Short topic alignment

What are the classification systems and their general purpose?

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understanding / misuderstanding

thin borderline

solution have name

Ontological based classification

Ontological based classification

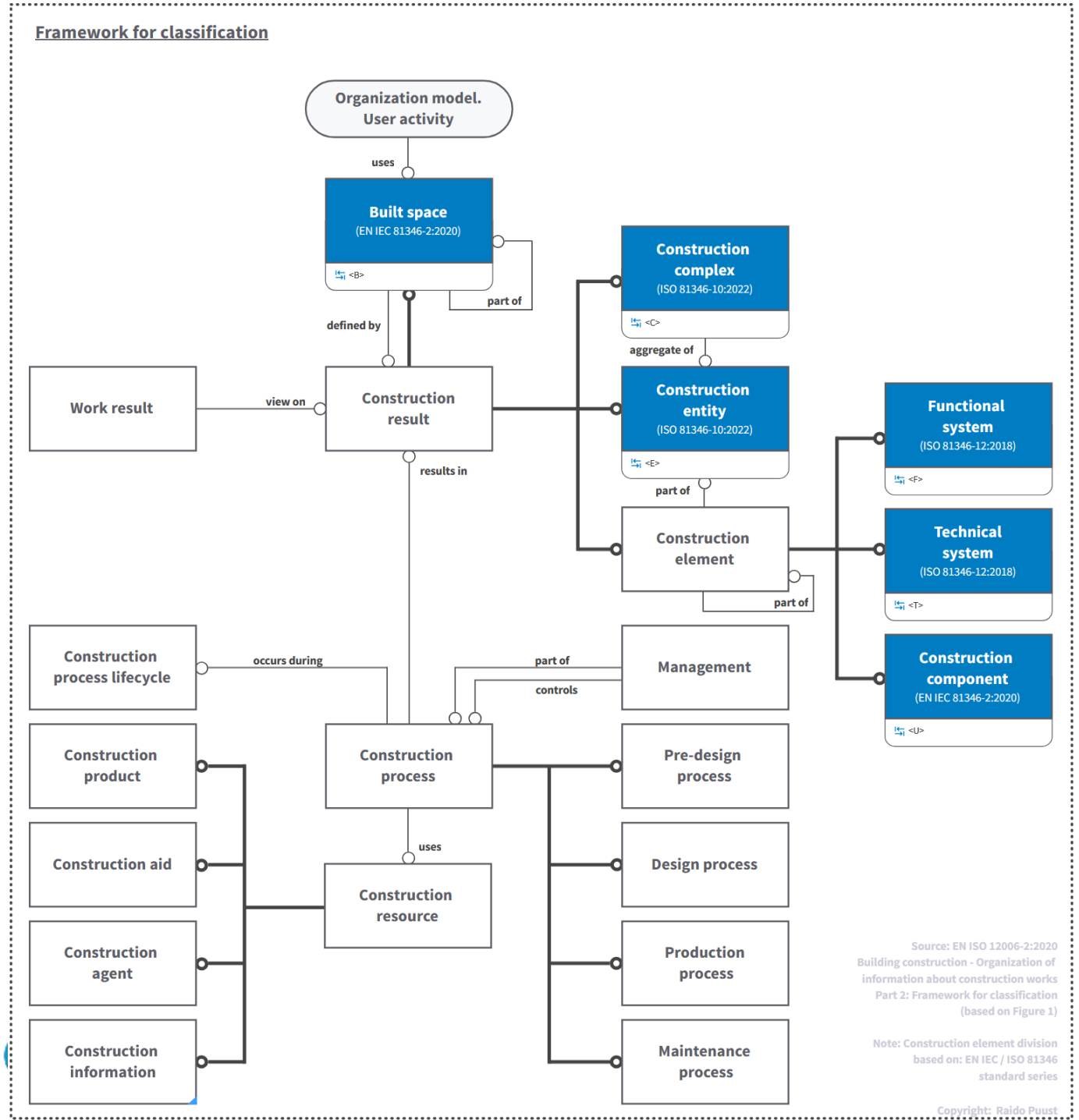
- Strictly based on technical standards
  - ISO 704:2022 Terminology work – Principles and methods
  - EN ISO 12006-2:2020 Building construction – Organization of information about construction works - Part 2: Framework for classification
  - ISO 1087:2019 Terminology work and terminology science – Vocabulary
  - ISO 24156-1:2014 Graphic notations for concept modelling in terminology work and its relationship with UML - Part 1: Guidelines for using UML notation in terminology work

What is it good for?

Creating knowlege database, RDF, LLMs as a data source for using AI in management of construction information

Abbreviation

- RDF – Resource Definition Framework – originally designed as a data model for metadata, RDF graph statement is represented by: 1) a node for the subject, 2) an arc that goes from a subject to an object for the predicate, and 3) a node for the object
- LLM – Large Language Models – cooperation between RDF and LLM brings faster ontology data preparation thanks LLM which can be pre-trained by using ontology schemas
- AI – Artificial Intelligence – a general description of tasks which are used for training of LLMs



Most important task to be understandable

- Term A *(a node for the subject in RDF)*
- Definition
- Source
- Relations between terms
  (an arc that goes from a subject to an object for the predicate)
- Explanations (opt.)
- Examples (opt.)
- Term B
  (node for the object in RDF)

General result of all partional information above is existence of fully understandable data source which is usefull for all information needs in construction industry

From theory to real life

Application all theory at example of few classes in reference designation system

Hydraulic hose

Hydraulic hose[en] · Hydraulic hose[en] · Hydraulická hadice[cs] · Hydraulická hadice[cs] · Hüdrauliline voolik[et] · Hüdrauliline voolik[et]

Types:

skos:Concept

RDF Rank:

0

Search instance properties

skos:prefLabel

Hydraulic hose [en] Show 2 more

- Hydraulická hadice [cs]
- Hüdrauliline voolik [et]

skos:definition

mechanical energy guiding object by a fluid link [en] Show 2 more

- vodicí předmět mechanické energie pro tekutinové spojení [cs]
- mehaanilist energiat suunav objekt, vedelikühenduse abil [et]

skos:note

mechanical energy guiding object by a fluid link [en] Show 8 more

- vodicí předmět mechanické energie pro tekutinové spojení [cs]
- pneumatické potrubí [cs]
- pneumatická hadice [cs]
- hydraulické potrubí [cs]
- mehaanilist energiat suunav objekt, vedelikühenduse abil [et]
- hüdrotoru [et]
- pneumovoolik [et]
- pneumotoru [et]

rdfs:label

Hydraulic hose [en] Show 2 more

- Hydraulická hadice [cs]
- Hüdrauliline voolik [et]

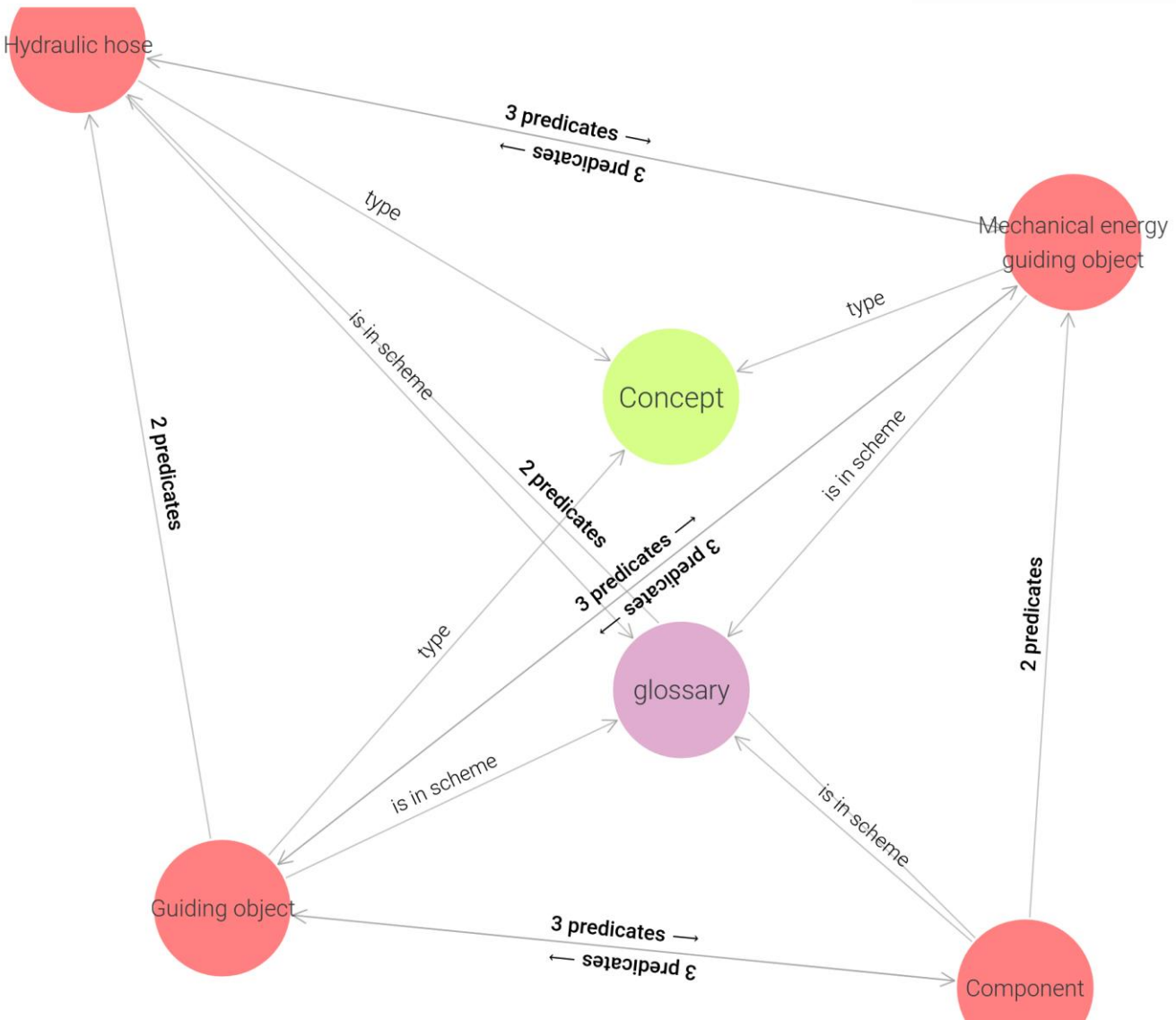
skos:example

pneumatické potrubí [cs] Show 5 more

- pneumatická hadice [cs]
- hydraulické potrubí [cs]
- hüdrotoru [et]
- pneumovoolik [et]
- pneumotoru [et]

skos:notation

<L>WQG



Let´s talk about ways how to better understand each other

classification system is one of small step how to succed

Thank you for your attention

Focus of this workshop:

1) **Create a brief country/organisation overview of the usage of CS**

2) **Identify positions of CS in information management (BIM) with their positive/negative influences**

3) **Share practical use cases where CS efficiently helps organizing structured data flow**