



# FISC

Foundation  
Industries  
Sustainability  
Consortium



# EconoMISER

Economic Material Innovation for  
Sustainable and Efficient use of  
Resources





# What is EconoMISER?

**EconoMISER is the first project of the Foundation Industry Sustainability Consortium (FISC).**

EconoMISER is developing a network of scale-up centres across the FISC partnership to accelerate innovation in low carbon, resource efficient and sustainable solutions for the foundation industries.

The programme provides dedicated support for the UK's foundation industries through experienced teams of industry fellows and application scientists who are now initiating projects across the FI innovation network.

FISC partners are collaborating on several cross-sector research themes, providing solutions to the national challenges faced by companies working across the foundation industries.

By leveraging the combined capabilities and expertise of FISC, EconoMISER is accelerating the translation of research through its scale-up centres and into manufacturing plants and supply chains.



EconoMISER is funded by Innovate UK as part of the Transforming Foundation Industries (TFI) Challenge.

# EconoMISER Lifecycle

## Connect

**TFI Fellows** are engaging with companies and RTOs to landscape the national research & innovation challenges faced by the foundation industries and to identify project partnerships for EconoMISER.

This connection is **establishing cross sector links** throughout technology and manufacturing readiness levels to initiate projects that will extend beyond the lifecycle of EconoMISER.



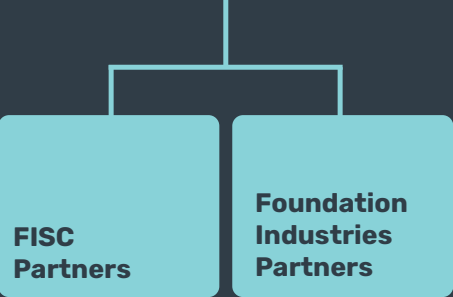
Stakeholders:



## Collaborate

**EconoMISER Application Scientists** are working alongside two or more members of FISC and external project partners to deliver R&D solutions for the Foundation Industries.

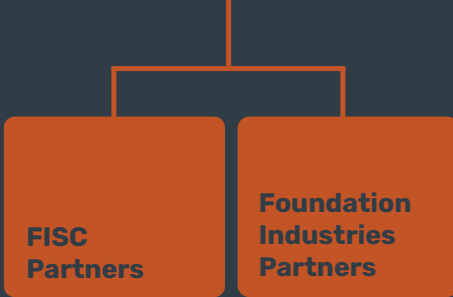
FISC is comprised of five research facilities who offer a wide range test capability and expertise to help **identify solutions to research and innovation challenges** faced by the foundation industries.



## Innovate

The **EconoMISER team and project partners** will develop identified solutions through the network of scale-up centres established by FISC and roll out technology and manufacturing solutions into the Foundation Industries.

EconoMISER is organised around five research themes and will use FISC facilities to **scale-up research through technology and manufacturing readiness levels**.



## Impact

**EconoMISER** projects are supporting the decarbonisation and sustainability needs of the **Foundation Industries** through improved resource efficiency, sustainable products and Industry 4.0 solutions.

Outcomes will add security to raw materials supply chains, improve cost competitiveness, accelerate digitisation, and advance skills & diversity within the workforce.



Supported by:



# Research Themes

EconoMISER projects are centred around six research themes. Each research theme is led by a FISC partner who coordinates cross-centre collaboration with other members of the consortium.



## Alternative fuels

Supporting the adoption of green energy solutions, including lower carbon and less polluting fuels such as hydrogen and biofuels.



## Circular economy

Ensuring FI resources are used as effectively and efficiently as possible to adopt a zero waste, recirculating system which will improve security of supply and reduce environmental impact.



## Digital Sensing

Developing process monitoring and data capture practices to support remote and real-time decision making within manufacturing processes. Informing modelling, prediction and simulation and tracking through the make, use and end-of-life cycle.



## Process Optimisation

Designing and improving systems to minimise process variability, maximise resource utilisation and identify best practice. Ensuring companies make the most of their manufacturing ecosystems to reduce waste and energy consumption, boosting cost competitiveness in the UK.



## Sustainable Materials

Improving the recyclability of materials to ensure recovered materials are fit for purpose and developing new manufacturing processes which adopt recycled raw materials. The theme will also identify alternative materials from sustainable sources to reduce reliance on mined raw materials.



## Training and Skills

Working together to identify best practice for the training and development of people across the foundation industries, helping to address the skills gaps and to make these vital industries attractive places to work for everyone.

# Current Activities

- Investing in scale up centres for the foundation industries.
- Conducting sprint, single & multi-partner projects with businesses operating in the foundation industries.
- Networking within the sectors to identify and set up large multi-partner projects.

# FISC Partners

The Foundation Industries Sustainability Consortium is a partnership between five global leaders in innovation, research, and technology from across the cement, metal, glass, ceramic, paper and chemical industries.





ukfisc.org

To discuss collaboration opportunities please contact the EconoMISER  
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