### **Attendees**

- Kris McGlinn (TCD)
- Pieter Pauwels (UGent)
- Mads Holten Rasmussen (DTU Copenhagen)
- Maxime Lefrançois (Université de Lyon)
- Antoine Zimmermann (Université de Lyon)
- Apostolos Tsolakis (CERTH/ITI)
- Michel Bohms
- Laura Daniele
- Seppo Törmä (Aalto University)
- Walter Terkaj
- Zohreh Pourzolfaghar
- Saeed Karshenas
- Hendro Wicaksono (KIT)

### Date and time

- 02/02/2017
- 17:00 CET

## Agenda

- 1. Changes in the LBD W3C page (10 minutes Pieter)
- 2. Discussion of energy efficiency domain (30 minutes Laura (SAREF4NER) / Michel (eo.ttl) / Odilo / All)
- 3. Open slot (10 minutes)

### **Minutes**

1. Changes in the LBD W3C page (10 minutes - Pieter)

Described the changes to the website, new pages to add event details, groups etc.

https://www.w3.org/community/lbd/

# **Pages**

Business Case Groups Ontology Alignment Group Domain Ontology Groups Meeting minutes Events

These pages are used as an external website of the group and only contains finished materials. Pages can be edited by the members of the W3C group after logging in.

https://w3c-lbd-cg.github.io/lbdw/



# Linked Building Data (LBD)

Do you work in a business that is part of the building / construction life cycle?

Do you use the Building Information Modeling (BIM) process to produce BIM deliverables?

Do you think that the data creation and management process are lacking, overly complex, or both?

Would you like to receive data that you can easily consume, use, and handoff to the next phase?

If yes to any or all of the questions, it would be great to hear from you.

We are the **Building Data on the Web group** - a combination of academic and industry partners who are working together to specifically address the challenge of managing the huge amount of data that is generated across the building life cycle.

BIM is, of course, not new and has played a key role in the building lifecycle for over 20 years. Our mission, through the use of the semantic web, is to establish a new Linked Open Data based BIM cloud. Our goal is to enable free and semantically interoperable resources from multiple sources - geometric models, material models, product models, simulation models, weather models, geographic models, energy tariffs, etc. - to be interlinked. We want to optimise the process of integrating existing business solutions and enable the development of new and novel solutions to meet growing demands for energy efficiency well into the 21st century.

If this sounds of interest to you, please join our group today via https://www.w3.org/community/lbd/participants!

## Documents

Documents of the W3C Linked Building Data Community Group.

Current documents in this repository:

- · Proposed working group charter
  - ED Editors' Draft

The group is chaired by Kris McGlinn, Sandra Gannon, and Pieter Pauwels.

This page maintains ongoing changes managed through github.

2. Discussion of energy efficiency domain (30 minutes - Laura (SAREF4NER) / Michel(eo.ttl) / Odilo / All)

Laura: Extend SAREF to energy, buildings (Maria UPM) and environment.

Previous versions focus on energy, not SAREF is more general (for IOT and actuators) and all specific parts for energy in the SAREFENR extension.

Devices can be associated to profiles, and those express preferences (etc.). SAREF has a general profile, which could be power/energy/water/gas/etc.

Use Case -> smart energy management through reasoning/algorithms, based on user consumption and preferences.

Define PowerProfile (e.g. for washing machine) -> Based on Alternative Groups. like a high level policy 'I want washing my laundry to be cheap'. This will dictate the behaviour of the device, e.g. run at night.

Events - states. Defines and expresses what types of events can be associated to devices.

Kris: What are links to SAREF Building?

SAREF Building -> Building contains physical objects, linked to IFC

Pieter: Should the ontology be part of devices, energy, topology?

Laura: Energy it nicely falls into, but it is cross domain

**Pieter**: So, how do we incorporate it then into the W3C community group? What should the devices and topology groups be working on then? Can we push the parts on buildings and devices to the other groups looking at those areas in particular?

**Pieter**: Do you have an overview picture of how the different SAREF ontologies are related?

**Laura**: <shows picture> SAREF high level, compared to OneM2M (for example), SAREF has alignments to this.

Odilo: Minimum Data for lowest energy building

'Total' building energy, during design and operation.

Specs for passive technology (walls, insulation, windows, etc.)

Specs for active technology (HVAC-L, appliances)

Site, Building, Usage, User

Envelope (area, u-value, opening ratio, shading), Construction Material

Boiler (system/type performance), HVAC (system/type performance)

-> CO2, kWh, etc. (per square meter)

Michel Bohms: Presents the Odysseus Energy Ontology

Energy grid/network -> nodes, energy connection, energy contracts & energy prices

Complex energy node -> Energy prosumers, energy storage, energy switcher

Complex energy node -> buffer, convertor, transformer

Spatial Objects (geospatial areas, conditioned spaces, weather etc.)

Physical object - entity, element, device, etc.

Entity - building, vehicle,

Device - Sensor, buffer, convertor, appliance, infusor

Implementation - ontotext graphdb. SPARQL endpoint?

## 3. Open slot (Michel) (10 minutes)

Already taken.

### **Action items**

• Update Linked Building Data site <AP - Kris> (ONGOING)

### **Previous action items**

- Update Linked Building Data site <AP Kris> (ONGOING)
- Provide use cases <AP All> (ONGOING)
- People to provide dates of events, workshops, that are planned, etc. <AP All> (ONGOING)
- Update calendar on github <AP Sandra/Pieter> (ONGOING)
- Review geometry models to support BOT <AP Maria, Kris> (ONGOING)
- Review the BLC stages and data domains <Michel Ongoing> (ONGOING)
- Provide a list of competency questions for BOT <Mads> (ONGOING)
- Coordinate efforts on GitHub <Kris, Maxime> (ONGOING)
- Generate overview and external facing document/slides <Ana> (ONGOING) published on the w3C website
- Manage iterations of ontology (BOT) <Mads, Maxime> (ONGOING)
- Invite and update contacts list <All> (ONGOING)

#### **Previous minutes**

https://docs.google.com/document/d/1F1X8di0NEoeovDRxeDgqn8EdFg1u0Q6yrL2tVLOUvyo/

#### **Next Call**

7/02/2017 11:00 CET @ gotomeeting