

# Sustainable Built Environment Group

Departments of Engineering and Earth and Ocean Sciences

*Multidisciplinary Team:*

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## Developing Sustainable Concrete Products *Reducing Embodied Carbon*

### Recycled Demolition Aggregate

**Building Blocks, Paving Flags, Paving Blocks**

*17% of Waste is Construction & Demolition Waste  
Reduces quarried aggregate extraction*



### Cementless Geopolymer Concrete

**Green Concrete using 100% Recycled Materials**

*5% of worldwide CO<sub>2</sub> emissions is caused by cement production  
1 tonne concrete = 0.8 tonnes CO<sub>2</sub>*



### Recycled Glass

**Green Ultra-High Performance Glass Powder Concrete**

*Employing our cementless technology  
Less breakage = Less Replacements = Material Savings = Additional Carbon Saving*



## Demonstration Projects *Reducing Operational Carbon*

### Thermal Modelling, Energy Monitoring, Renewable Energies Integration

Collaborators and Partners Include:

