

CLIMATE GROUP
CONCRETE
ZERO

2025 Impact Report

**Celebrating collective
progress, showcasing
member achievements,
and setting out future ambition**

October 2025



Foreword



Welcome to the first ConcreteZero impact report: a moment to mark our three-year anniversary, reflect on lessons learned, and celebrate the exceptional progress made by our members.

Over the past year managing this initiative, I have come to appreciate just how vital ConcreteZero's role is in counteracting our focus on what is more relatable, better understood, and lends itself to direct action. Many know the basic principles of renewable electricity and energy efficiency for tackling emissions. But when it comes to tackling the emissions associated with concrete, fewer know where to start.

This means that while concrete is the second most-consumed substance on the planet after water, accounting for 7% of all global greenhouse gas emissions, its physical ubiquity and climate

impact have yet to translate into **concerted industry action** or meaningful regulatory prioritisation.

But users, procurers, and specifiers of concrete increasingly recognise the significant contribution concrete makes to their Scope 3 emissions. And while national, organisational, project, and material decarbonisation targets provide a mandate to better understand these emissions, the systemic disruption needed to **drive meaningful reductions** in concrete's embodied carbon cannot be delivered in isolation. It is best addressed collectively: ConcreteZero's very reason for being.

This **collective action** underpins all the impacts set out in this report. Only by working together - with our members, suppliers, industry experts, policy makers and financiers - can we take on the enormity, complexity and uncertainty of the transition needed to tackle the emissions associated with concrete.

I hope our members, friends and funders share our pride in the successes set out in this report. I look forward to what comes next for ConcreteZero, as we continue to build industry-wide awareness and momentum towards **deepening and scaling** what we have achieved so far.

Nia Bell
Senior Manager, ConcreteZero

Only by working together can we take on the enormity, complexity and uncertainty of the transition needed to tackle concrete's emissions.





Introduction

The most impactful change happens when concrete users recognise their role in reducing emissions - and act on it.

When companies acknowledge their responsibility and drive demand for lower-carbon concrete, they unlock far more than emissions reductions. This shift opens the door to smarter material use, cost savings, innovation in mix design, and greater transparency across supply chains.

ConcreteZero is a Climate Group initiative driving the decarbonisation of the concrete sector. It brings together leading businesses that commit to using and specifying net zero concrete, creating a strong demand signal to shift global markets, investments, and policies towards sustainable concrete production and sourcing.

As a demand-side campaign, it brings together companies and stakeholders who purchase, specify or influence the procurement of concrete. This includes architects, designers, specifiers, engineers, contractors, developers and clients - every actor on the demand side of the value chain, each with a crucial role to play. Our philosophy complements the supply-side advances, where material innovation is proving to be a key market differentiator alongside addressing production emissions.

About this report

This document is a testament to three years of ConcreteZero in action, charting our journey from launch to today. It highlights the momentum we have built and the on-the-ground impact our members are delivering.

Over the past three years, we have:

1

Fostered Ambition:

Set a clear path towards our 2050 100% net zero concrete target, with interim 2025 and 2030 milestones for 30%, and 50% lower carbon respectively, underpinned by granular accounting and monitoring.

2

Driven Collective Action:

Grown from a 17-strong member base to a 37-member demand coalition, with an ambitious target of surpassing 100 members in the coming year.

3

Shaped the Narrative:

Delivered six major thought leadership pieces and numerous key industry collaborations, including with the IEA and LCCG to shape the market narrative and accelerate action.

Acronym explainer:

DESNZ	Department of Energy Security and Net Zero (UK Government)
GCCA	Global Cement and Concrete Association
IEA	International Energy Agency
LCCG	Low Carbon Concrete Group
MPA	Mineral Products Association

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2021-22

Pre-launch preparation

Defining the commitment and developing the member network.

2023

Kick-off of member workstreams and pilot reporting framework

Members collaborated to address collective challenges and opportunities on concrete embodied carbon, including establishing a mechanism to monitor progress against targets.



2025

Formalising our embodied carbon accountability framework and policy position

Now at 37 members, Concrete Zero is supporting members to implement their commitments with tailored guidance and monitoring tools.



2022

ConcreteZero campaign launch

With 17 leading companies as founding members, ConcreteZero Commitment Framework sets out the time-bound concrete decarbonisation targets members sign up to.



2024

Establishing interoperability of the ConcreteZero targets

This globally relatable definition supports the uptake of ConcreteZero's principles more widely.



Defining the market signal

Setting time-bound, quantitative targets for tackling concrete's embodied carbon

ConcreteZero has defined the global benchmark for credible leadership on concrete decarbonisation - **we have shaped foundational market principles** that consumers and producers of concrete, policy makers and financiers are aligning with.

Defining the ConcreteZero Low Embodied Carbon Concrete Threshold, prior to launch, spurred first-of-their-kind conversations with a broad range of industry experts and civil society partners on how to quantify an achievable yet ambitious near-term target. This was no mean feat given the dearth of data on

the embodied carbon of concrete, especially back in 2021.

Three years ago, in July 2022, a cohort of 17 pioneering businesses publicly committed to near-term concrete decarbonisation targets referencing the ConcreteZero Low Embodied Carbon Concrete Threshold. These influential buyers and specifiers of concrete, and those who have joined ConcreteZero subsequently, are at the forefront of a **rapid shift** in the market's expectations as to what is and is not acceptable when it comes to the climate impact of concrete.

In Focus:

In 2025, we partnered with CapitaLand Development in Singapore to map the embodied carbon of concrete in that market as part of our market activation work for ConcreteZero.

While the outputs of this multi-stakeholder effort are due to be shared later this year, the momentum for developing a shared

understanding of the market-specific concrete decarbonisation challenges and opportunities is already bearing fruit. Engagement of 60+ experts in the project's in-person workshop in June encompassed in-depth, cross-sectoral exchanges on the critical importance of concrete data for concrete action.



2025

Specify and procure 30% of total concrete consumption, meeting carbon intensity no greater than the ConcreteZero Lower Embodied Carbon Concrete Threshold.

2030

Specify and procure 50% of total concrete consumption, meeting carbon intensity no greater than the ConcreteZero Low Embodied Carbon Concrete Threshold.

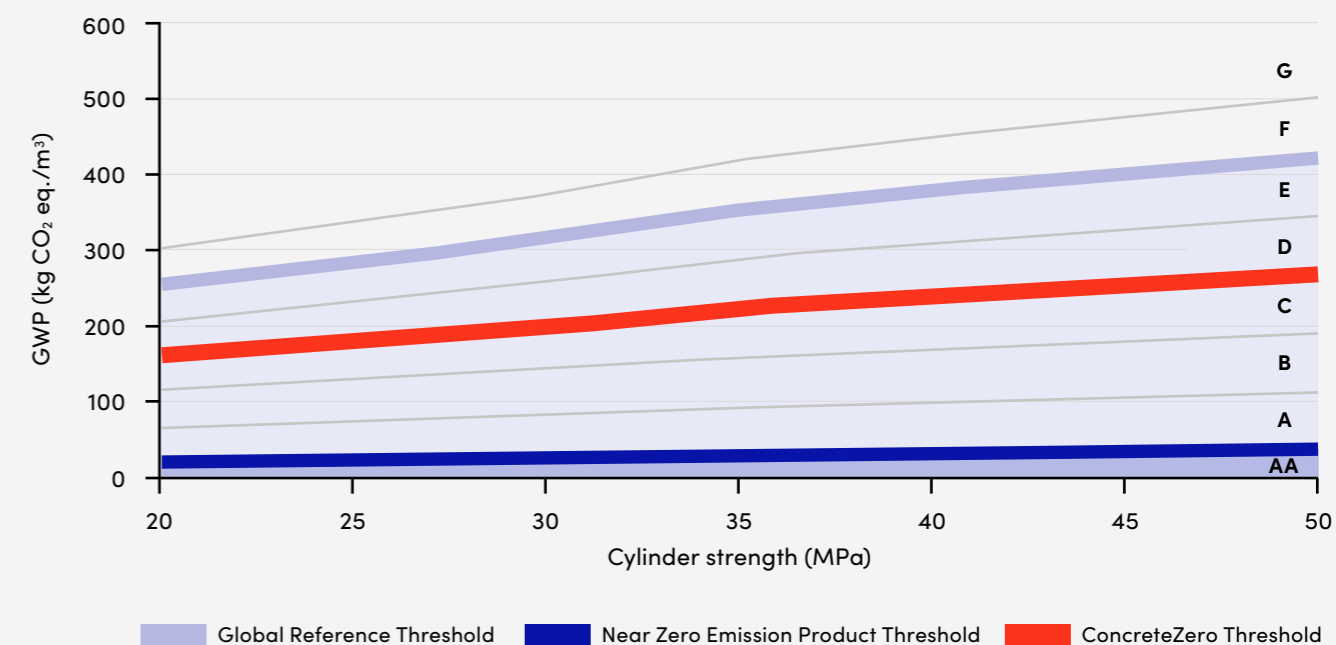
2050

Procure and specify 100% of total concrete consumption, meeting the definition of Net Zero Concrete.

In 2024 we reframed the ConcreteZero Low Embodied Carbon Concrete Threshold to broaden its global relatability and actionability: building on recently developed rating systems for our [Commitment Framework](#) update. This was an important precursor to

welcoming Grupo Construcia as our first European member earlier this year and, looking forward, will allow us to inspire and inform further international industry actors in shaping concrete decarbonisation targets and net zero pathways globally.

Figure 1: The GCCA Global Banding system following the metric unit system. The top of Band C (red line) corresponds to the ConcreteZero Low Embodied Carbon Concrete Threshold.



2.0

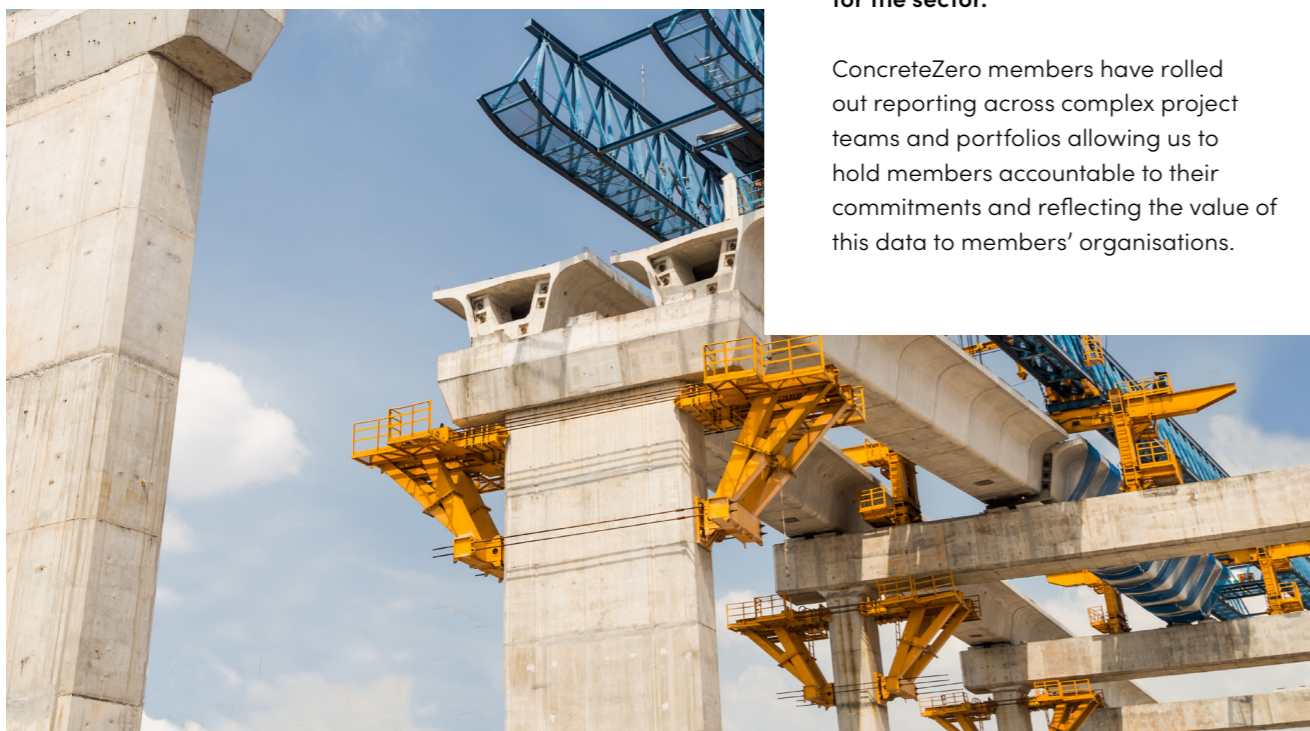
Establishing an accountability framework

Developing and piloting a consistent, comprehensive approach to concrete embodied carbon reporting.

ConcreteZero's member reporting is a groundbreaking approach to consistently collecting and structuring concrete data that meets the information needs of those who use, procure and specify concrete.

In 2023, and with extensive support from industry experts, ConcreteZero developed a reporting pilot that was taken forward by the membership. This bottom-up, mix-by-mix approach to reporting the concrete used and specified by members represents **a fundamental shift in data transparency for the sector.**

ConcreteZero members have rolled out reporting across complex project teams and portfolios allowing us to hold members accountable to their commitments and reflecting the value of this data to members' organisations.



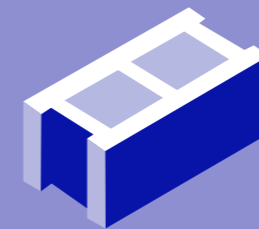
Highlights of the July 2023 – December 2024 reporting pilot



68%
of members participated



26
organisations invested in measuring the embodied carbon impact of the concrete they use, procure or specify



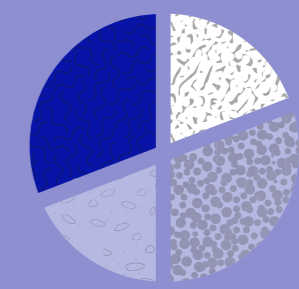
Members reported using, procuring or specifying a total of
4,700,000 m³
of concrete during this period



> 1,000,000 m³
of which was measured at a project level, using the bottom-up mix-by-mix approach supported by the ConcreteZero tool

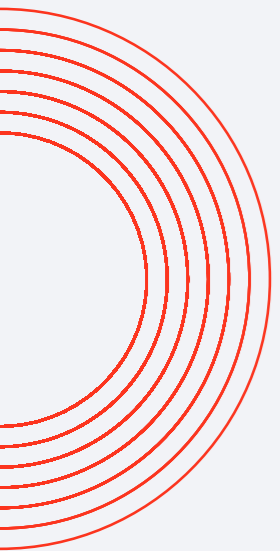


> 130
Reporting covered > 130 projects



~600
Reporting covered ~ 600 mix designs

Members have shared that the process of data collection and reporting has:



- **Strengthened their supply chain engagement** – ConcreteZero welcomed invitations from Sir Robert McAlpine, Clancy Group and Graham to participate in knowledge sessions with their supply chains.

- **Streamlined conversations around embodied carbon across project teams** – Mace Group used the data to benchmark material usage and highlight considerations on embodied carbon, in relation to other material properties, to a major client.



- **Provided enhanced visibility and understanding** of the opportunities and hotspots in concrete procurement, which often represents a significant share of Scope 3 emissions – Lendlease Europe and Ramboll, amongst others, have developed dashboards to visualise and communicate on their concrete embodied carbon internally.



We also celebrate the procedural and behavioural shifts members have managed internally to take forward reporting within their organisations. Most members took part in at least one of the three 6-month reporting trial periods covering July 2023 to December 2024, where they were asked to report on a sample of at least four projects. This year the ConcreteZero reporting framework has been evolved and relaunched to improve usability, support the reporting of supply chain-specific environmental data, and enhance the quality checks and analysis supported.

For ConcreteZero the results of the reporting pilot have already provided valuable insight into member progress which provisionally looks on track against the 2025 and 2030 targets, though with a high reliance on the constrained supplementary cementitious material GGBS.

An ever increasingly robust system will allow both members and ConcreteZero to extract more value from their reporting efforts by distilling trends and practical insights that inform and drive progress in the sector, as well as identify and evidence hotspots to prioritise advocacy efforts. Another area of interest is engagement with the finance sector on the topic of embodied carbon data transparency and its role in informing transition finance decisions and financed emission measurements.

The results of the reporting pilot have already provided valuable insight into member progress

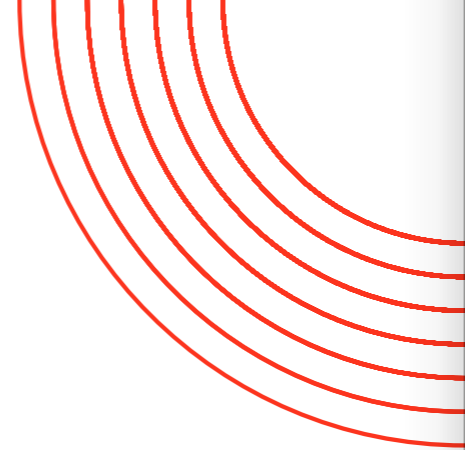
Showcasing member leadership

Elevating learnings and best practice from pioneering concrete users to accelerate embodied carbon reduction globally.

Being part of **ConcreteZero** has meant lots of firsts for our members: signing a public concrete decarbonisation commitment, setting up reporting systems, engaging value chain stakeholders, contributing to ConcreteZero thought leadership and, crucially, taking action to tackle concrete-related embodied carbon in their operations.

We shape the narrative in a way that triggers organisations to ask – and deeply consider – “What am I doing

to lower the emissions of the concrete I use (or specify)?”. We drive this through targeted media coverage (including in **Reuters** and **Canary Media**), podcasts features (such as The Clunker Factor and Thrive in Construction), an active social media presence and high-impact events such as **Climate Week NYC**, where in 2024 we ran a session on mobilising capital and accelerating innovation, and in 2025 explored industrial re-growth aligning with net zero.



Buro Happold, Temple Quarter

In collaboration with Sir Robert McAlpine, halved the upfront embodied carbon on a project through a holistic approach to material efficiency and material intensity optimisation

Sisk, Wembley Park

Part of a consortium that demonstrated Ecozem’s ACT product on a two-story project using a range of different construction methodologies and concrete mixes, realising an estimated 70% carbon saving compared to standard concrete

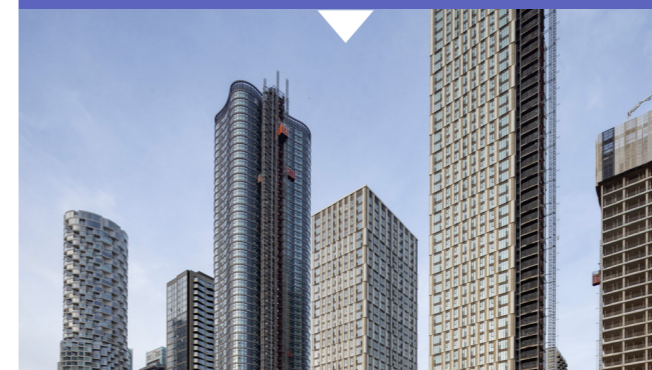


Canary Wharf Group, Wood Wharf

In partnership with Thornton Tomasetti, instigated monitoring of weather-dependent mix optimisation against project-level carbon target with learnings now transferred to live 1NQ project

Byrne Bros

Frontrunners in calculating and managing the embodied carbon of the concrete they procure and using it to inform element-level embodied carbon targets



Ramboll

Spearheading building carbon assessments transparency, incl. the embodied carbon associated with concrete on its public CO2mpare database

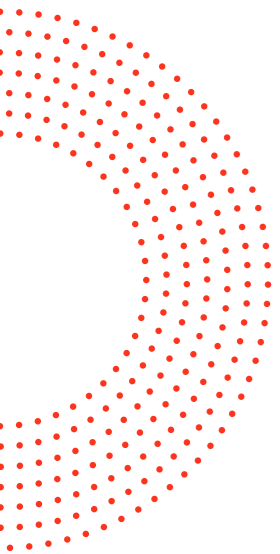
WSP

Shared a template for the embodied carbon clauses they introduced into concrete specifications as they look to drive progress on delivering against internal and external carbon targets

SCS, Tunnel inverts

Optimising mix designs by challenging requirements in the context of construction sequencing and programme





We showcase the successes of individual members and the collective membership in accelerating progress by **breaking down the concrete decarbonisation challenge** in a structured way, while recognising its complexity and nuance.

We demonstrate that **reducing concrete embodied carbon is not only possible but happening today**, with our members at the cutting edge.

Collaboration is a common feature in the above case studies, with ConcreteZero members instrumental in instigating and taking action to reduce concrete embodied carbon. Their leadership shows that everyone along the construction value chain – from suppliers and contractors to engineers and clients – has the agency

to affect change. Through regular knowledge exchanges and deep-dive sessions, we are building members' concrete decarbonisation knowledge and skills, enabling actors across the world to better approach **challenging the status quo** in their organisations, projects and supply chains.

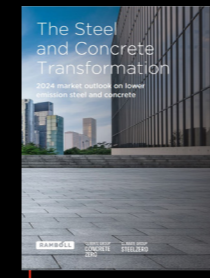
An exceptionally engaged membership, combined with close ties to expert partners in the Low Carbon Concrete Group, enables us to progress practical thought leadership outputs that directly support members in the implementation required to meet the targets set out in the ConcreteZero Commitment, and generate a snowball effect **driving a step-change in awareness and visibility** of lower-carbon concrete solutions.



Decarbonising the UK Concrete Industry

October 2024

In January 2025, ConcreteZero hosted 25 industry and UK government representatives in a workshop to unpack the findings of this paper, identify common knowledge gaps obscuring the pathway to net zero concrete, and inform the scope of the next phase of the Gap Analysis modeling work at a crucial juncture for UK policy development.



The Steel and Concrete Transformation report

September 2024

Launched at Climate Week NYC by Michael Simmelsgaard, Ramboll COO, this report drew on survey responses from over 250 companies to challenge the common assumption that cost is the biggest barrier to procuring lower-carbon concrete and steel.

"The fact that more companies are now willing to pay a premium for lower emission steel and concrete sends a strong signal to the market."

Michael Simmelsgaard, COO, Ramboll



Classification Methodology for Embodied Carbon of Concrete

July 2024

Referring to the ConcreteZero threshold on the LCCG benchmark takes away the 'why' and 'so what' reactions we usually get when referring to actual embodied carbon values."

Tom King, Sustainability Manager, Sir Robert McAlpine



ConcreteZero Data Management Tool Guidance

October 2025

"We decided rolling out ConcreteZero reporting across all our projects was fairer. We're able to use this data to have more refined conversations with suppliers. It's been powerful having that reporting data coming through and sharing it with the business."

Ceire Kenny, Sustainable Futures Manager, Lendlease (now Bovis Homes)



ConcreteZero Specification Guidance

April 2025

"We've instructed our engineers to employ best practice principles from the Specification Guidance to establish and then set embodied carbon limits and targets in our project's concrete specification."

Tim Hoyland, Environmental Manager, Related Argent Limited

Next steps involve continuing to build out the narrative of unstoppable momentum and engaging demand-side corporates on their central role in tackling these 'need-to-abate' emissions.

4.0

Tackling systemic barriers to concrete decarbonisation

Influencing and driving action across policy, standards and regulation

Being at the forefront of market-led, voluntary action on measuring and managing concrete embodied carbon allows ConcreteZero to **catalyse the systemic changes needed** to create and deliver a new climate-compatible business-as-usual – a truly decarbonised concrete sector.

Concrete users are much more than just a demand signal or a lead market. They are ready and willing participants in driving forward concrete decarbonisation on all fronts.

We bring this perspective to all our engagements with policy makers, intergovernmental agencies, not-for-profits, think-tanks, professional membership organisations, industry associations, the climate-focused philanthropic community, and others.

We look forward to **continuing cross-cutting collaboration** on these systemic challenges with current and future partners, magnifying our impact through knowledge exchange, sharing best practice and **supporting pioneering organisations to leapfrog** some of the sector's toughest issues. We've laid strong foundations over the past three years, working closely with our members and network to address many of these challenges and drive wider impact in the years ahead.

Join us and help shape the next three years of concrete decarbonisation.

To find out more about ConcreteZero and how to get involved go to www.climategroup.org/concretezero or email info@climategroup.org



ConcreteZero and its members are ready and committed to driving forward concrete decarbonisation on all fronts including...

Establishing clear and interoperable definitions and ratings systems

We aligned the Low Embodied Carbon Concrete Threshold across global frameworks, with support of the MPA and GCCA. This interoperability is already informing the IEA and UK DESNZ as they explore the use of rating systems to communicate and manage concrete's embodied carbon.

Avoiding carbon tunnel vision and unintended consequences

We contributed to the Institution of Structural Engineers' paper on how the constrained nature of GGBS limits its concrete decarbonisation potential, and supported the publication of, and UK government representatives' engagement with, the LCCG-authored Gap Analysis paper. Future topics of interest include GHG accounting practices and embodied carbon data quality.

Supporting routes-to-market for alternative binder systems

We brought the demand-side perspective and expertise to the BSI's development of the performance-based Flex 350 standard. This established our ongoing support of technology-neutral, performance-based technical standards and our ongoing support for ECOS advocacy work on European concrete standard harmonisation.

Scaling and diversifying supply of lower carbon concrete options

We piloted a cleantech appraisal form to help engineers assess the suitability of new materials for their application and welcomed numerous innovators to our member events: specifically, Ecocem's ACT Technology, Reclinker's Electric Cement, and Carbon8 Systems' Accelerated Carbonation Technology. Our key message to the mass-market concrete sector is "Enough GGBS, what else?"

ConcreteZero Members

Members

[AKT II Limited](#)

[Argent Services LLP](#)

[Bachy Soletanche](#)

[BAM Construct & Ventures Ltd](#)

[Bouygues UK Ltd](#)

[Bovis*](#)

[British Land Company PLC](#)

[Buro Happold Limited](#)

[Byrne Bros](#)

[Canary Wharf Group](#)

[Clancy Construction](#)

[Deconstruct UK Ltd.](#)

[Eckersley O'Callaghan Limited](#)

[Getjar](#)

[GRAHAM](#)

[Grupo Construcia](#)

[John Sisk & Son \(Holdings\) Ltd](#)

[JRL Group](#)

[Kilbridge Construction Services Ltd.](#)

[Laing O'Rourke](#)

[Land Securities Properties Ltd](#)

[Lendlease Europe Holdings Ltd](#)

[Mace LTD](#)

[Moda Living Limited](#)

[Morrisroe Group](#)

[Multiplex Construction Europe Limited](#)

[O'Halloran & O'Brien](#)

[Ramboll UK](#)

[Robert Bird Group](#)

[SCS Railways](#)

[Sir Robert McAlpine](#)

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[Statom Group](#)

[The Carey Group Ltd](#)

[Thornton Tomasetti](#)

[Walsh Associates Limited](#)

[WSP UK Ltd](#)

*Organisation pending signature



Collaborating Organisations

Advanced Market Commitment Project

American Council for an Energy Efficient Economy (ACEEE)

British Standards Institute (BSI)

Breakthrough Agenda (UNFCCC)

Department of Energy Security and Net Zero (DESNZ)

Climate Works Foundation

Concrete Sustainability Standard

ECOS – Alliance for Low Carbon Cement and Concrete (ALCCC)

First Movers Coalition

Green Market Activation Center

Innovate UK – Advanced Market Commitment project

Infrastructure Client Group (ICG)

International Energy Agency (IEA)

Institution of Structural Engineers (IStructE)

Materials & Embodied Carbon Leaders' Alliance (MECLA – WWF)

Mineral Products Association (MPA)

Mission Possible Partnership (MPP)

Net Zero Carbon Buildings Commitment (WorldGBC)

North Ready-Mix Concrete Association (NRMCA)

Rocky Mountain Institute (RMI)

Science Based Target Initiative (SBTi)

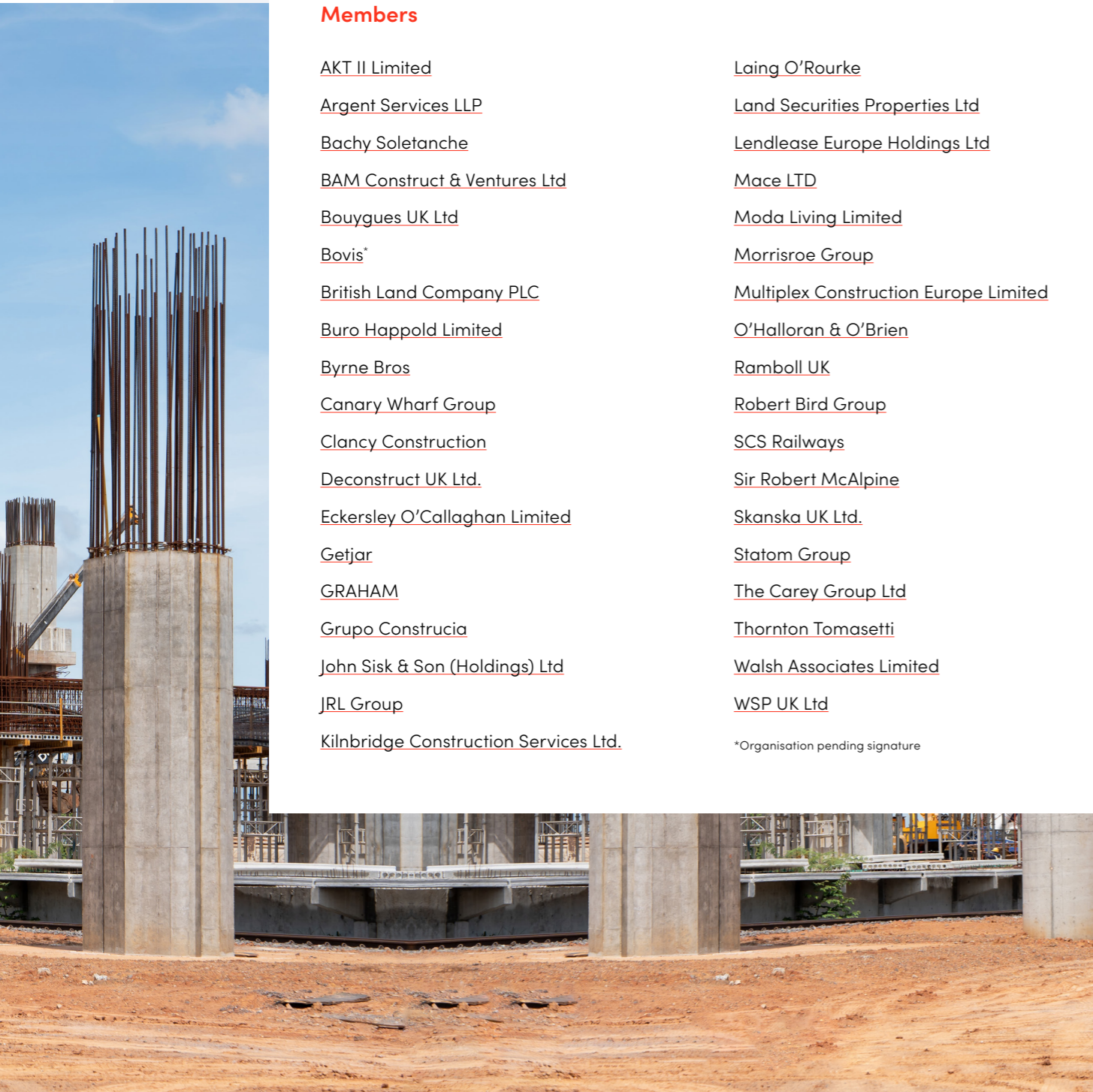
ShareAction

UK Concrete Decarb Taskforce and Low Carbon Concrete Group (BEIS/ICE)

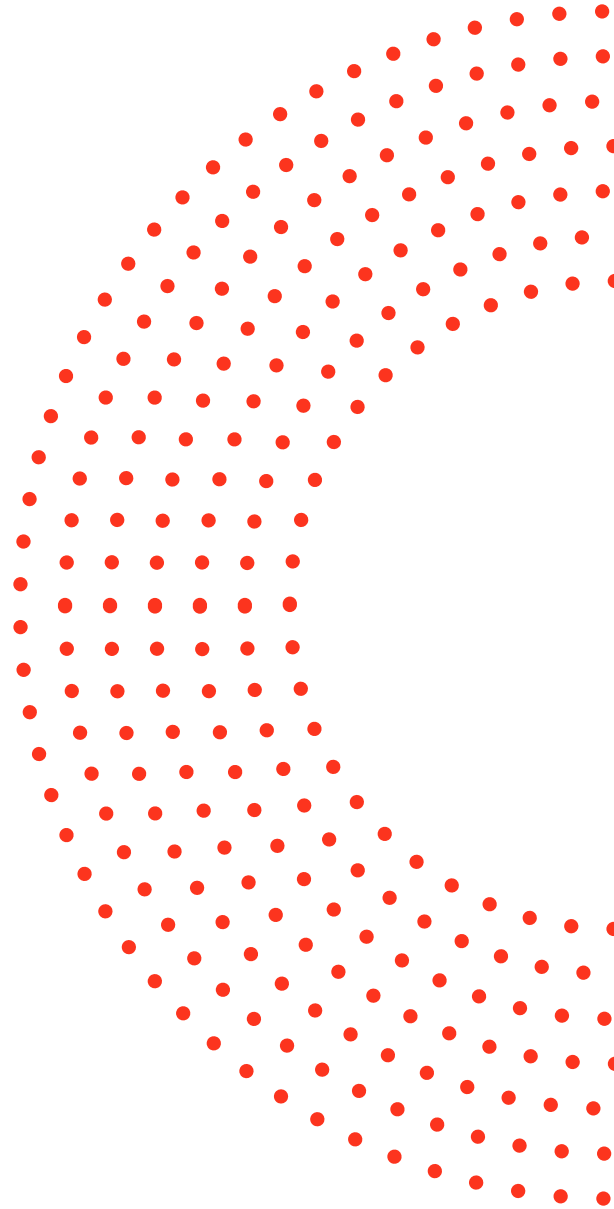
UK Lower Carbon Concrete Group (LCCG)

UN Industrial Deep Decarbonisation Initiative (IDDI)

We Mean Business Coalition



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