

# Laing O'Rourke begins project to decarbonise manufactured concrete components

July 7, 2021



Laing O'Rourke has commenced a project to decarbonise manufactured concrete components used in construction, after securing a grant to co-fund the work from the UK's Industrial Energy Transformation Fund (IETF).

The IETF, which is managed by the Department for Business, Energy and Industrial Strategy (BEIS), is designed to help businesses cut their energy usage and carbon emissions by investing in energy efficiency and low carbon technologies.

The 'Decarbonising manufactured concrete' project involves a comprehensive study into carbon reduction at Laing O'Rourke's Centre of Excellence for Modern Construction in Steetley, Nottinghamshire. The facility, which employs 400 people, is Europe's most advanced construction products manufacturing facility and will play an integral role in the delivery of the company's new global sustainability targets, which include achieving operational net zero by 2030 and becoming a net zero company before 2050.

Working in a consortium with experts from the University of Cambridge and the University of Sheffield's Advanced Manufacturing Research Centre (AMRC), Laing O'Rourke will investigate every facet of the

production process, from the use of low carbon concrete, steel and aggregate materials and technologies, to the systems used to create formwork and cure products.

Dr Chris Millard, R&D Leader, Europe at Laing O'Rourke, said: "We are delighted to have secured this UK Government backing and are excited to have started work on the project. Advances in this area are essential to help reduce the carbon impact of the built environment, which accounts for 45% of UK greenhouse gas emissions.

"The project could also be a catalyst for the implementation of the Government's Construction Playbook, which sets out policies to increase the use of manufacturing in construction, to boost productivity and deliver better, faster and greener public buildings and infrastructure. Our vision is to put any developments to work across our global business, and to share learnings that build on overall sustainability efforts across engineering and construction."

Energy, Clean Growth & Climate Change Minister Anne-Marie Trevelyan said: "We have set a world-leading commitment to tackle climate change by 2050 and developing the technologies we need to rein in carbon emissions will not only allow us to transition to a green economy, but will reduce costs for business, boost investment and create jobs.

"All sectors are going to be involved in this process and this funding is allowing Laing O'Rourke to drive forward the innovation that will help a key part of the construction industry cut emissions as we build back greener from the pandemic."

The objectives of the project are twofold: to apply new lower carbon materials and processes to reduce the embodied carbon in finished products, including columns, walls, floor slabs, and architectural facades used in built assets; and to decarbonise the operation of the facility. After initial scoping work to quantify, prioritise and define decarbonisation interventions, the consortium will conduct feasibility trials for each intervention.

*Photo credit: Laing O'Rourke*