W3C LBD Community Group
Minutes - Call 09/03/2021

Attendees:

- Mathias Bonduel (KU Leuven)
- Raf Buyle (Flemish Government - Digitaal Vlaanderen & Ghent University)
- Raf Vanlathem (Agentschap Wegen & Verkeer, AWV)
- Anna Wagner (Individual, affiliated with PROSTEP AG)
- Peter Imbrechts (Neanex Technologies)
- Joel Bender (Cornell University)
- Salvatore Cataldi (BELIMO Automation AG)
- Philipp Hagedorn, Ruhr-University Bochum, Germany
- Joris Hoogeboom (Agentschap Wegen & Verkeer, AWV)
- Madhumitha Senthilvel (RWTH Aachen University, Germany)
- Rui de Klerk (DCG, Faculdade de Arquitectura. University of Lisbon, Portugal)
- Katja Breitenfelder (Fraunhofer IBP, TU Munich, Germany)
- Calin Boje
- Francisco Regateiro (ULisboa)
- Mads Holten Rasmussen (NIRAS)
- Natasha Blommaert (AWV)
- Ralf Klein (KU Leuven, Belgium)
- Nicolas Pauen
- Josefien Vanhuyse (Neanex)

Presentation slides

- https://github.com/w3c-lbd-cg/lbd/blob/gh-pages/presentations/infrastructure/20210309_AWV-OTL_road-construction.pdf
- https://wegenenverkeer.be/zakelijk/bim/informatie-bimawv

Date and time

- 09/03/2021, Tuesday, 16:00-17:30@UTC/ 17:00-18:30@CET/ 08:00-09:30@PST/ 00:00-01:30@CST

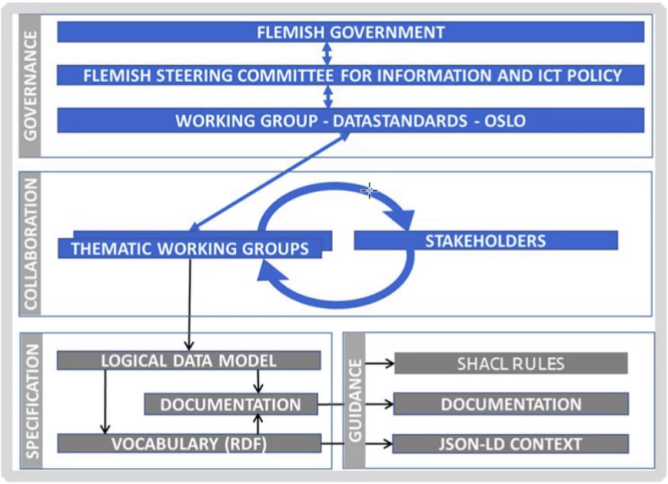
Agenda

1. Introduction (5 min)
2. New participants
3. Presentation: "**Using an OSLO open data standard in a closed world asset management environment at the Flemish road agency (AWV)**", Raf Buyle (Informatie Vlaanderen) and Raf Vanlathem (AWV)
4. Questions and Discussion (30 min)

5. Open discussion

Minutes

1. Introduction
2. New participants
    a. Peter Imbrechts: Co-Founder of Neanex: Platform for CMDB and digital data deliveries based on open ontologies.
    b. Ralf Klein: Prof. at KU Leuven, active in field of BIM, relatively new to Linked Data
    c. Joris Hoogeboom: working at AWV
3. Presentation: "**Using an OSLO open data standard in a closed world asset management environment at the Flemish road agency (AWV)**", Raf Buyle (Informatie Vlaanderen) and Raf Vanlathem (AWV)
    a. Introduction standardisation process [Raf Buyle]
        i. Flemish standards are built on international standards
        ii. Linked Data applied to extend existing vocabularies (international and individual Flemish ones) without corrupting them vertically
        iii. Horizontally, different domains, e.g. mobility and environment, are interlinked
        iv. http://data.vlaanderen.be/ns is used to publish normative and non-normative vocabularies and assets
        v. Transparent method for specifications that involves the community



        vi. Single Source of truth in GitHub with continuous integration for automated publications at webspace
        vii. For now, publication is Dutch only, but inclusion of translators will allow international publications in the future
            1. Imprecise translations may occur but still serve as a starting point for international organisations
        viii. OSLO validator to ensure compliance
        ix. Example standard: Mobility as a Service
    b. Road and traffic management [Raf Vanlathem]

i. Focus on cycle roads, highway, tunnels, bridges
ii. Application of OTL as standard for BIM and AIM and entire process
iii. One big centralised OTL for all domains
    1. Participating in European Road OTL
    2. Following the high-level standards
    3. Considering neighbouring standards
iv. Gradual evolution of OTL with backwards compatibility
v. Level of Information is part of OTL
    1. Separation between LOI and LOG for higher flexibility
vi. XMI file as modelling single source
    1. Create RDF representation via OSLO toolchain → URI generation
        a. URIs are used as reference basis
    2. AWV toolchain and rules are used to create SQLite
        a. Adding further logic via extra rules
        b. Inheritance is resolved to simplify understanding
    3. Generation of SKOS lists via OSLO toolchain for URI generation
vii. SQLite was chosen additionally, because at the time (~3yrs ago) not all desired definitions could have been realised with the OSLO RDF model and/or toolchain
viii. DAVIE - Data Portal as gateway to external sources, e.g. contractors
ix. AIMS - internal data source (graphDB) of structured data for AWV
x. Complex data flow between different platforms and heterogeneous stakeholders (different backgrounds and experience levels)
    1. ICT companies: big gap to Linked Data → non-LD concepts of this domain applied and LD not implemented “all the way”
xi. Wide array of supported standards to integrate the URIs
xii. Internally, JSON-LD representation used to transfer data
xiii. For exchange, OTL subsets are scoped and shared

4. Q&A
    a. [Ralf Klein] Are there any plans to extend this also to Brussels and Wallonia?
        i. [Raf Buyle] Some working groups, e.g. mobility as a service, are supported by federal governance in this region as well. 1 year ago, an initiative was launched and the OSLO method and workflow are now used in all three languages, which was accompanied by training. https://github.com/belgif/thematic/blob/master/URI/iceg_uri_standard.md https://github.com/belgif/review/blob/master/Process/201906-ICEG%20-%20process%20and%20method.docx
    b. [Anna Wagner] Why one large OTL and not modules that are interlinked?
        i. [Raf Vanlathem] Ends up the same, if interlinking is implemented completely. OTL is used as subsets, basically as modules. Subsets are created for different domains and use cases. Maintenance is realised in modules

    ii. [AW] And how do you create those subsets? Is this a manual or automated process?
    iii. [Raf Vanlathem] Different approaches. Based on diagrams, subsets can be created automatically (1 diagram = 1 subset). Alternatively, a manual process is used with a tool that returns (a subset of the) SQLite: https://opendata.apps.mow.vlaanderen.be/otltool/subset/ui/#/upload/overview
    iv. [Raf Vanlathem] Currently thinking of creating a library of subsets that can be reused eventually
  c. [Peter Imbrechts] You specify to only apply semantic information. Why is a specification relation not semantic (inheritance)?
    i. [Raf Vanlathem] Inheritance relation is used from a technical perspective. Additional relations to describe hierarchies will be published in the next months - application of a named relation rather than the predefined one
  d. [Mathias Bonduel] You state your main artifact is SQLite but later you say you use JDON-LD internally - why not publish that?
    i. [Raf Vanlathem] Main DB is neo4j - intermediate file is JSON-LD that is subsequently parsed to DB.
  e. [Mathias Bonduel] Is JSON-LD used for data deliveries between Flemish agencies?
    i. [Raf Buyle] Exchange between regional and local authorities via JSON-LD
    ii. [Mathias Bonduel]: Do you plan in the future / would it make sense for road contractors/designers to deliver RDF/JSON-LD to AWV if it is conform the AWV-OTL?
  f. [Mathias Bonduel] Currently, AWV requires to deliver geometry files that contain references to the non-geometric data (classification, specific object)? Could it be possible to refer, starting from the non-geometric data, to subparts of the geometry instead of having multiple geometry files?
    i. [Raf Vanlathem] Modelling of geometry in separate files need to contain as a minimum an identifier of the described object. Additional non-geometric information can be stored also in the geometry file, using the AWV-OTL terminology.
  g. [Raf Buyle] Are you aware of any similar initiatives in _your_ country? This would be a great opportunity to create international links!
    i. Feedback wanted :)
    ii. [Mathias] Concerning infrastructure, there are initiatives in The Netherlands by RWS but also EUROTL, as already mentioned by Raf Vanlathem. Don't know if other countries actively apply Linked Data standards for managing their data streams.
5. Open discussion
  a. Agenda of next call: discussion of results of polls, future of the community group

Next Call

- 23/03/2021, Tuesday, 16:00-17:30@UTC
  We are interested in getting suggestions from the community about potential agenda items for the following calls. Please send your suggestions to public-lbd@w3.org, whether you have a short presentation to bootstrap the discussion, and an approximate duration you think the discussion will last.

Previous minutes

https://www.w3.org/community/lbd/meeting-minutes/