

Commonwealth Engineers' Council Overview March 2024

Dawn Bonfield MBE FREng CEng FIMMM FICE
HonFIStructE FWES
CEC President, 2023-2025



Dawn Bonfield MBE FREng, Commonwealth Engineers' Council President (2023-2025)

- **First female President of CEC**
- Past President and CEO of **Women's Engineering Society**
- Founder of **INWED**, International Women in Engineering Day (23 June, annually)
- **Inclusive Engineer!** (and Materials Engineer)
- Professor, Engineering for Sustainable Development **King's College London**
- Royal Academy of Engineering Visiting Professor of Inclusive Engineering, **Aston University**



Some History of the CEC

- Established in London in 1946 by the Institution of Civil Engineers and two other UK engineering organisations
- Originally called Commonwealth Engineering Conference, the conferences were held every 4 years
 - Johannesburg, South Africa 1950; London, UK 1954; Sydney, Melbourne and Canberra, Australia (including New Zealand) 1958; Montreal, Canada 1962; London, UK 1966
- In 1968 CEC were founding members of WFEO, the World Federation of Engineering Organisations, and from then meetings were held every 2 years to coincide with WFEO meetings
- In 1996, Queen Elizabeth II joined the CEC in the celebrations of their 50th anniversary



The Commonwealth in Context

- The Commonwealth's **56 Member Countries** span the globe and are multicultural and multiethnic
- Represents **2.5 billion people**, almost a third of the world's population. Its members comprise countries large and small – from India (1.4bn) to Nauru (10,000).
- 31 of its members are small states, usually with a population well under 1.5 million, and 25 members are **small island developing states** with low ecological footprints
- More than **60 per cent of population aged 29** or under and 1 in 3 young people aged between 15 and 29 live in Commonwealth countries
- Half of the top **20 global emerging cities are in the Commonwealth**: New Delhi, Mumbai, Nairobi, Kuala Lumpur, Bangalore, Johannesburg, Kolkata, Cape Town, Chennai and Dhaka.

The Commonwealth and Climate Change

- The Commonwealth represents nearly **15% of global carbon emissions**
- Within the Commonwealth, top greenhouse gas emitters include India, Canada, Australia, South Africa, UK and Pakistan.
- 12 least developed countries (LDCs) of the Commonwealth are particularly vulnerable to climate change
- Climate-related disasters have killed 47,000 people, affected 671 million and caused US\$189 billion in damages
- Sea level rise affects 47 out of 54 Commonwealth countries that have a coastline, including 25 small island developing states – also known as ‘Large Ocean States’- where, on average, 96 per cent of territory is ocean and only 4 per cent is land.
- It has been agreed that developed countries will mobilise US\$ 100 billion per year in climate finance to support developing nations.

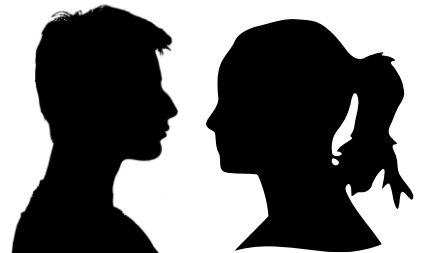
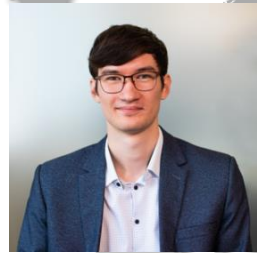
Membership

- **Full Members**

Association of Professional Engineers, **Trinidad and Tobago** (APETT); Engineering **New Zealand**; Engineers **Fiji**; Institution of Engineers, **Pakistan**; Institution of Engineers (**India**) (IEI); Institution of Engineers, **Malaysia** (IEM); Institution of Engineers, **Singapore**; Institution of Engineers **Mauritius** ; **South African** Institution of Civil Engineering; Institution of Engineers, **Kenya**; Institution of Engineers, **Rwanda**: Institution of Civil Engineers, **UK** (ICE); **Pakistan** Engineering Council ; **South African** Institute of Electrical Engineers; **Sierra Leone** Institution of Engineers; **Uganda** Institution of Professional Engineers; **Zimbabwe** Institution of Engineers; Engineering Council of **Zimbabwe**.

- **Associate Members**

- **Individual (Corresponding) Members**



Dawn Bonfield, UK, President
 Paul Jowitt, UK, Immediate Past President
 Pratarp Singh, Fiji, Pacific Regional Representative
 Valerie Kelsick, Trinidad and Tobago, Caribbean and the Americas Regional Representative
 Navin Vasoya, India, Asia Regional Representative
 Kirils Holstovs, UK, Europe Regional Representative
 Trudy Morgan, Sierra Leone, Africa Regional Representative
 Merv Lindsay, Australia, Liaison for South Pacific Engagement
 Yashin Brijmohan, South Africa, Chair of Engineering Education and Professional Development Working Group
 Chris Chukwunta, Commonwealth Sustainable Cities Initiative Representative

<https://www.commonwealthengineers.org/board-members.html>

Executive Board

- Kirils Holstovs (UK)
- Michelle Meaclem (NZ)
- Doreen Kago (Kenya)



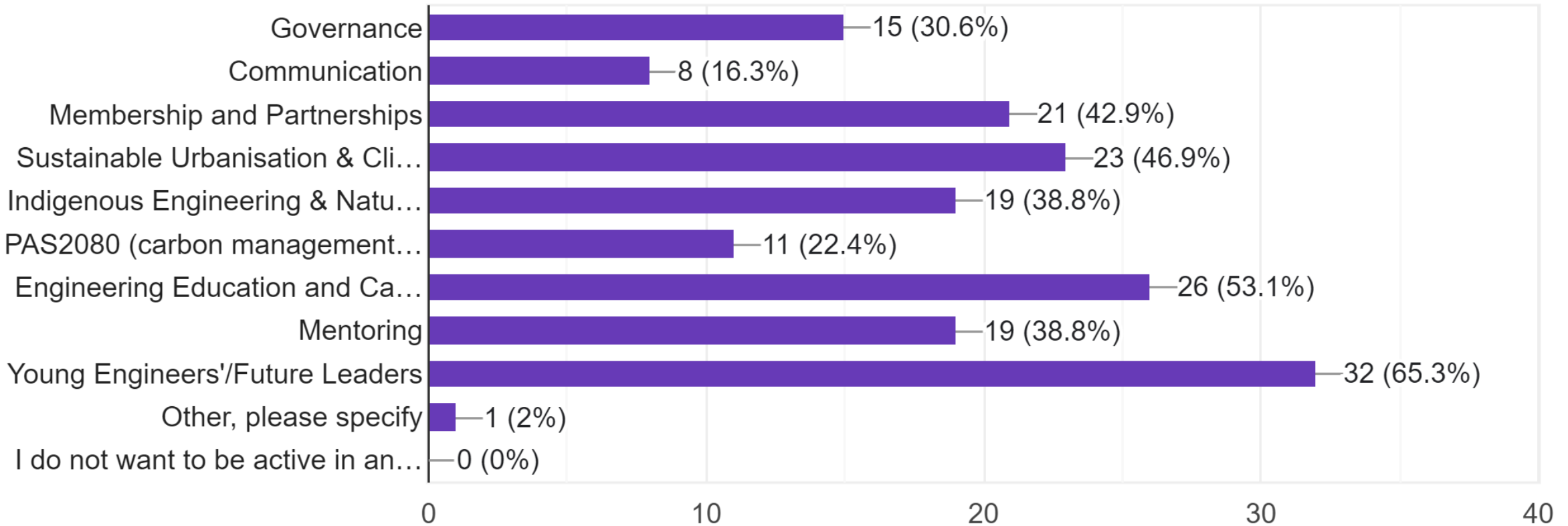
President's Future Leaders

Our focus areas for 2024

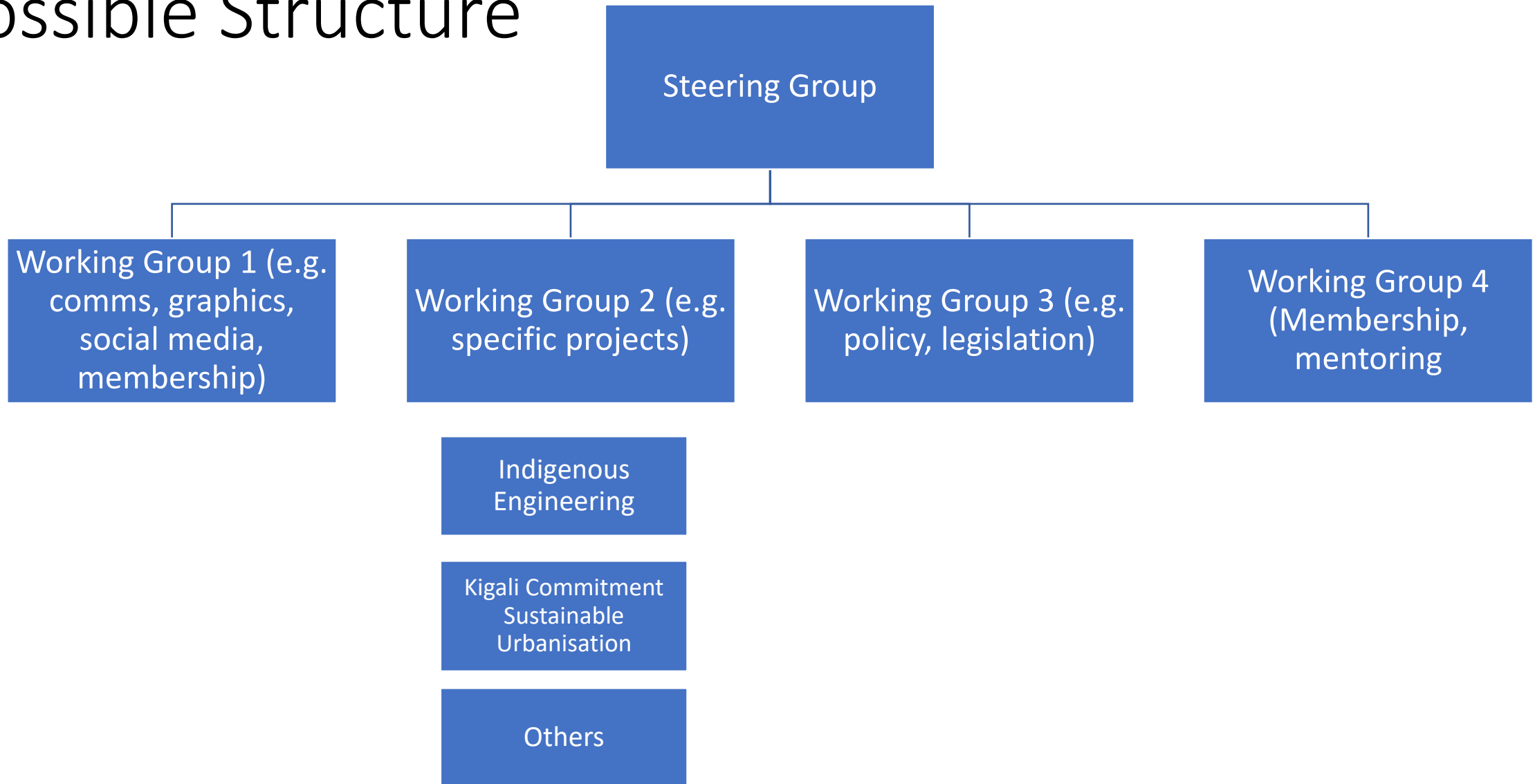
- Engineering solutions to climate change for Small Island Developing States and vulnerable countries
- Sustainable Urbanisation and best practices related to rapid urban planning
- Indigenous Engineering – how to ensure local people, materials, and skills are prioritised in engineering work, including nature-based solutions
- Adopting and sharing common standards and best practices
- Sustainable materials and global supply chain implications
- Engineering education and professional capacity building
- Advocacy and representation

Do you want to be active in one of our activities? Please indicate which area you're most interested in:

49 responses



Possible Structure



Next Steps

- Identify two co-leads to steer the group and establish a working structure
- Deliver the Action Plan
- Create other activities according to interests of the group

CEC Objectives

Strategic Objectives

- Exchange of information and Knowledge Transfer
- Training and capacity building in Education and Professional Development
- Mobility/exchange of Engineers
- Promote Ethics, Equity, Diversity and Inclusion
- Identify gaps in knowledge or standards and work to fill them
- Specific Projects (e.g. sustainable urbanisation, indigenous engineering etc)
- Communication and Engagement
- Identify legislation and policy change

Internal Objectives

- Increase membership
- Continued Commonwealth affiliation
- Good governance
- To grow our membership; to continue our affiliation with the Commonwealth Secretariat; and to be compliant with the good governance procedures and practices.

CEC Action Plan V1 2023-2025

Strategic Priority	Action	2023	2024											2025												
		Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
1. Share Knowledge																										
1.1	Organise four webinar per year to share knowledge on topics of choice, including indigenous Engineering and Nature Based Solutions		0							0					0								0			
1.2	Create series of podcasts as a means of sharing knowledge				0											0									0	
1.3	Share and signpost knowledge and information through website, twitter, LinkedIn, email, Whatsapp, in-person, and any other mechanism available																									
1.4	Attend WFEO meetings and cascade relevant information to members of CEC				0	→																				
1.5	Attend International Events (CHOGM, COP, etc) and share information with CEC members	0																								0
1.6	Share PAS2080 standard with CEC colleagues to promote sustainable urbanisation and the Kigali Commitment																									
2 and 3. Capacity Building Towards Professional Registration and Engineering Education																										
2.1	Grow and retain membership from professional registration bodies in Commonwealth Countries in order to strengthen the conversations and knowledge sharing around capacity building for professionalism																									
2.2	Create partnerships where appropriate and where requested to help member institutions to develop their professional registration and accreditation																									
2.3	Develop and support the activities of the Standing Committee on Engineering Education and Professional Development through Exec Board member Yashin Brinjmoan as chair																									
2.4	Deliver webinars or events on engineering capacity building, specifically a 2024 online conference planned for March 2024				0																					
2.5	Consider establishing a CPD certification programme that can be applied to CEC webinars																									
2.6	Develop a series of CPD related online content webinars to support the professional registration of engineering graduates, including on topics such as Ethics, Global Responsibility, Sustainability, Equality, Diversity & Inclusion, Risk etc																									
2.7	Scope and potentially roll out a mentoring programme for individuals to support graduate engineers transition to professional registration, and retention of engineering professional qualification																									
2.8	Continue an involvement in relevant WFEO committees through CEC membership and cascade relevant information to CEC members																									
Objective 4: Promote Ethics, Equity, Diversity & Inclusion																										
4.1	Promotion of partner project Sibombe the Engineer to increase the take up of engineering amongst young women																									
4.2	Continue to promote the values and practices of good practice in Ethics, Equity, Diversity and Inclusion, and zero corruption - both in our industry and in the built environment - across our membership and partner organisations																									
4.3	Ensure equitable voice in decision making for all members of the CEC, and comply with the Leave no one behind ethos in all of our work																									
4.4	Adopt the ethics code developed by WFEO and promote to our membership																									
Objective 5: Deliver Projects and Impacts																										
5.1	Form and nurture partnerships with CEC members and other organisations who share common interests, including WFEO, Association of Commonwealth Architects, Commonwealth Association of Planners, Association of Commonwealth Universities, the International Coalition on Sustainable Urbanisation (ICSI), the Federation of African Engineering Organisations (FAEO), and the Princes' Trust																									
5.2	Use members and partnerships to develop projects of relevance to CEC members including the promotion of sustainable urbanisation, education capacity building and professional development of engineers, and the promotion of engineering solutions throughout the Commonwealth																									
5.3	Develop outcomes and impact in response to the Kigali Commitment for sustainable urbanisation, signed in 2022, including the focus on indigenous engineering and localised solutions, and the promotion of the PAS2080 standard																									
5.4	Partner with WFEO on the Small Island Developing States project																									
5.5	Continue involvement in the Commonwealth Youth for Sustainable Urbanisation and Commonwealth Sustainable Cities Initiatives through CEC Member involvement																									
5.6	Develop other relevant projects and campaigns as and when possible																									
5.7	Establish and support sub-committees where appropriate for delivering relevant projects																									
5.8	Attend relevant international events including COP meetings, CHOGM, and WFEO meetings in order to engage and influence	COP28			WFEO																					WFEO COP30
Objective 6: Good Governance																										
6.1	Ensure compliance with CEC constitution. Continue the relationship with the pro bono solicitor established in October 2023 to review the CEC constitution and make any changes recommended																									
6.2	Create a Rules of Procedure document to deliver the Constitution																									
6.3	Deliver newsletter to CEC members quarterly		0		0					0					0					0					0	
6.4	Establish a timeline for Executive Board Elections to be compliant with timescales of the World Federation of Engineering Organisations election to their Executive Council																									
6.5	Hold a General Assembly in conjunction with the WFEO meetings																									0
6.6	Continue the process of seeking funding to support the activities and objectives of CEC																									
Objective 7: Effective Communication																										
7.1	Establish mechanisms and empower resources to ensure that we maintain regular contact with members and the wider community through quarterly newsletters, email communications, Whatsapp messaging, and other media where relevant, including maintaining the CEC website																									
7.2	Grow twitter following and establish a sharing mechanism for co-editing of twitter																									
7.3	Establish individual and closer links with the named individual representatives of Member organisations in order to create closer working relationships																									

CEC Action Plan

Activities from the Action Plan

- Organise regular Webinars to share knowledge
- Podcasts (*Voices from the Commonwealth*)
- Social Media and Comms (X and LinkedIn)
- Representation on behalf of CEC at events or on partner organisations
- International Events Attendance (CHOGM, COP)
- Identifying & Sharing Relevant Standards
- Country representation (e.g. Nigeria young person representative)
- Partnerships Manager
- Support Exec Board Functions and Working Groups
- Secretariat Support
- Conference
- CPD structure/certification
- CPD Events and Training
- Mentoring Programme - organise and run
- Schools outreach with Sibos the Engineer
- Project work
- Education/capacity building
- Campaigns
- Surveys
- Governance
- Conference planning
- Newsletter Editor

Possible Areas of Engagement

- The following slides represent possible areas of engagement for the Young Engineers / Future Leaders

Mentoring

- Gap identified between graduation and professional registration
- Especially for women

Progressing the Kigali Commitment

On June 22, 2022, leaders from several Commonwealth architecture, engineering and planning associations came together to consider how they can contribute to implementation of the [Call to Action on Sustainable Urbanisation across the Commonwealth](#) and resolved to commit themselves to work together in a multi-disciplinary collaboration:

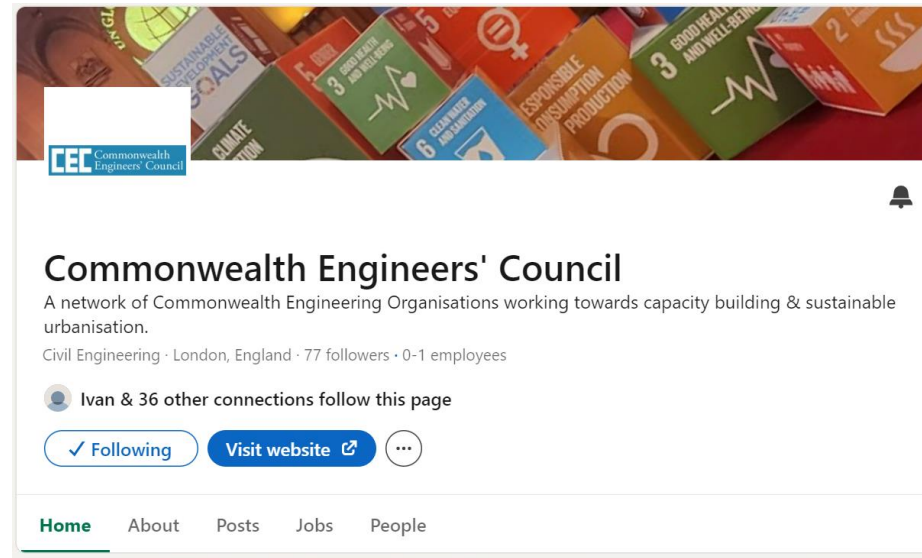
1. To champion and ensure that sustainable urbanisation and climate action (mitigation and adaptation) is at the heart of our common future, and is firmly rooted in Built Environment Professions (e.g., Architecture, Engineering, Planners, Economists, Surveyors, Environmental Specialists, and Finance Experts, etc.) ethics, standards, principles, data, and policies;
2. To develop and promote a Commonwealth dialogue in our respective jurisdictions and networks to define and implement a new way of working towards transparent and accountable multi-level governance, sustainable urbanisation, and climate action;
3. To lead the development of new partnerships and strategies within and between the public, private, and not-for-profit sectors, and at all levels of government to achieve a Commonwealth-led response to the challenges and opportunities of sustainable urbanisation and climate change;
4. To come together between and at Commonwealth Heads of Government Meetings to review progress and to look for further opportunities to take practical action to address sustainable urbanisation, climate change, and the Sustainable Development Goals.
5. To promote and celebrate the Built Environment Professions as experts in sustainable urbanisation and in taking climate action, and to jointly advocate for the Call to Action to Commonwealth Heads of Government and other associated international organisations.
6. To invite the Presidents of all Built Environment Professionals to engage in and implement the Call to Action on Sustainable Urbanisation.

Commonwealth Engineering Conference Organisation

- Replicate our original purpose by organising an online whole day conference

Social Media and Comms

- Website <https://www.commonwealthengineers.org/>
- Twitter @Commengcouncil
- LinkedIn
- Newsletter



Podcast / Webinar Series /CPD Certification

- Voices from the Commonwealth
- Webinar series
- CPD certificates for those who attend

A Campaign

- Organise a Campaign or Survey

Policy White Paper for CHOGM

- CHOGM Samoa in October 2024 gives opportunity for engagement with Commonwealth leaders
- White paper is being proposed
- The theme for Commonwealth Day 2024, and the forthcoming [Commonwealth Heads of Government Meeting](#), is ‘One Resilient Common Future: Transforming our Common Wealth’.

Photograph / Image Gallery

- Photos showing climate change and engineering solutions from around the Commonwealth
- Including Indigenous Engineering



Country Representation

- Ideally would like one representative per country to be the go-to contact for information on each country
- Help with the statistics/information gathering on numbers of qualified engineers, numbers of women engineers, status of professional registration and accreditation, and development need
- Also image gallery to pull together images of impact of climate change and engineering solutions

BEPIC and COP29

- Built Environment Professionals in the Commonwealth
- CAA Commonwealth Association of Architects
- CAP Commonwealth Association of Planners
- CASLE Commonwealth Association of Surveying and Land Economy

- Organise a Commonwealth BEPIC event at COP29

Fundraising

- CEC has no funds!
- Fundraising to enable people to travel, attend events, as well as cover our cost of membership of WFEO

Governance

- Commonwealth has a constitution but this will need changing in light of the formation of the Company
- Rules of Procedure are currently missing to convert the constitution into a workable set of procedures
- Policies?

University / Student Exchange

- Work with Association of Commonwealth Universities (ACU) to join students up across Commonwealth Universities
- Establish a Commonwealth Student Engineers network
- Create a project for students based on a real Commonwealth problem

Membership

- Increase membership
- Aim to get all Commonwealth countries in the CEC network
- Increase numbers of individual members

Representation

- Represent CEC on other groups
e.g. CYSU Commonwealth Youth for Sustainable Urbanisation
- Represent CEC Youth as part of the National Member Organisation

Small Island Developing States

- Increasing amount of work with SIDS on capacity building / accreditation
- Opportunity for CHOGM in Samoa in October 2024

Outreach

- CEC is a partner on the Sibobo the Engineer project run by Michelle Maphosa from Zimbabwe
- Opportunity to get involved with this project
- Or other outreach to schools / young people



My CEC Contact Details

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Commonwealth Secretariat: Katie Momber, CEC@ice.org.uk

Kirils Holstovs



Kirils Holstovs

Regional Representative of Europe

Kirils Holstovs is a civil & structural engineer at AECOM specialising in inspections and assessments of bridges, as well as carbon management of infrastructure, co-leading strategic work on decarbonisation of bridge design and asset management. Kirils has also been involved as a stakeholder engagement coordinator and a project co-coordinator for a major international project, as a part of AECOM sustainability consultancy services.

Kirils volunteers as a co-lead of the World Federation of Engineering Organizations (WFEO) Young Engineers / Future Leaders' Working Group on Climate Action, which elevates the voice of young engineers in decision-making and develops climate policy initiatives, capacity-building events and partnerships to advance climate action and sustainable

development. He took part in COP26 and COP27 as a negotiations observer, speaker and side event lead organiser. He was a co-initiator and co-author of the COP26 Joint Statement of International Youth Organisations, which provided 12 key climate policy recommendations that were co-signed by some of the most influential international youth organisations and shared with all COP Parties. Kirils also was a delegate at the Pre-COP26 UN Youth4Climate summit and agreed adoption of several key infrastructure policies in the Youth4Climate manifesto that was shared with all COP26 Parties.

Kirils actively volunteers with the Institution of Civil Engineers, where he has the roles of the Climate Change Representative of the ICE North East [England] regional committee and a member of the Carbon Champions review panel.

Michelle Meaclem



Co-lead WFEO Young Engineers/Future Leaders Working Group
Michelle is a Civil Engineer at Tonkin + Taylor New Zealand with over 5 years' experience across civil and stormwater design, climate resilience, and water infrastructure advisory. Michelle is a Commonwealth Engineers Council President's Future Leader and is a passionate advocate for aligning the infrastructure sector to climate targets and the inclusion of young people, especially those in STEM, in climate policy making. She does this through her roles as the co-lead of the World Federation of Engineering Organisations' Young Engineers/Future Leaders' Working Group on SDG13: Climate Action (Working Group) and a Steering Committee member of the Commonwealth Youth for Sustainable Urbanisation network. In 2023, Michelle was a COP28 International Youth Climate Delegate and a finalist for Young Engineer of the Year.