Milestone M4.32

Integrating a wiki-glossary into the scratchpad

(D4.3 Design of robust services)

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Introduction

Controlled vocabularies are an essential foundation for data interoperability within the biodiversity domain, enabling the convergence on shared terminology for integrating biodiversity informatics resources. During the ViBRANT project routines and mechanisms to define, curate and exchange vocabularies have been developed.

This milestone shows a first demo of integrating a MediaWiki-glossary into the scratchpad matrix editor using the GBIF Ontology Platform / KOS features.

Description

Vocabulary management systems support a community to develop and manage terminology for their domain. Such tools range from generic spreadsheet templates over customised Content Managements systems. After investigation and evaluation, Semantic MediaWiki (SMW)[1] was selected as the application of choice for promotion within the GBIF/ViBRANT community.

Once a vocabulary is ready, it will be published in one or more registries for discovered and accessed in a standard format. An example of such a registry used in ViBRANT is the GBIF Resources Repository, enabling the consumption of vocabularies by other systems, including Scratchpads (Fig. 1).

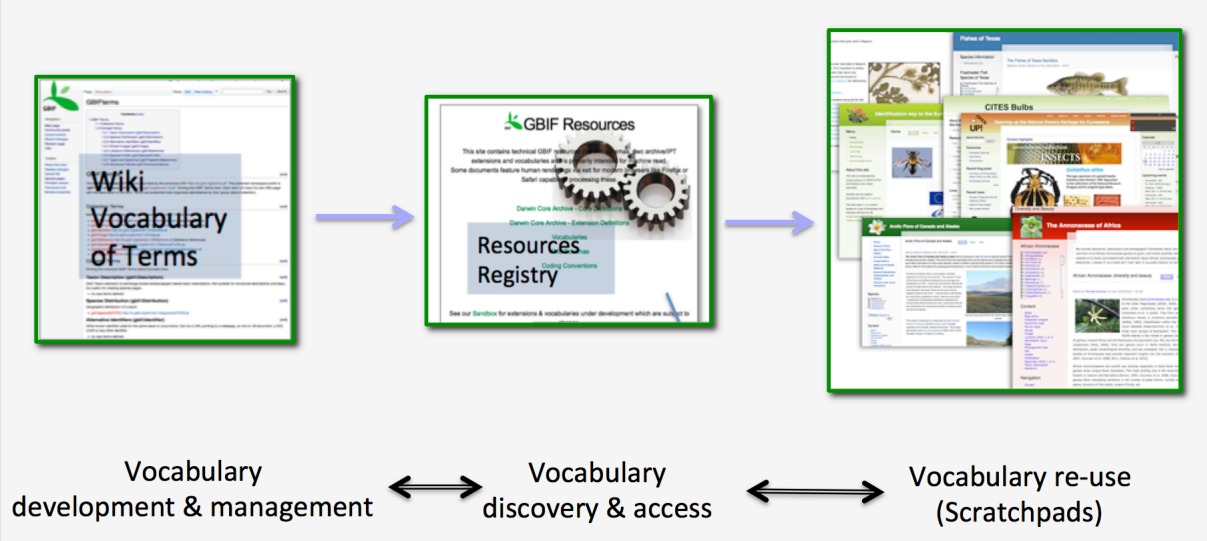

Figure 1: Data-flow showing the integration of MediaWiki terms into the Scratchpads.

Both vocabulary management and discovery systems are part of the Knowledge Organization System (KOS)[2], proposed as a new architecture for biodiversity information resources, available for any user to develop or publish controlled vocabularies, supported by ViBRANT[3] and hosted by the GBIF (see Fig. 2).

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1 http://terms.tdwg.org/wiki/

2 http://kos.gbif.org/

3 http://vbrant.eu/content/d42-ontology-tools

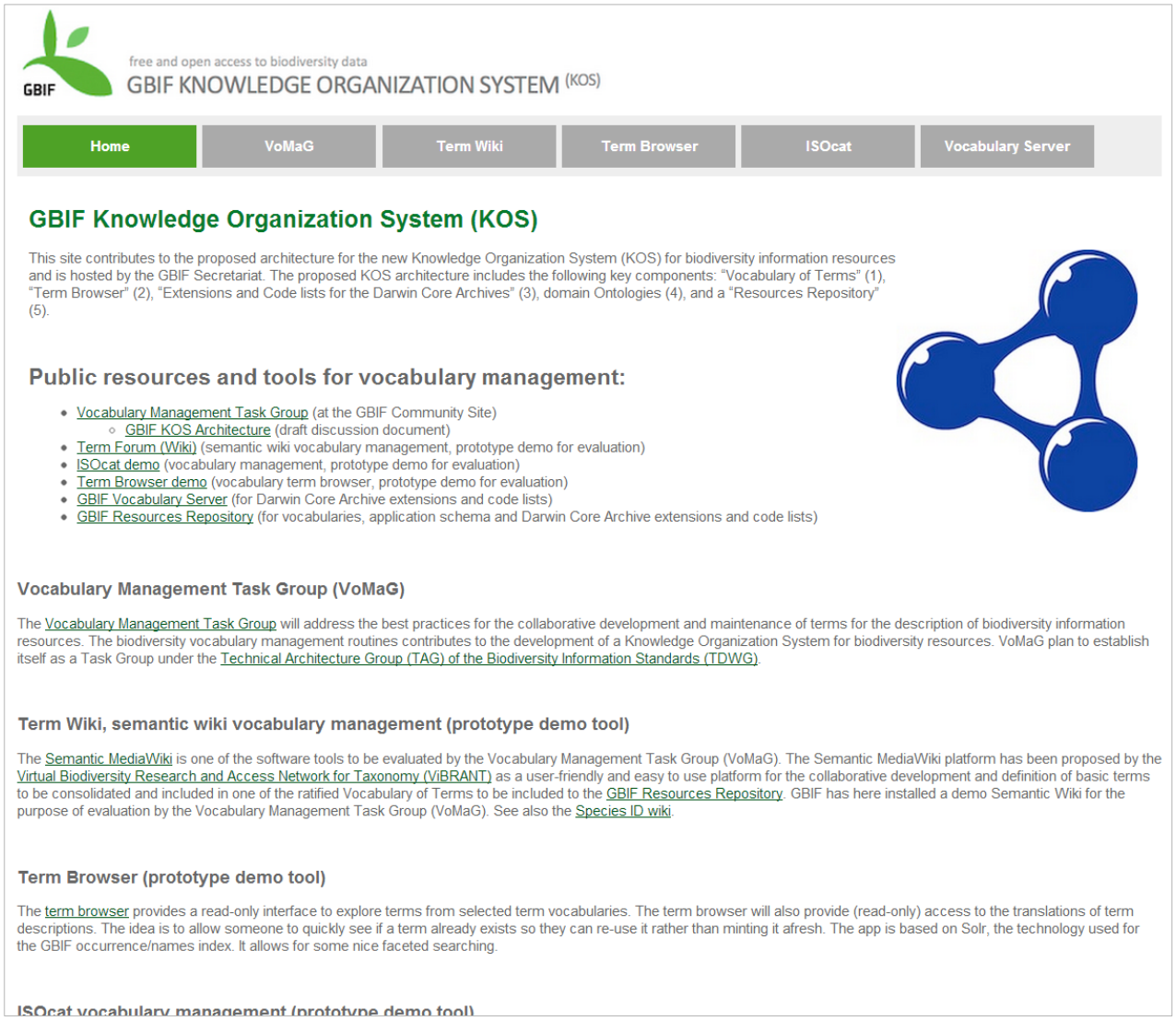

Figure 2: The GBIF Knowledge Organization System (KOS).

Integration of KOS vocabularies into Scratchpads

A feature is installed (awaiting testing in a formal Scratchpads release) replacing controlled vocabularies in Scratchpads by vocabularies from the GBIF Resources Repository[4]. Updates of GBIF terms will be applied on the Scratchpads sites, giving the maintainers the option to decide how the changes are applied when there is no obvious way.

For the initial release the 'Type status'[5] and 'Basis of record'[6] terms are used, although users could create their own fields and map them to other vocabularies.

Updates of GBIF terms will be applied on the Scratchpads sites - giving the maintainers the option to decide how the changes are applied when there is no obvious way (for instance when a term is deleted, maintainers will be given the option to re-map the

4 http://rs.gbif.org/

5 http://rs.gbif.org/vocabulary/gbif/type_status.xml

6 http://rs.gbif.org/vocabulary/dwc/basis_of_record.xml

deleted term).

On the Scratchpads side users can't add or edit the terms. However, with the full description of the vocabulary and each term within it; as well as per-term links to the GBIF wiki, when relevant they can propose any changes.

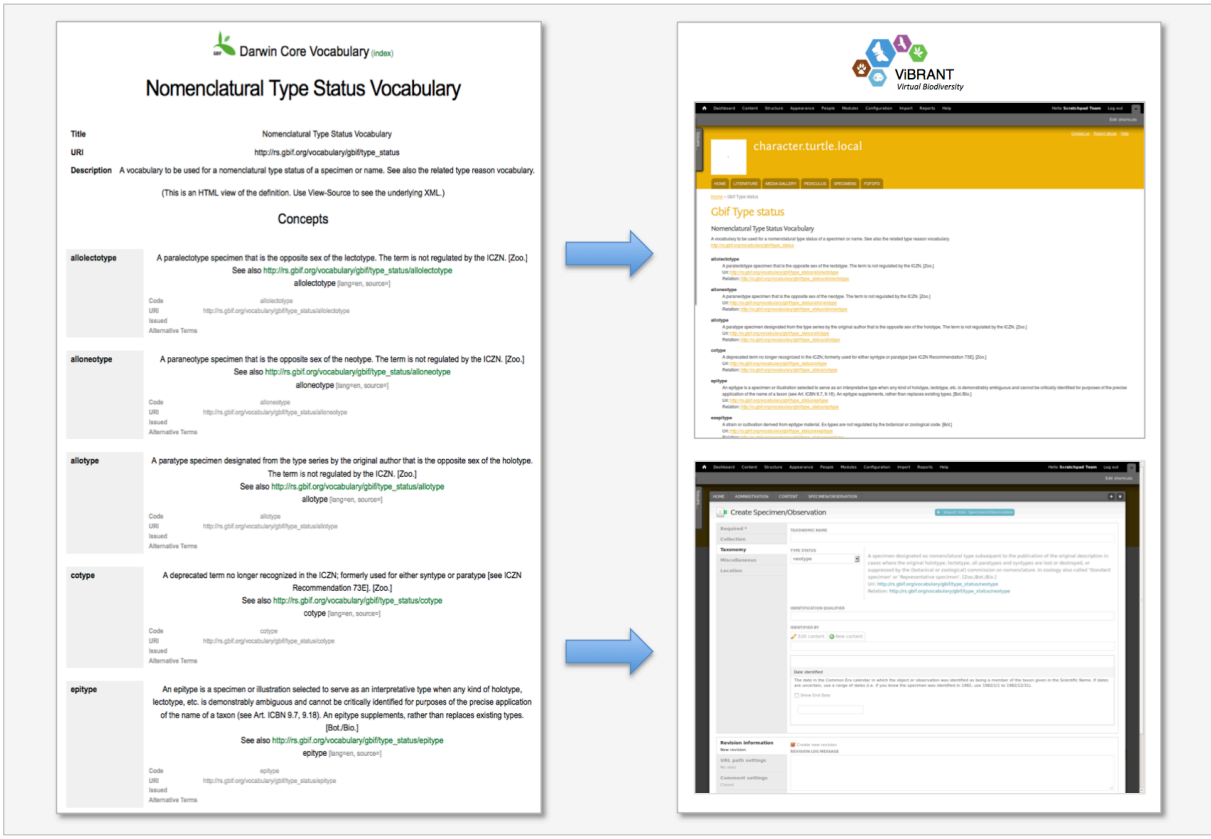

Figure 3: Example showing the uptake of GBIF 'Type status' terms into two Scratchpads.

Conclusion

ViBRANT workpackage 4 is devoted to ensuring that all data within ViBRANT are compatible with, and available to, other research and publishing infrastructures and services. This includes ensuring cross-platform interoperability and the development and sharing of externally standardised ontology's throughout the ViBRANT framework.

This milestone contributes to this objective by establishing the interoperability between the GBIF Ontology Platform (KOS) and the Scratchpads Platform by means of XML exchange routines and by sharing of standardised ontology's developed by the scientific community within the GBIF KOS infrastructure (see Fig. 4).

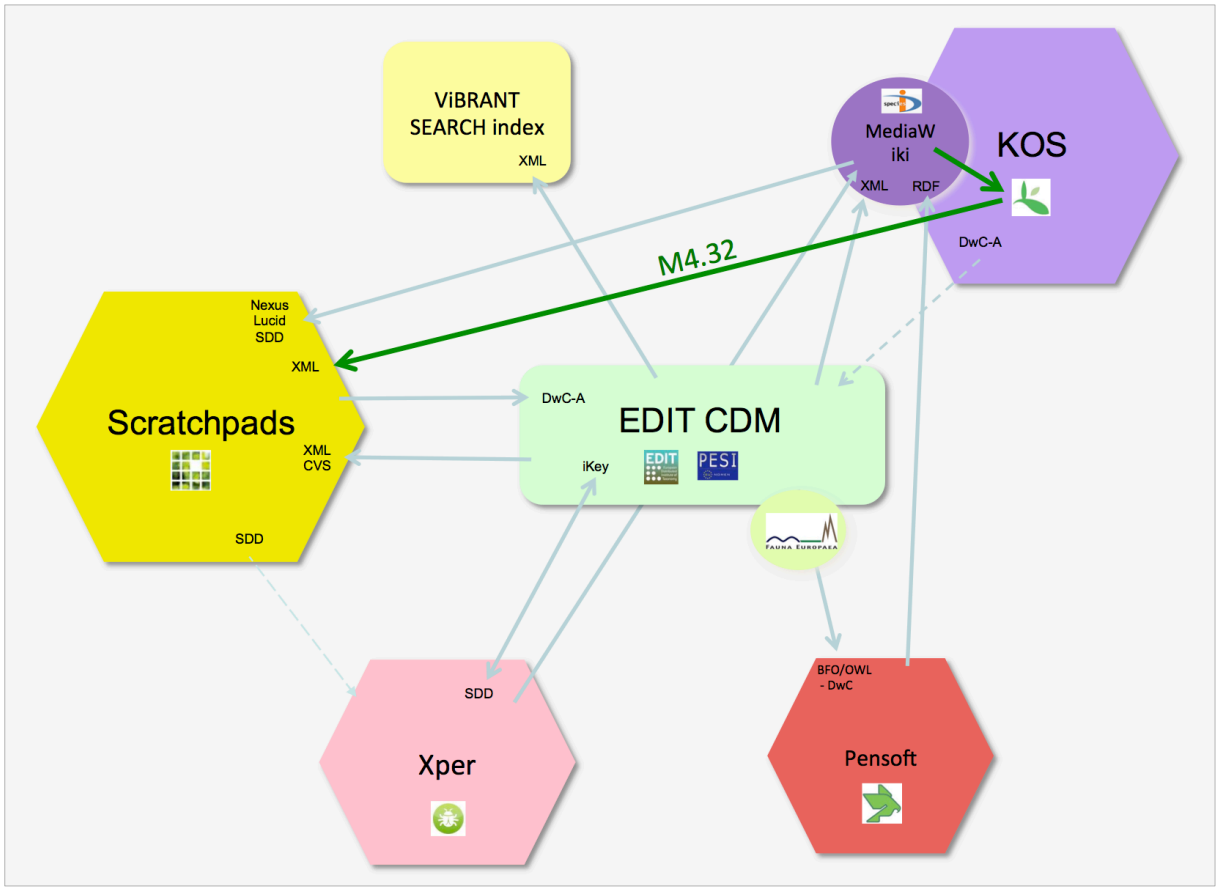

Figure 4: The position of Milestone M4.32 within the ViBRANT architecture.