Creating an online overview of models developed within Copernicus

Developer: Moos Castelijn
Core team: Oreane Edelenbosch, Stefanie Lutz & Moos Castelijn
Supporting: Gerbrand Koren, Kaj-Iver van der Wijst, who more?

Objectives ('Why?')
Whilst a lot of models have been develop at the Copernicus, a comprehensive overview of these is currently lacking. In order to mitigate this, an online overview will be developed. This has multiple advantages. First, it can facilitate logical and creative collaboration between different researchers, both within and outside of Copernicus. This speeds up scientific advancement in specific topics, and improves the position of Copernicus in the broader scientific community. Secondly, by having the models easily accessible they can more readily be used within education. This help students understand current modelling methods, and allows them to eventually improve the models that Copernicus has currently created.

Overview of Copernicus models ('What?')
As mentioned above, an overview of the utilized models will be developed. This consists of multiple things:
Dataverse overview: DataverseNL is the existing research data repository utilized by the UU, as well as numerous researchers both in the Netherlands and around the world. [1].

Within Dataverse, all the utilized models and corresponding data will be stored in a dedicated Copernicus page. This will have both all models as a list users can scroll through and pick ones of interest, and a search function to find ones desired. Upon selecting a model, users are redirected to the Model page.

Model page:
Within every model page following will be present.

1. Name
2. Description
3. Who worked on the model including contact details.
4. And, if applicable:
    a. Link to a file containing model description
    b. Link to input data
    c. Link to model output data
    d. Data visualization link (as done for example in the hyde portal).
5. And, if feasible:
    a. Functionality to allow users to utilize the model themselves.

Copernicus overview:
On the Copernicus website, a more creative and illuminating overview will be given. Exactly how depends on the number of models contributing and on further discussions. Here, models can be selected which will bring you to the specific model page in the Dataverse.

[1] https://www.uu.nl/en/research/research-data-management/tools-services/tools-for-storing-and-managing-data/data-repository-finder/the-research-data-repository-dataversenl

Activities ('How?')

The first step is to gather who would like to partake in this project. This will be done through a **google form**. Here, respondents are asked questions regarding:

1. Do they have a model they want in the overview?
2. What type of data do they want to display?
3. Are they open for an interview on further collaboration?

The second step (executed in parallel with the first step) is developing some initial ideas regarding each of the three components: dataverse overview, model page & Copernicus overview. This will be done through sketches of actual webpages in figma, and sketching relationships between components in tldraw.

The third step is to interview the interested survey respondents. This interview will contain three core components of the overview:

1. Ask them to deliver a description, the model and the data for the model page
2. Discuss how to visualize the data of this model, and where/what type of data.
3. Discuss ideas regarding the Copernicus overview

The fourth step requires that decisions are made. Firstly, the opinions of the interviewees and our own are weighted to decide on the format for the Copernicus overview. Secondly, which data types to show in what way is decided.

The fifth step is to developed and populate the decided products and partaking models. This can be done in one of two ways, to be decided later on. Hardcoded vs automated. That means three components will be developed:

1. For each model, a Model page will be made in the Dataverse framework.
2. The creative and illustrative overview on the Copernicus website will be developed, and every model will be added. Here, models are linked with the dataverse Model pages.
3. A link to a data visualization environment will be added to every dataverse page, and the different data displays are made.

The sixth step regards finalization. In this step, a showcase of the current pages will be held with participating models and other interested parties. Furthermore, a documentation will be available to allow others to change the created pages.

Time plan:

Activity	w 37	w 38	w 39	w 40	w 41	w 42	w 43	w 44	w 45	w 46	w 47	w 48	w 49	w 50	w 51	w 52
Project startup																
Orientation form																
Develop component ideas																
Interviews																
Decide on components																
Developing components																
Dev 1: Dataverse pages																
Dev 2: Copernicus overview																
Dev 3: Data visualization																
Finalization																