Ways forward with CERIF

João Mendes Moreira
Head of Scientific Information, FCT|FCCN
00-0002-9081-2728
Mission

Ensure the **creation** and **sustained** development of a regulatory framework and infrastructures to implement a national integrated information ecosystem **(PTCRIS)** to support research management.
Goals

Infrastructures

Regulatory framework

Adapt FCT systems

Adapt external systems
CRIS chain value

Program

Services

Research portal
CV
Institutional Repository
HUB

Infraestrutres

Organizations
Researchers
Funding
Works

Regulatory framework

Ids
Researchers, Orgs, Funding, public.
Semantics/Vocabulary
Transport (XML) data
Structure data

PTCRIS Connected Research

05-12-2016
Stage 0

Services

Infraestrutures

Regulatory framework

- Funding -
Seed capital
Stage 1

Serviços

Infraestruturas

- Organizações
- Investigadores
- Reconciliação
- Teses / OrgIDs
- PTCRISync

Projetos

Quadro normativo

- Ids Autores
- Ids Orgs
- Semantica / Vocabulário
- Modelo dados

PTCRISync

Research Portal

PTCRIS

- CV
- RCAAP (open access)
- SIGCiência (Grant Mng)

SI nacionais
- HEI
- Funding

05–12–2016
National CV platform
Ciência Vitae
SUMMARY OF ACTIVITIES, PRODUCTIONS AND PROJECTS

- ACTIVITIES (0)
- PRODUCTIONS (6)
- PROJECTS (2)
Ciência Vitae – Structure
Ciência Vitae – Interoperability / Usability

- Projets
- Works
- Theses
- Teachers
- Research units
- Degrees
- Org Ids
- PTCRISync
- Ciência ID
- ISNI +
- Ciência ID
- Ciência ID
- Ciência ID
- Penalty
- 05-12-2016
Use case 1 – CV platform – Funding
Ciência Vitae – Funding

PROJECTS

TYPE OF PARTICIPATION *

Investigation role

Project leader

Start date of participation *

2011 01 01

PROJECT INFORMATION *

Project title *

The Power of Science

The Power of Science. German Science in Portugal (1933-45)
Developing the Instructional Power of Modern Personal Computing (Computer Science)
Doctoral Dissertation Research in Political Science: Does Power Corrupt? An Experimental Approach To Explore the Origins of Corruption in Africa
Landscape of Resistance. Science, power, and environmental justice in the struggle over garbage and incinerators in contemporary Naples, Italy
### Ciência Vitae – Funding

#### Projects

<table>
<thead>
<tr>
<th>Recent start date</th>
<th>View all types</th>
<th>Synchronize with id</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Flows Data Mining Distributed</td>
<td>Grant done from 2010 to 2013</td>
<td></td>
</tr>
<tr>
<td>TriAna - Travel time prediction and analysis for decision support to mass transport companies</td>
<td>Grant done from 2005 to 2008</td>
<td></td>
</tr>
</tbody>
</table>
Funding – ORCID – OpenAIRE

- Vocabulary / semantics

<table>
<thead>
<tr>
<th>ORCID</th>
<th>CASRAI</th>
<th>OpenAIRE</th>
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</thead>
<tbody>
<tr>
<td>Award</td>
<td>?</td>
<td>Award</td>
</tr>
<tr>
<td>Contract</td>
<td>Contract</td>
<td>Contract</td>
</tr>
<tr>
<td>Grant</td>
<td>Grant</td>
<td>Grant</td>
</tr>
<tr>
<td>Salary award</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Problems / Difficulties

- OpenAIRE “registry” completeness
  - Funders (European)
  - Funding (more complete)
- CERIF–XML API / OAI–PMH
  - ORCID (no)
  - OpenAIRE (no)
- Vocabulary / semantics
  - OpenAIRE / ORCID

Suggestions

- OpenAIRE:
  - Assume mng of the European funding registry
  - More control over information (ingester, validator)
- OpenAIRE/ ORCID: Implement CERIF APIs
- euroCRIS, OpenAIRE, SE/OECD
  - Recommend funders the implementation of OpenAIRE profile for CRIS
  - OECD – Towards Data Integration for Research Funding and Performing Organisations (SE)
- COAR / CASRAI / OpenAIRE / euroCRIS / others
  - More cooperation, clear definition of responsibilities
  - System for mng vocabulary (euroCRIS?, ORCID?, CASRAI)
Use case 2 – Institutional Repositories
Repositories & OpenAIRE
OpenAIRE Guidelines consists of three guidelines for publication repositories, data archives and CRIS systems respectively:

- OpenAIRE Guidelines for Literature Repositories
- OpenAIRE Guidelines for Data Archives
- OpenAIRE Guidelines for CRIS Managers based on CERIF-XML
## Software requirements (ex: Author Id)

<table>
<thead>
<tr>
<th>Author related</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R1.1</td>
<td>Author’s profile page (claim)</td>
</tr>
<tr>
<td>R1.2</td>
<td>ORCID aware every time the author is displayed</td>
</tr>
<tr>
<td>R1.3</td>
<td>ORCID authority control</td>
</tr>
<tr>
<td>R1.4</td>
<td>Search by ORCID identifier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Interoperability</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R2.1</td>
<td>Supporting additional metadata formats</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Added value Dspace-ORCID services</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>R3.1</td>
<td>PTCRISync (import)</td>
</tr>
<tr>
<td>R3.2</td>
<td>PTCRISync (export)</td>
</tr>
</tbody>
</table>

Joint webinar ORCID / Duraspace March 2015
Repositories & OpenAIRE

Problems / Difficulties

- **OpenAIRE Guidelines 3.0**
  - RI <> CRIS (completeness)
- **Dspace / Software vendors**
  - Insufficient data structure
  - Insufficient functionalities to handle quality metadata (ORCID)
  - No CERIF-XML implementation

Suggestions

- **OpenAIRE**
  - enrich DC profile
- **OpenAIRE, euroCRIS, COAR,**
  - Encourage software vendors to comply with standards (source problem solving approach) (ex: DSpaceCRIS)
- **ALL**
  - Lobby software organizations (need to become members!)
### PRODUÇÕES > DEPOSITAR NO REPOSITÓRIO

<table>
<thead>
<tr>
<th>Ações</th>
<th>Produção</th>
<th>Estado</th>
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<tbody>
<tr>
<td></td>
<td>Ferreira Dias e a constituição da Companhia Nacional de Electricidade</td>
<td>A aguardar</td>
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<td></td>
<td>Artigo em revista publicado em 1996</td>
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<td>source-work-id: CV:912977799216; eid: 2-s2.0-84889795757; source-work-id:</td>
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<td></td>
<td>DG:912977799216</td>
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<table>
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<tr>
<th>Enviar</th>
<th>Portugal e o Plano Marshall: história de uma adesão a contragosto (1947-1952)</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Artigo em revista publicado em 1994</td>
<td></td>
</tr>
<tr>
<td></td>
<td>source-work-id: CV:521299999218; doi: 10.2307/4101190; source-work-id:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DG:521299999218</td>
<td></td>
</tr>
</tbody>
</table>
Problems / Difficulties

- Semantics (publication types)
  - ORCID
  - OpenAIRE
  - CASRAI
  - COAR

Suggestions

- Create and manage a common tool for managing semantics
Use case 3a – CERIFying non native CERIF applications
The New CERIF-XML will facilitate adoption but ...
Non native CERIF application – Toolkit?

Application (CV, IR, VIVO, etc)

connector

CERIF Data Model (POJOs)  Data Integration  Integration Layer

Client Layer

OAI-PMH Data Ingestor + CERIF XML 1.6  OAI-PMH Data Provider + CERIF XML 1.6  CERIF API REST + XML  Custom REST Write API

Client Integration Kit (Client API)
Ciência Vitae – CERIF

Problems / Difficulties

• Data provider
  – No CERIF–XML Specs for profile Academic funding CV
  – Except for EKT, open source (small part) there are no tools

• Research Portal
  – C1: cc-refim [Portal](#) is not open source
  – C2: VIVO does not ingest CERIF–XML

Suggestions

• EuroCRIS / CASRAI
  – Implement a CERIF profile for the academic funding CV
  – Develop and maintain a toolkit to accelerate software adoption of CERIF–XML (over OAI–PMH)

• All
  – Lobby software vendors to adopt CERIF–XML / OAI–PMH
Use case 3b – Building applications using Native CERIF infrastructure
CERIF native application – Toolkit?

Application

Backend
- OAI-PMH Data Ingestor + CERIF XML 1.6
- OAI-PMH Data Provider + CERIF XML 1.6
- CERIF API REST + XML
- Custom REST Write API
- Web UI (Browse & Search Entities Data)

Public API
- Search
- Data Quality Services
- Entity Creation Workflow
- Authentication
- Administration Toolkit

Business Logic Layer
- CERIF Semantic Validation
- Data Integration

Storage API
- CERIF Data Model (POJOs)
- ORM/DBMS Wrapper

Storage Layer
- RDBMS (Database)

Application Specific

CERIF NATIVE
Global suggestions

• Increase partners cooperation and alignment
  – Create an alliance for research management?
  – Define clear areas of responsibility between partners
  – Improve cooperation on strategic and activity plans
• euroCRIS
  – Create a software repository for software of common interest
  – Decide main tools to develop and maintain (sustainability)?
  – Increase work force (requires new funding model)
  – Partnership with DuraSpace?
• Software partners
  – Align and engage with standards and guidelines
• ALL : Lobby activity
  – Become member of main associations (euroCRIS, ORCID, CASRAI, COAR)
  – Take a voice on strategy and activity plan of these associations
Cooperation is power!