



GREEN METALS

The Green Metals Group works with metals industries, supply chains and innovators to develop technologies, materials, processes, and knowledge to decarbonise, de-fossilise and reduce the environmental impact of metals production, and to optimise recycling opportunities. The Group accelerates the emergence of sustainable 'Green' metals industries.

Capabilities

The Green Steel Centre's electric steelmaking pilot plant provides scalable research and proving technologies ranging from AI scrap characterisation and novel feedstock evaluations, to steelmaking innovations in low carbon, low nitrogen Electric Arc Furnace (EAF) steels, and synergy with cement materials from slags.

Expertise in iron ore reduction research including hydrogen DRI, natural gas DRI, blast furnace. Scrap characterisation, blending and bulk metal recycling innovation across ferrous and non-ferrous sectors utilising practical engineering know-how as well as human-assisted AI. Expertise in critical minerals and energy and process decarbonisation to support green metal production and recycling.

Benefits

- > Realise 90-100% reductions in Scope 1/2/3 CO₂ emissions
- > Impartial CAPEX project feasibility and debottlenecking to improve investment decisions
- > Minimise delivery time of projects and product commercialisation
- > Minimise end-to-end energy and material consumption costs
- > Real-world tested value-in-use data for feedstock

Services

- > Roadmap creation and optimisation for the pathway to 'green' steel and other products
- > Materials and process investigations for metal production furnaces
- > Technology scale-up
- > Life cycle assessment
- > Bespoke electrical melting programmes

Facilities

Electric Arc Furnace, vacuum and air induction melting, casting and forming. Iron Ore reducability rig including hydrogen DRI testing. Unique electrical rotary kiln with reducing atmosphere and microwave capabilities. Fully equipped materials development and materials characterisation centres.



**Materials
Processing
Institute**

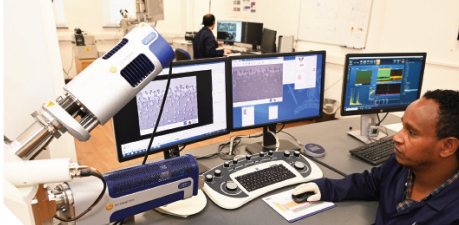
Research and Technology

Scan the relevant QR code to find out more about key areas in which we provide research and technology support.

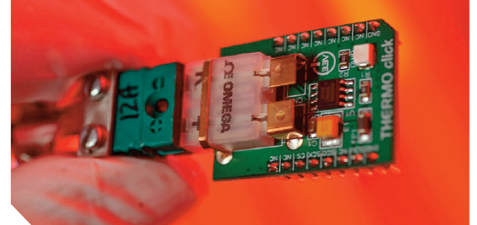
CHARACTERISATION AND ANALYSIS



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CRITICAL RAW MATERIALS



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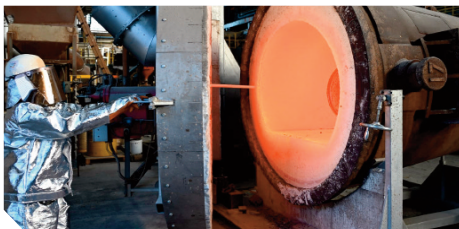
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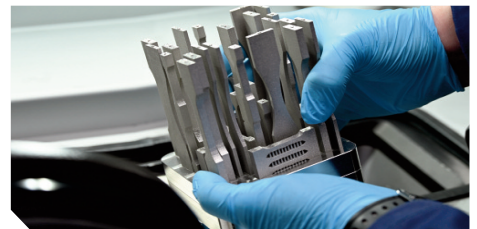
ENERGY AND PROCESS DECARBONISATION



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