EERA data

TOWARDS A FAIR AND OPEN DATA ECOSYSTEM IN THE LOW-CARBON ENERGY RESEARCH COMMUNITY

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Briefing on EERAdata WS 2
- How to co-author the community paper?

1 EERAdata Workshop #2 on metadata
2 Draft of community paper
3 How to join as co-author?
4 Writing teams

1 Community workshop II - FAIR & open metadata

Hackathon “Metadata community paper“:

Advancing metadata standards for low carbon energy research - Tests and Recommendations -

- **Monday, 30/11/2020 and Monday, 7/12/2020, 10-16.**
  Guided writing on the paper in teams. Participants are co-authors.
- **In between: use case workshops.**
  On Tuesday, Wednesday, and Thursday (tbc).

1 Community workshop II - FAIR & open metadata

Hackathon “Metadata community paper“:

Advancing metadata standards for low carbon energy research - Tests and Recommendations

DAY 1: Builds on read & watch aheads from preparatory workshop. Starts with a discussion of the proposed structure of the **community paper** (1st draft). Continues with **writing teams organized in break out groups**. Ends with a reporting back from writing teams.

FINAL DAY: Starts with an **input from use cases**, continues with writing teams in break out groups. Ends with a presentation and discussion of work/open issues.

OUTPUT: Paper to be finalized by the group by end of December/01/2021.

- A community-reviewed draft for a low carbon energy ontology in support of metadata,
- Metadata suggestion cards for low carbon energy researchers,
- Recommendations on how to proceed.

1 Community workshop II - Use case workshops (UC)

UC “EU policy and energy research taxonomies”: Tuesday, 1/12/2020 (10am-2pm). The workshop focuses on metadata, exploring how to link ontologies used for policy-making and those used in research domains. Using the EU policy taxonomy, Art.2 EU Directive 944 (2019), and the inventory of collective action initiatives of the COMETS project as a starting point, common metadata elements and connections between them are identified.

UC "Buildings Efficiency": Wednesday, 2/12/2020 (10:00 am-12). The session is building on discussions in 1st EERADATA workshop together with the participation of the invited experts, utilizing the experience related to the FAIR assessment in order to: a) Highlight main issues with FAIRness, b) Jointly come up with possible remedies and solutions, and d) Identify pointers to metadata standardization, if and how it can be achieved in Buildings Efficiency domain.

UC “Metadata user stories”: Thursday, 3/12/2020 (9.30am-12). The goal of the workshop is to identify and discuss mental models of researchers and other users of data to search for and re-use data. It connects to research infrastructures in support of work flows and platforms.

2 Draft of community paper

"Advancing metadata standards for low carbon energy research

- Tests and Recommendations -

Key questions:

Q1: How to align mental models of those searching for data with navigation along metadata? What is specific to the energy domain?

Q2: What consequences for the construction of domain-specific metadata follow? and how can they be dynamically updated?

Q3: What are the recommendations to the low carbon community?

2 Structure of community paper (draft)

1. Introduction

1.1 Metadata and mental models - State of art.

1.2 The relevance of metadata for low carbon energy

2. Method

Based on five steps, see close-up to the right.

3. Discussion of Results

3.1 Metadata concepts and mental models in the energy domain

3.2 Top-down metadata for low carbon energy - The draft

3.3 Top-down metadata for low carbon energy - Revision after test

Discussion of 1st key output for the paper: reviewed ontology and metadata suggestion card.

4. Recommendations & outlook

4.1 Recommendations (Step 4): List of lessons learnt and recommendations (2nd key output of paper).

4.2 Outlook (Step 5): Review and collection of ideas

Close-up: Method, 5 steps:

Step 1: Compile existing metadata concepts in low carbon energy.

Step 2: Create a tow-down metadata structure by sourcing from the Global Energy Assessment Report.

Step 3: Test the top-down approach by confrontation with mental models

Step 4: Compiling results. Basis for recommendations.

(*Step 5: Exploring options of dynamic updating)*

3 How to join as co-author?

How to join the team writing the community paper?

- **Invitation to comment the draft before the writing workshop**, e.g.:
  - Review of key questions,
  - Suggestions of literature, illustrative cases, metadata perspectives & issues,
  - Suggestions to any section (e.g., Introduction, Method, Discussion of Results, Outlook)
  - Adding snippets of texts,
  - Any other idea is welcome!

- Based on comments provided **by 23.11.2020**, we will revise the draft before the workshop starts.

- **During the workshop, the discussion & writing of the paper continues in small writing teams**. A prior registration to teams is therefore recommended. However, teams can change anytime.

- The EERAdata team is strongly interested in inviting a large group of contributing authors. It is not only in the interest of the community project as such, but it increases the credibility of the main output - the road towards a low carbon energy ontology in support of metadata.

- **Co-authorship** is granted to participants of the EERAdata workshop as well as to other contributors to the community paper.

4 Writing teams (draft)

1. **Data revolution in energy science for the low carbon energy transition.** Review and connection to main source for top-down metadata framework based on GEA. Lead of Section 1 Introduction. (Lead author: Valeria Jana)
2. **Mental models of data users.** The goal is to elicit mental models of three key groups: 1) energy researchers, 2) other users of energy data, and 3) energy policy stakeholders. Lead of Section 3.1. Builds on results from UC workshop “Metadata user stories”. (Lead authors - tbc): Manfred, Reza)
3. **Top-down metadata for low carbon energy.** Exploring sourcing from GEA and others. Lead of Sections 3.2. (Lead author: August)
4. **Bottom-up metadata concepts for the energy domain**. Reviews and discusses selected examples, e.g., results from UC workshop “Energy policy taxonomies” and UC workshop “Buildings efficiency”. Lead of Section 3.3. (Lead authors - tbc: Efe & Maria)
5. **Supporting infrastructure for work flows and search by mental models.** Includes technical recommendations (e.g., file formats, hubs, platforms, …) and organisational recommendations (e.g., how to anchor concepts). Builds on results from WS1, UC workshops. Lead of Sections 4.1 and 4.2. (Lead authors - tbc: Demet, Massimo, Valeria)

Note: The EERAdata consortium is responsible leading revisions and writing Section 2 (methods).

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Links to all material

- EERAdata wiki: http://eeradata.webfactional.com/mediawiki-1.30.0/index.php?title=Main_Page
- EERAdata website (incl. link to registration, prep material etc.): https://www.eeradata.eu/

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