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Geological Survey of Austria

Department of Geoinformation

www.geologie.ac.at

GBA Thesaurus -

more than a controlled vocabulary for GBA associates...

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The open accessible Thesaurus of the Geological Survey of Austria (GBA) was primarily designed as a knowledge representation of the Geological Survey.

Further the Thesaurus is used as a base for web applications and modules like the DataViewer, an integrated and very powerful tool. It visualizes already harmonized concepts of geological maps.

The GBA Thesaurus does not claim to be any standard. Nevertheless, it offers geologists, students and all other interested people a simple opportunity to find geological terminology and the related definition us used at the Geological Survey for further use.

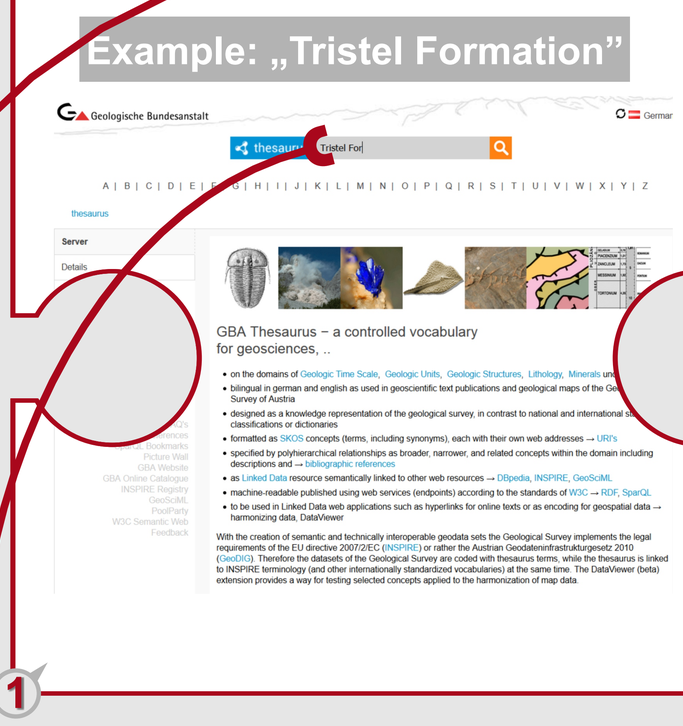
Links to high quality data resources and integrated web applications make the GBA Thesaurus to a powerful tool for geologists requiring controlled vocabulary.

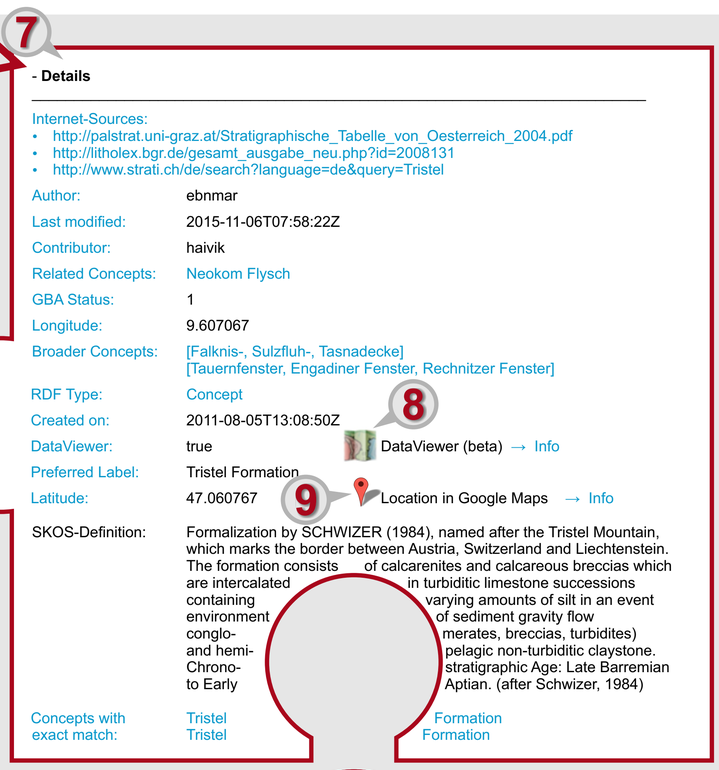
(1) The GBA-Thesaurus has its own web address: **http://resource.geolba.ac.at/**

(2) The hosted geological vocabularies are organized as concepts in six domains:

1 Geologic Time Scale
2 Geologic Units
3 Geologic Structures
4 Lithology
5 Minerals
6 Tectonic Units

(3) The content is provided bilingual in German and English as usually used in all GBA publications as reports and maps.



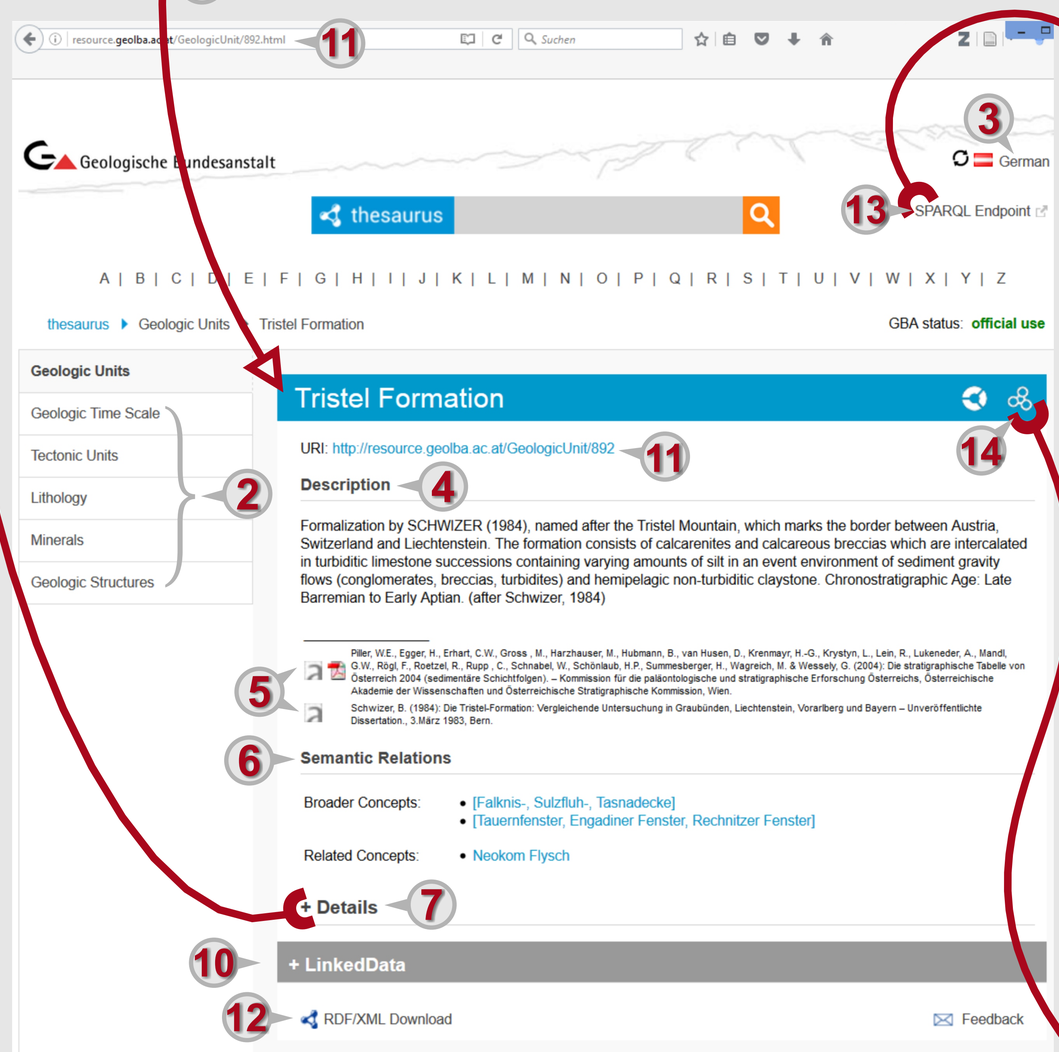


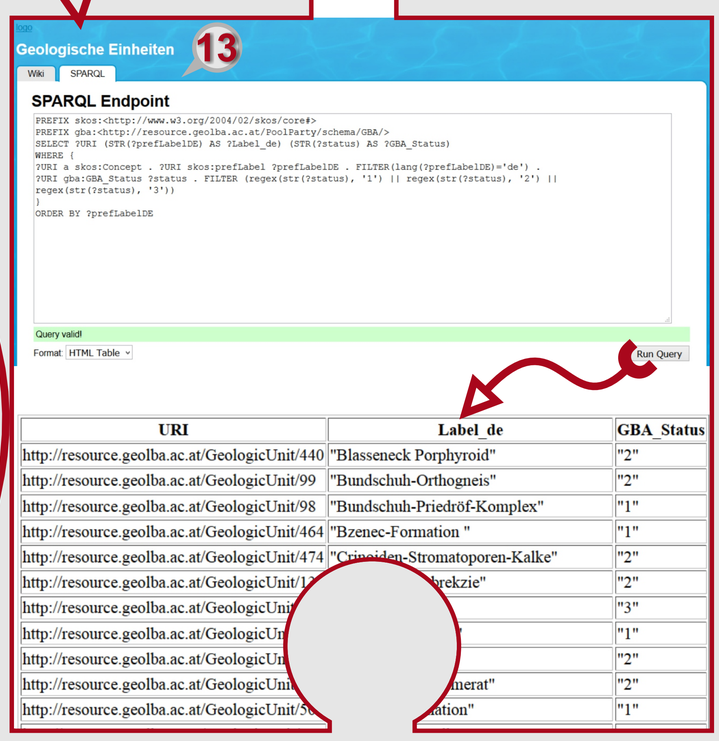
Each concept of the GBA Thesaurus contains a description (4) followed by a reference list (5) directly linked to the online catalogue of the GBA library. Links to related pdfs are available too, provided that they are open source.

Where possible, the concepts are specified by semantic relationships as broader, narrower, or related concepts within the domain (6).

Further information about internet-sources, author, contributor, modification, etc. is "hidden" behind the extension of <+Details> (7).
A link to the DataViewer (8) as well as to the location in GoogleMaps is also provided (9).

The DataViewer module is presented on a separate poster (No. 131) by Christine Hörfarter.





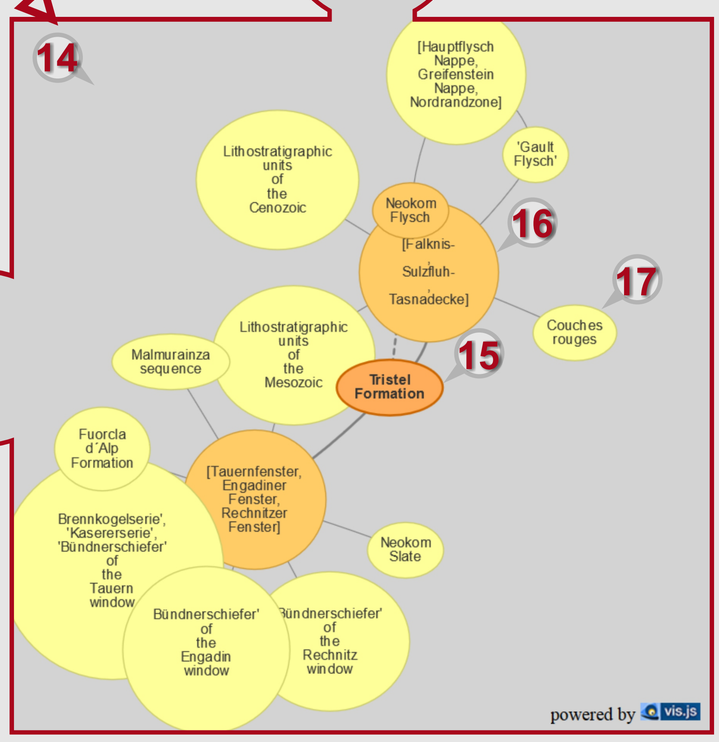
Additional the concepts are available as "Linked Data" (10) and if possible semantically linked to other web resources as INSPIRE, GeoSciML, DBpedia, etc.

To increase the content quality, all concepts are formatted as SKOS concept and are bound to a Uniform Resource Identifier (URI) (11), a unique web address.

The content of the GBA Thesaurus is published machine-readable due to the content is related to the standards of W3C, RDF and SparQL. The RDF of all concepts can be easily downloaded (12).

Selected information can be collected as table with the provided SPARQL Endpoint (13).

Another very useful Thesaurus extension is the „Network Diagram" (14), displaying the concept of interest (15), the broader/narrow concepts (16), and if available also the related concepts (17).

The related description of the GBA-Thesaurus appears at the right side of the diagram-window with a single mouse click on any concept inside the bubble.

Additionally, it is possible to adjust any other concept as the basic concept by a double mouse click and get a new reordered Network Diagram.