

PARTICIPANT INSTITUTIONS



European Research
Project

EIROCRETE
sustainable, lower carbon
pre-cast infrastructure

MEMBERS OF THE CONSORTIUM

Queen's University:

Dr Mohamed Sonebi (Coordinator)
Prof Su Taylor
Dr Emilio Garcia-Taengua

Banagher Precast Concrete:

Mr Peter Deegan

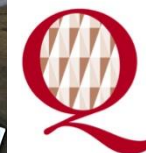
Politecnico di Milano:

Prof Liberato Ferrara

Azichem Ltd:

Mr Andrea Pattarini

PLANNING
ARCHITECTURE
CIVIL
ENGINEERING



Queen's University
Belfast

GOALS

Developing significantly lower energy, durable concrete products

Maximising the inclusion of waste products

Using corrosion resistant reinforcement which is stronger, lighter and has a lower carbon footprint than steel reinforcement



AT A GLANCE

Duration: 4 years

Budget: 1,085,443 €

Funded by the European Union (FP7-PEOPLE-2012-IAPP - Marie Curie Action: "Industry-Academia Partnerships and Pathways")

MOTIVATION

This project is aimed at the development of sustainable, low carbon, pre-cast concrete infrastructure. It is estimated that concrete products represent at least 5 percent of humanity's carbon footprint.

Additionally, concrete infrastructure such as bridges, marine structures for coastal defence and off-shore renewables suffer from premature ageing, rapid deterioration, structural deficiency and the safe management of risk. Most of this deterioration is a result of the corrosion of the steel reinforcing bars (rebars) embedded in the concrete.

In the UK alone £600m pa is spent on the repair and maintenance of ageing steel reinforced concrete infrastructure.

This innovative research accrues from the technological approach used to develop sustainable concrete products with a significantly lower carbon footprint and the demonstration of this improved sustainability by the Academics Partners from UK and Italy collaborating with a leading pre-cast concrete manufacturer, Banagher Precast Concrete in Ireland and specialists in leading-edge technologies and products for the construction industry, Azichem in Italy.

