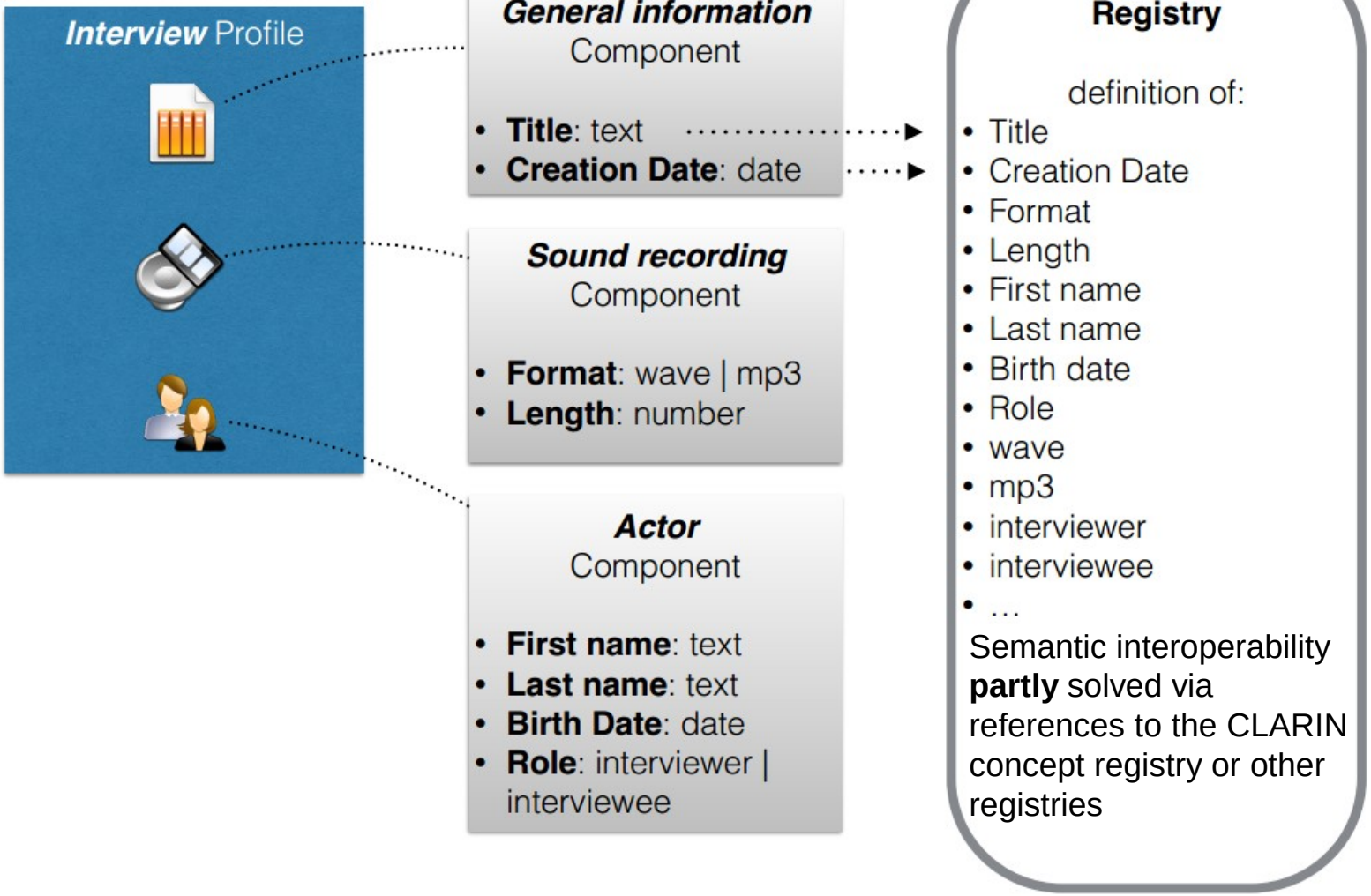
- Components are bundles of related metadata elements that describe an aspect of the resource
- A complete description of a resource may require several components
- Components may contain other components
- Components should be designed for reusability

Component Reuse



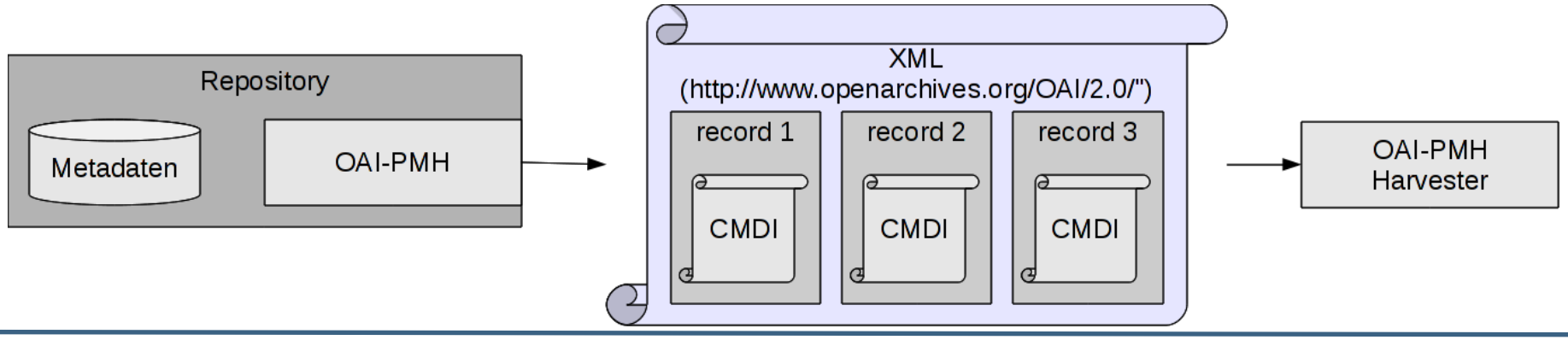
Reuse of existing profiles & components is recommended

Explicit Semantics

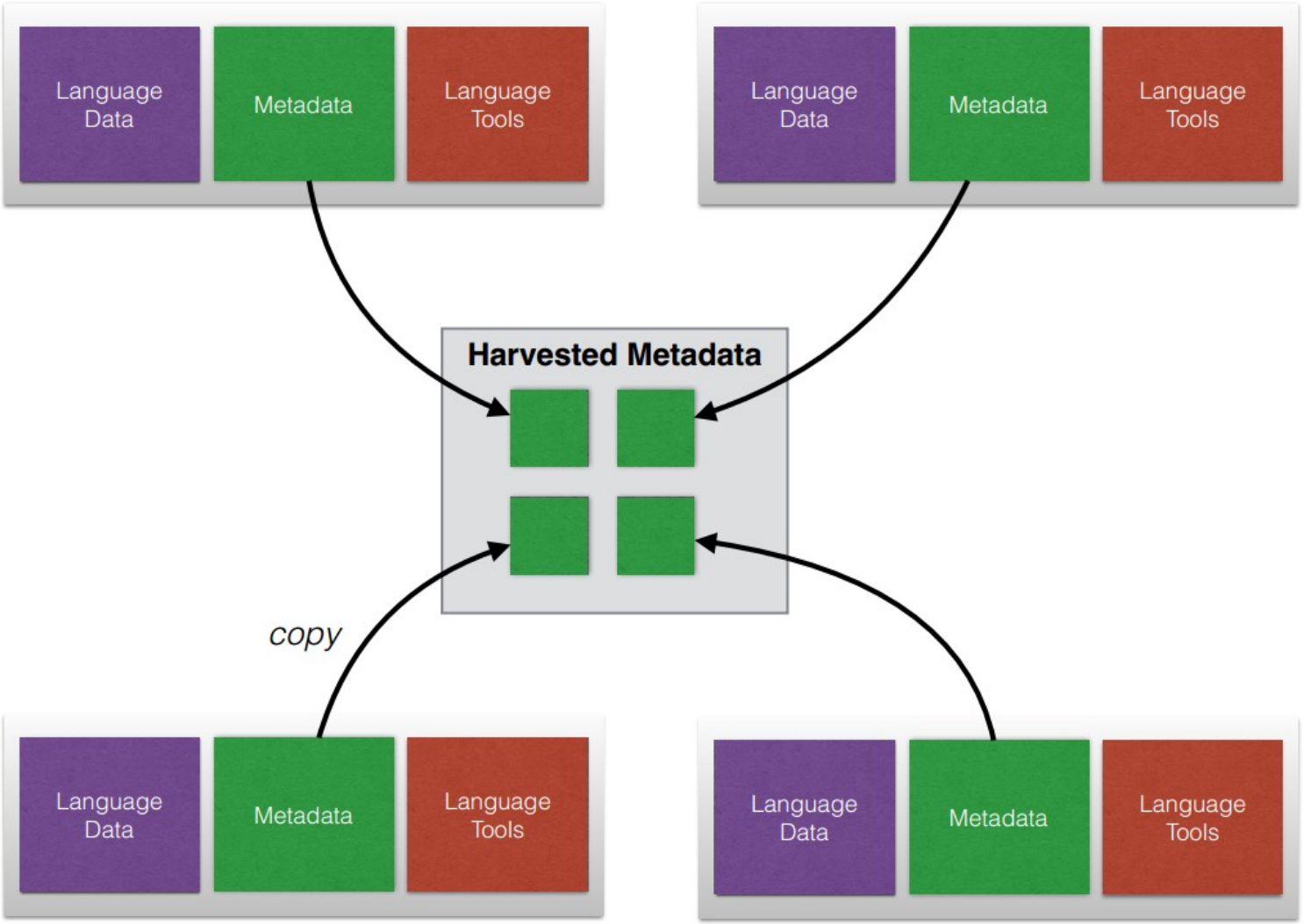


OAI-PMH

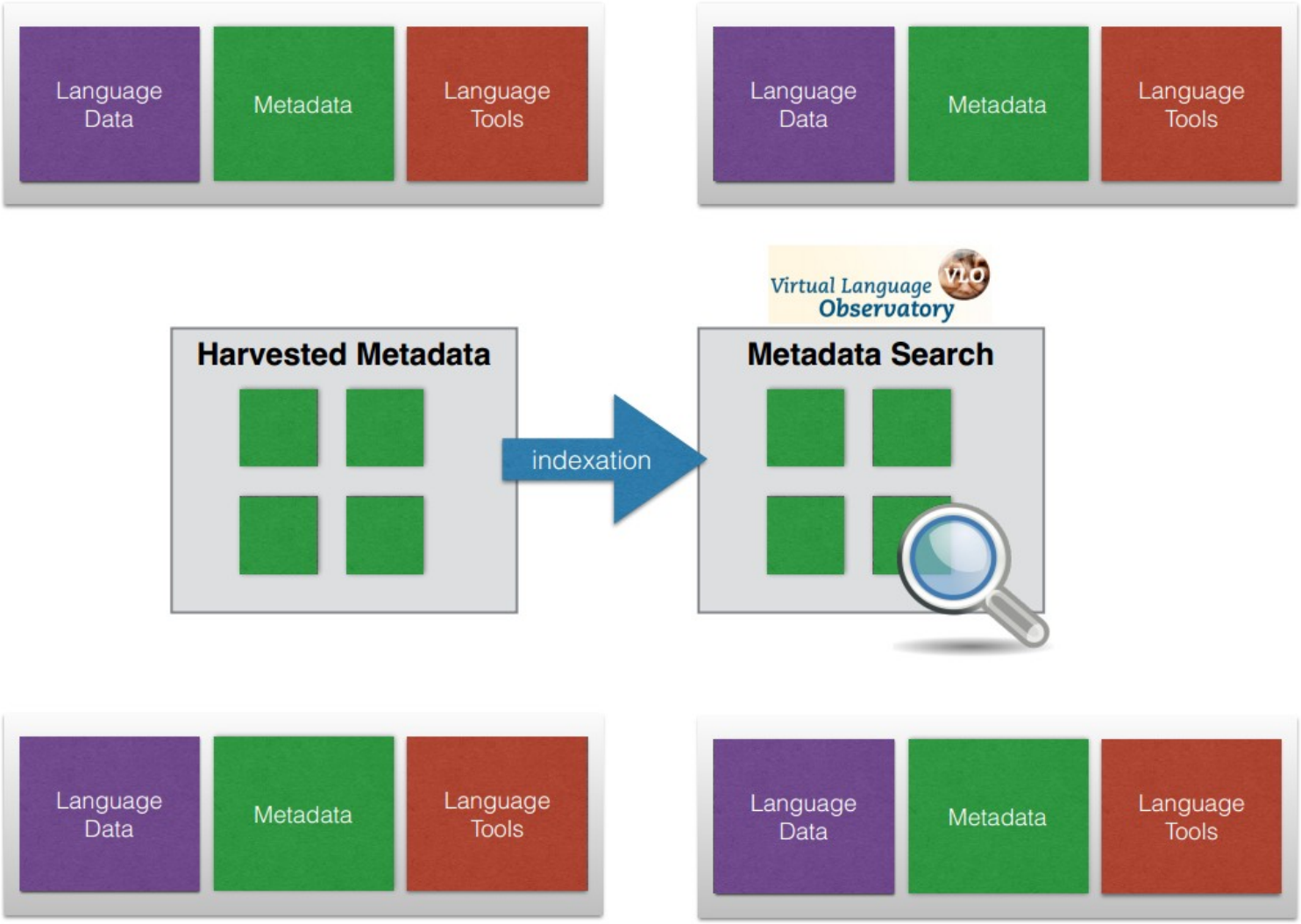
- OAI-PMH – **O**pen **A**rchives **I**nitiative **P**rotocol for **M**etadata **H**arvesting
  - typically: Access datasets at data provider (e.g.: metadata for books, …)
  - CLARIN: simple access to all metadata stored at the repositories (CMDI-format)
  - Based on HTTP/REST and XML
  - OAI-PMH Harvester: Collects Metadata of all CLARIN-centres
  - Example: Which datasets in CMDI-format have been addes since 01.03.2014 (last visit)?



Harvesting (1)



Harvesting (2)



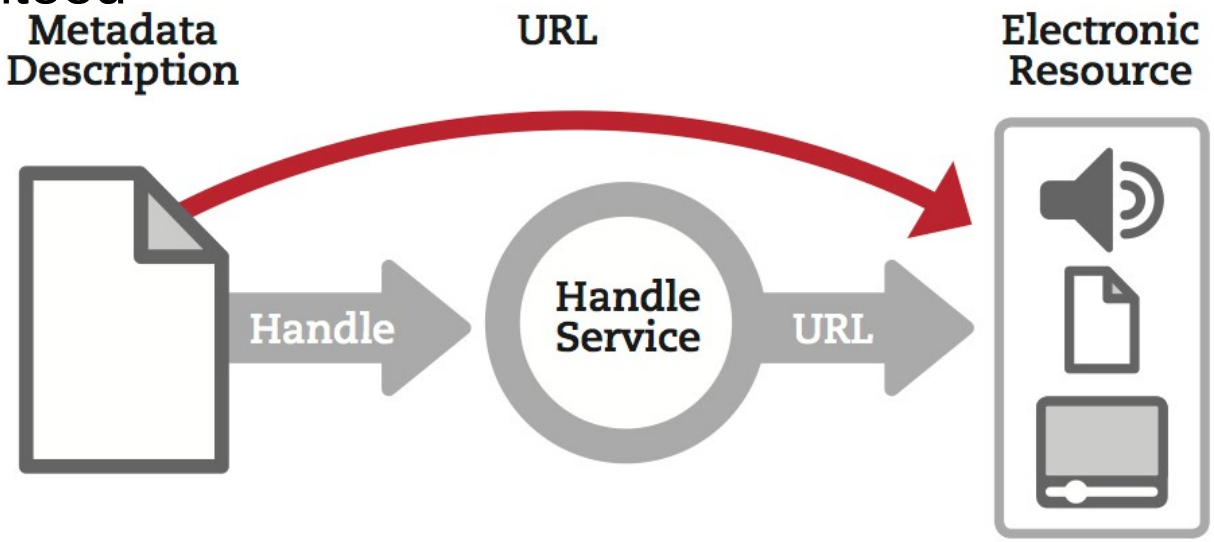
Persistant IDentifiers in CLARIN-D

Why?

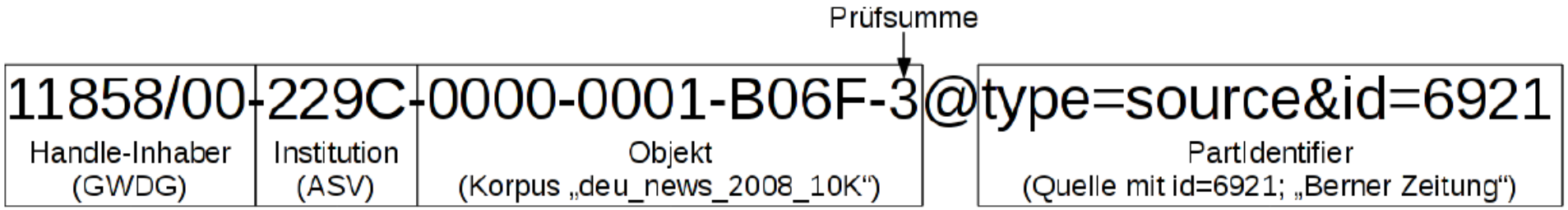
- To ensure the stability of scientific citations of language resources and the associated metadata descriptions

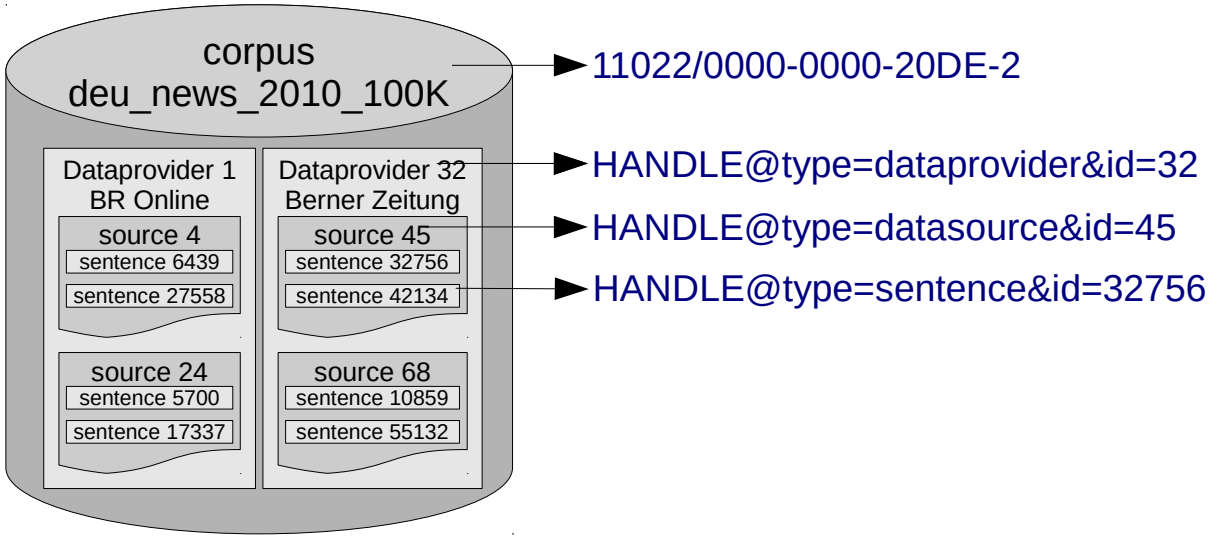
How?

- By adding a level of indirection when resolving an identifier towards a URL, the long-term stability of the references can be guaranteed



Persistent Identifier





Webservices & Webapps

- Access via Webapplications and/or Webservices
- REST-webservices (also SOAP)
- Retrieval of data & access to tools

- optional: Accessibility via WebLicht (webapp)
  - REST
  - TCF-format (XML-TEI in preparation)
  - CMDI metadata (specification of input & output)

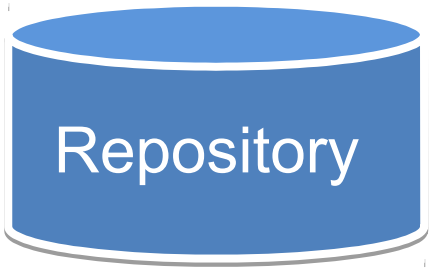
  → chaining of webservices (primarily annotation)

Standards & Formats

- Recommendation: Usage of well established standards
- Conversion, semi-automatic integration, ...

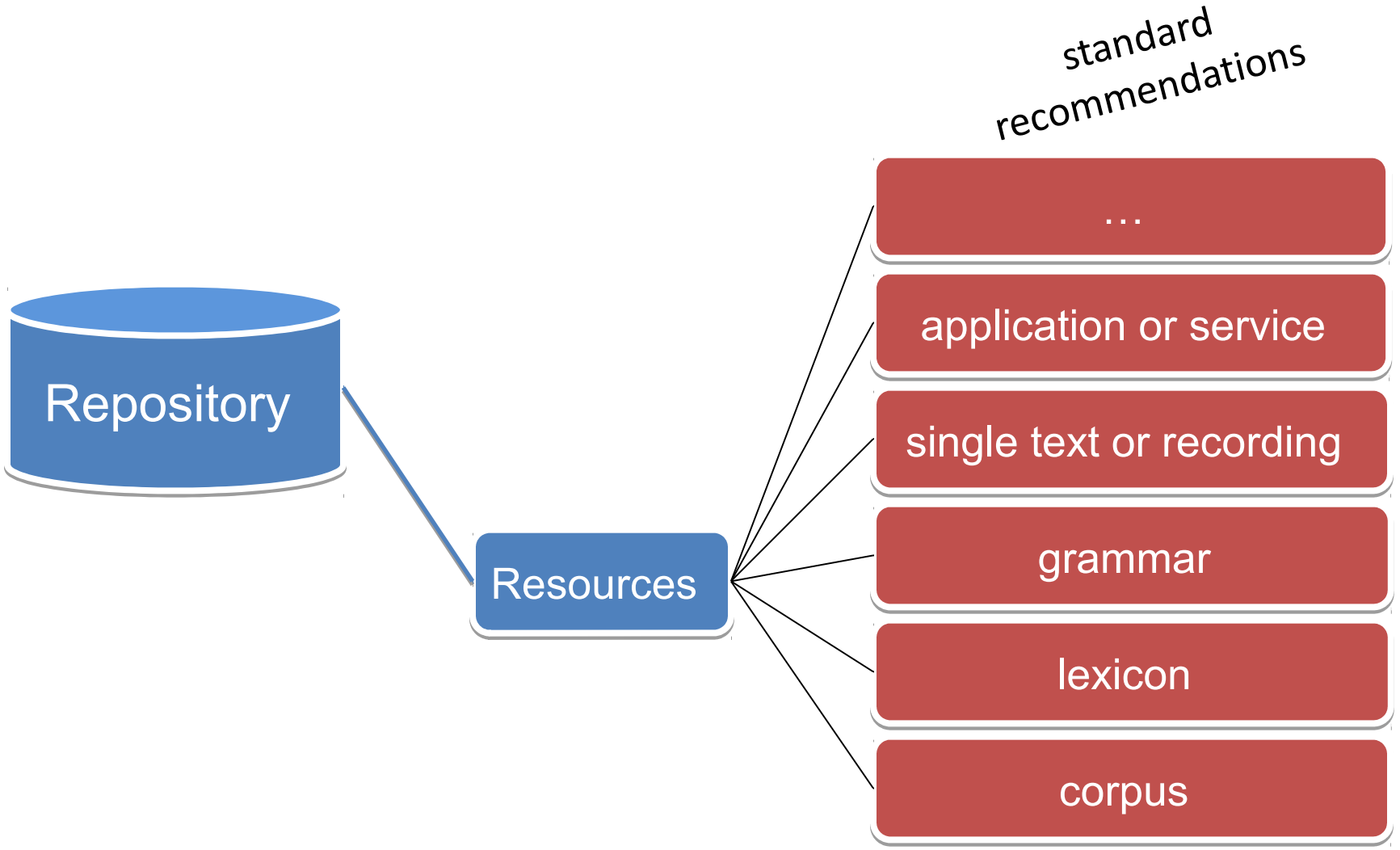
Abbreviation/Name	Topic(s)	Standard body	CLARIN Center(s)
CES	Generic Corpus Annotation	EAGLES	
CHAT	File Formats | Transcription	Other	
CMDI	Metadata	ISO	BAS, CLARIN-PL, IDS, TLA, UC
Controlled Vocabulary	Controlled Vocabulary | Knowledge Representation | Thesaurus	NISO	CLARIN-PL, TLA
CQLF	Query	ISO	IDS
DCAM	Metadata	DCMI	
DCMES	Metadata	DCMI	TLA
DCR	Data Categorization	ISO	CLARIN-PL, IDS, TLA
DiAML	Markup Language | Semantic Annotation	ISO	

Standards & Formats



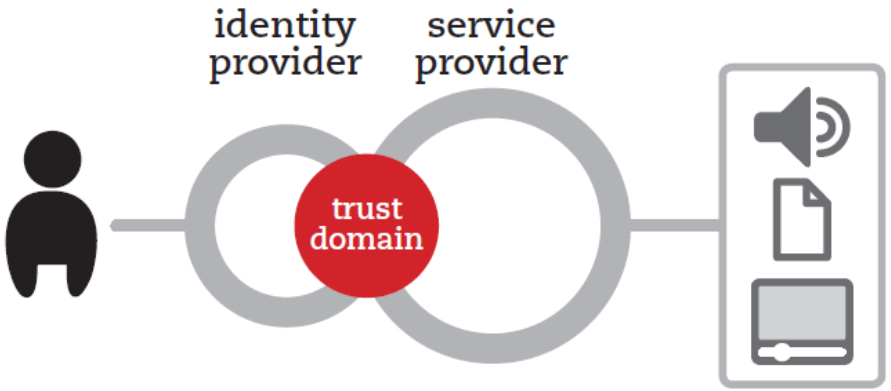
Repository = sustainable store at a CLARIN center that can be accessed via the internet

Standards & Formats



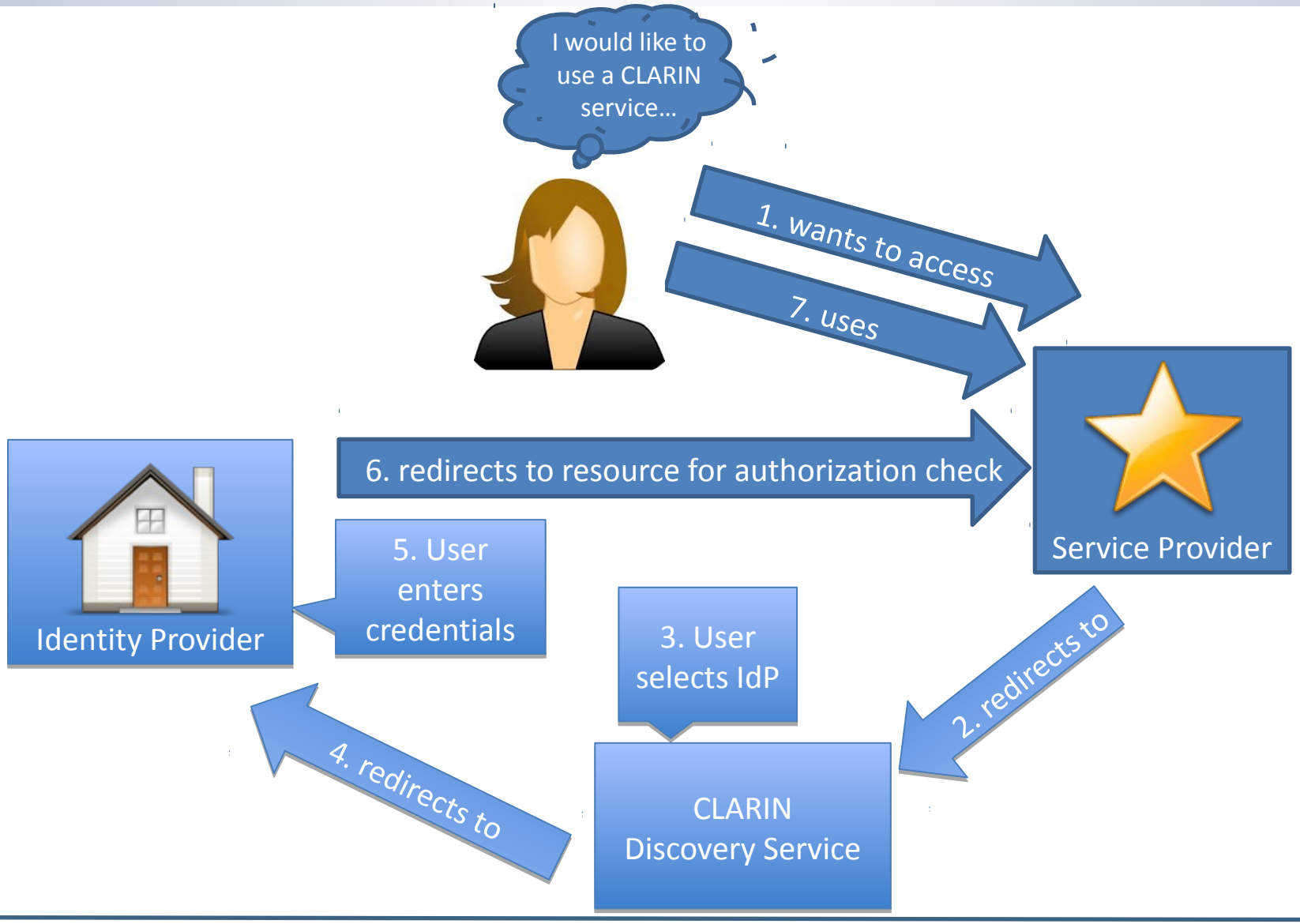
CLARIN AAI

- Use your own (institutional) login to access password-protected resources → Single Sign On
- Trust domain (service provider, identity provider)
- Decentralized user management
- Requirement for B centers



- Available Services:
  - Service Provider Federation
  - CLARIN Identity Provider
  - Easy-to-use discovery service

CLARIN AAI


I would like to use a CLARIN service…
1. wants to access
7. uses
Service Provider
6. redirects to resource for authorization check
Identity Provider
5. User enters credentials
3. User selects IdP
2. redirects to
4. redirects to
CLARIN Discovery Service

WEBLICHT

User

Getting Started

Use Cases and Examples

User Manual

FAQ

Developer

Developer Manual

Associated Applications

WebLicht

Annotation Viewer

TViewer

TüNDRA - the Tübingen aNnotated Data Retrieval Application

FCS Aggregator

CiNaViz - Visualization of European City Names

Personal tools

Wiki login

Main Page

Welcome to WebLicht!

WebLicht is an execution environment for automatic annotation of text corpora. Linguistic tools such as tokenizers, be combined by the user into custom processing chains. The resulting annotations can then be visualized in an appro

Many of the tools incorporated into WebLicht have existed as command-line or desktop tools for many years and are for use with WebLicht. By making these tools available on the web and by use of a common data format for storing th

It is often the case that a tool relies on one or more annotation layers to exist in the input data before it can begin pr which tools are able to operate on the data at any given point and offering only those tools as options to add to the ch

Development of WebLicht started in October 2008 as part of the D-SPIN project, the predecessor project of CLAR CLARIN-D, aiming to make WebLicht a fully-functional virtual research environment.

Tools

Tools and processing tasks are described in more detail in the User Manual under Tools in Detail.

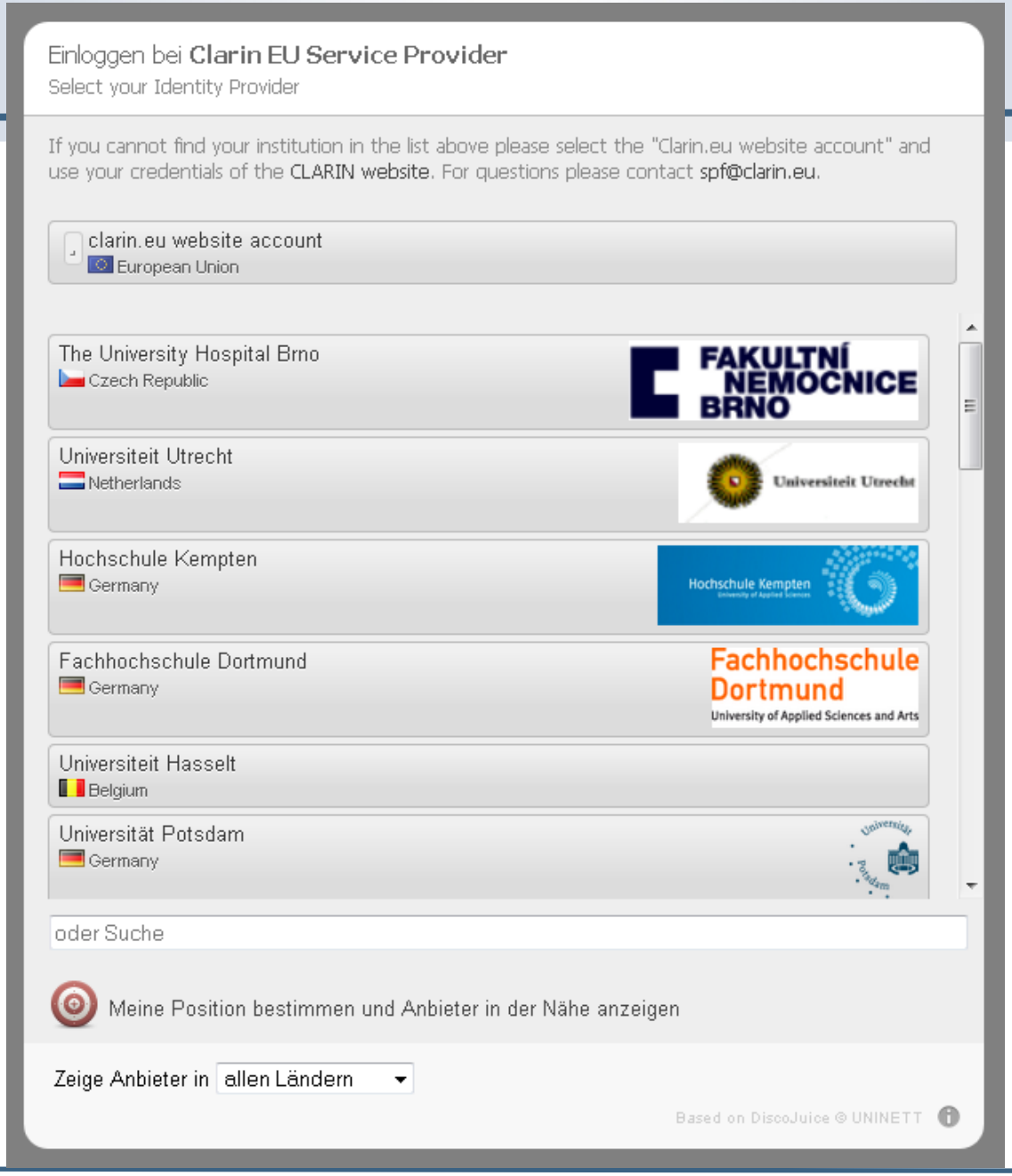
Try It Out!

If you have an account in the CLARIN Service Provider Federation (for example a DFN-AAI account, provided by many

The user interface has been upgraded to include more help and documentation, and also includes a new "Easy Mode

Currently "Easy Mode" is available for German text only, but other languages will be added soon.

Start WebLicht


Einloggen bei Clarin EU Service Provider
Select your Identity Provider
If you cannot find your institution in the list above please select the "Clarin.eu website account" and use your credentials of the CLARIN website. For questions please contact spf@clarin.eu.
clarin.eu website account
European Union
The University Hospital Brno
Czech Republic
FAKULTNÍ NEMOCNICE BRNO
Universiteit Utrecht
Netherlands
Universiteit Utrecht
Hochschule Kempten
Germany
Hochschule Kempten
Fachhochschule Dortmund
Germany
Fachhochschule Dortmund
University of Applied Sciences and Arts
Universiteit Hasselt
Belgium
Universität Potsdam
Germany
oder Suche
Meine Position bestimmen und Anbieter in der Nähe anzeigen
Zeige Anbieter in
allen Ländern
Based on DiscoJuice © UNINETT

CLARIN AAI

CLARIN-D

CLARIN ERIC

Common Language Resources and Technology Infrastructure

CLARIN EU website Identity Provider.

You are now trying to access https://sp.catalog.clarin.eu

Please login using **your e-mail address** by which you are subscribed to the CLARIN website and the corresponding password.
In case of problems please contact webmaster@clarin.eu.

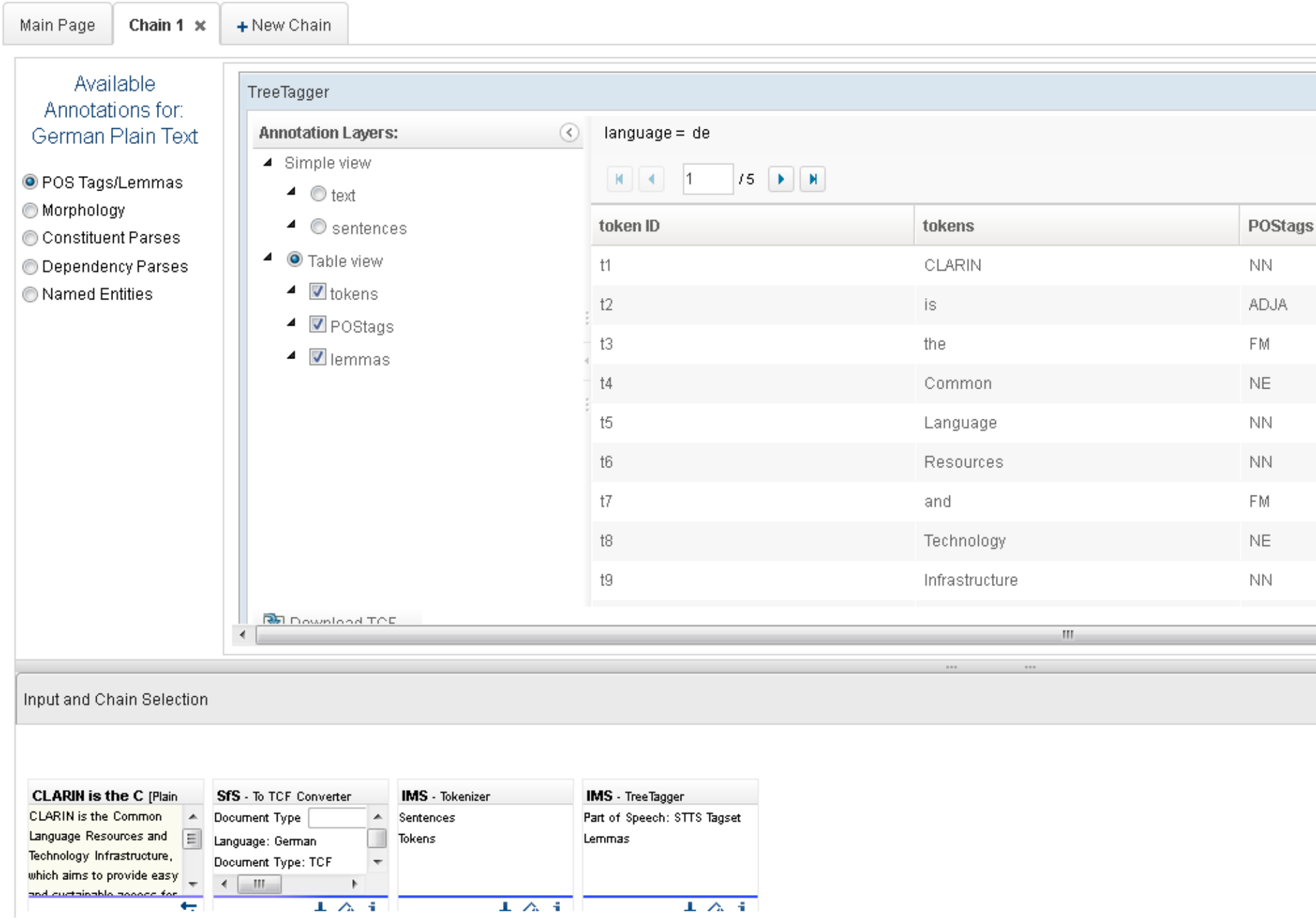
Email: dgoldhahn@informatik

Password:

Login

CLARIN AAI


Main Page
+ New Chain
WebLicht
Welcome to WebLicht
WebLicht consists of a collection of web-based linguistic annotation tools, distributed repositories for storing and retrieving information about the tools, and this web application, which allows you to easily create and execute tool chains without downloading or installing any software on your local computer.
This application and its associated tools are continually being updated and improved.
For more information, visit our websites at WebLicht, CLARIN-D, and CLARIN.
What's New
There are 2 modes for building tool chains:
Easy Mode lets you choose pre-defined processing chains
Advanced Mode allows you to build customized tool chains.
In this version, the input selection/upload process was made more intuitive.
Getting Started
Click on the "+ New Chain" tab at the top left of this page or click on the "Start" button below:
Start >>

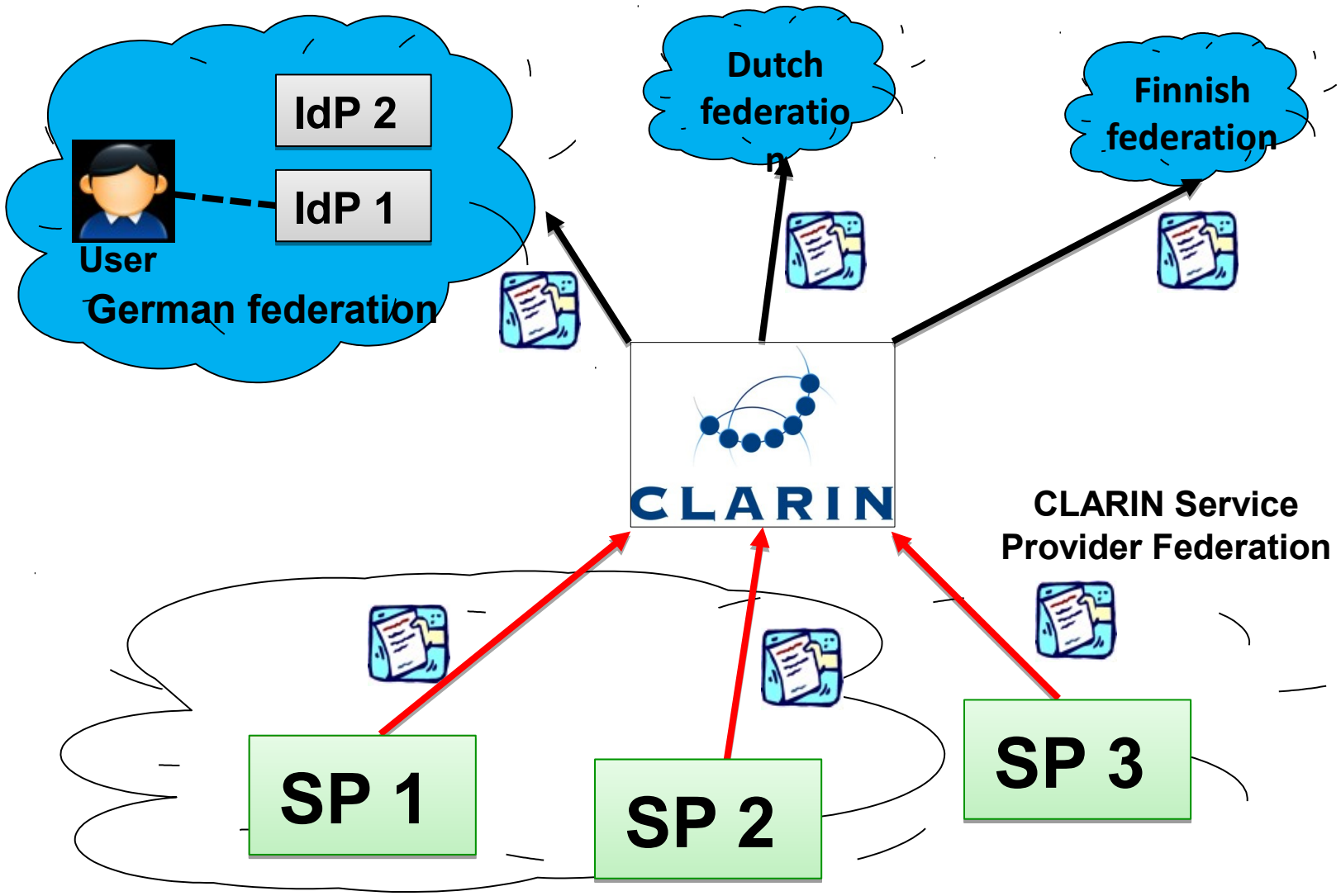

Main Page
Chain 1
+ New Chain
Available Annotations for: German Plain Text
POS Tags/Lemmas
Morphology
Constituent Parses
Dependency Parses
Named Entities
TreeTagger
Annotation Layers:
Simple view
text
sentences
Table view
tokens
POStags
lemmas
language = de
1
/ 5
token ID
tokens
POStags
t1 CLARIN NN
t2 is ADJA
t3 the FM
t4 Common NE
t5 Language NN
t6 Resources NN
t7 and FM
t8 Technology NE
t9 Infrastructure NN
Download TCF
Input and Chain Selection
CLARIN is the C [Plain
CLARIN is the Common Language Resources and Technology Infrastructure, which aims to provide easy
SfS - To TCF Converter
Document Type
Language: German
Document Type: TCF
IMS - Tokenizer
Sentences
Tokens
IMS - TreeTagger
Part of Speech: STTS Tagset
Lemmas

Challenges: Identity Federations

- Member countries without identity federation (e.g. Bulgaria, Lithuania)
- Institutions without identity provider (e.g. Hamburg university)
- Lacking attribute release

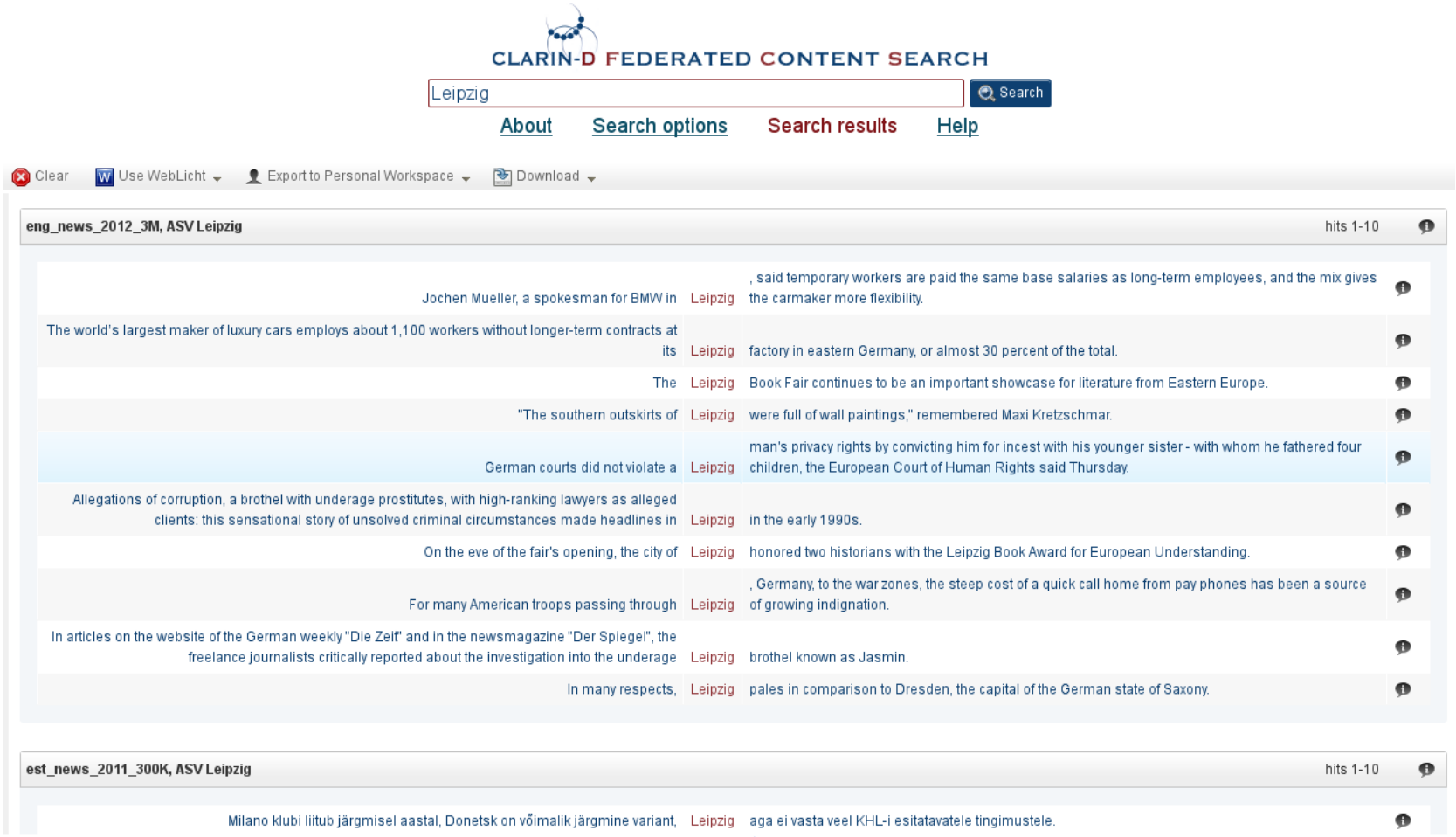
→ CLARIN IdP: fallback-system to log in to CLARIN SPs

Service Provider Federation



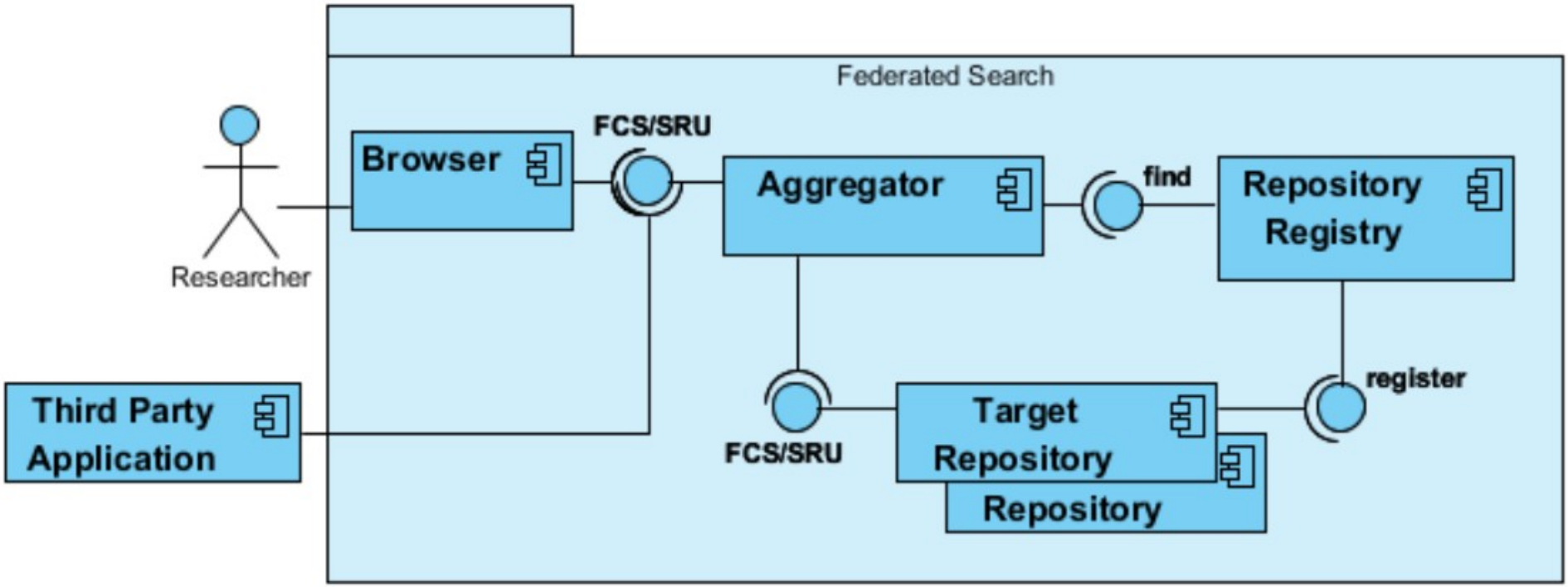
Federated Content Search

- FCS – **F**ederated **C**ontent **S**earch



Federated Content Search

- Based on SRU/CQL (Search/Retrieve via URL + Contextual Query Language)
- Querying of content from multiple sources using a standardized interface



Personal Workspaces

A *Personal Workspace* in CLARIN-D consists of online storage for individual users, which can be accessed via a programming API by CLARIN-D applications.

So you can e.g.:

- Save search results of the Federated Content Search
- Import data into WebLicht web services and save results of your processing

OwnCloud was deemed best suited for use as the basis software for implementing personal workspaces in CLARIN-D.

Personal Workspaces

- Data exchange between different applications