

OpenAIRE Guidelines for CRIS Managers in DSpace-CRIS

**A.Czerniak (1), J.Schirrwagen (1), S.Mornati (2), A.Bollini (2), L.A.Pascarelli (2),
O.Goldschmidt (3), P.Artemi (4), J.Piščanc (5)**

(1) Bielefeld University Library and OpenAIRE, (2) 4Science, (3) Hamburg University of Technology, (4)
Cyprus University of Technology, (5) University of Trieste

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Agenda

- Introduction
- CRIS-CERIF
- Implementation of Guidelines in DSpace-CRIS
- Pilots
- Conclusion / lessons learnt

What is OpenAIRE (briefly)

- OpenAIRE => **Open Access Infrastructure for Research in Europe**
- European Commission funded since 2009 and has ~55 partner institutions
- Promote and provide support for Open Access and **Open Science** across the European countries and has:
 - 34 National open access desks (NOADs) in every European country to support the national open access infrastructure.
 - Services for researchers, funders, projects, ...
- A pillar of the European Open Science Cloud (EOSC)



OpenAIRE Guidelines for CRIS Managers

- Evolution of the standard:
 - v.1.0 (June 2015), <https://doi.org/10.5281/zenodo.17065>
 - Old-style CERIF-XML, a 1:1 mapping from the CERIF data model

- **v.1.1.0** (June 2018), <https://doi.org/10.5281/zenodo.1298650>
 - Updated CERIF-XML
 - Vocabularies aligned with the other OpenAIRE Guidelines
- **v.1.1.1** (December 2018), <https://doi.org/10.5281/zenodo.2316420>
 - **Minor extensions**
 - **E.g. added DAI as person identifier**
 - **Documentation improvements**

Why DSpace-CRIS?

- DSpace is the most popular free open source Digital Asset Management System in the world,
 - used for Institutional Repositories to manage publications, ...
- DSpace-CRIS is an extended version of DSpace providing an Open Source CRIS solution since many years with an established user base

The main objectives of this implementation are to:

- realize the implementation of the latest OpenAIRE Guidelines for CRIS Managers in DSpace-CRIS
- enable DSpace-CRIS platforms to expose research information to OpenAIRE



CRIS-CERIF

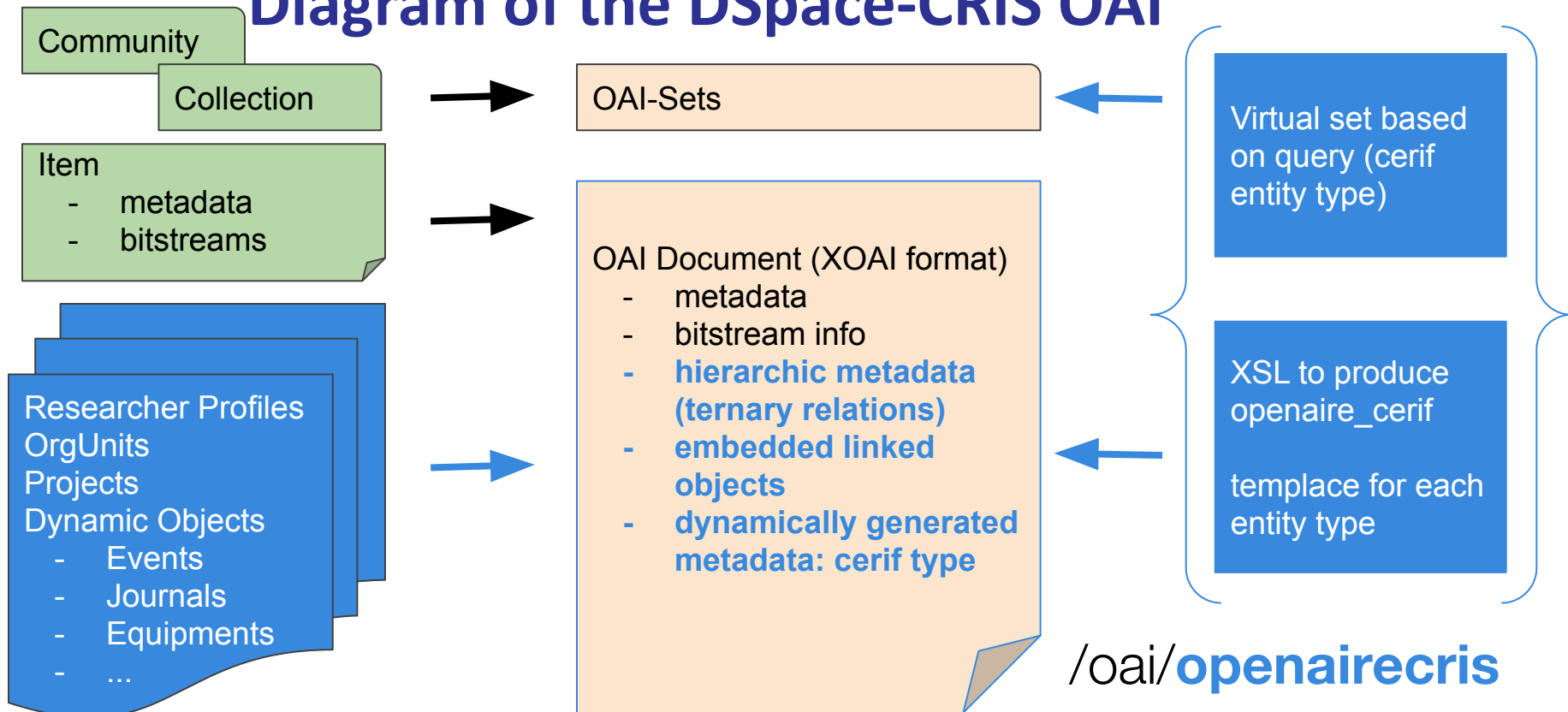
- A profile of the CERIF XML format, covering the entities: publications, patents, products, orgunits, people, projects, events, equipments
- Based on existing vocabularies from COAR, MediaTypes
- Data as rich as possible: institutions can use it also if they do not implement all the entities. It aims to provide a wider level of interoperability with OpenAIRE than the other guidelines
- Each record is self-contained in a way that is convenient for most use cases. This solves the complexity and performance issues raised against the first version of the guidelines and the “standard CERIF”

Implementation in DSpace-CRIS

- Improved out-of-box configuration to match the OpenAIRE information space (entities, recommended attributes, vocabularies)
- Public CRIS Objects are included in the OAI core, it is possible to add additional filters
- Embed linked objects' key information in the OAI document
- Default mapping compliant with the CRIS guidelines
- Available for DSpace-CRIS 5, 6* and the ongoing version 7*

* code for version 5 is already available on GitHub, it will be included in the version 6 and 7 branch by the end of November 2019

Diagram of the DSpace-CRIS OAI



Pilot at TUHH, Hamburg University of Technology

TORE - TUHH Open Research <https://tore.tuhh.de>

Entity	# in OAI	# in TORE
Researchers / Persons	5206	5770 (5215 public)
Institutes / OrganisationalUnits	170	176 (171 public)
Projects	38	129 (38 public)
Events / Conferences	208	212 (208 public)
Journals / Publications	4466	931 / 3595
Products / Datasets	47	45 ?

- Challenges
 - Customized Entity Structure (for example Multilingual entities, new fields, ...)
 - Missing some records in OAI-PMH
- Benefits
 - Exposing the entities via OAI-PMH, for example for OpenAire might improve the scope of TORE and the visibility in the scientific community
 - Being up to date and using standards

Pilot at CUT, Cyprus University of Technology

Cyprus University of Technology research and academic staff is involved in 248 Projects with a total funding over than 40 million Euros. The biggest challenge for the Cyprus University of Technology is how to store, manage, and disseminate all the research output and research activities of the university.

- The benefits of the pilot for the university:
 - All research output founded by European Research Projects under the FP7 and H2020 are stored in KTISIS and imported in the OpenAIRE portal
 - Researchers and general public have free access to research results of the CUT.
 - Administrative bodies have direct access in bibliometric information, statistics and metrics related with research activity of the university.

Pilot at the University of Trieste

More than 10 years experience with DSpace software

In 2015 “migrated” to DSpaceCRIS and implemented (with the 4Science support) the OAI-CERIF (using first CRIS Guidelines) for UnityFVG interoperability

- challenges
 - harmonize and standardize all our 10 years “old” metadata to the new standard (*ex :COAR Resource Type Genres*)
 - test&use the OpenAIRE validator (*not present with previous version*)
- benefits
 - expose all our Researcher Profiles, Organizational Units, Projects, Events, Journals, DataSets on OpenAIRE (*previously incomplete Entities, Relations, Attributes*)
 - Use the last OAI-CERIF for interoperability between our CRIS systems and the UnityFVG Research Portal



Lessons learned / Conclusion

- The implementation and the pilot phase have highlighted minor ambiguities, typos, and limitations of the guidelines, a revised version is expected.
- DSpace-CRIS now supports the OpenAIRE CRIS-CERIF Guidelines v1.1 and OpenAIRE can harvest rich research information from these end-points.
- OpenAIRE enriches the data and could send relevant information to the CRIS Managers.
- DSpace-CRIS is freely available under the 'New BSD license'.

Thank you!

Andreas Czerniak

andreas.czerniak@uni-bielefeld.de orcid.org/0000-0003-3883-4169

Andrea Bollini

andrea.bollini@4science.it orcid.org/0000-0002-9029-1854

<https://www.openaire.eu>
<https://www.4science.it>

