

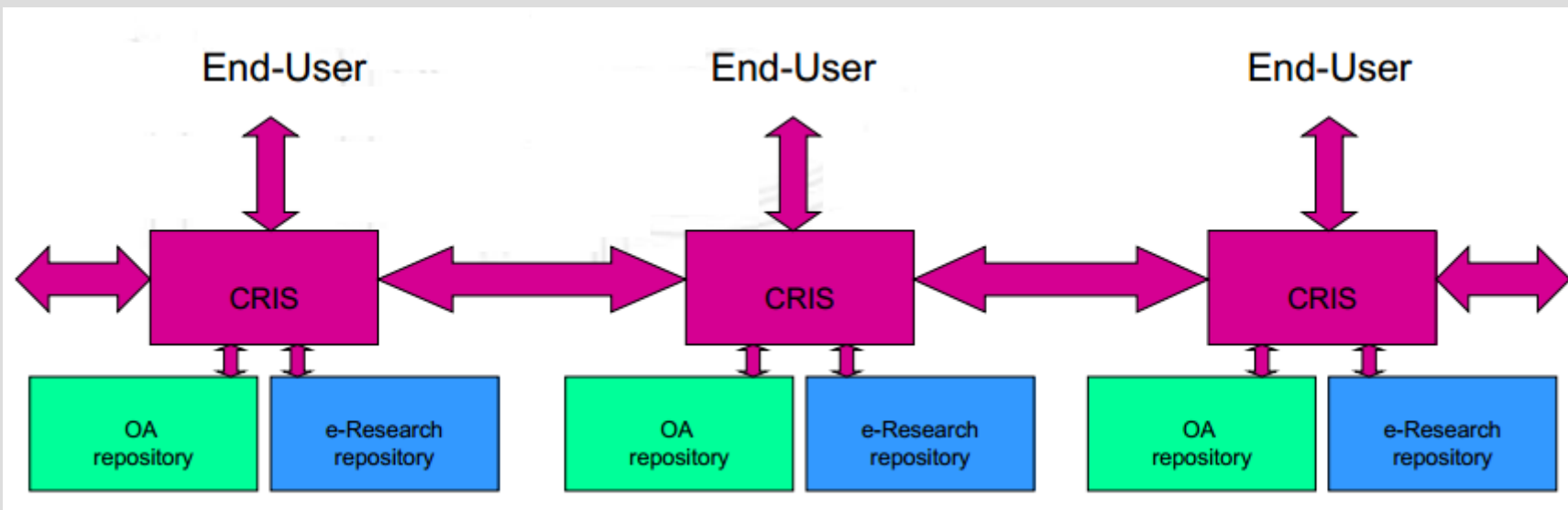
Jornades de Gestió de la Informació Científica 2014, IEC, Barcelona, Apr 24th, 2014

Global Standards for System Interoperability: CERIF

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System interoperability: the key concept

- Lots of different institutional systems should feed higher-level aggregations (regional, national, European)
- 'Internal' vs 'external' interoperability (from an institutional viewpoint)



Global standards a requirement

- We have persistent identifiers like DOIs, handles, DataCite and ORCID iDs, we have metadata standards like CERIF, DC, MODS, etc
- Controlled vocabularies: if systems are to talk to each other, they should speak the same language

A word cloud featuring various global standards and identifiers. The words are arranged in a cluster, with 'DublinCore' being the most prominent, oriented vertically. Other words include 'handle', 'METS', 'Ringgold', 'DataCite', 'MODS', 'CERIF', 'ORCID', 'ISN', and 'DOI'. The words are in different colors and sizes, creating a visual representation of the diversity of standards.

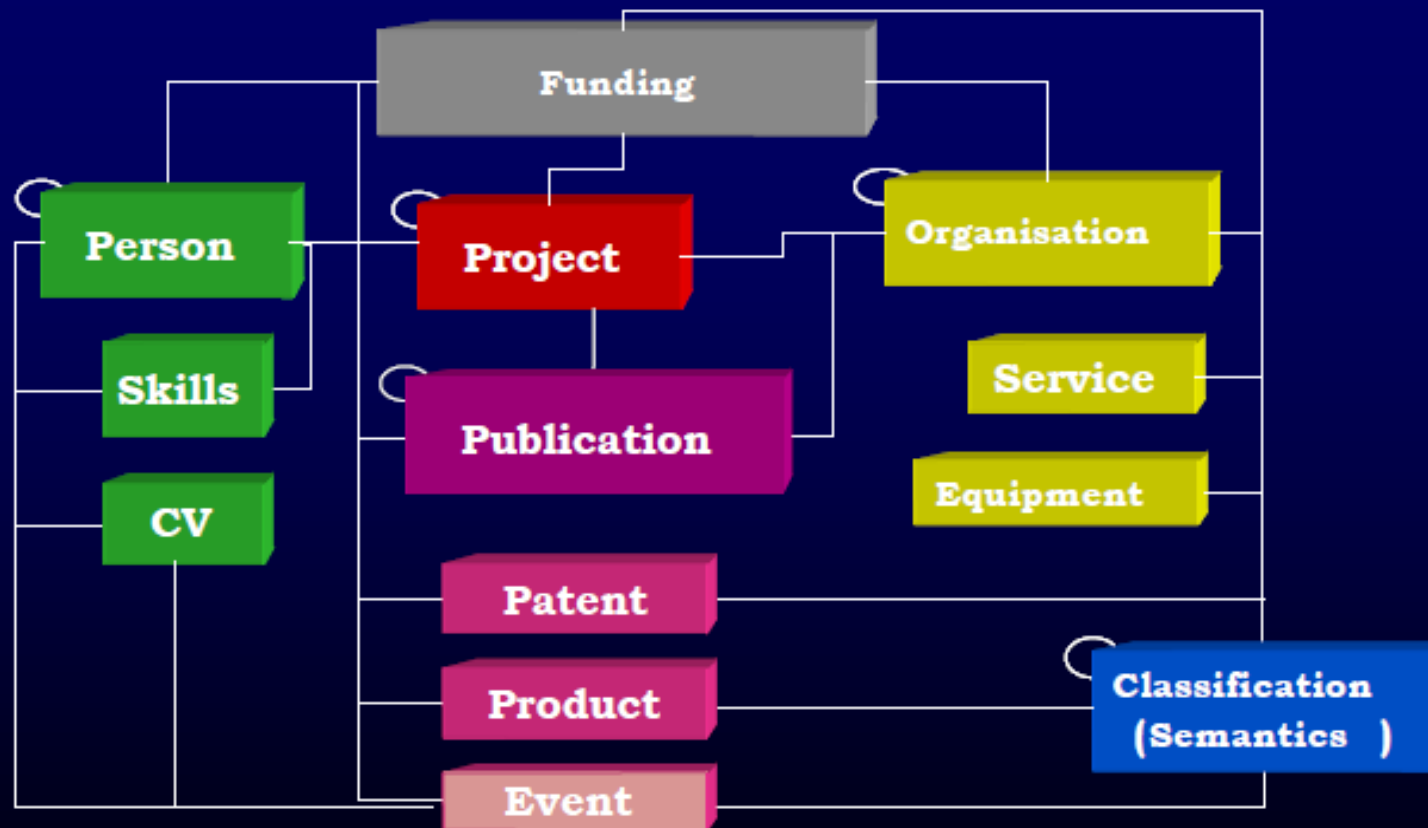
Common European Research Information Format

Requirements for a Common Metadata Format

- Complete coverage of research information
- Interlinked – providing the context
- Allow for many perspectives on research information
- Accommodate multilinguality & support translations
- Accept the world keeps changing: record history
- Declared semantics: definitions rather than terms
- Formal syntax – machine processable & understandable

(Source: Jan Dvorak, CERIF Task Group Leader)

Common European Research Information Format (simplified version)



CERIF Model Structure

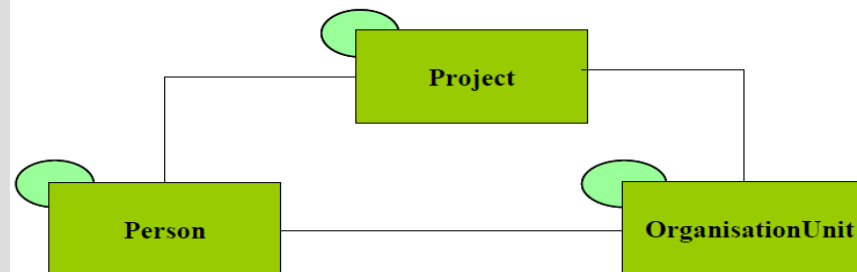
CERIF Entity Types

- Base Entities
- Result Entities
- Infrastructure Entities
- 2nd Level Entities
- Geographic Bounding Box
- Link Entities

CERIF Features

- Multiple Language
- Semantics
- Measures & Indicators

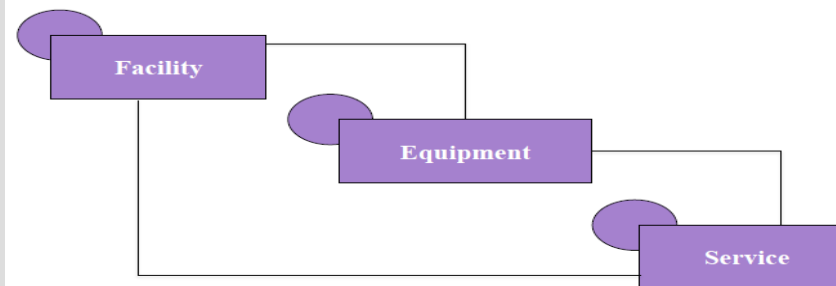
CERIF Base Entities



CERIF Result Entities



CERIF Infrastructure Entities



CERIF and CRIS Systems: UK

Increasing CERIF implementation in CRIS systems across Europe:

UK: Driven
by REF2014
Research
Assessment
Exercise

(slide:
Rosemary
Russell)

CERIF CRIS use in UK HE

- Lots of CERIF CRIS procurement in last year - some are in early stages of implementation
- Pure (Atira) - 17
 - St Andrews, Aberdeen, York, Royal Holloway, Strathclyde, Hertfordshire, Lancaster, Aston, Institute of Education, London, Dundee, Heriot-Watt, Glasgow Caledonian, King's College London, Edinburgh, University of the Highlands and Islands, Bath, Queen's University Belfast
- CONVERIS (AVEDAS) - 5
 - Cranfield, Hull, Stirling, MRC Oxfordshire Regional Centre, Brighton
- Symplectic Elements (Symplectic)
 - eg Brunel, Imperial, Queen Mary, Leeds...



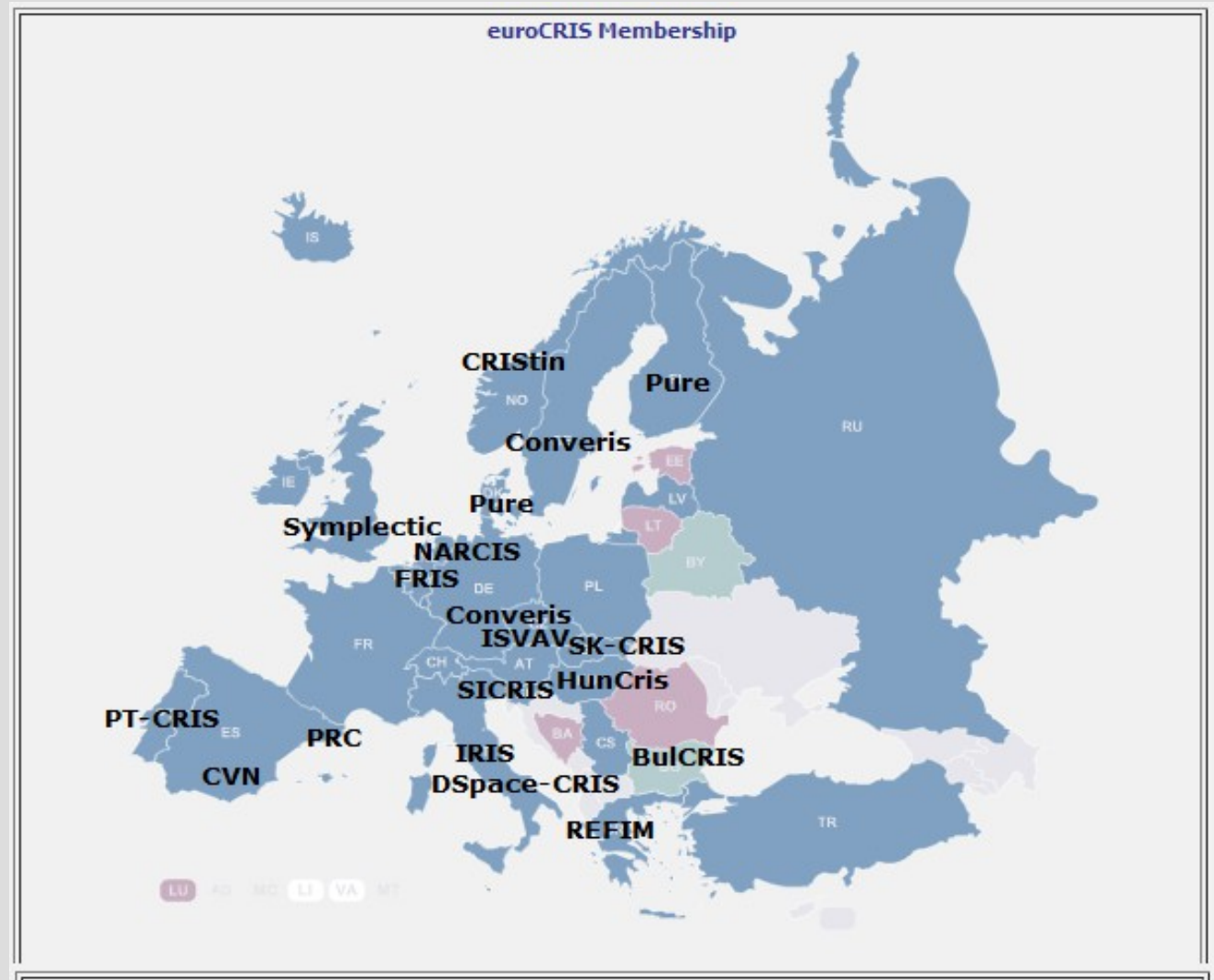
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CERIF and CRIS Systems: Europe

Increasing CERIF implementation in CRIS systems across Europe: institutional, commercial and national CRISs



CERIF-compliance in Spain?

UNIVERSIDADES Y OPIS

Institución o entidad	Sistema	Exportación CVN	Importación CVN
INSTITUTO DE SALUD CARLOS III	SAYS	no	sí (v1.2.5 y v1.3.0)
INSTITUTO NACIONAL DE INVESTIGACION Y TECNOLOGIA AGRARIA Y ALIMENTARIA	INIA-CV	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD AUTÓNOMA DE MADRID	ARGOS	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD CARLOS III DE MADRID	UNIVERSITAS XXI - INVESTIGACIÓN	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD CATÓLICA DE VALENCIA	UCV	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD CATÓLICA SAN ANTONIO DE MURCIA	CurriculumN	<u>Sí (v1.3.0)</u>	no
UNIVERSIDAD COMPLUTENSE DE MADRID	PORTAL INVESTIGADOR	<u>Sí (v1.3.0)</u>	no
UNIVERSIDAD DE ALCALÁ	UNIVERSITAS XXI - INVESTIGACIÓN	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE ALICANTE	Campus Virtual	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE ALMERÍA	SICA	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE BURGOS	UNIVERSITAS XXI - INVESTIGACIÓN	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE CÁDIZ	SICA	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE CANTABRIA	CampusVirtual	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE CASTILLA-LA MANCHA	UCLM	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE CÓRDOBA	SICA	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE GRANADA	SICA	<u>Sí (v1.2.5)</u>	no
UNIVERSIDAD DE HUELVA	SICA	<u>Sí (v1.2.5)</u>	no

CERIFYing CVN (FECYT) provides some harmonisation level

It would be useful to provide CERIF wrapping to running CRIS systems at institutions

Some applications for CERIF in the system interoperability domain: OpenAIRE

OpenAIRE Guidelines for CRIS Managers based on CERIF XML

March 2014

DRAFT for public review

Contents

Introduction

Aim

CERIF-CRIS

Acknowledgements

CRIS information elements relevant for OpenAIRE

Data representation in CERIF XML

CERIF Semantic Layer link entities implementation in OpenAIRE

OAI-PMH for Harvesting

Metadata Format

OpenAIRE OAI-PMH Sets

Transmission of CERIF XML as OAI-PMH payload

License

Version

Appendix

```
<xs:element name="CERIF">
```

```
- <xs:complexType>
```

```
- <xs:choice maxOccurs="unbounded" minOccurs="0">
```

```
- <xs:annotation>
```

```
<xs:documentation>The root element: it allows any mixture of cerif entity  
instances, in any order.</xs:documentation>
```

```
</xs:annotation>
```

```
<xs:element name="cfEquip" type="cfEquip__Type"/>
```

```
<xs:element name="cfFund" type="cfFund__Type"/>
```

```
<xs:element name="cfOrgUnit" type="cfOrgUnit__Type"/>
```

```
<xs:element name="cfPers" type="cfPers__Type"/>
```

```
<xs:element name="cfProj" type="cfProj__Type"/>
```

```
<xs:element name="cfResPubl" type="cfResPubl__Type"/>
```

```
<xs:element name="cfResProd" type="cfResProd__Type"/>
```

```
<xs:element name="cfSrv" type="cfSrv__Type"/>
```

```
<xs:element name="cfEAddr" type="cfEAddr__Type"/>
```

Some applications for CERIF in the system interoperability domain: PT-CRIS

Survey Eco – Critical analysis (PT)

- Portugal has a long way to go:
 - Authoritative organizations database
 - Call, grants and project services are obsolete
 - Research portal to be considered
 - Evaluation and stats to be further analyzed
 - CRISs needed
 - Swedish logical architecture seems to be the most comprehensive
 - CERIF seems to be imperative
-

- [illegible]

May 13th-15th, 2014 **CRIS2014 euroCRIS Conference** Rome, Italy
"Managing Data Intensive Science - The Role of CRIS in realizing the Digital Agenda"

CONFERENCE WEB SITE
(CLICK HERE)

Thanks

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