

# Campaign overview and commitment framework

## Introduction

ConcreteZero is an initiative run by [Climate Group](#) in partnership with WorldGBC that brings together pioneering organisations to create a global market for net zero concrete.

Our aim is to drive decarbonisation of the concrete sector by bringing together a united group of leading businesses committed to using, procuring, or specifying net zero concrete. By harnessing their collective action, ConcreteZero sends a strong demand signal to shift global markets, investment and policies towards responsible production and sourcing of concrete, creating a market for net zero concrete.

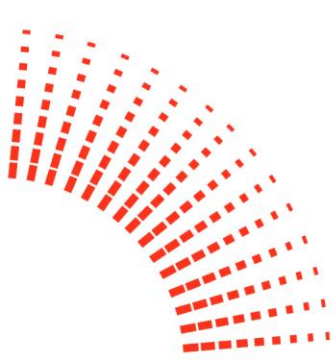
Making a public net zero concrete commitment enables companies to prepare for the inevitable changes to their supply chains, future proof their business and remain economically competitive in the transition to a zero-carbon world.

ConcreteZero members are at the forefront in tackling embodied carbon emissions. They're better positioned to respond to client and investor's net zero requirements.

## Leadership commitment

Organisations that join ConcreteZero must be willing to make a public commitment to transition to 100% net zero concrete by 2050, at the latest.

ConcreteZero members will be either organisations that use or procure concrete, including public procurement bodies, architects, designers, structural engineers and





specifiers of concrete, or companies involved in the concrete supply chain at any stage after the production of concrete (LCA Stages A1-A3<sup>1</sup>).

Organisations are encouraged to commit to the most ambitious, credible interim target that fits with their strategy. Organisations have the option to review their commitment on an annual basis and adjust it in line with their corporate targets providing it always meets the minimum criteria. ConcreteZero members will be actively encouraged to increase their interim commitment if possible.

Organisations must commit to achieve a set of minimum commitment criteria, which has been designed to:

- Send a strong market demand signal to cement and concrete producers, accelerating transition to net zero concrete production
- Be adoptable by organisations across all concrete-using sectors
- Be globally applicable
- Recognise the best practice in each market

## Minimum commitment criteria

1. **Baseline commitment:** Commitment to report the volume and carbon intensity of concrete consumption. Reporting framework and guidelines are available separately, but under the following basic assumptions:
  - a. The data reported needs to reflect both actual (achieved, including waste) as well as planned specification and consumption where appropriate;
  - b. ConcreteZero members will be required to adopt a ConcreteZero reporting protocol and submit the following basic detail as a minimum, to encourage best practice and support industry transition towards data accuracy, information sharing, transparency, and accountability: strength class, carbon intensity, volume, year/month delivered and country of origin; and
  - c. ConcreteZero will report anonymised total consumption only.
2. **2025 interim commitment:** Commitment to specify and procure 30% of total concrete consumption (by volume), meeting carbon intensity no greater than the ConcreteZero Low Embodied Carbon Concrete Threshold as defined in Appendix A.

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<sup>1</sup> Life Cycle Assessment Stages A1-A3 cover lifecycle from raw material extraction (A1), through to transport (A2) and manufacturing of the ready-mix concrete (A3). Ready-mix: cradle to batching plant gate. Precast: cradle to mould.



3. **2030 interim commitment:** Commitment to specify and procure 50% of total concrete consumption (by volume), meeting carbon intensity no greater than the ConcreteZero Low Embodied Carbon Concrete Threshold as defined in Appendix A.
4. **2050 long term commitment:** Commitment to procure and specify 100% of total concrete consumption (by volume), meeting the definition of Net Zero Concrete as defined in Appendix B

Commitment criteria and language may evolve over time to ensure that the ConcreteZero commitment framework reflects the most up to date science-based information and that the group demand signal remains relevant and reflects the appropriate level of ambition against the latest market data. Any decisions to change or update commitment framework will be decided in discussion with ConcreteZero members ahead of adoption. Climate Group reserves the right to make alterations to the minimum commitment criteria if any such changes are required following member consultations.

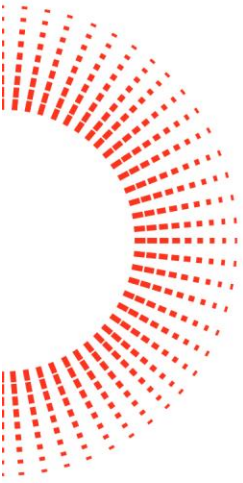
ConcreteZero members will be expected to report data bi-annually, during the specified reporting periods. The first reporting period after joining the initiative will be treated as an adoption period, allowing members to implement the necessary measurement and reporting processes and policies that may be needed to meet requirements.

## Communications

We use strategic communications to raise the profile ConcreteZero and to shout about the progressive action of our members. Through social media, media, events, and stakeholder engagement we make sure that ConcreteZero is known right across the sector. From creating engaging content to shaping news moments we amplify the demand signal for sustainably produced concrete. And our members are central to this.

As a member of ConcreteZero you'll have the opportunity to participate in and contribute to:

- Interviews with sector and trade journalists and correspondents
- Production of thought leadership pieces
- Profile of case studies and innovative projects that address embodied carbon emissions reductions and use of low carbon concrete
- Targeted speaking opportunities and participation at key external and Climate Group led events



## Action

ConcreteZero will support organisations in their journey to net zero concrete and in acting on their commitment. Member organisations will be invited to join the ConcreteZero working groups and will have the opportunity to design and drive the group agenda and strategy. The agenda will be structured to assist members in developing practical guidance tools to fulfil their commitment to net zero concrete. Working group will provide a safe environment in which to collaborate with like-minded organisations, share the knowledge, showcase leadership, and best practice: all aimed at achieving the highest standards of sustainability. It will be coordinated by the ConcreteZero project team and co-led by the self-appointed taskforce leads.

The calendar of internal and external group events and engagements is developed with the overarching aim of tackling barriers to action. Specialist topics include member case studies, overcoming regulatory barriers, key notes by academia and research bodies, regional market focus and feature complementary initiatives.

ConcreteZero members are able to participate in specific technical workstreams, dedicated to increasing transparency, building capacity and encourage knowledge sharing. The focus of the technical workstreams is driven by ConcreteZero project team, taskforce leads, and external technical partners and subject matter experts. Workstream focus includes developing tools for carbon measurement and reporting, updating benchmarking, formulating specification guidelines, accelerating policy & standards progression, and engaging with the insurance & warranty sector. Topics that present priorities for ConcreteZero Working Group members can be proposed and workstream taskforces set up as necessary if agreed.

Wider topics also include consideration of efficient design practices, clean technology solutions and the shift towards a circular economy. The Innovation Hub is dedicated to connecting innovators & producers to ConcreteZero members to accelerate market adoption of the most promising alternative technologies, and is featured as a standing item in the Working Group agenda.

Whilst the ConcreteZero commitment focuses on the decarbonisation of concrete production, there is scope to address broader ESG issues associated with the concrete supply chain, and ConcreteZero will consider how to influence effective investment, policies and regulation needed to address broader ESG issues as part of concrete procurement, in consultation with its members.

## Alignment with complementary initiatives

We're collaborating with non-profit partners, climate sector specialists and business associations and academia to provide a more comprehensive approach to tackling the concrete decarbonisation problem and ensure necessary alignment to building demand for net zero concrete. The list is live and therefore not exhaustive:



ACEEE

Buy Clean Taskforce

BSI

DESNEZ

Cambridge University

Climate Arc

Concrete Sustainability Standard

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

Innovate UK – UKRI

Infrastructure Client Group (ICG)

International Energy Agency (IEA)

IstructE

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

Mineral Products Association

Mission Possible Partnership

Net Zero Carbon Buildings Commitment (WorldGBC)

North American Ready-Mix Association

Rocky Mountain Institute

SBT Initiative

ShareAction

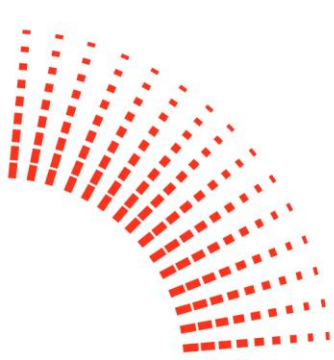
TransFIRE Project (Transforming Foundation Industries Research & Innovation Hub Leeds University)

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

UN Industrial Deep Decarbonisation Initiative

We Mean Business

World Cement Association





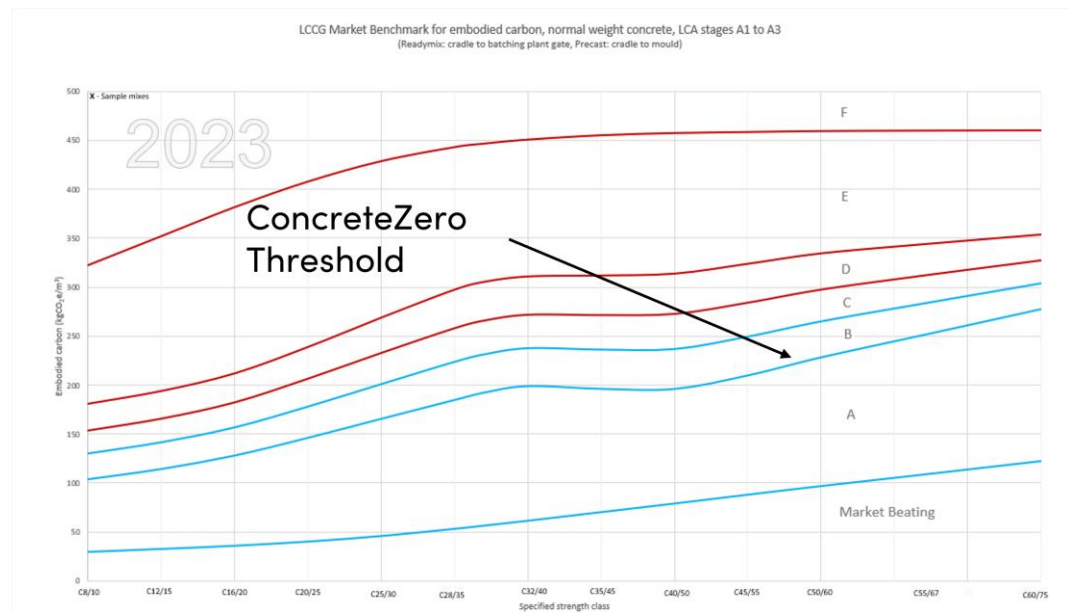
## Appendix A – Requirements for interim commitments

**ConcreteZero Low Embodied Carbon Concrete Threshold** is defined as concrete with a GHG emissions intensity of **less than or equal to the LCCG<sup>2</sup> benchmark rating B** based on selected strength compared to a reference baseline.

The LCCG benchmark is reviewed on a yearly basis, to reflect a timely and accurate picture of market performance of embodied carbon of material consumed. The update to the LCCG benchmark will be accompanied by a review of ConcreteZero low embodied carbon threshold, to ensure the right level of ambition is reflected throughout ConcreteZero commitment and targets.

The latest update to the LCCG benchmark is the 2023 publication<sup>3</sup>.

### a) ConcreteZero Low Embodied Carbon Threshold



<sup>2</sup> The Low Carbon Concrete Group (LCCG), formed of professionals from the concrete and cement industry, academia, engineers, and clients, has been brought together by the Green Construction board in its role as the sustainability workstream of the Construction Leadership Council. [Low Carbon Concrete Routemap | Institution of Civil Engineers \(ICE\)](#)

<sup>3</sup> [Embodied carbon of concrete – Market Benchmark. The 2023 update of the Low Carbon Concrete Group Market Benchmark](#)

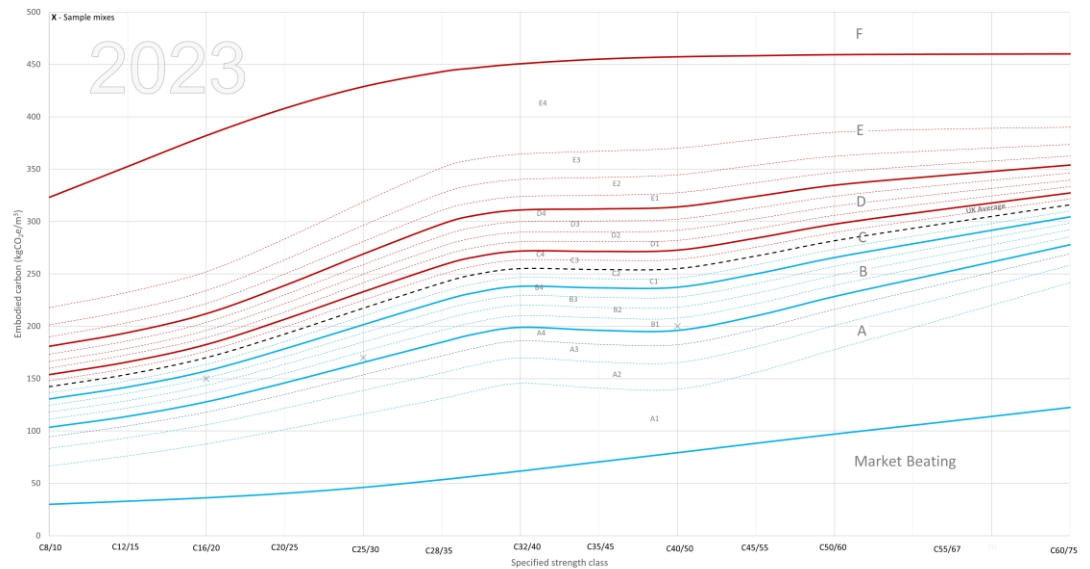


## b) LCCG Benchmark Rating criteria

Rating boundary	Nominal embodied carbon fractile
<b>MB to A</b>	<b>0%</b>
A1 to A2	5%
A2 to A3	10%
A3 to A4	15%
<b>A to B</b>	<b>20%</b>
B1 to B2	25%
B2 to B3	30%
B3 to B4	35%
<b>B to C</b>	<b>40%</b>
C1 to C2	45%
C2 to C3	50%
C3 to C4	55%
<b>C to D</b>	<b>60%</b>
D1 to D2	65%
D2 to D3	70%
D3 to D4	75%
<b>D to E</b>	<b>80%</b>
E1 to E2	85%
E2 to E3	90%
E3 to E4	95%
<b>E to F</b>	<b>100%</b>



LCCG Market Benchmark for embodied carbon, normal weight concrete, LCA stages A1 to A3  
(Readymix: cradle to batching plant gate, Precast: cradle to mould)



\* The benchmark ratings are based on embodied carbon of normal weight concrete mixes used recently in the UK  
 \* Performance requirements may make it impractical to achieve some ratings for a particular application  
 \* Achieving a rating of A through use of a high proportion of GGBS may not be an effective method of reducing global GHG emissions  
 \* Opportunities for reducing the carbon rating may typically be achieved by adjusting: specified strength class; type and % of SCM; requirements for early strength gain; consistency; environment (e.g. by use of protective barrier layers); minimum cement content (kg/m³); w/c ratio; use of admixtures; type and grading of aggregate; age at which the specified strength must be achieved; sources of constituents  
 Version 2.1, July 2023

## Appendix B – Definitions

**Clinker-** The process of manufacturing cement consists of grinding the raw materials intimately in various proportions and burning in a large kiln, where the material sinters and partially fuses into balls known as clinker.

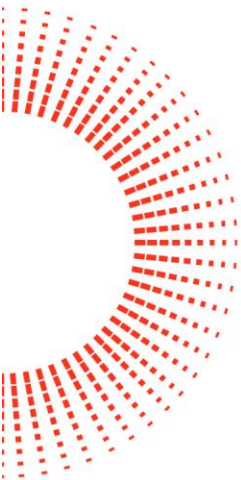
**Portland Cement-** A cementing material that is manufactured by heating a mixture of limestone and clay in a kiln at about 1450 °C. This clinker is then ground to a fine powder with the addition of gypsum. Portland cement that has approximately 5% by mass of impurities is classified as ‘pure’ cement.

**Cement-** Mostly known as Portland cement or a cement with Portland cement as one of the main constituents but also containing other materials with cementitious properties and referred to as a ‘blended cement.’

**Blended cements-** A cement consisting of Portland cement and one or more appropriate inorganic material(s) such as GGBS, fly ash and silica fume as an example. New blended cements also include the incorporation of limestone which forms a composite cement.

**Concrete-** Synthetic rock made using cement mixed with water and aggregate to a mix design detailing various proportion of each constituent.





**Secondary cementitious materials-** Materials that may be used to replace a proportion of Portland cement, CEM I or clinker in blended cements or concrete. When added at the concrete mixing plant, such SCMs are referred to as ‘cementitious additions’ as they are added to high clinker CEM I. SCMs may be naturally occurring with minimal processing or may arise from wastes or by-products from other industries.

**Embodied carbon-** This is defined as the carbon footprint of a material. In this case it is used to describe embodied carbon associated with concrete production covering LCA (lifecyle assessment) modules A1-A3. Expressed consistently as kg CO<sub>2e</sub> /m<sup>3</sup>

**ESG-** This is defined as Environmental, Social and Governance. We refer to these issues with regards to sustainability and societal impact. We will continue to work with the SBTi and other organisations in relation to best practice around these issues.

**GHG emissions intensity-** This is measured in metric tonnes of CO<sub>2e</sub> (CO<sub>2</sub> equivalent) per m<sup>3</sup> of concrete.

**The SBTi’s Net-Zero Standard-** Outlines what companies need to do to enable the global economy to achieve net-zero. The standard makes clear that for corporate net-zero targets, in line with keeping global warming to 1.5°C, require rapid and deep emission reductions. Companies must take action to halve their emissions by around 2030. Likewise, long-term deep emissions cuts of at least 90% before 2050 are crucial for net-zero targets to align with science.

**Net zero concrete** (in alignment with the SBTi Net Zero Standard) - for concrete it means GHG emissions intensity minimised to be as close as operationally possible to zero metric tonnes of CO<sub>2e</sub> /m<sup>3</sup> of concrete (at least 90% of mitigation) using known, innovative technologies. Only remaining residual emissions to be removed or offset as a last resort using a high quality and recognised offsetting framework.

## Appendix C - ConcreteZero project partners

**Climate Group** is an international non-profit, officially launched in 2004, with offices in London, Amsterdam, Beijing, New Delhi, and New York. Our mission is to drive climate action, fast.

Our goal is a world of net zero carbon emissions by 2050, with greater prosperity for all. We do this by forming powerful networks of business and government, unlocking the power of collective action to move whole systems such as energy, transport, the built environment, and industry, to a cleaner future. Together, we’re helping to shift global markets and policies towards faster reductions in carbon emissions.

**The World Green Building Council ([WorldGBC](#))** catalyses the uptake of sustainable buildings for everyone, everywhere.



Transforming the building and construction sector across three strategic areas — climate action, health & wellbeing, and resources & circularity — we are a global action network of 70 Green Building Councils around the world.

As members of the UN Global Compact, we work with businesses, organisations, and governments to drive the ambitions of the Paris Agreement and UN Global Goals for Sustainable Development. Through systems change approach, our network is leading the industry towards a net zero carbon, healthy, equitable and resilient built environment.