

# Ilmastokahvit Biohiilestä liiketoimintaa

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R&D Manager

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One World Trade Center | Architects: Skidmore, Owings & Merrill | Location: New York City, USA

# Leading producer of sustainable stainless steel



**Our ambition in sustainability has been globally recognized**

April 2025



# Role of carbon in production

- Outokumpu produces both FeCr and Stainless steel
- Ferrochrome is a crucial raw material in the production of stainless steel
- Current FeCr production technology is based on using carbon (fossil coke) as a reductant



Recycled scrap  
( $\text{FeCr}_{16}\text{Ni}_8$ )



Stainless Steel  
 $\text{FeCr}_{18}\text{Ni}_8$



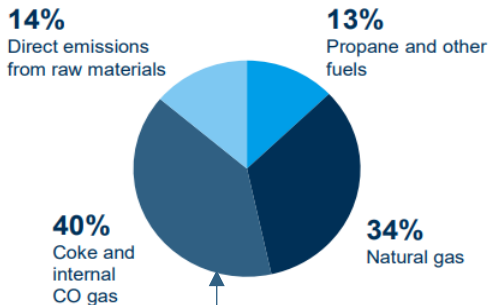
$\text{FeCr}_{52}$



# Contribution of biocarbon to reduce carbon footprint

## Scope 1

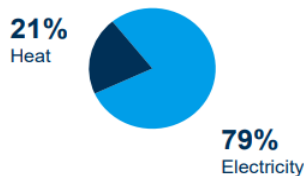
Total: 990 ktCO<sub>2</sub>



Addressing coke and fuel use has a significant impact on Scope 1 emissions, which constituted 30% of our emissions.

## Scope 2

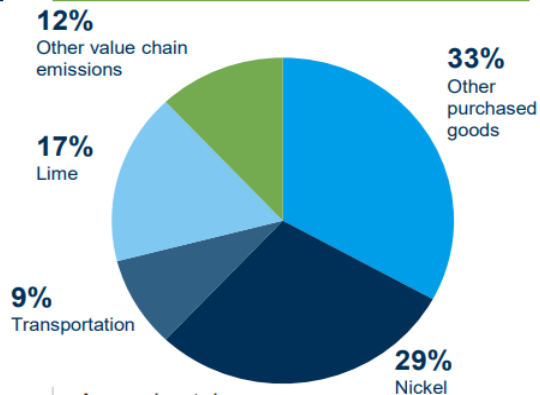
Total: 365 ktCO<sub>2</sub>



Absolute emissions have been significantly reduced by increasing the share of low-carbon electricity up to 84% of our electricity consumed. Scope 2 emissions constitute 10% of our emissions.

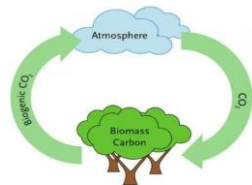
## Scope 3

Total: 2,347 ktCO<sub>2</sub>



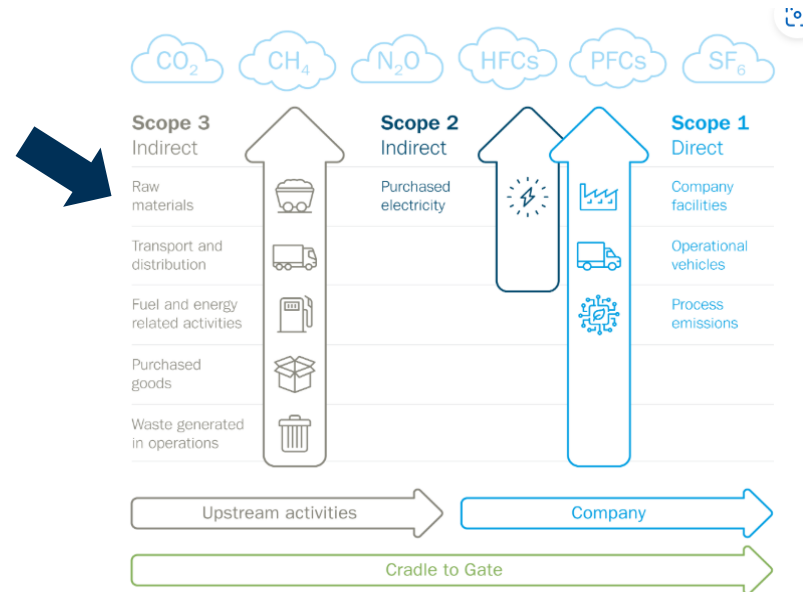
Approximately one third of our value chain emissions come from production of nickel. Scope 3 emissions constitute 60% of our emissions.

Outokumpu is targeting to replace fossil coke by biocoke as biogenic CO<sub>2</sub> is considered as part of natural cycle



# Launched product-specific carbon footprint

- At Outokumpu we have taken our open communication on sustainability to the next level by becoming the first stainless steel producer to provide a product-specific carbon footprint
- We are considering all Green House Gas (GHG) emissions through the whole production chain (Scope 1, 2, 3)
- There is a growing need for companies to reduce all indirect emissions from their value chain
- Growing market for **Outokumpu Circle Green®**



# Press releases

- [Outokumpu invests in a biocarbon plant in Germany to further reduce its direct emissions | Outokumpu](#)
- [Outokumpu invests in a pelletizing plant for biocoke in Tornio, Finland to accelerate the reduction of direct emissions | Outokumpu](#)
- [Several leading companies in Europe and Asia have reduced more than 50,000 tons of carbon emissions with Circle Green – Outokumpu to extend the offering early next year | Outokumpu](#)
- [Outokumpu, Alfa Laval and SSAB in collaboration to reduce emissions at Laakso Joint Hospital in Helsinki | Outokumpu](#)