Group F4, Data Systems Project

Validation

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Link to the Survey

The link to our survey: https://uva.fra1.qualtrics.com/jfe/form/SV_a2HG47Jcb35Q8xE. In the survey, you will be asked to complete two tasks, which are explained there. **Please read this document before clicking the link!** After reading, please follow the link to complete the survey.

Explanation of project

As of 2024, large companies are required to report on the sustainability of their activities in accordance with the Corporate Sustainability Reporting Directive (CSRD) of the European Union. The EU taxonomy of sustainable activities (later: the Taxonomy), is a collection of definitions and rules describing what criteria different economic activities have to comply with in order to be considered sustainable. An economic activity is considered sustainable if it contributes substantially to at least one of six sustainability goals (climate change adaptation and mitigation, sustainable use of water resources, circular economy, pollution prevention and control, protection and restoration of biodiversity) and does not do any significant harm to the other five.

The Taxonomy is structured in the following way: it contains different economic activities, grouped into different sectors (i.e., the activity Construction of new buildings belongs to the sector Construction and real estate), each of which has a number as identifier within the Taxonomy (constructed as sector-number.activity-number, e.g., 7.1 for Construction of new buildings). For each of the six sustainability objectives mentioned above, the taxonomy contains the Substantial contribution criteria for each activity, as well as the criteria of not doing any significant harm (Do No Significant Harm, DNSH) on the other five.

The website of the European Union provides the Taxonomy downloadable as an Excel or .json file, and it is also browsable online through the Taxonomy Navigator. At the same time, a tabular format might not be the most suitable for sharing the Taxonomy, as it is difficult to expand, update, and use in an interoperable context. Furthermore, the Taxonomy contains the Substantial contribution criteria as well as the DNSH criteria in the form of complex bodies of free text, which is difficult to read for humans and close to impossible for machines. **For this reason, our project aims to transform the Taxonomy into a Linked Data format**,

constructing an ontology which might serve as the basis of a range of different applications that enable data sharing related to corporations' activities, as well as the automatic assessment of their sustainability.

Explanation of Taxonomy formats

Format provided on the EU website

The Excel file contains a sheet for the two sustainability objectives published at the moment[1], climate change mitigation and adaptation. On each of these, you can find one activity in every row, while the columns correspond to information of the activity (e.g., number, sector, description) as well as the Substantial contribution criteria to the given objective and DNSH criteria to the other five.

The EU Taxonomy Navigator (more specifically, the Compass provided at https://ec.europa.eu/sustainable-finance-taxonomy/taxonomy-compass/the-compass) offers another option of browsing the Taxonomy. We suggest that read about it on the webpage and spend some time familiarizing yourself with it.

Linked Data format

The Taxonomy presented in a Linked Data format follows the structure depicted in the figure below. Each activity is linked to a sector as well as to different nodes representing aspects of its sustainability (most importantly, Substantial contribution criteria and DNSH criteria).

Each of these nodes representing the aspects (shown on the figure on the bottom leaf) are linked to the following:

- An unmodified version of the original free text, in which the aspect (criteria) is given in the Taxonomy.
- A list of external resources, mentioned in the free text, which could be relevant in assessing the sustainability of the activity.

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[1] Please note that the version of the taxonomy used in this survey is not the most recent, as an update was released during the run of our project.

- A list of limitations and specifications mentioned in the free text. These include limitations on the applicability of the criteria (e.g., only applicable to buildings built before a certain date) or specifications contained in the criteria (e.g., quantifiable requirements, such as maximum land coverage in percentages).

You can browse the Taxonomy in our proposed Linked Data format in Protégé. As with the resources provided through the EU website, please take some time to familiarize yourself with the environment before starting the survey.