# Attendees:

- Georg F. Schneider
- Kris McGlinn (TCD-ADAPT)
- Michel Böhms (TNO)
- Katja Breitenfelder (Fraunhofer IBP/ TUM)
- Mads Holten Rasmussen (NIRAS)
- Maxime Lefrancois (MINES Saint-Etienne)
- Walter Terkaj (CNR-STIIMA)
- Prathap Valluru (TU Dresden)
- María Poveda-Villalón (UPM)
- Joel J. Bender (Cornell)
- Ana Roxin
- Alberto Giretti
- Jan Voskuil
- Justine T
- Anna Wagner (TU Darmstadt)
- Sigve Pettersen (bSI)
- Mathias Bonduel (KU Leuven)
- Richard Pinka (CTU Prague)
- Rui de Klerk (FAUL)
- Alberto Giretti (UNIVPM)
- Sander Stolk (Semmtech)
- Kyriakos Katsigarakis (TUC)

# Date and time

- 07/11/2019
- 15:00 WET/ 16:00 CET

# **Agenda**

- 1. Introduction of new attendees
- 2. Wrap-up on property modelling LBD (Mathias Bonduel)
- Report on the topic of complex property modelling (inspired by OPM L2) proposed in CEN TC442/WG4/TG3 as part of the "Semantic Modelling & Linking Standard (SMLS) for the built environment" (Michel Böhms)
- 4. Meeting with W3C Spatial Data on the Web Interest Group: 19th of November

#### **Minutes**

- 1. Introduction of new attendees
  - Prathap Valluru: TU Dresden, Research Associate, focus on energy efficient buildings, Linked Data. Interested to work with LBD community.
  - Katja Breitenfelder: attended LDAC 2019, Fraunhofer IBP & TUM

- Sander Stolk, infrastructure/building sector, helping companies to exchange and store Linked Data and OTL
- 2. Wrapup on property modelling LBD (Mathias Bonduel)
  - Slides available at: [Please insert link, Mathias]
  - Presents modelling patterns: Abox vs. TBox
  - Recap property levels according to "OPM mechanism LDAC Paper: LINK":
    - i. Level 1: direct connection via dedicated property
    - ii. Level 2: intermediate property node between object and property value to group properties or add metadata
    - iii. Level 3: intermediate node between objectifies property and property value for evolving properties (e.g. version control)
    - iv. [Maxime] Another OPM paper has recently been accepted in Automation in Construction: "Managing interrelated project information in AEC Knowledge Graphs" DOI
    - v. OPM extends SEAS ontology
    - vi. implemented in IFCtoLBD converter
  - List of competency questions based on the list of use cases and requirements of the LBD CG (slide 10) -> Additional use cases as input highly interesting
  - [Georg] there are many approaches out there for modelling properties can these be aligned easily? Properties are not all the same (Property of an element, e.g. its height, or product data, e.g. is packing weight)
  - [Maxime] Links to presentation on TPAC 2018
    - i. Property definition is not only AEC relevant
  - [Walter] The usage of the term "state" in OPM is ambiguous, there might be a misunderstanding for instance with states in finite state machines
  - [Maxime] The requirement of properties to be generic is dependent of the use case at hand, cf. SOSA/SSN definition
- 3. Report on the topic of complex property modelling (inspired by OPM L2) proposed in CEN TC442/WG4/TG3 (as part of the "Semantic Modelling & Linking Standard (SMLS) for the built environment" (Michel Böhms)
  - Slides available at: [Please insert link, Michel]
  - o Presentation of a potential approach for modelling (complex) properties
  - Presents overview on his LBD standards landscape:
    - i. ISO TC59/SC13/WG8 ICDD
    - ii. CEN T442/WG4
    - iii. WSC LBD CG work
    - iv. bSI Technical room
    - v. CEN SMLS
    - vi. NL NEN NTA 8035 -> fast track
  - SMLS Property Proposal inspired by OPM Level 2
    - i. Objectification of properties
    - ii. Differentiates between Property and PropertyDefinition (PropertyDef)
    - iii. PropertyDef for grouping, e.g. all fire saftey properties
  - [Jan Voskuil]: Modelling approach: restrictions could be modelled as SHACL shapes
  - [Michel]: To avoid punning, e.g. "hasSuperClass" property is introduced

- [Sigve] How can methods of measurements be linked to property definitions?
  Relevant from the perspective of CPR
  - i. Meta-property of the property
- [Richard Pinka] Do you have a database to store the data?
- 4. Meeting with W3C Spatial Data on the Web Interest Group: 19th of November
  - o reach out: <a href="https://github.com/w3c/sdw/issues/1143">https://github.com/w3c/sdw/issues/1143</a>
  - face to face meeting in Toulouse with Spatial Data on the Web Interest Group on the 19th of November: <a href="https://www.w3.org/2017/sdwig/meetings/f2f-5.html">https://www.w3.org/2017/sdwig/meetings/f2f-5.html</a>
  - discussion on geometry definitions and the web: future initiatives of the SDW group and connection with LBD group

# **Previous minutes**

https://docs.google.com/document/d/1q2Cp8w25-3ken-jmem4Efe\_C\_-x\_924EaWc8D9MO--Q

# **Next Call**

- [Tentative] early December 2019 -> WLS, north american LDAC by Aaron Costin
- [Tentative] 2019 -> Follow up on property modelling
- [Tentative] 2019 -> Revision and collection of use cases