

Outokumpu ESG update



December 8, 2021

ESG = Environmental, Social & Governance

outokumpu 

Agenda and speakers

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Stefan Erdmann, CTO & Group Sustainability

2 Our progress in ESG
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3 Sustainability in raw material procurement
Hannah Stratmann, Supplier Sustainability Manager

4 Closing
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5 Q&A



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ESG at Outokumpu

Introduction and overview

Stefan Erdmann, CTO & Group Sustainability



Outokumpu Tornio works – the biggest material recycler in Europe



Our differentiators are the foundation for Outokumpu's ESG ambitions

Adoption of Science-Based Targets initiatives (SBTi)

improves our market position as a key supplier of low-emission products towards our customers



Our in-house ferrochrome mine in Kemi is a unique asset – only chrome mine in EU.

The integrated ferrochrome and stainless steel mills at our Tornio site bring considerable efficiency advantages.

76%
of electricity sourced
from low-carbon sources
already in 2020

Total incident frequency rate
has decreased by
70%
from 2016



>90%
of recycled content,
more than double
the industry average,
leading the European
peer group

A comprehensive approach is needed to address climate change

We are the only stainless steel company with a commitment to the business ambition of

1.5°C

SBTi target



SCIENCE
BASED
TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

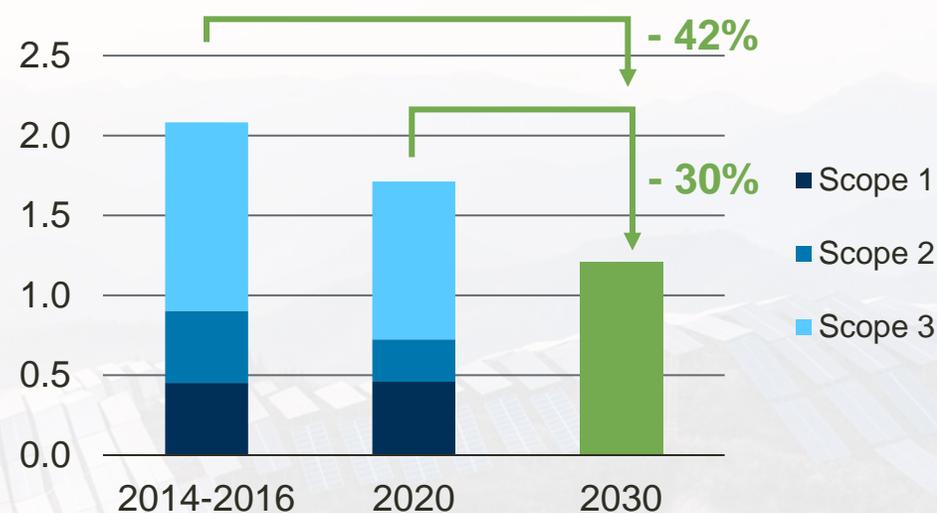
1.7

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%

Leadership in sustainability requires also a strong stance on social and governance



Social

- Safety, compliance and commitment throughout the value chain
- Human rights risk assessment
- Corporate Social Responsibility actions in everyday life
- Diversity & Inclusion initiatives



Governance

- ESG advisory council established
- ESG focus in sustainable sourcing
- Strong ethics and compliance programme incl. Code of Conduct revision and emphasis on competition law
- Embedding carbon costs in all technical projects

New innovations in stainless steel products enable the world that lasts forever

World needs to go net zero – and we are part of the solution

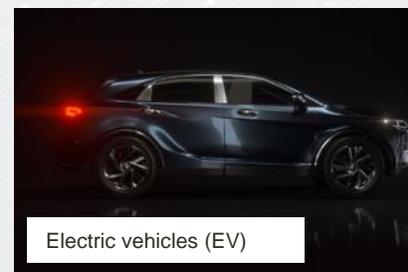
Stainless steel is a durable and low-weight solution for **optimum performance in specialized fields** and demanding conditions



PEFC - Polymer electrolyte fuel cells



Ballast water treatment



Electric vehicles (EV)



Flue gas cleaning



EV battery pack

Our products are **enablers for our clients'** – and their clients' – net zero ambition

Our progress in ESG

Key completed, ongoing
and potential activities

Juha Erkkilä, VP – Group Sustainability

This year, we have had a strong focus in implementing concrete ESG initiatives

Organizational Health Index survey

Diversity and Inclusion initiative ongoing in Americas, to be implemented on Group level in 2022

Updated **1.5 °C climate targets** finalized and submitted to the SBTi

Supplier requirements updated and **Supplier Code of Conduct** in preparation



Vaccination centers in Germany and US



Leadership pipeline program to support empowering our employees

Human rights risk assessment conducted, in accordance with the **UNGP** on Business & Human Rights

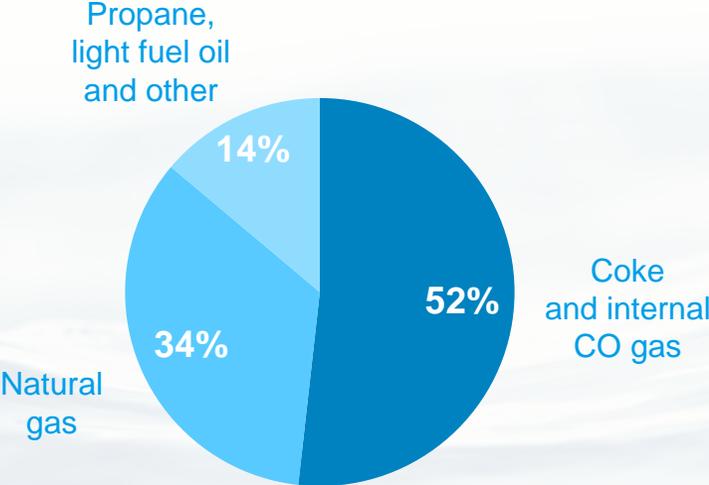
10-year power supply agreement signed to **increase the share of wind power** in our energy mix

Our starting point for emission reductions

Emissions per scope in 2020

Scope 1

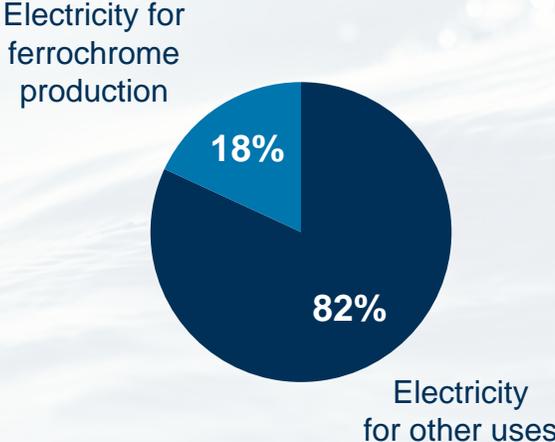
Addressing coke and fuel use has a significant impact on Scope 1 emissions.



Total: 1,150 ktCO₂

Scope 2

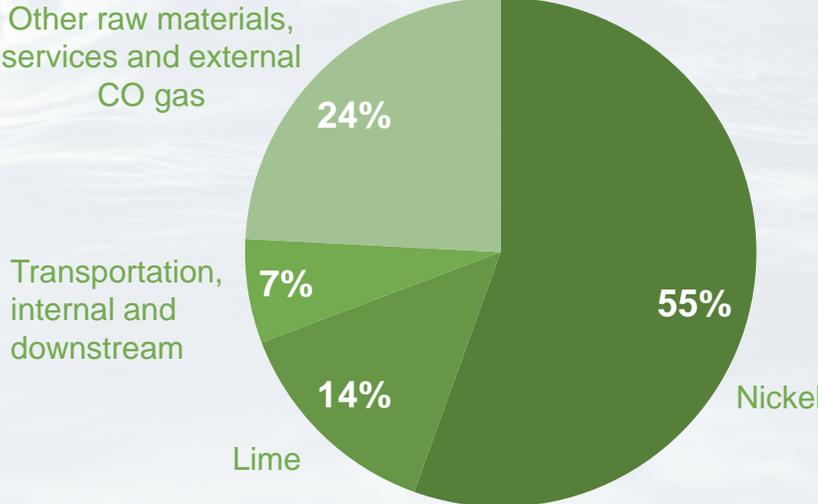
Absolute emissions can be significantly reduced by increasing the share of low-carbon electricity.



Total: 663 ktCO₂

Scope 3

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

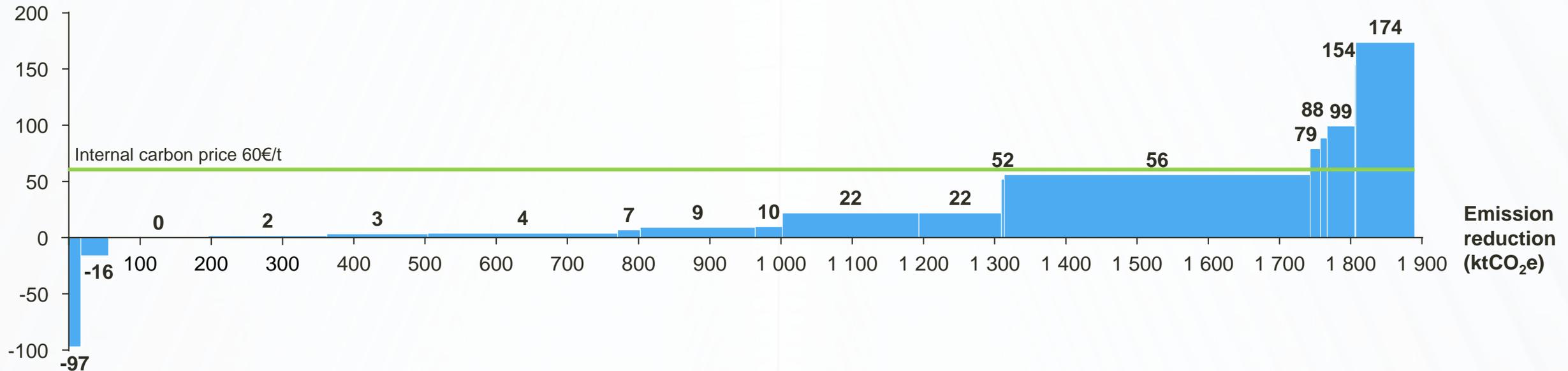


Total: 2,477 ktCO₂

Financial efficiency of carbon reduction projects

Outokumpu's ability to reduce 1.75 Mt emissions with < 60€/t

Financial efficiency
(€/tCO₂e, 2022F)



We have analyzed measures to reduce emissions for **categories covering 93% of our current total emissions**
– implementing all of those **would reduce our emissions across all scopes by over 40%**.

Efficiency improvement projects are not included in this graph.

Projects identified to reduce our Scope 1 emissions

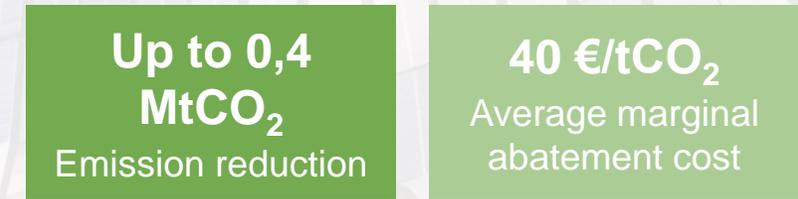
Scope 1 emissions constitute to a large extent from the use of coke and various fuels in our production processes – to reduce them, we will:

- As a transitional step, replace fossil coke with **biocoke from forestry residue**
- 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



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, for example wind power was closed.

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



Emission reduction potential



Cost impact

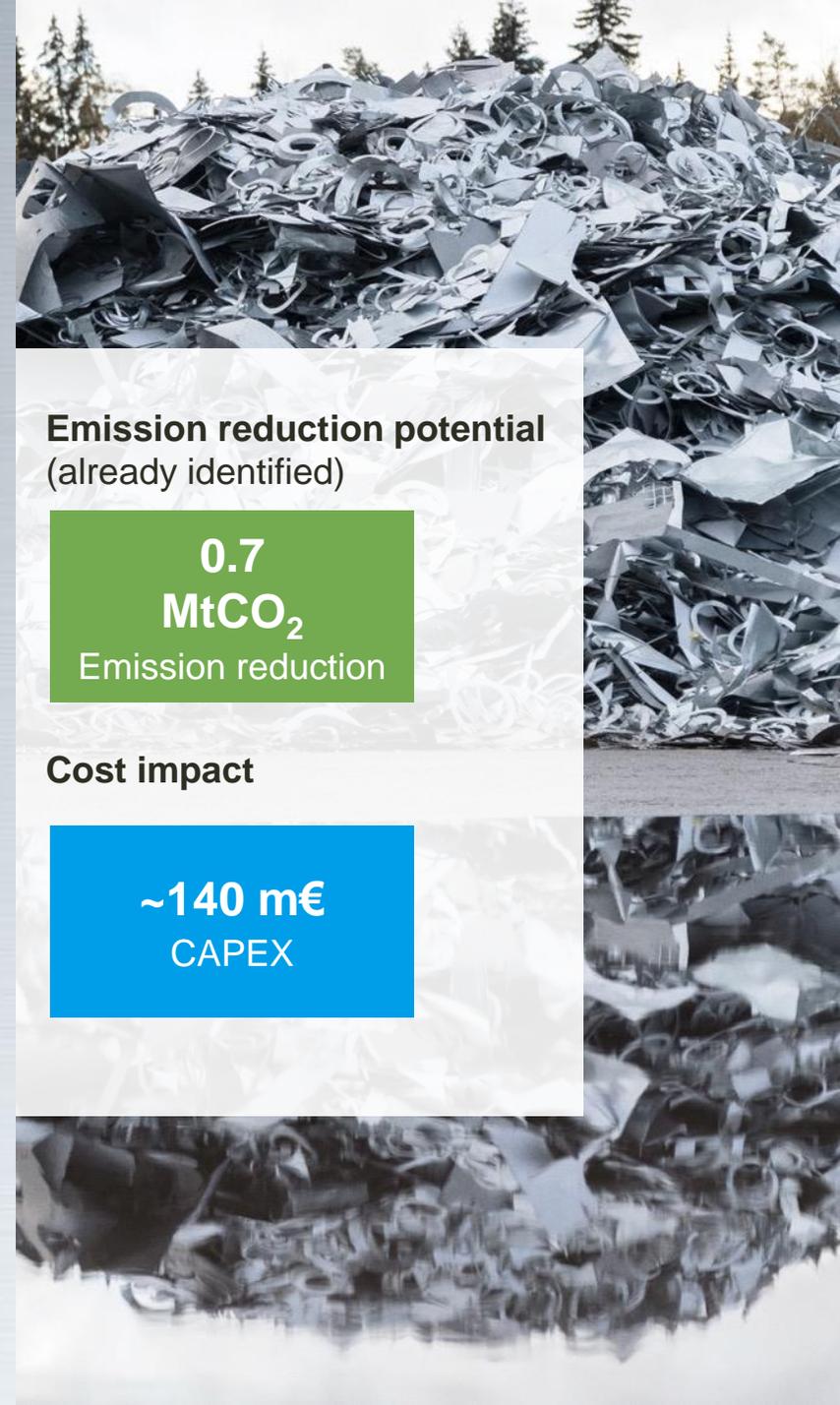


Determined actions to reduce Scope 3 emissions

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

Our technical journey towards carbon neutrality

The ambition is reflected in small and large projects alike

Done: progress already achieved

Energy intensity decreased by ~10%
(Q3 2021 compared to Q3 2020)

- Biocoke trials
- Digital manufacturing
- EAF temperature prediction
- Renewable Energy PPA
- Over-alloying reduction
- Assessing CO₂ impact of investment projects

In Plan: approved for implementation

Improving energy efficiency and reducing direct emissions

- Reducing use of fossil coke and fuels
- Share of low-carbon electricity
- Sourcing from lower-emissions raw material suppliers
- Trials for alternative heating
- Heat Recovery
- Product Carbon Footprint

Future: step-change technologies

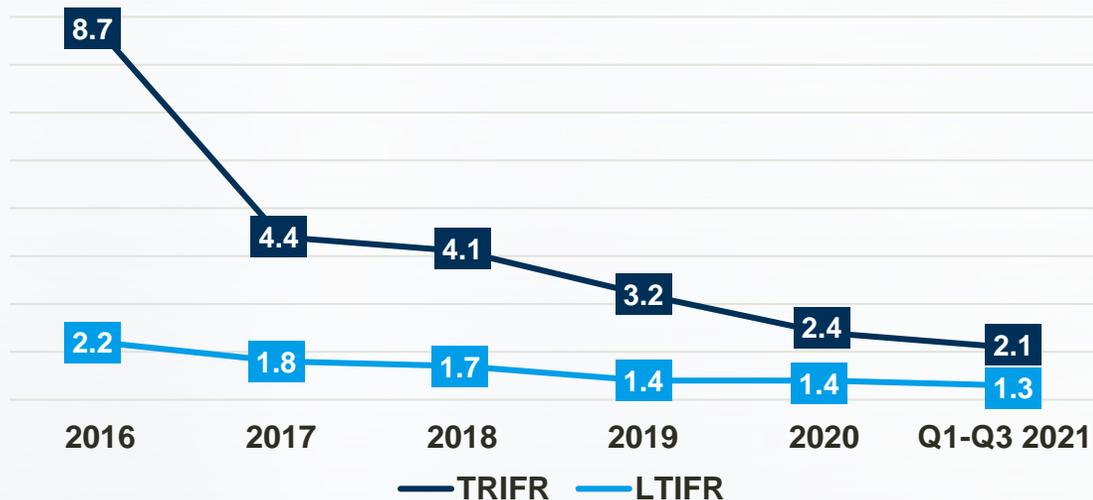
Boosting efficiency and closing in on zero direct emissions

- Carbon Emission Free Ferrochrome Process
- Zero Carbon Emission Heating Technology
- Carbon Capture Technology
- Improved side stream utilization
- Large scale biocoke utilization

Solid progress towards our goal of zero work-related accidents continues

In 2021, our safety performance reached its best level ever, remaining well below the industry average.

Safety performance (TRIFR and LTIFR)



We are investing every year

18 m€

in improvements of environment, health and safety

Workplace Excellence

- Global Organizational Health Index survey

We are constantly improving our safety procedures

- Behavior-based safety approach

TRIFR = Number of total recordable incidents per million working hours
LTIFR = Number of lost time incidents per million working hours

We are striving for continuous improvement in employee health and well-being

Vaccination centers in Germany and US

- COVID-19 regulations implemented successfully

Supporting everyday health

- E-bikes for employees in Finland

New, safer pickling methods

- 3-year collaboration with the Fraunhofer Institute



Diversity & Inclusion initiative in BA Americas

- Global diversity, equity and inclusion (DE&I) assessment

External collaboration

- Universities, technology providers and other industries
- Over 500 summer trainees in Finland and Sweden

Global leadership training

- Leadership pipeline program implemented



We increase the transparency and visibility throughout the value chain

New Supplier Sustainability Manager and activities in raw material supply

- Auditing and incident follow-up
- Supplier ranking and scorecard adjustment



Supplier Requirements updated and Supplier Code of Conduct in preparation

- Supplier requirements re-evaluated
- Fair business relationships, with zero human rights infringements

Holistic supply chain sustainability

- Strengthening own capabilities & engaging with our supply chain
- New screening and risk management practices



Human rights risks a high priority

- Human rights risk assessment done
- Measures to be implemented during 2022

Sustainability embedded in everything we do through robust governance

ESG Advisory Council established

- Best practices and cross-industry understanding

Example in value-chain responsibility

- Internal Code of Conduct revised
- Mandatory training has been initiated for all personnel

Sustainability culture across organizational levels

- Monthly Updates on Business Area Board level
- Investments consider carbon price
- ESG Core Team implemented

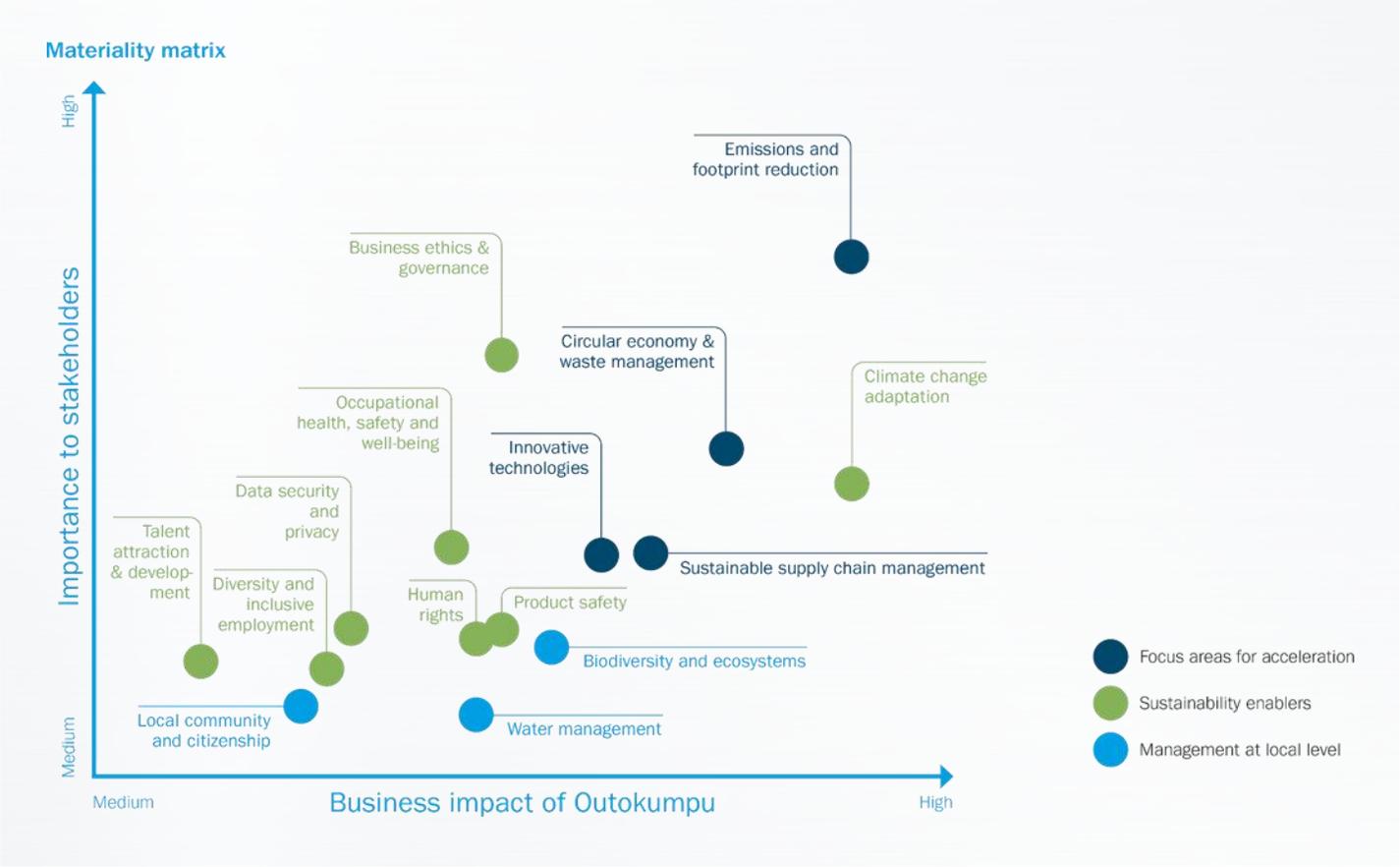


Materiality analysis finalized in Q3 2021

- Double materiality analysis for sustainability work



Emission and footprint reduction seen as the highest priority by our stakeholders



Sustainability in raw material procurement

Hannah Stratmann, Supplier Sustainability Manager

Sustainability strategy – implications for raw material procurement

**Aiming at 40% CO₂ reduction
in major raw materials by 2030**



**Strategic alliances with
responsible key suppliers**

**Transparent and monitored
supply chain**



Five high-priority initiatives for 2021 and 2022

1 Supplier sustainability assessment, scorecard and on-site audits

2 Document review, supplier onboarding and Supplier Code of Conduct

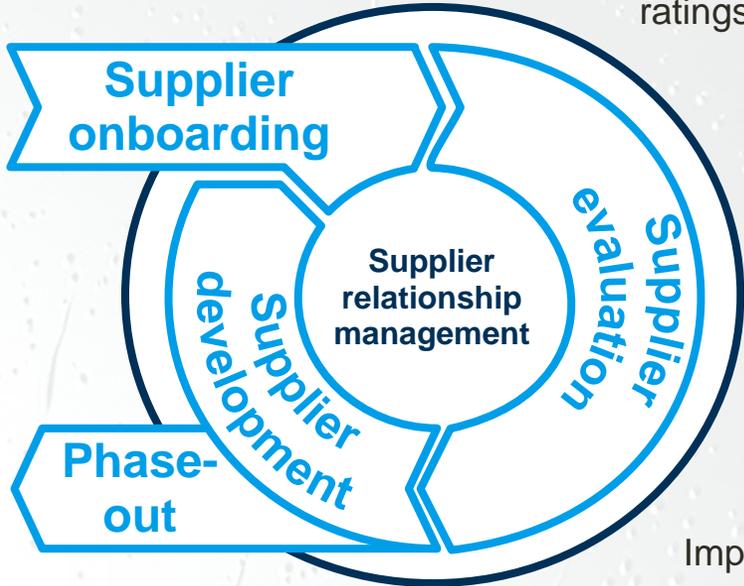
3 CO₂ emissions tracking

4 United Nations Guiding Principles on business and human rights

5 ESG incident management

Implementation of supplier sustainability assessment and scorecard started

- ✓ Supplier Requirements
- ✓ Code of Conduct
- ✓ Human Rights Risks
- ✓ Sanctions



Regular risk & sanction screening

On-site audits

Improvement plans

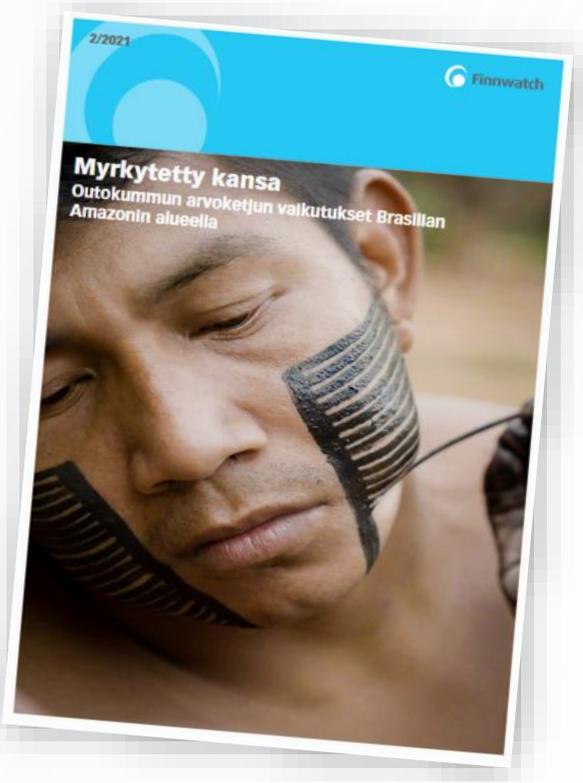
Supplier scorecard

Procurement	Quality	Logistics	Technology
Sustainability			

ESG incident management



Applying the ESG incident management process: Vale and the Finnwatch report



Recommendations for Outokumpu by Finnwatch:

- Commitment to **United Nations Guiding Principles** (UNGP)
- Identification of **risks associated with Outokumpu's** own operations and its value chain
- **Action plan** to address identified risks
- Assurance that Vale keeps its commitments made to the indigenous peoples in the final settlement

Investigation phase included a site visit in Brazil

Investigation:

1. Engaging external professionals: Enact
2. Desktop study and stakeholder mapping
3. Field work in Brazil: Meeting Vale, the Xikrin and several institutions
4. Continuous communication with Finnwatch

Field work targets:

- Directly engage stakeholders
- Identify human rights impacts on indigenous peoples alleged by Finnwatch
- Determine the reliability of Vale's risk management
- Assess risks to Outokumpu in this supply chain
- Derive a framework for integrating human rights into Outokumpu's supply chain management



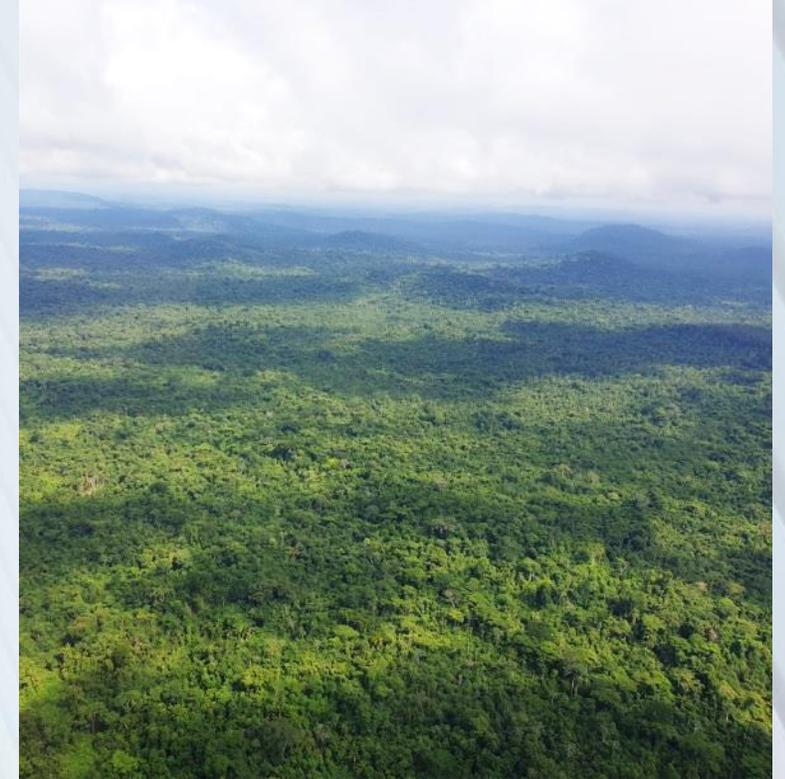
Site visit outcomes guiding the path forward

Outcome of the site visit:

- The necessary information to fulfil the field work targets could be obtained to a very large extent
- The way forward is outlined on a high level and discussed with Vale

Next steps:

- Consolidate all information and detail way forward
- Continue engagement with both Vale and other stakeholders
- Develop the framework that supports anticipation of potential human rights infringements in Outokumpu's supply chain



Closing

Stefan Erdmann, CTO & Group Sustainability

Our efforts
in sustainability
have been
globally
recognized



SCIENCE
BASED
TARGETS

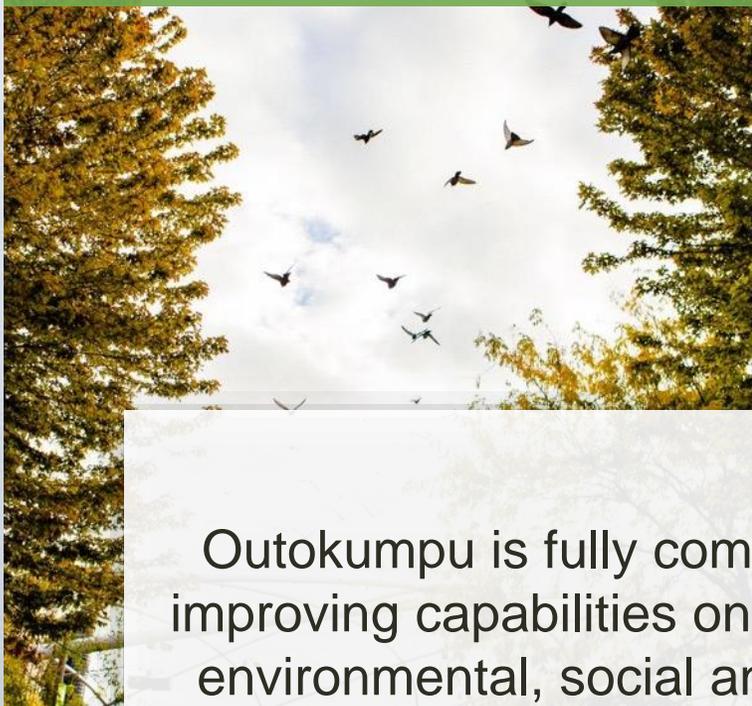
DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

S&P Global



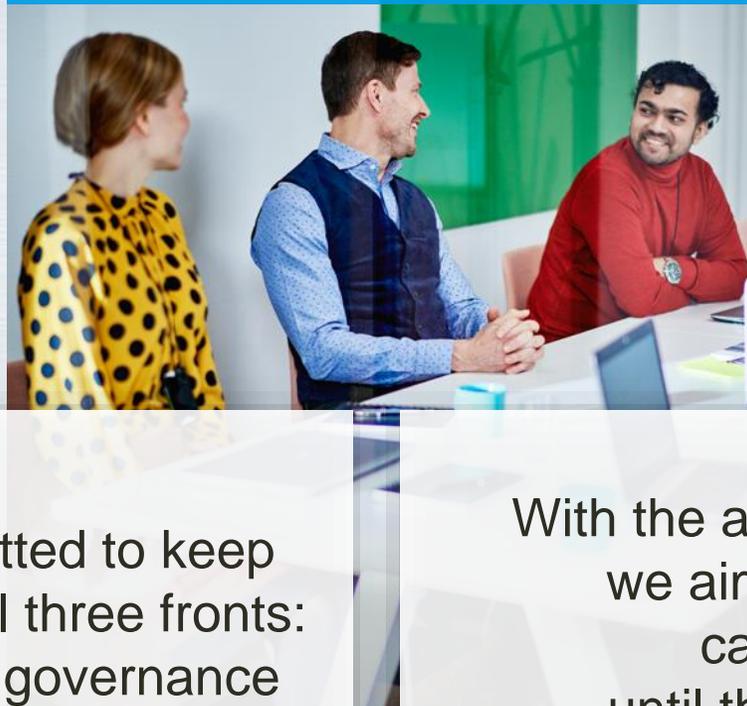
Progressing in sustainability is crucial for our success as a company

Environmental



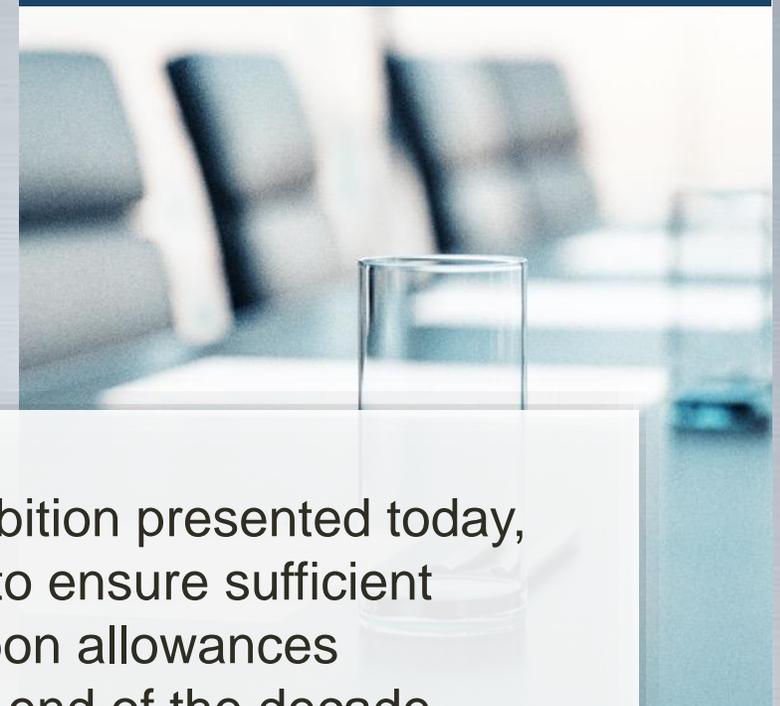
Outokumpu is fully committed to keep improving capabilities on all three fronts: environmental, social and governance

Social



With the ambition presented today, we aim to ensure sufficient carbon allowances until the end of the decade

Governance



Q&A session

To ask a question, please dial in
via conference call

Conference call details

Finland: (09) 8171 0310

UK/Europe: +44 33 3300 0804

US: +1 631 913 1422

Conference ID: 83305286#



Thank you!

Stay tuned and
follow us on



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