

OEO Developer Meeting #19

Pads:

- Notes from last meeting: <https://etherpad.wikimedia.org/p/oeo-dev-18>
- Pad to this meeting: <https://etherpad.wikimedia.org/p/oeo-dev-19>
- Pad for next meeting: <https://etherpad.wikimedia.org/p/oeo-dev-20>

Date:

- 2021-06-17, 10:00 – 12:00

Participants: Lukas, Simon, Janna, Vera, Mirjam, Christian, Ulrich, Hedda

- moderator: Simon
- protocol: Hedda
- next meeting organisier: Mirjam

Preparation:

- Read last protocol: <https://github.com/OpenEnergyPlatform/ontology/wiki/OEO-developermeetings>
- <https://etherpad.wikimedia.org/p/oeo-dev-18>
- Check issues for next release:
<https://github.com/OpenEnergyPlatform/ontology/milestones>
- Load software (GitHub, git, Protégé, DFN)

Agenda

The published OEO-version is broken

- see <https://github.com/OpenEnergyPlatform/ontology/issues/667>
- Is this important to fix?
 - License axioms are missing
- What can we do to fix this?
 - Martin could fix the bug (responsible for build process)

Link target of class IRIs

- Unfortunately the OEO is still not usable (for Linked Data). Just have a look at http://openenergy-platform.org/ontology/oeo/OEO_00230002 - nothing there. I hope you now understand that it is crucial, to return sth. machine and human readable for every OEO id in order to be recognized and accepted as an ontology

and you now also understand the direct practical reasons for it when it comes to actually using the ontology when using this "human-incomprehensible" IDs.

- This is an OEP and not a OEO issue:
<https://github.com/OpenEnergyPlatform/oeplatform/issues/763>

Find convention for British vs American English and once done add synonyms for existing terms

- example: organization vs. organization
- Current situation:
 - IAO, BFO, RO use American English
 - UO uses American English (with some inconsistencies) and adds British terms as "hasExactSynonym"
 - OEO uses British and American spellings, some terms are spelled differently in different parts of the ontology
 - This spreadsheet gives an overview over some (probably not all) terms used in the OEO that have a different spelling in American and British English:
https://docs.google.com/spreadsheets/d/1U9suMZ0z6XPXtvVjLR5tlDaOxgHp_aVi_fFZbJ5Eydww/edit?usp=sharing
- Pro BE:
 - Personal preference
 - Most papers in BE
- Pro AE:
 - More consistent with other ontologies
- Decision:
 - **spelling convention *BE***
 - implement AE labels as "hasExactSynonym"
- ToDo's: @Simon
 - Add wiki article
(<https://github.com/OpenEnergyPlatform/ontology/wiki/Principles-for-Terminology>,
<https://github.com/OpenEnergyPlatform/ontology/wiki/Handling-ambiguous-terms>)
 - Change Definitions
 - Add labels

Problematic use of the annotation property alternative term

- <https://github.com/OpenEnergyPlatform/ontology/issues/619>
- Example: "thermal energy transfer" and "thermal energy" both have alternative term "heat" but are not equal
- DEFINITION of 'alternative term': "An alternative name for a class or property which means the same thing as the preferred name (**semantically equivalent**)" ---- however, this is not how this is used in practice, as in practice it is used to annotate synonyms.
- 2 solutions possible:

- **Adding documentation for our use of the term** --> ToDo @Simon: update WikiPage <https://github.com/OpenEnergyPlatform/ontology/wiki/Handling-ambiguous-terms> and add a comment reflecting usage on the imported annotation property (IAO:0000118)
- Defining our own term for synonyms

Heat subclasses need a new definition @MS, LE

- <https://github.com/OpenEnergyPlatform/ontology/issues/393>
- **solar thermal heat**
 - proposal: *Solar thermal energy is thermal energy that is the physical output of a solar thermal energy transformation.*
 - No discussion necessary, can be implemented as such
- **district heat and derived heat**
 - currently equivalent classes
 - **District heating** (also known as heat networks or teleheating) is a system for distributing heat generated in a centralized location through a system of insulated pipes for residential and commercial heating requirements such as space heating and water heating. The heat is often obtained from a cogeneration plant burning fossil fuels or biomass, but heat-only boiler stations, geothermal heating, heat pumps and central solar heating are also used, as well as heat waste from nuclear power electricity generation.
 - **Derived heat** covers the total heat production in heating plants and in combined heat and power plants. It includes the heat used by the auxiliaries of the installation which use hot fluid (space heating, liquid fuel heating, etc.) and losses in the installation/network heat exchanges. For autoproducing entities (= entities generating electricity and/or heat wholly or partially for their own use as an activity which supports their primary activity) the heat used by the undertaking for its own processes is not included.
- **District heating**
 - A: primary energy process = B
 - B: transformation process
 - heat transfer
 - **district heating (transfer)** is a heat transfer that
 - C: primary energy
 - thermal energy
 - D: primary energy carrier: fluid / water / liquid water ?
 - E: Relations
- **Derived heat**
 - A: primary energy process = B
 - B: transformation process
 - heat transfer
 - C: primary energy
 - thermal energy
 - **derived heat** is thermal energy that is transferred.
 - D: primary energy carrier:
 - portion of matter?

- E: Relations
- covers all industry heat networks
- differs from waste heat that is only a byproduct
- "thermal energy that is transferred" in contrast to locally used heat
- **waste heat**
 - A: primary energy process = B
 - B: transformation process
 - heat transfer
 - C: primary energy
 - thermal energy
 - *waste heat is thermal energy that is...*
 - output of energy transformations
 - byproduct of energy transformations
 - D: primary energy carrier:
 - portion of matter?
 - E: Relations
- Decision to postpone waste heat discussion
- ToDo @Mirjam: Create a new issue for waste heat
- **Heat transfer** is an energy transformation with thermal energy as the only input and thermal energy as the only output.
 - Decision for two concepts:
 - 1) a heat transfer over a distance via a heating grid, using steam or (hot) water
 - grid-bound heating (process), alternative term: distance heating
 - subclass: ... to residential and commercial buildings --> **district heating**, alternative term: **district X process**
 - subclass: ... to industry/industrial installations/? --> **industrial grid-bound heating (process)**
 - axioms:
 - has participant some heating grid
 - has participant some (liquid water or steam)
 - 2) "grid transferred thermal energy" is thermal energy that is transferred via the grid-bound heating process.
 - alternative heat: derived heat
 - axiom:
 - participates in some grid-bound heating process
 - ToDo @Mirjam: Implement discussed heat terms

Alignment with ENVO

- <https://github.com/OpenEnergyPlatform/ontology/issues/636>
- list of related terms and comments:
https://docs.google.com/spreadsheets/d/1EJ_c_t1WQhi_hLvAe8RIhUqZ0tdhKpKfce53fwXX44A/edit?usp=sharing
- Which annotation properties should be used?
 - we have
 - same as
 - equivalent class
 - options:
 - use rdfs:seeAlso
 - owl:equivalentClass in extra module (oeo-envo-mapping) that imports ENVO and OEO
 - owl:equivalentClass with Literals (no automatic reasoning possible, but doesn't interfere with our class structure) --> good solution for now, is extensible
- Finish discussion in the next meeting, focus on important differences since many classes are the same

New OEO release in July

- Finish as many issues as possible until then
- Who is responsible for the release? --> Simon, support by Mirjam
- Parts of next meeting are reserved for release process