

eENVplus Thesaurus Framework

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Overview

- Objectives and outcomes
- State of play: The Thesaurus Framework for Nature Conservation
- Planned activity
- Conclusion

■ General Objective

To make effective sharing and reuse of data overcoming the language and cultural barriers in the use of data.

■ Specific Objectives

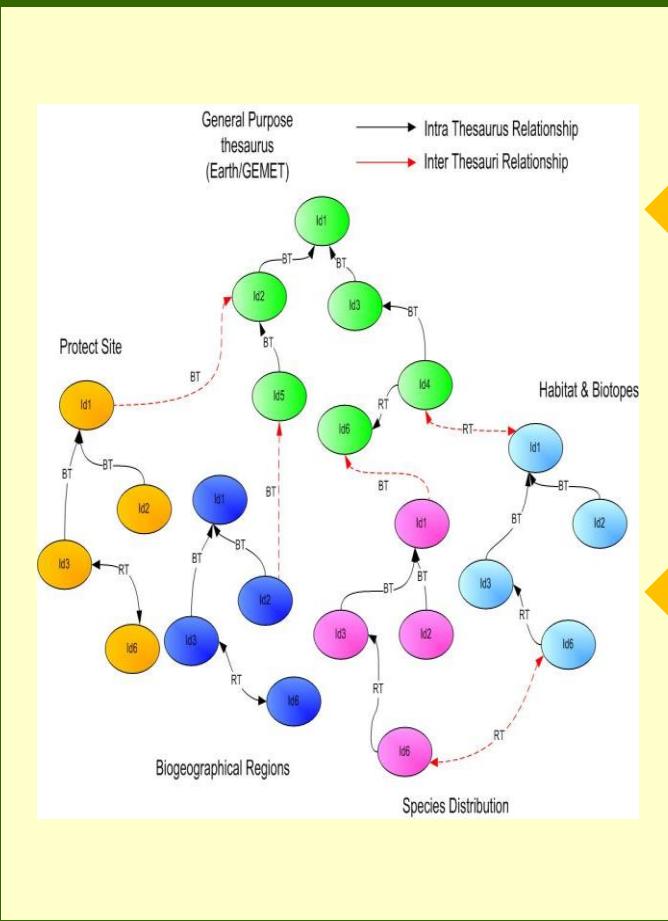
- A common thesaurus for the Environment
 - based on existing multilingual thesauri
 - covering different data themes related to the environmental domains
- Exploitation of the thesaurus framework
 - to compile metadata describing resources more effectively, with more widely shared concepts and limiting the language barriers,
 - to improve resource discovery across applications and platforms

- Different communities with different competencies are involved in the management of Environmental information
- Different Thesauri have been already developed covering most of these competencies
- More than one terminology is available for a given competency
- Terminologies have often a national origin. They are not uniform in all the EU countries and often even stakeholders from the same country can adopt different terminologies in everyday practice



- ✓ **Picking up just one of the available thesauri does not cover all**
- ✓ **Exploitation of existing thesauri (general purpose and target thesauri)**
- ✓ **Thesaurus interoperability to shift from one thesaurus to another**

KOS/Thesauri



Interlinking



□ Modularity

- new thesaurus may be added as a new module plugged in the set of thesauri in the framework.

□ Openness

- Each KOS should be easily extendable keeping separated the original one.

□ Interlinking

- Interlinking among the terms referring to the same concepts in more than one thesaurus in order to harmonize their usage.

□ Exploitability

- encoding in a standard and flexible format in order to encourage the adoption and its enrichment from third party system

■ SKOS-Simple Knowledge Organization System to encode the thesaurus content

- to model basic structure and content of thesauri according to semantic web\W3C recommendations

■ Linked data best practices

- To publish the thesaurus in machine understandable format exploiting existing protocols in the web

- **Thesaurus Framework for Nature Conservation**
(from EU NatureSDIplus project)

- **Environmental thesauri/services in GeoScience domain**
(from *OneGeology-Europe* project)

- **INSPIRE directive**
(from JRC collaboration)

Thesaurus Framework (TF)

State of play

EARTH (interlinked to GEMET)

IUCN classification

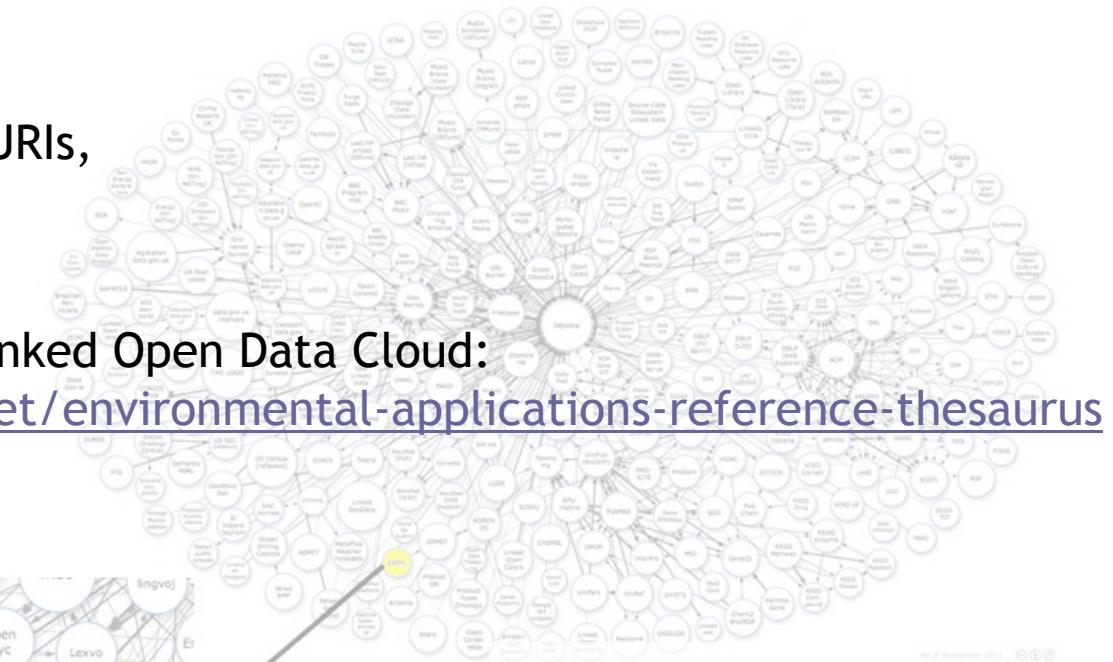
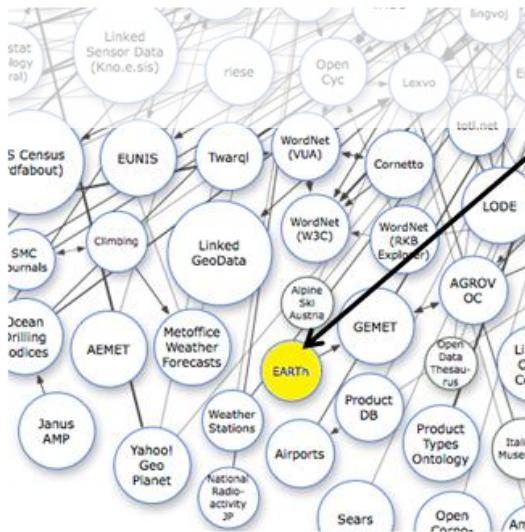
DMEER of Biogeographical region

EUNIS Habitat

EUNIS Species

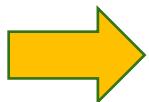
EARTh Accessibility

- EARTH accessible through
 - HTTP dereferenceable URIs,
 - RDF/XML Dump
 - SPARQL Endpoint
 - EARTH published into the Linked Open Data Cloud:
<http://datahub.io/it/dataset/environmental-applications-reference-thesaurus>



EARTh Interlinking

- GEMET
 - AGROVOC
 - UMTHES
 - DBPEDIA
 - EUROVOC



Content
Enlargement

- New thesauri (Thesaurus Survey & literature)
- Interlinking between thesauri
- Interlinking Quality Assessment



TF
Exploitation
services

- metadata compilation
- data retrieval (query formulation/refinement)
- semantic search (semantic similarity, semantic visualization ...)



Server
deployment

- Framework re-engineer
(VIRTUOSO and Pubby data server setting)

Compliance with INSPIRE

... Waiting for eENVplus TF outcomes ... We invite you:

To take a look at the Thesaurus Framework at:

<http://linkeddata.ge.imati.cnr.it:2020>

To check if a term is contained in TF at:

<http://linkeddata.ge.imati.cnr.it:8890/fct/>

To access the SPARQL ENDPOINT at:

<http://linkeddata.ge.imati.cnr.it:8890/sparql>

- To querying thesaurus concepts, relationships thesaurus
- To mappings between EARTH to GEMET, AGROVOC, UMTHES...
- To build your own services/application on the TF

To interlink your vocabularies/thesauri with the TF thesauri

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Thank you !

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