From Taxonomies to Knowledge Graphs
From Simple SKOS to large knowledge graphs

1. **Generate 1st version of SKOS taxonomy**
   - Reuse of existing vocabularies
   - Corpus Analysis
   - Excel import
   - XML import
   - Linked data harvester

2. **Edit, extend & curate taxonomy**
   - Taxonomy Editing
   - Collaborative workflows
   - Free term extraction
   - Tag recommender
   - Quality Checker

3. **Extend schema, apply ontologies, use SKOS-XL**
   - Reuse existing ontologies
   - Create custom schemes
   - Apply SKOS-XL
   - Apply ontologies on your SKOS taxonomy

4. **Link and map between taxonomies and LD graphs**
   - Automatic mapping between taxonomies
   - Linked Data frontend
   - Link to other LD graphs, e.g. DBpedia or Geonames

Your data, e.g. Excel

Your docs

Your CMS

FOAF

Dublin Core

schema.org

W3C
SKOS Compliance

The PoolParty Thesaurus server is built based on W3C recommendations and fully supports the SKOS data model. All data is stored natively as RDF in a triple store. Custom schemes are created in an application specific RDF format that can be exported and published to OWL. All knowledge models and custom schemes can be published based on Linked Data standards and queried via SPARQL endpoints.

Manual: https://grips.semantic-web.at/display/POOLDOKU/SKOS+and+PoolParty
Taxonomy & Ontology Creation

The PoolParty Thesaurus Server allows to build knowledge graphs (taxonomies, thesauri) based on the SKOS data model and custom schemes (ontologies) that allow to extend the SKOS data model by well known ontologies (FOAF, schema.org) or by defining custom data models.

Manual: [https://grips.semantic-web.at/display/POOLDOKU/Thesaurus+Management](https://grips.semantic-web.at/display/POOLDOKU/Thesaurus+Management)
Manual: [https://grips.semantic-web.at/display/POOLDOKU/Custom+Scheme+Management](https://grips.semantic-web.at/display/POOLDOKU/Custom+Scheme+Management)
Semantic Tagging and Auto-Categorization

PoolParty Knowledge Graphs can incorporate ontologies like schema.org

- automated tagging based on this creates SEO-optimized annotations
- extracted entities are classified as corresponding classes from a defined RDF schema
PoolParty provides an Ontology Library with many most common ontologies to be reused by individually defined custom schemes.
Applying custom schemes on taxonomies
With PoolParty, one cannot only create but can also publish ontologies & custom schemes.

Additionally, schemes can be exported as RDF and OWL.
Linked Data reuse

PoolParty can link local taxonomies to other knowledge graphs and linked data sources like Geonames, DBpedia, etc. to harvest additional data based on custom schemes from there.

Manual: https://grips.semantic-web.at/display/public/POOLDOKU/Enrich+your+Concepts+with+Linked+Data
Intelligent Content Publishing

PoolParty allows to reuse common schemes like Schema.org to extend vocabularies. Entity extraction based on this will result in RDF graphs containing typified entities derived from custom schemes.

- SemWeb Ontologies are reused
- PP Ontology Library embedded in SemWeb Ontologies
- Custom Schemes are applied on PP Ontology Library
- SKOS Thesaurus

VideoGame

SimulationGame

SimCity

What will my PC need to get SimCity running so I can build the best city in the world? SimCity run on Windows XP, Vista, and Windows 7.

```
<script type="application/ld+json">
{
  "@context": "http://schema.org",
  "@type": "VideoGame",
  "name": "SimCity",
  "image": ...
}
</script>
```

Manual: https://grips.semantic-web.at/display/POOLDOKU/Linked+Data+Enrichment+with+PoolParty
PoolParty Extractor can be used to extract entities from content based on the information and structure/schema provided by the developed Knowledge Model. Content classification is location and language independent since all tagging is done concept based (Unique identifiers/URIs).
Ontology Governance Features

The SKOS data model itself offers several documentation properties to document ongoing vocabulary management processes. Additional metadata can be added using custom schemes (see above). In addition the full history of all changes done to a knowledge model is available and can be queried via API.

Manual: https://grips.semantic-web.at/display/POOLDOKU/PoolParty+History
Manual: https://grips.semantic-web.at/display/POOLDOKU/Adding+Notes+to+your+Concepts
Ontology Governance Features

An approval workflow allows to establish collaborative processes for managing the knowledge graphs. In addition a feedback mechanism can be added to all integrations based on the PoolParty Server API e.g. suggesting new concepts, adding notes etc.

Manual: https://grips.semantic-web.at/display/POOLDOKU/Approval+Workflow
Manual: https://grips.semantic-web.at/display/POOLDOKU/Method%3A+suggest+free+concept
Solution Integration

The APIs of the PoolParty Semantic Platform allow easy integration into 3rd party systems. There are existing integrations with MS SharePoint, Atlassian Confluence, Drupal, Alfresco, Jive, Umbraco that provide basic patterns for any other integration. The PoolParty Semantic Platform is based on Java and by that OS independent.

Manual: Integrate your CMS with PoolParty
Demo: http://vocabulary.semantic-web.at/PoolParty/api
Demo: http://vocabulary.semantic-web.at/extractor
Demo: http://vocabulary.semantic-web.at/PoolParty/sparql/cocktails