A Collaborative Framework for Managing and Publishing KOS

Armando Stellato, Ahsan Morshed, Gudrun Johannsen, Yves Jaques, Caterina Caracciolo, Sachit Rajbhandari, Imma Subirats, Johannes Keizer

FAO of the United Nations
University of Rome (Tor Vergata)

AIMS

We will promote research for food and agriculture, including research to adapt to, and mitigate climate change and access to research results and technologies at national, regional and international levels.

We will reinvigorate national research systems and will share information and best practices.

We will improve access to knowledge.

World Food Summit 2009

AIMS

The AIMS Team

- Team of 18 information management specialists distributed over the world
- Objective → dissemination of standards, tools, services and good practices in information management for the support of the right to food, sustainable agriculture and rural development, some examples…..
  - **AGROVOC**, AgVocabularies, LODE-BD, AgMES
  - AgriDrupal, AgriOcean Dspace, **VocBench**
  - AgiFeeds, AGRIS, CIARD Ring, VEST Registry and AIMS

AGROVOC

&

VocBench

AIMS

First….what is AGROVOC?

- Multilingual structured thesaurus for agriculture
- Owned and maintained by an international community of agricultural research information institutions and managed by FAO
- Used world-wide by researchers, librarians, information managers and others, for indexing, retrieving, and organizing data in agricultural information systems
- Maintained since the 1970's, it currently includes 579,523 terms in 19 different languages.

Evolution

- Semantic refinement to shape it into a reusable RDF vocabulary
- Objective
  - Fulfill its traditional functions of document indexing while….
  - …meeting the needs of a new generation of semantically-enabled applications
- How
  - Using a customized model based on OWL

CS Workbench

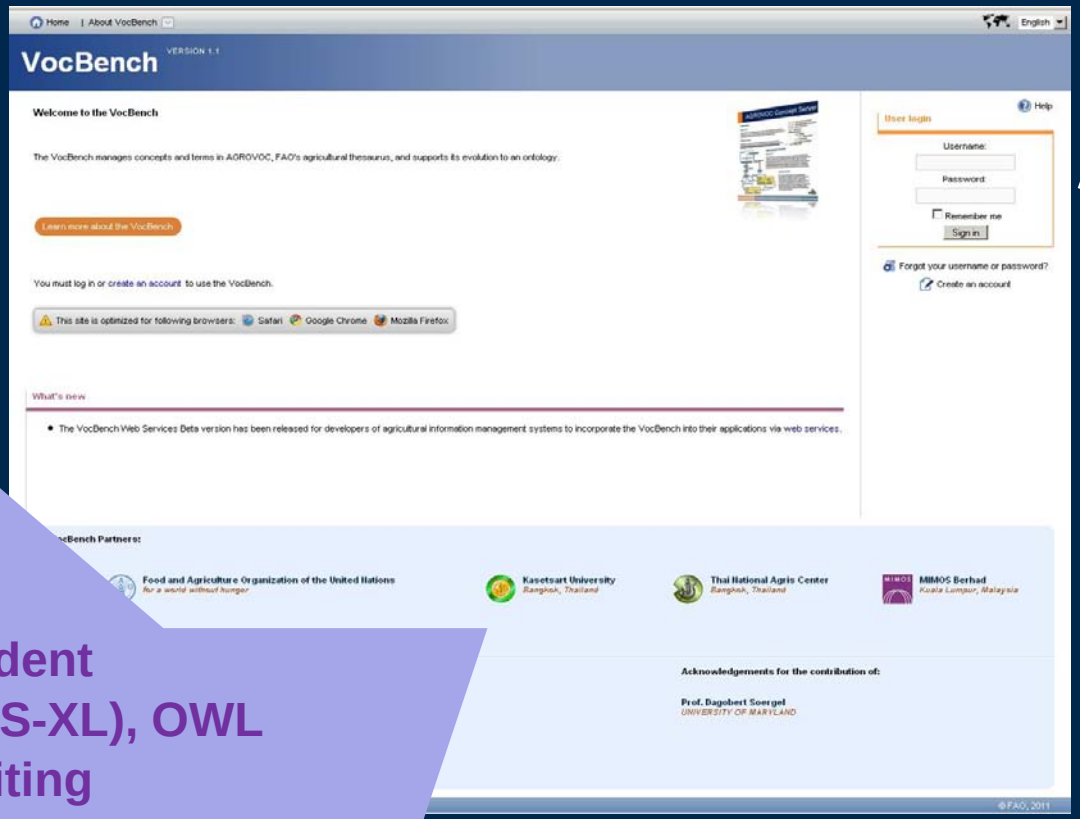
- Model was tailored to represent concept schemes, difficult to manage using traditional ontology editing tools
- Web application specifically tailored to the AGROVOC Vocabulary
- Objective
  - Collaborative environment that supported roles-based authentication, editorial workflow, multilingual search and high installability

From CS Workbench to VocBench

- But new knowledge representation languages to represent thesauri and concept schemes: SKOS , SKOS-XL
- And inclusion of additional vocabularies in CS Workbench highlighted the need to use a standard model such as SKOS
- So in 2010, decision to transform CS Workbench into a general-purpose, SKOS-compliant platform for collaborative knowledge management

About VocBench

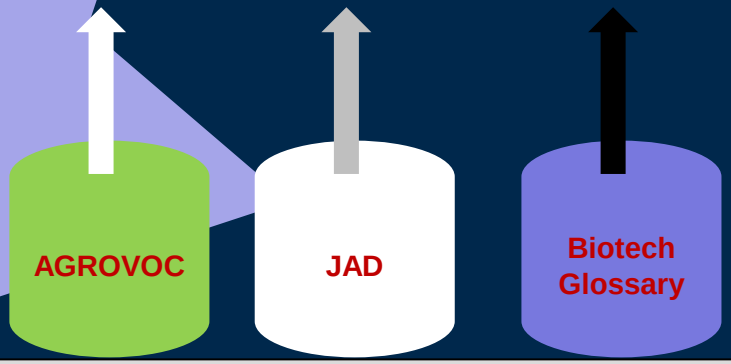
A biotechnologist from Sweden



An Agriculturist from South Africa

A Librarian from India

- Domain independent
- RDF (SKOS,SKOS-XL), OWL
- Collaborative editing
- Editorial workflow, with user roles
- Simple and advanced search
- Data export: SKOS, Relational format (MySQL)



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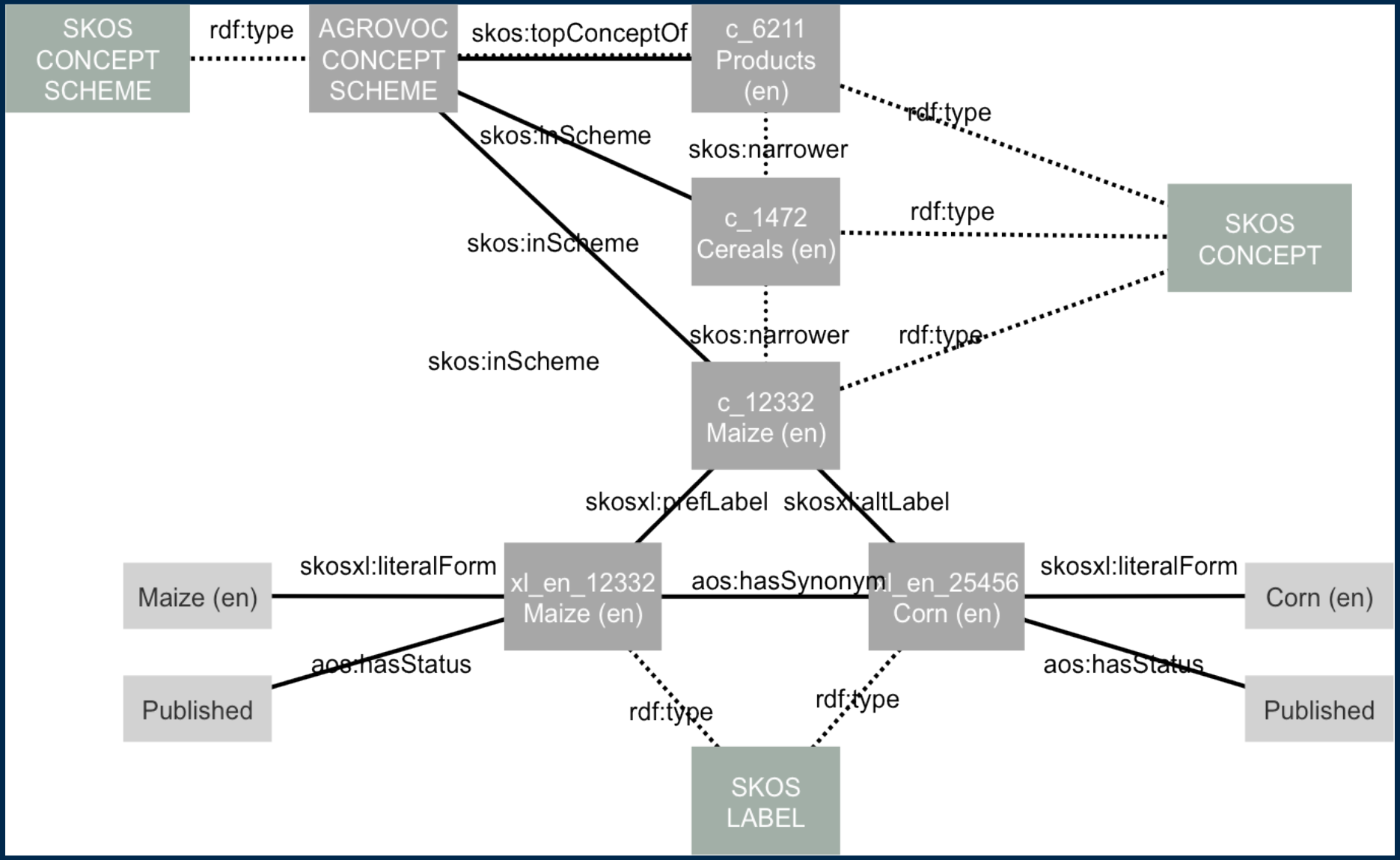
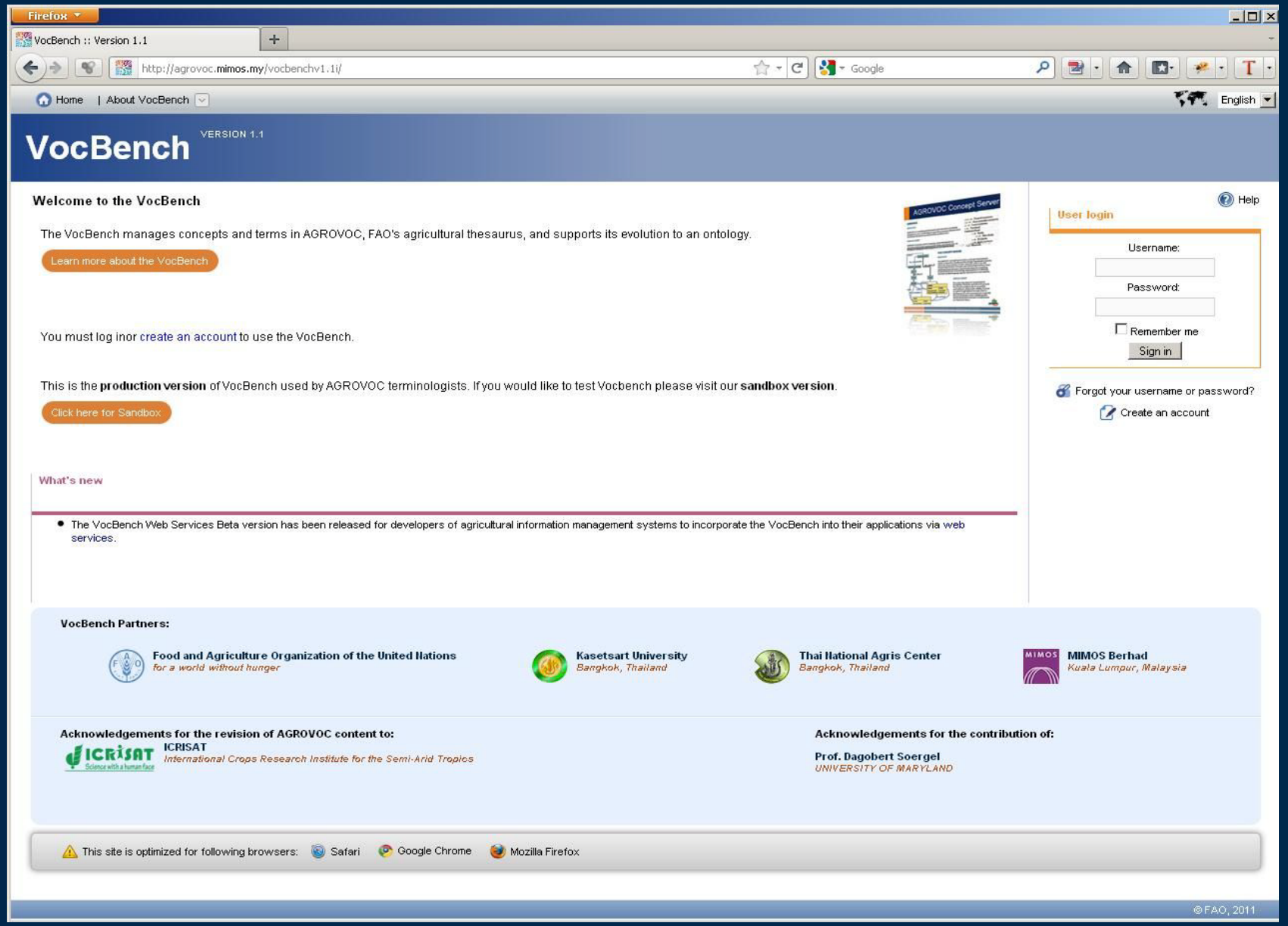
Next steps

- Current version VocBench 1.3 - still relies internally to some extent on the customized OWL knowledge model
- VocBench 2.0 very soon
  - Native interface for SKOS and SKOSXL
  - Support for a host of different triple store technologies
- Support for generic OWL
  - To model and export as LOD other FAO repositories such as the FAO Journal Data records (JAD)

AGROVOC SKOS Model



VocBench



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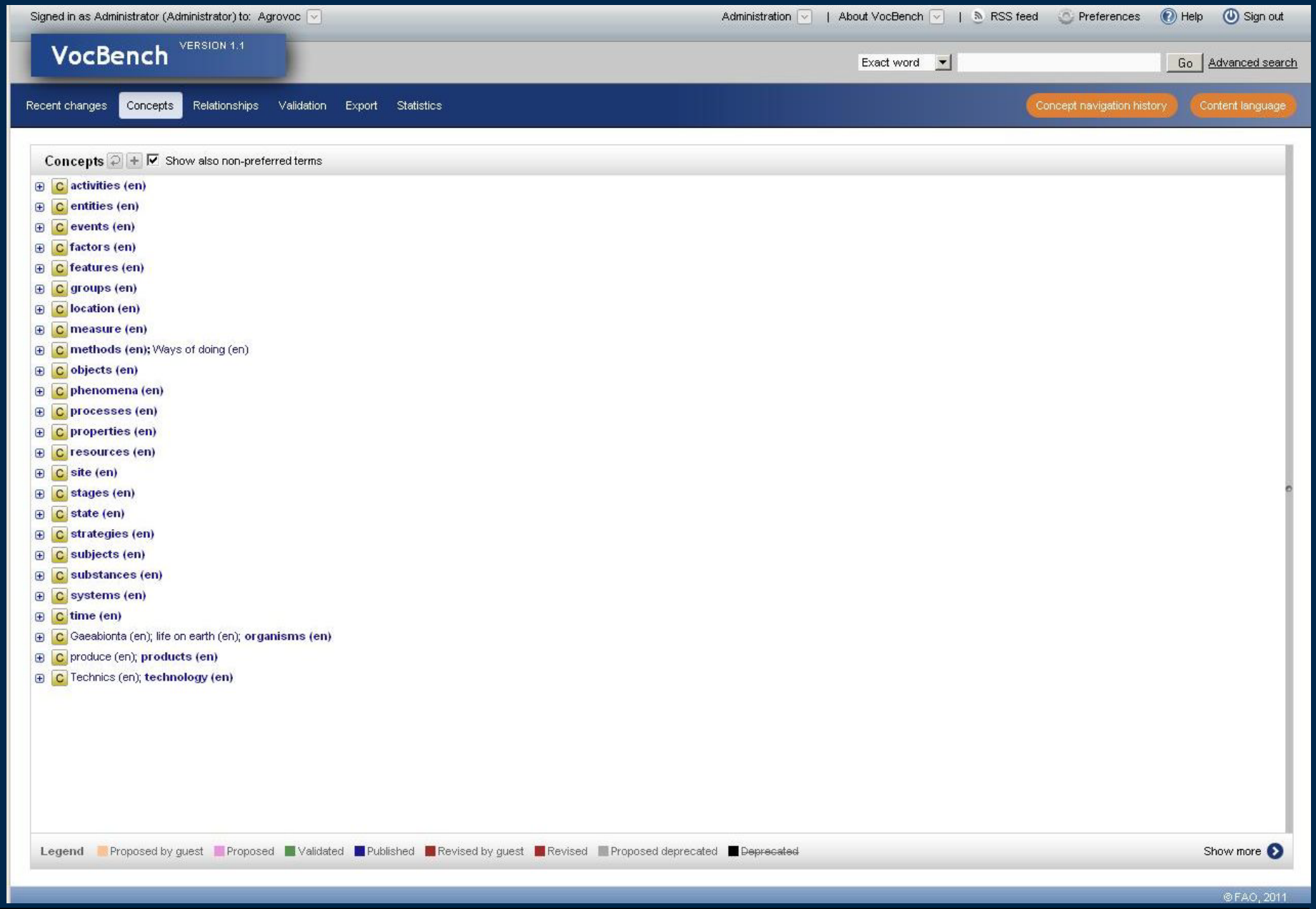
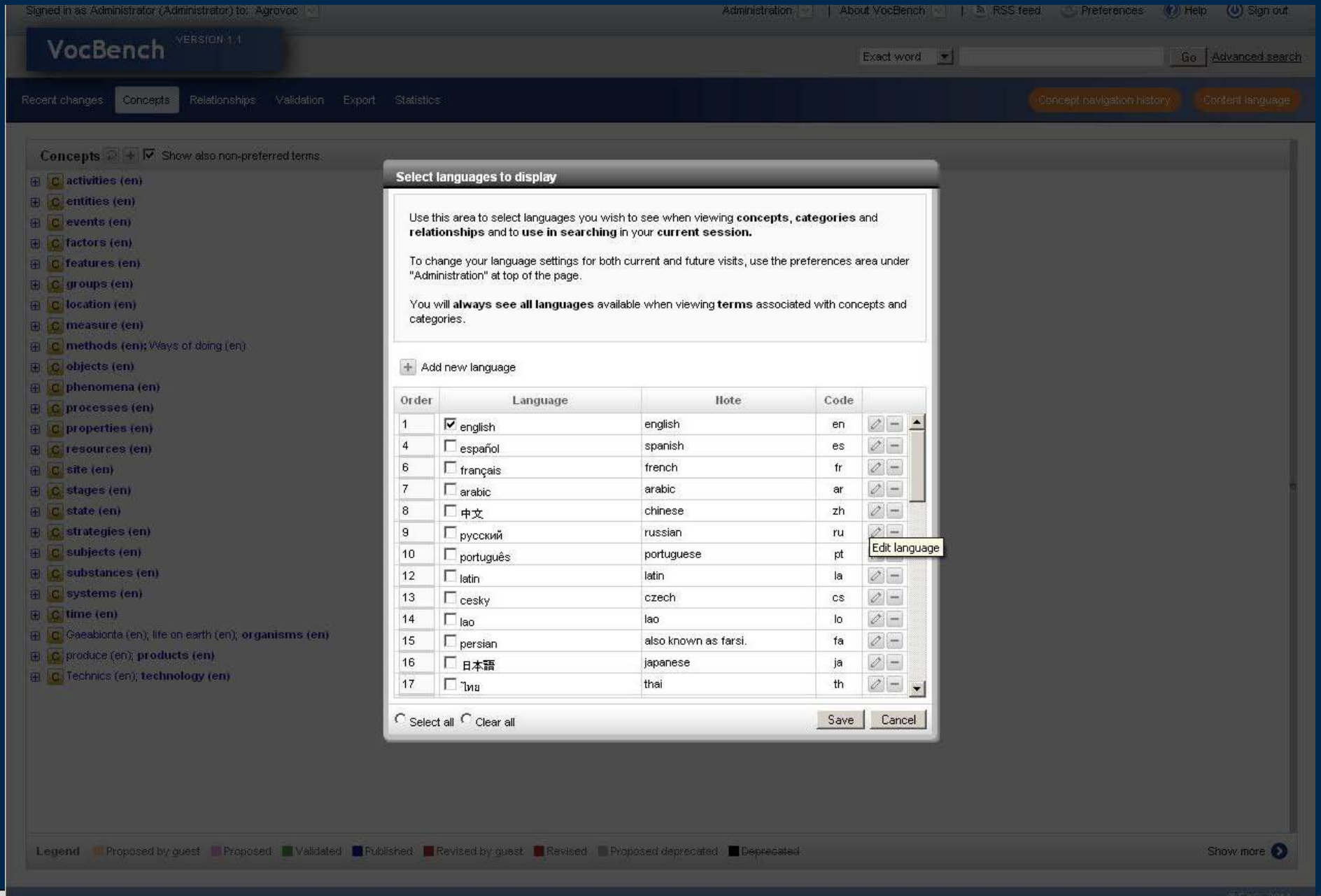
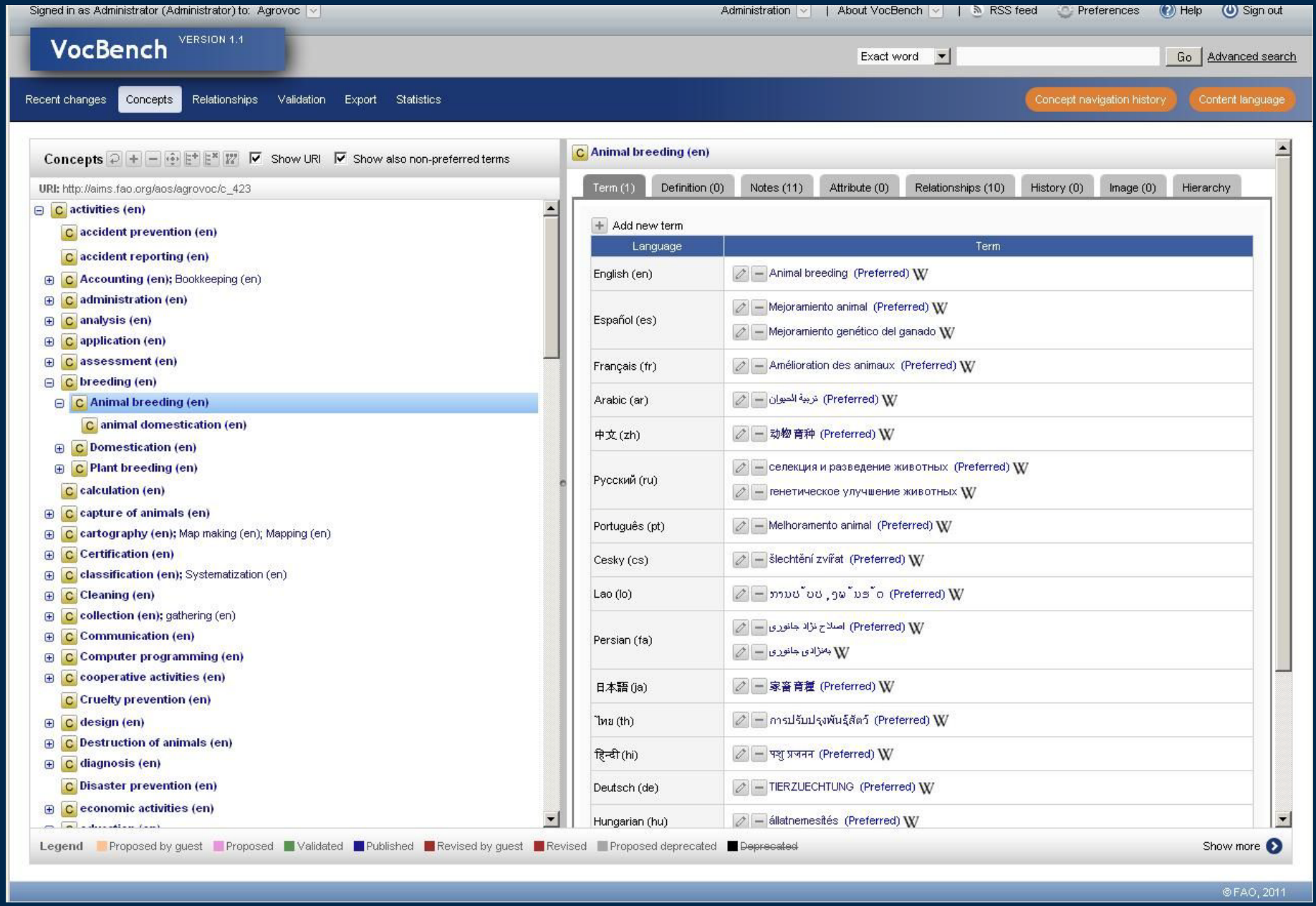
Top Concepts



Multilinguality



Concepts


Signed in as Administrator (Administrator) to: Agrovoc
Administration | About VocBench | RSS feed Preferences Help Sign out
VocBench VERSION 1.1
Exact word Go Advanced search
Recent changes Concepts Relationships Validation Export Statistics
Concept navigation history Content language
Concepts Show URI Show also non-preferred terms
URI: http://aims.fao.org/aos/agrovoc/c_423
activities (en)
accident prevention (en)
accident reporting (en)
Accounting (en); Bookkeeping (en)
administration (en)
analysis (en)
application (en)
assessment (en)
breeding (en)
Animal breeding (en)
animal domestication (en)
Domestication (en)
Plant breeding (en)
calculation (en)
capture of animals (en)
cartography (en); Map making (en); Mapping (en)
Certification (en)
classification (en); Systematization (en)
Cleaning (en)
collection (en); gathering (en)
Communication (en)
Computer programming (en)
cooperative activities (en)
Cruelty prevention (en)
design (en)
Destruction of animals (en)
diagnosis (en)
Disaster prevention (en)
economic activities (en)
Animal breeding (en)
Term (1) Definition (0) Notes (11) Attribute (0) Relationships (10) History (0) Image (0) Hierarchy
Add new term
Language Term
English (en) Animal breeding (Preferred)
Español (es) Mejoramiento animal (Preferred)
Mejoramiento genético del ganado
Français (fr) Amélioration des animaux (Preferred)
Arabic (ar) تربية الحيوان (Preferred)
中文 (zh) 动物育种 (Preferred)
Русский (ru) селекция и разведение животных (Preferred)
генетическое улучшение животных
Português (pt) Melhoramento animal (Preferred)
Cesky (cs) šlechtění zvířat (Preferred)
Lao (lo) ການປ ັບປ ,ງພ ັນສ ັ (Preferred)
Persian (fa) اصلاح نژاد جانوری (Preferred)
بهنژادی جانوری
日本語 (ja) 家畜育種 (Preferred)
ไทย (th) การปรับปรุงพันธุ์สัตว์ (Preferred)
हिन्दी (hi) पशु प्रजनन (Preferred)
Deutsch (de) TIERZUECHTUNG (Preferred)
Hungarian (hu) állatnemesítés (Preferred)
Legend Proposed by guest Proposed Validated Published Revised by guest Revised Proposed deprecated Deprecated
Show more
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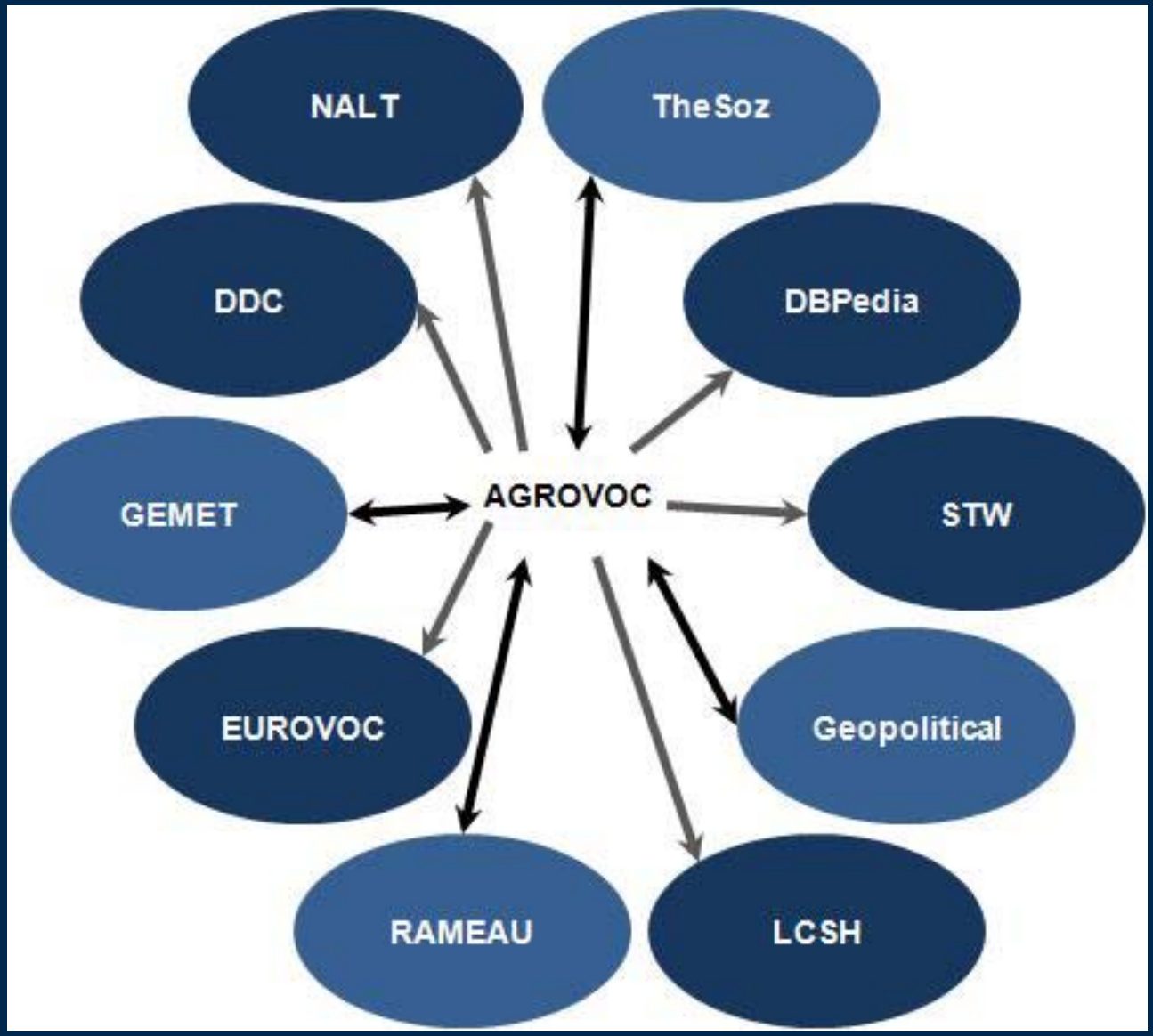
AGROVOC Linked Open Data

AIMS

Thesauri into the AGROVOC LOD Cloud



21,000 outlinks

3,000 inlinks

AGROVOC LOD-outlinks

Europe at AGROVOC Thesaurus
http://aims.fao.org/aos/agrovoc/c_2724

Property	Value
broader	■ <http://aims.fao.org/aos/agrovoc/c_2723>
exactMatch	■ <http://agclass.nal.usda.gov/nalt/2011.xml#5987> ■ <http://eurovoc.europa.eu/909> ■ <http://id.loc.gov/authorities/sh85045631#concept> ■ <http://stitch.cs.vu.nl/vocabularies/rameau/ark:/12148/cb11931301w> ■ <http://www.eionet.europa.eu/gemet/concept/2992> ■ <http://zbw.eu/stw/descriptor/16815-3>
date of creation	■ 1981-01-09
date of last update	■ 2010-05-12
isPartOfSubvocabulary	■ Geographical above country level (string)
isSpatiallyIncludedIn	■ <http://aims.fao.org/aos/agrovoc/c_24920>
prefLabel	■ EUROPA (de) ■ Europa (it) ■ Europa (es) ■ Europa (pl) ■ Europa (pt) ■ Europe (fr) ■ Europe (en) ■ Európa (hu) ■ Európa (sk) ■ Evropa (cs) ■ европа (ru) ■ أوروبا (ar) ■ اروپا (fa) ■ यूरोप (hi) ■ ยุโรป (th) ■ ເອີຣົບ (lo) ■ ヨーロッパ (ja) ■ 欧洲 (zh) ■ 유럽 (ko)
spatiallyIncludes	■ <http://aims.fao.org/aos/agrovoc/c_2726>

The international agricultural thesaurus AGROVOC is maintained by FAO and part of AIMS. The AGROVOC LOD services are a collaboration project with the MIMOS Bhd.
As Turtle | As RDF/XML

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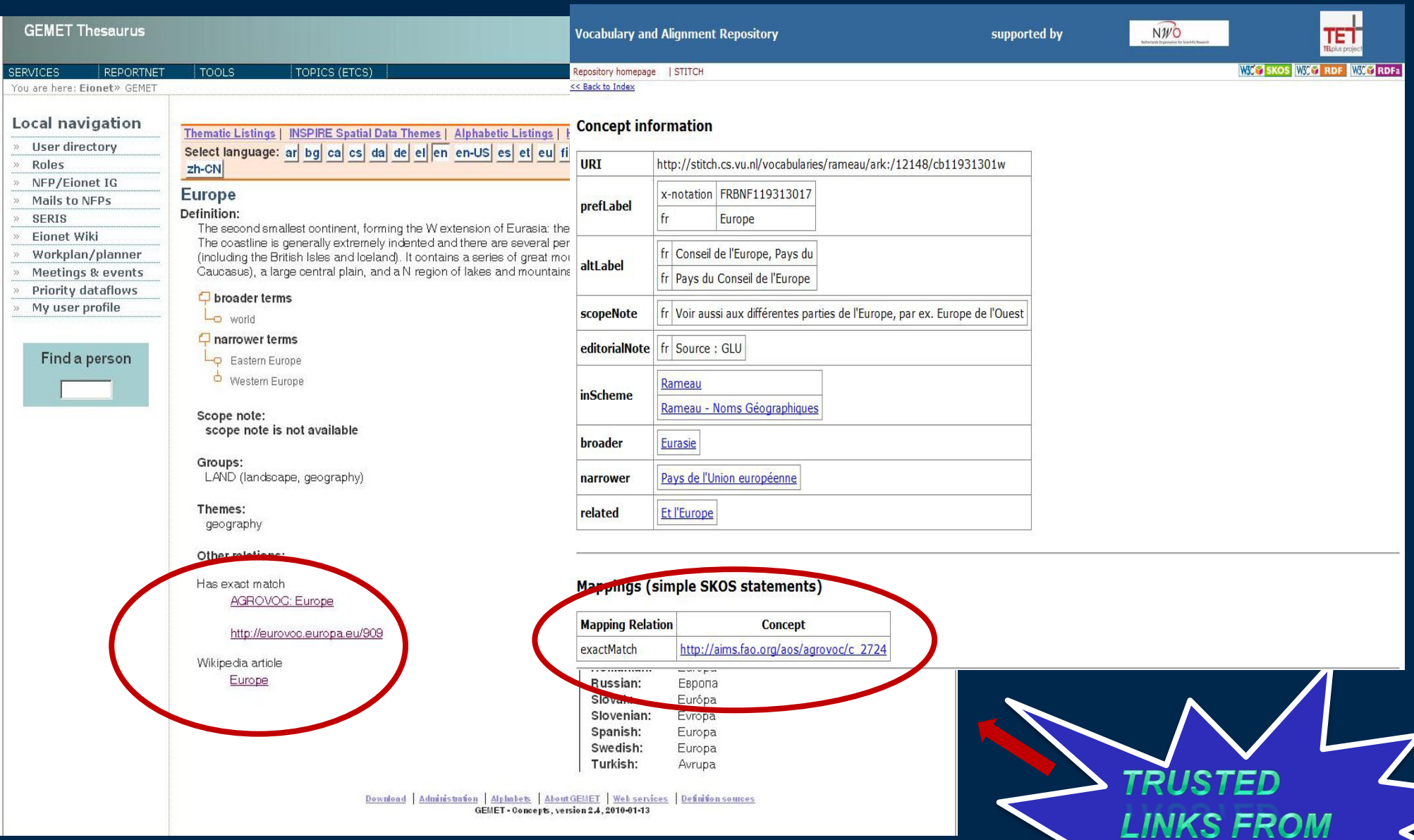
AGROVOC LOD-inlinks



TRUSTED LINKS FROM AGROVOC

Thank You!

AIMS Team
http://aims.fao.org

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