



Platform Linked  
Data Nederland



## **WORKING TOGETHER ON THE NEW PLDN LINKED DATA THESAURUS**

**PLDN Thesaurus Working Group - Update Activities**



#LinkedDataNL

## **ARCHIXL-PLDN WEBINAR THESAURI BEST PRACTICES**

**PIETER VAN EVERDINGEN  
(PLDN/OPENINC)**

**30-9-2020**



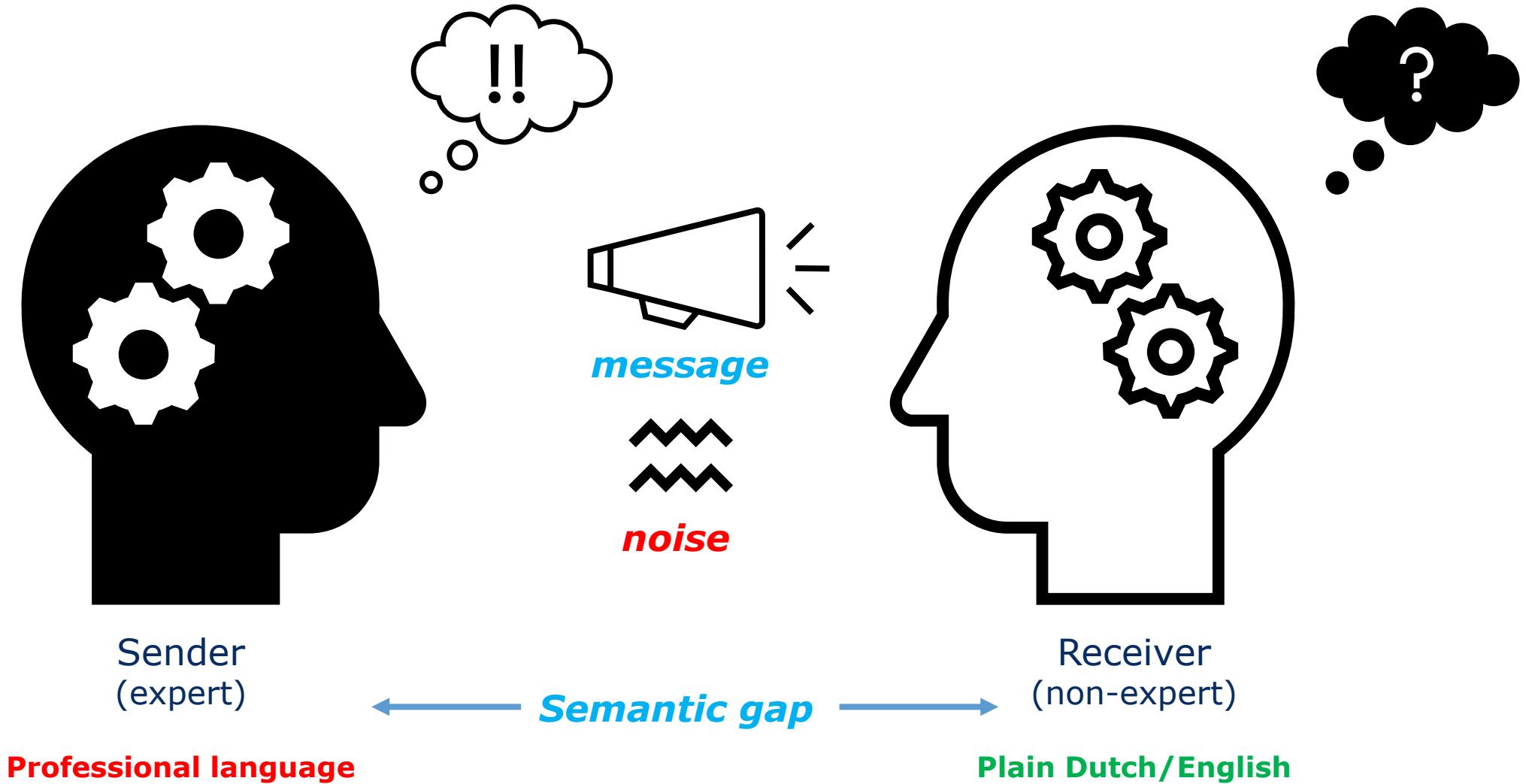
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# Topics

- Communication gap
- Ambitions & goals
- Approach & design decisions
- Workflow & tooling
- Intermediate result
- Next steps



# Communication – Do we understand each other??





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# Reduce the communication gap via e.g.

Gratis verzending vanaf 20,- Bezorging dezelfde dag, 's avonds of in het weekend\* Gratis retourneren Select Ontdek het nu voor 9.99 p.j.

**bol.com** Waar ben je naar op zoek? Alles Inloggen

Categorieën ▾ Cadeaus & Inspiratie ▾ Aanbiedingen ▾ Verkopen Zakelijk Cadeaukaart Bestelstatus Klantenservice NL ▾

Alles voor op reis Buitenspeelgoed Fashion pre-sale **Afkoelen** tijdens de hitte! >

## Play-a-LOD Dieren

Schrijf een review | E-mail deze pagina



**15:**

5 - 7 dagen ⓘ Verkoop door partner van bol.com PLDN ⓘ

+ In winkelwagen Op verlanglijstje

✓ Gratis verzending  
✓ 30 dagen bedenkijd en gratis retourneren

Vragen en antwoorden (0)

<  >

***Learn playfully the basic concepts of linked data via an animal ontology***

<https://www.playalod.nl>



# PLDN Linked Data Thesaurus Working Group

## Ambition:

- Linked Data Thesaurus
- Thesaurus Best Practice



**30-90 rule\***

## Goals:

**As easy as possible**

1. Result (thesaurus)
2. Knowledge sharing (design decisions)
3. User (user-centric, fit for use)
4. Maintenance (workflow & tooling)

**\*: Only describe the 30% that we use 90% of the time**



# PLDN Thesaurus – Make it findable !!

## For each concept (notion):

- ***What does it mean*** (short, clear and concise definition)
- ***Where can I find additional information*** (W3C, etc.)

## Browser/navigation/search-facilities\*:

1. Search field (search across multiple thesauri)
2. Alphabetic list (without further structure)
3. Hierarchical structure (fine-grained classification)
4. Thematic structure (coarse-grained grouping)

**\*: Show all possible design decisions with a small thesaurus**



# Existing Linked Data thesauri?

## Few examples :

- Linked Data Glossary, W3C, 2013 (deprecated)
- Social Semantic Web Thesaurus, 2012 (deprecated)
- GO FAIR Glossary, 2020 (ok as glossary, but small)
- ...

## But concepts and definitions (as linked data) in:

- DBpedia (137)
  - Wikidata (155)
  - ...
- } of the 308 core linked data concepts



# Other thesauri & ontologies?

- BBC Ontologies
- Play-a-LOD (model and instances)
- Getty Vocabularies
- UNESCO Thesaurus (and Publication Ontology)
- AGROVOC
- EuroVoc
- GEMET
- ...



# Other thesauri & ontologies?

- BBC Ontologies (*modular structure*, no redundant definitions)
- Play-a-LOD (clean ontology, also no redundant definitions)
- Getty Vocabularies (well documented, incl. *editorial guidelines*)
- UNESCO Thesaurus (*Publication Ontology* for thematic structure)
- AGROVOC (also use *VocBench*, *Skosmos* and *top concepts*)
- EuroVoc
- GEMET
- ...



# Existing Thesauri Best Practices?

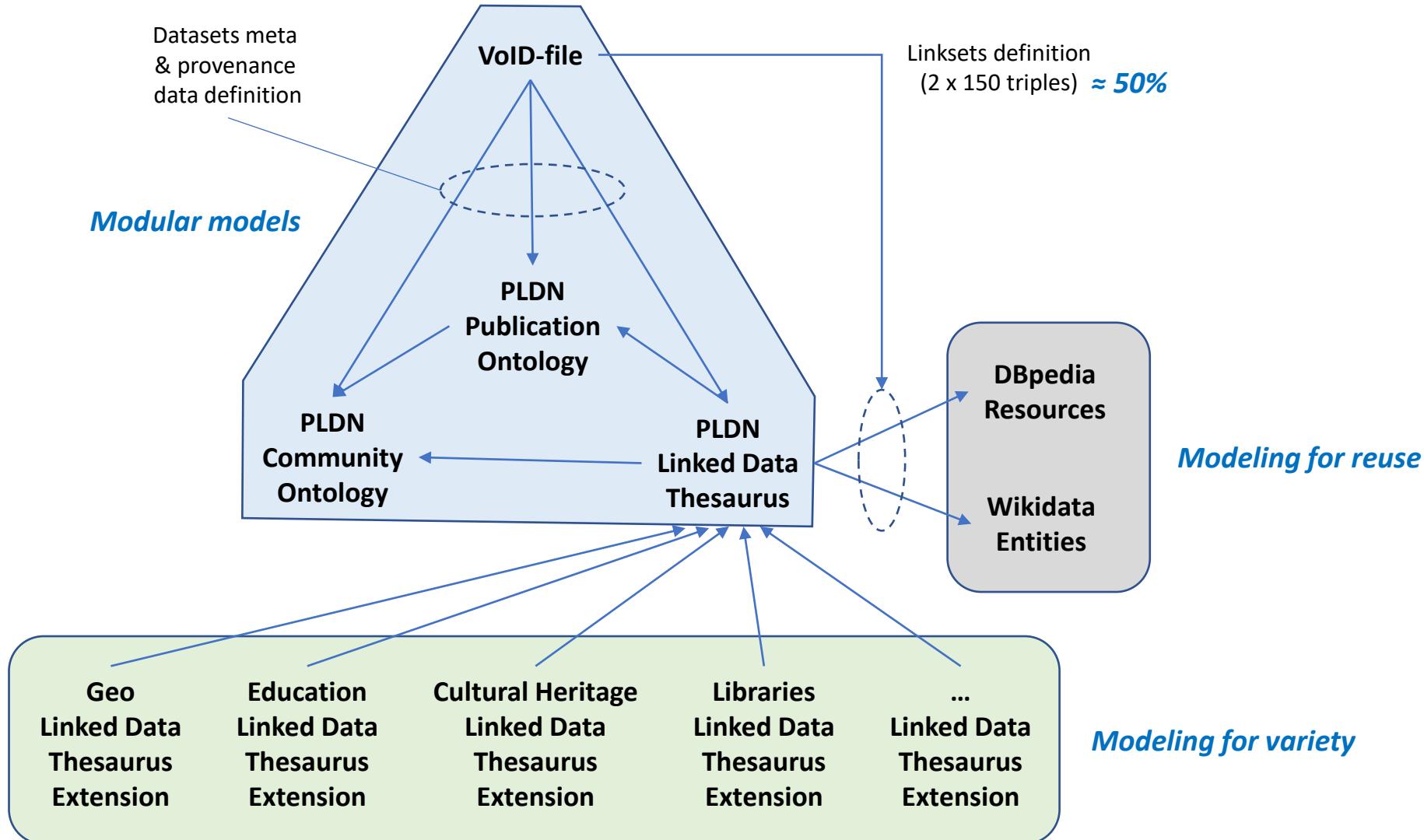
Source: ***Semantic Web for the Working Ontologist*** (3<sup>rd</sup> edition):

***Common practice for using these properties is varied:*** some vocabularies don't use them at all (leaving membership in the concept scheme implicit). Others use `inScheme`, but make no use of top concepts. Among those that indicate to concepts, some use `hasTopConcept` and others use `topConceptOf`.

***All of these practices are acceptable*** according to the SKOS standard, but having so many acceptable practices, while making the job of a thesaurus writer easy, makes it more difficult for the consumer of a vocabulary to find their way around.



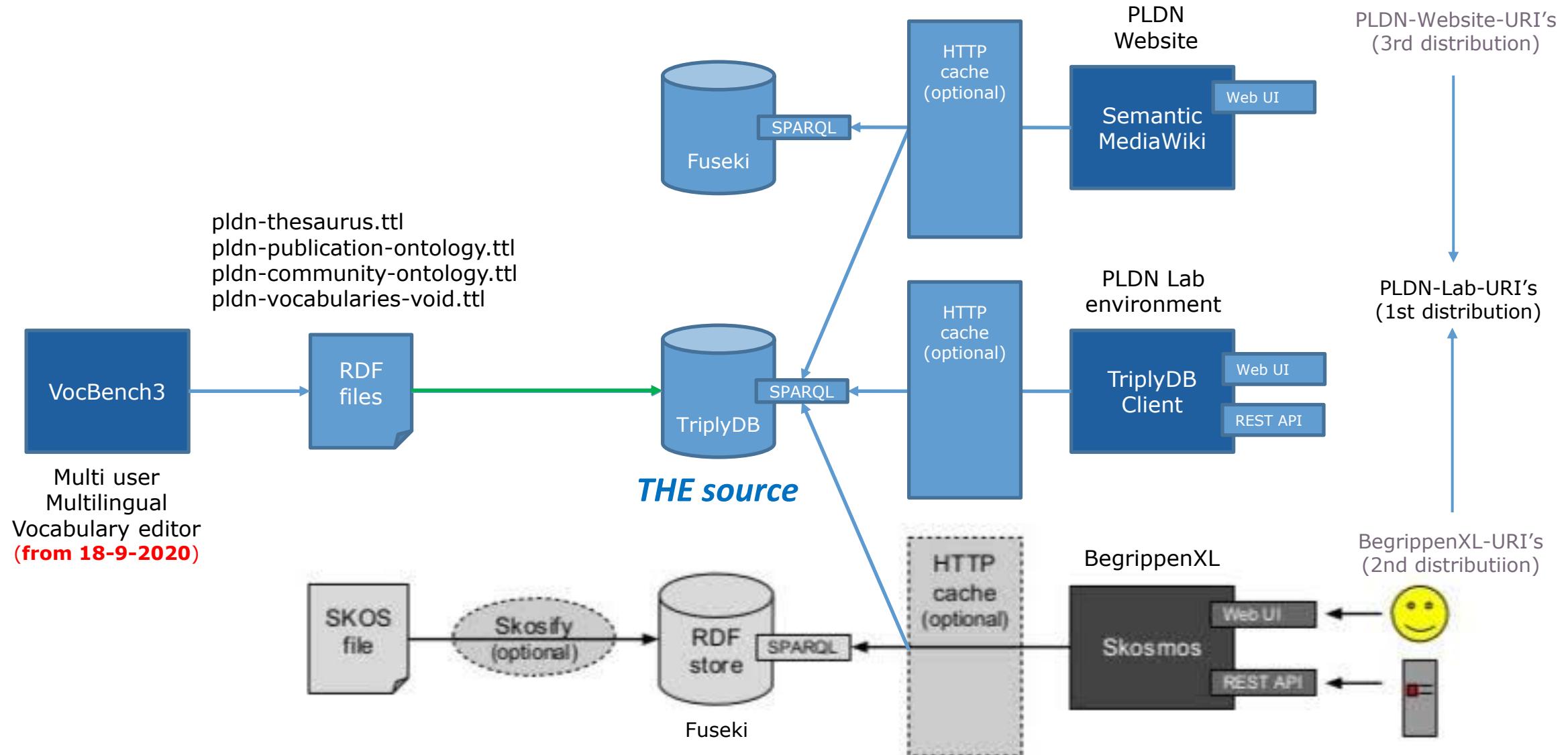
# PLDN Thesaurus – Not stand-alone





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# PLDN Thesaurus - Preferred workflow





# PLDN Thesaurus – Concepts template

```
1 <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/...>
2 a skos:Concept ;
3 dcterms:modified "2020-09-19"^^xsd:date ;
4 skos:prefLabel "..."@en , ..."@nl ;
5 skos:altLabel "..."@en , ..."@nl ;
6 vaem:abbreviation "..."@en , ..."@nl ;
7 skos:definition "..."@en ;
8 skos:definition "..."@nl ;
9 skos:inScheme <https://data.pldn.nl/pldn-vocabularies/Thesaurus> ;
10 skos:topConceptOf <https://data.pldn.nl/pldn-vocabularies/Thesaurus> ;
11 isothes:broaderGeneric <https://data.pldn.nl/pldn-vocabularies/Thesaurus/id/concept/...> ;
12 isothes:broaderPartitive <https://data.pldn.nl/pldn-vocabularies/Thesaurus/id/concept/...> ;
13 isothes:broaderInstantial <https://data.pldn.nl/pldn-vocabularies/Thesaurus/id/concept/...> ;
14 skos:related <https://data.pldn.nl/pldn-vocabularies/Thesaurus/id/concept/...> ;
15 skos:exactMatch <http://dbpedia.org/resource/...> ;
16 skos:closeMatch <http://dbpedia.org/resource/...> ;
17 skos:exactMatch <https://www.wikidata.org/entity/...> ;
18 skos:closeMatch <https://www.wikidata.org/entity/...> ;
19 foaf:primaryTopicOf <https://...> ;
20 dcterms:source "..."@en , ..."@nl ;
21 .
```



# PLDN Thesaurus – Concept example

The screenshot shows a Visual Studio Code window with several tabs open. The active tab is "pldn-thesaurus-review-version.ttl". The code displays RDF triples for a concept named "SimpleKnowledgeOrganizationSystem". Several triples are highlighted with red boxes:

- Line 1024: `skos:prefLabel "SKOS"@en , "SKOS"@nl ;`
- Line 1027: `vaem:abbreviation "SKOS"@en , "SKOS"@nl ;`
- Line 1030: `isothes:broaderInstantial <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/RDF-BasedVocabularies> ;`
- Line 1031: `isothes:broaderInstantial <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/OpenStandards> ;`
- Line 1032: `isothes:broaderInstantial <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/W3C-Recommendations> ;`
- Line 1033: `isothes:broaderInstantial <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/FS-MandatoryStandards> ;`
- Line 1038: `skos:exactMatch <http://dbpedia.org/resource/Simple_Knowledge_Organization_System> ;`
- Line 1039: `skos:exactMatch <https://www.wikidata.org/entity/Q2288360> ;`
- Line 1040: `foaf:primaryTopicOf <https://www.w3.org/TR/skos-primer/> ;`
- Line 1041: `foaf:primaryTopicOf <https://www.w3.org/TR/skos-reference/> ;`
- Line 1042: `foaf:primaryTopicOf <https://www.forumstandaardisatie.nl/open-standaarden/skos> ;`
- Line 1043: `dcterms:source "W3C"@en , "Forum Standaardisatie"@en , "DBpedia"@en , "Wikidata"@en ;`
- Line 1044: `dcterms:source "W3C"@nl , "Forum Standaardisatie"@nl , "DBpedia"@nl , "Wikidata"@nl ;`

The status bar at the bottom shows: Ln 1045, Col 2 Spaces: 2 UTF-8 CRLF TURTLE. The taskbar at the bottom includes icons for various applications like File Explorer, Task View, and Edge.



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# PLDN Thesaurus – In Vocbench3 (PLDN)

About VocBench ▾ Current project: PLDN\_Thesaurus Global Data Management ▾

VocBench Projects Data Metadata ▾ SPARQL Tools ▾

Class Concept Scheme Collection Property Datatype

PLDN Thesaurus (en), PLDN Thesaurus (nl)

Now 1 scheme

Types:

- rdf:type
- skos:ConceptScheme

Lexicalizations:

- skos:prefLabel
- PLDN Thesaurus
- PLDN Thesaurus

Notes:

ResView Code

The screenshot shows the VocBench3 interface with the 'Scheme' tab selected (highlighted by a red box). On the left, a search bar and various navigation icons are visible. The main workspace displays a single concept scheme named 'PLDN Thesaurus (en), PLDN Thesaurus (nl)'. A large, bold blue text overlay 'Now 1 scheme' is centered in the workspace. The right panel shows the schema's properties: 'Types' (including 'rdf:type' and 'skos:ConceptScheme') and 'Lexicalizations' (listing two entries for 'PLDN Thesaurus'). The bottom of the interface features tabs for 'ResView' and 'Code'.



The screenshot shows the VocBench application interface. The top navigation bar includes links for 'About VocBench', 'Current project: PLDN\_Thesaurus', and 'Global Data Management'. The main menu bar has tabs for 'VocBench', 'Projects', 'Data' (which is selected), 'Metadata', 'SPARQL', and 'Tools'. On the left, a sidebar titled 'Concept' (with a red box around it) lists various categories and their sub-items, such as Applications, Assumptions, and Best Practices. The 'Data' section under 'Best Practices' is currently selected. In the center, there's a detailed view of a 'Data on The Web Best Practices (en)' entry, showing its types (rdf:type, skos:Concept), top concept, schemes (skos:inScheme, PLDN Thesaurus), and broader concepts (skos:broader, Best Practices). A large blue banner in the center-right area reads 'Now 468 concepts and 22 top concepts'. The bottom right corner shows a 'Status: ✓' indicator.



# PLDN Thesaurus – Top concepts (22)

- > Applications
- > Assumptions
- > Best Practices
- > Data
- > Formats
- > Identifiers
- > Interfaces
- > Interoperability
- > Languages
- > Mappings
- > Models
- > Principles
- > Processes
- > Profiles
- > Protocols
- > RDF Ecosystem
- > Reasoning
- > Standards
- > Strategies
- > Tooling
- > Vocabularies
- > World Wide Web



S BegrippenXL: archixl: Alphabeti X + - ☰ ×

https://www.begrippenxl.nl/pldn/en/index/?clang=nl

... ☆ ☁ ⚡ ⌂

# BegrippenXL

Home About Feedback Help | in Nederlands auf Deutsch

## PLDN thesaurus

Content language Dutch ▾

Alphabetical Hierarchy Groups

Mock-up

### Vocabulary information

TITLE PLDN thesaurus

TYPE <http://www.w3.org/2004/02/skos/core#ConceptScheme>

URI <https://www.begrippenxl.nl/pldn/nl/page/>

#### Resource counts by type

Type	Count
Concept	468

#### Term counts by language

Language	Preferred terms	Alternate terms	Hidden terms
English	468	1	0
Dutch	468	1	0

Fully bilingual

96% 09:04 30-9-2020



# PLDN Thesaurus – Current situation (30/9)

***We have all the puzzle pieces, but now we  
“only” have to put the puzzle together***





# PLDN Thesaurus – Next steps?

## PLDN Thesaurus Working Group

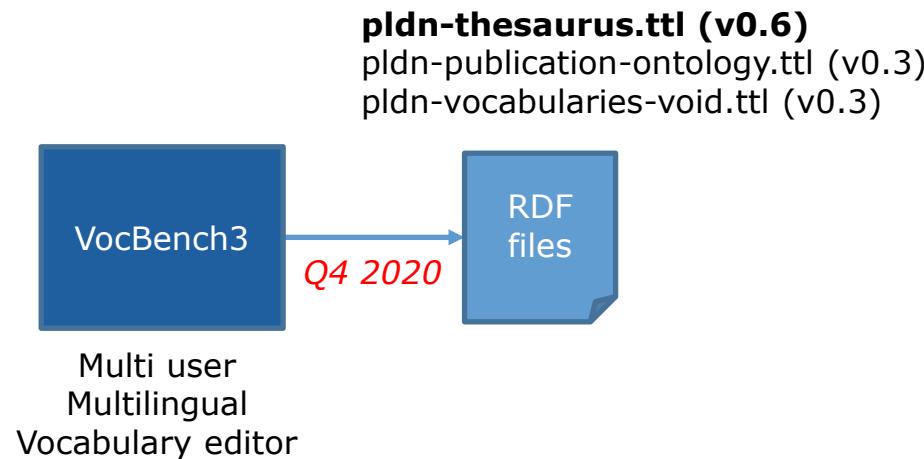
- Pieter van Everdingen
- Hans de Rond
- Pano Maria
- Jan Willem van Veen

**New participants can apply via :**

- [info@pldn.nl](mailto:info@pldn.nl)



# PLDN Thesaurus – Next steps?



## PLDN Thesaurus Working Group

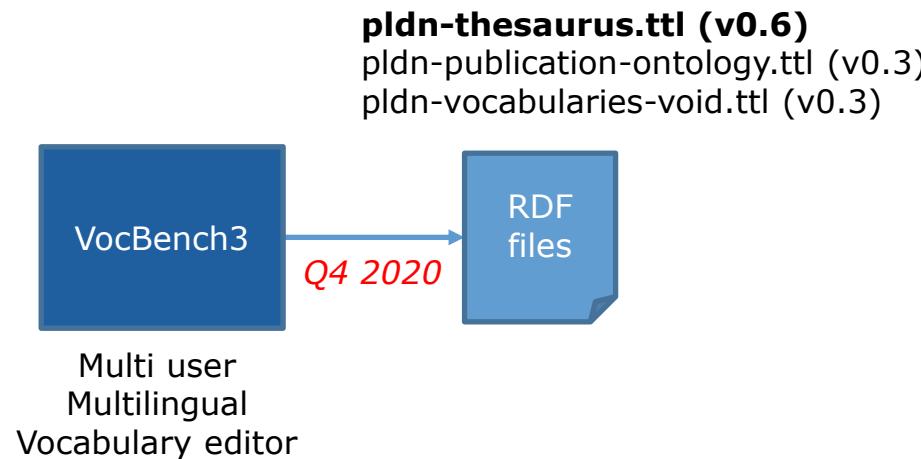
- Add editors
- Add reviewers

## First activities:

- Agree upon work process
- Agree upon documentation process
- Agree upon naming convention
- Agree upon URI strategy
- Review first thesaurus version
- Process feedback in the next version of the thesaurus



# PLDN Thesaurus – Next steps?



## PLDN Thesaurus Working Group

- Add editors
- **Add reviewers**

## First activities:

- **Agree upon work process**
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# Work process – Reqs & issues on Github?

Screenshot of a GitHub organization page for "Platform Linked Data Nederland".

The top navigation bar includes a search bar, a repository icon, and links for Pull requests, Issues, Marketplace, and Explore. On the far right are icons for notifications, a plus sign, and user profile.

The organization's logo, a blue stylized snowflake or network icon, is displayed next to the name "Platform Linked Data Nederland".

The main navigation bar below shows tabs for Repositories (selected), Packages, People, and Projects.

The "Repositories" section displays a large icon of a smartphone and the text "This organization has no public repositories.".

The "People" section contains a message: "This organization has no public members. You must be a member to see who's a part of this organization." with a "People" link and a right-pointing arrow.

A "Report abuse" link is located at the bottom of the page.



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# Work process – Capture design decisions

The screenshot shows the homepage of the Platform Linked Data Nederland (PLDN) website. The header features the PLDN logo, the tagline "Innovatie door betekenisvol verbinden", a search bar with placeholder "Wat zoekt u?", and a navigation menu with links to "platform", "linked data", "experts", and "doe mee". The main content area displays the title "PLDN Thesaurus Best Practices" and the subtitle "PLDN Werkdocument 27 september 2020". Below this, there are sections for "Deze versie:", "Redacteur:", and "Reviewers:", each with a corresponding URL or name.

**PLDN Thesaurus Best Practices**

PLDN Werkdocument 27 september 2020

**Deze versie:**

[https://www.pldn.nl/wiki/PLDN\\_Thesaurus\\_Best\\_Practices](https://www.pldn.nl/wiki/PLDN_Thesaurus_Best_Practices)

**Redacteur:**

Pieter van Everdingen, PLDN

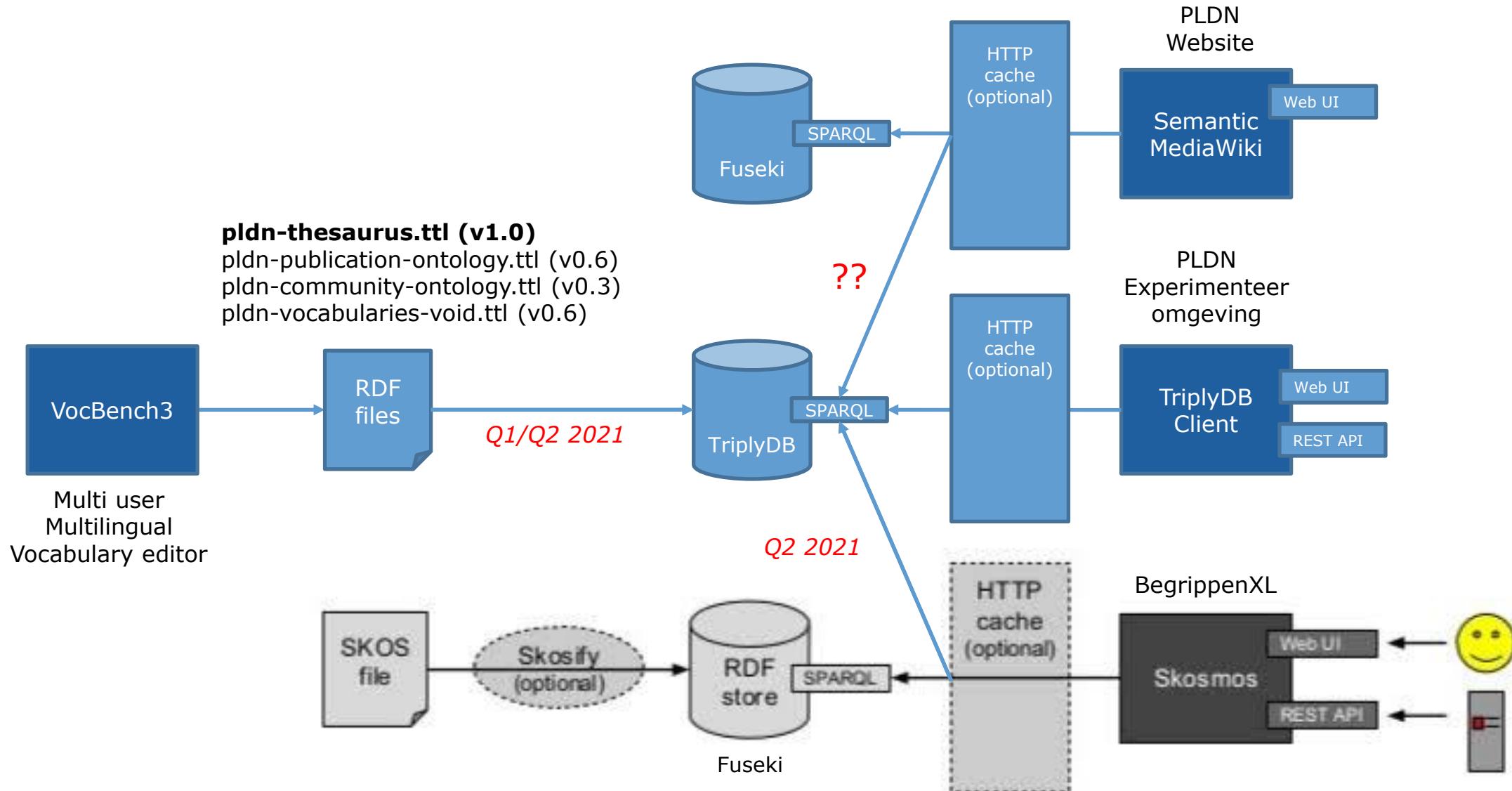
**Reviewers:**

Hans de Rond, Bureau De Rond  
Pano Maria, Skemu



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# PLDN Thesaurus – Next steps?





# PLDN Thesaurus – Take aways

- Domain knowledge, domain knowledge, domain knowledge...
- Collect as many concepts as possible (without boundary)  
(this can help to see patterns more easily)
- Select a minimal set to get to the core concepts
- If a structure doesn't work, start all over again  
(don't continue endlessly, if you're not satisfied)
- Only start using a tool, once you are satisfied
- Listen to the seasoned thesaurus pros in our field
- It is mostly a lot of manual work ... (human choices)





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# PLDN communication channels

**BIG DATA**  
**VALUE CENTER**  
OPEN INNOVATION CENTER

ECP

Platform voor de  
InformatieSamenleving

## Contact

**Pieter van Everdingen**

[info@pldn.nl](mailto:info@pldn.nl)



## Website

[www.pldn.nl](http://www.pldn.nl)

## Lab environment

[www.data.pldn.nl](http://www.data.pldn.nl)

## LinkedIn-group

[www.linkedin.com/groups/466278](http://www.linkedin.com/groups/466278)

## Twitter [@linkeddataNL](https://twitter.com/linkeddataNL)

hashtag #LinkedDataNL

## Newsletter

[www.pldn.nl/wiki/Nieuwsbrieven](http://www.pldn.nl/wiki/Nieuwsbrieven)



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## BACKUP SLIDES



# PLDN Vocabularies – URI-strategy

- <https://data.pldn.nl/pldn/vocabularies/CommunityOntology>
- <https://data.pldn.nl/pldn/vocabularies/PublicationOntology>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/LinkedData>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/RDF>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/concept/SPARQL>
- ...
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/LinkedDataCore>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Abbreviations>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Standards>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Data>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Tooling>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Guidance>
- <https://data.pldn.nl/pldn/vocabularies/Thesaurus/id/group/Licenses>



Each concept group has at least a few dozen and up to a few hundred terms (current estimate)

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Innovatie door betekenisvol verbinden

Wat zoekt u?



platform linked data experts doe mee

experts expertise organisaties blogs

## Expertises **Old version (now)**

Welke expertise is er zoal aanwezig binnen het Platform Linked Data Nederland? Onderstaand overzicht geeft een beeld van de onderwerpen en bijbehorende experts. Deze lijst is nog in bewerking en zal stap-voor-stap nog verder uitgewerkt worden met meer detail.

**3**

- 303 redirect
- 3D geo-informatie

**4**

- 4 Linked Data principes

**5****D meer**

- Data replicatie
- Data schema's
- Data science
- Data scraping
- Data services
- Data sets
- Data shapes

**L meer**

- LIMES
- LOD Cloud
- LOD Cloud Knowledge Graph vs COVID-19
- LOD Laundromat
- LOD2 Stack
- LOTUS
- LOV

## PLDN thesaurus

[Content language](#)

English

[Search](#)

Alphabetical	Hierarchy	Groups
A	B	C D E F G H I J K L
M	N	O P Q R S T U V W Y
Z	0-9	

A-box reasoning  
Access Control Lists  
Activity Vocabulary  
ADMS  
AI  
AllegroGraph  
Ambiguity  
AnzoGraph  
Apache Jena  
API Gateways  
API Management  
API's  
API-first  
API-strategy  
Application Profiles  
Approaches  
Apps  
AR/VR  
ARC2  
Aspects

## Vocabulary information

PREFERRED TERM [pldn thesaurus](#)

**Old version (now)**

TYPE <http://www.w3.org/2004/02/skos/core#ConceptScheme>

URI <https://www.begrippenxl.nl/pldn/nl/page/>

### Resource counts by type

Type	Count
------	-------

Concept	1159
---------	------

### Term counts by language

Language	Preferred terms	Alternate terms	Hidden terms
English	408	1	0
Dutch	1159	1	0