

Circularity Dataset Initiative – Dec 3, 2019

Luxembourg leads European Circularity Dataset Initiative

The Circularity Dataset Initiative's aim is to develop an industry standard at European level that provides a regulated framework for circular data on products throughout the whole value chain, from raw materials to finished products, from the use phase to recycling.

The project addresses the difficulty for industry to provide reliable data on different circular product properties. The lack of standardized reporting forces manufacturers to send out different data sets in diverse formats to customers and product platforms that evaluate the circularity of the product. In addition, there is a formal opposition between the need for transparency in order to determine the actual circularity and the wish to protect sensitive manufacturing data from the industry.

The objectives of Luxembourg's Circularity Dataset Initiative are to save costs for manufacturers and other stakeholders, by increasing the data exchange efficiency across supply chains. By working with key industry actors, the initiative intends to develop a process and an internationally accepted dataset template that can be used by any manufacturer, regardless his position in the supply chain. The data will be verified through an auditing process and shall be used by all relevant stakeholders, including product platforms or databases, to enable circular evaluation of the product. The initiative does not foresee the creation of a central database.

Since its inception, more than 50 companies from 12 different European countries including some industry leaders have joined the Circularity Dataset Initiative. The growing interest for the initiative led the Ministry of Economy to undertake the next level of the project and define the dataset, the underlying process and the auditing scheme in a collaborative process. After a series of webinars, a physical meeting brings together all the actors of the initiative in order to finalize the theoretical proof of concept, developed for two product categories from the areas of construction materials and fast-moving consumer goods.

Inspired by Material Safety Data Sheets (MSDS), the dataset will take the form of a so-called Product Circularity Data Sheet (PCDS). The PCDS translates relevant circular information into standardized and auditable statements enabling data based evaluations of the product performance in terms of circularity and driving future improvements towards a circular economy. To manage the PCDS process and ensure traceability, new technologies like blockchain or artificial intelligence will be investigated by the working group.

The Circularity Dataset Initiative is a tangible example of Luxembourg's [data-driven innovation strategy](#) put into action and makes Luxembourg a forerunner in data based services for the world.