



Hydrogen
Europe

GREEN STEEL

RBI Lighthouse Project



Unparalleled **EXPERTISE** in the design and supply of the full range of technological solutions for the primary stage of integrated steelmaking.



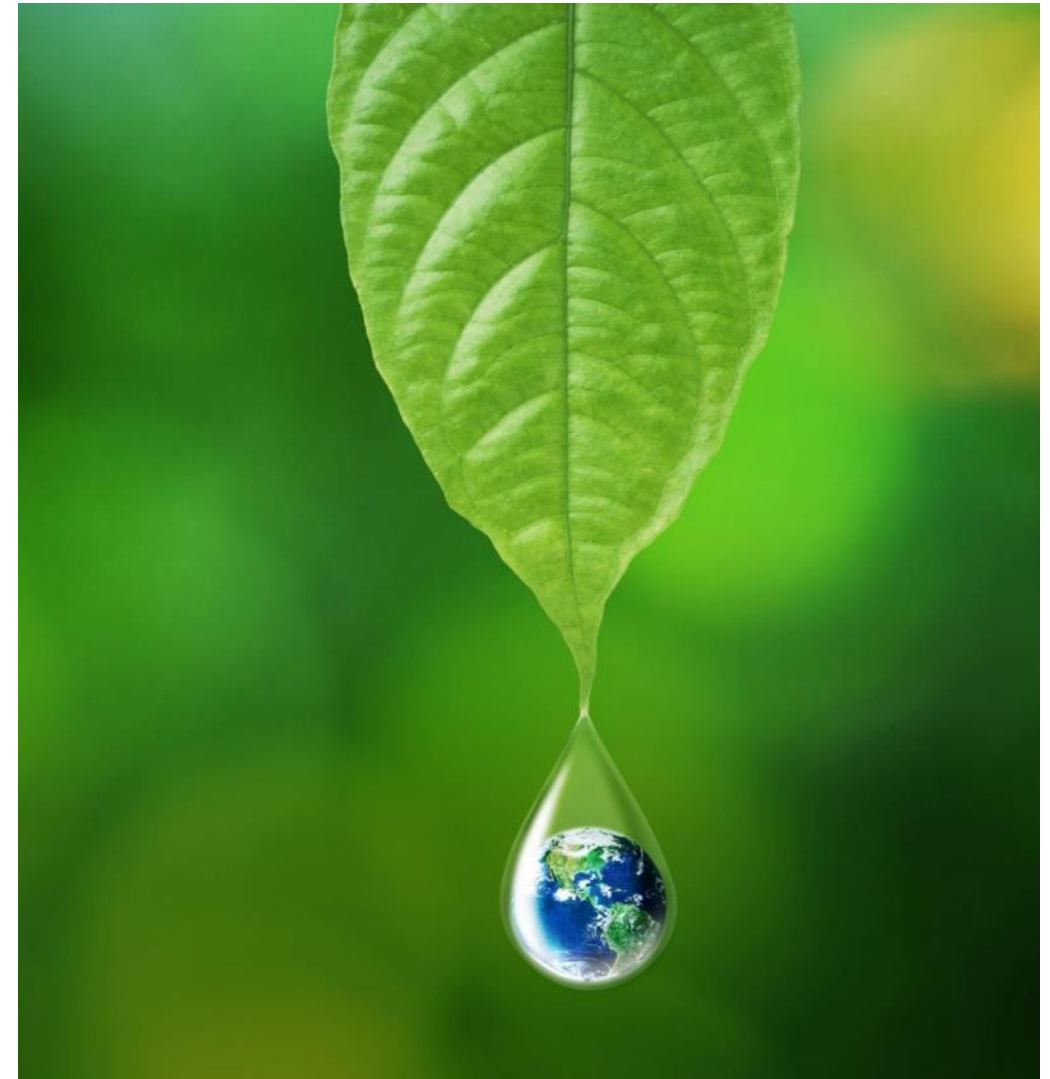
Green Hydrogen – PW takes stake in Sunfire



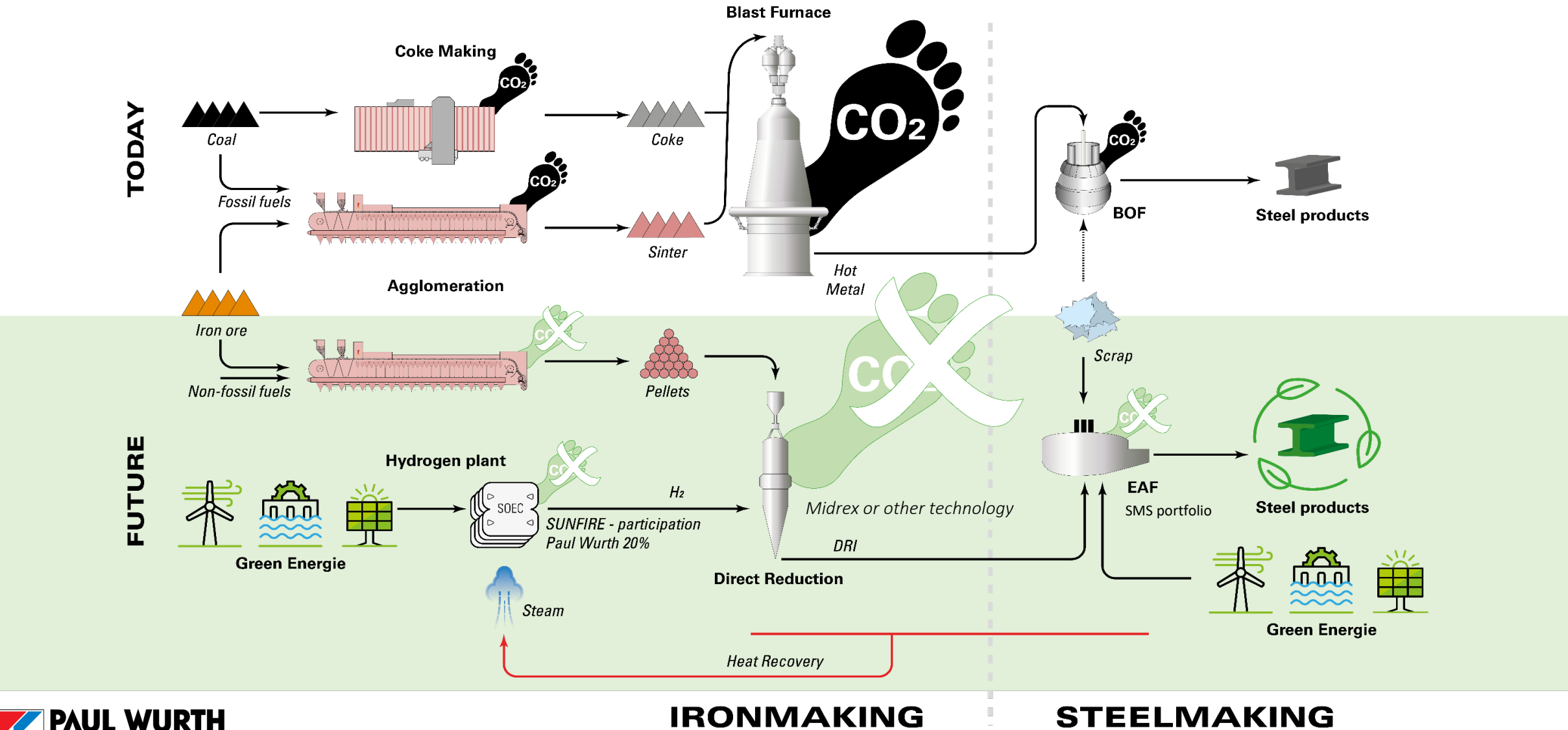
Paul Wurth is New Lead Investor and Technology Partner of



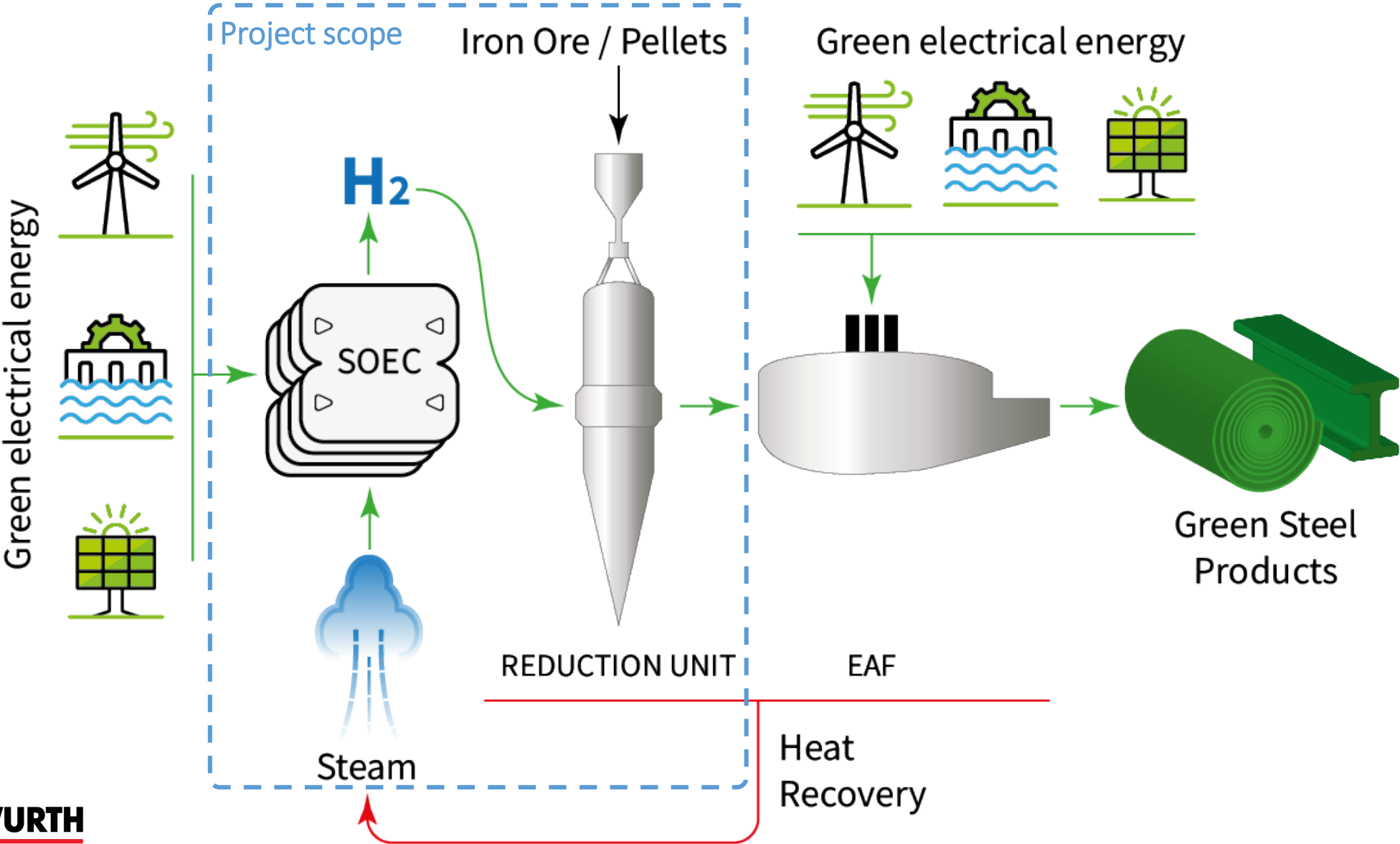
- Joint focus on green hydrogen by industrialisation of electrolysis and Power-to-Liquid technology for large scale commercial projects.
- Plant builder Paul Wurth provides access to global metals industry, which increasingly uses renewable hydrogen.



Steelmaking – Switch to carbon neutral



Green Steel – H₂ Steelmaking route

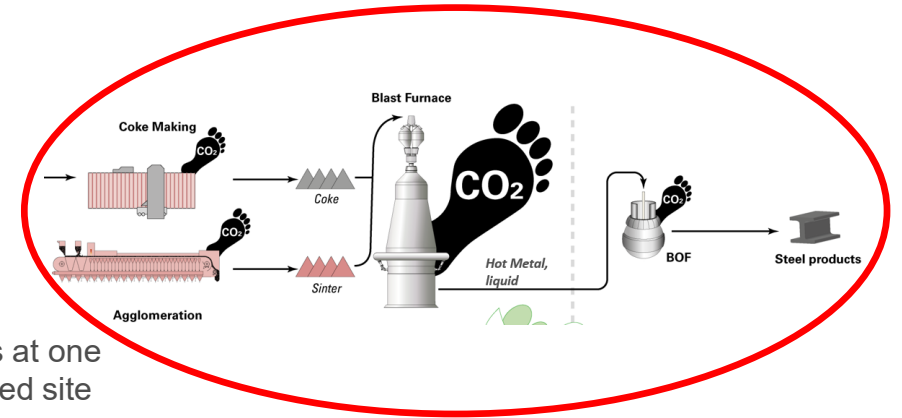


RBI* Lighthouse project

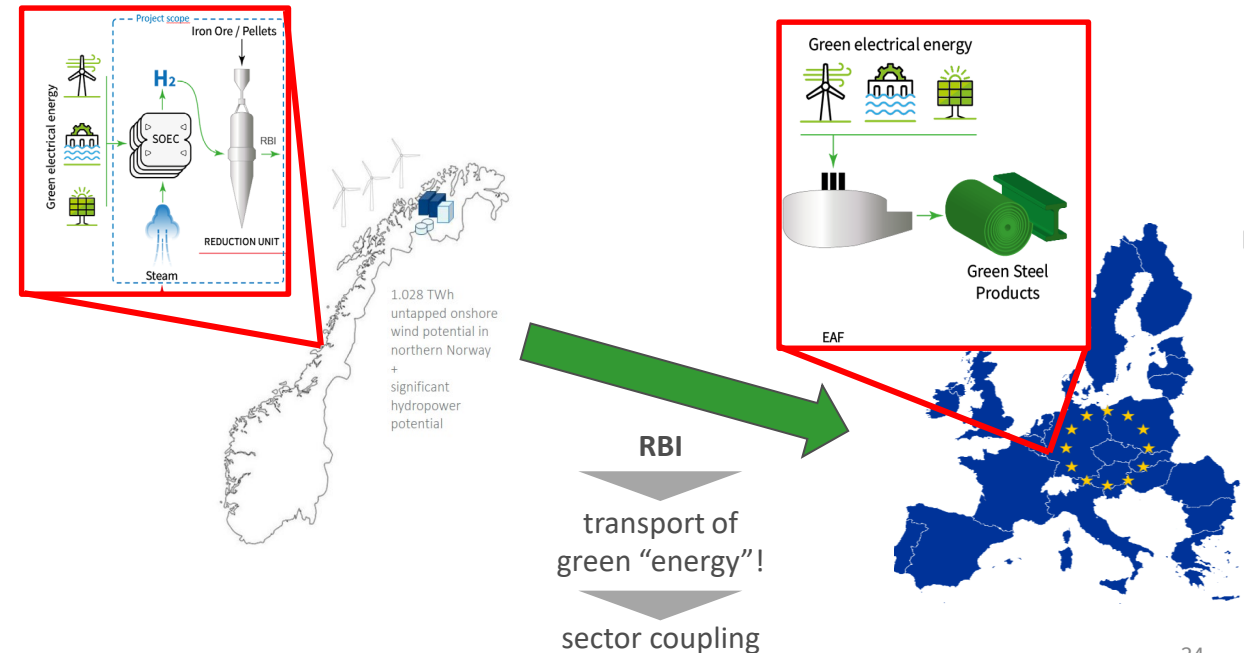
- Today primary steelmaking is CO₂ intense
- Disruptive switch to CDA with green hydrogen is close, but requests considerable CapEx and OpEx
- Funding is essential to transform primary steel industry
- Available and low cost renewable electricity is key to success → choice of attractive location
- Set up of RBI plant for 1 - 1.5 million t/a
- Supply RBI to EU steelmakers, melting with EAF at today's sites of integrated mills
- CO₂ reduction potential 2 to 4 million t/a
- Objective: Move towards TRL 9

Today

All units at one integrated site








Tomorrow



RBI* project highlights



- Supply to (all) EU steelmakers possible
- RBI = “compact” energy → Solving problem of transport of renewable electricity → Sector Coupling
- Multi country project:
 -  • Electrolysis from Germany
 -  • Technology & Project Development from Luxembourg
 -  • Site location in Norway
 -  • Scientific support from ?
 -  • Raw material (ore) supply from ?
 - ...
- Enormous CO₂ reduction potential of up to 4 million t/a with one plant
- Great scalability and replicability in Europe and worldwide
- Feasibility study ongoing

EFFICIENCY THROUGH EXPERTISE & INNOVATION

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Leading partner in the world of metals