



TraceMet

Tracing Environmental Performance of Steel and Copper Through the Value Chains



With support from

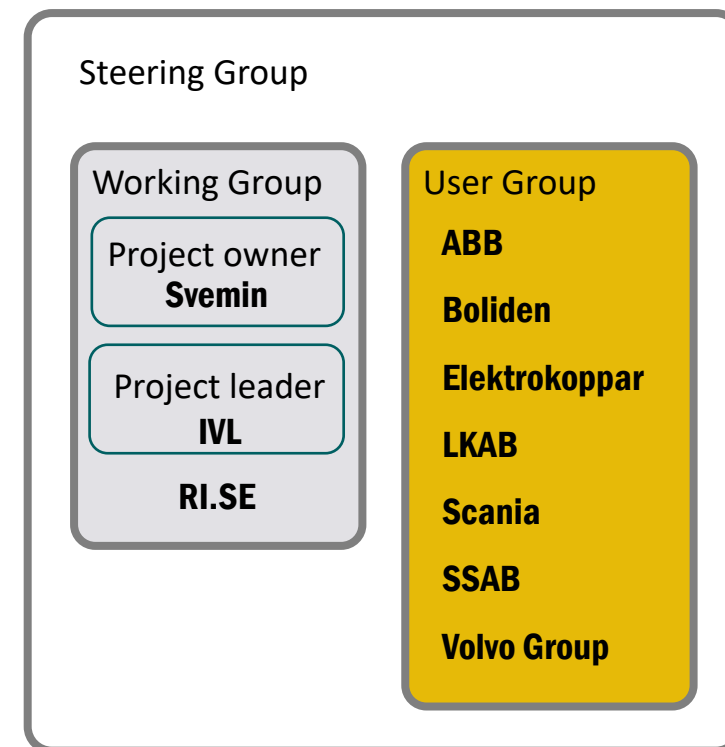


Strategic
innovation
programmes

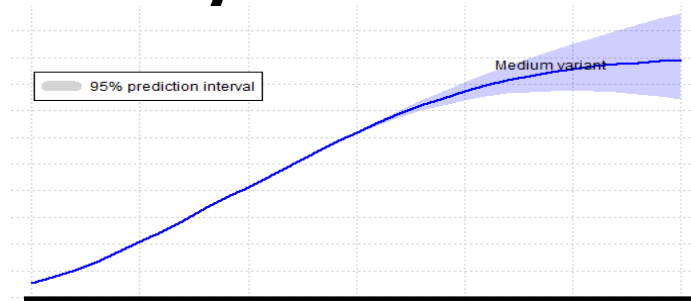
SWEDISH
**MINING
INNOVATION**

TraceMet – some basic facts

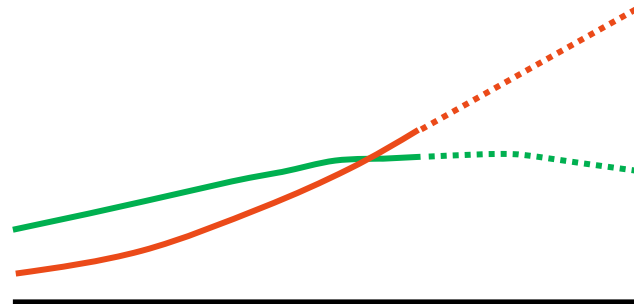
Timetable:	December 2019 to January 2021.
Financier:	The strategic innovation program Swedish Mining Innovation, a joint investment of Vinnova, Formas and the Swedish Energy Agency.
Project owner and promoter:	Svemin, the Swedish industry association of mines, mineral and metal producers.
Partners:	IVL Swedish Environmental Research Institute, RI.SE, Boliden, LKAB, Elektrokoppar, SSAB, ABB, Scania, Volvo Group..



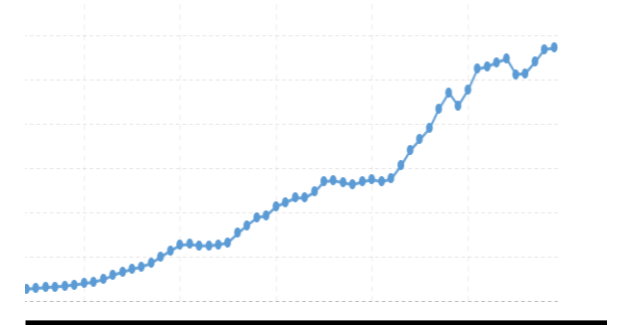
Why?



Global population 1950–2100
United Nations, 2019



Urban and rural population 1950–2050, UN
World Urbanization Prospects 2018



GDP per capita population 1960–2020
Macrotrends, 2020

“Every extra bit of warming matters, especially since warming of 1.5°C or higher increases the risk associated with long-lasting or irreversible changes, such as the loss of some ecosystems.”
(IPCC, 2018)

“Nature is declining globally at rates unprecedented in human history — and the rate of species extinctions is accelerating.” (IPBES, 2019)

Increasing demand
for metals and minerals

Urgent need for
sustainable supply chains



Possibility to trace the environmental performance through the value chains

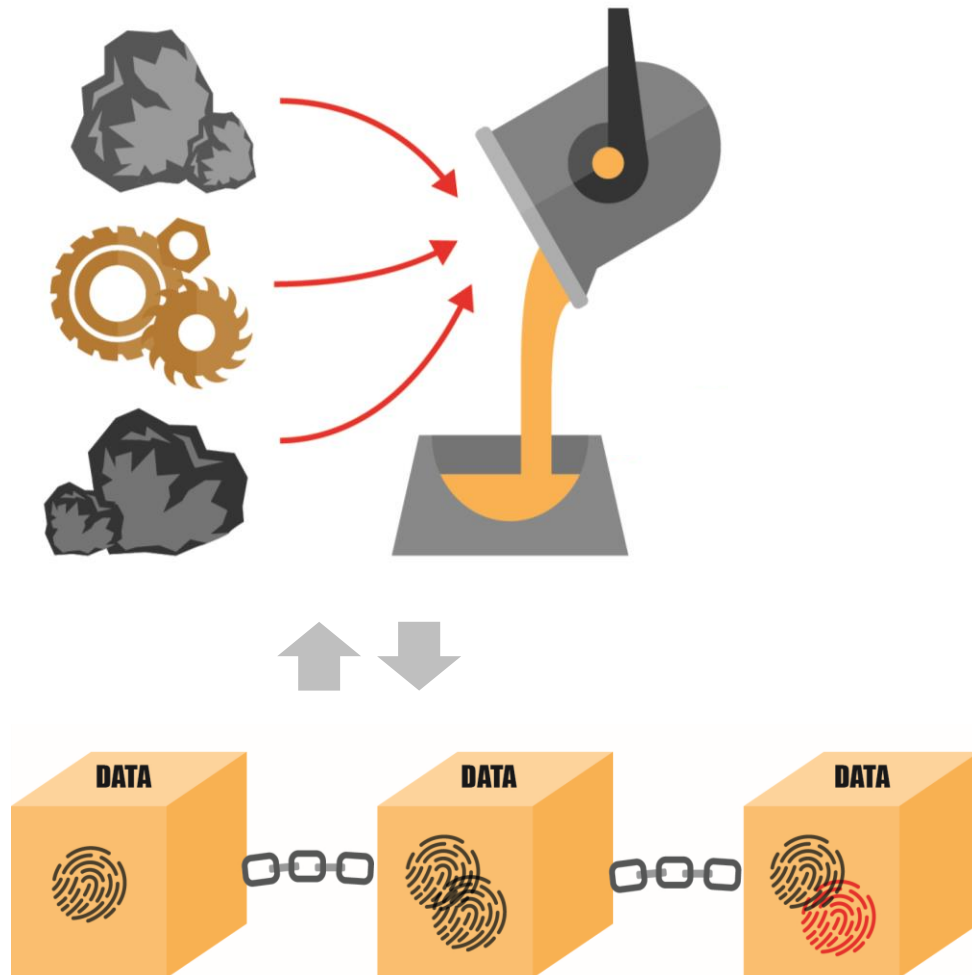
Pro-active and responsible actors should have a competitive advantage

What?

1. TraceMet has developed a pilot system for **steel and copper**, to certify
 - a. the **carbon footprint** and
 - b. the **percentage of recycled metal**.
2. The environmental performance is be **traceable** throughout the **value chain**.
3. The system is **reliable, functional and distributed** so that it can be used by various actors in the value chain.



How?



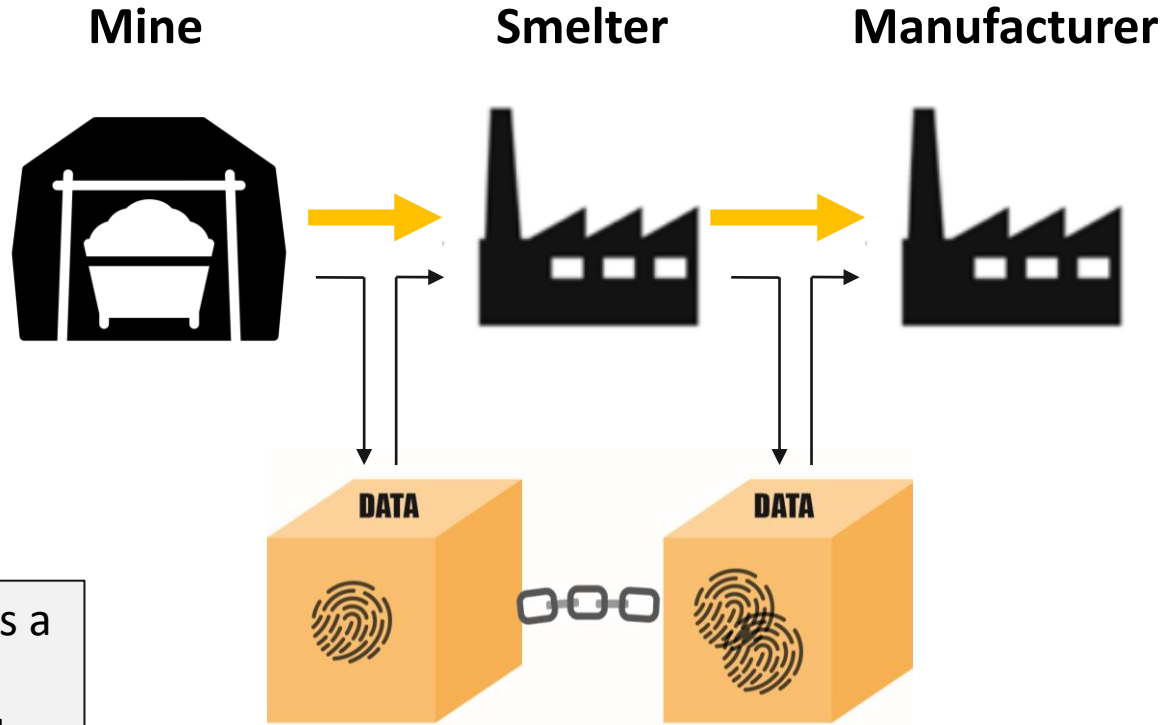
- Mass balance chain of custody accounting.
- Blockchain database.
- Project internal certification scheme and product category rules (PCR).

1. The mine adds a claim to the inventory:

- Amount of metal
- Carbon footprint
- Recycled content

2. The smelter claims a certain amount. The inventory is updated accordingly.

3. The smelter adds a processed claim with aggregated carbon footprint and recycled content.



- Mass balance.
- Granularity of data.
- Asynchronous reporting and computation.
- IoT and digitalization.

A group of six people are gathered around a white table in a meeting room. One man on the right is gesturing with his hands while speaking to the others. The group consists of four men and two women, all dressed in business casual attire. The table is cluttered with various items: a white mug, a black pen holder with pens, a pair of scissors, several yellow and pink sticky notes, a small blue box, and a glass. In the background, there are grey lockers and a green exit sign.

Trust is NOT a technical problem

The Devil is in the detail!

**Multi-actor, cross-value chain perspectives
imperative to identify, explore and solve challenges**



TRACEMET

How Blockchain Technology Can Certify Responsible Value Chains

Open expert webinar on the new
traceability system for metals - TraceMet

March 18 - 13.00 - 14.30



TRACEMET

Traceability for sustainable metals and minerals

PROJECT OWNER

Svemin

PROJECT LEADER

IVL Swedish
Environmental
Research Institute

PROJECT PARTNERS

ABB, Boliden,
Elektrokoppar AB,
LKAB, Rise,
Scania, SSAB,
Volvo Group

FINANCIER

SWEDISH
MINING
INNOVATION

With support from

VINNOVA
Sweden's Innovation Agency

 Swedish
Energy Agency

FORMAS

Strategic
innovation
programmes