#  the EU Law Knowledge Map 

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Let me start by quoting Ingrid Bergman :" A kiss is a lovely trick designed by nature, to stop speech when words become superfluous. "
Of course, to communicate in that way you need:
a) Ingrid Bergman or an adequate substitute,
b) to reach that stage when words become superfluous and
c) some physical proximity.

So, unfortunately, most of the time one needs some kind of language ie a set of words with a syntax, as the only means to express a request. As official information providers, we will have to interpret, to process and to answer that request as accurately as possible.
This is a steep challenge, all the more so as we use 23 soon to become 24 "natural" languages.

## Steps:

■ set up a conceptual framework
■ create the supporting organisation and infrastructure
■ apply it to the documentary content
■ enlarge the scope.

Standardized Codes

## Global Access

Standardized terminology

- Concepts assigned to the fields of activities of the EU (21 domains)
- Each concept is defined by its relations with the other concepts
- Each concept has 24 language equivalents


## Preferred Term

Note
Non Preferred Term
Domain \& Microthesaurus
Broader Term (BT)
Narrower Term (NT)
Related Term (RT)
promotion of the European idea

## SN

Use for any campaign aimed at promoting the idea of European integration.

UF promotion of Europe
08 INTERNATIONAL RELATIONS
MT 0811 cooperation policy
BT1 European integration
BT2 European cooperation
BT3 international cooperation
BT4 cooperation policy
NT1 European symbol
NT1 vision of Europe
RT Community sponsorship [ 1016]
public awareness campaign [0431]

## LANGUAGE EQUIVALENTS

| BG | разпространение на европейското мислене |
| :---: | :---: |
| ES | fomento de la idea de Europa |
| CS | şiríení evropské myšlenky |
| DA | fremme af den europæiske idé |
| DE | Verbreitung des Europagedankens |
| ET | Euroopa idee edendamine |
| EL |  |
| EN | promotion of the European idea |
| FR | promotion de l'idée européenne |
| IT | promozione dell'idea europea |
| LV | Eiropas idejas popularizēšana |
| LT | Europos idejos skleidimas |
| HU | az Európa-gondolat elômozdítása |
| MT | promotion of the European idea (under translation) |
| NL | promotie van de Europese gedachte |
| PL | promocja idei europejskiej |
| PT | promoção da ideia europeia |
| RO | promovarea ideii europene |
| SK | šírenie európskej myšlienky |
| SL | širjenje evropske ideje |
| FI | Eurooppa-aatteen edistäminen |
| SV | främjande av Europatanken |
| HR | promicanje europske ideje |
| SR | промовисање европске идеје |

ES fomento de la idea de Europa
CS šíření evropské myšlenky
fremme af den europæiske ide Verbreitung des Europagedankens Euroopa idee edendamine promotion of the European idea promotion de l'idée européenne promozione dell'idea europea popas idejas popularizesana
z Európa-gondolat elômozdítása
promotion of the European idea (under translation) promotie van de Europese gedachte
promoc̃a da ideia europei
moçao da ideia europeia
promovarea idell europene
sirjenje evropske ideje
oppa-aatteen edistaminen
promicanje europske ideje
промовисање европске идеје

## EuroVoc in figures

■ Version 4.4

- 6881 concepts in 24 languages
- 22 EU official Ianguages, Croatian and Serbian
- +Links to Basque \& Catalan EuroVoc from the websites
- Future: Albanian ready but not yet published
- EuroVoc website
- http:/ / eurovoc.europa.eu/
- Thesaurus language vs. Content (editorial) language
- Navigate through the domains \& Microthesaurus
- Simple and advanced search
- Download
- the printed version (PDF format)
- List of terms by language, by microthesaurus (Excel format)
- Full XML or RDF format (a login password is required)


## EuroVoc - Usage

## Standardized

 terminology- Annotate the content of documents and retrieve information
- EU Official Journal database - EUR-Lex
- Catalogue of EU publications - EU-Bookshop
- The publications in the National Parliament libraries (EU and third countries)
- Private users used it under licence with the PO (53 in 2011)
- Automated documents categorization \& indexing
- Academic research (semantic web, computational linguistics)
- Translation

■ Advantage: remove language barriers

- Annotation in your language
- Information retrieval in another Ianguage of EuroVoc
- Limitation: EuroVoc is not specialized


## FRBR: Group 1 Classes: Work, Expression, Manifestation, Standardized Item




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Rado. Thiou old hime,
Thou did: Pholathim in chy histec
Ifag. Defipire me. . (Ip ecrfonal| (quict tomake me his Lieuteranan) Off-capt to hiait: and by the fititit of man Iknow my price, 1am word nowonfferpices)
 Horribly fuffiwith Ep phictes of warte, Non-fuitcs yy Mediarois. For cestes, fiico be, I hauc alreedy chole my oficice. And what wat he? For-Iooth,
(A Feclowe lmof damo din a finte Wife)

Nor the denifion of a Bataile kuowes
Mort then a Spinfer. Vale
 AsMaferly as be. Mectre prate (without praaitic) It all his souldierfhip. But he (Str) had thitecetion And I (of whom his seis had fecenct the proofe
 By Debirot, and Creditor. This Counter-caller, By (in good time) muff his Leiuccumnt be. AudI (bleffe the marke) his swoorelhips Aundient.
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Sönig ふ̌eintiç ber Bierte. Exffer

## Standardized Structures

## Common Data Model (CDM)

## Standardized Structures







Metadata codes

- Descriptive metadata can be free text | coded
free text
- <itle>Evaluation under REACH</ title>
- -itle>Оценката съгласно REACH</ title>
coded values
- <OJ_AUTHOR>CS<l OJ _AUTHOR>
- -AU>CONS< AU>
- <710>CSU<1710>

In this last example

- the meta names are different in the various repositories
- different codes are used for the same Institution for various labels "Council of the European Union" | "Council"

Dublin Core metadata element set (1)

| DC Element * |  | OP Element | Nature | Mandatory \| <br> Optional |
| :--- | :--- | :--- | :--- | :--- |
| 01 | Title | Title | Free text | Mandatory |
| 02 | Creator | Corporate \| Person | Coded | Mandatory |
| 03 | Language | Language | Coded | Mandatory |
| 04 | Date | Date(s) | Formatted | Mandatory |
| 05 | Type | Resource type | Coded | Mandatory |
| 06 | Format | Resource format | Coded | Optional |
| 07 | Publisher | OP by default | Coded | N/ A |
| 08 | Identifier | Identifier +URL <br> URI | Formatted | Mandatory |

## Dublin Core metadata element set (2)

| DC Element |  | OP element | Md <br> I Optionar |  |
| :--- | :--- | :--- | :--- | :--- |
| 09 | Description | Abstract \| Summary | Free text | Optional |
| 10 | Contributor | Corporate + Person | Coded | Optional |
| 11 | Subject | Thesaurus \| <br> Classifications | Coded | Mandatory |
| 12 | Source | Original work | Link | Optional |
| 13 | Relation | Links in granularity \| <br> versioning | Link | Optional |
| 14 | Coverage | Country, places, <br> events | Coded \| <br> formatted | Optional |
| 15 | Rights | Copyright | Free text \\| coded | Optional |
| 16 | Audience | Target audience | Coded | Optional |

Common Authority Tables (CAT) - September 2010

| Common Authority Tables | Source |
| :--- | :--- |
| LANGUAGES (ISO 639/ 1, 639/ 2B\| T, 639/ 3) | ISO |
| COUNTRIES (ISO 3166/ 1-a2 and a3, 3166/ 3) | ISO |
| NTU (incl. NUTS and ISO 3166-2) | ISO + UNO + Eurostat |
| CURRENCIES (ISO 4217) | ISO |
| CORPORATE AUTHORS (EU organizations responsible for <br> making the resource) | Various internal <br> sources |
| PERSONAL AUTHORS (involved in the legislative process) | EurLex + PreLex |
| ROLES | LC + EurLex + Prelex |
| PLACES (locations, towns) | UN-LOCODE |
| RESOURCE FORMAT (incl. dimensions) | ONIX + IANA |
| RESOURCE TYPES (categories of resources) | Internal sources |
| TARGET AUDIENCES | ONIX |
| Etc. | to be started |

## Results of the Common Authority Tables

- The results of the work and some figures:
- Languages: more than 5,000 codes have been analysed and mapped (across 7 systems) and the related labels in 23 official languages

Countries: more than 2,000 codes have been analysed and mapped (across 4 systems) and the related labels

Currencies: more than 600 codes have been analysed and the related labels, for the time being, in 3 languages (German, English, French)

NTU: includes the NUTS (Eurostat) and their relationship to the ISO 3166-2 standard for territorial units and Eurovoc regions of Europe
$\square$

# 10/11/2009 S216 Communautés européennes - Secteurs de leau, de lénergie, des transports et des télécommunications - Procédure négociée 

F-Morlaix: Sacoches
2009/S 216-312057
AVIS DE MARCHÉ - SECTEURS SPÉCIAUX
Fournitures

SECTION I: ENTITÉ ADJUDICATRICE
ans accora-caare. Accord-cadre avernant l'accord-cadre: Nombre maximum de plusieurs opérateurs Durée de l'accord-cadre Durée en mois: 36 .
II.1.5) Brève description du marché ou de l'achat/des achats: Fourniture de diverses sacoches et pochettes en toile, en cuir, en simili pour le transport de
documents en conformité avec les obligations prévues par le réglement REAGH (CE $\mathrm{n}^{*}$ 1907/2006).

## Ted

## PORTALE DELLA NORMATIVA SANITARIA

## CORDIS




## EU Bookshop

## Guidance for identification and naming of substances uīider REACH

oReproduction is authorised prov
Chemicals Agency (Helsinki, Finland) (under preparation)
Corporate author: European Chemicals Agency (ECHA)
Publication year:
Themes:
2007
Chemical industry

## Linked Open Data

1. Use URIs as names for things
2. Use HTTP URIs so that people can look up those names.
3. Provide useful information, using semantic web standards (RDF, SPARQL)
4. Include links to other URIs
5. Free to use, reuse, and redistribute

Based on Tim Berners-Lee: Linked Data

## Metadata Register - Organisation

## METADATA GOVERNANCE on

 INTERINSTITUTIONAL LEVEL

Metadata Register - Overview


## Target Content and Metadata Layer



```
    Portal
Index and
    Search
    Content
        and
    Metadata
        =
    CELLAR
```

Postproduction
Production

## CELLAR - Content and Metadata



## Standardised Metadata related to the decision making process Onion skin model



## EuroVoc - Interoperability

- Future of EuroVoc = interoperability
- Offers an in-depth coverage
- to annotate the content of documents more precisely
- to enable automated query expansion in searchengines

■ TAE - Thesaurus alignment environment


ETT

- Initiative of the PO started in 2010
- A platform for semi-automated alignment of vocabularies and thesauri
- Today : alignment results available in RDF
- EuroVoc $4.3 \leftarrow \rightarrow$ EuroVoc 4.2, Gemet (EEA), ETT (Cedefop), EET (Eurydice), OSHA Thesaurus, EUR-Lex Directory Code, EUBookshop classification, Classification Scheme in the Digest of the case-law (CJ UE)


## EuroVoc - Collaborative management

■ Thesaurus Working Group

- First meeting in June 2011
- Future - Expectations to collaborate more closely
- Each vocabulary is managed independently in a shared thesaurus management interface
- Sharing the same standards (ISO, SKOS/ RDF, W3C)
- Sharing the management of similar concepts and their translations
- Mapping of similar concepts from different thesauri (EuroVoc and a specialized thesaurus)
- Connecting the specialized hierarchy (from a specialized thesaurus) to a EuroVoc generic concept
- Dissemination of content in a common web site



## ELI in Luxembourg


$\gg$ home $>$ Espace Léqislatif $>$ Mémorial $A>$ Archives $>2006>$ Mémorial $A$ n $n^{\circ} 123$ de 2006 $>$ Coopération
Coopération éducation，culture et sciences－Lux．－Cap－Vert
© One up
Coopération éducation，culture et sciences－Lux．－Cap－Vert 量
Nature：Loi
Publication：Au Mémorial A n ${ }^{\circ} 123$ du 18．07．2006
Date de l＇acte：06．07．2006
Classement（s）（M＇Yistère＝＞Département $=$ R Rubrique）
－Affaires Etrangères et Immigration $=>$ Conventions internationales $=>$ Accord de dialogue politique et de coopération

Loi du 6 juillet 2006 portant approbation de l＂Accord de coopération entre le

Gowvernement du Grand－Duché de Luxembourg et le Gouvemement de la République du Cap－Vert dans les domaines de léducation，de la culture et des sciences，signé à Praïa，le 20 novembre 1998.

Types des relations dans cette loi．
Types des relations vers cette loi．
Evolution chronologique de cette loi．
－ －$_{5}$ Cette loi est rectifié（e）par．．．（08．08．2006） RECTIFICATIF de la loi du 6 juillet 2006 （publié au Mémorial $A n^{\circ} 133$ du 08.08 .2006 ）

辰解
Mémorial 123
du 18.07 .2006 page 2136

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## Conclusions

Questions?

## Thank you!

