CERIF and related Projects

Brigitte Jörg

CSP Project - National Co-ordinator
UKOLN, University of Bath

euroCRIS, CERIF Task Group Leader

Outline

- **euroCRIS**
  - the Initiative
  - ongoing Activities

- **CERIF and related projects**
  - UK
  - Europe
  - International

The Initiative

Mission: Development of Research Information Systems and their Interoperability

- **non-profit organisation, registered in the Netherlands**
- **In 2002 the European Commission handed over the responsibility of CERIF**

Activity:

- **Assets Development**
- **Events:** Membership twice a year; Seminar annual; Conference bi-annual
- **Membership Development:** International
- **Strategic Partnerships:** Strengthening
- **Communication:** Newsflashes; Mailing-Lists
- **Project Engagements:** National; EU

Assets:

- CERIF – Common European Research Information Format
- DRIS – Directory of Research Information Systems
- Multi-Layer Architecture Approach
- Generation of RDF and LOD from CERIF
- Best Practice
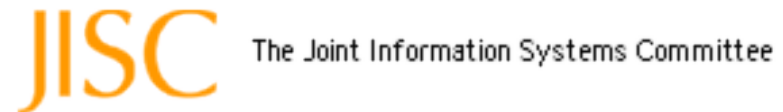- Internal CERIF Ontology and Interoperation with other Ontologies

Board Elections

ongoing
Call for Nominations
of new Board Members

Brigitte Jörg, UKOLN, Bath UK & euroCRIS
CiA Workshop - October 19th, 2012, Woburn House, London

euroCRIS
Current Research Information Systems

Board Members

Treasurer
Geert van Grootel, EWI, NL

Strategy
Anne Asserson, UiB, NO

CERIF
Brigitte Jörg, UKOLN, University of Bath, UK

DRIS, CERIF Best Practice
Sergey Parinov, CEMI-RAS, RU

President
Keith Jeffery, STFC, UK

Projekte
Nikos Houssos, EKT, DE

Sekretariat
Harrie Lalieu, euroCRIS, NL

Conferences
Barbara Ebert, Leuphena Uni, DE

Website
Ed Simons, Radboud Uni, NL

Architecture
David Baker, CASRAI, CA

Repositorien
Danica Zendulkova, CTVISR, SK

Linked Open Data
Miguel-Angel Sicilia, University of Alcala, ES

Indicators (NN)

euroCRIS
Current Research Information Systems

CERIF

UKOLN

JISC

UNIVERSITY OF BATH

CERIF in action

euroCRIS
Current Research Information Systems

- **Members in 42 countries (all continents except Antarctica)**

- **EU Project Partner**
  - **ENGAGE**
  - **EuroRIS-Net**
  - **OpenAIREplus**

Institutional Members   (only) Personal Members   (only) Affiliate Members

Members outside of Europe:

Australia – Canada – China – Iran – Israel – Malaysia – Mexico – Nigeria – Pakistan – South Korea – USA
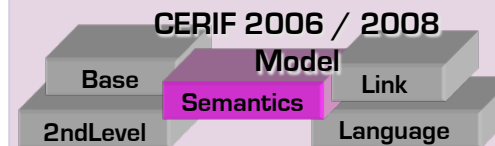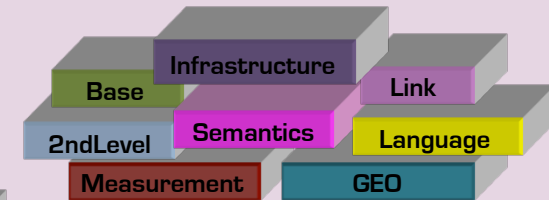
Evolution

euroCRIS — Current Research Information Systems

CERIF

CERIF 1.5

CERIF 1.4 (XML)

CERIF 1.3

Infrastructure
Base
Link
2ndLevel
Semantics
Language
Measurement
GEO

Similar Ideas
UN/UNESCO
OECD
CODATA

CERIF 2006 / 2008 Model
Base
Link
2ndLevel
Semantics
Language

EU Working Group on Research Databases Workshop

CERIF 2000 Model

Roles

EXPERTISE
OrgUnit
PERSON
PROJECT
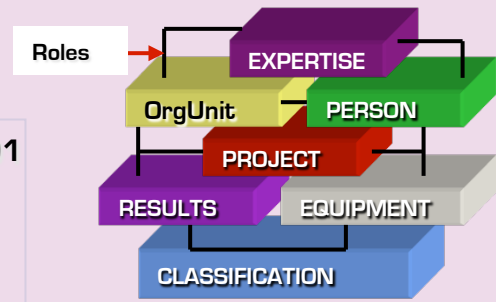RESULTS
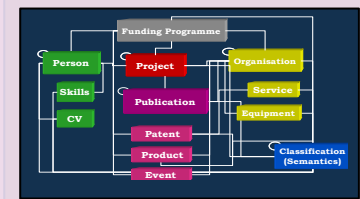EQUIPMENT
CLASSIFICATION

CERIF 91

PROJECT

Acronym: ERGO
Participant:
  Keith Jeffery, Anne Assersson, many more
Organisations:
  Rutherford Appleton, University of Bergen, ...

- Networking of DBs
- Exchange of Records

- EC Recommendation to Member States

- Data Model
- Multilinguality
- Controlled Vocabulary
- Roles / Types
- User-driven

- EC Recommendation to Member States

Funding Programme
Person · Skills · CV · Project · Publication · Patent · Product · Event · Organisation · Service · Equipment · Classification (Semantics)

- Data Model
- Model Normalization
  - Robust/Consistent Structure
  - Extensible Structure
  - Semantic Layer
- XML Exchange Specification
- Elaboration on Publication
- CERIF Core Semantics (2008 1.2)

- Data Model
- Infrastructure
  - Facility, Equipment, Service
- Measurement & Indicator
  - Entities and Link Tables
- Geographic Bounding Box
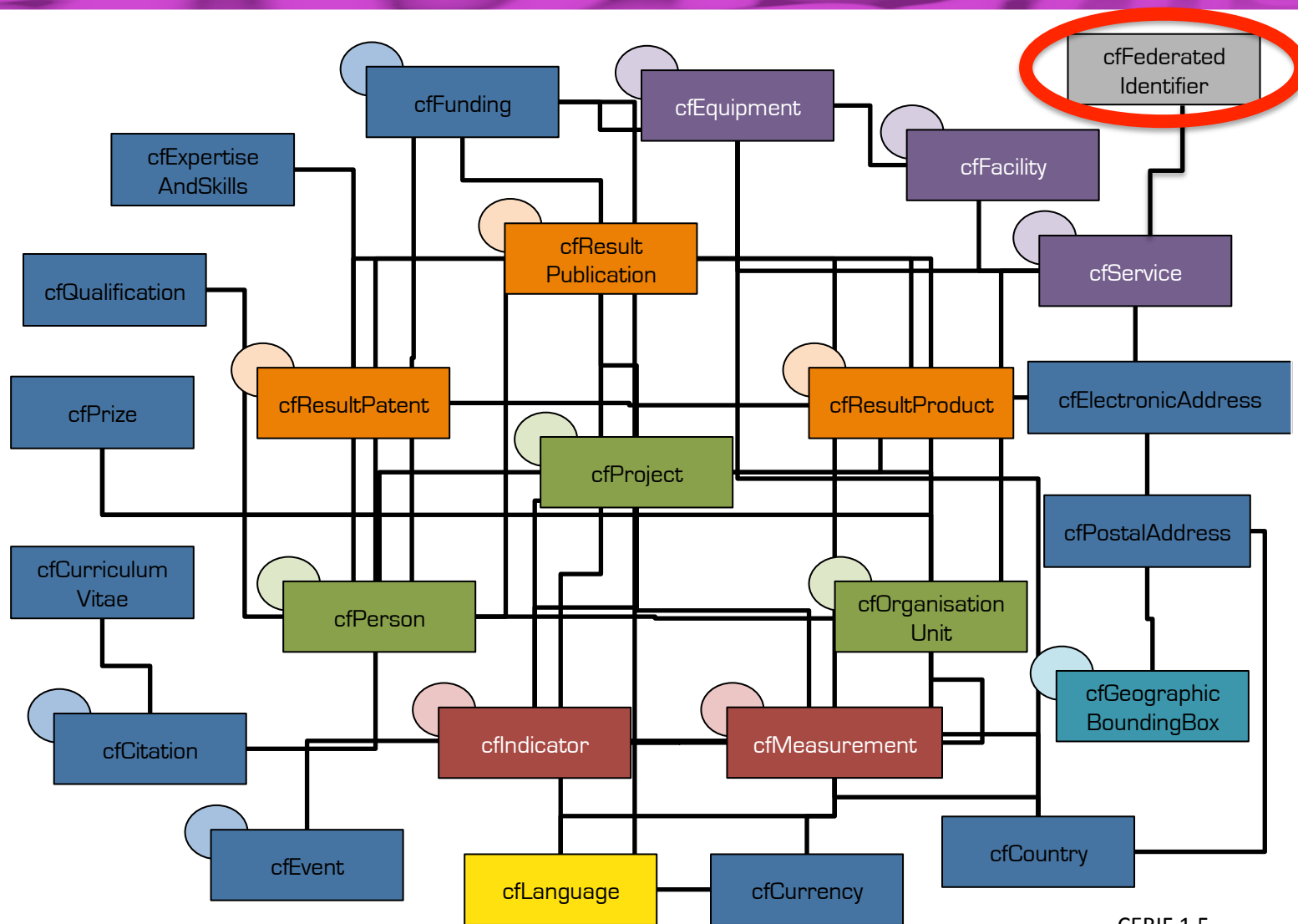- CERIF 1.3 Vocabulary
  - UUIDs
  - Terms
  - Schemes

FORMAL SEMANTICS

+ Linked Data

+ CERIF Ontology

euroCRIS — Current Research Information Systems

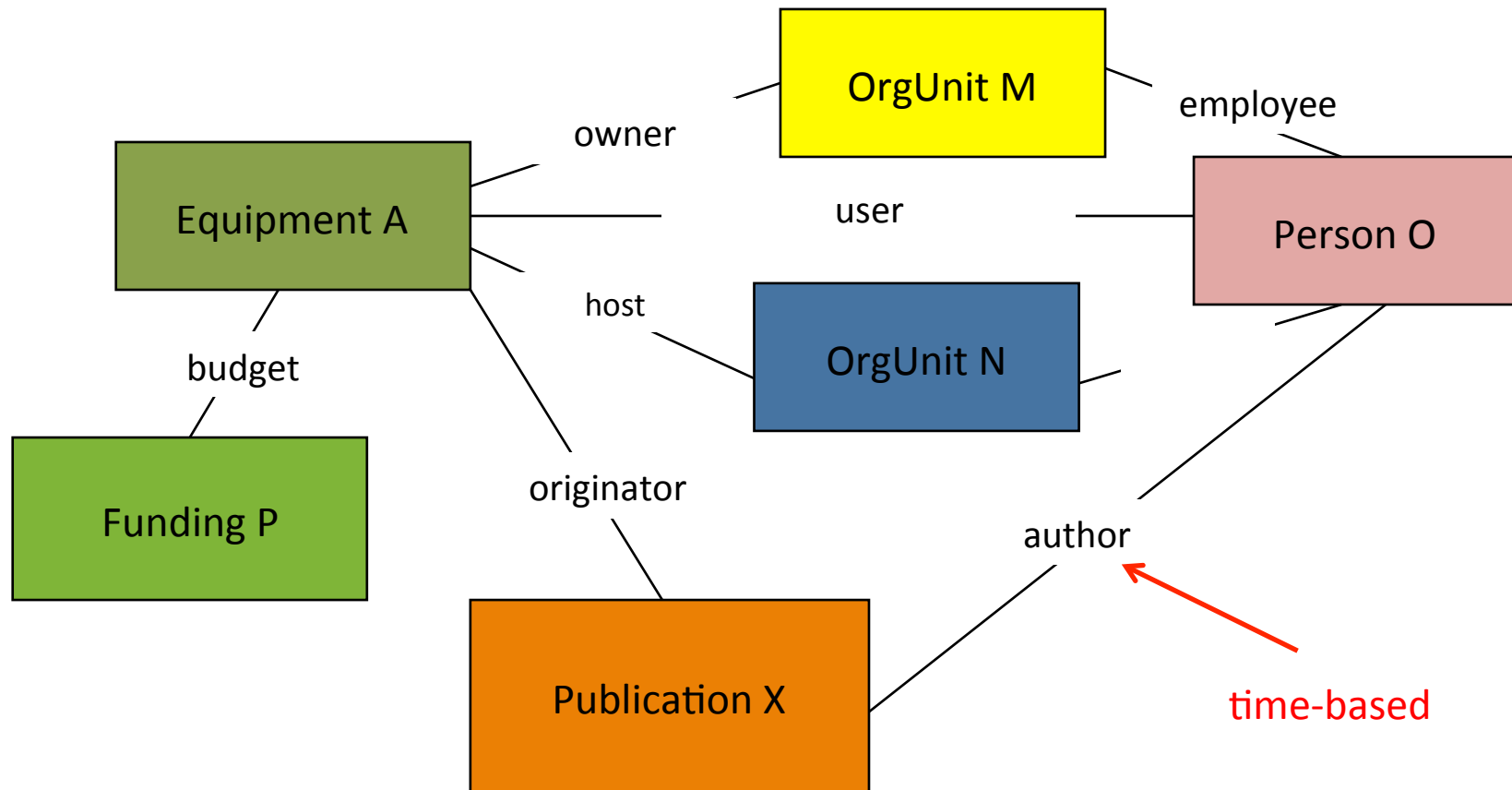**1987** **1991** **2000** **2006** **2008** **2012**

Outline

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  - the Initiative
  - ongoing Activities

- **<u>CERIF and related projects</u>**
  - UK
  - Europe
  - International

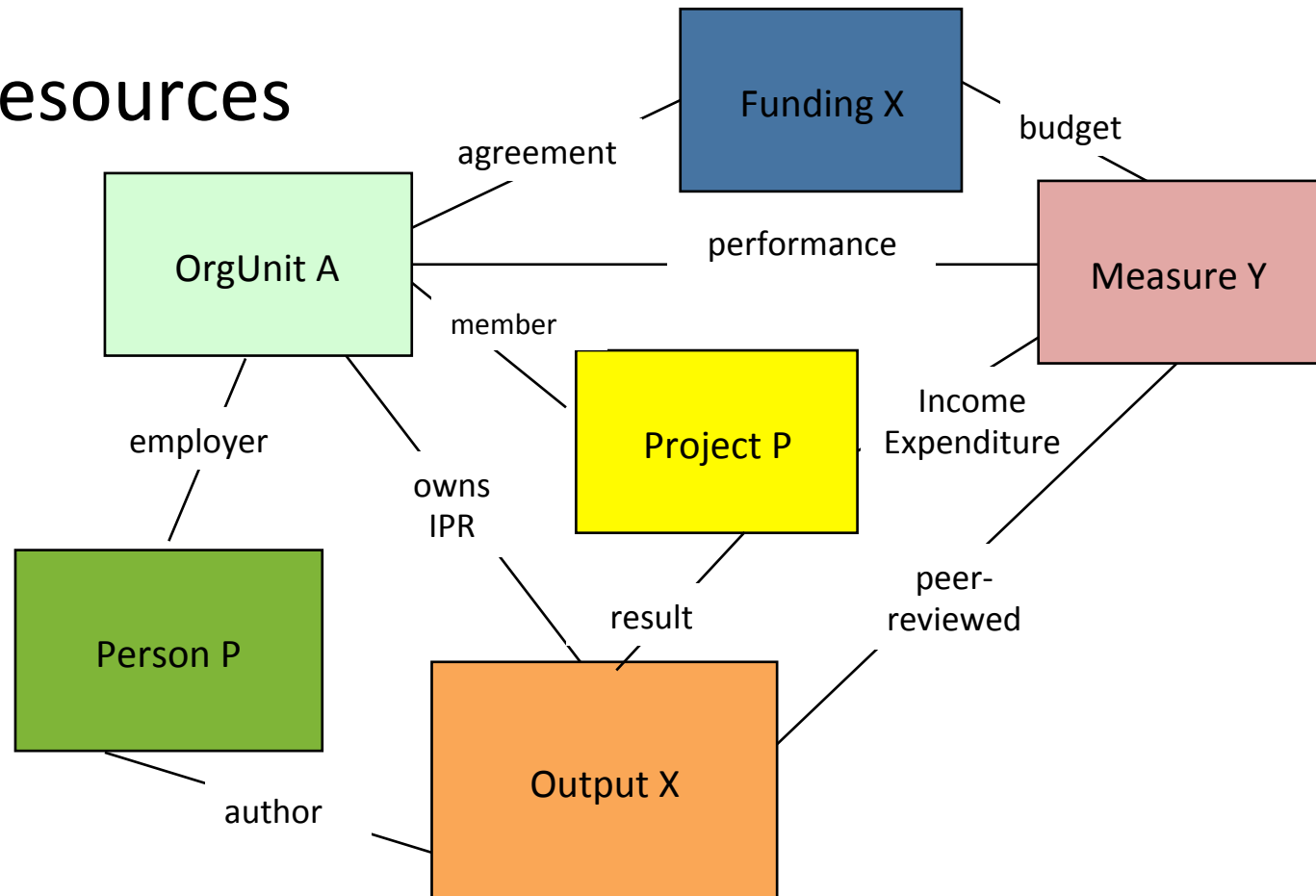# Common European Research Information
Format – C E R I F –

CERIF 1.5
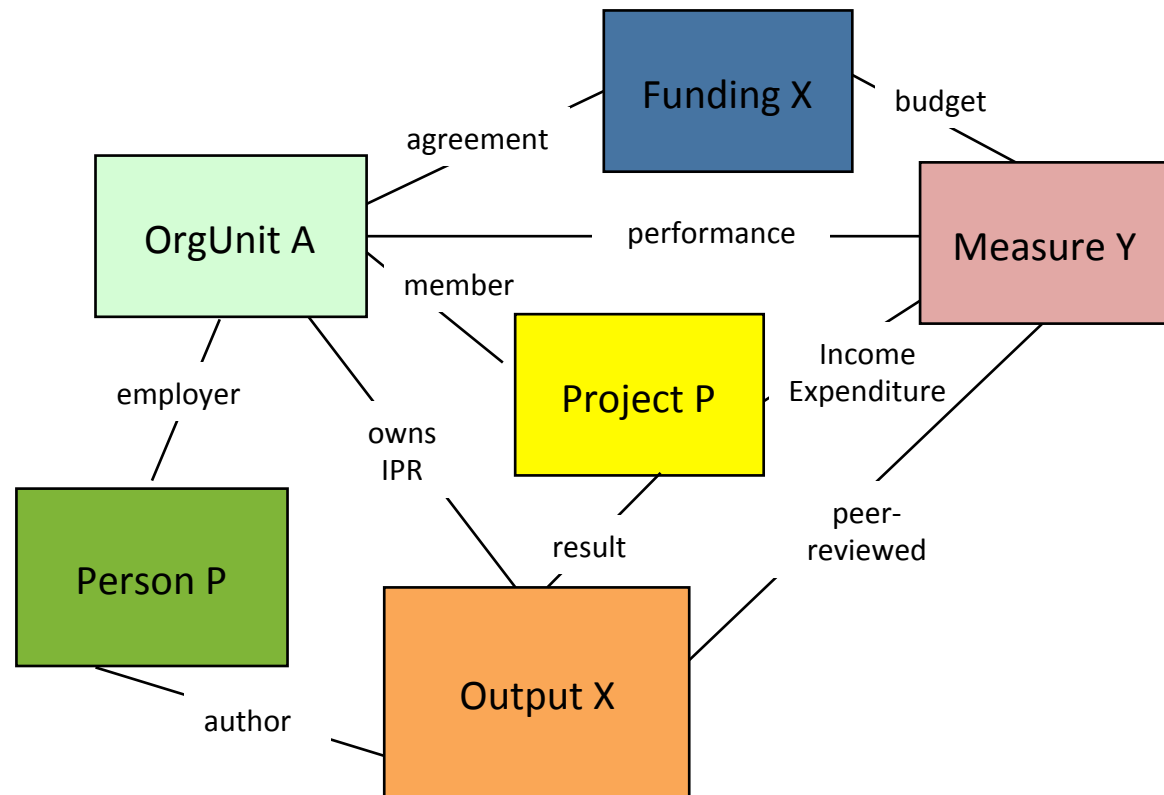
CERIF Use Cases

OrgUnit M

Equipment A

owner

user

employee

Person O

host

OrgUnit N

budget

Funding P

originator

author

time-based

Publication X

euroCRIS
Current Research Information Systems

CERIF

UKOLN

JISC

UNIVERSITY OF
BATH

The RMAS use case

- Human Resources
- Projects
- Outputs
- Finance
- Students

Funding X

budget

OrgUnit A

agreement

performance

Measure Y

member

Project P

Income
Expenditure

employer

owns
IPR

Person P

result

peer-
reviewed

author

Output X

The CiA use case

- Person
- Publication
- Project
- Funding
- Organisation

Funding X
budget

agreement

OrgUnit A
performance
Measure Y

member

Project P

employer

owns
IPR

Income
Expenditure

Person P

result

peer-
reviewed

author

Output X

The GtR use case

- Funding
- Project
- Person
- Organisation
- Outputs
- Outcomes

Funding X

agreement

budget

OrgUnit A

performance

Measure Y

member

Income
Expenditure

employer

Project P

PI

peer-
reviewed

Person P

result

author
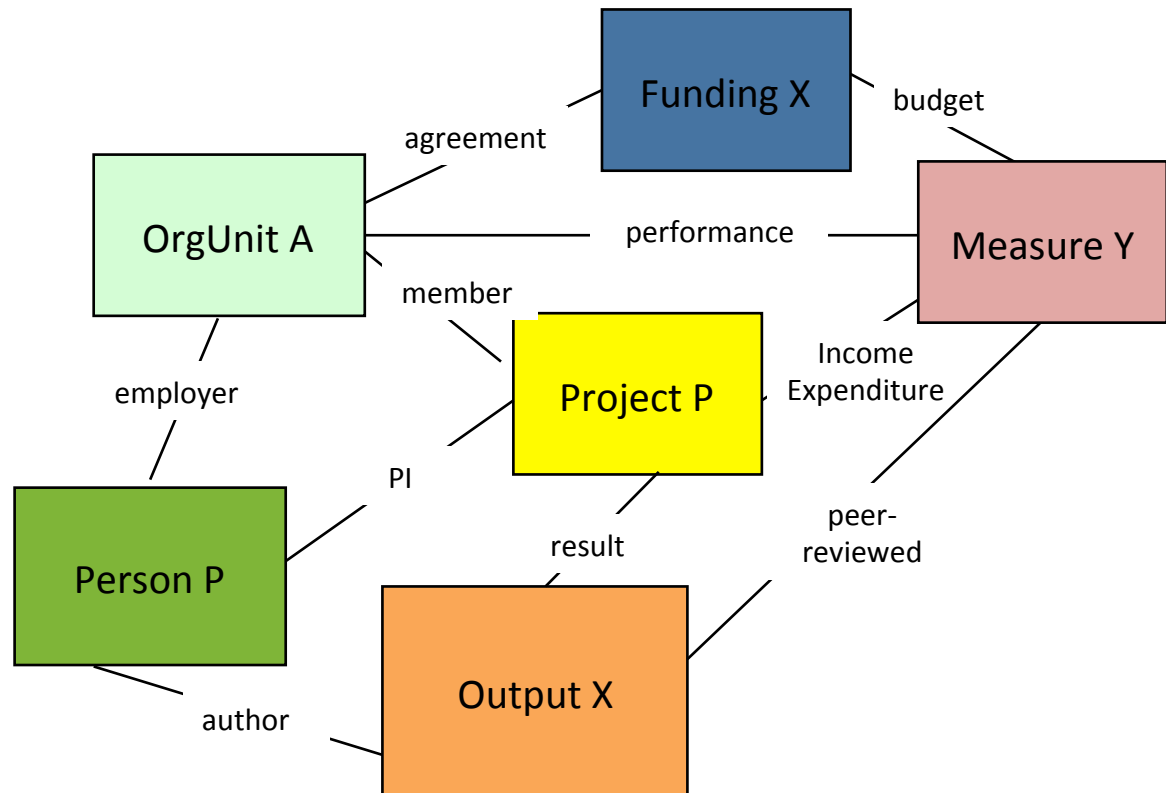
Output X

The REF use case

- Funding
- Project
- Person
- Organisation
- Outputs
- Outcomes

Funding X

OrgUnit A

— agreement —

— performance —

Measure Y

budget

member

Project P

Income
Expenditure

employer

PI

Person P

result

peer-
reviewed

author

Output X

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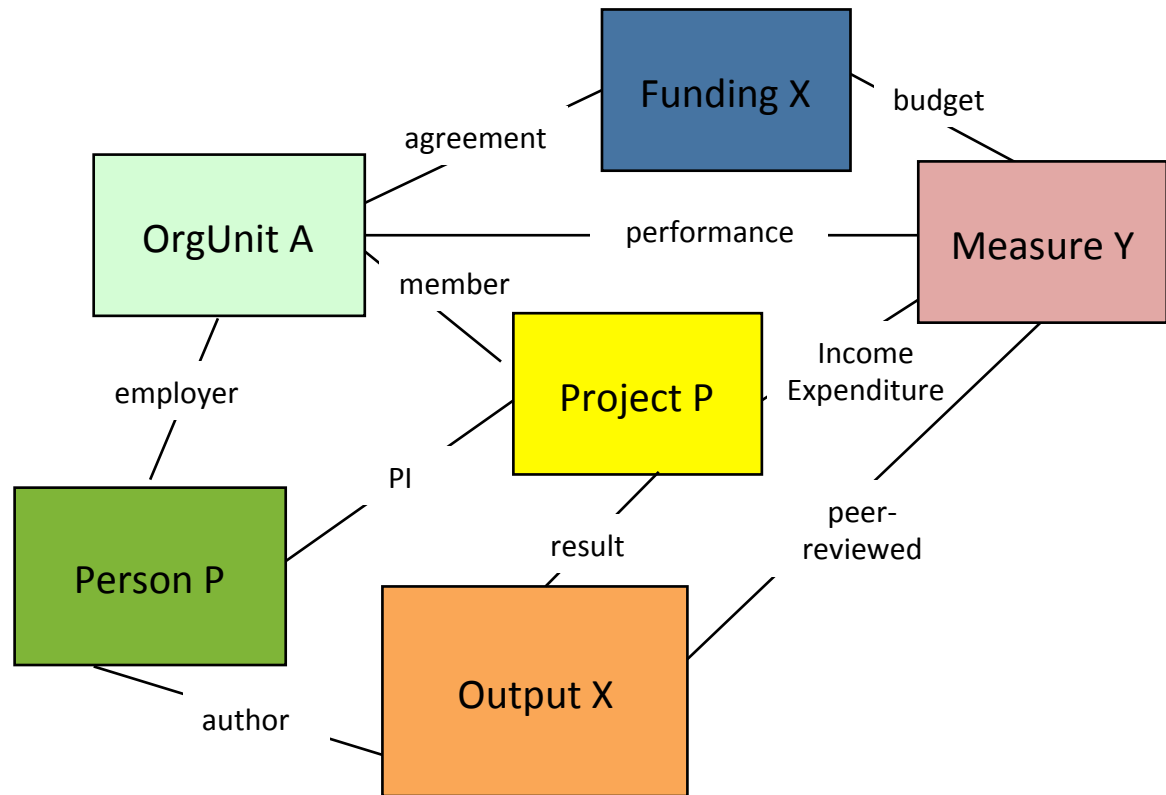
CERIF and Related Projects

- **UK:** CIA, GtR, RMAS, RMAS-EE, IRIOS-2, UKRISS, C4D, REDIC, DESCRIBE, UniQuip, ... **REF**

- **Europe:** OpenAIREplus, ENGAGE, EuroRISNet+

- **International:** Strategic Partnerships with CASRAI, VIVO, CODATA, Lattes, ...

- **Emerging (changing) Market:** (atira), Elsevier, avedas, symplectic, Thomson Reuters

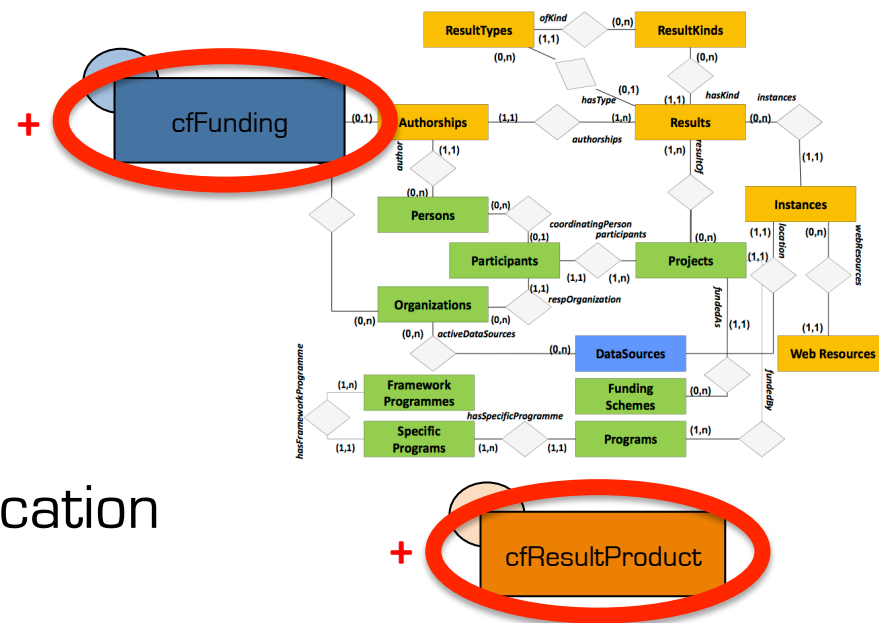# Common European Research Information Format – C E R I F –
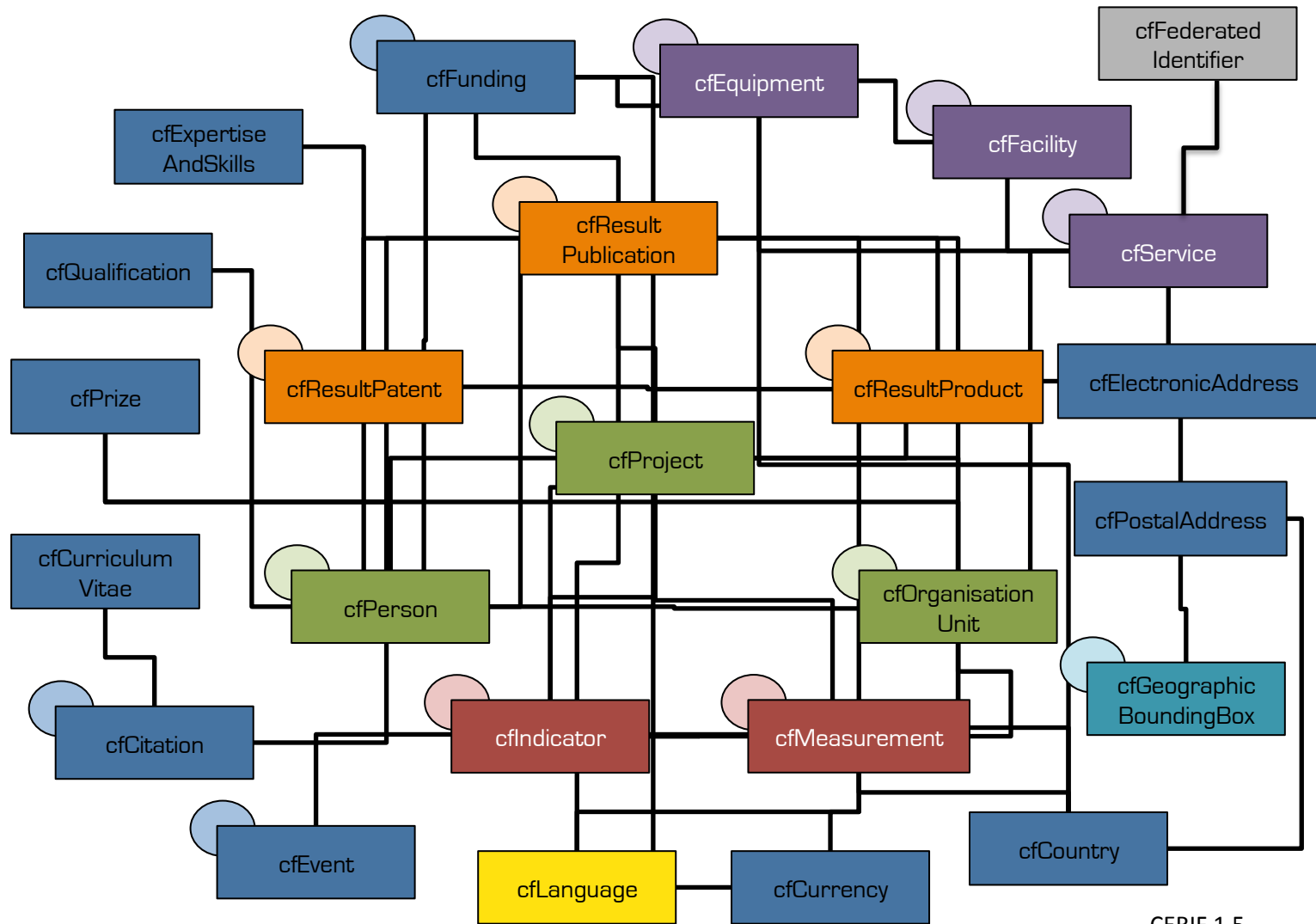
CERIF 1.5

OpenAIREplus Use Case

EC Open Access Pilot project (FP7)

- CERIF extension with
  - Funding
  - Dataset

„The Data Model of the
OpenAIRE Scientific Communication
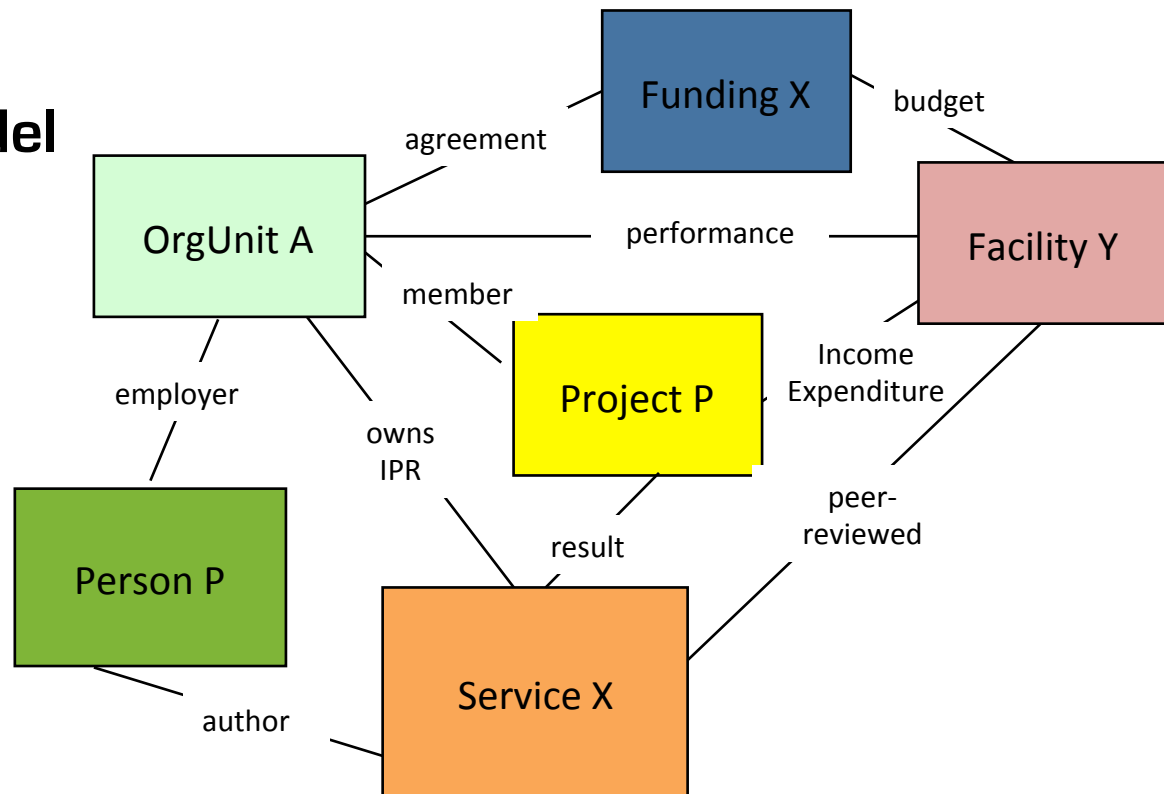e-Infrastructure"
paper @ MTSR 2012 Cadiz, Spain

http://www.openaire.eu/

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CiA Workshop - October 19th, 2012, Woburn House, London

EuroRISNet+ Use Case

„European Network of National Contact Points for Research Infrastructures moving forward.“

CERIF-based Datamodel and Mapping

- Facility
- Service
- Project
- Funding
- Organisation
- Event
- Person

http://www.euroris-net.eu/

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CERIF LOD Component view

CERIF LOD task group @ euroCRIS
- Leader: Miguel-Angel Sicilia
- Set up in: March 2012

(1) euroCRIS hosted extended ontologies, mappings
(2) Middle Ware / transformations / exchange / interfaces / exposure
(3) CERIF Relational DB Model

For more information: **Miguel-Angel Sicilia**

Inline with the multi-layer architecture as presented at CRIS 2012: „A multi-level metadata approach for a Public Sector Information data infrastructure" [Nikos et al. 2012]
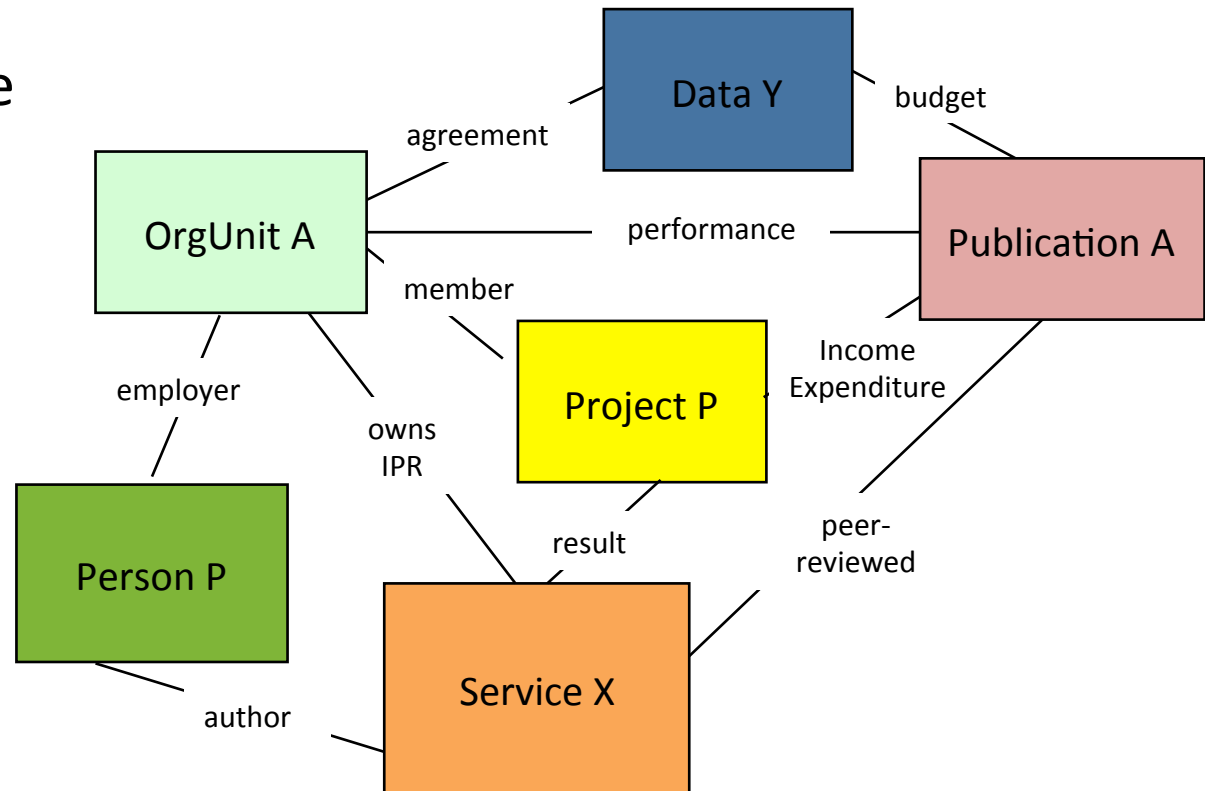
ENGAGE Use Case

„An Infrastructure for Open, Linked Governmental Data Provision towards Research Communities and Citizens."

Multi-layer architecture as presented at CRIS 2012: „A multi-level metadata approach for a Public Sector Information data infrastructure"

[Nikos et al. 2012]

http://www.engage-project.eu/engage/wp/

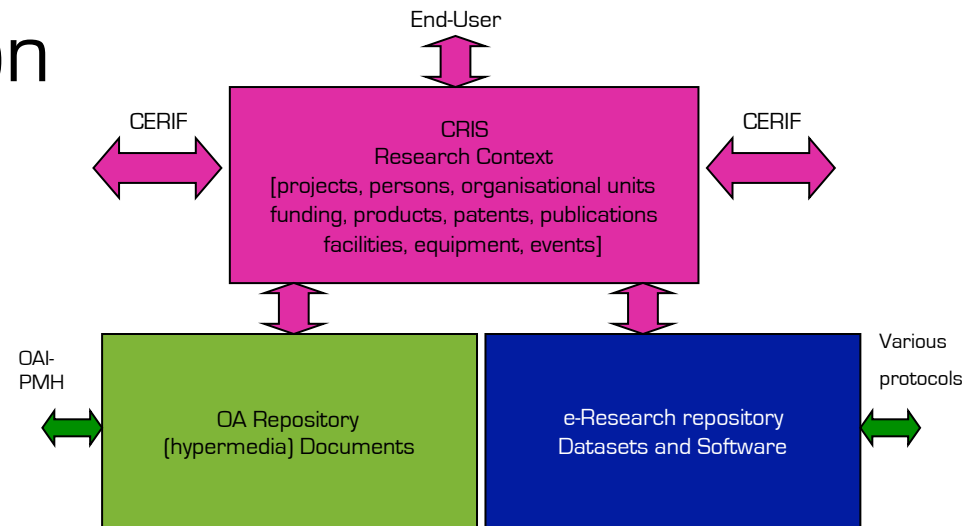Brigitte Jörg, UKOLN, Bath UK & euroCRIS

Interoperation with Repositories

- CERIF-CRIS interoperates with Repositories, several examples in UK

- OpenAIREplus CERIF streamlining

- ROME Declaration

- From CERIF generate DC, ...

End-User

| CERIF | CRIS Research Context [projects, persons, organisational units funding, products, patents, publications facilities, equipment, events] | CERIF |

| OAI-PMH | OA Repository (hypermedia) Documents | e-Research repository Datasets and Software | Various protocols |

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CERIF in action

Partnerships (MoU)

Canada

www.casrai.org

United States of America

vivoweb.org

Integration – Interoperability– Semantics

Finalizing Partnership

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CERIF and related Activities

- CERIF XML
- CERIF Entities
- CERIF Vocabularies
- CERIF Mappings
- CERIF Architecture
- CERIF LOD

We must ensure Consistency in between the approaches !!!

Human Resources: cfPers; cfPers_Class; cfPers_EAddr; cfPers_PAddr; cfPers_Event; cfPers_OrgUnit; cfPers_Pers; cfPers_ResPubl; cfPers_Srv; cfPers_Proj
Finance: cfFund; cfFund_Class; cfProj_Fund; cfProj_Meas
Projects: cfProj; cfProj_Class; cfProj_Pers; cfProj_OrgUnit; cfProj_Fund; cfProj_ResPubl; cfProj_ResProd; cfProj_Meas; cfOrgUnit; cfOrgUnit_Class; cfOrgUnit_PAddr;
Outputs: cfResPubl; cfResProd; cfResPat; cfResPubl_Class; cfResProd_Class; cfResPat_Class; cfResPubl_Pers; cfResProd_Pers; cfResPat_Pers; cfResPubl_ResPubl; cfResPubl_ResPat; cfResPubl_ResPat; cfResProd_ResProd; cfResPat_ResPat; cfResPubl_Fund; cfResProd_Fund; cfResPat_Fund; cfEvent; cfEvent_Fund; cfEvent_Pers
Students: cfPers_Class; cfPers_Pers; cfPers_Srv

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UK Projects

CIA, GtR,
RMAS,
RMAS-EE,
IRIOS-2,
UKRISS,
C4D,
REDIC,
DESCRIBE
Uniquip ... **REF**

Forthcoming CERIF activities

- Increased Coordination & Communication
- Compliance Testing (Formality)
- Benchmarking
- Use Case Distribution
- CERIF Model: Research Data, Model Cleaning
- CERIF Mappings
- Vocabularies (e.g. CASRAI, ...), Identifiers, ...
- Roadmap at euroCRIS Members Meeting

Upcoming Events

euroCRIS — Current Research Information Systems

Residencia de Estudiantes

GrandIR

Autumn membership meeting, Nov 5-6, 2012

Madrid, Spain

organised by **Pablo de Castro**

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Contact

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euroCRIS, CERIF Task Group Leader

CSP Project - National Co-ordinator
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http://isc.ukoln.ac.uk/work/csp

b.joerg@ukoln.ac.uk