

Digital Product Passport (DPP) for steel & aluminium: Mapping upstream and downstream actors and data flows in the value chain

Background

The European Union is introducing Digital Product Passports (DPPs), part of the Ecodesign for Sustainable Products Regulation (ESPR), to serve as a key mechanism for improving transparency, circularity, traceability, and overall environmental sustainability of products across the value chain. As an essential component of the European Circular Economy Strategy, the DPP aims to bridge the gap between the consumers' demand for transparency and the limited availability of reliable product information. The DPP will become mandatory for several product groups, including steel and aluminium, on the EU market. To effectively implement the legal requirements for DPPs in the Swedish steel and aluminum sectors, it is essential to have a good understanding of several key aspects, such as the relevant upstream and downstream actors as well as their roles in providing data (including both quantitative and qualitative information) for metal producers.

This thesis work will be supported by the ongoing strategic project *Digital Metal Values*, funded by the Swedish Metals & Minerals program (part of Impact Innovation – an initiative of the Swedish Energy Agency, Formas, and Vinnova). The project is coordinated by the metals research institute Swerim (<https://www.swerim.se/en>) in collaboration with 25 project partners.

Purpose and scope

The purpose of the thesis is to map and analyze the role of upstream and downstream actors and their associated data flows within the steel & aluminium value chains to support the development of DPPs for metal products. Examples of key tasks include:

- Mapping upstream and downstream actors across the value chain
- Analyzing DPP-related data flows, including data sources and quality
- Assessing data gaps and challenges that may affect the development of DPPs
- Identifying potential opportunities and best practices to enhance data interoperability among actors across the value chains

The thesis work will be carried out in close collaboration with researcher and industrial partners in the project *Digital Metal Values* and will include interviews with relevant actors.

Prerequisites

Applicants should be independent, proactive, and have strong oral and written English skills, as well as good collaboration abilities. Proficiency in Swedish is considered as an advantage. Previous knowledge and experience in metal value chains, life cycle assessment (LCA), and environmental systems analysis are preferred but not mandatory.

Number of students: 1

Language: The thesis will be written in English.

Start date: January or February 2026, to be agreed upon.

Location: Swerim AB, Isafjordsgatan 28A, 164 40 Kista, Stockholm.

Last application date: 10 January 2026 (please note that interviews will be conducted on a rolling basis, and the position may be filled before the deadline).

Additional information: The student will receive a reward of 50 000 SEK upon successful completion of the thesis, provided that it meets the quality standards of the collaborating Swedish university and fulfills Swerim's requirements and expectations.

Application documents: Submit via Swerim's website at <https://www.swerim.se/en/career/vacant-jobs-and-master-degree-projects>

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