
Boliden – Metals for generations to come

World Materials Forum

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Mikael Staffas, President & CEO

2022

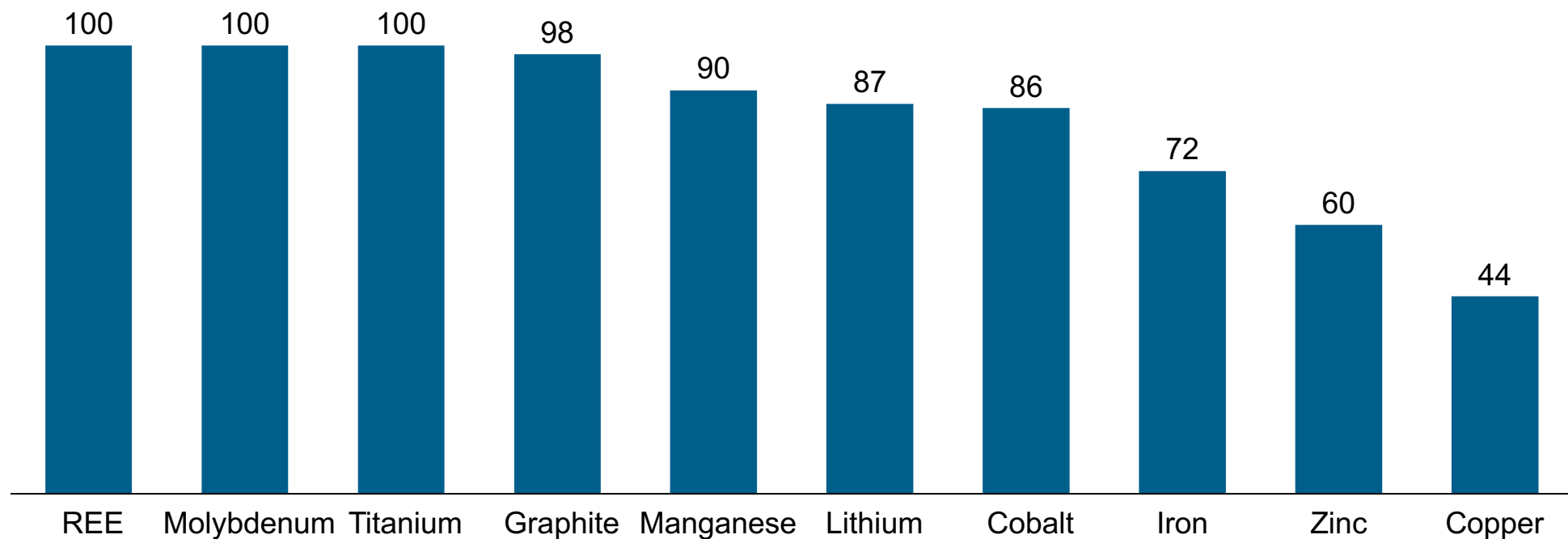
*"Cela est bien dit, répondit
Candide, mais il faut cultiver
notre jardin"*

Voltaire, 1694 -1778



Te Pb
Co Ag
Ni
Zn
Cu

Import dependency in the EU – weak strategic position



Source: Study on the EU's list of Critical Raw Materials (2020)

Europe post covid-19

- Security of supply to support climate transition on the political agenda
- Green Deal sets a new framework which will influence long-term domestic supply
 - Taxonomy
 - CBAM and EU-ETS
 - Industrial emissions directive (IED)
- Investments in mining projects always depends on predictability
 - Permitting processes
 - Cost of energy



Boliden – in brief

Purpose

To provide the metals essential to improve society for generations to come

Vision

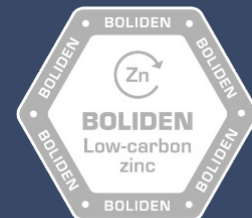
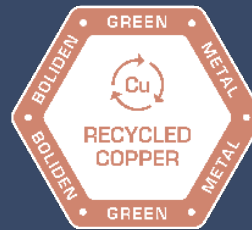
To be the most climate friendly and respected metal provider in the world

- Founded in 1924
- 5 mines & 5 smelters
- Most exposure to Zn, Cu and Ni
- Outstanding sustainability performance

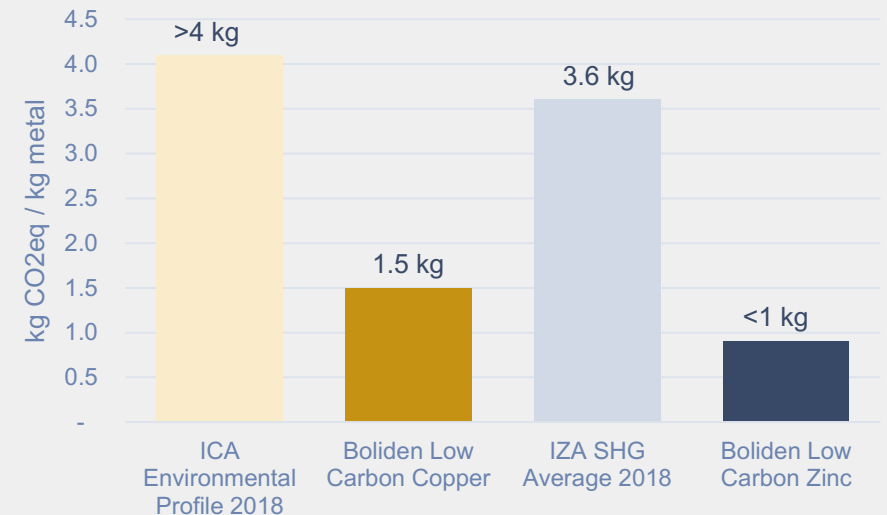
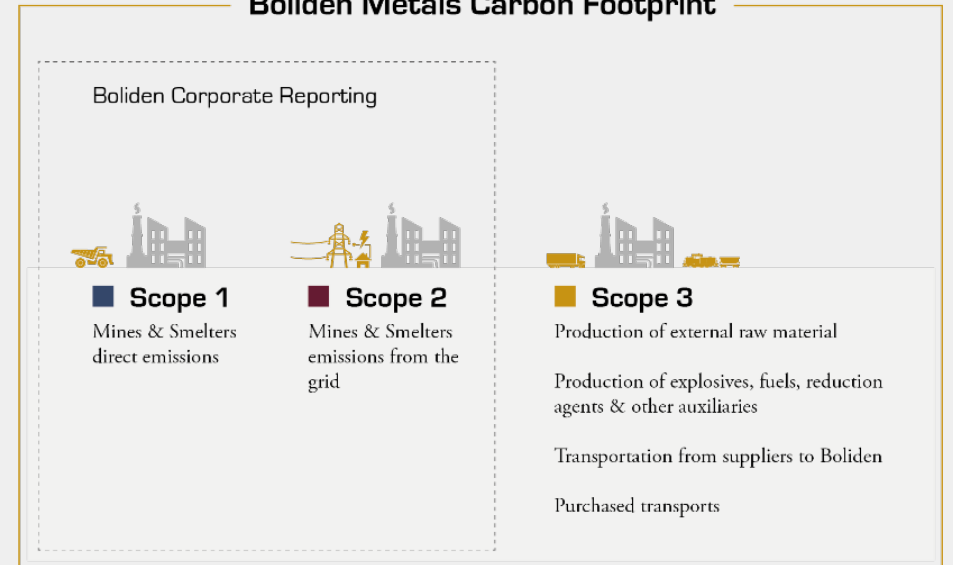


Boliden's Green Metals

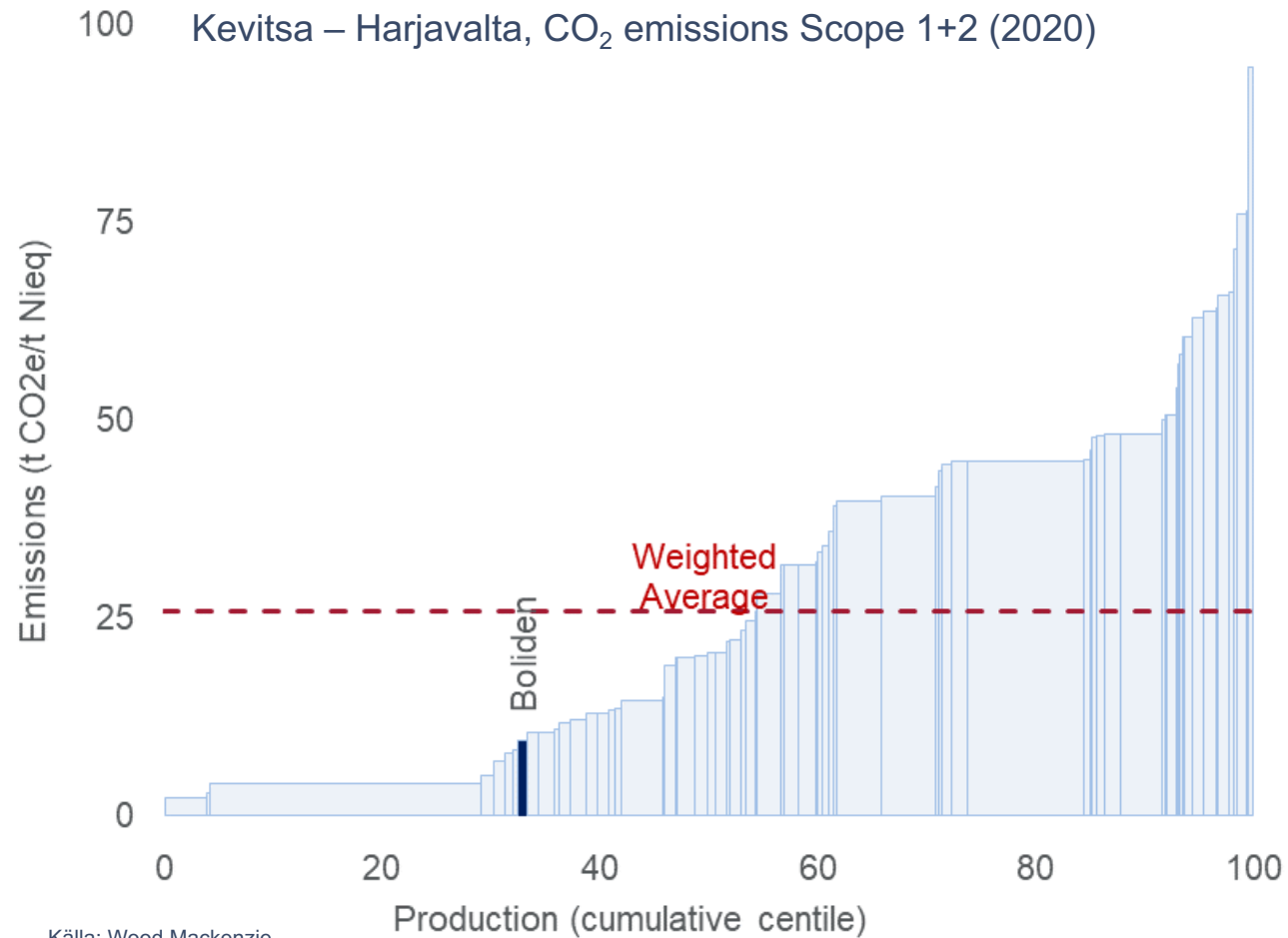
- Copper and zinc with low carbon footprint, verified by third party
- Produced from Boliden concentrates and recycled raw materials
- All significant emission categories from cradle-to-gate included
- Well positioned compared to global average
- Boliden invests in more low carbon smelting capacity in Odda



Boliden Metals Carbon Footprint



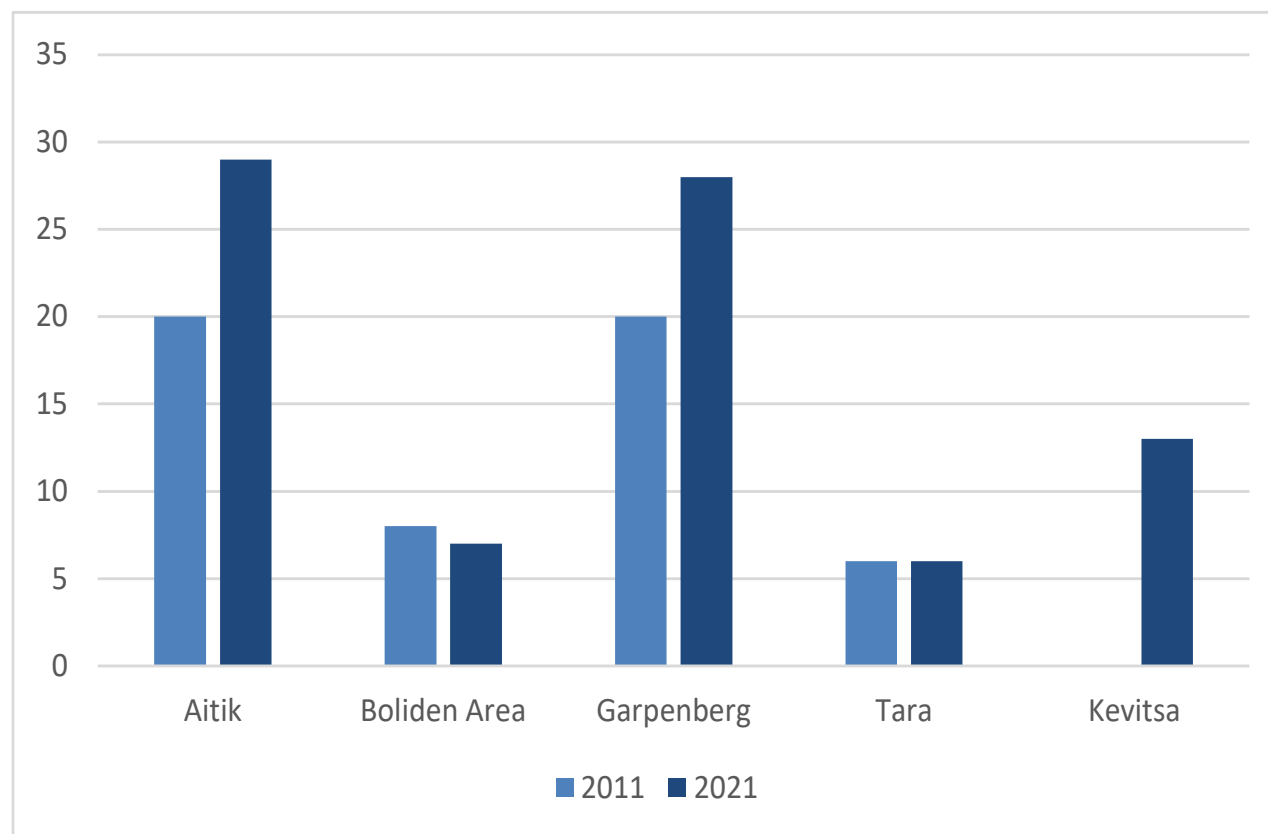
Nickel from Finland compared to global average



Källa: Wood Mackenzie

Long mine life in key operations – Successful in-house exploration

Reserve life (years)**



Electrifying the open pits

- Successful trolley expansion in Aitik
 - 11 trucks in operation
- Kevitsa trolley ramp-up
 - 2 trucks in operation
- Next steps supplemented by battery power
 - Dynamic recharge with trolley
- Liikavaara
 - Ambition to be fossil free satellite to Aitik



Electric trolley line, Aitik

Electrifying the Boliden Area

- Kristineberg extension – Boliden's first fossil free mine
- 1.25 BSEK Capex partially pending environmental permits
- Planned production start 2023
 - 200 kt increased annual milled volume from the Boliden Area
 - Highly automated production
- Development of fossil free transports between mine and mill



Battery driven concentrate transport, Boliden Area

Odda 4.0 – leveraging existing advantages



Odda zinc smelter, Norway

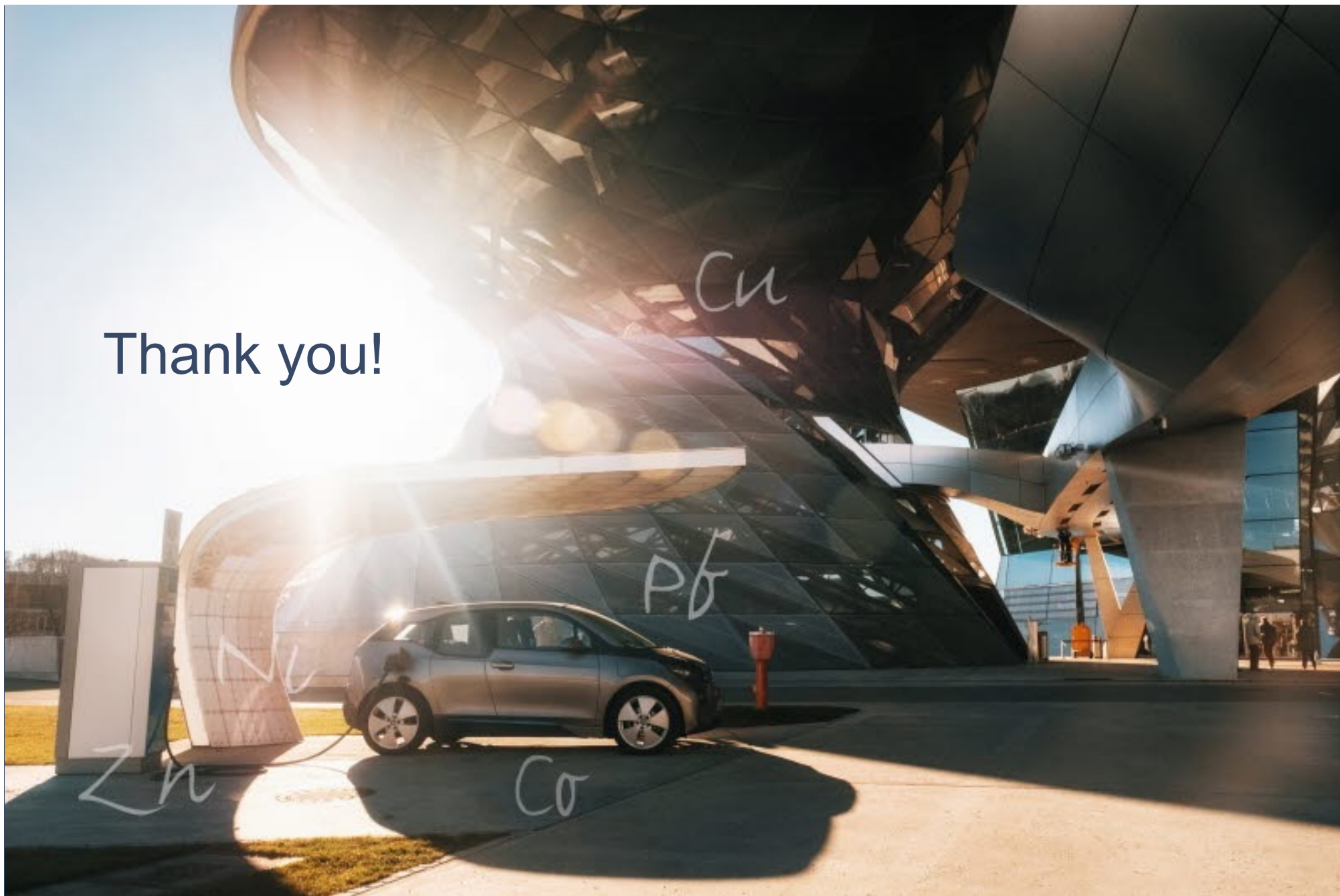
- **Leading environmental footprint**
 - World class CO₂-intensity reduced even further
 - Long term sustainable waste solution
- **State of the art efficiency**
 - New metal recoveries and byproducts
 - High capability to handle complex materials
 - Scale, digitalization and automation
- **Favorable market outlook**
 - Stable increase in Zn demand
 - Limited new Zn smelting capacity

How to meet growing demand in Europe

- Projects and financing available
 - Mining must be included in Taxonomy
- Improve EU-level frameworks to support responsible mining
 - Water Framework Directive
 - Natura2000
- Predictability for electricity costs must improve



Thank you!



Handwritten chemical symbols on the right side:

- Te
- Pb
- Co
- Ag
- Li
- Zn
- Cu