

## OEO Developer Meeting #58

### Pads:

- Notes from last meeting: <https://etherpad.wikimedia.org/p/oeo-dev-57>
- Pad to this meeting: <https://etherpad.wikimedia.org/p/oeo-dev-58>
- Pad for next meeting: <https://etherpad.wikimedia.org/p/oeo-dev-59>

**Date: 2023-05-04**

### Participants:

- Moderator: Lukas
- Main reporter:
- Next meeting organiser:
- Developers with affiliation:
  - Christoph (RLI)
  - Ulf (IEE)
  - Mirjam (OvGU)
  - Lukas (ÖI)
  - Uwe (KIT/HMC)
  - Ludwig (RLI)

### Preparation:

- Read last protocol: <https://github.com/OpenEnergyPlatform/ontology/wiki/OEO-developer-meetings>
- Check issues for next release: <https://github.com/OpenEnergyPlatform/ontology/milestones>
- Load software (GitHub, git, Protégé)

### Agenda:

#### *Announcement*

- New students from OvGU starting in May
  - Support OEO development
  - <https://github.com/OpenEnergyPlatform/ontology/issues/1355>

#### *Organisational*

- Check the open PR: <https://github.com/OpenEnergyPlatform/ontology/pulls>
- LH found this: <https://nfdi4ing.pages.rwth-aachen.de/metadata4ing/metadata4ing/>
  - [CM] present what could be useful: reviewed regarding OEMetadata coverage
  - <https://github.com/OpenEnergyPlatform/ontology/issues/1532>
    - not based on BFO structure (just imports some BFO object properties (e.g. has part, realizes ...) & `process`, `realizable entity` class without proper BFO super class
    - `Role` individuals are **interesting for inspiration**
    - rather messy structure
  - A large set of metadata keys in ontology terms, interesting items compared to OEO:
    - no additional classes
    - object properties

- dcat:downloadURL <<http://www.w3.org/ns/dcat#downloadURL>>
      - work with data properties
        - OEO only: `has number`
          - Only the number, unit has an additional property `has unit`
        - add: `has string`, `has boolean` or think about restructure OEO in this aspect
  - ○ ▪ ▪ "An ontology **data property** provides a relation to attach an entity instance to some literal datatype value (an RDF number, string or date for example) that is a measure or estimate of what that data property is about. "
    - <https://ddooley.github.io/docs/data-properties/#>
  - ○ ▪ ▪ "Datatype properties relate individuals to literal data (e.g., strings, numbers, datetimes, etc.) whereas object properties relate individuals to other individuals. Something like hasAge would typically be a datatype property, since an age is a number, but hasMother would be an object property, since a mother is another individual." <https://stackoverflow.com/questions/21487939/what-is-the-difference-between-datatypeproperty-objectproperty-functionalpro>
  - ○ ▪ ▪ "hasNumericalValue" -> metadata4ing -> DataProperty
    - "has quantity value" -> OEO -> ObjectProperty
    - Named Individuals **interesting for inspiration**
    - Moved from oemetadata to ontology repository.
  - Inspiration:
    - Microsoft Academic KG <https://makg.org/schema-linked-dataset-descriptions/> (KIT, AIFB)
    - Dataset KG <http://dskg.org/schema-linked-dataset-descriptions/> (KIT, AIFB)
  - Only few items missing, can be closed soon.
- @Karl-Uwe reviews common information model
- Create a Flyer for the OEFamily, OEP and OEO [LH]
- Meeting with EnArgus 3.0 (2023-05-02)
  - "vielen Dank für den interessanten und guten Austausch. Aus unserer Sicht bietet die OEO die Möglichkeit, unsere automatisiert-erstellten Ontologie-Einträge gegen die Einträge in der OEO zu evaluieren. Die OEO ist viel differenzierter als die EnArgus-Ontologie, die ja auf den damit verfolgten Anwendungsfall zugeschnitten ist."

## Release

- next release planned for june 1st (thursday)

- Release team: Mirjam, Lukas, Eugenio
- Preparation meeting in about two weeks

### *OEO Classes*

- Structure of energy transformation processes // current use case: OEKG
  - energy transformation class with mechanical energy
    - <https://github.com/OpenEnergyPlatform/ontology/issues/1528>
    - 'energy transformation' and ('has energy output' some 'kinetic energy')
    - label ideas: energy-to-motion-process, propulsion
      - existing propulsion might be relabeled to traction
  - Additional energy input/output object properties
    - <https://github.com/OpenEnergyPlatform/ontology/issues/1530>
    - idea: add two relations **has auxiliary energy input** and **has waste energy output**
      - *A relation between an artificial object or a process and an energy, where the energy is required as input for the process, but not as main input. ??*
      - And add some elucidation:
        - E.g. thermal energy that provides certain temperature conditions for the process.
        - E.g. electrical energy that control instruments require.
      - Related issue: <https://github.com/OpenEnergyPlatform/ontology/issues/737>
        - input / output power need to be discussed
      - Also related: <https://github.com/OpenEnergyPlatform/ontology/issues/1492>
        - There is missing terms for power ratings of transformation units other than Generators
    - Distinguish between energy transfer and specific energy transformations
      - <https://github.com/OpenEnergyPlatform/ontology/issues/1527>
    - energy transformation class with a fuel output
      - <https://github.com/OpenEnergyPlatform/ontology/issues/1526>
        - Production as subclass of Transformation
          - Implementation should not bring any problems.
        - Define two different parallel structures for material transformations and energy transformations.
    - Discuss distinction between energy transformation and transformation of material entities, e.g. energy carriers
  - Template - Ontology Workspace (use for joint development) [NAME]
    - Add issue link
    - Collect related terms
    - Create an aristotelian definition
    - Find axioms

### *OEKG*

### *Other Topics*

### **Collection of Tasks:**

- Add something @A