Congress futureSTEEL 2023

The importance of Scope 3.1 emissions in steel and how to tackle them

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Swiss Steel Group is one of the leading suppliers of special long steel solutions



Swiss Steel Group's production is 100% EAF-based



Our products are 'green by nature'

Emissions (Scope 1+2)

kg CO₂ per ton of crude steel



Our use of scrap as a raw material makes us experts in circular economy



94% Recycled metallic input materials

~2 mn Tons of scrap per year

>100 Scrap types

We continue to move forward: We are committed to SBTi and will validate our decarbonisation roadmap this year



SCIENCE BASED TARGETS



Steel guidelines published in July 2023



The SSG perimeter and system boundary goes beyond the industries' emissions tracking standards



Sroup

Emissions 1-0-1



Our carbon footprint is dominated by Scope 3

Corporate Carbon Footprint by Emission Scopes





Primary alloys: Production and carbon footprint

Scope 3.1 emissions kg CO_2 per ton

Ferro-

Chromium



Ferro-Nickel 8'676 Nickel metal 13'579



8'500 Molybdenum



5'987



2'789



Ways to reduce Scope 3 emissions from alloys





Ways to reduce Scope 3 emissions from alloys





Replace high-alloyed steels with higher performance, less alloyed steels

Ultrafine-grained Swiss Steel XTP steel





CO2 performance 42CrMo4 XTP vs 1.2709



Scope 3 Scope 2 Scope 1

Similar performance

- \rightarrow lower alloying content
- \rightarrow lower Scope 3 footprint
- → Less heat treatment at customer (no precipitation hardening required)

Ways to reduce Scope 3 emissions from alloys





Work with and select greener alloy suppliers

Exemplary footprint of different ferronickel producers







Carbon Disclosure Project (CDP)

SSG approached 150 main suppliers

First European Steelmaker

First Electric Arc Furnace Steelmaker



Ways to reduce Scope 3 emissions from alloys







+ Ugi'Ring





Production of own primary alloys from end-of-life materials



Timeline





We are aiming for our Stainless Steel to be from 100% recycled materials



Different types of green steel products offered





We can provide you with the product carbon footprint of your individual product so you can control your upstream emissions

Scope 1+2+3 emissions of exemplary grades kg CO2 per ton finished product Our sites and products are certified

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

INDICATIVE	Green Steel	Green Steel Climate+	Green Steel Stainless+	ecovadis VERIsteel
Bearing steel 100Cr6	~1050	~700	-	Register
Rolled bar 1.7003	~320	~220	-	The particular of the particular of the international epoty system
Stainless 4441	~7700	~7500	<1000	SCIENCE BASED TARGETS



Thank you