Facilitate Open Science Training for European Research
Repository managers: guidelines to meet H2020 requirements

Ricardo Saraiva - University of Minho
rsaraiva@sdum.uminho.pt
Overview

1. The context: OpenAIRE infrastructure
2. OpenAIRE guidelines for data sources
3. Adoption and mapping with other repository networks
4. Future Directions
5. Tools for repositories compatibility
The context:
OpenAIRE infrastructure
OpenAIRE

OPEN ACCESS INFRASTRUCTURE

for research in Europe

www.openaire.eu
Project & Infrastructure

Guided by OA funder policies (European Commission)

Participatory approach (human & e-infrastructure)

Integrated Scientific Information System
Content acquisition policy

Publications in OpenAIRE

IR

- Open Access content
- EC funded content
- National or other funded content

DR

- Dataset is linked with a publication in the OpenAIRE information space
- EC funded content
- National or other funded content

Data in OpenAIRE
OpenAIRE Guidelines for data sources
Where we started...

- ‘oai_dc’ 15 elements based on DCMES schema
  - As established and ‘lowest common denominator’ OAI format
- Used in numerous interpretations -> interoperability issue
- Requires agreements on syntax (use of OAI-PMH & oai_dc) and semantics (controlled vocabularies)
  - DRIVER Guidelines v2 introduced in 2008
  - info:eu-repo Application Profile for encoding schemes
- Mainly used to describe textual resources
  - Continued in OpenAIRE Guidelines since 2009
In the meantime...

• OpenAIRE scope & requirements have expanded since then
  • By complementary types of data sources
    • For research data and research information
  • Non-textual content
  • Publication and data linking
  • Project contextualization

• New global “authoritative” identifier based infrastructures
  • For authors/contributors
  • funders / projects
  • research outputs
Guidelines Timeline

- DRIVER: OA (2008)
  - Text Repositories

- OpenAIRE: EC-FP7 (2010, 2012)
  - Text Repos. Aggregators

- OpenAIRE: EC + OA (2013)
  - Data-Rep. OAI_DATACITE
  - CRIS CERIF
3 Guidelines for Data Providers

1. Literature Repositories (and journal platforms)
   - Dublin Core (DRIVER)

2. Data Repositories (and archives/data centres)
   - Datacite

3. CRIS systems
   - CERIF-XML
How do they work?

• Identification of Open Access and funded research results by OAI-Sets:
  • ‘ec-fundedresources’
  • ‘openaire’
  • ‘openaire_data’

• Latest schema guarantees backwards-compatibility with previous versions.

• Enhancing research results by metadata enrichment in OpenAIRE.
“Repository managers will be able to enable authors to fulfill the EC Commission Open Access requirements”

www.openaire.eu
3 Guidelines for Data Providers

1. Literature Repositories (and journal platforms)
   - Dublin Core (DRIVER)

2. Data Repositories (and archives/data centres)
   - Datacite

3. CRIS systems
   - CERIF-XML
Guidelines for Literature based Data Sources

- Continues the DRIVER v2 Guidelines
- Transfer protocol primarily but not limited: OAI-PMH
- Metadata format (so far): oai_dc
- Application Profile (so far): info:eu-repo
- Extended by properties to describe
  - Funder / Project information
  - Embargo Period / Embargo End Date
  - Open Access Status / Access Rights
  - Alternative Identifier
  - Referenced Dataset(s)
  - Referenced Publication(s)
OpenAIRE OAI-Set

- To group metadata relevant for OpenAIRE
  - See [https://www.openaire.eu/content-acquisition-policy/content-acquisition-policy/content-acquisition-policy](https://www.openaire.eu/content-acquisition-policy/content-acquisition-policy/content-acquisition-policy)
  - Metadata about Open Access Publications
  - Metadata about Publications funded in EC-FP7 / H2020
  - Metadata about Publications funded by other funders
    - OpenAIRE provides information about supported funding information

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

- projectID
- access_rights
- embargo_end_date
### projectID

<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 (if applicable)</td>
</tr>
<tr>
<td>Usage instruction</td>
<td>A vocabulary of projects is exposed by the OpenAIRE API: <a href="http://api.openaire.eu/#cha_projects_http">http://api.openaire.eu/#cha_projects_http</a>, and available for all repository managers. Values include funder, 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>
</tbody>
</table>

**Example:**

<table>
<thead>
<tr>
<th>Element name</th>
<th>accessRights</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMI definition</td>
<td>dc:rights</td>
</tr>
<tr>
<td>Usage</td>
<td>Mandatory</td>
</tr>
<tr>
<td>Usage instruction</td>
<td>Use values from vocabulary Access Rights at <a href="http://purl.org/eu-repo/semantics/#info-eu-repo-AccessRights">http://purl.org/eu-repo/semantics/#info-eu-repo-AccessRights</a></td>
</tr>
<tr>
<td></td>
<td>• info:eu-repo/semantics/closedAccess</td>
</tr>
<tr>
<td></td>
<td>• info:eu-repo/semantics/embargoedAccess</td>
</tr>
<tr>
<td></td>
<td>• info:eu-repo/semantics/restrictedAccess</td>
</tr>
<tr>
<td></td>
<td>• info:eu-repo/semantics/openAccess</td>
</tr>
</tbody>
</table>

Examples:

```xml
<dc:rights>info:eu-repo/semantics/openAccess</dc:rights>
```
<table>
<thead>
<tr>
<th>Element name</th>
<th>embargoEndDate</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DCMI definition</strong></td>
<td>dc:date</td>
</tr>
<tr>
<td><strong>Usage</strong></td>
<td>Mandatory (if applicable)</td>
</tr>
<tr>
<td><strong>Usage instruction</strong></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>
</tbody>
</table>

**Examples:**

```xml
<dc:date>info:eu-repo/date/embargoEnd/2011-05-12</dc:date>
```
<table>
<thead>
<tr>
<th>Element name</th>
<th>Alternative Identifier</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCMI definition</td>
<td>dc:relation</td>
</tr>
<tr>
<td>Usage</td>
<td>Recommended</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 info:eu-repo/semantics/altIdentifier info:eu-repo/semantics/altIdentifier/&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 Dataset

<table>
<thead>
<tr>
<th>Element name</th>
<th>Referenced Dataset</th>
</tr>
</thead>
<tbody>
<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>
<tr>
<td>Element name</td>
<td>Referenced Publication</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>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: 
Meet H2020 OA Guidelines


<table>
<thead>
<tr>
<th>Property</th>
<th>DC Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU funding acknowledgment</td>
<td>dc:contributor</td>
<td>“controlled” terms : &quot;European Union (EU)&quot; and &quot;Horizon 2020&quot; &quot;Euratom and &quot;Euratom research and training programme 2014-2018&quot;</td>
</tr>
<tr>
<td>Peer reviewed</td>
<td>dc:type</td>
<td>info:eu-repo/semantics/publishedVersion</td>
</tr>
</tbody>
</table>
| Embargo period                  | dc:date, dc:rights | • info:eu-repo/date/embargoEnd/<YYYY-MM-DD>  
                         |                  | • <YYYY-MM-DD> (as publication date)                               |
| Project information             | dc:relation      | info:eu-repo/grantAgreement/EC/H2020/[ProjectID]/[Jurisdiction]/[ProjectName]/[ProjectAcronym]/ |
| Persistent identifier           | dc:identifier or dc:relation |                                                               |
| License                         | dc:rights        | URL of license condition                                              |
| Persistent IDs for authors and contributors | dc:creator, dc:contributor | <Lastname, Firstname; id_orcid 0000-0000-0000-0000>               |
| Reference to related research outcome | dc:relation     | info:eu-repo/semantics/dataset/<scheme>/<id>                       |
3 Guidelines for Data Providers

1. Literature
   Repositories (and journal platforms)
   Dublin Core (DRIVER)

2. Data
   Repositories (and archives/data centres)
   Datacite

3. CRIS systems
   CERIF-XML
Guidelines for Research Data based Data Sources

- Based on DataCite metadata scheme
  - Proven standard for heterogeneous data sources and cross-disciplinary archives
  - Maintained by a trusted and sustainable organization
  - Support of data citation
- Metadata Format: oai_datacite
- OAI-Set: openaire_data
- Zenodo as reference implementation for OpenAIRE Data Repository Guidelines
Guidelines for Research Data based Data Sources

• Adaptations for OpenAIRE:
  • Incl. additional PID schemes to DOI, e.g. URN, ARC ...
  • Recommends links to related publications & datasets
  • Recommends Contributor prop. to relate dataset to funding information
  • Date and Description prop. are mandatory
  • Enforces (info:eu-repo) encoding scheme on Rights property
3 Guidelines for Data Providers

1. Literature Repositories (and journal platforms)
   - Dublin Core (DRIVER)

2. Data Repositories (and archives/data centres)
   - Datacite

3. CRIS systems
   - CERIF-XML

Validated

OpenAIRE Guidelines for Data Archive Managers 1.0 (December 2012)

euroCRIS
Current Research Information Systems
Guidelines for CRIS Managers based on CERIF-XML

• CERIF as de facto standard for CRIS data model
  • Entities for organization, person, project, output, data ..
• CERIF-XML as data exchange standard (in the CRIS world)
• Maintained by euroCRIS as sustainable organization
Relevant CERIF Entities for OpenAIRE
Guidelines for CRIS Managers based on CERIF-XML

• Adaptations for OpenAIRE:
  • Subset of CERIF entities relevant for OpenAIRE

• Semantic Interoperability
  • Reuse of CERIF Semantics vocabularies for classification and definition of relationships between entities

• Consistency with the other OpenAIRE Guidelines
  • E.g. resource types, access rights
OpenAIRE Compatibility Status: Levels and OAI Sets

- **OpenAIRE basic**
  - Only Open Access content
  - via driver oai set

- **OpenAIRE 2.0**
  - EC funded content
  - via ec_fundedres ources oai set

- **OpenAIRE 2.0 +**
  - Open Access and EC funded content
  - via driver and ec_fundedreso urces oai set

- **OpenAIRE 3.0**
  - Open Access and/or EC funded and/or National/other funded content
  - via openaire oai set
Adoption and Mapping
with other repository networks
LA Referencia aligned with OpenAIRE Guidelines

- Latin America Open Access Repositories Network
- Central metadata elements and use of vocabularies
  - Access rights: openAccess; embargoedAccess
  - Use of Creative Commons licenses recommended
- Considers regional aspects compared to OpenAIRE regarding
  - Mandatory, mandatory if applicable and recommended use of metadata fields
- Collaboration between LA Referencia and OpenAIRE ensures future compatibility of the guidelines
OpenAIRE Guidelines, RIOXX and the case in UK

- RIOXX to support UK repositories for compliancy with funder OA policies (RCUK, HEFCE)
- Introduction of element / attributes to encode project / funder information
- Based on oai_dc + rioxx terms and rioxx attributes
- Supports NISO-ALI
- Support of EC-H2020 OA mandate is (currently) done via agreed mapping between RIOXX and OpenAIRE Literature Guidelines
Future Directions

Next steps
Innovative Scholarly Services – Need of Improved Metadata Quality

• Features
  • Disambiguation by identifiers for authors / contributors, funders / project grants, research outputs
  • Explicit links to landing pages and fulltext files
  • Explicit links between publications and other research outputs
  • Detailed bibliographic citation information
  • Explicit and machine readable license information

• Future proof
  • Compatible with linked data principles
  • Extensibility towards Open Science properties

• Backward compatibility and low-barrier upgrade
  • Following DCMI Guide on Publishing Metadata (dcterms)
  • COAR IG Controlled Vocabularies
Innovative Scholarly Services – Need of Network Alignment

• Alignment & collaboration needed between major repository initiatives
  • LA Referencia, SHARE, RIOXX, OpenAIRE, …
  • COAR-CASRAI OA Interoperability WG
    • Alignment on metadata elements and vocabularies
  • COAR IG Controlled Vocabularies
    • Community driven effort to supersede info:eu-repo application profile
    • Working on an up to date technological standard
    • Editorial Board to ensure expertise and long-term support
Tools for Repositories
Compatibility
Validator, API, software add-ons

5/5
Data Provider Registration

Via validator tool

Add your repository

Please make sure your repository is registered in OpenDOAR. Then select it from the list below and fill in the form.

OpenDOAR Repositories

AFGHANISTAN | ALBANIA | ALGERIA | ARGENTINA | ARMENIA | AUSTRALIA | AUSTRIA | AZERBAIJAN | BANGLADESH | BELARUS | BELGIUM | BOLIVIA | BOSNIA AND HERZEGOVINA | BOTSWANA | BRAZIL | BULGARIA | CAMEROON | CANADA |CAPE VERDE | CHILE | CHINA (PEOPLE'S REPUBLIC OF) | COLOMBIA | COSTA RICA | CROATIA | CUBA | CYPRUS | CZECH REPUBLIC | DENMARK | DOMINICAN REPUBLIC | ECUADOR | EGYPT | EL SALVADOR | ESTONIA | ETHIOPIA | FIJI | FINLAND | FORMER YUGOSLAV REPUBLIC OF MACEDONIA | FRANCE | GREECE | GUADELOUPE | GEORGIA | GERMANY | GHANA | HONDURAS | HONG KONG | HUNGARY | IRAQ | ICELAND | INDIA | INDONESIA | IRAN (ISLAMIC REPUBLIC OF) | IRELAND | ISRAEL | ITALY | JAMAICA | JAPAN | KAZAKHSTAN | KENYA | KOREA (REPUBLIC OF) | KYRGYZSTAN | LAO (PEOPLE'S DEMOCRATIC REPUBLIC) | LATVIA | LIBANON | LESOTHO | LITHUANIA | LUXEMBOURG | MALAYSIA | MEXICO | MOLDOVA (REPUBLIC OF) | MOROCCO | MOZAMBIQUE | NAMIBIA | NEPAL | NETHERLANDS | NEW CALEDONIA | NEW ZEALAND | NICARAGUA | NIGERIA | NORWAY | PARAGUAY | PUERTO RICO | PAKISTAN | PERU | PHILIPPINES | POLAND | PORTUGAL | QATAR | ROMANIA | RUSSIAN FEDERATION | RWANDA | SAUDI ARABIA | SENGAL | SERBIA | SINGAPORE | SLOVENIA | SOUTH AFRICA | SPAIN | SRI LANKA | SUDAN | SWEDEN | SWITZERLAND | TAIWAN | TANZANIA (UNITED REPUBLIC OF) | THAILAND | TRINIDAD AND TOBAGO | TUNISIA | TURKEY | UNKNOWN | UGANDA | UKRAINE | UNITED KINGDOM | UNITED STATES | URUGUAY | VENEZUELA | VIET NAM | WITHOUT COUNTRY | ZAMBIA | ZIMBABWE
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](#) for:
   - Publication Repositories / Journals / Aggregators
   - Data Archives/Repositories

2. Register your literature repository, data repository, journal or aggregator in OpenAIRE

For more information check the [FAQ](#), if you need further assistance please contact us through the [OpenAIRE Helpdesk](#).
Test the OpenAIRE Compliance

The OpenAIRE provides its validator service: www.openaire.eu/validator

Users can:

• Verify if the repository is truly compatible with the guidelines.
• Run a compatibility test (enter the OAI-PMH base URL).
## 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)

- **Use of OAI-PMH:**
  - 'openaire' set must exist (M)
  - driver set must exist (R)
  - ec_fundedresources set must exist (openaire2.0)

### for Content

- **Field Access Level (M)**
- **Field Alternative Identifier (R)**
- **Field Audience (R)**
- **Field Contributor (R)**
- **Field Coverage (R)**
- **Field Creator (M)**
- **Field Date of Publication (M)**
- **Field Description (MA)**
- **Field Embargo End Date (MA)**
- **Field Format (R)**
- **Field Language (R)**
- **Field License Condition (R)**
- **Field Project Identifier for ecfundedresources (M)**
- **Field Project Identifier for openaire (MA)**
- **Field Publication Type (M)**
- **Field Publication Version (R)**
- **Field Publisher (MA)**
- **Field Referenced Dataset (R)**
- **Field Referenced Publication (R)**
- **Field Resource Identifier (M)**
- **Field Source (M)**
- **Field Subject (MA)**
- **Field Title (M)**
Chapter 4. Bulk access to projects

Table of Contents

DSpace/ePrints

The APIs offer custom access to metadata about projects funded by a selection of international funders for the DSpace and EPrints platforms.

The currently supported funding streams and relative codes are:

- FP7: The 7th Framework Programme funded by the European Commission
- WT: Wellcome Trust funding programme
- H2020: Horizon2020 Programme funded by the European Commission
- FCT: the funding programme of Fundação para a Ciência e a Tecnologia, the national funding agency of Portugal
- ARC: the funding programme of the Australian Research Council
- NHMRC: the funding programme of the Australian National Health and Medical Research Council

Coming soon:

- SFI: Science Foundation Ireland
- CSF: Croatian Science Foundation
- MSES: Ministry of Science, Education and Sports of the Republic of Croatia

DSpace/ePrints

DSpace endpoint: http://api.openaire.eu/projects/dspace/$fundingStream/ALL/ALL

ePrints endpoint: http://api.openaire.eu/projects/eprints/$fundingStream/ALL/ALL
Need to integrate project and funding information into your institutional repository based on DSpace or ePrints?

- Go for the DSpace/ePrints endpoints.

Do you prefer a TSV with the list of projects by funding?

- TSV endpoint is meant for

**DSpace/ePrints**


Addons, patches or plugins for Repositories & Journals software

**Dspace add-ons and versions compliance**

https://wiki.duraspace.org/pages/viewpage.action?pagId=33238567

**OpenAIRE Plug-in (OpenAIRE 2.0)**

http://files.eprints.org/649/

EPrints - OpenAIRE compliance example (3.0)

https://gist.github.com/alenkovich/9596992

**OAI_DC_OpenAIRE implementation for Zenodo**


**OJS Plugin: OpenAIRE**


+ OJS DRIVER-Plug-In

https://www.openaire.eu/rep-managers/rep-man-toolkit/repository-managers
OpenAIRE compatibility for different DSpace versions

<table>
<thead>
<tr>
<th>DSpace 1.8.2</th>
<th>Via OAIextended add-on and also via XOAI add-on</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Compatibility with OpenAIRE 2.0 guidelines</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>DSpace 4</th>
<th>OAI 2.0 is a standard part of DSpace 4.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>• OpenAIRE 2.0 compatibility via XOAI</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DSpace 5</th>
<th>OAI 2.0 is a standard part of DSpace 5.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>• OpenAIRE 2.0 compatibility via XOAI and will be partially compatible with OpenAIRE 3.0 guidelines via patch (to be presented).</td>
<td></td>
</tr>
</tbody>
</table>
OAI 2.0

OAI 2.0 is a standard part of DSpace 3.0, 4.0 and 5.0

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.
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/driver)
  - [http://www.example.com/xoai/openaire](http://www.example.com/xoai/openaire)
  - [http://www.example.com/xoai/request](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 (record in openaire set)

Dspace Add-ons for project ids

Using the projects list provided by the OpenAIRE API

- **OpenAIRE Authority Control**
  - Dspace 3.2
  - Dspace 1.8.2

- **OpenAIRE funders projects list addon (NEW)**
  - In use on the RCAAP Project (PT repositories)

Allows users to search and include EC (+ WT + FCT) projects ID in the metadata of the records disposed in accordance with OpenAIRE.
OpenAIRE Authority Control Add-on

- Allows users to search and include FP7 project IDs in the metadata of the records disposed in accordance with the guidelines

*Needs the OAIdifferentiated Add-on to create the set (ec_fundedresources)*
Searching by the name, acronym or the project id number
Select the project and accept... the necessary namespace will be filled
Metadata edition

Unlocking dc.relation and searching by the name, acronym or the project id number
Select the project and accept... the necessary namespace will be filled

Example:  http://hdl.handle.net/1822/21091
Some results in OpenAIRE...

<table>
<thead>
<tr>
<th>FUNDER</th>
<th>ACCESS MODE</th>
<th>PUBLICATION YEAR</th>
<th>DOCUMENT TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>European Commission (EC) (207179)</td>
<td>Open Access (12717112)</td>
<td>2013 (1202145)</td>
<td>Article (9435195)</td>
</tr>
<tr>
<td>Wellcome Trust (WT) (12748)</td>
<td>Restricted (240514)</td>
<td>2012 (1160530)</td>
<td>Unknown (1132816)</td>
</tr>
<tr>
<td>Fundação para a Ciência e a Tecnologia, I.P. (FCT)</td>
<td>Closed Access (148127)</td>
<td>2014 (1107246)</td>
<td>Doctoral thesis (434165)</td>
</tr>
<tr>
<td>Australian Research Council (5521)</td>
<td>not available (4539)</td>
<td>2011 (1070120)</td>
<td>Preprint (396329)</td>
</tr>
<tr>
<td>NHMRC (4476)</td>
<td>Embargo (3563)</td>
<td>2010 (899470)</td>
<td>Other (359181)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DOCUMENT LANGUAGE</th>
<th>DATA PROVIDER</th>
<th>COMMUNITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>English (7562090)</td>
<td>Europe PubMed Central (3309986)</td>
<td>EGI (4096)</td>
</tr>
<tr>
<td>Undetermined (1563472)</td>
<td>DOAJ-Articles (2046101)</td>
<td>FET (3769)</td>
</tr>
<tr>
<td>Russian (817690)</td>
<td>arXiv.org e-Print Archive (1069758)</td>
<td></td>
</tr>
<tr>
<td>French (464767)</td>
<td>CyberLeninka - Russia (755987)</td>
<td></td>
</tr>
<tr>
<td>Spanish (407582)</td>
<td>Research Papers in Europe (653586)</td>
<td></td>
</tr>
</tbody>
</table>

View more →
Useful Links:

Find and discuss the guidelines at: https://guidelines.openaire.eu
Test and register the repository at: http://validator.openaire.eu
Find support at: https://www.openaire.eu/support/helpdesk
Access the OpenAIRE API documentation: http://api.openaire.eu
About COAR Repository Interoperability: http://coar-repositories.org/activities/repository-interoperability

Find the guide for Repository Managers at: https://www.openaire.eu/rep-man-toolkit/repository-managers
Search for OpenAIRE data providers at: https://www.openaire.eu/search/openaire-data-providers
See the OpenAIRE Content Acquisition policy at: https://www.openaire.eu/openaire-s-content-acquisition-policy/download
Thank You!

Find and discuss at: https://guidelines.openaire.eu
Contact us: guidelines@openaire.eu