



Global Cement and Concrete
Association



NET ZERO VALUE CHAIN PARTNER

Join our mission to shape our
net zero future

Together, we are committed to building a
bright, resilient and sustainable concrete
future for our industry and for the world.

CONCRETE
FUTURE



Three quarters of the infrastructure that will exist in 2050 has yet to be built. Without credible action now, future generations will have no liveable planet to build upon. The United Nations stands ready to support you in accelerating the transformation of your industry. I invite all cement [sector] companies to join this vital endeavour."

António Guterres
Secretary-General of the United Nations



Concrete is essential to our lives – but we have to reduce its emissions."

John Kerry
United States Special Presidential Envoy for Climate



Message from the CEO

We are launching a new category of GCCA members to recognise the valuable contribution our partners across the industry value chain can play in helping us fulfil our mission. We hope you will join us.

The GCCA represents the cement and concrete industry across the world.

In 2021, the GCCA and its members made a milestone commitment to achieve net zero concrete by 2050 in line with global climate targets.

Our member actions are driving decisive progress on our industry mission to fully decarbonise. However, we know we cannot achieve it alone.

We engage with stakeholders and organisations across the world at all levels but we know we need the support of our allies and friends closer to home, from across our own value chain.

That is why we have created a new engagement structure to partner with organisations across our value chain – who are also committed to building a net zero future.

Cement and concrete are the backbone of the modern world. We believe the input of partners like you will help us to ensure that these materials can help enable the sustainable and resilient world of tomorrow.

Thomas Guillot
CEO of the GCCA



For more information, please visit gccassociation.org/concretefuture

Benefits of being a Net Zero Value Chain Partner



1 Lead

Global and industry leadership

Join a globally recognised movement, partnering with the leading cement and concrete companies committed to a net zero future – representing more than 50% of cement production capacity outside China, as well as some leading Chinese manufacturers.



2 Showcase

Showcase your expertise to global cement and concrete producers

Key networking opportunities throughout the year to help support our industry's decarbonisation transition.



3 Share

Participate in our Net Zero Partnership dedicated working group

- Regular meetings of the Admixtures and Solutions Providers working group (minimum two per year)
- Consultative role for GCCA activities and outputs
- Potential to be invited to specific task groups - contingent on expertise being offered and alignment with GCCA Work Programme



4 Innovate

Participate in the Innovandi Open Challenge

Join our world-class programme for start-ups and access our start-up entrepreneur network – by invitation where experience is relevant and subject to competition sensitive matters.



5 Network

Attend our GCCA CEO Gathering and Annual Conference

Participate in our annual global gathering of CEOs and senior executive teams of GCCA members. (Additional fees for registration may apply and by invitation)



6 Promote

GCCA newsletter

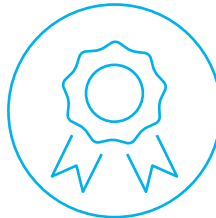
Receive and input into the monthly GCCA newsletter – regular features on technical topics authored by a Net Zero Value Chain Partner.



7 Exchange

GCCA monthly webinars

Participate in GCCA monthly webinars – value chain partners given the opportunity to present in technical webinars.



8 Influence

Stakeholder recognition

Recognition from the most important influential global stakeholders, who GCCA regularly engages with.

Our Members

Our members, which represent more than 50% of the global cement industry volume outside of China, as well as some leading Chinese manufacturers. Our members operate in almost every country of the world.

We are committed to strong, decisive action across the value chain so that together we will reach net zero.

Our Members

- Asia Cement Corporation
- Arkan
- Breedon Group
- BUA Cement
- Buzzi
- Cementir Holding
- Cementos Argos
- Cementos Moctezuma
- Cementos Pacasmayo
- Cementos Progreso
- CEMEX
- Cimenterie Nationale
- Çimsa Cimento
- **City Cement Co***
- CNBM
- CRH
- Dalmia Cement
- Dangote
- Emirates Steel Arkan
- Fletcher Building
- GCC
- Heidelberg Materials
- Holcim
- Hima Cement
- Huaxin Cement
- JK Cement
- JSW Cement
- **Kartuli Cement***
- Limak Çimento
- Medcem
- MISR Cement Group
- Molins
- Nesher Israel Cement Enterprises
- Norm Cement
- Northern Region Cement Company
- Orient Cement
- PT Solusi Bangun Indonesia
- SCHWENK Zement
- Secil
- Siam Cement Group
- Siam City Cement
- Taiheiyo Cement
- TCC Group Holdings
- TITAN Group
- TPI Polene
- UltraTech Cement
- UNACEM
- Vassiliko Cement
- Votorantim Cimentos
- Yura Cement

Our Affiliates – partner national and regional industry associations

- American Cement Association - USA
- Asociación de Fabricantes de Cemento Portland – Argentina
- Asociación de Productores de Cemento – Peru
- Associação Brasileira de Cimento Portland – Brazil
- Association of German Cement Manufacturers (VDZ) – Germany
- Association Professionnelle des Cimentiers – Morocco
- **Azerbaijan Cement Association***
- Betonhuis – Netherlands
- BIBM – Europe
- CANACEM – Mexico
- Canadian Precast Prestressed Concrete Institute
- Cement Association of Canada
- Cement Concrete & Aggregates Australia
- Cement Industry Federation – Australia
- Cement Manufacturers Association – India
- Cement Manufacturers Ireland
- China Cement Association
- Concrete NZ – New Zealand
- European Cement Association (CEMBUREAU)
- European Federation Concrete Admixtures
- European Ready Mixed Concrete Organisation
- Federación Iberoamericana del Hormigón Premezclado – LatAm
- Federación Interamericana del Cemento (FICEM) – LatAm
- Japan Cement Association
- Korea Cement Association
- Mineral Products Association - United Kingdom
- National Ready Mixed Concrete Association – USA
- South India Cement Manufacturers Association
- Thai Cement Manufacturers Association
- The Spanish Cement Association (Oficemen)
- Turkish Cement Manufacturers Association (TürkÇimento)

* New Members and National
& Regional Association Partner



Only by working together with stakeholders across the value chain can we achieve net zero."

Join our collective industry mission

The launch of the 2050 roadmap was a milestone moment – the cement and concrete sector was the first of the so-called 'heavy' industries to release a net zero roadmap, receiving backing from global policymakers and stakeholders including the United Nations, World Economic Forum and many more.



Following the launch of our roadmap, our industry has made good progress towards building the sustainable world of tomorrow. However, much more needs to be done. Our industry is playing its part today – investing, innovating and evolving to reduce emissions across all practices. But we won't be able to get there on our own. Lasting success depends on working together with partners across the value chain.

Partnerships and collaboration

We are proud to work with a range of leading organisations and initiatives to help deliver our positive and sustainable concrete future. And we now want to work more closely with all major players across our value chain including equipment manufacturers or admixture producers, consultancy services, and concrete and aggregate producers.



In early 2024, we signed a historic partnership pledge with the China Cement Association (CCA). The agreement between GCCA and the CCA (which represents more than 50% of the world's cement production) will see the two associations working together on sustainability, and the low-carbon development of the cement and concrete industry. The historic agreement will also see the development, and launch later this year, of a whole value chain China Cement Carbon Neutrality Roadmap which will set out a commitment and pathway to fully decarbonise the cement industry in China.

Seat at the top table

CONCRETE
FUTURE

In 2021 we launched the first global industry backed net zero roadmap of any sector.



GCCA is the first industry association to partner with the UN Race to Zero as an accelerator – along with a number of member companies who have joined.



Among many leading stakeholders, the United Nations Secretary General – whose office we work with – welcomed the launch of our net 2050 roadmap and has called on all key companies to join us.



GCCA has partnered with the LeadIT initiative to produce a Green Cement Technology Tracker.



We are one of just two industry associations to have a strategic collaboration with the Clean Energy Ministerial on CCUS – a key initiative of the world's major economies at a government level.



GCCA is a formal partner of Business for Nature and is able to communicate the net positive commitment of our sector.



GCCA is a collaborative partner of UNIDO on the net zero transition.



GCCA has official observer status at the UN Climate COP – where we run a programme of engagements – in which we also include our member companies and affiliates.



GCCA is a regularly contributor and reviewing partner of the IEA on a range of key reports.



We need net zero value chain partners to help us achieve our mission of a more sustainable world."

Other organisations we work with

UN Sec Gen/UNIDO/UN CTCN/ UNFCCC/COP/INC

GCCA has official Observer Status at COP, MOU/ partnership agreement with various UN bodies. GCCA is a key partner with UN to represent the industry.

Breakthrough Agendas – Cement and Concrete; Buildings

GCCA is fully engaged with two key breakthroughs – global initiatives to drive government support for industry transitions

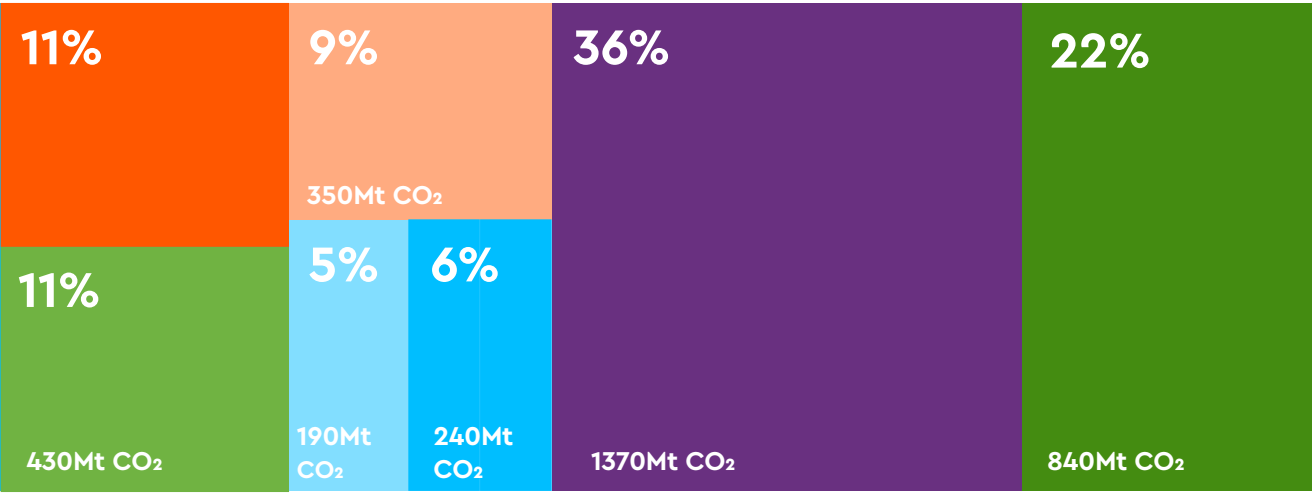
Industrial Transition Accelerator – ITA

GCCA is the leading Cement & Concrete sector in this global COP Presidency/UNFCC initiative with the key aim of developing action plans, projects and other decarbonisation actions

GCCA 2050 Roadmap

Actions to a net zero future

PERCENTAGE CONTRIBUTION TO NET ZERO AND CO₂ EMISSION SAVINGS IN 2050



Savings in clinker production

- thermal efficiency
- savings from waste fuels ("alternative fuels")
- use of decarbonated raw materials
- use of hydrogen as a fuel

Efficiency in concrete production

- optimised mix design
- optimisation of constituents
- continue to industrialise manufacturing
- quality control

Savings in cement and binders

- Portland clinker cement substitution. Also expressed through clinker binder ratio
- alternatives to Portland clinker cements

Decarbonisation of electricity

- decarbonisation of electricity used at both cement plants and in concrete production

CO₂ sink: recarbonation

- natural uptake of CO₂ in concrete – a carbon sink

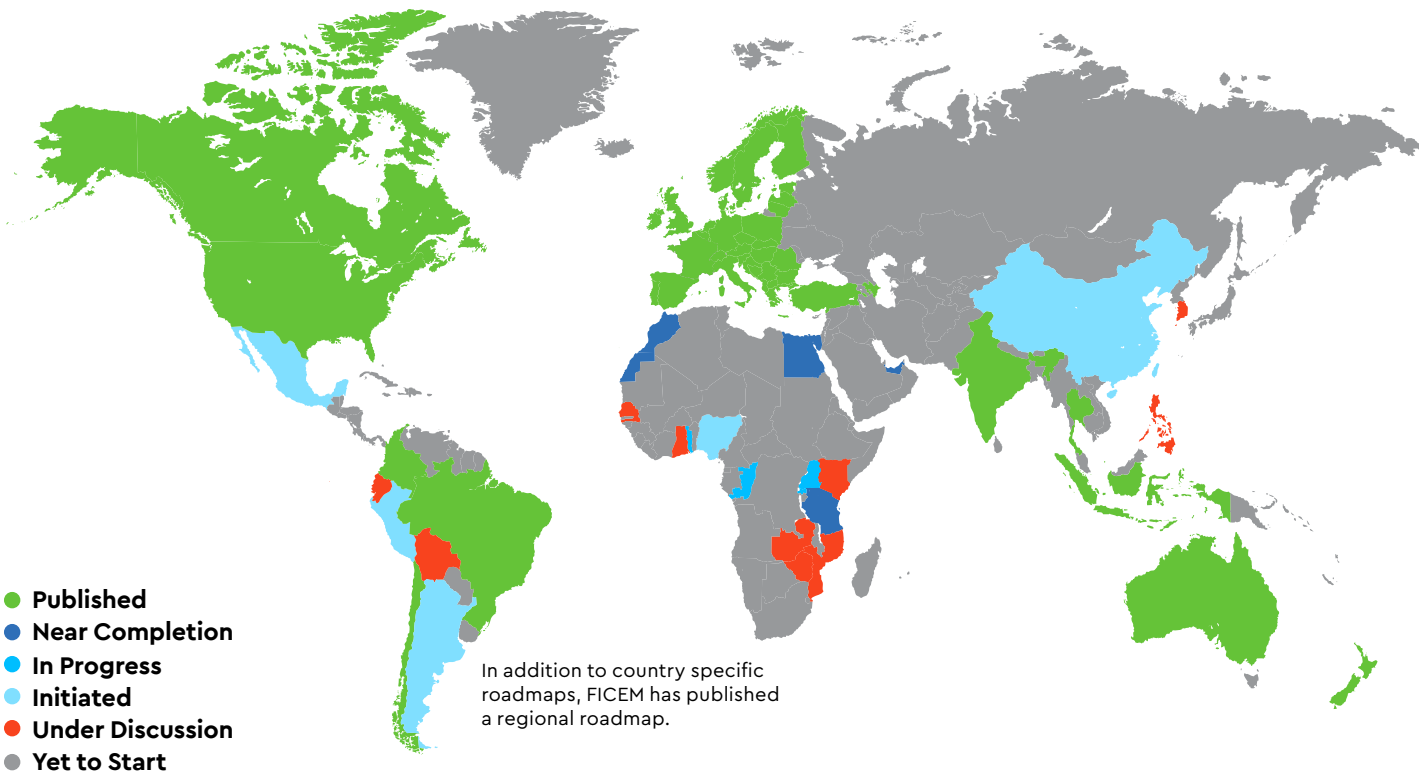
Carbon capture and utilisation/storage

- carbon capture at cement plants

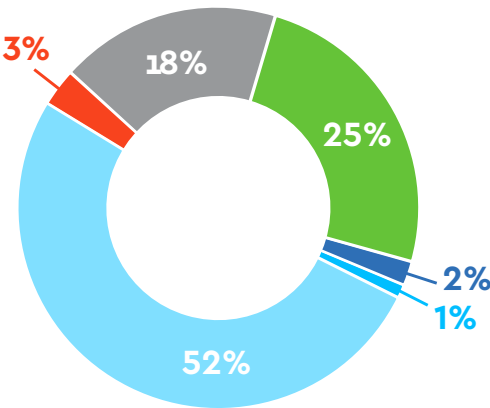
Efficiency in design and construction

- client brief to designers to enable optimisation
- design optimisation
- construction site efficiencies
- re-use and lifetime extension

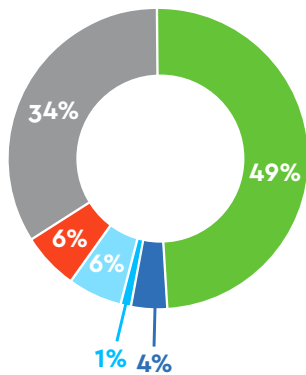
Supporting Development of National Roadmaps



Percentage of world cement production covered by roadmaps



Graph showing percentages (excluding China)



The decade to make it happen

2020–2030

In this key decade, we will accelerate our CO₂ reductions through the following actions and initiatives:

- increased clinker substitution – including fly ash, calcined clays, ground granulated blast-furnace slag (ggbs), and ground limestone
- fossil fuel reductions and increased use of alternative fuels
- improved efficiency in concrete production
- improved efficiency in the design of concrete projects and use of concrete during construction, including recycling
- investment in technology and innovation
- CCUS technology and infrastructure development

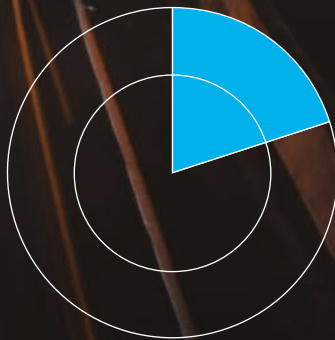
In addition, we will strive for and collaborate in establishing a policy framework to achieve net zero concrete.

2030 CO₂ reduction milestones:
(Compared with 2020 baseline)



Concrete
25%

CO₂ reduction per m³
of concrete by 2030



Cement
20%

CO₂ reduction per tonne
of cement by 2030

Full deployment of technologies to get to zero

2030–2050

In this period, we will continue to build on the progress in the previous decade.

Clinker substitution will continue. Whilst recognising that supplies of fly ash and ggbs will likely decline, ground limestone and calcined clay will increase in availability and be deployed as a key tool.

Even into the 2030s there will still be scope for the further use of alternative fuels to drive down CO₂ emissions. Alternatives to Portland clinker cements may also play a role in decarbonisation, albeit limited, perhaps around a 5% of the market.

Ultimately, our process emissions mean that whilst we will do all we can to reduce them, CO₂ will need to be captured, re-used if possible, or stored. Having established by 2030 the capability and commercial case, and with infrastructure development in place, we will be at the start of deployment of CCUS at scale to ensure that we can achieve net zero by 2050.

Deployment of carbon capture technology at full scale during cement manufacturing could fully eliminate its process emissions. This, in conjunction with biomass and recarbonation could potentially result in the future delivery of carbon negative concrete for our world.

Additionally, our members' investment, collaboration and focused work on innovation through our Innovandi programmes could also unleash new technologies in our mission to decarbonise. For example, green/clean hydrogen and kiln electrification are forecast to play a role from 2040.

Cement and Concrete Innovation

Innovation is a key part of the GCCA Mission. Driving, supporting and advocating innovation in the cement and concrete sector is key to improving its sustainability and lowering its CO₂ footprint.

GCCA runs three world class innovation platforms – fostering ideas and accelerating innovation including I. a global research network II. a global open innovation challenge and III) a global start-up network.

INNOVANDI
Global Cement & Concrete
Research Network/GCCRN

GCCRN Academic Partners



GCCRN Industrial Partners



Innovandi GCCRN

The Innovandi Global Cement and Concrete Research Network is a consortium which brings together academia and industry to collaborate on essential actionable pre-competitive research, in areas such as clinker production, kiln electrification, cement and binders including calcined clays, admixtures, concrete recycling/recarbonation, concrete durability, and CCUS (Carbon Capture Utilisation and Storage). The

Join the Innovandi GCCRN to be part of the global innovation conversation and get more from your research budget by leveraging the collective skills and resources of our worldwide network. Innovandi GCCRN Industrial Partner contributions go directly into funding collaborative research, called GCCRN Core Projects. GCCRN Core Projects were launched from 2020 and to date there are 12 GCCRN Core Projects in progress and 3 GCCRN Core Projects are being contracted. Industrial Partners also benefit from work funded in academia by other sources through in-kind projects, the resources available to Innovandi GCCRN via academic institutions, and the support of Secretariat provided by the GCCA.

The network connects 450+ scientists in the field of cement and concrete, runs about 75 PhD and is worth around 1.2 million Euros per year in research solely focussed on reducing the CO₂ footprint of concrete.

Academic partners bring their knowledge and in-kind projects to the network aligned with GCCA 2050 Net Zero Roadmap and focused on the essential actionable pre-competitive

research considering the needs of the industry. The projects showcase the latest research to industry facilitating a two-way dialogue. The network can then influence the projects, bringing global and industrial perspectives. To date – more than 62 partner projects have been accepted to the network and 19 have been finalised.

Delivering results are key to share the knowledge created by GCCRN. Already 4 Knowledge transfer workshops organised on Calcined Clay, Calcination and Reactivity, CCUS & CO₂ Conversion and Blended Cement Rheology.

Online research library now available via GCCA website. This library lists all the Core and Partner projects currently underway, as well as their scientific contributors and where the research has been mentioned in scientific publications with over 100 journal publications.



Image: Lausanne, Switzerland, Spring Week 2024 – Strengthening & Evolving the Network. More than 140 attendees – the most yet!

Carbon Capture Utilisation and Storage

The GCCA's Innovation working group has also been driving progress towards the deployment of CCUS for the cement industry – which is a cornerstone of our Roadmap. In this context, we have issued a CCUS Handbook implementing the experience and lessons learned from CCUS projects around the world that will assist companies to achieve their goals. We have also continued our collaborations with the CCUS stakeholders including GCCSI, OGCI, IEA GHG, UNIDO. We have also supported national initiatives with, in particular, a collaboration to identify lighthouse projects in India. Additionally, we have hosted workshops on infrastructure and financing under our cooperation agreement with the CEM CCUS.

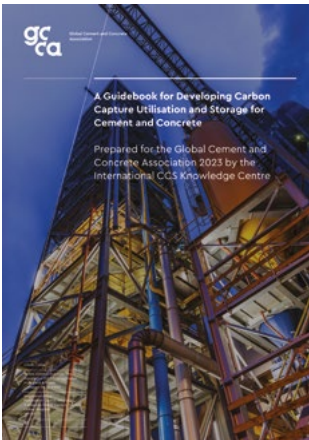


Image: CCUS handbook

INNOVANDI
Open Challenge

Innovandi Open Challenge 2021–2024 Start-Ups



Open Challenge 2025



Innovandi Open Challenge

- The Open Challenge is a programme which partners the world's most exciting startups with GCCA companies to accelerate development of new decarbonisation technologies for the cement & concrete industry.
- It is a seasonal programme with worldwide scouting of start-ups and selected start-ups are onboarded onto an accelerator programme to help them progress in the industrialisation of their technologies.
- Successful start-ups will partner with GCCA member companies and will be given unique access to resources, facilities, and expertise from our member companies to accelerate and commercialise their technologies.
- Projects include deep tech innovations that can have an impact at scale on climate change including carbon capture and new calcination technologies, carbon use in the construction supply chain and enhanced recycling of concrete. These projects are showcased in a final Demo Day.

- We are in the 4th year of our successful Innovandi Open Challenge since 2021. GCCA continues to manage consortia and issues letters of support to finalists' start-ups.
- Topics for the past challenges were Carbon Capture, Use and Sequestration (CCUS) and new materials for low carbon concrete. We are delighted that 11 consortia have been formed so far and new consortium associations will be announced soon for Open Challenge 2025
- We are delighted that more than 300 start-ups from around the world have applied to our Innovandi Open Challenge and every year we receive very high quality of start-up applications.
- Currently there are on-going discussions with selected start-ups to form consortia for our 4th Innovandi Open Challenge.

INNOVANDI
Entrepreneur Network

Objectives

- Building an ecosystem of startups interested in collaborating to support our shared net-zero mission.
- To provide GCCA members with a pool of start-ups offering varied solutions across the cement/concrete chain

Benefits

- Access to our mentorship webinar programme for startups via 4 webinars/ workshops per year
- First-hand information on our Innovandi Open Challenge
- Networking with GCCA members and peers
- Invite to GCCA webinars + other activities



Network and showcase your expertise at GCCA events

- Network with members and hear from world renowned speakers at our annual global events – London 2018, Singapore 2019, Atlanta 2022, Zurich 2023, Bangkok 2024, Mexico 2025.
- Education via monthly webinars on key topics around our industry's decarbonisation and sustainability journey.
- Access to Innovandi Entrepreneur Network.
- Creation of exchange space for technical know-how sharing.

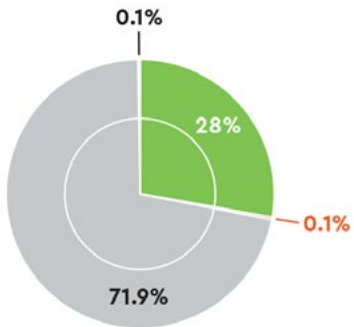


Cement and concrete are essential to the modern world – key enablers for a future resilient and sustainable planet."

Leveraging our collective members' work to convey progress and communicate a positive story for the cement industry and concrete in use, are major priorities for the GCCA and central to our mission.

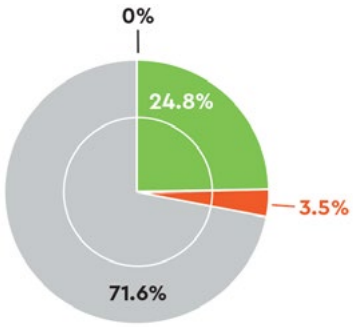
Outreach and engagement with the external world and positioning concrete as the sustainable building material of choice is crucial to ensuring our sector has a viable and positive future. Working Group 3 oversees and inputs into the Communications and Outreach activity of the GCCA.

Essential role of Cement & Concrete	Net Zero Mission & Action	Innovation – renewed focus	Attractive successful industry
Cement and concrete are essential to the modern world – key enablers for a future resilient and sustainable planet Topics: • Built Environment • Sustainable Concrete • Resilience • Timber misconceptions • Circularity and Cities • SDGs	It's essential to (continue to) reduce and then eliminate CO₂ emissions – our members are fully committed and driving decarbonisation action today Topics: • Roadmap and levers • Member action • CCUS • Net Zero Accelerator • Policy Agenda	Innovation is key to unlocking our net zero future – and securing the long-term viability of our sector Topics: • Innovandi GCCRN – research work • Innovandi Open Challenge • Member action • Innovation in built environment	Our industry is essential and will flourish in executing the opportunities from a net zero, circular economy Topics: • Viable positive (profitable) future • Leveraging opportunities – e.g. circular economy • Promoting a diverse workforce • Other



Analysis of sentiment of stories mentioning the GCCA over the last 12 months.

● Positive ● Negative ● Neutral ● Not rated



Analysis of sentiment of all stories mentioning cement and concrete over the last 12 months.

● Positive ● Negative ● Neutral ● Not rated

24m

24 million page and profile impressions (June 2023 – June 2024)

566m

Concrete in Life – Extensive Global Media Coverage: 566m potential news reach

45,000

Innovandi Open Challenge: 45,000 Organic Impressions

21,000

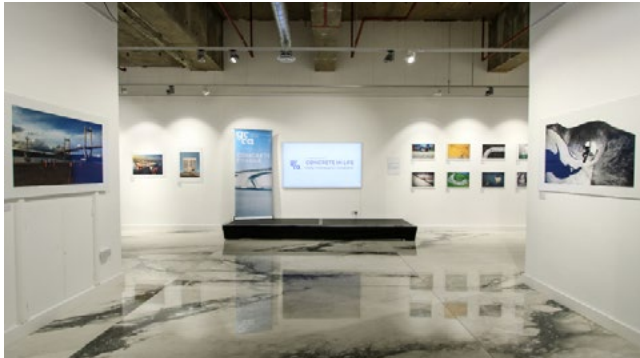
We have significantly increased our LinkedIn followers, now at 21,000.

379

Concrete in Life – Extensive Global Media Coverage: 379 mentions

17m

Innovandi Open Challenge: 17m Advert Impressions



Media Results

We continue to implement a proactive and reactive engagement strategy, which has been delivering encouraging results.

As well as an increase in the amount of media coverage we are receiving, we also continue to see a positive shift in the sentiment of that coverage. Over the last 12 months, 28% percent of media stories mentioning the GCCA were positive, with minimal negativity. Cement and concrete sentiment generally, is also seeing a more positive shift compared to previous years. This remains a long-term project, but the direction is encouraging. The GCCA has positively positioned cement and concrete and appeared in a range of Tier One media including The Wall Street Journal, the BBC, Associated Press and the Daily Mail – to name a few.

Social Media Results

We have progressed our social media strategy by creating higher quality content across our key channels: LinkedIn, Instagram, X and Facebook and worked to move into creating content we can use for channels like TikTok and YouTube Shorts. We have significantly increased our LinkedIn followers, now at 21,000, and we have high engagement across all our channels, with a current average engagement rate of 7%. (Between 1% and 3.5% is seen as an average engagement rate, and above 5% is seen as very good.)

Concrete in Life

Concrete is essential to our world, providing the basis for our homes, towns and cities. Our Concrete in Life global photography competition celebrates this by asking amateur and professional photographers from all around the world to take photos showing what concrete means to them.

The competition continues to go from strength-to-strength. This was the fifth year we have run the competition and we received a record 21,000 entries. As well as awarding a people's vote prize, to mark five years, we also decided to organise a public exhibition for the first time, to showcase 100 of the most stunning images from the last five years. The venue was the Brunswick Art Gallery in central London, itself a famous concrete building. We announced this year's winning photos and opened the gallery at the same time, in late March.

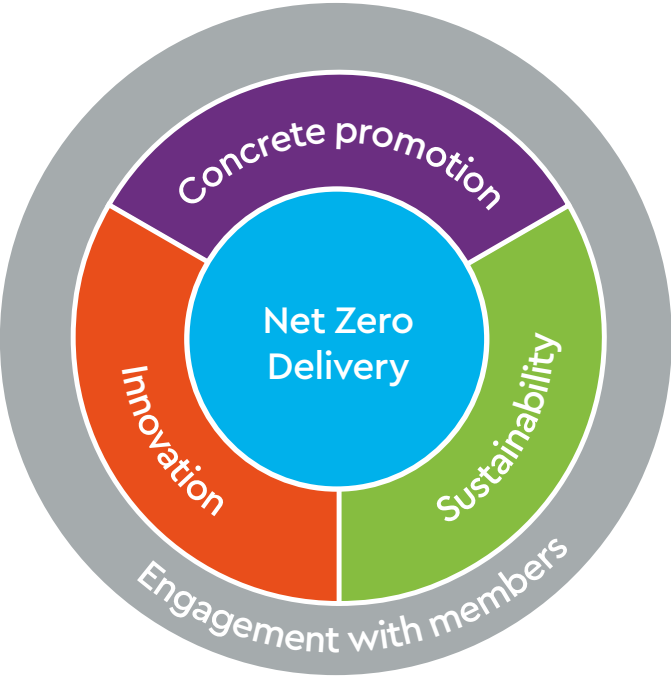
The global media coverage generated by the Concrete in Life exhibition was extensive. The BBC ran a story on its main global news home page, there

was an article in the business magazine, Forbes, and an editorial on the leading design and architecture website, Dezeen, as well as host of other coverage. We received nearly 400 media mentions of Concrete in Life across the world, the coverage had a potential reach of more than half a million people and the sentiment of that coverage (73%+) was overwhelmingly positive.

Our competition is predominantly a social media campaign conducted across our key channels, allowing us to convey a positive story of concrete as well as engage with thousand of people across the globe. Our 2023 competition was our most successful yet, with over 21,000 entries from across the world and a special People's Vote category, where the public could choose their favourite photo.

- Average Post engagement rate: 7%
- Posts: 230 and 100 stories
- Organic Impressions: 1.2 million
- Video views: 9 million

GCCA's Five Strategic Pillars



- Net Zero Delivery**
Delivering our Net Zero Agenda is essential to ensuring credibility of the sector. GCCA acts as a catalyst to accelerate the Net Zero ambitions amongst Members and Affiliates.
- Concrete promotion**
Ensuring we are a highly effective organisation that delivers tangible value to our members, affiliates and the broader cement and concrete industry.
- Sustainability**
Rising to the global challenges of sustainable development and climate change, promoting best practice in our industry and demonstrating our performance improvements.
- Innovation**
Driving performance and lowering CO2 footprint further by fostering innovation in our technologies, products and manufacturing processes through partnerships across the supply chain.
- Engagement with members**
Ensuring we are a highly effective organisation that delivers tangible value to our members, affiliates and the broader cement and concrete industry.

We look forward to you joining us as a Net Zero Value Chain Partner – contributing to our discussions and engagements, sharing best practices, driving industry standards and being a key partner on our net zero mission.



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