OpenAIRE compatibility with DSpace

Webinar – CINECA
15 April 2014
AGENDA

1. Overview of the OpenAIREplus project & the OpenAIRE guidelines
2. Presentation of the OpenAIRE guidelines for Literature Repositories: Aim, versions and specifications
   • OpenAIRE compatibility status: levels and OAI sets
3. How to make the repository OpenAIRE compatible: DSpace repository platform
4. OpenAIRE validator and registration process
Overview of the OpenAIREplus project and the OpenAIRE guidelines

www.openaire.eu
http://guidelines.openaire.eu
What is OpenAIRE

• A Participatory European Open Access infrastructure to manage scientific publications and associated scientific material via repository networks.

• Supports discovery, sharing and re-use of Open Access publications and EC funded research results.

• Enhances publications by interconnecting them with data sets, funding information, related publications, institutional affiliation, metrics...
Research repositories link to OpenAIRE

PUBLICATIONS
DATA
FUNDING INFORMATION
Services for
Project Coordinators, Project Funders, Funders, Researchers,… Systems

Infrastructure: data sources

Publication repositories
Institutional & Thematic
Open Access Journals

Publishes in OA journals

Data repositories
Data Journals

CERN/OpenAIRE = "catch-all" repository

Deposits in institutional or thematic repositories

Mine for

Infrastructural coordination

Mine for

De-duplicate

Datasets
Authors
Publications
Data Providers
Projects
Organizations

Visualize - Manage
Enhanced Publications

Deposit Publications
Publishing

Research impact

Citations, usage

+++

Search & Browse
Curate & collaborate

Get support
(NOADs)

Linked Content
Statistics

+++

APIs

National funding
EC funding
Institutional CRIS Systems

Classify
De-duplicate

Text Mine
OpenAIRE implements the OPEN ACCESS EC requirements
**EC OA Mandate Progression**

**FP7 OA Pilot (2008)**
- Grant agreement SC39
- 20% programme areas
- Deposit in Repositories
- ERC’s OA Guidelines: Deposit in discipline (or institutional) repositories. Cap embargo.

**Horizon 2020 (2014)**
- All grant agreements
- 100% programme areas
- Deposit in Repositories
- Open Data Pilot
OpenAIRE is about linking publications to projects
OpenAIRE is about expanding the repositories network
OpenAIREplus

• OpenAIRE is moving from a publication infrastructure to a more comprehensive infrastructure that covers all types of scientific output.

• To put this into practice an integrated suite of guidelines were developed with specific requirements supporting the goal of OpenAIRE and the European Commission.
OpenAIRE Guidelines

European Open Access Infrastructure to manage scientific publications and associated scientific material via repository networks.

Guidelines make it easy to participate in the OpenAIRE network providing to repository managers the tools to support researchers in the EC’s OA policy compliance.

For literature repositories based on Dublin Core (DRIVER)

For data repositories based on Datacite

For CRIS managers based on CERIF-XML
OpenAIRE Guidelines

1 Guidelines for Literature Repository managers version 3.0

2 Guidelines for Data Archive Managers

3 Guidelines for CRIS - CERIF-XML

http://guidelines.openaire.eu
• OpenAIRE has collaborated with key stakeholders and has produced three sets of guidelines for its data providers, all based on existing well-established standards.

• Provide additional support for OAI Aggregators and Open Access Journals to maintain provenance on the record or at journal level.

• Best practices for the use of transfer protocol (OAI-PMH), metadata formats, controlled vocabularies.
• Identification of Open Access and funded research results by **OAI-Sets**:
  • ‘ec-fundedresources’
  • ‘openaire’
  • ‘openaire_data’

• Regular harvesting from the data sources.
• Latest schema guarantees backwards-compatibility with previous versions.
• Enhancing research results by metadata enrichment in OpenAIRE.
OpenAIRE Guidelines

How to get involved?

• Find and discuss the guidelines at: guidelines.openaire.eu
• Test and register the repository at: validator.openaire.eu
  (for tests please use beta.openaire.eu/validator)
• Find support and more info at: www.openaire.eu

Wiki: http://guidelines.openaire.eu
OpenAIRE guidelines for Literature Repositories

Aim, versions & specifications

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University of Minho
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1 AUGUST 2010
initial document
NOVEMBER 2010
(V. 1.1)

2 OCTOBER 2012
(V. 2.0)
Compatibility for
aggregators.
Extended
Namespace for
Project id.

3 DECEMBER 2012
(3.0 beta)
APRIL 2013
(3.0)
OAI set has been renamed
from ec_fundedresources to
openaire.
New relation elements for
indicating external identifiers,
references and connections to
datasets.

EC funded content
EC and/or other funded content
Open Access and EC and/or other funded content
Versions – useful links


Guidelines 1.0 >> 2.0

• Provide the OpenAIRE compatibility for repositories and aggregators.

• Introduces two main changes:
  • Support for **aggregators** to become OpenAIRE compatible in order to expose their metadata to the OpenAIRE infrastructure.
  • **Extended namespace for project identification.**
    • Support a generic way of expressing project information, allowing its use not only for EC/FP projects, but ideally for any funder and project (national or international).
    • Repositories that are already OpenAIRE compatible will remain compatible with no additional work.
  • **The mandatory parts are the same as in the Guidelines 1.1.**
OpenAIRE Guidelines

• The OpenAIRE guidelines are supplementary and built on top of the DRIVER Guidelines
  • Plus fields: projectID, accessRights, embargoEndDate.
• All aspects of the DRIVER Guidelines are valid, with a very few exceptions.
• Guidelines with specific requirements supporting the goal of OpenAIRE and the EC.
OpenAIRE Set

- **Content definitions:**
  - The content to be inserted in the OpenAIRE set must be (EC) funded content (1st only EC, after Oct. 2012 for any funder (national or intern.)).

- **Set naming**

<table>
<thead>
<tr>
<th>setName</th>
<th>setSpec*</th>
</tr>
</thead>
<tbody>
<tr>
<td>The OpenAIRE set</td>
<td>EC_funded_resources set</td>
</tr>
<tr>
<td></td>
<td>ec_funded_resources</td>
</tr>
</tbody>
</table>
OpenAIRE elements

- projectID
- access_rights
- embargo_end_date
<table>
<thead>
<tr>
<th>Element name</th>
<th>projectID</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMI definition</td>
<td>dc:relation</td>
</tr>
<tr>
<td>Usage</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Usage instruction</td>
<td>A vocabulary of projects will be exposed by OpenAIRE through OAI-MPH, and available for all repository managers. Values will include the project name and projectID. The projectID equals the Grant Agreement number, and is defined by the namespace: info:eu-repo/grantAgreement/Funder/FundingProgram/ProjectNumber/Jurisdiction/ProjectName/ProjectAcronym/</td>
</tr>
<tr>
<td>Element name</td>
<td>accessRights</td>
</tr>
<tr>
<td>-------------------</td>
<td>--------------</td>
</tr>
<tr>
<td>DCMI definition</td>
<td>dc:rights</td>
</tr>
<tr>
<td>Usage</td>
<td>Mandatory</td>
</tr>
</tbody>
</table>
• info:eu-repo/semantics/closedAccess  
• info:eu-repo/semantics/embargoedAccess  
• info:eu-repo/semantics/restrictedAccess  
• info:eu-repo/semantics/openAccess |

Examples:  
<dc:rights>info:eu-repo/semantics/openAccess</dc:rights>
<table>
<thead>
<tr>
<th>Element name</th>
<th>embargoEndDate</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMI definition</td>
<td>dc:date</td>
</tr>
<tr>
<td>Usage</td>
<td>Recommended</td>
</tr>
<tr>
<td>Usage instruction</td>
<td>Recommended when accessRights = info:eu-repo/semantics/embargoedAccess The date type is controlled by the name space info:eu-repo/date/embargoEnd/, see <a href="http://wiki.surffoundation.nl/display/standards/info-eu-repo/#info-eu-repo-DateTypesandvalue">http://wiki.surffoundation.nl/display/standards/info-eu-repo/#info-eu-repo-DateTypesandvalue</a>. Encoding of this date should be in the form YYYY-MM-DD (conform ISO 8601).</td>
</tr>
<tr>
<td>Examples:</td>
<td>&lt;dc:date&gt;info:eu-repo/date/embargoEnd/2011-05-12&lt;/dc:date&gt;</td>
</tr>
</tbody>
</table>
It was SIMPLE by intention
OpenAIRE Guidelines

For Literature repositories 3.0

Aim

Provide orientation for repository managers to define and implement their local data management policies according to the requirements of the OpenAIRE.

These guidelines are intended to guide repository manager to expose to the OpenAIRE infrastructure not only EC funded publications, but also other Open Access publications, regardless of their funding.

Merger of the DRIVER Guidelines into the context of OpenAIRE Guidelines.

Part of a set of OpenAIRE Guidelines...
What’s new:

• The OpenAIRE OAI set has been renamed from ‘ec_fundedresources’ to ‘openaire’.

• New elements for indicating external identifiers, relations to other publications (references), and relations to research datasets have been defined.
Metadata field - Contents

1. Field Name
2. DC Field
3. Usage
4. Usage Instruction
5. Do Not Confuse With
6. Since
7. Examples
8. Comments
<table>
<thead>
<tr>
<th>Element name</th>
<th>Alternative Identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMI definition</td>
<td><code>dc:relation</code></td>
</tr>
<tr>
<td>Usage</td>
<td><strong>Recommended</strong></td>
</tr>
<tr>
<td>Usage instruction</td>
<td>List alternative identifiers for this publication that are not the primary identifier (repository splash page), e.g., the DOI of publisher’s version, the PubMed/arXiv ID. The term is defined by <code>info:eu-repo/semantics/altIdentifier info:eu-repo/semantics/altIdentifier/&lt;scheme&gt;/&lt;identifier&gt;</code> where <code>&lt;scheme&gt;</code> must be one of the following: Ark, arxiv, doi, hdl, isbn, purl...</td>
</tr>
<tr>
<td>Element name</td>
<td>Referenced Dataset</td>
</tr>
<tr>
<td>----------------------</td>
<td>--------------------</td>
</tr>
<tr>
<td>DCMI definition</td>
<td>dc:relation</td>
</tr>
<tr>
<td>Usage</td>
<td>Recommended</td>
</tr>
<tr>
<td>Usage instruction</td>
<td>Encodes links to research datasets connected with this publication. The syntax of info:eu-repo/semantics/dataset is: info:eu-repo/semantics/dataset/ &lt;scheme&gt; / &lt;identifier&gt; where &lt;scheme&gt; must be one of the following: Ark, arxiv, doi, hdl, isbn, purl...</td>
</tr>
</tbody>
</table>
# Referenced Publication

<table>
<thead>
<tr>
<th>Element name</th>
<th>Referenced Publication</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DCMI definition</strong></td>
<td>dc:relation</td>
</tr>
<tr>
<td><strong>Usage</strong></td>
<td>Recommended</td>
</tr>
<tr>
<td><strong>Usage instruction</strong></td>
<td>Encode links to publications referenced by this publication. The syntax of info:eu-repo/semantics/reference is: info:eu-repo/semantics/reference/&lt;scheme&gt;/&lt;identifier&gt; where &lt;scheme&gt; must be one of the following: ark, arxiv, doi, hdl, isbn...</td>
</tr>
</tbody>
</table>

**Examples:**

```
```
OpenAIRE compatibility status

levels and OAI sets
OpenAIRE literature content
Compatibility status

- **OpenAIRE basic**: Only Open Access content
- **OpenAIRE 2.0**: EC funded content
- **OpenAIRE 2.0 +**: Open Access and EC funded content
- **OpenAIRE 3.0**: Open Access and/or EC funded and/or National/other funded content
<table>
<thead>
<tr>
<th>OpenAIRE</th>
<th>Compatibility status</th>
</tr>
</thead>
<tbody>
<tr>
<td>basic</td>
<td>Only Open Access content</td>
</tr>
<tr>
<td></td>
<td>via driver oai set</td>
</tr>
<tr>
<td>2.0</td>
<td>EC funded content</td>
</tr>
<tr>
<td></td>
<td>via ec_funded_resources oai set</td>
</tr>
<tr>
<td>2.0 +</td>
<td>Open Access and EC funded content</td>
</tr>
<tr>
<td></td>
<td>via driver and ec_funded_resources oai set</td>
</tr>
<tr>
<td>3.0</td>
<td>Open Access and/or EC funded and/or National/other funded content</td>
</tr>
<tr>
<td></td>
<td>via openaire oai set</td>
</tr>
</tbody>
</table>
Check data providers

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Documents</th>
<th>Institution</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>PADIS</td>
<td>Italy</td>
<td>1609</td>
<td>Università degli studi La Sapienza di Roma</td>
<td>OpenAIRE basic (DRIVER OA)</td>
</tr>
<tr>
<td>Padua@research</td>
<td>Italy</td>
<td>3436</td>
<td>University of Padua</td>
<td>OpenAIRE 2.0+ (DRIVER OA, EC funding)</td>
</tr>
<tr>
<td>PORTO Publications Open Repository TOrino</td>
<td>Italy</td>
<td>70385</td>
<td>POLITECNICO DI TORINO</td>
<td>OpenAIRE 2.0+ (DRIVER OA, EC funding)</td>
</tr>
<tr>
<td>PUMA</td>
<td>Italy</td>
<td>42731</td>
<td>Institute of Information Science and Technology &quot;A. Faedo&quot;</td>
<td>OpenAIRE 3.0 (OA, funding)</td>
</tr>
<tr>
<td>RCR</td>
<td>Italy</td>
<td>67384</td>
<td>UNIVERSITA DEGLI STUDI DI PALERMO</td>
<td>OpenAIRE 2.0 (EC funding)</td>
</tr>
</tbody>
</table>

https://beta.openaire.eu/search/openaire-data-providers
## Compatibility

- **OpenAIRE basic (DRIVER OA)**
- **OpenAIRE 2.0 (EC funding)**
- **OpenAIRE basic (DRIVER OA)**

### 441 OpenAIRE compatible data providers

**Filter by**

**Quick Filters**

- Publication Repositories
- Publication Repository Aggregators
- Data Repositories
- Data Repository Aggregators
- Journals
- Journal Aggregators

<table>
<thead>
<tr>
<th>Name</th>
<th>Country</th>
<th>Documents</th>
<th>Institution</th>
<th>Compatibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe PubMed Central</td>
<td>United Kingdom</td>
<td>28000000  (updated 14/11/2013)</td>
<td>Europe PMC Funders Group</td>
<td>OpenAIRE basic (DRIVER OA)</td>
</tr>
<tr>
<td>CDS</td>
<td>Switzerland</td>
<td>1321704   (updated 17/12/2013)</td>
<td>Organisation Européenne pour la Recherche Nucléaire</td>
<td>OpenAIRE 2.0 (EC funding)</td>
</tr>
<tr>
<td>Biblioteca Virtual de Prensa Histórica (Virtual Library of Historical Newspapers)</td>
<td>Spain</td>
<td>1049471   (updated 17/12/2013)</td>
<td>Ministerio de Cultura</td>
<td>OpenAIRE basic (DRIVER OA)</td>
</tr>
<tr>
<td>arXiv.org e-Print Archive</td>
<td>United States</td>
<td>899272    (updated 17/12/2013)</td>
<td>Cornell University</td>
<td>OpenAIRE basic (DRIVER OA)</td>
</tr>
</tbody>
</table>
How to make the repository OpenAIRE compatible
DSpace repository platform

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University of Minho
josecarvalho@sdum.uminho.pt
Topics

• OpenAIRE compatibility for Dspace versions
• OAI Extended Addon
• XOAI addon
• OAI 2.0
• Specific metadata values
• Authority Control Addon
OpenAIRE compatibility for different Dspace versions

<table>
<thead>
<tr>
<th>Dspace 1.8.2</th>
<th>Via <strong>OAlextended</strong> Addon and also via <strong>XOAI</strong> addon</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Compatibility with OpenAIRE 2.0 guidelines</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSpace 3</th>
<th><strong>OAI 2.0 is a standard part of DSpace 3.0</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Compatibility with OpenAIRE 2.0 guidelines via XOAI.</td>
</tr>
<tr>
<td></td>
<td>• (fix ‘info:eu-repo/grantAgreement/EC/FP’ on the filter ‘openairerelationFilter’)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSpace 4</th>
<th><strong>OAI 2.0 is a standard part of DSpace 4.0</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• OpenAIRE 2.0 compatibility via XOAI and will be partially compatible with OpenAIRE 3.0 guidelines via patch (to be presented briefly).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSpace 5</th>
<th><strong>OpenAIRE compatible version</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Compatibility with OpenAIRE 3.0 and OpenAIRE data 1.0</td>
</tr>
</tbody>
</table>
OAI extended Addon

OAI Extended Addon (or a patch to be more precise):

• Extends the base functionality of the OAI-PMH interface and delivers repository administrators more flexibility and functionalities to select and filter the information.

• The purpose of the OAI Extended Addon was to modify the OAI Interface's output, showing only items that were compliant with the DRIVER Guidelines.

• The Addon provides also the tools to create a set according to the requirements of the OpenAIRE Guidelines, helping European repositories to become OpenAIRE compliant.

• Other features are: hability to show didl schema and ETDMS items... can easily be configured, changed or extended.
# OpenAIRE compatibility

**OAI Extended Addon – DSpace patch**

<table>
<thead>
<tr>
<th>OAIExtended V 2.0</th>
<th>Dspace 1.6.2</th>
<th>08 Nov. 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>OAIExtended V 2.4</td>
<td>Dspace 1.7.2</td>
<td>25 Oct. 2011</td>
</tr>
<tr>
<td>OAIExtended V 3.0</td>
<td>Dspace 1.8.2</td>
<td>06 Jul. 2012</td>
</tr>
</tbody>
</table>

OAextended

• Initially created for the DRIVER Guidelines
• Since Nov. 2010 enables OpenAIRE compatibility.

How?

• Filter all the records that have a dc.relation with:
  info:eu-repo/grantAgreement/EC/FP7/???????
• To the EC Funded Resources SET
  ➢ OpenAIRE 2.0 guidelines set
Set EC Funded Resources

  <request verb="ListSets">http://repositorio.ul.pt/oaiextended/request</request>
- <ListSets>
  - <set>
    <setSpec>driver</setSpec>
    <setName>Driver Set</setName>
  </set>
  - <set>
    <setSpec>ec_fundedresources</setSpec>
    <setName>EC Funded Resources Set</setName>
  </set>
  - <set>
    <setSpec>thesis</setSpec>
    <setName>Doctoral and Master Thesis</setName>
  </set>
  - <set>
    <setSpec>hdl_10451_2</setSpec>
    <setName>BUL - Artigos em Revistas Internacionais</setName>
  </set>
XOAI

What is XOAI Add-on? (for DSpace 1.8.x)

• XOAI is a java implementation of an adaptable OAI-PMH data provider interface.
  • Enabling features like:
    • OpenAIRE and Driver compliance
    • Item filtering and formatting
    • Style Sheet Support
    • Virtual sets
    • Virtual contexts.

XOAI info: https://github.com/lyncode/xoai
OAI 2.0

OAI 2.0 is a standard part of DSpace 3.0

What is OAI 2.0?

OAI 2.0 is a Java implementation of an OAI-PMH data provider interface that uses XOAI, an OAI-PMH Java Library.

Why OAI 2.0?

Projects like OpenAIRE, Driver have specific metadata requirements.

As the OAI-PMH protocol doesn't establish any frame to these specifics, OAI 2.0 can have more than one instance of an OAI interface (feature provided by the XOAI core library) so one could define an interface for each project.
OAI 2.0

Concepts: Filter, Transformer and Context

• With a **Filter** is possible to select information from the data source.

• A **Transformer** allows to make some changes in the metadata before showing it in the OAI interface.

• OAI 2.0 also adds a new concept to the OAI-PMH basic specification, the concept of **context**.
  - http://www.example.com/xoai/driver
  - http://www.example.com/xoai/openaire
  - http://www.example.com/xoai/request
Contexts could be seen as virtual distinct OAI interfaces

- http://repositorium.sdum.uminho.pt/oai/driver
- http://repositorium.sdum.uminho.pt/oai/openaire
- http://repositorium.sdum.uminho.pt/oai/request
OAI 2.0 (openaire set)
OAI 2.0 (filter)
OAI 2.0 (ec_fundedresources set)

Webinars on OpenAIRE compatibility for repositories – March/April 2014

http://repositorium.sdum.uminho.pt/oai/openaire?verb=ListSets
Specific metadata values

How do you easily add... dc:relation with the project ID

• Have a dc:relation field in input-forms.xml to projects.
  • DSpace endpoint: http://api.openaire.eu/projects/dspace/FP7/ALL/ALL

• You can also use the OpenAIRE Authority Control Addon to facilitate the search process of the project identification.
Specific metadata values

How do you easily add… dc:rights and embargo end date

• Just use a combo-box for dc:rights to input the 4 options:
  • info:eu-repo/semantics/closedAccess
  • info:eu-repo/semantics/embargoedAccess
  • info:eu-repo/semantics/restrictedAccess
  • info:eu-repo/semantics/openAccess

• Use a input-box for dc:date to insert the embargo end date:
  • <dc:date> info:eu-repo/date/embargoEnd/2014-05-12 <dc:date>

+ info: https://wiki.duraspace.org/pages/viewpage.action?pageId=33238567
http://colab.mpdl.mpg.de mediawiki/ESciDoc_Application_Profile_OpenAIRE
Addon

OpenAIRE Authority Control

• This Addon uses DSpace “Authority Control” functionality:
  • provides a way to list and verify OpenAIRE projects (FP7);
  • the list of projects is maintained as a web-service
  • a local cache is created in order to be queried by users
  • only adds the correct value in dc.relation field

• Main goals:
  • Simplify and standardize the projects (ID) identification in the deposit process;
  • Facilitates compliance with the OpenAIRE guidelines
Add-on for:

**Dspace 1.8.2**


**Dspace 1.7.2**


**Dspace 1.6.2**

OpenAIRE Authority Control Addon

- Allows users to search and include FP7 projects ID in the metadata of the records disposed in accordance with the guidelines.
OpenAIRE

Authority Control Addon

Projetos FP7 contendo o termo pesquisado

Results 1 to 6 of 6 for "neco"

1. 230583 - NECOBELAC - Network of collaboration between Europe an...
2. 220639 - CRENECO - The role of mesophilic crenarchaea in soil n...
3. 237443 - HINECOP - Hydrodynamic interactions in non-equilibrium...
4. 236079 - MarinEcosyStability - Complexity, stability and chaos ...
5. 213651 - STONECORE - Stone conservation for the refurbishment o...
6. Projecto não identificado

Introduza o título principal do registo.

Título

Data de Embargo : YYYY-MM-DD

Mês: (Sem Mês) ▼ Dia: Ano:

Introduza o identificador do Projecto OpenAIRE.

OpenAIRE info:eu-repo/grantAgreement/EC/FP7/230583
Edit record

- Metadata

```
dc.relation  info:eu-repo/grantAgreement/EC/FP7/230583
dc.rights    openAccess
dc.title     Teste OpenAIRE
```
OpenAIRE validator and registration process

http://validator.openaire.eu
Registration Steps

1. Register your repository in OpenDOAR
   OpenDOAR is an authoritative worldwide directory of academic open access repositories.

2. Test compliancy with OpenAIRE
   Make your repository OpenAIRE complaint – by implementing the OpenAIRE Guidelines

3. Add your repository in OpenAIRE
   OpenAIRE in collaboration with OpenDOAR provides you an easy web tool to help you register the repository.
1. OpenDOAR

- The first step is to register your repository in OpenDOAR.
- If you are already registered in OpenDOAR:
  - Check if the information is update
  - Attention to the URL and admin email
2. Test the OpenAIRE compliance

• After you have made some progress in implementing the guidelines you should run a compliancy test.
• The OpenAIRE provides a validator where you can verify if the repository is truly compatible with the guidelines.
  • Enter the OAI-PMH base URL of your repository and choose to test your repository against the OpenAIRE rule set.
• After running the test you can browse the results.
• The results are updated periodically, and the whole test might take some time to finish.
Join OpenAIRE today!

We are here to help you join OpenAIRE. To begin, read these instructions.

Our services provide you with an easy way to test your repository/journal and add it in OpenAIRE:

1. Test the compliancy of your repository/journal against the OpenAIRE and/or the DRIVER guidelines

2. Add your repository or journal in OpenAIRE

For more information check the FAQ.
If you need further assistance please contact us through the OpenAIRE Helpdesk

http://validator.openaire.eu
Join OpenAIRE today!

The OpenAIRE services provide you with an easy way to validate your repository/journal and register it into the OpenAIRE network. To begin, read these instructions.

1. **Test the compatibility** of your repository/journal or aggregator to the [OpenAIRE guidelines](http://beta.openaire.eu/validator/) for:
   - Publication Repositories / Journals / Aggregators
   - Data Archives/Repositories

2. **Register your repository** or journal in OpenAIRE

For more information check the [FAQ](http://beta.openaire.eu/validator/)
If you need further assistance please contact us through the [OpenAIRE Helpdesk](http://beta.openaire.eu/validator/)
Interfaces and publishing protocols

- Compatibility level "OpenAIRE 3.0" corresponds to run a validation test on "openaire" set.
- Compatibility level "OpenAIRE 2.0" corresponds to run a validation test on "ec_fundedresources" set.
- Compatibility level "Driver" corresponds to run a validation test on "driver" set.
Run compatibility test (1)

Select repository/journal
- Base URL (*):
  Please choose existing Base URL...
- Or Manually Enter a Base Url (*):
  http://repositorium.sdum.uminho.pt/oai/openaire

Select guidelines
You may apply two types of compatibility tests on your repository:
Run Compatibility Test

1. Selected repository: http://repositorium.sdum.uminho.pt/oai/openaire

2. Select guidelines
   - OpenAIRE For Literature Repositories [More info]
   - OpenAIRE For Data Archives [More info]

   View/Select Rules
   - for Content [Show]
   - for Usage [Show]

3. Select parameters
   - Number of records [All] [Custom]: 10
   - Set: All Sets

Would you like to group your results by a specific record’s field?
   - No
   - Yes [XPATH]

XPath Examples: 1. //header/setSpec 2. //record/metadata
//*[name()='dc:language']
Run Compatibility Test: View/Select Rules

### for Usage

- **Use of OAI-DC (M)**
- **Use of OAI-PMH:**
  - 'openaire' or
  - 'ec_fundedresources' or
  - 'driver' set must exist (M)

### for Content

<table>
<thead>
<tr>
<th>Field Access Level</th>
<th>Field Alternative Identifier</th>
<th>Field Audience</th>
<th>Field Contributor</th>
<th>Field Coverage</th>
<th>Field Creator</th>
<th>Field Date of Publication</th>
<th>Field Description</th>
<th>Field Embargo End Date</th>
<th>Field Format</th>
<th>Field Language</th>
<th>Field License Condition</th>
<th>Field Project Identifier for ecfundedresources</th>
<th>Field Project Identifier for openaire</th>
<th>Field Publication Type</th>
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<th>Field Publisher</th>
<th>Field Referenced Dataset</th>
<th>Field Referenced Publication</th>
<th>Field Resource Identifier</th>
<th>Field Source</th>
<th>Field Subject</th>
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<tbody>
<tr>
<td>Type</td>
<td>Status</td>
<td>Score</td>
<td>User</td>
<td>Started</td>
<td>Duration</td>
<td>Repository</td>
<td>Rule Set</td>
<td>Reports</td>
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<td>3 secs 55</td>
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<td><a href="#">Show Results</a></td>
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</table>
Run Compatibility Test: Score information

How the score is computed

Each rule is assigned a weight. The score is estimated as the weighted average of the percentage of errors for each rule.

For example, for rules r1, r2, r3 with corresponding weights w1, w2, w3, if the percentage of errors is p1, p2, p3, then the score is calculated by the following formula:

\[
\text{score} = \frac{w_1p_1 + w_2p_2 + w_3p_3}{w_1 + w_2 + w_3}
\]

You can find the weights of the various rules used in a test inside its report.
3. Join OpenAIRE

1. Add and correct any details in the form and click submit. After a short compatibility test against the OpenAIRE rule set, your repository will be ready to join OpenAIRE.

2. An email will be sent to the repository administrator to confirm this request. Please make sure you have contacted them before registering.

3. If the compatibility test does not succeed, you will be unable to join OpenAIRE until you correct all the errors that are found. Then you must re-submit your request.

ONLY http://beta.openaire.eu
Join OpenAIRE

ONLY http://beta.openaire.eu/validator
Join OpenAIRE

Interfaces and publishing protocols

Compatibility level "OpenAIRE 3.0" corresponds to run a validation test on "openaire" set. Compatibility level "OpenAIRE 2.0" corresponds to run a validation test on "ec_fundedresources" set and will soon be obsolete. Please upgrade to OpenAIRE 3.0 Guidelines.

Compatibility level "Driver" is now obsolete.

<table>
<thead>
<tr>
<th>Base OAI-PMH Url</th>
<th>Desired Compatibility Level</th>
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</thead>
<tbody>
<tr>
<td><a href="http://repositorium.sdum.uminho.pt/oai/openaire">http://repositorium.sdum.uminho.pt/oai/openaire</a></td>
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<tr>
<td><a href="http://repositorium.sdum.uminho.pt/oai/driver">http://repositorium.sdum.uminho.pt/oai/driver</a></td>
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</table>

Add new interface

Current compatibility status

<table>
<thead>
<tr>
<th>Driver</th>
<th>OpenAIRE 2.0</th>
<th>OpenAIRE 3.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
</tr>
</tbody>
</table>
Q&A

OpenAIRE Compatibility with Dspace

(Webinar – CINECA)

April 2014

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