

PRODUCT ENVIRONMENTAL FOOTPRINT INFORMATION SYSTEM FOR STEEL MANUFACTURING



Objective - The PRISMA project aims to transform environmental data management in the steel sector through open, standardized, and scalable digital technologies. Our ambition is to offer the **Unified Environmental Data Model (UEDM)** and **Digital Infrastructure (DI)** as **open-source enablers**, laying the groundwork for future-ready, site-specific environmental reporting. This ambition is pivotal in creating an open-source IT infrastructure tailored for managing environmental data and conducting footprint assessments.

Project information

Start date: 01-April-2025

Duration: 48 months

Call: RFCS-BT 2024 (Clean Steel Partnership)

Coordinator: Luleå tekniska universitet (LTU)

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Specific Project Objectives

- ✓ **Standardize Environmental Data** – Align steel sector environmental reporting with European legislation through standardized data models.
- ✓ **Demonstrate Real-World Implementation** – Deploy and test digitalized environmental data reporting in an operational steel mill.
- ✓ **Build Digital Infrastructure** – Create a comprehensive digital platform for environmental data reporting across the entire steel value chain (from mining through production to scrap recycling).
- ✓ **Enable Operational Tools** – Provide the steel industry with digital tools and methodologies for operational analysis and product documentation.
- ✓ **Drive Digital Transformation** – Implement modern digital frameworks and working practices that reduce costs compared to legacy systems.

Vision of the Project

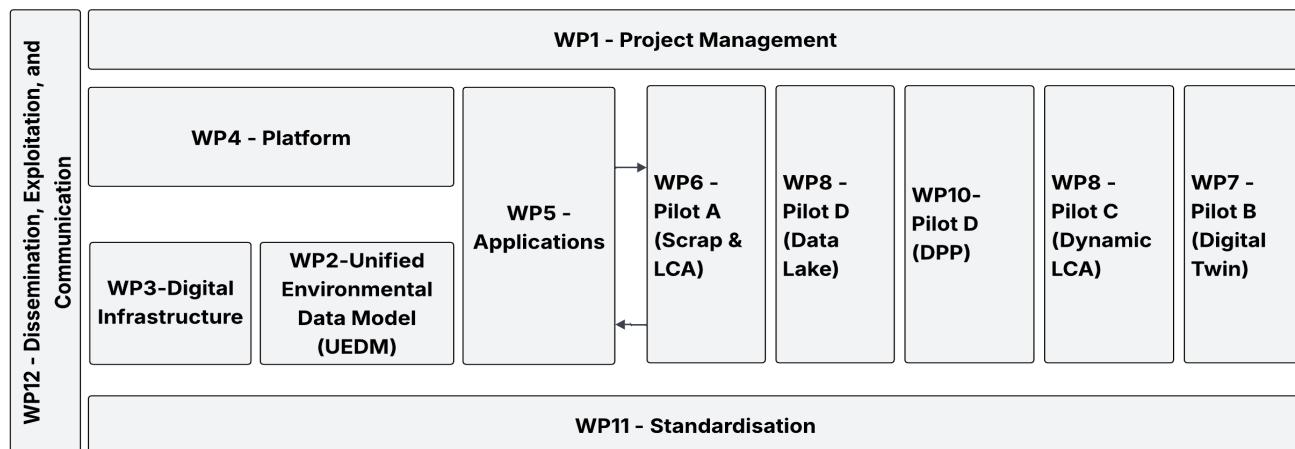
The PRISMA project supports the EU's new digital product passport (DPP) legislation, requiring companies to track and disclose greenhouse gas emissions, carbon footprints, and sustainability metrics. By establishing a shared digital language for environmental performance, PRISMA ensures that stakeholders - from producers to regulators - can access and exchange reliable sustainability data, fostering transparency and traceability across borders and value chains.

The goal of the project is to demonstrate best practice solutions for environmental reporting. Any reporting should require minimal effort and that is why digitalization plays an integral part in the project. With PRISMA we hope to show best-practice solutions in real-world industrial pilots and set the standard for the rest of the world, Pär-Erik Martinsson, Project Coordinator, says.



First kick-off meeting
ESTEP premises (Brussels- April 09, 2025)

PRISMA PERT Diagram



Consortium

The project will be carried out by a cross-sectoral consortium with extensive experience across the steel value chain. The consortium brings together complementary core competences from steelmakers, plant builders, research and technology organisations, and academic partners, with ESTEP acting as the common platform and dissemination partner.

PRISMA is a lighthouse project for ESTEP with a view to strong EU collaboration towards standardisation in the important research area of digitalization. The intended application in the area of environmental data complements another top priority of today's steel research needs. The project raises high expectations to manifest the leading position of EU steel producers.

Klaus Peters, the Secretary General of ESTEP

