CLARIN
Common Language Resources and Technology Infrastructure

CLARIN-CH

CLARIN AND ITS SWISS NODE CLARIN-CH: SUPPORTING RESEARCH BASED ON LANGUAGE RESOURCES

INFORMATION SESSION

CRISTINA GRISOT, CLARIN-CH SCIENTIFIC COORDINATOR

UNIVERSITY OF FRIBOURG, 31 MARCH 2023

CLARIN
Common Language Resources and Technology Infrastructure

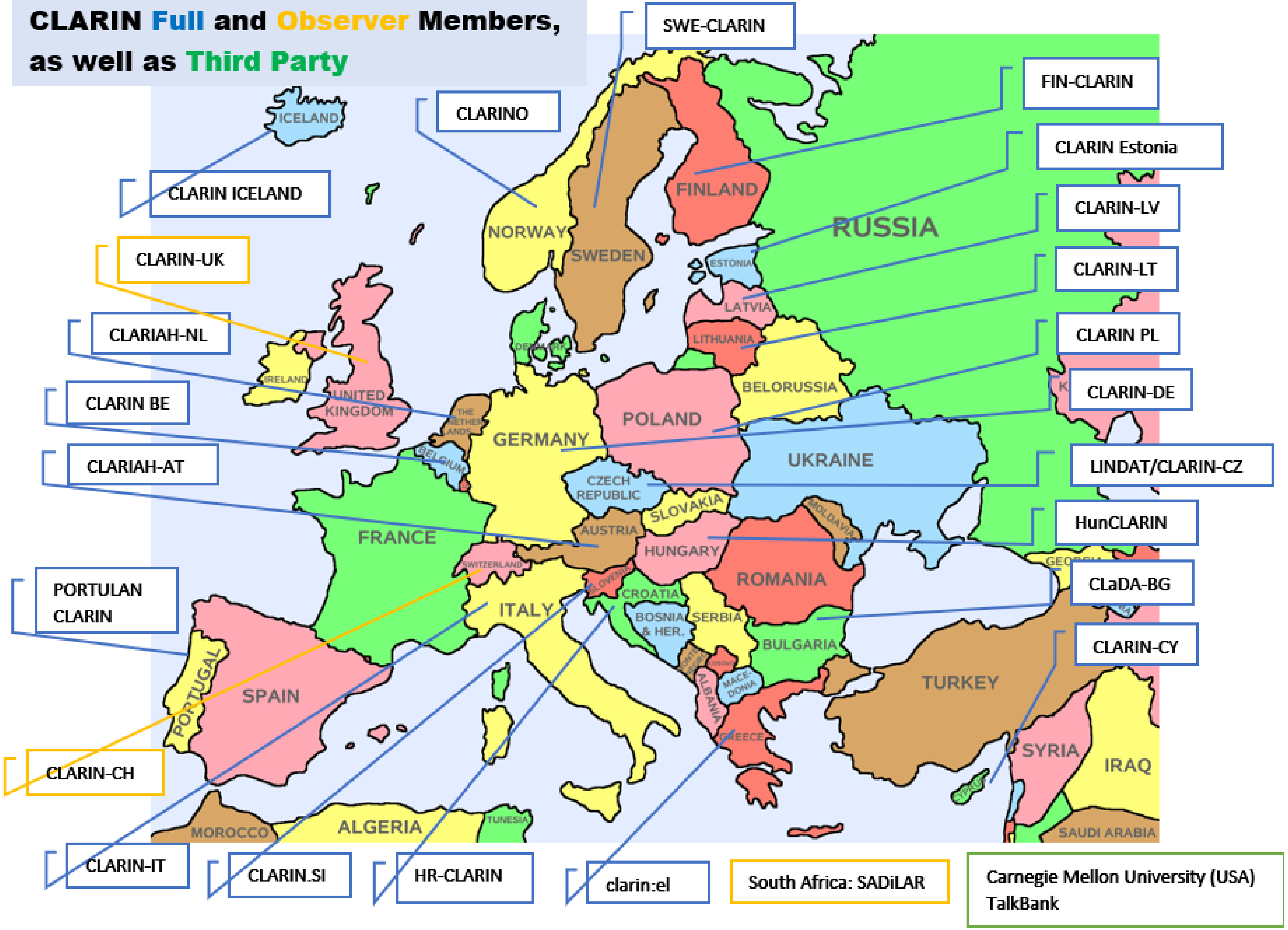
The research infrastructure for language as social and cultural data

CLARIN is a digital infrastructure offering data, tools and services to support research based on language resources.

- CLARIN is a pan-European research infrastructure that provides easy and sustainable access to digital language resources to support research in the SSH and beyond
- Fully operational since 2016
- 23 European countries are members of CLARIN
- Switzerland has joined CLARIN ERIC on 1 January 2023 as observer

CLARIN
Common Language Resources and Technology Infrastructure

CLARIN Full and Observer Members, as well as Third Party



SWE-CLARIN

FIN-CLARIN

CLARINO

CLARIN Estonia

CLARIN ICELAND

CLARIN-LV

CLARIN-UK

CLARIN-LT

CLARIAH-NL

CLARIN PL

CLARIN BE

CLARIN-DE

CLARIAH-AT

LINDAT/CLARIN-CZ

HunCLARIN

PORTULAN CLARIN

CLaDA-BG

CLARIN-CY

CLARIN-CH

CLARIN-IT

CLARIN.SI

HR-CLARIN

clarin:el

South Africa: SADiLAR

Carnegie Mellon University (USA) TalkBank

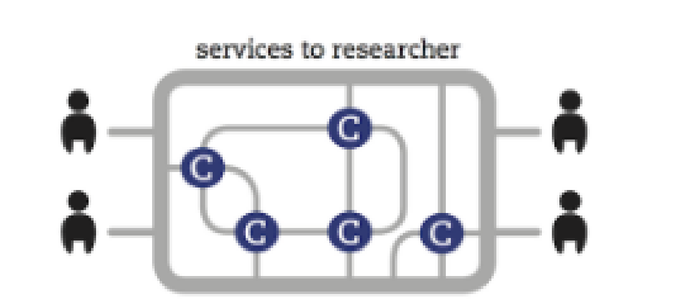
CLARIN's vision:
Render accessible all digital language resources and tools from all over Europe through a single sign-on online environment.

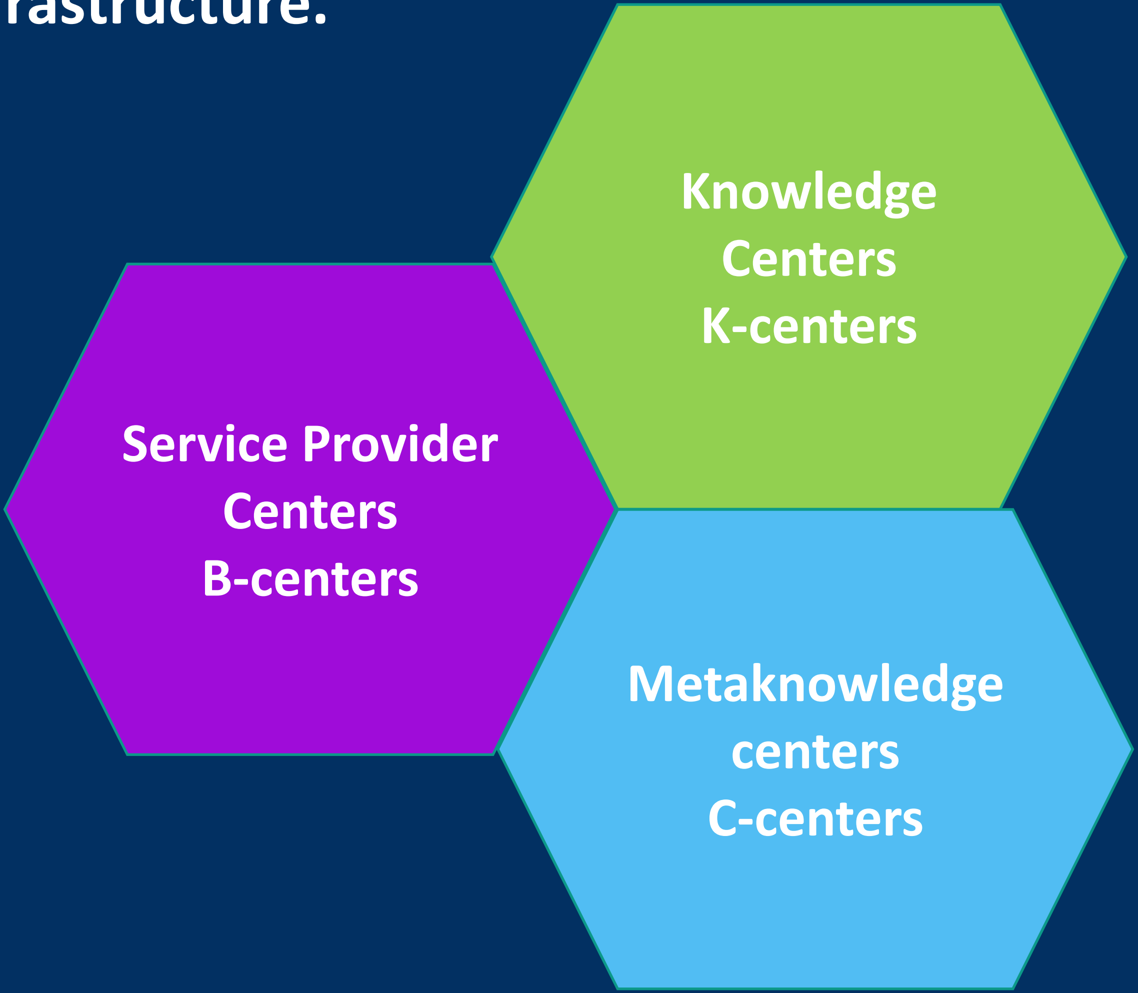
CLARIN's mission:
Create and maintain an infrastructure to support the sharing, use and sustainability of language data and tools for research in the SSH.

Tools
Expertise
Resources
Services
Network

CLARIN is a distributed research infrastructure.

Concretely, CLARIN is a networked federation of centers– academic and research institutions that offer the scientific community expertise, resources, tools and services.





Knowledge Centers K-centers

Service Provider Centers B-centers

Metaknowledge centers C-centers

Researchers are both service-users and service-providers

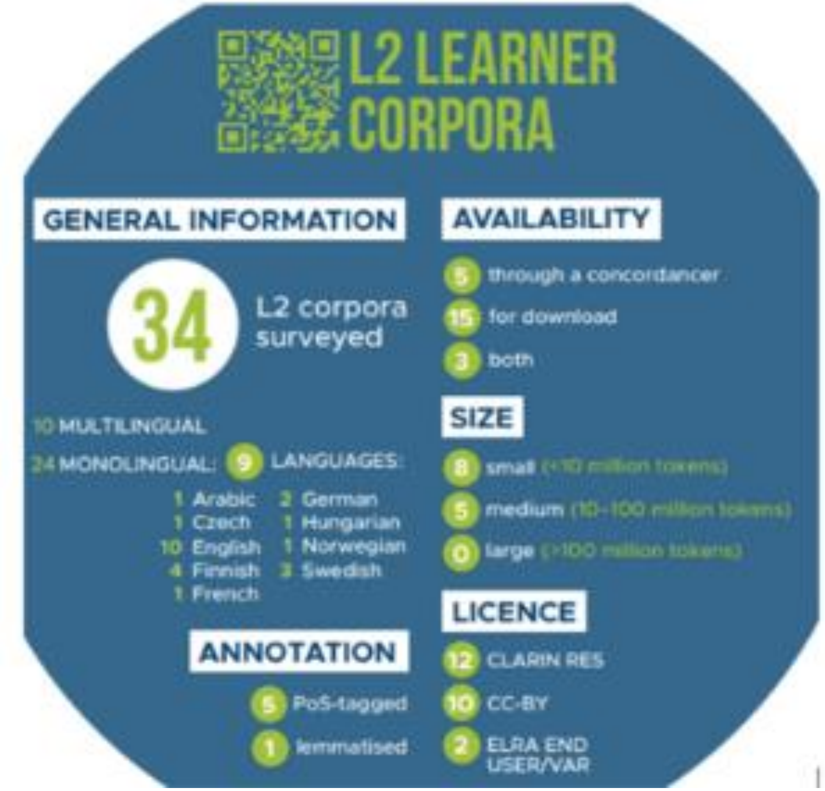
Resources

Families of corpora

- Computer-mediated communication corpora
- Corpora of academic texts
- Historical corpora
- **L2 learner corpora**
- Literary corpora
- Manually annotated corpora
- Multimodal corpora
- Newspaper corpora
- Parallel corpora
- Parliamentary corpora
- Reference corpora
- Spoken corpora

Families of lexical resources

- Lexica
- Dictionaries
- Conceptual resources
- Glossaries
- Wordlists



L2 LEARNER CORPORA

GENERAL INFORMATION

34 L2 corpora surveyed

10 MULTILINGUAL

24 MONOLINGUAL: 9 LANGUAGES:

1	Arabic	2	German
1	Czech	1	Hungarian
10	English	1	Norwegian
4	Finnish	3	Swedish
1	French		

ANNOTATION

5 PoS-tagged

1 lemmatised

AVAILABILITY

5 through a concordancer

15 for download

3 both

SIZE

8 small (<10 million tokens)

5 medium (10-100 million tokens)

0 large (>100 million tokens)

LICENCE

12 CLARIN RES

10 CC-BY

2 ELRA END USER/VAR

How to find and access CLARIN resources?

Resources

1. Manually, by searching in the Resource Families listing

2. CLARIN’s unified catalogue: the Virtual Language Observatory VLO

- ➢ An easy-to-use interface
- ➢ A powerful query syntax

3. The individual CLARIN data repositories

- ➢ Located in the various CLARIN centers

4. The SSH Open Marketplace

- ➢ A discovery platform for the SSH field

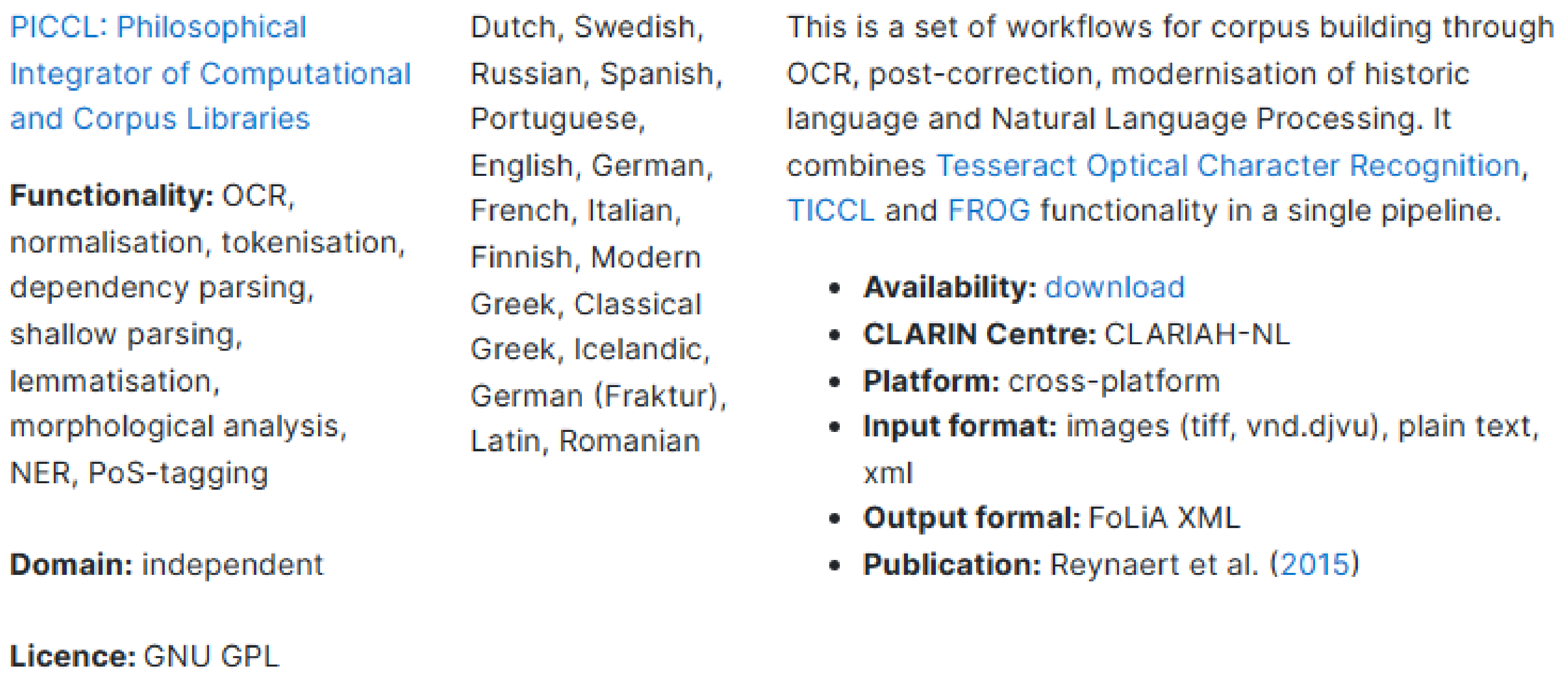
Access using your institutional credentials !

Tools

Tools to discover, explore, exploit, annotate, analyze or combine language data.

- Text normalization
- Named entity recognition
- Part-of-speech tagging and lemmatization
- Sentiment analysis and opinion mining

Text normalization



PICCL: Philosophical Integrator of Computational and Corpus Libraries **Functionality:** OCR, normalisation, tokenisation, dependency parsing, shallow parsing, lemmatisation, morphological analysis, NER, PoS-tagging **Domain:** independent **Licence:** GNU GPL	Dutch, Swedish, Russian, Spanish, Portuguese, English, German, French, Italian, Finnish, Modern Greek, Classical Greek, Icelandic, German (Fraktur), Latin, Romanian	This is a set of workflows for corpus building through OCR, post-correction, modernisation of historic language and Natural Language Processing. It combines Tesseract Optical Character Recognition, TICCL and FROG functionality in a single pipeline. • **Availability:** download • **CLARIN Centre:** CLARIAH-NL • **Platform:** cross-platform • **Input format:** images (tiff, vnd.djvu), plain text, xml • **Output formal:** FoLiA XML • **Publication:** Reynaert et al. (2015)

https://www.clarin.eu/content/tools

Expertise

CLARIN **Knowledge** Centers (K-centers) share their knowledge and expertise on one or more aspects of the domain covered by the CLARIN infrastructure.

K-centers have their own specific areas of expertise, which can belong to many different categories, such as:

- ✓ **Individual languages** (e.g. Danish, Czech, Portuguese)
- ✓ **Language families** (e.g. South Slavic)
- ✓ **Groups of languages** (e.g. morphologically rich languages, the languages of Sweden)
- ✓ **Written text and other modalities** (e.g. spoken language, sign language)
- ✓ **Linguistic topics** (e.g. language diversity, language learning, diachronic studies)
- ✓ **Language processing topics** (e.g. speech analysis, building treebanks, machine translation)
- ✓ **Data types other than corpora** (e.g. lexical data, word nets, terminology banks)
- ✓ **Using or processing families of language data** that will exist for most languages (e.g. newspapers, parliamentary records, oral history)
- ✓ **Generic methods and issues** (e.g. data management, ethics)

https://www.clarin.eu/content/knowledge-centers

Services

1. **Services** provided by K-centers, such as:
   - ✓ Online courses Training materials
   - ✓ Best-practice documents
   - ✓ Guidance in getting access to and using data and tools
   - ✓ Hosting of receivers of CLARIN mobility grants
2. **Digital Humanities Course Registry** (CLARIN & DARIAH)
3. **CLARIN Trainer Network Programme**
4. **Data depositing services**
5. **VideoLectures.net** video channel: an online library of talks (synchronised with their corresponding slides) and tutorials from the CLARIN training and academic events.

Services

6. **Technical webservices**:
   - *Weblicht*: an execution environment for automatic annotation of text corpora, built by CLARIN-D.
     - Linguistic tools (tokenizers, speech taggers, parsers) are encapsulated as web services, which can be combined by the user into custom processing chains.
     - The resulting annotations can then be visualized in an appropriate way, such as in a table or tree format.
   - *Language Resource Switchboard*: a tool that helps to find a matching language processing web application for a set of data

https://www.clarin.eu/content/language-resource-switchboard

CLARIN
Common Language Resources and Technology Infrastructure

Network

1. **Funding opportunities**: CLARIN has developed funding and support instruments for their members to address strategic priorities that require cross-country collaboration, exchange of expertise, training or mobility.
   - ✓ Bridging Gaps Call
   - ✓ Resource Families Project Funding
   - ✓ Workshop Funding
   - ✓ User Involvement Funding
   - ✓ CLARIN Training Calls
   - ✓ CLARIN Seed Grants
   - ✓ Mobility Grants

2. The central CLARIN office and the national consortia can provide **support for preparing EU-funded projects**, such as help for networking and documentation, assistance in writing the proposal, small grants that can be used to cover certain costs coming with the preparation of a project proposal, facilitation services regarding the Open Science and FAIR Data requirements.

https://www.clarin.eu/content/suport-eu-funded-projects

What is CLARIN-CH?

CLARIN-CH

CLARIN-CH is the Swiss branch of CLARIN

In December 2020, a network of six Swiss academic institutions, supported by the Swiss Academy for SSH, founded the CLARIN-CH Consortium.

University of Zurich^UZH

UNIL | Université de Lausanne

zh aw

UNIVERSITÄT BERN

usi

unine
Université de Neuchâtel

SAGW ASSH

Universität Basel

UNIVERSITÉ DE GENÈVE

UNI FR
UNIVERSITÉ DE FRIBOURG
UNIVERSITÄT FREIBURG

Mission

Join the European CLARIN community and build an active and impactful national network.

Objectives:

1. Obtain Switzerland's full membership in CLARIN and connect the Swiss scientific community with the entire CLARIN infrastructure.

2. Foster the sharing of expertise and of resources at the national and European level.

3. Bring together the Swiss community using language resources and create national working groups.

4. Encourage the initiation of national and international collaborations.

National node

CLARIN-CH

TECHNICAL CENTER

University of Zurich UZH

LiRI - Linguistic Research Infrastructure

LiRI is a national technology platform to serve the needs of quantitative research at UZH, Switzerland and beyond.

NATIONAL REPOSITORY

Library University of Zurich

SWISSUbase

LaRS – Language Repository of Switzerland

LaRS is a national platform for the publication of linguistic research data.
It uses SWISSUbase as its repository system.

TRAINING OFFERS

zh aw

usi

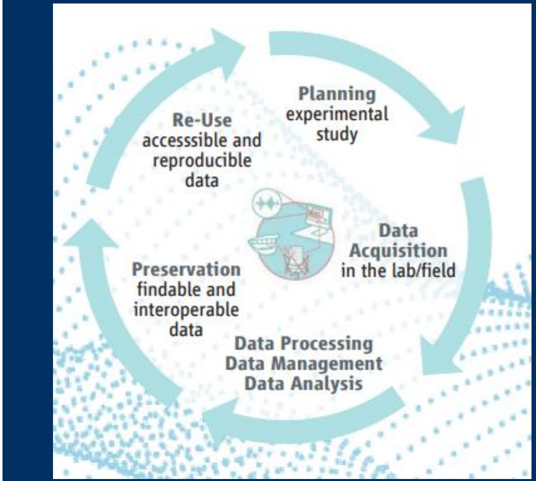
Doctoral programme in applied linguistics: Argumentation in Professional Practice

Universität Zürich UZH

Deutsches Seminar – Zukoko

Sommerschule der Zürcher Korpuslinguistik und Korpuspragmatik

LIRI AS CLARIN B-CENTER



- Deals with the entire data life-cycle
- Provides support services, facilities and equipment
- Enables collaborative research
- Deals with big data
- Engages with Open Science
- Enables Data Reproducibility

1. Language Technology

- IT services
- Application development
  - LiRI Corpus Platform (LCP) to handle and query large corpora
- Data processing & NLP
  - Automatic data processing with NLP tools
  - Best practices, coaching, workshops, programming
  - Swissdox@LiRI: a tool that allows retrieving large quantities of Swiss media data for research purposes

2. Lab & Equipment

- On site and portable

3. Statistical consulting

- Advice or feedback on study design, statistical methods
- Data analysis service

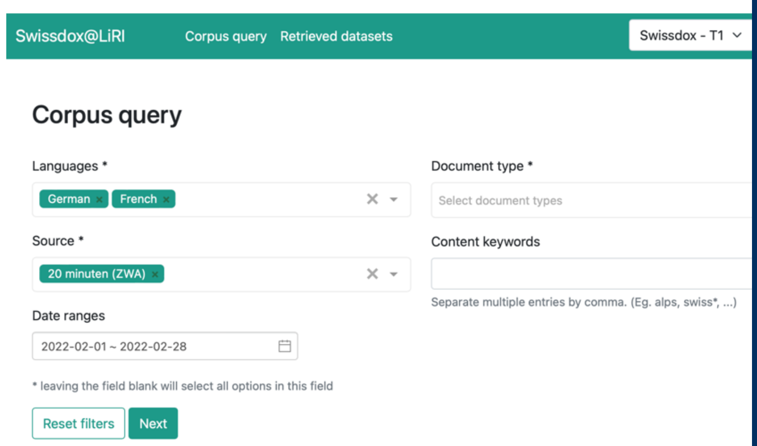
SOS Charged services
NEW To be added in the budget of research projects

LiRI - Linguistic Research Infrastructure – Swissdox@LiRI

Swissdox@LiRI

CLARIN-CH

- In collaboration with Schweizer Mediendatenbank AG, LiRI makes the national Swissdox database easily accessible to **researchers => Swissdox@LiRI**
- **Swissdox@LiRI** includes about **29 million media articles** (press, online) from a wide range of **Swiss media sources** covering many decades and is updated daily with about 5'000 to 6'000 new articles from the German and French speaking parts of Switzerland.
  - Data stock comes from partners such as *CH Media, NZZ media group, Ringier, Ringier Axel Springer Schweiz and TX Group (Tamedia), SRF/SRG, Le Temps, Weltwoche and Wochenzeitung*, overall 260 sources with planned further expansion.
- Usage possibilities:
  - access to Swissdox database with API
  - designed for **big data** analyses
  - data may be enriched, automatically processed and analyzed
- Access upon institutional or project **subscription**



Corpus query

Languages *: German, French

Document type *: Select document types

Source *: 20 minuten (ZWA)

Content keywords:

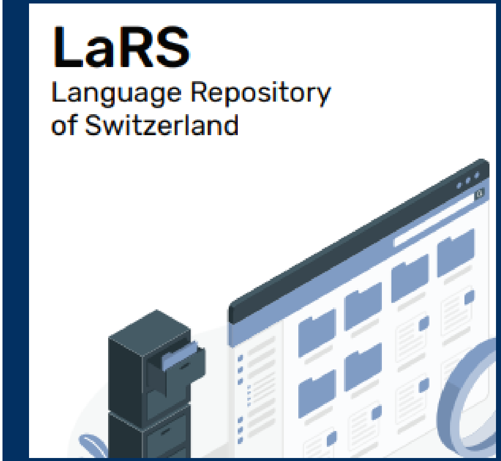
Separate multiple entries by comma. (Eg. alps, swiss*, ...)

Date ranges: 2022-02-01 ~ 2022-02-28

* leaving the field blank will select all options in this field

NATIONAL REPOSITORY

CLARIN-CH

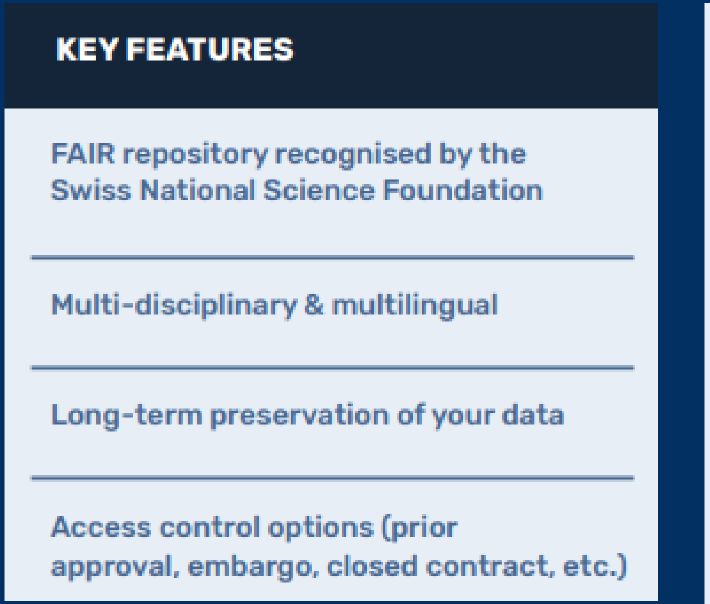


- LaRS is a FAIR compliant national platform for the publication and long-term achiving of linguistic research data on Swiss servers (SWITCH)
- LaRS collaborates with LiRI to provide **long-term data archiving services** (such as, data processing and conversion, compilation of datasets for archiving, anonymization, metadata) **Services FREE for CLARIN-CH members**
  - info.liri@linguistik.uzh.ch

SWISS base
On a mission to help researchers preserve and share their data

https://info.swissubase.ch

swissubase@ub.uzh.ch



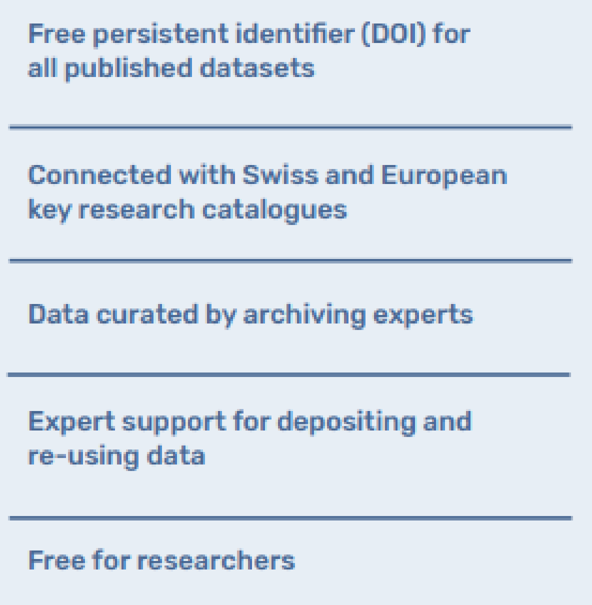
KEY FEATURES

FAIR repository recognised by the Swiss National Science Foundation

Multi-disciplinary & multilingual

Long-term preservation of your data

Access control options (prior approval, embargo, closed contract, etc.)



Free persistent identifier (DOI) for all published datasets

Connected with Swiss and European key research catalogues

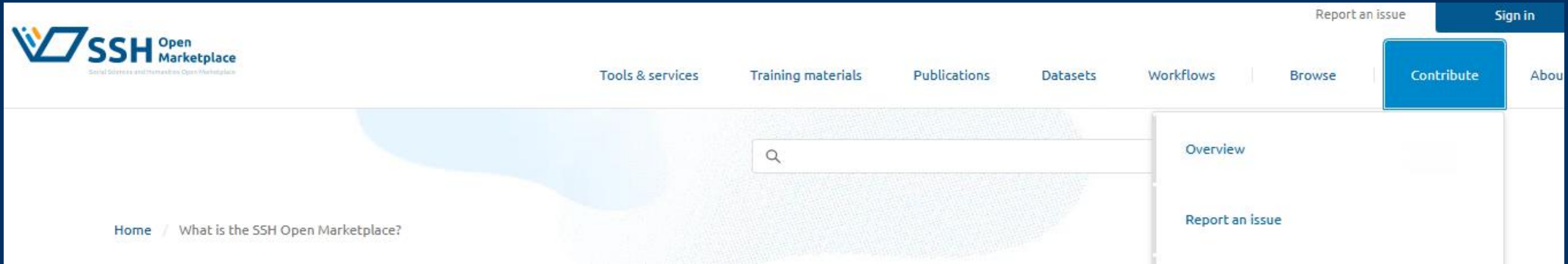
Data curated by archiving experts

Expert support for depositing and re-using data

Free for researchers

FOSTER SHARING OF RESOURCES

1. Collaborate with LiRI for including corpora in the national **Linguistic Corpus Platform**
   - ➢ LCP has a Python backend API for querying corpora and a frontend that connects to this API providing a graphical interface for linguistic research
   - ➢ Release planned: April 2023; learn more here
2. List them on the clarin-ch.ch website to increase visibility
3. Help with adding some datasets on the **SSH Open Marketplace**
   - ➢ European discovery platform for resources in the SSH field



CLARIN-CH national working groups

Description: groups of researchers (i.e. CLARIN-CH members, other national and European scholars) that are interested in language-, resource- and infrastructure-related topics.

- Advantage: work together with peers in a formalized and sustainable environment.
- Purpose: bring together expertise on a specific topic, prepare joint research projects and to serve the community, which can be scholarly and technical.
- Long-term goal: build and to extend the CLARIN and CLARIN-CH infrastructure.

CLARIN-CH national working groups

CLARIN-CH

Spring 2023

1. ORD projects for linguistic data
   1. *UpLORD*
   2. *Swiss-AL: Linguistic ORD Practices for Applied Sciences*
   3. *Data-sharing skills in corpus-based research on talk-in-interaction*
2. Management of sensitive data and legal aspects for linguistic data in Switzerland
3. Research infrastructures for Argumentation and Rhetoric
4. Multilingual corpora and Second Language Acquisition

OPEN TO MEMBERS

Other ideas, needs, interests?
Go to https://www.clarin-ch.ch/ under «CLARIN-CH Working Groups»

Why getting involved? What are the benefits?

At the institutional level

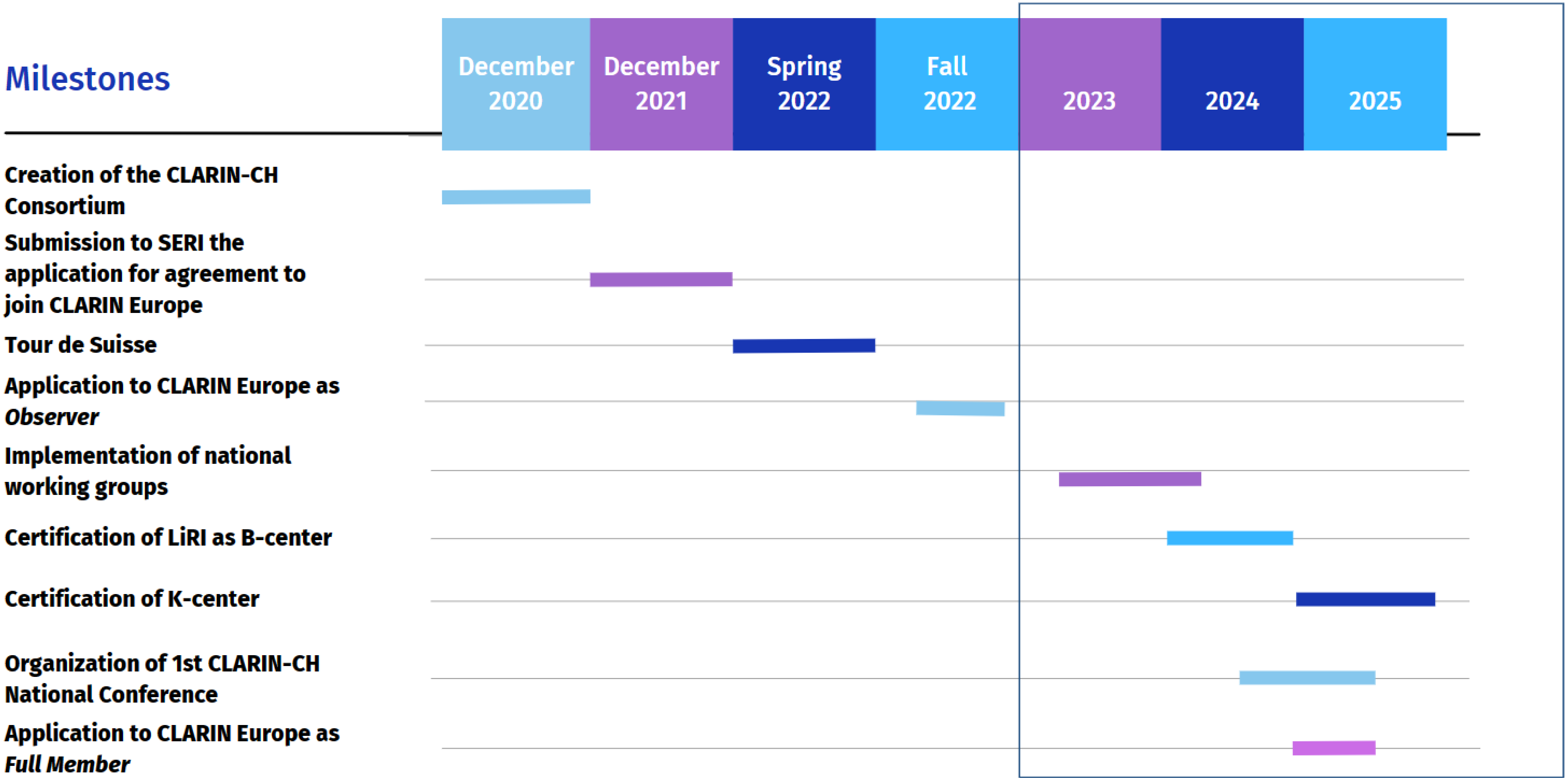
1. **Increased national and international visibility** for Swiss corpus-based projects, corpora and linguistic databases, tools, etc.
2. **Adoption of international standards** to ensure **interoperability** in the construction of national databases and infrastructure.
3. **Involvement in European infrastructure programs and flagship-projects** in Linguistics and its various sub-fields, Natural Langue Processing, Machine Translation, etc.
4. **Cost reductions** - by sharing resources nationally and internationally, the effective costs invested for creating new linguistic databases and developing annotation and query tools are diminished.

Why getting involved? What are the benefits?

At the individual level

1. **Access to all resources, tools** and **services** available in CLARIN and CLARIN-CH infrastructures.
2. **Access to the knowledge infrastructure** of CLARIN and CLARIN-CH, which secures a continuous transfer of knowledge and expertise between all members.
3. **European funding** for training and scientific events for sharing technical expertise and know-how in building the CLARIN infrastructure and to reinforce international collaborations.
4. **Support** for networking, documentation, and assistance in writing project proposals provided by the central office and the CLARIN members.

Our roadmap until 2025



Milestones

December 2020	December 2021	Spring 2022	Fall 2022	2023	2024	2025

- Creation of the CLARIN-CH Consortium
- Submission to SERI the application for agreement to join CLARIN Europe
- Tour de Suisse
- Application to CLARIN Europe as *Observer*
- Implementation of national working groups
- Certification of LiRI as B-center
- Certification of K-center
- Organization of 1st CLARIN-CH National Conference
- Application to CLARIN Europe as ***Full Member***

Take home messages

CLARIN-CH

1. CLARIN is a distributed research infrastructure for language resources and language technology.
2. CLARIN-CH is a consortium of scholars targeting the development of an active and impactful Swiss CLARIN community.
3. CLARIN and CLARIN-CH are based on networking and sharing of expertise, language resources, and tools.
4. Researchers are both service-users and service-providers.
5. Conducting research with digital language data can be challenging at the individual level, but much easier at the collective level.

Meet the members of the CLARIN-CH consortium

Marianne Hundt
National Coordinator
Representative of UZH

Anita Auer
President
Representative of UNIL

Cristina Grisot
Scientific Coordinator

Martin Luginbühl
Representative of UNIBAS

Sandrine Zufferey
Representative of UNIBE

Eric Haeberli
Representative of UNIGE

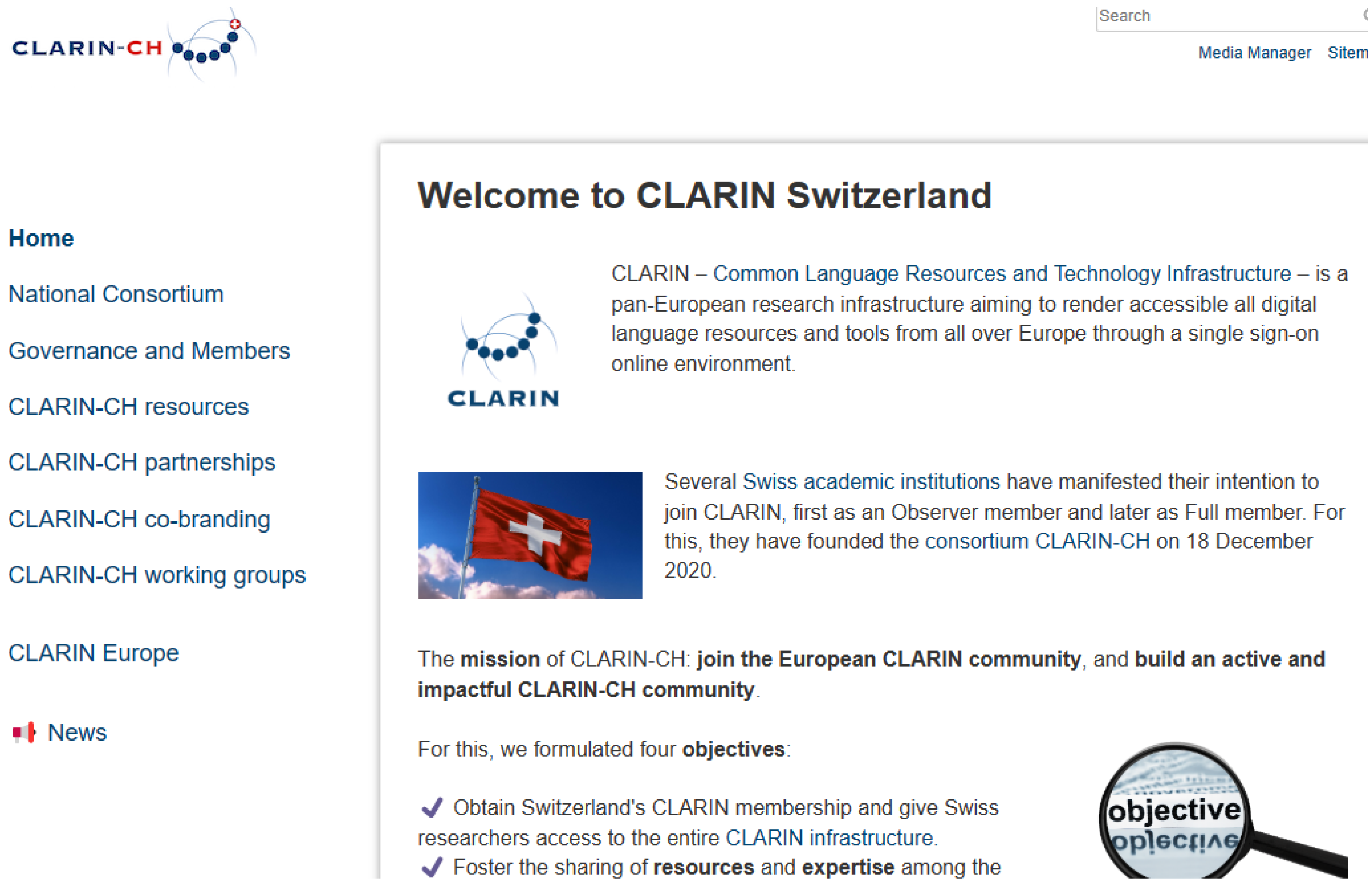
Anita Thomas
Representative of UNIFR

Martin Hilpert
Representative of UNINE

Andrea Rocci
Representative of USI

Cerstin Mahlow
Representative of ZHAW

Beat Immenhauser
Representative of the ASSH



- **Home**
- National Consortium
- Governance and Members
- CLARIN-CH resources
- CLARIN-CH partnerships
- CLARIN-CH co-branding
- CLARIN-CH working groups
- CLARIN Europe
- News

Welcome to CLARIN Switzerland

CLARIN – Common Language Resources and Technology Infrastructure – is a pan-European research infrastructure aiming to render accessible all digital language resources and tools from all over Europe through a single sign-on online environment.

Several Swiss academic institutions have manifested their intention to join CLARIN, first as an Observer member and later as Full member. For this, they have founded the consortium CLARIN-CH on 18 December 2020.

The **mission** of CLARIN-CH: **join the European CLARIN community**, and **build an active and impactful CLARIN-CH community**.

For this, we formulated four **objectives**:

✓ Obtain Switzerland's CLARIN membership and give Swiss researchers access to the entire CLARIN infrastructure.
✓ Foster the sharing of **resources** and **expertise** among the

Thank you!

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cristina.grisot@uzh.ch

WEB

https://clarin-ch.ch

SOCIAL MEDIA

https://www.linkedin.com/company/clarin-ch