DARIAH-ERIC

Towards a sustainable social and technical European eResearch Infrastructure for the Arts and Humanities

DARIAH-ERIC VCC1 e –Infrastructures Co-Heads
Tibor Kálmán, GWDG & **Eveline Wandl-Vogt**, AAS

@ eIRG Workshop: Rome (IT), 10.11.2014

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Outline

- General Overview
  DARIAH-ERIC &
  Conceptual Outline
  eInfrastructures @ DARIAH-ERIC:
  history, administration,
  mission, challenges

- Technical Insight
  eInfrastructures @ DARIAH-ERIC:
  affiliated projects, collaboration,
  outcomes, results

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Eveline, Tibor

General Overview
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Mission

DARIAH-ERIC aims to

enhance and support
digitally-enabled research and teaching
across the Humanities and Arts.

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The DARIAH-ERIC infrastructure

will be a connected network of tools, information, people and methodologies for investigating, exploring and supporting research across the broad spectrum of the Digital Humanities and Arts.

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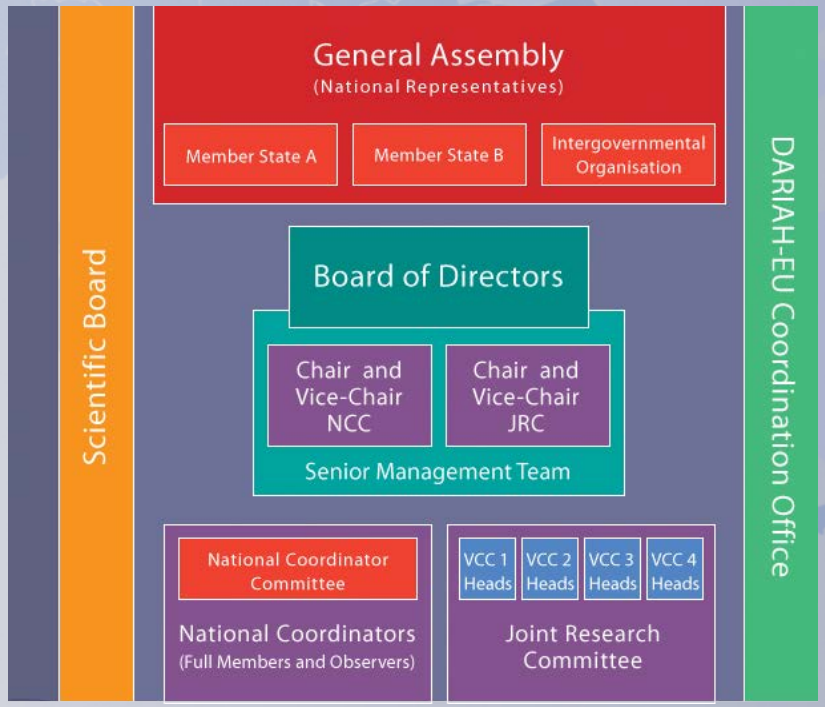
Organisational Framework

DARIAH-ERIC: a social & technical Infrastructure

- People
- Information
- Expertise
- Knowledge
- Content
- Methods
- Tools
- Technologies



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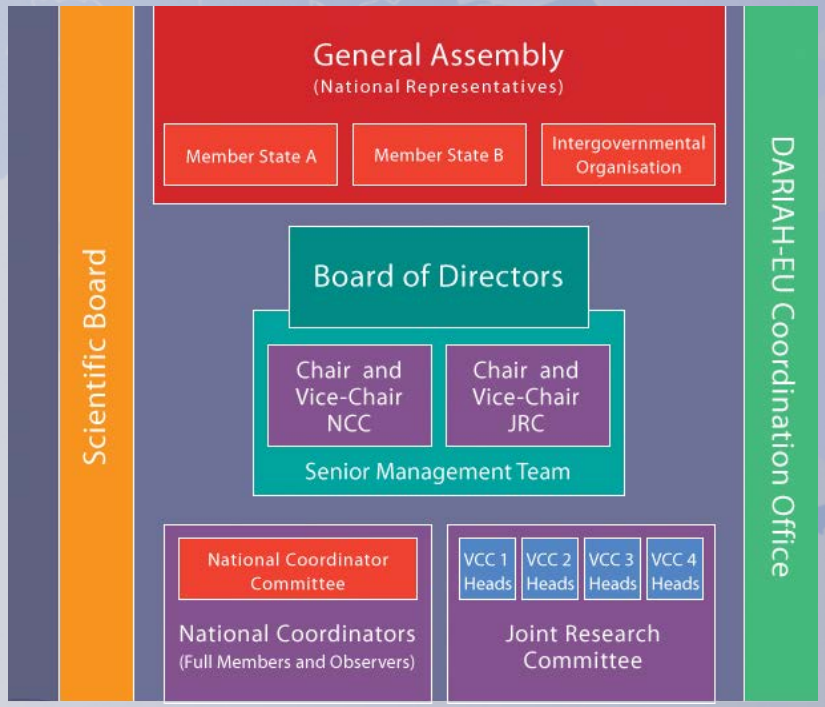

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Brief history

- **2006**
  DARIAH @ ESFRI Roadmap
- **2008 – 2011:**
  Preparatory Phase project:
  Preparing DARIAH
- **2011 – 2013:**
  Transition Phase
  establishing the DARIAH-ERIC
  integrating national activities
- **2014-:**
  DARIAH-ERIC

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Digital Research Infrastructure for the Arts and Humanities

Funding members

Founding Members	
Austria	
Belgium	
Croatia	
Cyprus	
Denmark	
France	
Germany	
Greece	

Founding Members	
Ireland	
Italy	
Luxembourg	
Malta	
Netherlands	
Serbia	
Slovenia	

Candidate countries	
Lithuania	
Poland	
Portugal	
Spain	
Switzerland	

www.dariah.eu

Conceptual Overview
eInfrastructures @DARIAH-ERIC

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Encourage!

Encouraging people

… to share and grow

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DARIAH is providing …

- guidance,
  e.g. standards, concepts ...

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- curiosity,
  to grow with the projects within our network

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Examples on the latest trends 2014

Arts and Digital Humanities

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Arts

Example 1:
Media art

existing prototypes

to be connected

e.g. Archive of Digital Art (ADA)

→ Liverpool declaration

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Humanities

Example 2:
eLexicography

EUROPEAN NETWORK OF e-LEXICOGRAPHY

cost
EUROPEAN COOPERATION IN SCIENCE AND TECHNOLOGY

existing communities of practice

to be connected

e.g. COST IS 1305 ENeL

→ DARIAH Working Group proposal

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Social Sciences

Example 2:
Social Innovation

existing communities of practice

to be connected

e.g. European School on Social Innovation (ESSI)

→ DARIAH Working Group proposal

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Challenges for DARIAH and A+H-eResearch-Infrastructures

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Current challenges

Framework:

Arts and Humanities @ Cyberscience

- Data |Information
- Diciplines, Scientific Paradigms
- People

Change

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Challenges

- Big Data in the Humanities
- Inter-, transdisciplinary Humanities
- Knowledge Societies
- Citizen Science
- Open Access, Open Data, Open Science
- Open Innovation
- Inclusive Innovation:
  Technological and Social Innovation
- Sustainability
- Funding

Change

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Trends 4 Arts & Humanities

Technical Insight
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Collaboration with European infrastructures

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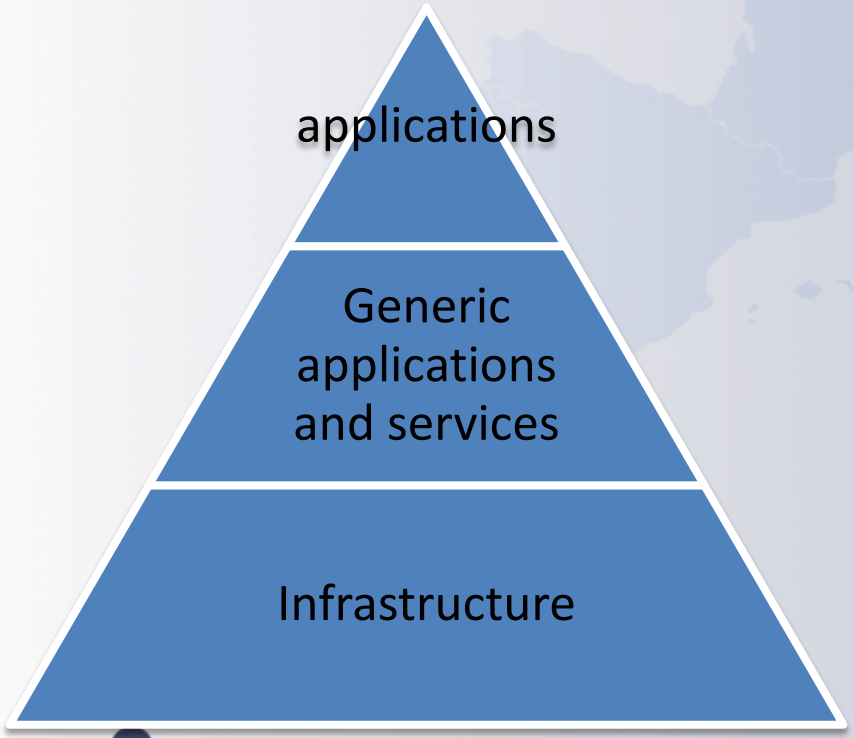
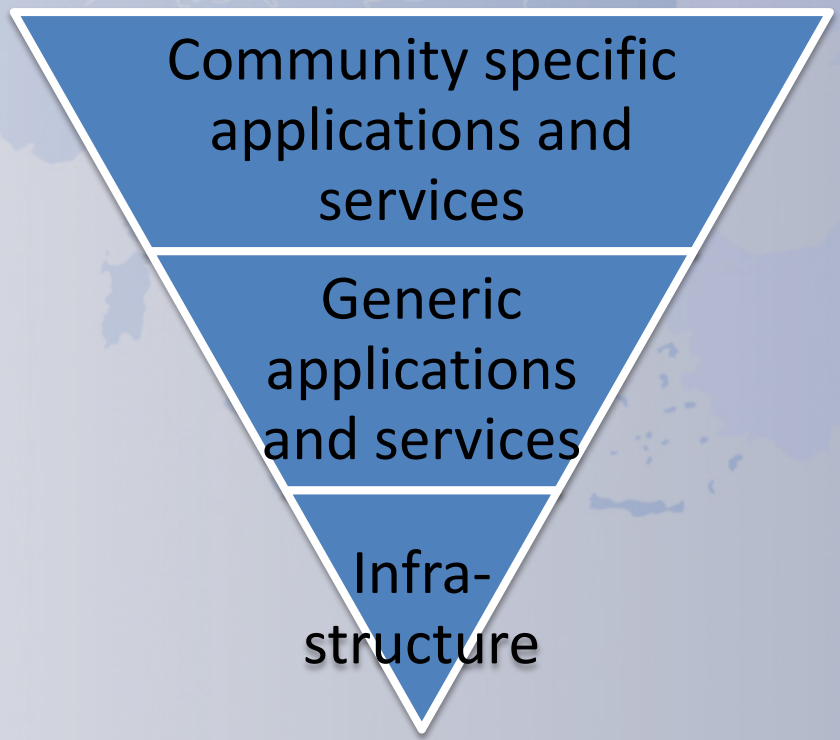
Different Interests in Research Infrastructures

Computing- and Data Centres



Research Institutes / Scholars



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Network of affiliated projects (1)

ARIADNE

Archaeologists

CENDARI
COLLABORATIVE EUROPEAN DIGITAL ARCHIVE INFRASTRUCTURE

Medieval and Modern Historians

DiXiT
Digital Scholarly Editions Initial Training Network

Digital Textual Scholarship

EHRI
EUROPEAN HOLOCAUST RESEARCH INFRASTRUCTURE

Holocaust Researchers

CHARISMA

Cultural Heritage conservation

NeDiMAH
Network for Digital Methods in the Arts and Humanities

Digital Methods

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Network of affiliated projects (2)

- Enable discipline-specific infrastructures
  - Integrating activities
    - e.g. ARIADNE, CENDARI, CHARISMA, EHRI
- Research into e-Research, analysis of methods:
  - NeDiMAH (Network for Digital Methods in the Arts and Humanities)
  - TaDiRAH (Taxonomy of Digital Research Activities in the Humanities)

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Example affiliated project: Cendari

- CENDARI: "*is a research infrastructure project aimed at integrating digital archives for the medieval and World War one eras*."
- What does CENDARI get from DARIAH?
  - DARIAH[-DE] technical environment (e.g. collaboration tools, long-term archiving, virtual machines)
  - Expertise in data modeling and standards for (meta-) data interoperability
  - Sustainable infrastructure and sustainability plan for CENDARI results
- How does DARIAH benefit from CENDARI?
  - Close links with historians, their research questions and methods
  - Access to a wide network of European archives
  - Good practices in formats and standards for archival description (EAG, EAC, EAD)

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CENDARI
COLLABORATIVE EUROPEAN DIGITAL ARCHIVE INFRASTRUCTURE

DARIAH e-Infrastructure

- The DARIAH e-Infrastructure needs to support
  - Collaboration
  - Sharing
  - Contributions
- What is the technical background for it?

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Collaboration on the Technical infrastructure

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Collaboration on the Technical Infrastructure

- Collaboration with other (European) infrastructures
- The DARIAH e-Infrastructure aims interoperability
- DARIAH utilizes existing standards and existing services
  - Examples

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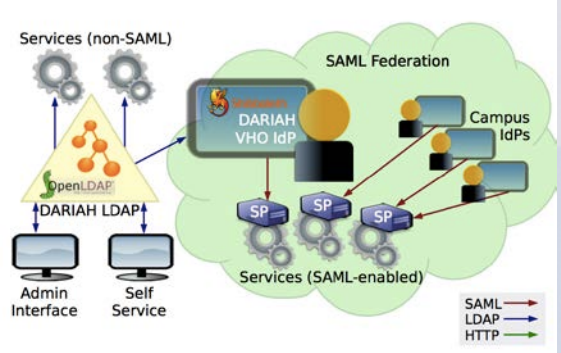
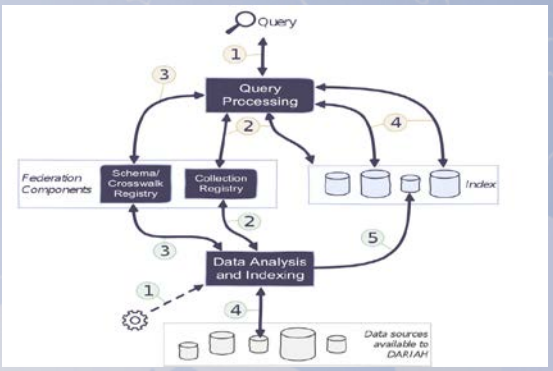
Examples of Collaboration on the Technical Infrastructure

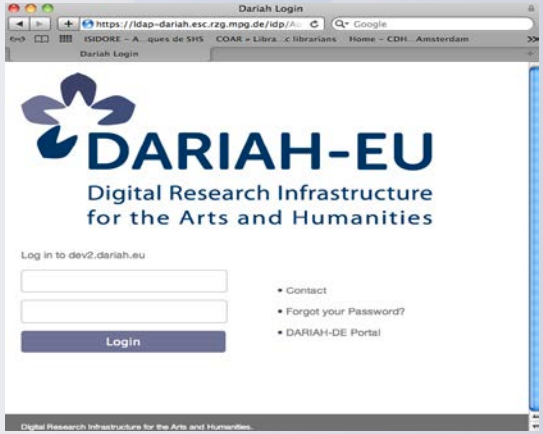
AAI Infrastructure



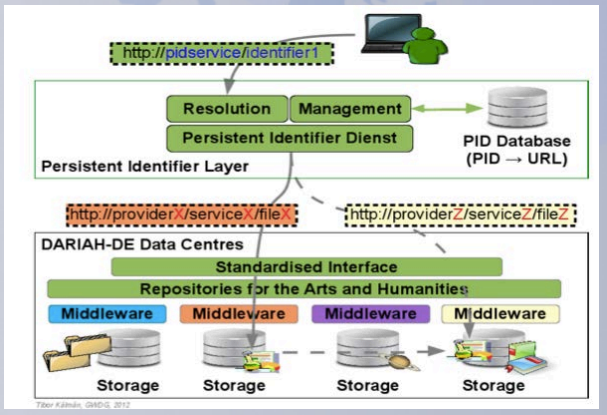
Federated, Generic Search



Collaboration Tools



Persistent Identification



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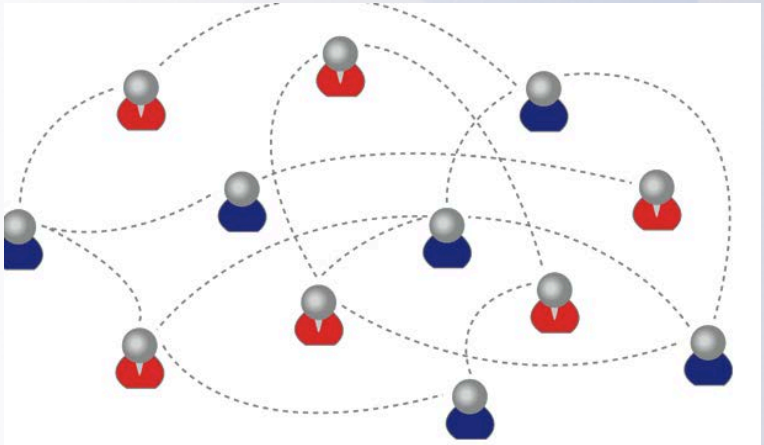
DARIAH AAI



DARIAH is a Network of ...

- a wide variety of research communities across the arts and humanities
- affiliated projects in the wider DARIAH landscape, e.g. EHRI, CENDARI, ARIADNE
- working communities of practice

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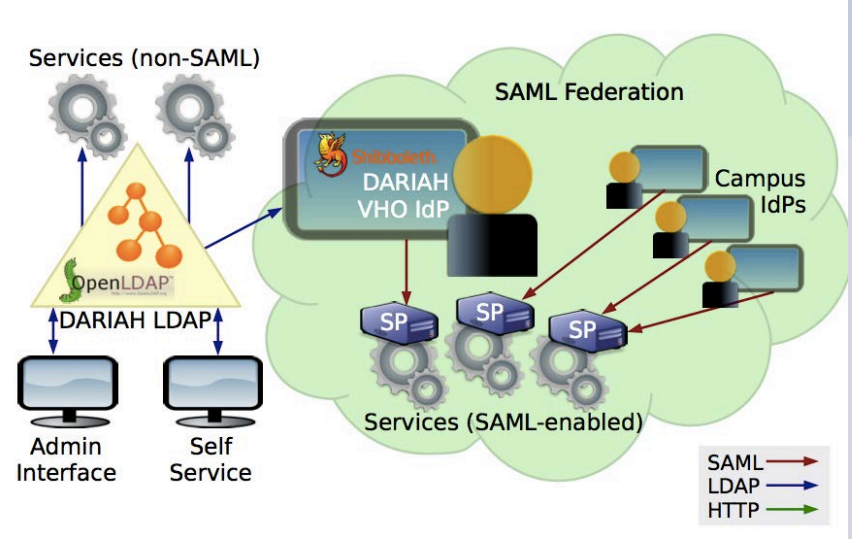
DARIAH AAI (2)



- In Whom We Trust?
- "A connected network of people, information, tools, and methodologies for investigating, exploring and supporting work across the broad spectrum of the digital humanities"
  - Find and use a wide range of research data
  - Work across domains and disciplines
- Group and attribute management integration with DARIAH AAI

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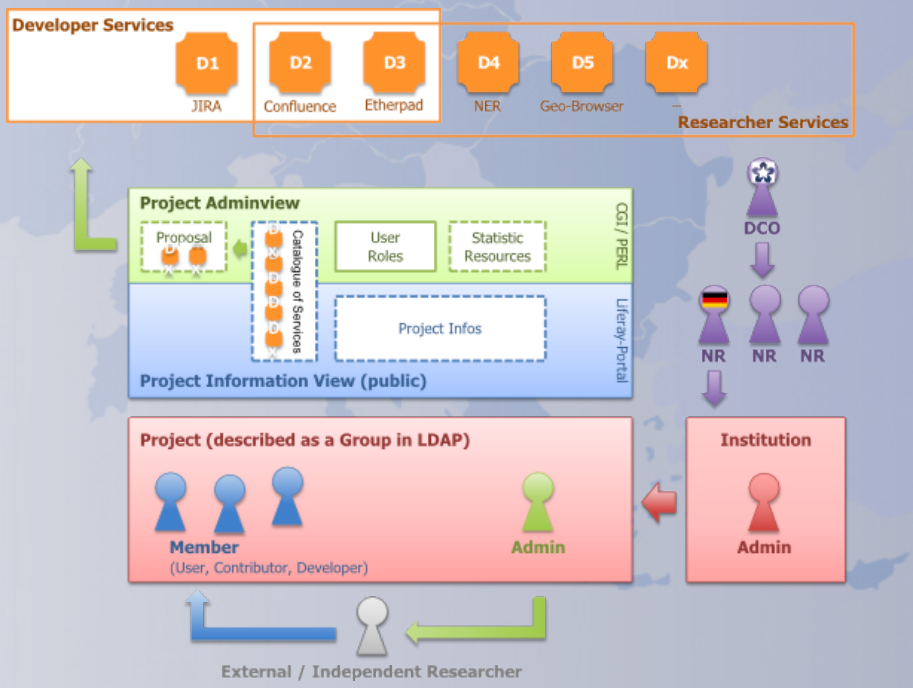
DARIAH AAI (3)

- Possible ways for DARIAH:
  - Own federation for the Arts and Humanities
  - Fedearation of federations
    - eduGAIN is a good approach to pan European AAI for DARIAH
    - DARIAH would like to see more and reasonable attributes available
    - Combination of eduGAIN and community specific DARIAH homeless-IdP and attribute authority
    - Support safe attribute release via GÉANT Code of Conduct



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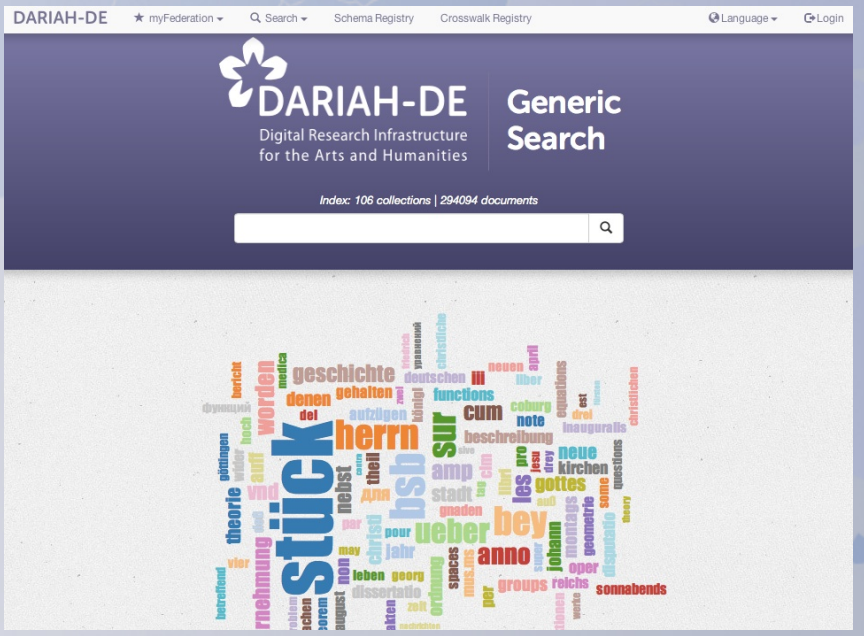
Federated, Generic Search

- Schema/Crosswalk Registry
  - Federated search relies on crosswalks
  - Mappings and rules allow transforming the queries to match the constraints of sources
- Collection Registry
  - Data sources (collections)
- Indeces
  - Store crawled and analyzed content
  - Dynamically created based on crosswalks



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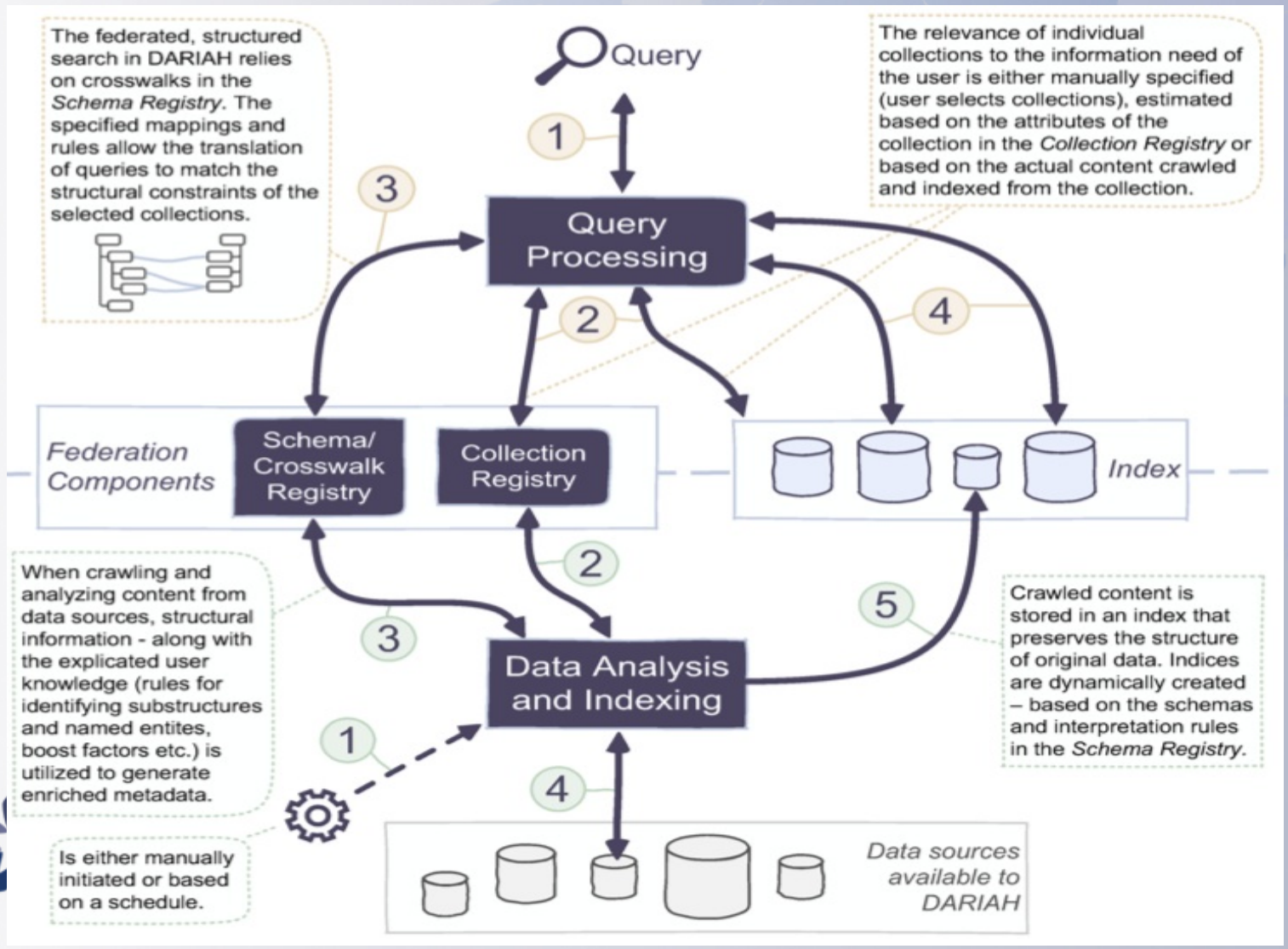
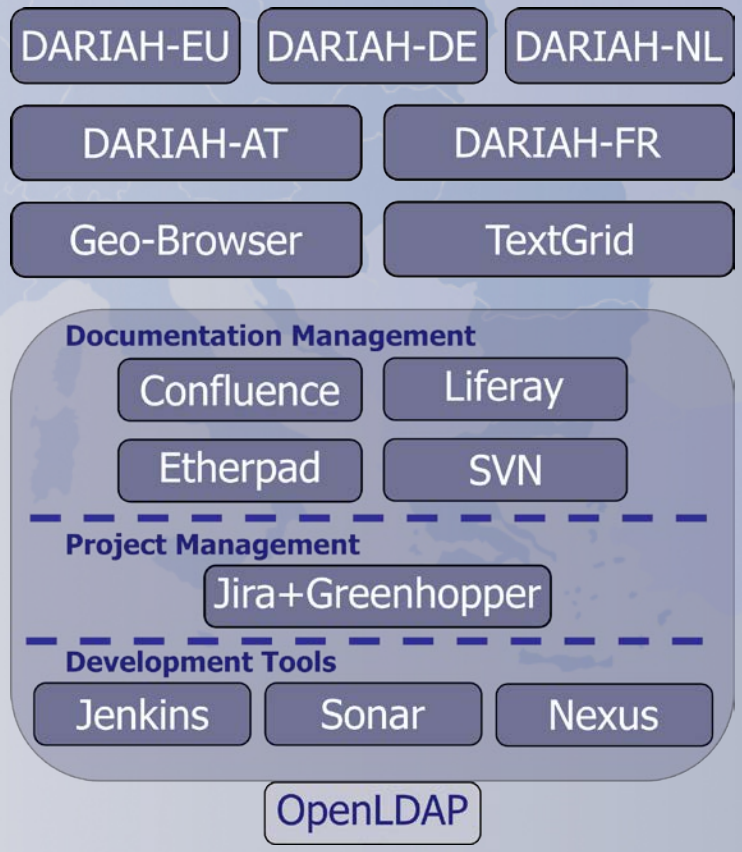
Federated, Generic Search (2)



Collaboration Tools

- Technical Infrastructure
- Project Management, Code Hosting, Revision Control, Software Testing, Documentation, Communication, Issue Tracking System with software (e.g. Etherpad, JIRA, Jenkins, Greenhopper among others)



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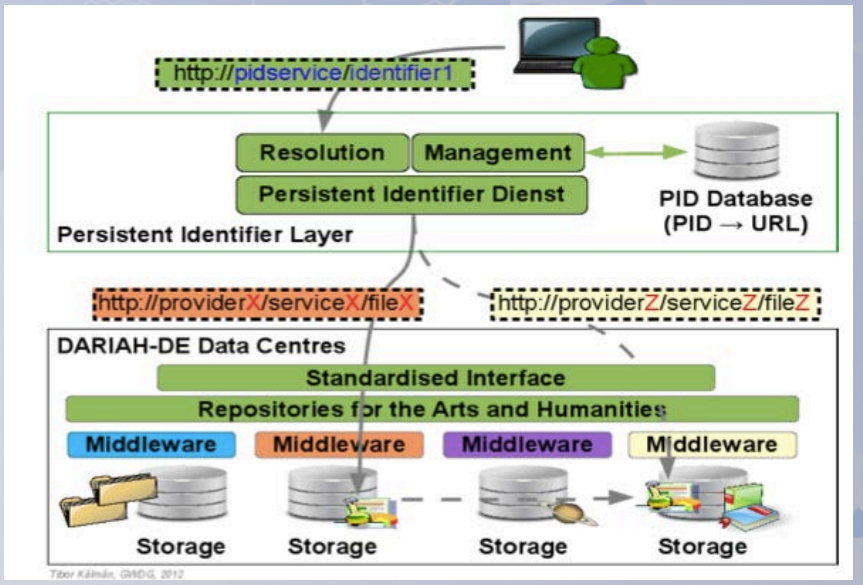
Basic Services – Persistent Identifier

- Persistent identification of digital objects
  - for publishing and referencing
- It requires standards and services
- DARIAH applies existing standards and services
  - Handle (www.pidconsortium.eu), URN, etc
  - Globally distributed resolution
- Service operated by DARIAH partners



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Summary

- Productive infrastructure and services are available and widely used.
- DARIAH can serve as a blueprint for other A+H infrastructures and research domains.
- Long-term perspective:
  Increase number of “commodity” services.
- Network: Lower the barrier for projects and communities to connect / join in!
- Funding: Creating a sustainable ecosystem is costly: sustainable funding structures are needed!

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