



Global Cement and Concrete
Association

Innovation in Focus

Conference Programme

10 October 2019

**2nd Annual GCCA Conference
Singapore 2019**

11 October 2019

GCCA Annual General Meeting



President's welcome



Albert Manifold
GCCA President and
Chief Executive of CRH plc

It is an honour and a pleasure to welcome you as we gather in Singapore for the 2nd Conference and Annual General Meeting of the Global Cement and Concrete Association (GCCA).

Our first year as an association has seen the GCCA's membership grow to 38 companies, responsible for approximately 40% of global cement production capacity. The GCCA also now has an affiliate network of 18 cement and concrete associations from across the globe. This industry-wide representation and global collaborative endeavour is key to the GCCA achieving its objective of ensuring that concrete is recognised as the sustainable building material of choice now and in the future.

By drawing on talent, experience and expertise from right across the global cement and concrete industry, the GCCA is already on its way to being recognised as the collective global voice of the industry.

At a time of unprecedented challenge and opportunity for our members, I feel privileged as President of the GCCA to be working closely with my fellow Chief Executives and other senior leaders in defining a collaborative industry-wide response. I am confident that the work we undertake now through the GCCA will be central to shaping the role played by cement and concrete in the built environments of the future.

During the year, the GCCA made positive progress in putting in place a comprehensive and ambitious work programme to address those challenges and opportunities.

This important work is being led by a very capable executive team with the guidance and support of a number of working groups made up of representatives from across our membership base.

To the representatives from our member companies and affiliates joining us at our conference this year, and to those of you from our industry who are considering joining our Association in the future, you are all very welcome.

To our other stakeholders and partners from a variety of construction and built environment related areas, I would also like to extend a very warm welcome to you and offer our thanks for joining us here in Singapore. Your presence and contribution are most welcome.

Our industry will play an integral role in shaping the future of the built environment around the world. With that comes a responsibility to reshape and redefine the products and solutions we provide to our customers. As an industry we know that new technologies and ways of working will be central to achieving this. Today's conference is an important forum to discuss these developments and to share different perspectives and ideas as we gather to put 'Innovation in Focus'.

CEO's reflection and update



Benjamin Sporton
GCCA Chief Executive

I would also like to take this opportunity to add my warm welcome to all our guests to Singapore – this incredible and beautiful city-state, a genuine smart city built with vision, real innovation and of course, concrete.

We all know that concrete will be increasingly vital to the world and in addressing the challenges and opportunities of the future – increasing global population, rapid urbanisation, delivering infrastructure and potential prosperity, and providing greater resilience to the challenges our planet faces through extreme climatic events. I know that the commitment of all our member companies and affiliates, to delivering an ever more sustainable world, is long-held and deeply felt.

As GCCA Chief Executive and leader of our day-to-day delivery, I have the great opportunity to discuss this work and help deliver it through our extensive work program. My sincere thanks and enormous respect to all our working group members, chairs and consultative networks for the work they do, as well as my gratitude to our Board members who sponsor and oversee this work and help ensure real progress. You will hear a little more about this over the duration of the event.

As our President mentions, innovation is a crucial ingredient to unlocking a sustainable future for the world – how we produce and use our materials more efficiently and in an ever more sustainable way. This 'Innovation in Focus' conference is an important opportunity for our global industry to come together and discuss this.

We hope we have put together an exciting programme and one which will demonstrate the cement and concrete industry's commitment to driving progress in sustainable construction and innovation across our value chain.

Success in meeting these challenges, including reducing our CO₂ emissions, will require collaboration on global solutions. Collaboration is why we are here together with some of the best and brightest minds within the sector and from the wider built environment.

I am genuinely excited about this event and the work we have ahead of us and what we can achieve by working together.

I hope you enjoy the conference and the discussion, and I look forward to working with you to shape a better future for our industry and our world.

Schedule

10 October 2019 Morning Session

All in Wallich Ballroom
unless stated otherwise

Time	Event
07:30	GCCA Women in Cement and Concrete Networking Breakfast (Angsana room)
08:00	Conference registration opens / Welcome refreshments
09:00	Morning session welcome Benjamin Sporton, GCCA Chief Executive
09:15	Lead morning speaker – Making innovation stick Lars Sudmann, Expert on leadership & innovation
10:00	Coffee break
10:30	Technical innovation panels and Q&A
	Cement Innovation Panel (Wallich Ballroom) Process improvements Jan Kjaersgaard, Cement President, FLSmidth
	Towards a sustainable Chinese cement industry Tongbo Sui, Vice President, Sinoma International, CNBM
	The role of new binders Professor Vanderley John, Universidade de São Paulo
	Carbon capture Mike Monea, President, International CCS Knowledge Centre Phil Hodgson, Managing Director, Calix Limited
	<i>Cement innovation panel moderated by Claude Lorea, GCCA Cement Director</i>
	Concrete Innovation Panel (Saga Ballroom) Singapore's Green Building Masterplan and role of materials Yvonne Soh, Executive Director, Singapore Green Building Council
	Innovative concrete admixture control systems Dr Zhong Hua, Product Director, GCP SCC
	Digital fabrication and design for a sustainable future Professor Dr Robert J. Flatt, Institute for Building Materials, ETH Zurich
	Innovations to deliver sustainable bridge design and construction Dr Akio Kasuga, Executive VP Sumitomo, Mitsui Construction Ltd
	<i>Concrete panel moderated by Dr Andrew Minson, GCCA Concrete and Sustainable Construction Director</i>
12:30	Lunch at Racines restaurant

10 October 2019 Afternoon Session

Wallich Ballroom

Time	Event
14:00	Plenary welcome Albert Manifold, GCCA President and Chief Executive of CRH plc
14:15	Lead transformation speaker Dr Ayesha Khanna, Co-founder and CEO, ADDO AI
14:45	Industry announcement
15:00	Cities of the Future – Innovation Challenges panel and Q&A
	India Professor Anupama Kundoo, FH Potsdam and Global Architect
	Lagos Simon Gusah, Team Leader at Adam Smith International: Nigeria Future Cities programme
	Singapore Professor Erwin Viray, Head of the Architecture Sustainable Design Pillar, Singapore University of Technology & Design
	Speakers will be joined by senior industry representatives for a discussion
17:00	Conference ends
18:30–22:30	'Concrete in Life' Drinks reception, gallery viewing and photography competition awards dinner
08:00	Board (Saga Ballroom)*
09:30	Coffee break
10:00	Annual General Meeting & CEO Meeting** (Wallich Ballroom)
10:45	Coffee break
11:00	Working Group Co-Chair concurrent sessions (part 1)
12:00	Working Group Co-Chair concurrent sessions (part 2)
13:00	Networking lunch and farewell

10 October 2019 Evening

Reception and gallery viewing
in registration lobby from 18:30
Dinner in Wallich Ballroom from 19:30

11 October 2019

*Board members only
**N.B. Attendance at the Annual General meeting is strictly for GCCA member companies and affiliates only. Voting at the AGM is limited to one vote per member company – designated by CEOs.

Our Speakers

(Full biographies available on the GCCA website)

Morning Session



Lars Sudmann

Author, Advisor, Leadership & Innovation Expert, Sudmann & Company
Lars is an expert in innovation and business leadership, working with companies such as Vodafone, the Microsoft Innovation Center, Knauf and Siemens. He is also a start-up advisor and lecturer at the Technical University of Braunschweig and RWTH Aachen University.



Jan Kjaersgaard

Cement President, FLSmidth
Jan has built a career managing industrial companies, holding various positions at Siemens, before becoming CEO of Bladt Industries in 2014. In 2018 he took up his current position at FLSmidth. He holds an MBA from Aalborg University.



Dr Tongbo Sui

Vice President, Sinoma International, CNBM
For over 20 years, Dr Tongbo Sui engaged in the development of low-energy and low-CO₂ clinker cements. He is a visiting professor at Tongji University and University College London, and a member of ACI, ASTM, RILEM and ICT.



Professor Vanderley John

Professor of Building Materials, Polytechnic School at the Universidade de São Paulo (USP)
Heading several research groups in partnership with industry, Professor John is a leading academic in the development of low-cost, low-impact solutions for cement and cement-based materials, as well as simple and practical LCA environmental assessment tools.



Mike Monea

President and CEO, International Carbon Capture and Storage (CCS) Knowledge Centre
Mike has dedicated his career to reducing greenhouse gas emissions through CCS technologies, including overseeing the world's first carbon capture plant at a coal electric unit. He is now a sought-after panellist and advisor on this ground-breaking technology.



Phil Hodgson

Managing Director and CEO, Calix
Phil has a technical and commercial background from a successful career with Shell and his own consultancy business. He joined Calix in 2013 as CEO, was appointed a Director in 2014 and is a member of the company's Technology Committee.



Yvonne Soh

Executive Director – Singapore Green Building Council (SGBC)
Yvonne is a registered Professional Engineer (Civil) and Green Mark Accredited Professional. She currently leads the SGBC, an industry organisation with public and private representation set up to propel Singapore's construction industry towards environmental sustainability.

Concrete Panel



Dr Zhong Hua

Product Director, Specialty Construction Chemicals Asia Pacific, GCP Applied Technologies Inc

Dr Zhong Hua manages R&D and Technical Services for both cement and concrete for GCP Applied Technologies in Asia Pacific and has a leading role in implementing an advanced in-transit concrete management system with Big Data and machine learning technologies.



Professor Robert Flatt

Professor for physical chemistry of building materials, Institute for Building Materials, ETH Zurich

Professor Flatt joined the Institute of Building Materials in 2010, before which he was Principal Scientist Head of Inorganic Materials at Sika Technology, a manufacturer of materials for sealing, bonding, damping, reinforcing and protecting load-bearing structures in construction and industry.



Dr Akio Kasuga

Executive Vice President, Sumitomo Mitsui Construction

The designer of more than 200 bridges, Dr Kasuga is Chief Technology Officer of Sumitomo Mitsui Construction. He is also the current Deputy President of the Fédération Internationale du Béton and a board member of the Japan Prestressed Concrete Institute.



Dr Ayesha Khanna

Co-founder and CEO, ADDO AI

Named one of South East Asia's Groundbreaking Female Entrepreneurs by Forbes in 2018, Dr Khanna is an advisor on smart cities, AI, and fin-tech to clients such as SMRT in Singapore, SOMPO in Japan, and SmartDubai.



Professor Anupama Kundoo

FH Potsdam and Global Architect

Professor Kundoo's research aims to achieve architecture with socio-economic benefit and low environmental impact. She has worked in India, including on the development of Auroville, and has written extensively on affordable inclusive urbanisation in an age of climate change.



Simon Gusah

Team Leader at Adam Smith International: Nigeria Future Cities programme

Simon is an Urban Development Planning Consultant in Lagos, Nigeria. Prior to this he was the first Chief Resilience Officer of Lagos State, delivering the Preliminary Resilience Assessment for Lagos, designed to ensure its survival, recovery and growth.



Professor Erwin Viray

Professor & Head of Pillar (Architecture & Sustainable Design), Singapore University of Technology & Design

Professor Viray's research passions revolve around the influence of new technologies and their related tools in broadening the impact of architecture. He holds several professional leadership roles and has been the Editor of a+u (Architecture + Urbanism) since 1996.

Afternoon Session

Cities of the Future Panel

GCCA Update

Since we met last November 2018 in London, our focus has been on building on our foundations and working towards ensuring the views of the cement and concrete industry are heard and based on robust evidence. Some of our key 2019 outputs:

Extending our sustainability and health & safety credentials

- Ensured a smooth transition from the CSI to GCCA in relation to sustainability and health and safety, including developing sustainability guidelines and guidance, and a handbook of best practices and monitoring and reporting.

GNR ("Getting the Numbers Right" or "GCCA in Numbers")

- Enabled ongoing provision of the key tool in how sustainability progress is monitored and reported – with plans to enhance and extend coverage.

Innovation

- Developed the key innovation workstream with a major industry announcement at our conference. Ensured evidence-base for communications.

Environmental Product Declarations (EPDs)

- Provided the global concrete industry with a verified tool which enables producers to offer customers with EPDs – serving increasing market demand and facilitating whole-project, whole-life environmental impact assessment.

Concrete Sustainability Council (CSC)

- Driving environmental and social benefits of concrete through responsible sourcing certification, adding our support to the CSC – the only world-wide industry specific system which certifies the sustainability performance of concrete plants and their supply chains.

Communications, advocacy and thought leadership

- The GCCA attended and presented at a wide range of key global events and conferences throughout the year – providing important platforms for our key messages on the industry's commitments and work on sustainability and innovation, from UN climate change summits to global conferences on alternative fuels to future gazing events on the global built environment.
- Established a voice in industry media and began to build profile in Tier 1 global media. Leading a proactive and positive global campaign will be critical work in 2020.
- Launched and extended key social media channels over the year. GCCA can now be found across all key social media channels. We also launched a new GCCA website in March 2019 to serve as an important repository and information source – this will continue to develop as our output continues to grow.
- GCCA has also been expanding its network of engagements and partnerships with a wide reach of globally significant stakeholders. This work will be intensified over the next 12 months.

Key outreach highlights in the last year:

Conferences and speaking platforms

The GCCA Executive team have presented at 18 important industry, built environment and climate conferences, including: UN Climate Action Summit in New York, Cement Industry Roadmap launches in India and Brazil, 15th Congress Chemistry Cement in Prague, World Built Environment Forum in New York.

Media engagement

The GCCA has appeared in nearly 500 articles in our trade sector, built environment and wider press across the globe in the last year. This includes 10 responses and references in global tier 1 media such as BBC, Reuters, Bloomberg and the Guardian.

Digital outreach

We now have a presence on all major social media platforms – Twitter, LinkedIn, YouTube, Instagram and Facebook. Our followers on our key strategic engagement channels of Twitter and LinkedIn have grown to more than 2000 and 1200 respectively. Our launch video and interviews from last year's London conference have been watched c.6500 times.

Stakeholder outreach

The GCCA team has met with 35 external stakeholder organisations to develop important relationships. Key engagements have included the United Nations Secretary General, UN Climate Action Summit, UN Global Compact, UN Convention on Biodiversity – as well as a wide range of other groups such as the World Economic Forum, Breakthrough Energy Coalition/Ventures and the International Fire Safety Standards Coalition.



Concrete in Life

Global photography competition

Earlier this year saw the launch of our first 'concrete in life' global photography competition, celebrating the importance of concrete to how we live our lives across the world. Our conference dinner will be the culmination of the competition and the announcement of our global winners. We hope you can join us for our reception drinks, gallery viewing and gala dinner from 18.30 on Thursday 10 October.

A few examples of our global entries:

- 01. Xiao Yang**
@inhiu
Monument to the victims of fascism, Ninth Fort and Monument, Kaunas, Lithuania
- 02. Juan Pablo Assmus**
@juanp_assmus
James D Pfluger Pedestrian and Bicycle bridge, Austin TX, USA
- 03. @allanespolong**
Fountain of Wealth and roundabout at Suntec city, Singapore
- 04. Peter Gordon**
@peter_gordon_bnw
The Barbican Complex, London, England
- 05. Refik Gökmen**
@refik
Boston City Hall, Boston MA, USA
- 06. Zaida Lagardien**
@zaida_lag
Victoria and Alfred Waterfront, Cape Town, South Africa
- 07. Arturo Rivo Jr.**
@art.rivo.jr
Abu Dhabi, UAE
- 08. @sachagael**
Bollards at Place Bellecour, Lyon, France
- 09. Mark Anthony Portugal Agtay**
@thebrightpixels
Vanarasi, India
- 10. Renan Aguilar Costa**
Museu Oscar Niemeyer, Paraná, in Brazil

About the competition

We wanted to inspire photographers from all over the world – both amateur and professional – to mark the vital role that concrete plays in our world, its versatility, strength and durability. The competition was open to professional and amateur photographers alike and entrants submitted their photos into three categories:

Urban design and use

Images of the city landscapes and buildings around us, both well-known and hidden away.

Practical concrete

Photographs of our infrastructure, in our cities and rural areas, above and below ground: highways, bridges, airports, stations and dams, celebrating the concrete buildings supporting and enabling our vibrant lifestyles.

Small scale application

From the provision of a water tank for a village to an urban sculpture, we received amazing images showcasing concrete as an intrinsic part of our lives.

The prizes

One professional and one amateur winner will be chosen from each category, with one of these receiving the overall Best 'Concrete in Life' Photo of the Year prize.

The overall Best 'Concrete in Life' Photo of the Year winner will win a \$10,000 prize. Each of the remaining amateur and professional winners will win a \$2,500 prize.

Our judges:

John Fairley

Photographer and Creative Director of Curious Productions

With over 25 years' experience as a Designer, Art Director and Creative Director, John has overseen and integrated, award-winning advertising campaigns across emerging channels, TV, print, digital and social, as well as leading rebranding and design for large-scale, corporate identity systems.

Gian Luca Barone

Senior Associate of Zaha Hadid Architects

As a project architect, Gian led a key part of the exhibition component within Cairo Expo City, in addition to working on Milan City Life Tower, the headquarters of Fendi and the winning design for the Riyadh Metro Station competition.

Benjamin Sporton

Chief Executive of the GCCA

Benjamin leads the efforts of the GCCA to drive advances in sustainable construction, working to enhance the cement and concrete industry's contribution to a variety of global, social and developmental challenges.

We received thousands of images from around the world – just a few are featured here and the competition shortlist will be available to view at our gallery opening after the drinks' reception.



Our member companies and affiliates operate in almost every country of the world



Member Companies

- Asia Cement Corporation
- Breedon
- Buzzi Unicem S.p.A.
- Cementir Holding
- Cementos Argos
- Cementos Molins
- Cementos Pacasmayo
- Cementos Progreso S.A., Guatemala
- CEMEX
- CimENTS De L'Atlas (CIMAT)
- Çimsa Çimento
- CNBM
- Corporacion Moctezuma S.A.B. DE C.V.
- CRH
- Dalmia Cement
- Dangote
- Eurocement
- Grupo Cementos de Chihuahua SAB de CV (GCC)
- HeidelbergCement
- InterCement
- JSW Cement
- LafargeHolcim
- Medcem Madencilik
- Neshor Israel Cement Enterprises Ltd
- Orient Cement Ltd
- SCG Cement
- Schwenk Zement KG
- Secil S.A.
- Shree Cement Ltd
- Siam City Cement Ltd
- Taiheiyō Cement
- Taiwan Cement Corporation
- Titan Cement
- UltraTech Cement
- Unión Andina de Cementos S.A.A (UNACEM)
- Vassiliko Cement Works Public Company Ltd
- Votorantim Cementos
- West China Cement

Affiliates

- Cámara Nacional del Cemento – Mexico
- CEMBUREAU – the European Cement Association
- Cement Association of Canada
- Cement Concrete & Aggregates – Australia
- Cement Industry Federation – Australia
- Cement Manufacturers Association of India
- CMI – Ireland
- European Concrete Platform
- Federación Iboamericana del Hormignón Premezclado (FIHP) – Latin America and the Iberian Peninsula
- Federación Interamericana del Cemento (FICEM) – Latin-American Region
- Japan Cement Association
- Mineral Products Association – United Kingdom
- National Ready Mixed Concrete Association – USA
- Portland Cement Association – USA
- SNIC/ABCP – Brazil
- Spanish Cement Association (Oficemen)
- Union of Cement Producers – Soyuzcement – Russia
- VDZ – Germany

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