



# *Common Access to EU Information based on semantic technology*

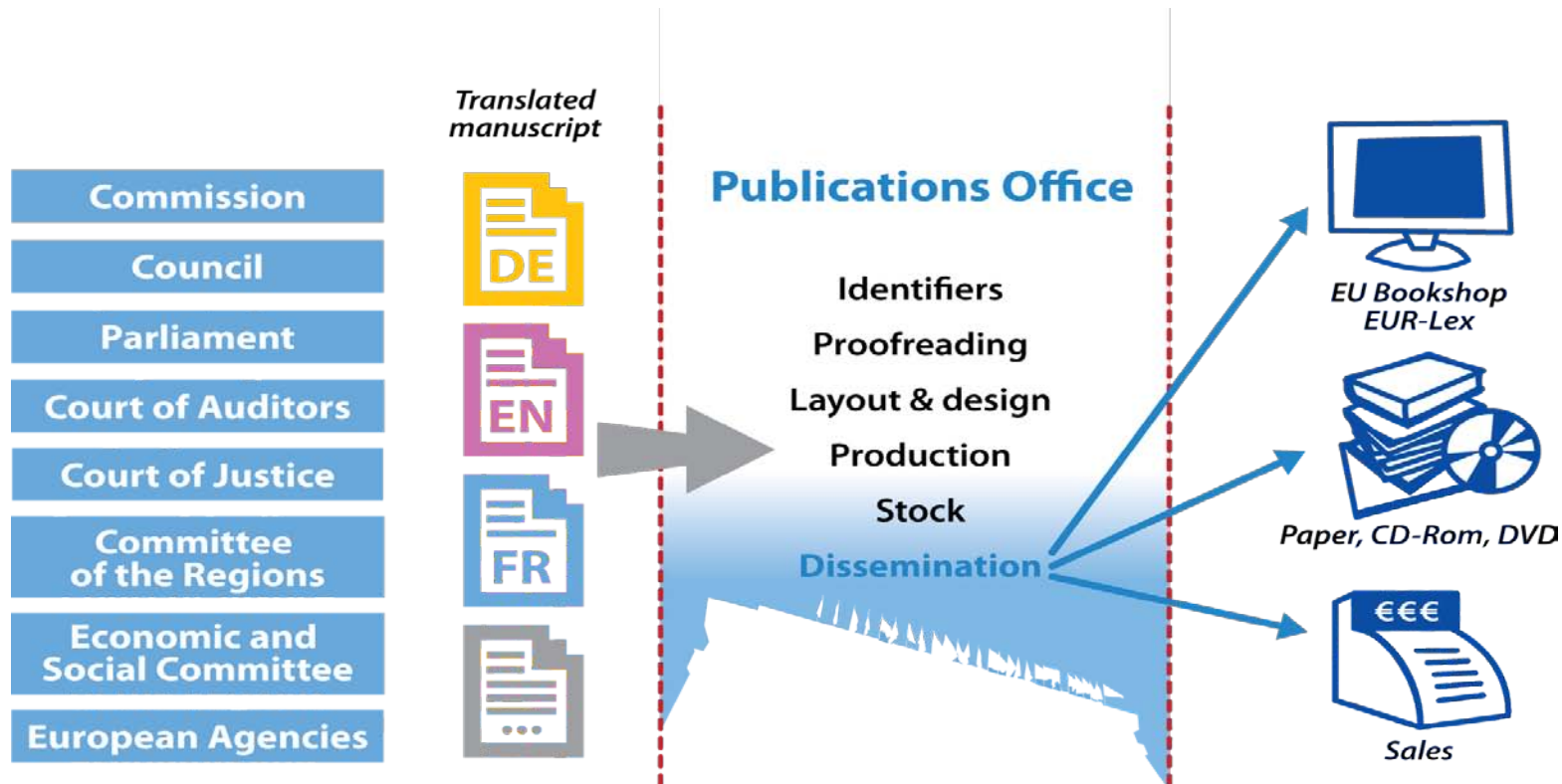
Audience: **W3C Workshop: The Multilingual Web – The Way Ahead**  
Presented by: Peter Schmitz  
Date: 15/03/2012



- Who is the Publications Office of the EU?
- Common access to EU information based on semantic technology - CELLAR Project
  - Vision and target architecture
  - Use of semantic technology
  - Multilingual aspects
  - Interoperability

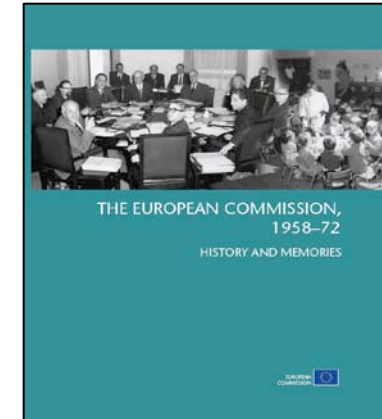
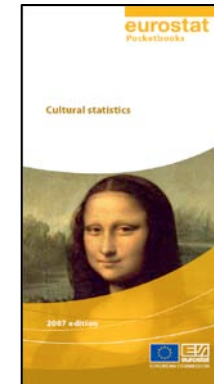
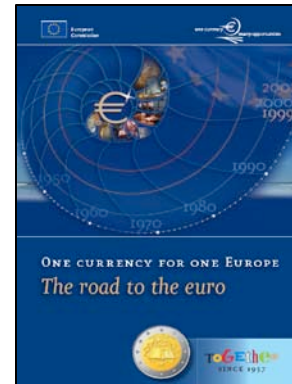
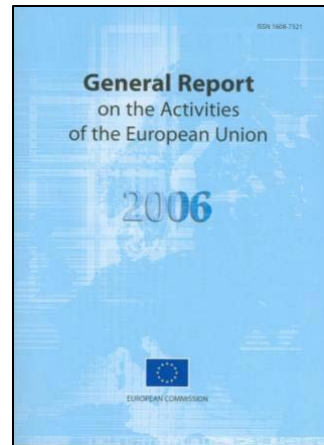
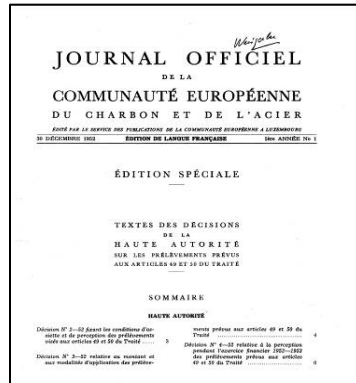


## In summary: From the EU to the public



## What do we publish?

- “Official” publications



## Key production indicators for 2011

- Official Journal of the European Union
  - 866 issues, 22/23 languages, five days a week, 1.065.425 pages
  - 411.850 public procurement notices
  - Consolidation of EU Law (52.097 legislative acts)
- General publications
  - 5.972 titles, official languages of the EU, but also other languages

## Dissemination

- Paper copies
- Online services

## Long-term Preservation

- Paper archive
- Digital archive



## Main public online services



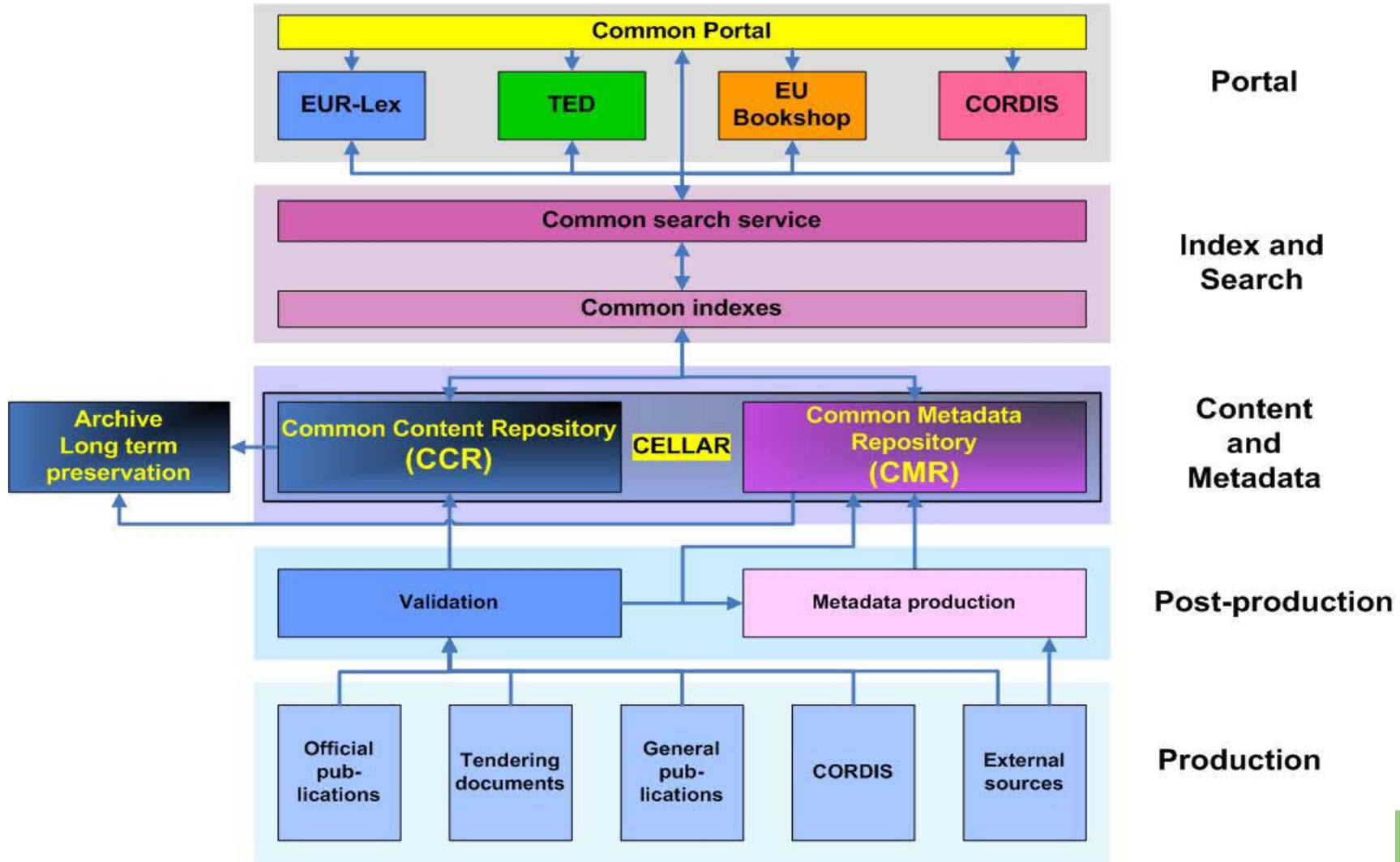
# CELLAR Project: Vision

To make available at a **single place** all **metadata** and **digital content** managed by the Publications Office in a harmonised and standardised way in order:

- To guarantee to the citizen a better **access** to law and publications of the European Union;
- To encourage and facilitate **reuse** of content and metadata by professionals and experts;
- To **preserve** content and metadata and access to contents and metadata over time.



# CELLAR Project: Target architecture





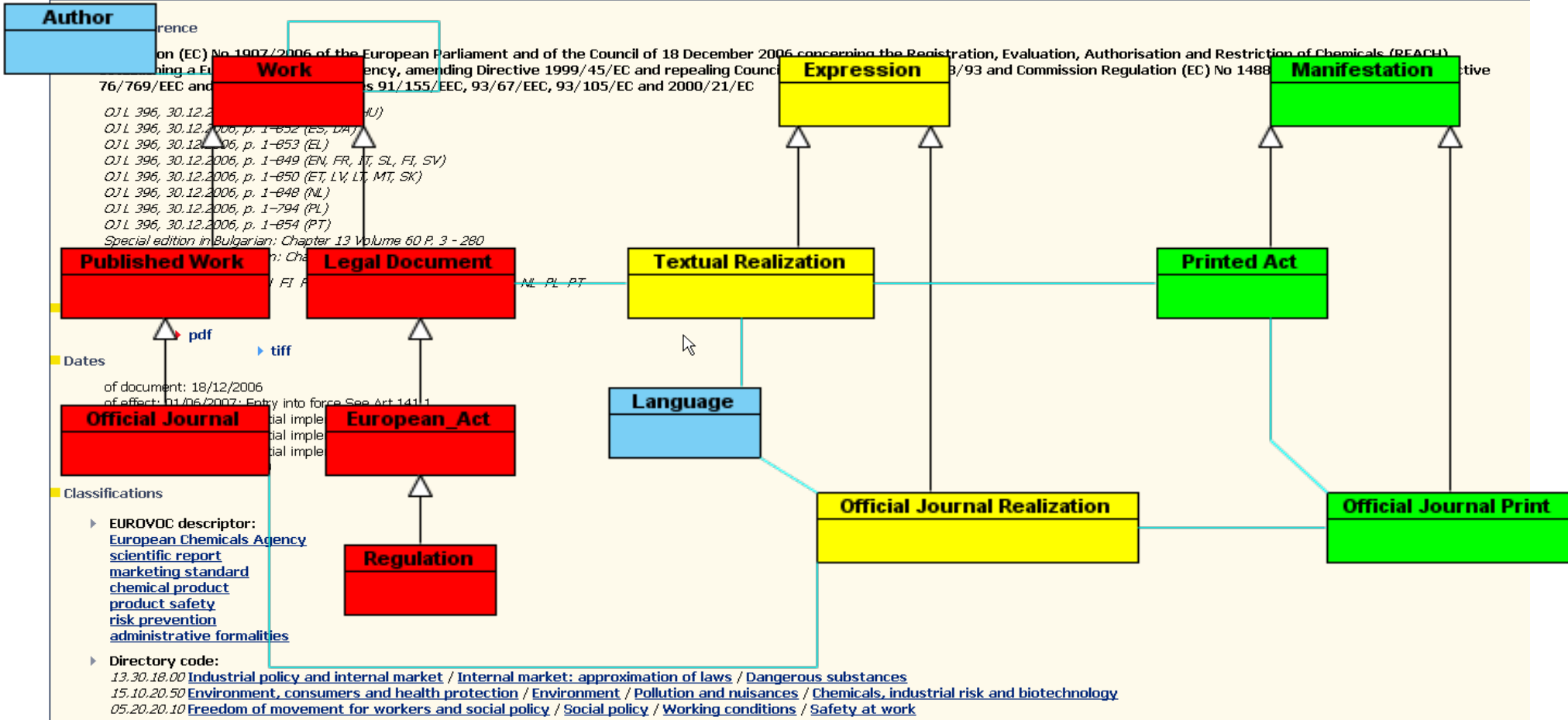
## Common data model: Ontology based on FRBR model

FRBR = Functional requirements for bibliographical records

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Permanent link (for bookmarking) Complementary data:  Languages and formats available  Text (bilingual display) GO

Bibliographic notice 7 of 7



## Metadata represented in RDF

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE rdf:RDF [
  <ENTITY % cellarEntities PUBLIC "-//PO-RESOURCE/ENTITIES CELLAR cdm model 1.0/EN" "applications/metaconv/users/metaconv/data/entities/cellar_uris.ent">
  <ENTITY xsd "http://www.w3.org/2001/XMLSchema#">
  <ENTITY cdm "http://publications.europa.eu/ontology/cdm#">
  <ENTITY tdm "http://publications.europa.eu/ontology/tdm#">
  <ENTITY annotation "http://publications.europa.eu/ontology/annotation#">
  <ENTITY rdf "http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  %cellarEntities;
]>
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http://www.w3.org/1999/02/22-rdf-syntax-ns#">
  <CMROntology:non-opposition_concentration_notified rdf:about="&resource;celex/32009M5519">
    <CMRAnnotation:build_info>cdm:2294 tdm:1523 xsli:2554 saxion:9.0.0.1J JVM:1.6.0_29 metaconvJar:16/01/2012-01:07 builddate:16/01/2012 16:39:05</CMRAnnotation:build_info>
    <CMROntology:work_id_document rdf:datatype="&xsd:string">celex:32009M5519</CMROntology:work_id_document>
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```



# Taxonomies represented in SKOS

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    <skos:inScheme rdf:resource="http://publications.europa.eu/resource/authority/corporate-body">
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## Example: Multilingualism enabled by co

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≤ Bibliographic notice 7 of 7 ≥

Title and reference

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Re-establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

*OJ L 396, 30.12.2006, p. 1-851 (CS, DE, HU)*  
*OJ L 396, 30.12.2006, p. 1-852 (ES, DA)*  
*OJ L 396, 30.12.2006, p. 1-853 (EL)*  
*OJ L 396, 30.12.2006, p. 1-849 (EN, FR, IT, SL, FI, SV)*  
*OJ L 396, 30.12.2006, p. 1-850 (ET, LV, LT, MT, SK)*  
*OJ L 396, 30.12.2006, p. 1-848 (NL)*  
*OJ L 396, 30.12.2006, p. 1-794 (PL)*  
*OJ L 396, 30.12.2006, p. 1-854 (PT)*  
*Special edition in Bulgarian: Chapter 13 Volume 60 P. 3 - 280*  
*Special edition in Romanian: Chapter 13 Volume 60 P. 3 - 280*

CS DE HU DA ES EL EN FI FR IT SL SV ET LV LT MT SK NL PL PT

Text

pdf tiff

Dates

of document: 18/12/2006  
of effect: 01/06/2007; Entry into force See Art 141.1  
of effect: 01/06/2008; Partial implementation See Art 141.2  
of effect: 01/08/2008; Partial implementation See Art 141.3  
of effect: 01/06/2009; Partial implementation See Art 141.4  
end of validity: 99/99/9999

Classifications

- ▶ EUROVOC descriptor:  
[European Chemicals Agency](#)  
[scientific report](#)  
[marketing standard](#)  
[chemical product](#)  
[product safety](#)  
[risk prevention](#)  
[administrative formalities](#)
- ▶ Directory code:  
[13.30.18.00 Industrial policy and internal market / Internal market: approximation of laws / Dangerous substances](#)  
[15.10.20.50 Environment, consumers and health protection / Environment / Pollution and nuisances / Chemicals, industrial risk and biotechnology](#)  
[05.20.20.10 Freedom of movement for workers and social policy / Social policy / Working conditions / Safety at work](#)

▶ Descripteur EUROVOC:  
[Agence européenne des produits chimiques](#)  
[expertise scientifique](#)  
[norme de commercialisation](#)  
[produit chimique](#)  
[sécurité du produit](#)  
[prévention des risques](#)  
[formalité administrative](#)

## EUROVOC

007984

007130

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002739

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004074

005070

▶ EUROVOCi deskriptor:  
[Euroopa Kemikaalide Amet](#)  
[teadusaruanne](#)  
[turustusnorm](#)  
[keemiatoode](#)  
[tooteohutus](#)  
[riskiennetus](#)  
[haldusformaalsused](#)





## Adoption of standards

- METS (Metadata encoding and transmission standard) -> ingestion protocol
- Dublin Core -> core metadata definition
- FRBR compliant -> data model/ontology
- Linked Open Data (LOD) -> access/reuse
  - Web-friendly ("RESTful") Interface
  - RDF / OWL
- Standard Query Language (SPARQL) -> access/reuse





## Definition of standards

- Core metadata (Restricted shared set of metadata for each resource based on Dublin Core) -> **enable global search**
- Common authority tables -> **harmonize metadata**
- Exchange protocol for EU legislative procedures -> **interoperability**

## Under preparation:

- European Legislative Identifier (ELI) (initiative of EU member countries, supported by the Publications Office) -> **interoperability**



Thank you for your attention!

