



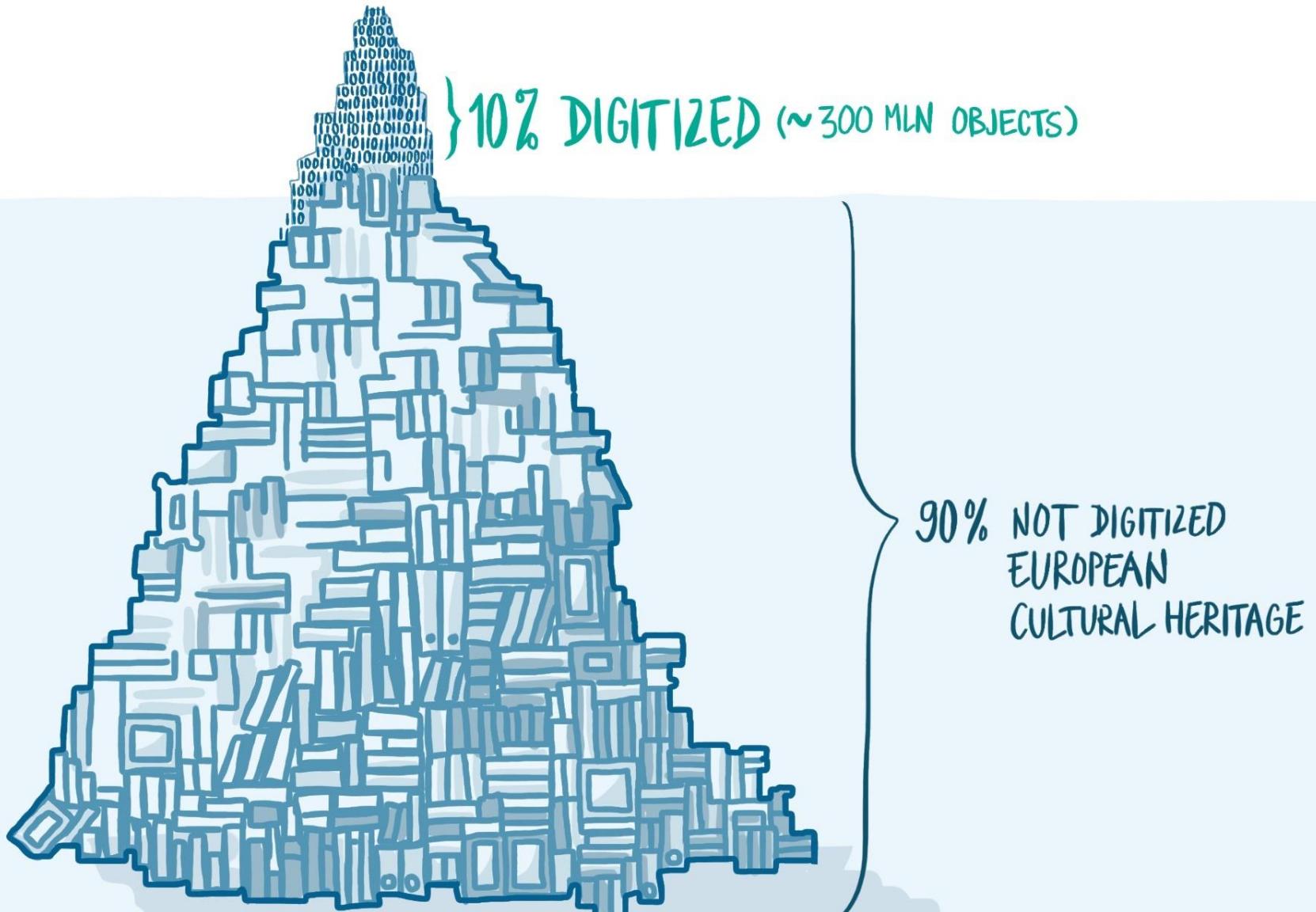
Europeana Vocabularies Microservices



Gerda Koch

AIT-Angewandte Informationstechnik ForschungsgmbH, Graz/Austria

<http://www.ait.co.at> kochg@ait.co.at

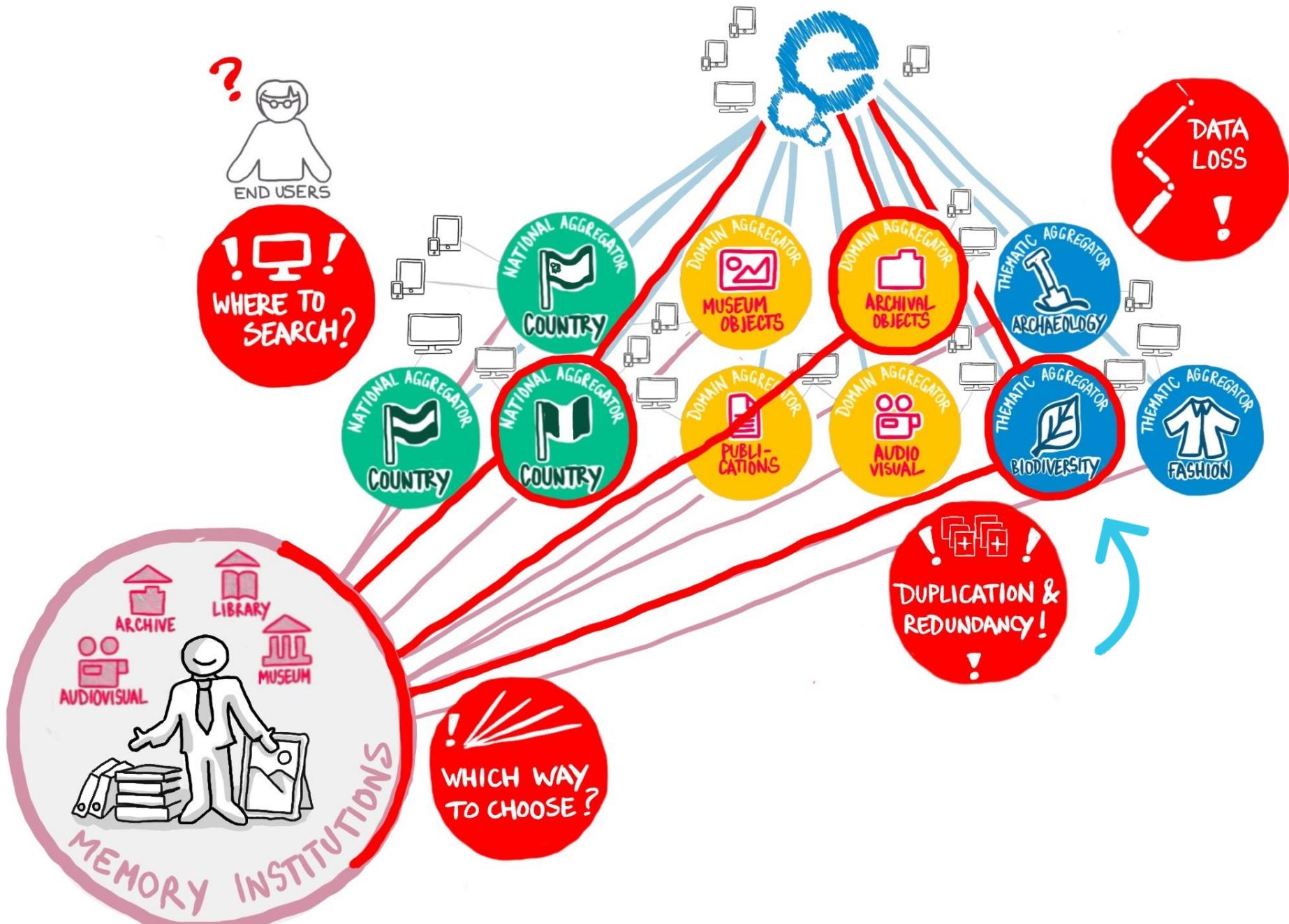


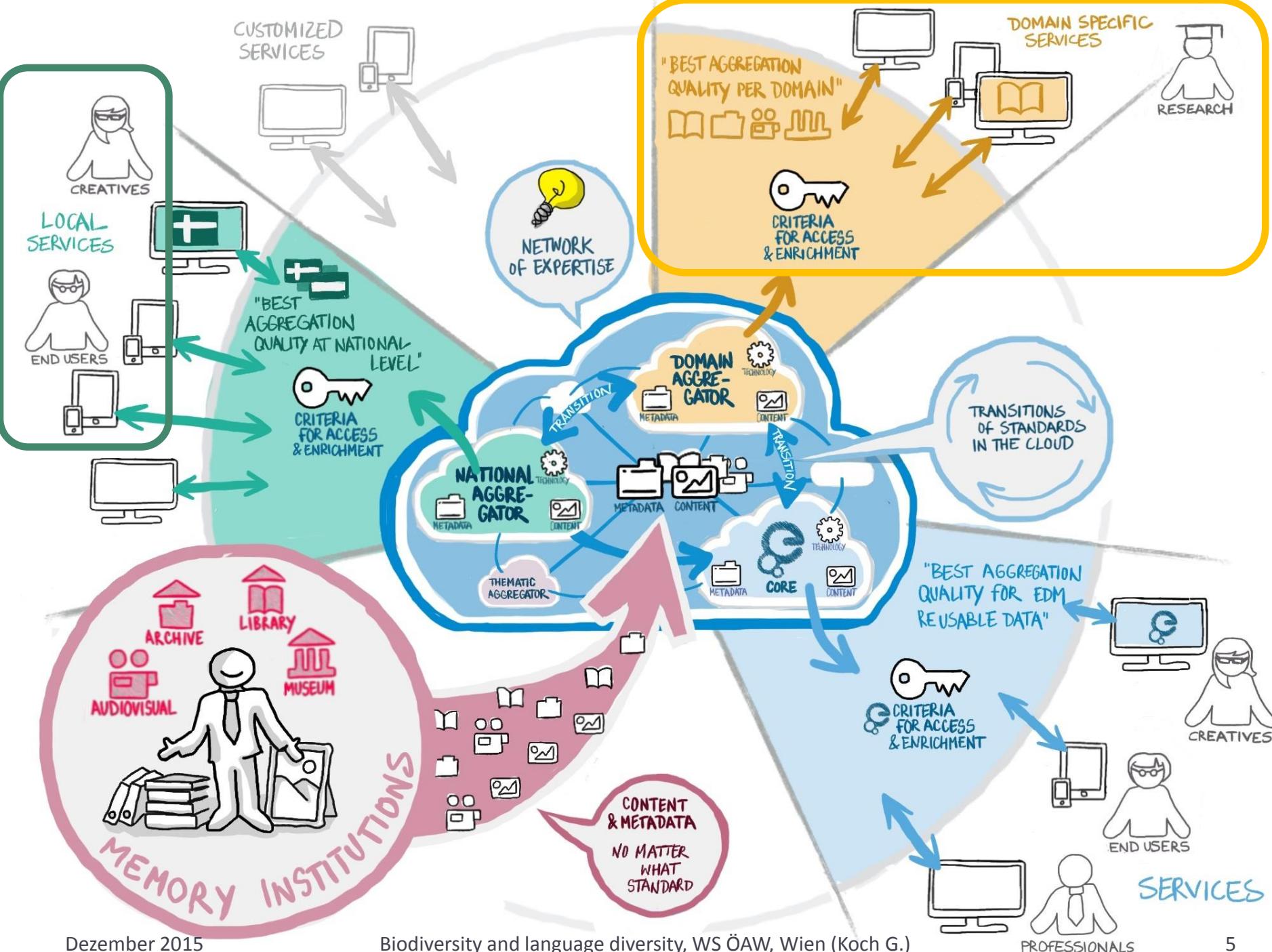
Enumerate report

Dezember 2015

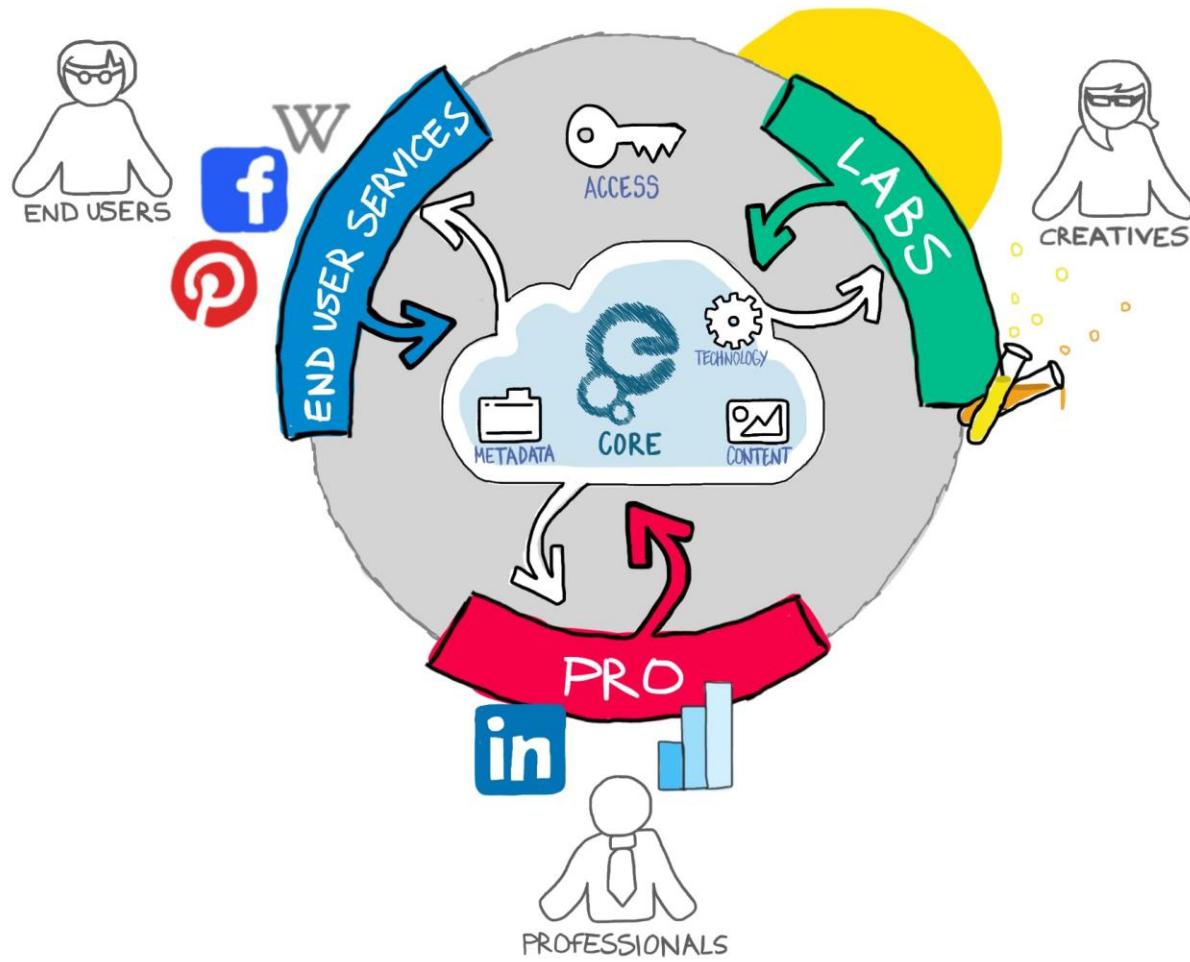
Biodiversity and language diversity, WS ÖAW, Wien (Koch G.)







Multi-sided platform



1



SHARE DATA

2

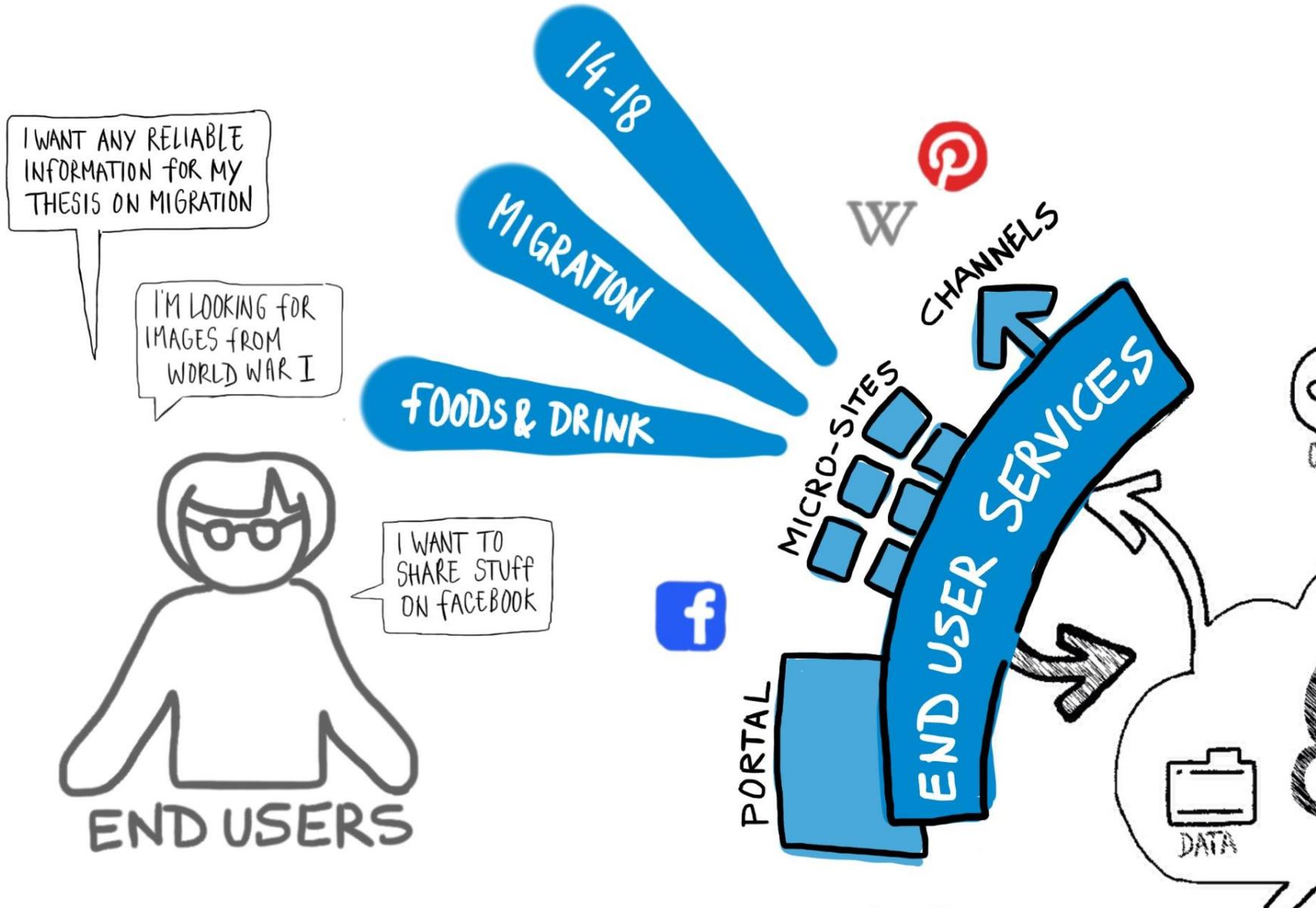


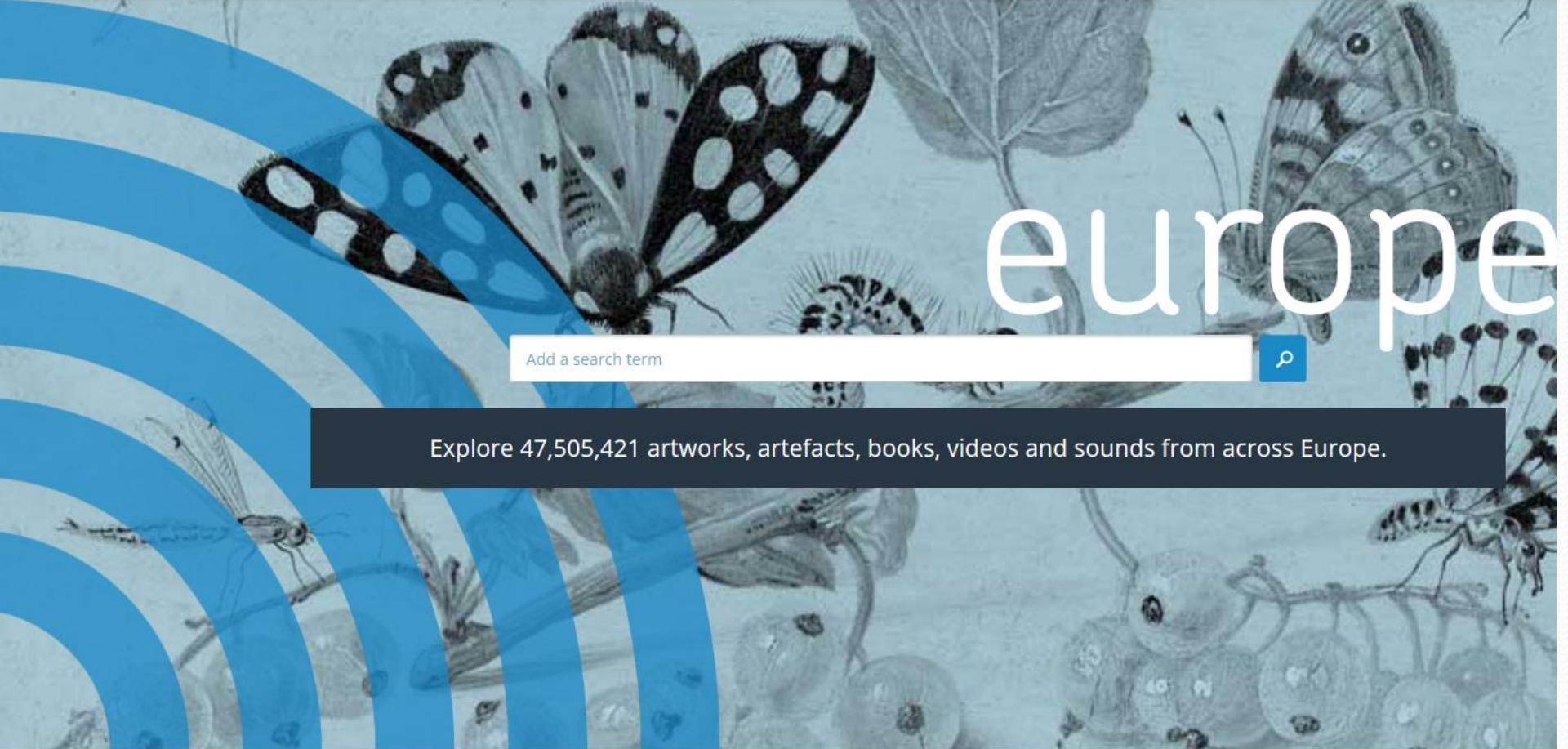
IMPROVE ACCESS CONDITIONS

3



CREATE VALUE



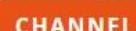
A large, detailed illustration of a butterfly with black and white patterns on its wings, set against a background of other insects like bees and flies, all rendered in a soft, painterly style.

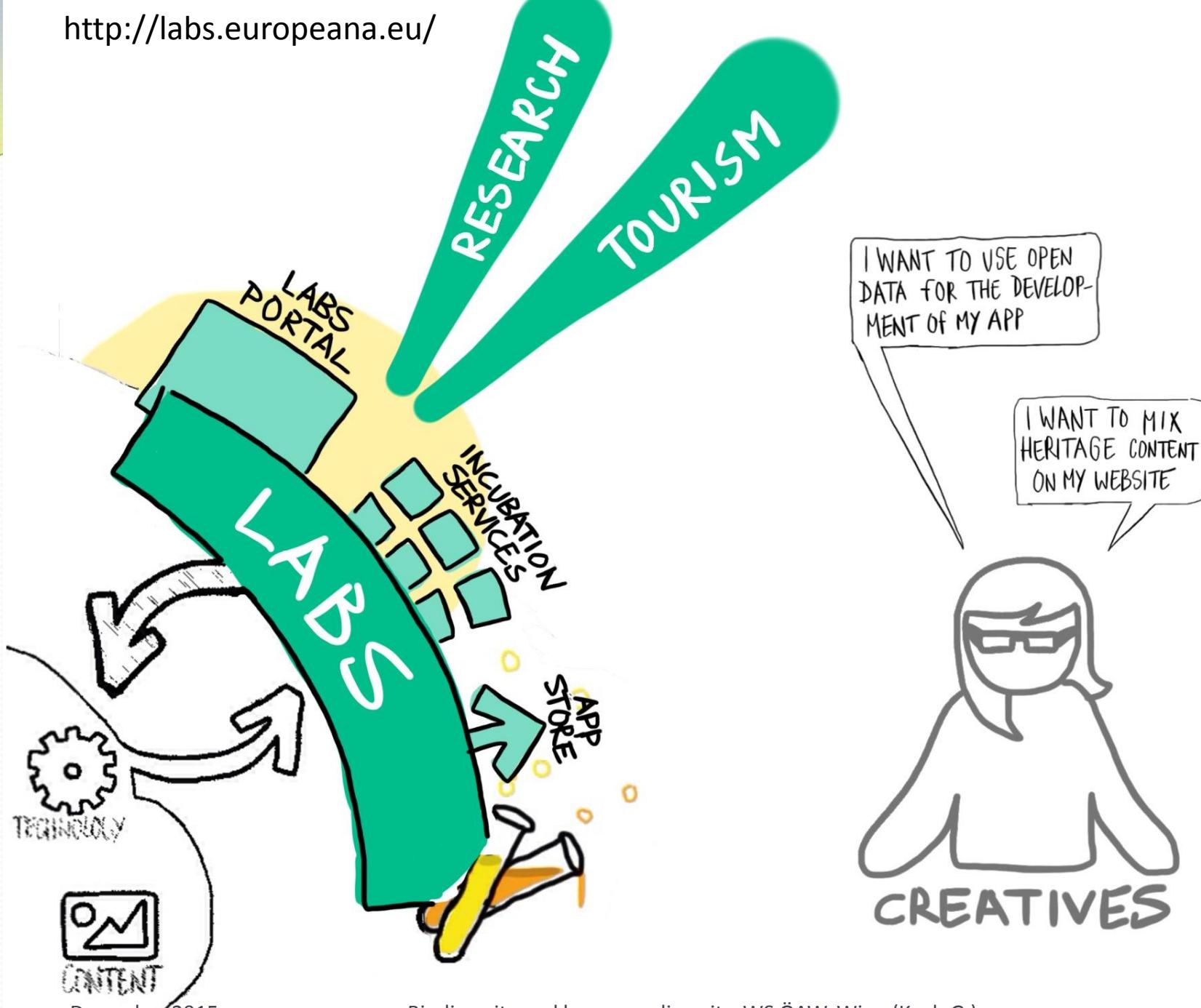
Add a search term



europe

Explore 47,505,421 artworks, artefacts, books, videos and sounds from across Europe.

A red rectangular button with the word "CHANNEL" in white capital letters.An orange rectangular button with the words "EXHIBITION" in white capital letters.



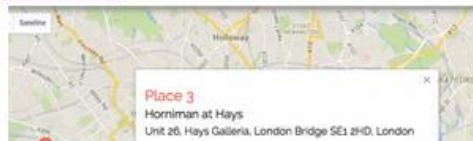


This is your code, this is your heritage, these are your labs.

LATEST UPDATES

SHOWCASE

EA TRAIL LONDON



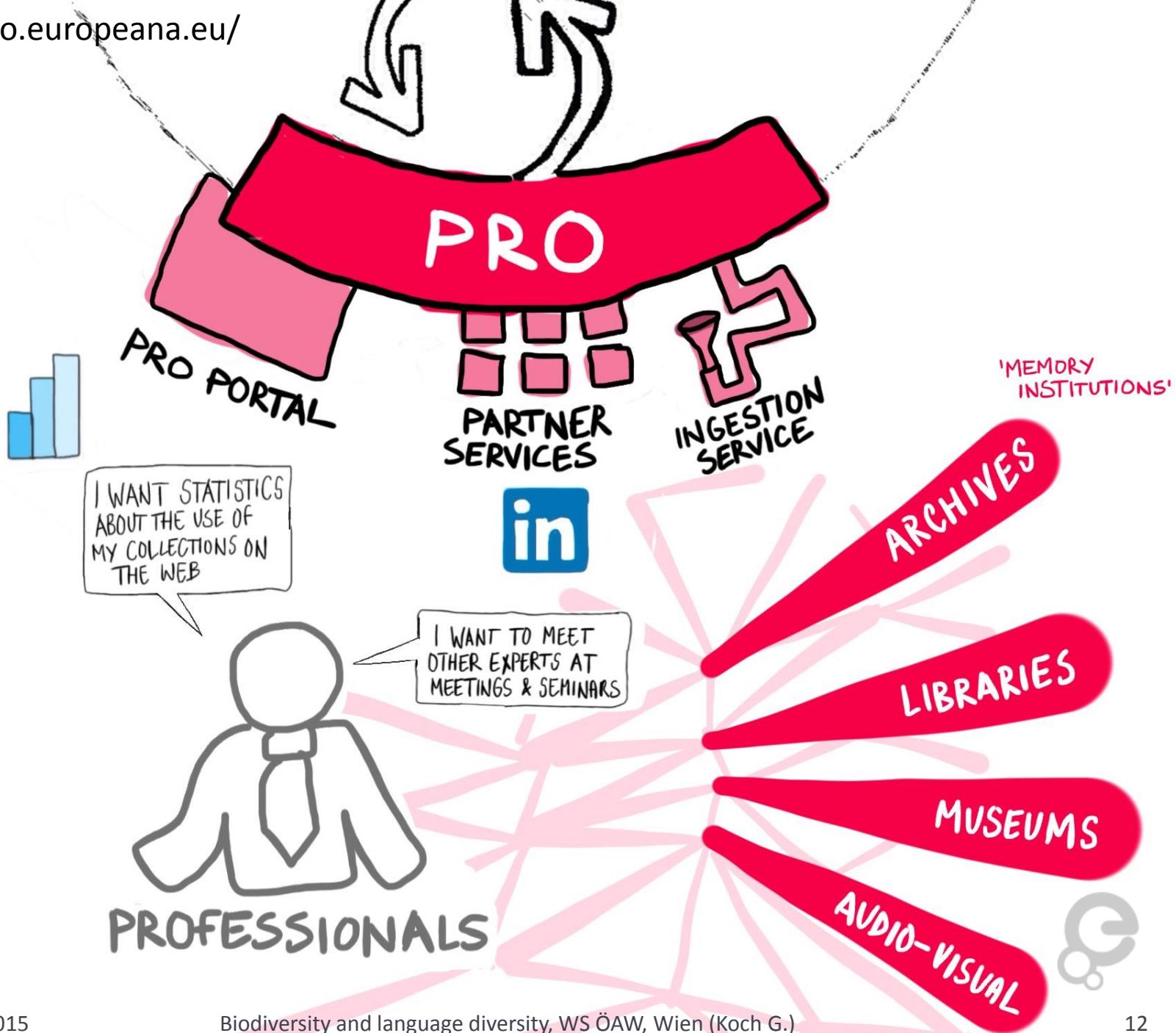
DATASET



BLOG

Total results: 21

plaResearch (page 1)
plaResearch (page 2)
plaResearch (page 3)
plaResearch (page 4)
plaResearch (page 5)
plaResearch (page 6)
plaResearch (page 7)
plaResearch (page 8)
plaResearch (page 9)
plaResearch (page 10)
plaResearch (page 11)
plaResearch (page 12)
plaResearch (page 13)
plaResearch (page 14)
plaResearch (page 15)
plaResearch (page 16)
plaResearch (page 17)
plaResearch (page 18)
plaResearch (page 19)
plaResearch (page 20)
plaResearch (page 21)





ELECTION RESULTS: MEET
YOUR NEWLY ELECTED
MEMBERS COUNCIL REP-
RESENTATIVES

[Exposition internationale]
National Library of France
Public Domain

Connect, Contribute, Create – discover how we transform the world with culture

Join the Network

Meet cultural sector professionals

Share interests and insights

Shape tomorrow's digital practices

Get in touch through Europeana's
[LinkedIn group](#)

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[USE OUR DATA](#)

[Become a data provider](#)

[Best practices](#)

[How to contribute data](#)

[Case studies](#)

[Rights statement guidelines](#)

[Services](#)

[Data Guidelines](#)

[Europeana Labs](#) 

Projekte

Partage Plus	Europeana Newspapers	Europeana Sounds
3D-ICONS	Europeana Libraries	Europeana DSI
APENET	Europeana Inside	Europeana Cloud
PATHS	Europeana Collections	Europeana Creative
PrestoPRIME	1914-1918	ENUMERATE
EuropeanaLocal	EURO-Photo	Europeana V3.0
EuropeanaPhotography	EUscreenXL	Europeana Awareness
EuropeanaTravel	EUscreen	Europeana Fashion
HOPE	EFG1914	Europeana Food and Drink
Judaica Europeana	EFG	Presto4U
LoCloud	ECLAP	PRELIDA
EuropeanaConnect	EAGLE	COMMIT
thinkMOTION	DCA	Apps4Europe
APEx	DM2E	Openup!
Europeana V2.0	Daguerreobase	Europeana 1914-1918
Europeana V1.0	CARARE	Natural Europe
Europeana Space	BHL-Europe	Linked Heritage
Europeana Regia	ATHENA	EU Heritage Tour
	ASSETS	Europeana 1989
	AthenaPlus	MIMO
	ARROW Plus	meSch
	ARROW	FORWARD

OpenUP! > Overall Objective¹⁵

Mobilising content from natural history museums, botanical gardens etc.

- project aim: 1.1 Mio. Records until Feb. 2014

Provide **infrastructure**

Quality control

Access **new user** communities

Technical Infrastructure

Use networks in the Natural History domain:

- CETAf, GBIF, BioCASE



Opening Up the Natural History Heritage
for Europeana

OpenUP! > Technical and Metadata Objectives

- **Mapping** between Community and EUROPEANA data standards
- **Enrichment** of metadata towards compliance with EUROPEANA standards and Incorporation of multilingual metadata, in particular **common names** of organisms
- A **single access point** to distributed natural history multimedia content for EUROPEANA
- Use **existing networks** in the Natural History domain:
 - CETAf (Consortium of European Taxonomic Facilities)
 - GBIF (Global Biodiversity Information Facility)
 - BioCAsE (Biological Collection Access Services)



Opening Up the Natural History Heritage
for Europeana

Current Content Delivery Status



Papilio garamas
Geyer, 1829



gold



gold



gold



Anthus trivialis
(Linnaeus, 175...)



Ananas comosus



Atrophaneura
semperi (Fel...)

Data provision December 2015:

~2.2 Mio. records

Images & Sounds

Botany, Zoology, Mineralogy, Anthropology ...



Papilio machaon
Linnaeus, 1...



Geranium zonale L.



Pelargonium zonale
(L.) L...



Geranium zonale L.



Pelargonium
coronopifoli...



Cephalopholis
boenak



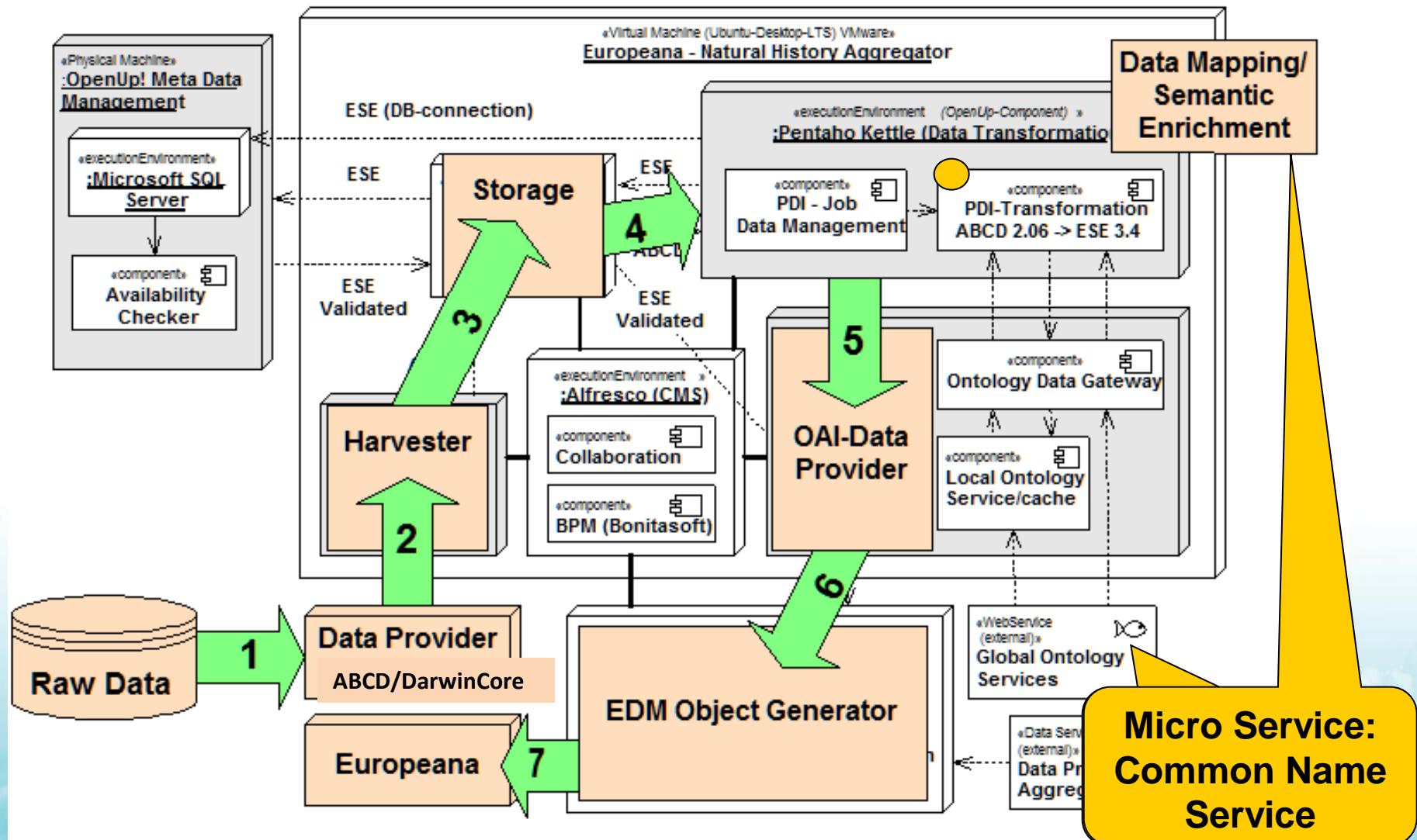
Citrullus vulgaris



Varecia variegata
subsp. rubra

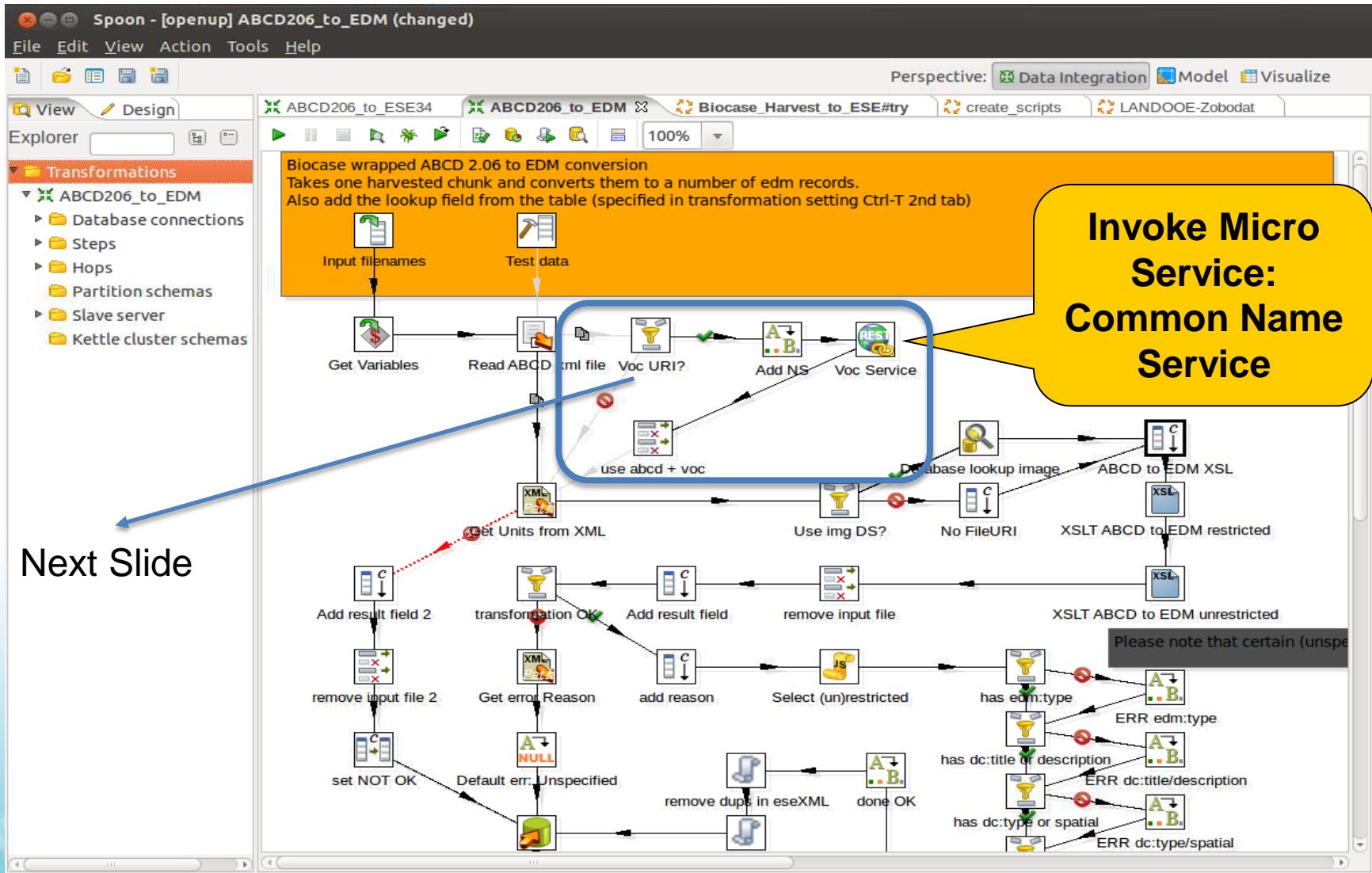


OpenUp! - Natural History Aggregator for Europeana





OpenUp! Transformation Workflow





OpenUp! Transformation Parameters

Executing a job ...

Job entry name: Biocase_Harvest_to_ESE

Job specification Advanced Logging settings Argument Parameters

Pass all parameter values down to the sub-job

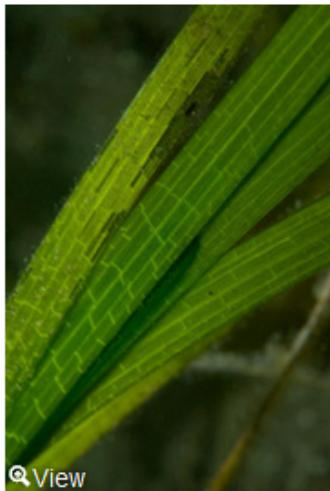
#	Parameter	Stream column name	Value
1	ANALYSE_IMG_DS		N
2	CLEAR_DIRS		Y
3	USE_IMG_DS		N
4	RESTRICTED		Y
5	collection_name		ZOBODAT:LANDOOE:AUSTRIA
6	base_dir		/opt/hit
7	dataset_name		LANDOOE - ZOBODAT (Zoological Botanical Database)
8	dataset_uddi_key		not-in-uddi-1084423
9	imageTable		
10	img_dataset_name		
11	img_dataset_uddi_key		
12	job		\$(Internal.Job.Name)
13	idzebra_dir		/var/www/oai-provider-edm/zebra/openup
14	DUPLICATE_HANDLING		F
15	PUBLISH		Y
16	DROP_IS_SHOWN_BY		N
17	SAVE_FILES		Y
18	vocabulary_service_uri		http://ait117:8080/Vocabulary/rest/~Mapping/NHMW_common_name/perform
19	DUPLICATE_IMG_HANDLING		A
20	EDM		Y
21	hit_db		hit

OK Cancel

Micro Service:
Common Name Service
Service End Point (Cache)



Result: OpenUp! Enriched Meta Data Set



View

© Rights Reserved - Paid Access

View item at
ETI Bioinformatics, Leiden,
the Netherlands ↗



Cite on Wikipedia

Translate details

Select language ▾

Powered by Microsoft® Translator

Zostera marina

Description:
leaf close-up

Type:
Drawing or Photograph

Latin Name

Common
Names

Subject:

Морська трава; ålegras; alga; alga das lagoas; alga de mar; alga del mar; alga-das-lagoas; arga; bandtång; botilham; ceba; eel grass; Eel grass; eelgrass; Eelgrass; feno do mar; feno-do-mar; fita-do-mar; gulf; gwelt-y-gamlas culldail; hierba de mar; hierba de vidrieros; limo de fita; limo-de-fita; limo-seval; miléarach; Miléarach; milfhéarach; Milfhéarach; miliúrach; Miliúrach; sargaço marinho; seba; sebas de mar; sedas de mar; xeba; xebe; zoostera; zostera morska; Обикновена морска трева; ზღვის ბალახი; Almindelig bændeltang; ålegress; grasswrack; Alva; meriajokas; Зостера морская; Взморник морской; Камка морская; Морская трава обыкновенная; Groot zeegras; кашка

Identifier:

ETI - FlorBur - 2520

Relation:

http://www.biodiversitylibrary.org/name/Zostera_marina; <http://rs.tdwg.org/dwc/dwctype/DrawingOrPhotograph>

Source:

Flora of the Burren and Southeast Connemara Version 2.0

Data provider:

ETI Bioinformatics, Leiden, the Netherlands

Provider:

OpenUp!

Providing country:

Netherlands

X

P

PROVIDER: OpenUp!
DATA PROVIDER: The Royal Botanic Garden Edinburgh

REFINE YOUR SEARCH

MEDIA

- [Image \(22\)](#)

CAN I USE IT?

- [Yes With Restrictions \(22\)](#)

COUNTRY

- [United Kingdom \(22\)](#)

LANGUAGE

- [English \(22\)](#)

PROVIDER

- [OpenUp! \(22\)](#)

DATA PROVIDER

- [The Royal Botanic Garden Edinburgh \(22\)](#)
- [Department of Life Sciences, University of Trieste \(4\)](#)
- [Royal Botanic Gardens, Kew \(4\)](#)
- [Biologiezentrum der Oberösterreichischen Landesmuseen \(3\)](#)

22 results

Galanthus sp.

herbarium specimen of unspecified type

zvončki, Schneeglöckchen, Подснежник, lumikellot

[View at The Royal Botanic Garden Edinburgh](#)

[Image](#)



Galanthus 'Magnet'

zvončki, Schneeglöckchen, Подснежник, lumikellot

[View at The Royal Botanic Garden Edinburgh](#)

[Image](#)





DOWNLOAD

Galanthus 'Magnet'

Classifications

Type: Living Specimen

Subject: <http://openup.nhm-wien.ac.at/commonNames/395109>, <http://openup.nhm-wien.ac.at/commonNames/395110>, <http://openup.nhm-wien.ac.at/commonNames/395111>, <http://openup.nhm-wien.ac.at/commonNames/395112>, <http://openup.nhm-wien.ac.at/commonNames/395113>, <http://openup.nhm-wien.ac.at/commonNames/395114>, <http://openup.nhm-wien.ac.at/commonNames/395115>, <http://openup.nhm-wien.ac.at/commonNames/395116>, <http://openup.nhm-wien.ac.at/commonNames/395117>, <http://openup.nhm-wien.ac.at/commonNames/395118>, <http://openup.nhm-wien.ac.at/commonNames/395119>, <http://openup.nhm-wien.ac.at/commonNames/395120>, <http://openup.nhm-wien.ac.at/commonNames/46552>, <http://openup.nhm-wien.ac.at/commonNames/395121>, <http://openup.nhm-wien.ac.at/commonNames/424283>, <http://openup.nhm-wien.ac.at/commonNames/424284>, <http://openup.nhm-wien.ac.at/commonNames/424285>, <http://openup.nhm-wien.ac.at/commonNames/references/scientificName/123821>

Has Type: <http://rs.tdwg.org/dwc/dwctype/LivingSpecimen>

Concept: Schneeglöckchen, snieguolé, snödroppar, snøklokker, snøklokke, snøklokke, zvončki, Гáлачты, Пíдсніжник, подснежник, Snowdrop, lumikello, 雪滴花, Snowdrops

Properties

Format: JPG Image, text/html

Provenance

Provenance: Garden

Identifier: E - Living - 19581009

CAN I USE IT?

Yes with restrictions

CC-BY-NC-SA

PROVIDED BY

The Royal Botanic Garden Edinburgh

The Royal Botanic Garden Edinburgh who may have more information and media for this item.

United Kingdom

```
- <rdf:RDF>
- <skos:Concept rdf:about="http://openup.nhm-wien.ac.at/commonNames/395109">
  <skos:prefLabel>Schneeglöckchen</skos:prefLabel>
  <skos:note>common name</skos:note>
  <skos:note>Language: de</skos:note>
</skos:Concept>
</rdf:RDF>
```

OpenUp! Common Names Webservice

Vernacular-Name references for 'Galanthus'

Schneeglöckchen de

- PESI (2014). Pan-European Species directories Infrastructure. Accessed through www.eu-nomen.eu/portal, at 2015-12-01

snieguolé li

- PESI (2014). Pan-European Species directories Infrastructure. Accessed through www.eu-nomen.eu/portal, at 2015-12-01

snödroppar sv

- PESI (2014). Pan-European Species directories Infrastructure. Accessed through www.eu-nomen.eu/portal, at 2015-12-01



DOWNLOAD

Galanthus

Classifications

Type

Subject

/con

http://

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media for this

benup.nhm-wien.ac.at/commonNames/395109">
</skos:prefLabel>
<note>
<note>

Webservice

thus'

structure. Accessed through www.eu-nomen.eu/portal, at 2015-12-0

Properties

For

Provenance

Prov

Iden

Dezember 2015

structure. Accessed through www.eu-nomen.eu/portal, at 2015-12-0

structure. Accessed through www.eu-nomen.eu/portal, at 2015-12-0



REFINE YOUR SEARCH

MEDIA

 Image (2)

CAN I USE IT?

 Yes With Restrictions (2)

COUNTRY

 United Kingdom (2)

LANGUAGE

 English (2)

PROVIDER

 OpenUp! (2)

DATA PROVIDER

 Department of Life Sciences, University of Trieste (4) Biologiezentrum der
Oberösterreichischen Landesmuseen (3) Botanic Garden and Botanical Museum Berlin-Dahlem (2) The Royal Botanic Garden Edinburgh (2)

2 results

Leucojum vernum L.

Djeiotschil, Schneeglöckchen, сніжка, campanilla de Eguiluz

[View at The Royal Botanic Garden Edinburgh](#) Image

Leucojum vernum L.

Djeiotschil, Schneeglöckchen, сніжка, campanilla de Eguiluz

[View at The Royal Botanic Garden Edinburgh](#) Image

Concept: alhelí blanco de Teofrasto, campanilla de Eguiluz, campanilla de verano de la Virgen, campanillas blancas, campanillas de primavera, eiriaidd y gwanwyn, klosterklokke, Lenteklokje, leucoio de primavera, snöklocka, Spring snowflake, Spring Snowflake, udaberri-txilintxa, violeta bulbosa, Белоцвіт весняний, Djeiotschil, Knotenblume, Schneeglöckchen, bledule jarní, Dorthealilje, marsklosterklokke, bledula jarná, kevätlimipisara, Белоцветник весенний, Snowflake, Spring, дідух, нарціз лісовий, блідниця, жовтка, прасер

Knotenblume

- Dalla Torre, C. W. von (1895) Die volksthümlichen Pflanzennamen in Tirol und Vorarlberg: [1-3] 4-7 [8] 9-76.

The screenshot shows a detailed record for a butterfly specimen. At the top, there are five small images of butterflies and a logo for 'GloBIS'. Below this is a navigation bar with links: Home, Species, Index, Help, Species Tree, Parnassiidae, Papilionidae, User login, Username, Password, Log in, Request new password.

Name: *Parnassius (Parnassius) actius* (Eversmann, 1840)

Original Description: *Parnassius actius* E. ab. (var.) *actinobolus* Staudinger, 1892

Type specimens: Shewa, Sympetral; Swallowtail data: >25.57 (♀22.52, ♂12.82), VIII, 1891, J. Haderauer leg., coll. O. Staudinger; Current Repository: MHNC, Berlin

Type locality: Type locality as cited in original description: In den Georgen bei Kora (...) in den umliegenden centralasiatischen Städten Kora (oder Kurs) gelegene Georgen, wobei in dem zentral davon liegenden Kursch-Tau.

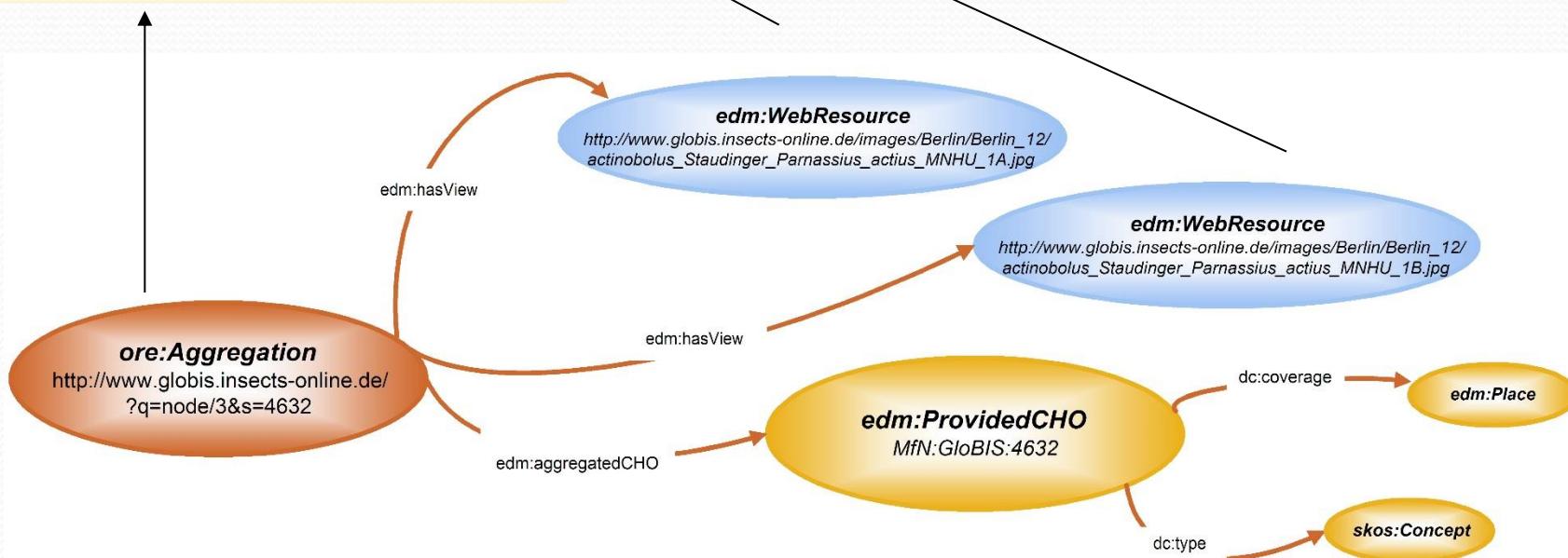
Current country: China

Taxonomic history: Originally described as *Parnassius actius* E. ab. (var.) *actinobolus* Staudinger, 1892

At the bottom of the page are links: Impressum, Datenschutz, Privacy Policy.



EDM - example



Sample OAI Record

part 1



```
<rdf:RDF>
  <edm:ProvidedCHO rdf:about="GLOBIS:MFN:GERMANY/10183">
    <dc:identifier>MfN - Global Butterfly Information System (GloBIS) - 10183</dc:identifier>
    <dc:title>Papilio dardanus Brown, 1776</dc:title>
    <dc:description>Current type depository: MFNB, Berlin (1 [f], syntype) // Cited type material: Die Tiere [...] im Berliner Museum // Other remarks:</dc:description>
    <dc:description>Syntype(s)</dc:description>
    <dc:date>1921 (identification)</dc:date>
    <dc:relation>http://www.biodiversitylibrary.org/name/Papilio_dardanus_Brown%2C_1776</dc:relation>
    <dc:source>Global Butterfly Information System (GloBIS)</dc:source>
    <dc:subject>Na-aper-swaelstert</dc:subject>
    <dc:subject>Flying Handkerchief</dc:subject>
    <dc:subject>Mocker Swallowtail</dc:subject>
    <dc:type>PreservedSpecimen</dc:type>
    <dcterms:temporal></dcterms:temporal>
    <edm:hasType rdf:resource="http://rs.tdwg.org/dwc/dwctype/PreservedSpecimen">
    </edm:hasType>
    <edm:type>IMAGE</edm:type>
  </edm:ProvidedCHO>
  <edm:WebResource rdf:about="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1A.jpg">
    <dc:description>upperside</dc:description>
    <dc:format>image/jpeg</dc:format>
    <dc:rights>CC BY-NC-ND (Attribution for non commercial use only and without derivative)</dc:rights>
    <edm:rights rdf:resource="http://creativecommons.org/licenses/by-nc-nd/3.0/"></edm:rights>
  </edm:WebResource>
  <edm:WebResource rdf:about="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1B.jpg">
    <dc:description>underside</dc:description>
    <dc:format>image/jpeg</dc:format>
    <dc:rights>CC BY-NC-ND (Attribution for non commercial use only and without derivative)</dc:rights>
    <edm:rights rdf:resource="http://creativecommons.org/licenses/by-nc-nd/3.0/"></edm:rights>
  </edm:WebResource>
  <edm:WebResource rdf:about="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1C.jpg">
    <dc:description>labels</dc:description>
    <dc:format>image/jpeg</dc:format>
    <dc:rights>CC BY-NC-ND (Attribution for non commercial use only and without derivative)</dc:rights>
    <edm:rights rdf:resource="http://creativecommons.org/licenses/by-nc-nd/3.0/"></edm:rights>
  </edm:WebResource>
```

Sample OAI Record

part 2



```
<edm:WebResource rdf:about="http://www.globis.insects-online.de/?q=node/3&s=10183">
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<dc:rights>CC-BY-SA (Attribution for share alike)</dc:rights>
<edm:rights rdf:resource="http://creativecommons.org/licenses/by-sa/3.0/">
</edm:rights>
</edm:WebResource>
<skos:Concept rdf:about="http://openup.nhm-wien.ac.at/commonNames/262400">
<skos:prefLabel>Na-aper-swaestert</skos:prefLabel>
<skos:note>common name</skos:note>
<skos:note>Language: Afrikaans</skos:note>
<skos:note>Reference(s): Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., Kunze T., eds (2013). Species 2000 & ITIS Catalogue of Life, 8th February 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.;GloBIS (GART): Global Butterfly Information System;Niepelt, W. 1935 Eine neue Tanaecia von Sumatra. Wenig bekannte exotische Falter. Niepelt, W. (1935) Eine neue Tanaecia von Sumatra. Wenig bekannte exotische Falter. Internationale Entomologische Zeitschrift 29 (2): 13-15.</skos:note>
<skos:editorialNote>http://openup.nhm-wien.ac.at/commonNames/references/scientificName /89091</skos:editorialNote>
</skos:Concept>
<skos:Concept rdf:about="http://openup.nhm-wien.ac.at/commonNames/262401">
<skos:prefLabel>Flying Handkerchief</skos:prefLabel>
<skos:note>common name</skos:note>
<skos:note>Language: English</skos:note>
<skos:note>Reference(s): Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., Kunze T., eds (2013). Species 2000 & ITIS Catalogue of Life, 8th February 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.;GloBIS (GART): Global Butterfly Information System</skos:note>
<skos:editorialNote>http://openup.nhm-wien.ac.at/commonNames/references/scientificName /89091</skos:editorialNote>
</skos:Concept>
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<skos:note>common name</skos:note>
<skos:note>Language: English</skos:note>
<skos:note>Reference(s): Bisby F., Roskov Y., Culham A., Orrell T., Nicolson D., Paglinawan L., Bailly N., Kirk P., Bourgoin T., Baillargeon G., Hernandez F., De Wever A., Kunze T., eds (2013). Species 2000 & ITIS Catalogue of Life, 8th February 2013. Digital resource at www.catalogueoflife.org/col/. Species 2000: Reading, UK.;GloBIS (GART): Global Butterfly Information System</skos:note>
<skos:editorialNote>http://openup.nhm-wien.ac.at/commonNames/references/scientificName /89091</skos:editorialNote>
</skos:Concept>
```

Sample OAI Record

part 3

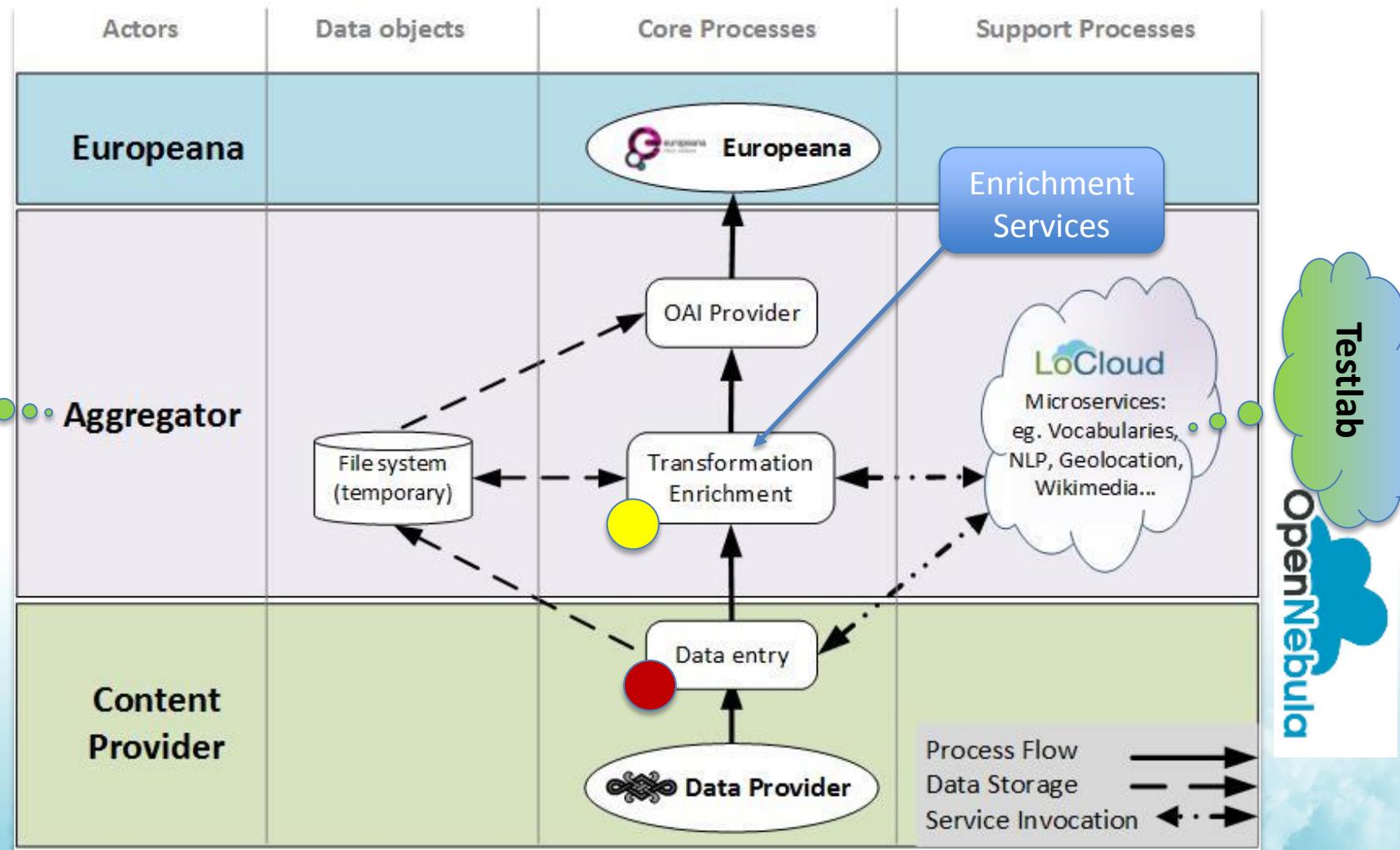


```
<ore:Aggregation rdf:about="http://web-openup.nhm.ac.uk/oai-provider/index.php?form=display&oaiid=GLOBIS:MFN:GERMANY/MFNGLOBALBUTTERFLYINFORMATIONSYSTEMGLOBIS10183&db=0">
  <edm:aggregatedCHO rdf:resource="GLOBIS:MFN:GERMANY/10183">
  </edm:aggregatedCHO>
  <edm:dataProvider>Museum für Naturkunde Berlin, GloBIS</edm:dataProvider>
  <edm:hasView rdf:resource="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1B.jpg"></edm:hasView>
  <edm:hasView rdf:resource="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1C.jpg"></edm:hasView>
  <edm:isShownAt rdf:resource="http://www.globis.insects-online.de/?q=node/3&s=10183"></edm:isShownAt>
  <edm:isShownBy rdf:resource="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1A.jpg">
  </edm:isShownBy>
  <edm:object rdf:resource="http://globis-images.insects-online.de/images/Berlin/Berlin_12/acenoides_Reuss_Papilio_dardanus_MNHU_1A.jpg"></edm:object>
  <edm:provider>OpenUp!</edm:provider>
  <edm:rights rdf:resource="http://creativecommons.org/licenses/by-sa/3.0/">
  </edm:rights>
</ore:Aggregation>
```

About:

- LoCloud is a Best **Practice Network** co-funded under the **CIP ICT-PSP** programme of the European Commission.
- LoCloud is supporting **small and medium-sized institutions** in making their content and metadata available to **Europeana**.
- A **cloud-based technology infrastructure** will enable the aggregation of local content, and
- a number of **micro-services** will help to reduce technical, semantic and skills barriers and to render the content **more discoverable and interoperable**.

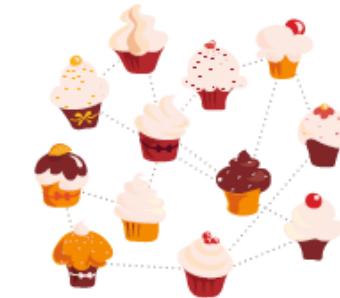
The LoCloud Aggregation Structure



Wikipedia: <https://en.wikipedia.org/wiki/Microservices> (2015-09-15)

[...] **microservices** is a

- **software architecture style** in which
- complex applications are composed of **small, independent processes**
- **communicating** with each other using **language-agnostic APIs**.
- These services are **small, highly decoupled** and focus on doing a **small task**, facilitating a modular approach to system-building.



pwc: Technology Forecast: Rethinking Integration, Issue 1, 2014, page 3

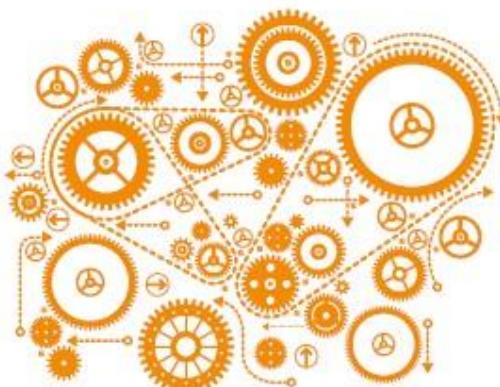
Evolution of services orientation

1990s and earlier

Coupling

Pre-SOA (monolithic)

Tight coupling



2000s

Traditional SOA

Looser coupling



2010s

Microservices

Decoupled



3 PwC Technology Forecast

Microservices: An alternative to the monolith

- Based on “TemaTres”
- allows users to **add** and **create** vocabularies, and add terms or translations
- Integrated in MORE
- add thesauri terms to all items of a metadata ingest package
- Exploited by the LoCloud vocabulary matching microservice via its API
- Incorporates 29 standard thesauri

LoCloud Vocabularies

[MY VOCABULARIES](#)[LOCLOUD VOCABULARIES](#)[MORE INFORMATION](#)

Vocabulary Microservices

This is the entry page for the LoCloud vocabulary application.

LoCloud uses a variety of standard vocabularies during the metadata enrichment process. These vocabularies have been established with the TemaTres tool and are available in the LoCloud [cloud testlab](#).

In addition, it is possible to feed the tool with **your own vocabularies**, establish new vocabularies or add languages to existing vocabularies.



Go to "[My Vocabularies](#)" to start creating or uploading vocabularies.

Go to "[LoCloud Vocabularies](#)" to browse the vocabularies that are already integrated in the LoCloud aggregation environment.

- LoCloud uses a variety of standard vocabularies during the metadata enrichment process. These vocabularies have been established with the TemaTres tool and are available in the LoCloud **cloud testlab**.
- In addition, it is possible to feed the tool with **your own vocabularies**, establish new vocabularies or add languages to existing vocabularies.



Germanic languages

[Home](#) ▶ [Culture](#) ▶ [Languages](#) ▶ [Germanic languages](#)

BT [Indo-european languages](#)

BT [Languages](#)

Germanic languages

NT3 [Afrikaans](#)

NT3 [Danish](#)

NT3 [Dutch](#)

NT3 [English](#)

NT3 [Flemish](#)

NT3 [German](#)

NT3 [Icelandic](#)

NT3 [Norwegian](#)

NT3 [Swedish](#)

NT3 [Yiddish](#)

French [Langue germanique](#)

Español [Lengua germánica](#)

Russian [Германские языки](#)

Identifier <http://skos.um.es/unescothes/C01689>



```
- <rdf:RDF>
  - <skos:ConceptScheme rdf:about="http://vocabulary.locloud.eu/UNESCO_e/">
    <dc:title>UNESCO thesaurus</dc:title>
    <dc:creator>UNESCO</dc:creator>
    <dc:contributor/>
    <dc:publisher/>
    <dc:rights>© UNESCO, http://databases.unesco.org/thesaurus/</dc:rights>
    <dc:subject/>
    <dc:description> </dc:description>
    <dc:date>2015-02-10</dc:date>
    <dct:modified>2015-02-10 08:23:28</dct:modified>
    <dc:language>en</dc:language>
  </skos:ConceptScheme>
  - <skos:Concept rdf:about="http://skos.um.es/unescothes/C01689" loccloud="http://vocabulary.locloud.eu/UNESCO_e/xml.php?skosTema=21301">
    <skos:prefLabel xml:lang="en">Germanic languages</skos:prefLabel>
    <skos:inScheme rdf:resource="http://vocabulary.locloud.eu/UNESCO_e"/>
    <skos:broader rdf:resource="http://skos.um.es/unescothes/C01943"/>
    <skos:broader rdf:resource="http://skos.um.es/unescothes/COL335"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C00077"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C00958"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C01124"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C01367"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C01551"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C01687"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C01904"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C02759"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C03908"/>
    <skos:narrower rdf:resource="http://skos.um.es/unescothes/C04389"/>
  - <skos:exactMatch>
    - <skos:Concept rdf:about="http://vocabulary.locloud.eu/UNESCO_f/?tema=http://skos.um.es/unescothes/C01689">
      <skos:prefLabel xml:lang="fr">Langue germanique</skos:prefLabel>
    </skos:Concept>
  </skos:exactMatch>
  - <skos:exactMatch>
    - <skos:Concept rdf:about="http://vocabulary.locloud.eu/UNESCO_s/?tema=http://skos.um.es/unescothes/C01689">
      <skos:prefLabel xml:lang="es">Lengua germánica</skos:prefLabel>
    </skos:Concept>
  </skos:exactMatch>
  - <skos:exactMatch>
    - <skos:Concept rdf:about="http://vocabulary.locloud.eu/UNESCO_r/?tema=http://skos.um.es/unescothes/C01689">
      <skos:prefLabel xml:lang="ru">Германские языки</skos:prefLabel>
    </skos:Concept>
  </skos:exactMatch>
  <dct:created>2015-02-10 13:43:29</dct:created>
</skos:Concept>
</rdf:RDF>
```

Lengua germánica

Inicio ▶ Cultura ▶ Lenguas ▶ Lengua germánica

TG Lengua indoeuropea

TG Lenguas

Lengua germanica

TE3 Afrikaans

TE3 Alemán

TE3 Danés

TE3 Flamenco

TE3 Holandés

TE3 Inglés

TE3 Islandés

TE3 Noruego

TE3 Sueco

TE3 Yiddish

English Germanic languages

French Langue germanique

Russian Германские языки

Identifier <http://skos.um.es/unescothes/C01689>

SKOS

Simple Knowledge Organization System

Inicio ¿Qué es SKOS? Investigación Traducciones Enlaces Vocabularios SPARQL Endpoint

UNESCO Thesaurus

Overview

Español English

Français

Русский

Text to search



Browse thesaurus

SPARQL Endpoint

Download

Statistics

Credits and legal notice

UNESKOS Vocabulary

RDF/XML | N3 | Turtle | JSON | JSON-LD

Germanic languages (<http://skos.um.es/unescothes/C01689>)

Русский термин: Германские языки (ru)

Término español: Lengua germanica (es)

Terme français: Langue germanique (fr)

Microthesauri

- **MT** 3.35 Languages

Broader terms

- **BT** Indo-european languages

Narrower terms

- **NT** Afrikaans
- **NT** Danish
- **NT** Dutch
- **NT** English
- **NT** Flemish
- **NT** German
- **NT** Icelandic
- **NT** Norwegian
- **NT** Swedish
- **NT** Yiddish

Juan Antonio Pastor Sánchez - pastor@um.es



Vocabulary WebService

20+ Functions, API

Parameters

XML	
vocabularyservices <ul style="list-style-type: none"> (o) status available (o) status_skos_core available param 	
	<ul style="list-style-type: none"> (o) term (3) <ul style="list-style-type: none"> (o) task Action to do (o) arg arguments for task action (eg: string for search task, numerical id for specific term data) (o) output Output format, can be JSON or XML. Optional parameter, XML by default
	<ul style="list-style-type: none"> (o) web_service_version 1.5 (o) version TemaTres 1.8
	<ul style="list-style-type: none"> (o) fetchVocabularyData (o) fetchTopTerms
	<ul style="list-style-type: none"> search
	<ul style="list-style-type: none"> (o) action Search and retrieve terms (o) task search (o) arg search expresion (string) (o) example http://test113.ait.co.at/tematres/unesco/services.php ?task=search&arg=peace
	<ul style="list-style-type: none"> (o) fetch (o) searchNotes (o) suggest (o) suggestDetails (o) fetchCode (o) letter (o) fetchTerm (o) fetchAlt

Example

Example: Search UNESCO-Thesaurus

<http://test113.ait.co.at/tematres/unesco/services.php?task=search&arg=peace>

XML

Vocabularyservices

result

term (9)

	term_id	string	index	order
1	580	PEACE	32 581 580	1
2	1849	CULTURE OF PEACE	25 153 165 1849	2
3	1846	PEACE EDUCATION	119 118 1842 1841 184	3
			6	
4	2625	PEACE RESEARCH	32 581 580 2625	4
5	1851	PEACEBUILDING	32 581 580 1851	5
6	841	PEACEFUL COEXISTENCE	32 581 580 841	6
7	1857	PEACEKEEPING	32 581 580 1857	7
8	1856	PEACEMAKING	32 581 580 1856	8
9	1858	RIGHT TO LIVE IN PEACE	32 142 817 1858	9

resume

- Query: "Find all Broader Term for 'Acid Jazz'"
- SPARQL End Point: <http://test113.ait.co.at/tematres/vocab/sparql.php>

Thesaurus Entry

PREFIX skos: <http://www.w3.org/2004/02/skos/core#>
 SELECT ?term
 WHERE { ?concept skos:prefLabel "Acid Jazz" .
 ?concept skos:broader ?broader .
 ?broader skos:prefLabel ?term .
 }

Change HTTP method: [GET](#) [POST](#)

Options

Output format (if supported by query type): **Query** XML

jsonp/callback (for JSON results)

Show results inline:

Result

Acid Jazz

Home ▶ Popular ▶ Acid Jazz

BT Art
 BT Folk Music
 BT Popular

Acid Jazz
 Deutsch Acid Jazz
 Français acid jazz

sparql

head

results

Comment query time: 0.0055 sec

variable name=term

result (3)

binding

binding name=term

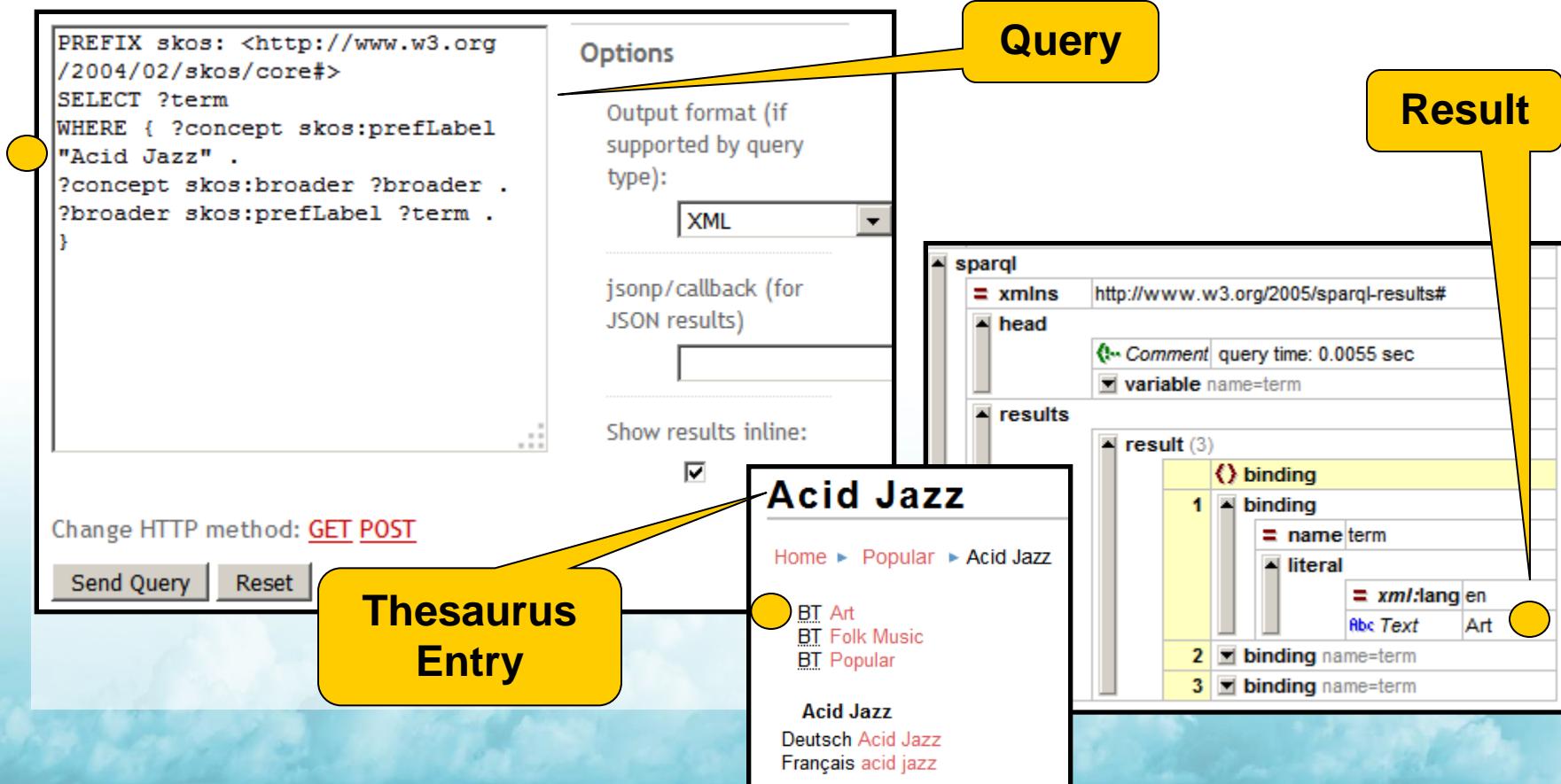
literal

xml:lang en

binding name=term

binding name=term

binding name=term



Service Call („fetchTopTerms“) embedded in a test application



The screenshot shows a software development environment with the following components:

- Left Sidebar:** A file tree showing project structure. Files include `vocabularyExample`, `App`, `js`, `index.js`, `config`, `vocabularies.php`, `lib`, `ait-data.js`, `proxy.php`, `voc`, `Archeological_Object`, `UNESCO_e.php`, `dmGenres.php`, `debug.html`, `index.html`, `somedata.json`, and `xuiconf.js`.
- Central Area:** A code editor window displaying JavaScript code. The code defines an `initTree` function that uses jQuery's `ajax` method to call a service at `voc/vocaName.php` with the `task: "fetchTopTerms"` parameter. The service returns data containing strings, term IDs, and hasMoreDown flags, which are then processed to build a tree structure.
- Right Sidebar:** A list of methods and properties for an object. Methods listed include `autoDestroy`, `properties`, `initialize`, `iniComponents`, `customAppend`, `iniResource`, `iniExComs`, `_testab_onrenc`, `initTree`, `_treeviewThes_`, `onitemselected`, `_ctl_htmlbutton`, `dialogVisibility`, `dialogVisibilityNo`, `_ctl_dialog40_b`, `big`, `setCap`, and `_ctl_comboinput`. Static and viewStyle sections are also present.
- Annotations:**
 - A yellow speech bubble labeled **Micro-Service** points to the `initTree` function.
 - A yellow speech bubble labeled **Vocabulary Web Service** points to the URL in the `ajax` call.

```

    /*
     * For each vocabularies create the relative tree.
     */
    initTree : function() {
        console.debug("-- initTree start");
        $('#free').tagEditor();
        var tabsHolder = this.tabsHolder;
        tabsHolder = [];
        var nodes;
        var temporal;
        var subNodes;
        var temp = [];

        // Populate a tree for the given id (=tab)
        function createTree(nodes, temporal, subNodes, mySet, id, tree) {
            nodes = [];
            temporal = [];
            subNodes = [];

            console.debug(vocaName);

            jQuery.ajax({
                url: "voc/" + vocaName + ".php",
                data: {task: "fetchTopTerms"},
                success: function(data) {
                    console.debug("success ", data);

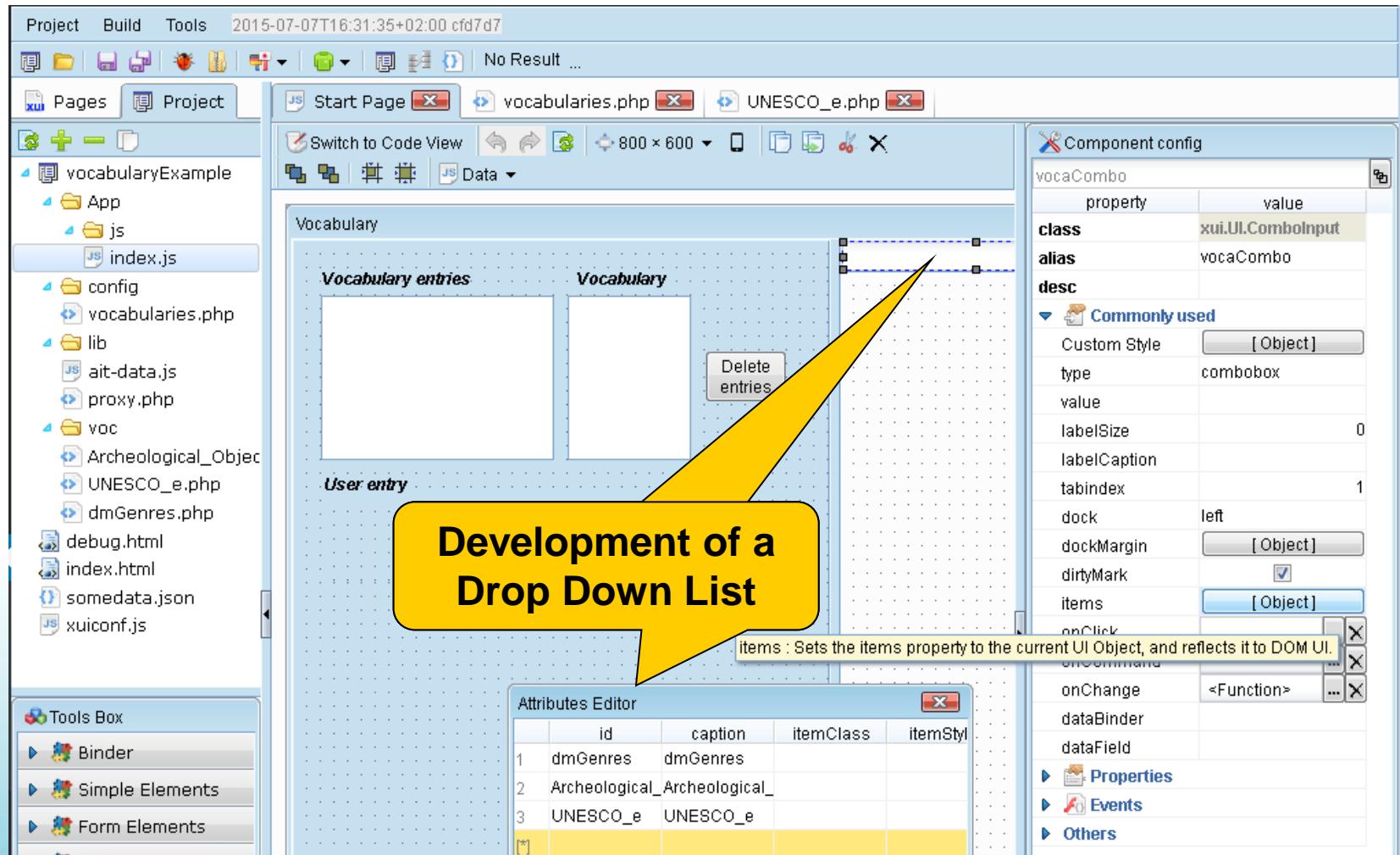
                    var el = data.getElementsByTagName("string");
                    for (var i = 0; i < el.length; i++) {
                        nodes[i] = el[i].firstChild.nodeValue;
                    }

                    var el2 = data.getElementsByTagName("term_id");
                    for (i = 0; i < el2.length; i++) {
                        temporal[i] = el2[i].firstChild.nodeValue;
                    }
                    var el3 = data.getElementsByTagName("hasMoreDown");
                    for (j = 0; j < el3.length; j++) {
                        subNodes[j] = el3[j].firstChild.nodeValue;
                    }
                }
            });
        }
    }
}

```

Test Application Development

Designer View



The screenshot shows the Designer View of a test application. On the left, the Project Explorer displays a file structure for a project named 'vocabularyExample' containing files like 'index.js', 'config', 'lib', 'voc', and various PHP and JSON files. The main workspace shows a 'Vocabulary' component with two sections: 'Vocabulary entries' and 'Vocabulary'. A yellow callout bubble points from the 'Vocabulary entries' section to a yellow box containing the text:

Development of a Drop Down List

To the right, the Component config panel shows the configuration for a 'vocaCombo' component, which is a 'xui.UI.ComboBox'. The 'items' property is currently set to an empty object. Below the component config is an 'Attributes Editor' table:

	id	caption	itemClass	itemStyle
1	dmGenres	dmGenres		
2	Archeological_Archeological_			
3	UNESCO_e	UNESCO_e		
[*]				

The Test Application: Part of Data Entry

Vocabulary

Vocabulary entries

- Classification systems
- Controlled languages
- Authority lists

Vocabulary

UNESCO_e	UNESCO_e
UNESCO_e	UNESCO_e

User entry

Information and communication > Information sciences > Controlled languages

Path to the Thesaurus Item

Information and communication

- Information sciences
- Archive science
- Authority lists
- Automatic indexing
- Automatic text analysis
- Bibliographic standards
- Bibliology
- Cataloguing rules
- Classification systems
- Communication information
- Comparative librarianship
- Computer science
- Controlled languages
- Cultural information
- Cybernetics
- Documentation
- Economic information

„Candidate Term“ →
Crowdsourcing activity →
(Vocabulary Management)



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