

Kiertotalous ja kilpailukykyinen sähkö

Teknolohiateollisuuden EU-Foorumi 11.2. 2022 -
Materiaali- ja energiapula Euroopassa?

Martti Sassi
11.02.2022

Outokumpu is the global leader in stainless steel

Net sales,
EUR
7.71
billion

Adjusted
EBITDA,
EUR
1.02
billion

~9100
employees

Deliveries
2.4
million
tonnes

- Broadest stainless steel offering for the most demanding applications and environments
- Operations in over 30 countries, production units in Finland, Sweden, Germany, the UK, the US and Mexico
- Strong market position: #1 in Europe, #2 in Americas
- Sustainability leader in the industry
- Listed on Nasdaq Helsinki

Outokumpu Tornio works – the biggest material recycler in Europe



A comprehensive approach is needed to address climate change

We are the only stainless steel company with an approved

1.5°C

SBTi target in place



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

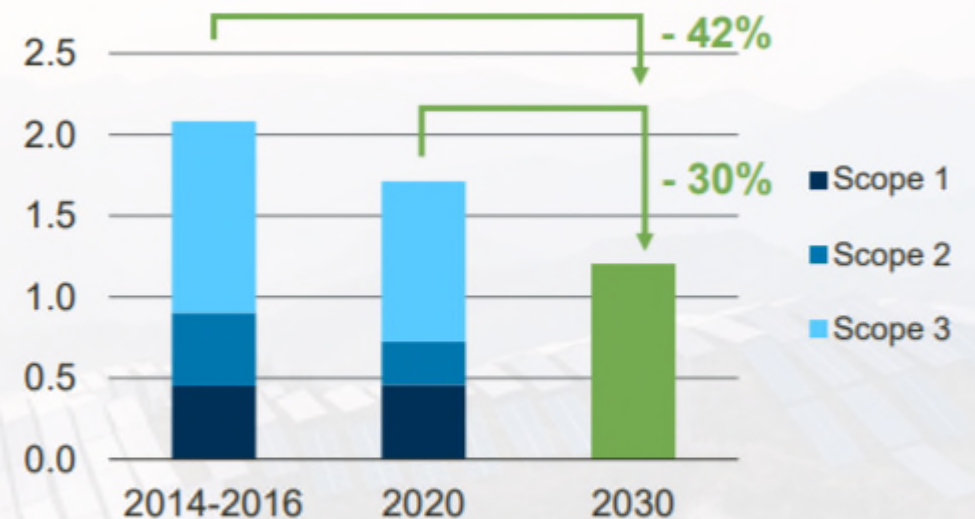
1.7

tonnes of CO₂ per tonne
of stainless steel*

70%

lower than global
industry average

Emission intensity (tCO₂/t crude steel)



By 2030, we aim to reduce our total emissions by 30% from 2020 – and by 42% from the 2014-2016 baseline.

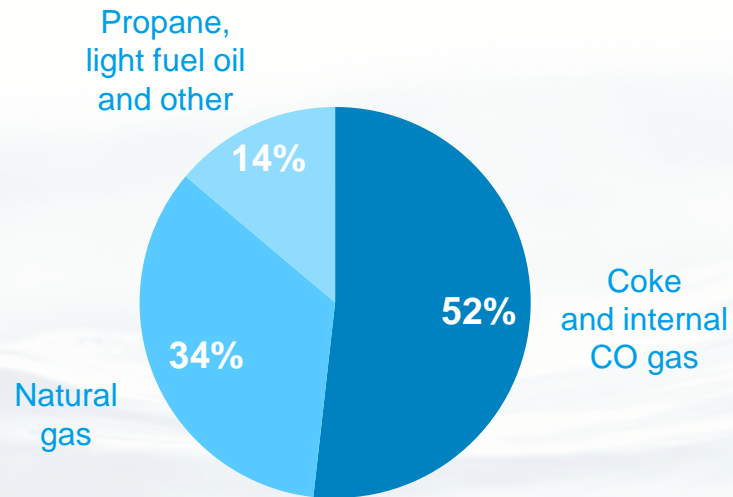
*) we have increased our Scope 3 coverage from 80% to over 95%

Our starting point for emission reductions

Emissions per scope in 2020

Scope 1

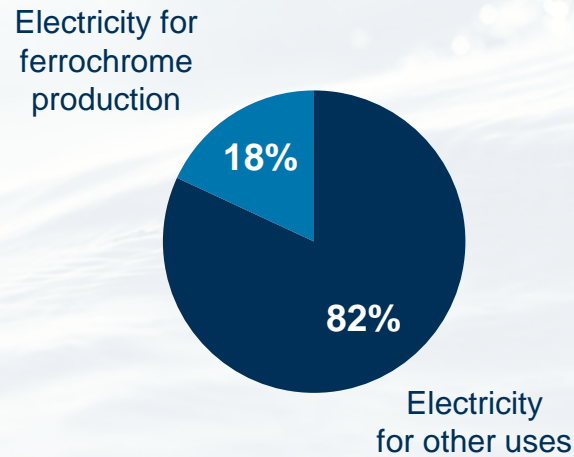
Addressing coke and fuel use has a significant impact on Scope 1 emissions.



Total: 1,150 ktCO₂

Scope 2

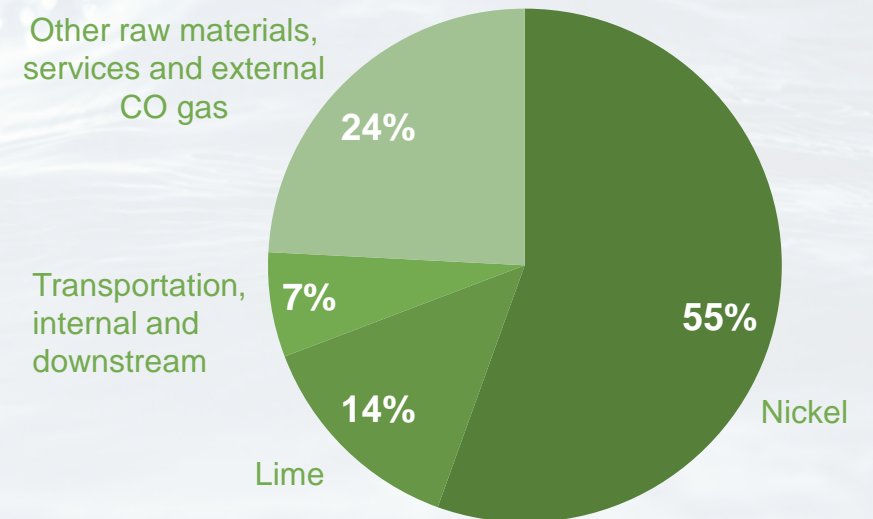
Absolute emissions can be significantly reduced by increasing the share of low-carbon electricity.



Total: 663 ktCO₂

Scope 3

The main four raw materials amount to ~70% of our value chain emissions.



Total: 2,477 ktCO₂

Projects identified to reduce our Scope 1 emissions

Scope 1 emissions constitute to a large extent from the use of coke and various fuels in our production processes – to reduce them, we will:

- As a transitional step, replace fossil coke with **biocoke from forestry waste**
- Replace fossil-based fuels with **lower-emissions alternatives**
- Invest in **process efficiency measures** – for example, waste heat utilization at our Krefeld plant

This can be achieved with close to operational cost parity.

Emission reduction potential until 2030

**Up to 0,4
MtCO₂**

Emission reduction

40 €/tCO₂

Average marginal
abatement cost

Cost impact

**~160 m€
CAPEX**

**~0 m€
Cost impact**

Alternatives to reduce our Scope 2 emissions

Alternatives to reduce the electricity emissions include:

- Directly purchasing **low-carbon electricity**
- Acquiring **Guarantees of Origin**
- Investing in **renewable electricity**

A new Power Purchase Agreement for low-carbon electricity, both wind power and nuclear was closed.

Ongoing initiatives to continually **reduce our electricity consumption**.

Emission reduction potential

**Up to 0.8
MtCO₂**
Emission reduction

~5 €/tCO₂
Average marginal
abatement cost

Cost impact

0 m€
CAPEX

5-6 m€
Cost impact

Determined actions to reduce Scope 3 emissions

Our Scope 3 emissions constitute to a major extent from emissions related to raw material sourcing – and Ferronickel has the largest impact.

- Identified main **low-carbon emission suppliers**
- Multi-year contract agreed with a large **Ferronickel supplier with 50% lower CO₂ emissions** compared to industry average
- Optimize **utilization of side streams**

Other projects include e.g. **increasing scrap share** in sourcing and implementing **lower-emissions transportation solutions**, such as LNG fuel for vessels and road to rail.

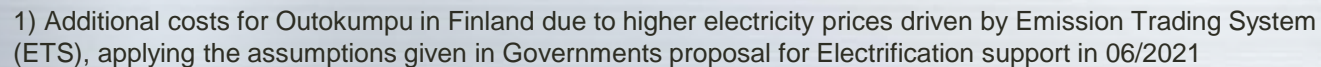
Emission reduction potential
(already identified)

0.7
MtCO₂
Emission reduction

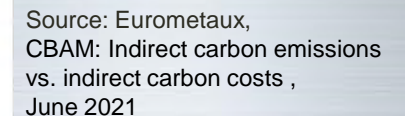
Cost impact

~140 m€
CAPEX

EU CO₂ emission trading – additional electricity costs for Outokumpu ¹



Risk that ETS results in additional annual electricity cost of up-to **€200 million** for Outokumpu if CO2 emissions prices rise to €100 / ton and electrification support is discontinued



9 | February 11, 2022

Thank you!

Stay tuned and
follow us on



www.outokumpu.com