

UK-based independent research institute offering R&D services in sustainable materials & industrial decarbonisation who seek International Partners for Collaborative R&D in Sustainable Metallurgy, Hydrogen Technologies, and Industrial Decarbonisation

Summary

Profile type

Technology offer

Company's country

United Kingdom

POD reference

TOGB20250530012

Profile status

PUBLISHED

Type of partnership

**Research and development
cooperation agreement**

Targeted countries

• World

Contact Person

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Term of validity

30 May 2025**30 May 2026**

Last update

30 May 2025

General Information

Short summary

This UK-based independent research institute offering R&D services in sustainable metallurgy, hydrogen steelmaking, circular economy, and advanced materials. Equipped with pilot-scale Electric Arc Furnace, hydrogen network, and advanced labs. Seeking international R&D collaboration, technology development partnerships, and joint project participation.

Full description

The client is a UK research institute is a not-for-profit innovation centre that has a 75-year record in developing new materials processes and technologies. When they were established as a central research organisation for the iron and steel industry in 1944. Who are situated on a purpose-built campus employing 70 engineers and scientists, whilst also working in partnership with universities and other research centres to provide collaborative research opportunities. They have also been consortia members contributing to previous Horizon projects the most recent being the Horizon 2020 So What Project recovering heat wasted by industry in the form of hot water and flue gases. Many advanced processes that are now standard across industry were first developed by this research institute who continue this tradition with the development and commercialisation of new technologies in materials, processing and

energy. Their research, development and innovation activity is focussed on developments in advanced materials, achieving industrial decarbonisation through a low carbon and hydrogen future, deploying digital technologies and reducing waste through a circular economy.

With specialists (PhD and post-doctoral) in industrial decarbonisation, advanced materials, and circular economy they have onsite facilities that include pilot-scale Electric Arc Furnace, hydrogen furnace, pyrolysis kiln, and laboratories. The services available include bespoke R&D, testing, and scale-up services. Seeking R&D partners for joint projects and technology validation. They are seeking partners who share their aims to co-develop sustainable processes and materials, leveraging shared expertise and infrastructure to accelerate commercialisation and impact.

Advantages and innovations

This institute offers pilot-scale industrial facilities like Electric Arc Furnace, hydrogen networks, and pyrolysis kilns, along with advanced analytical labs for full-cycle R&D. Integrating metallurgy, energy transition, and circular economy, it specializes in hydrogen-based steelmaking and has unique access to industrial-scale infrastructure.

Technical specification or expertise sought

Stage of development

Already on the market

Sustainable Development goals

- **Goal 7: Affordable and Clean Energy**
- **Goal 9: Industry, Innovation and Infrastructure**
- **Goal 12: Responsible Consumption and Production**
- **Goal 13: Climate Action**

IPR Status

IPR granted

IPR Notes

This institute has filed many patents in multiple territories.

Partner Sought

Expected role of the partner

The client is looking to partner with companies, universities or research organisations which have expertise in the renewable energy sector. as part of a horizon consortium or other similar grant funded project

Type of partnership

Research and development cooperation agreement

Type and size of the partner

- **R&D Institution**
- **Big company**
- **SME 50 - 249**

Dissemination

Technology keywords

- **04002002 - Hydrogen production**
- **04001003 - Storage of electricity, batteries**
- **04007006 - Low, zero and plus energy rating**
- **02004 - Plant Design and Maintenance**
- **04002001 - Fuel cells**

Targeted countries

- **World**

Market keywords

- **06003009 - Biomass and Biofuels**
- **06008 - Energy Storage**
- **06003006 - Combined heat and power (co-generation)**
- **06003005 - Geothermal energy**
- **06003010 - Distributed power and grid connection**

Sector groups involved