

“ The climate is changing and the engineering community must work together to advance engineering solutions and partnerships that contribute to climate change mitigation, adaptation and resilience.

The Working Group supports the advancement of guidance tools and standards for decarbonisation, climate adaptation and resilience, so that engineers can contribute to sustainable development, globally.

Davide Stronati,
Chair of WGCC,
Institution of Civil Engineers UK

The Working Group (WG) on Engineering and Climate Change provides a focus of activities relating to the issue of Climate Change and in particular to advance the UN Sustainable Development Goal No. 13 on Climate Action. The WG's role is designed as a transverse one, coordinating and helping to harmonise all the work being done by various WFEO STCs and WGs in relation to climate change.

It advances awareness of best practice in climate mitigation and adaptation, showcasing decarbonisation and/or resilience efforts of engineering projects. It assists in the advancement of guidance tools and standards for decarbonisation, adaptation and resilience, through global expert advice to existing projects. It raises awareness of WFEO's work on and commitment to climate change and leads WFEO side events, with other international partners, at the UNFCCC events.

The WG has roughly 30 members since the WG's inception in 2023. It meets quarterly with the objective to showcase global best-practice case studies and initiatives that have the potential to deliver the change needed at scale and at pace, signposting to replicable solutions. Case studies have been showcased through events, webinars, short reports, articles and blogs, hosted by the WFEO and Institution of Civil Engineers UK (ICE) websites.



Audience at the COP 28 side event “Systems thinking for holistic climate action: nature-driven engineering, policy and finance solutions”, Dubai, United Arab Emirates, 5 December 2023



PAS 2080 offers practical actions and examples to accelerate the decarbonisation of buildings and infrastructure.

Since 2023, members of the WG attended the United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) and Subsidiary Bodies meetings in Bonn to promote the role of engineers in combating climatic uncertainty.

COP 28 (2023), in Dubai, United Arab Emirates, featured the first-ever Global stock-take, the Paris Agreement's process to assess progress every five years and mobilize stronger climate action. COP 28 set the direction for the next round of national climate commitments (NDCs) due in 2025. At this conference, Davide Stronati headed the WFEO-led side event in the Blue Zone, in collaboration with Conservation International, the Engineering Institute of Canada and Resilience First.

On 5 December 2023, the event *Systems thinking for holistic climate action: nature-driven engineering, policy and finance solutions* discussed nature-driven engineering, policy and finance solutions, and then focused on global implementation. With the ICE, WFEO was also able to promote PAS 2080, the globally applicable building standard on carbon management in infrastructure, and the WFEO Working Group on Engineering and Climate Change, offering practical actions and examples to accelerate the decarbonisation of buildings and infrastructure.



Micheala Chan, Member of the WFEO YE/FL SDG 13 WG; Sue Brown, CEO at Sustainability and Corporate Affairs at Worley; Laleh Behjat, Prof. at University of Calgary and Davide Stronati presenting the COP 28 side event, 5 December 2023

Key achievements

- UNFCCC COP28 side event Systems thinking for holistic climate action – 5 December 2023
- UNFCCC COP29 side event Accelerating Clean Tech for Energy and Agriculture in SIDS – 11 November 2024
- The 3 editions of the webinar “Principles for climate change adaptation and future resilience for engineers” presented by David Lapp on 19 December 2024, 14 May and 4 June 2025, attracted more than 300 attendees (see next page)
- “The Climate Change Mitigation Best Practice project” will be presented at the GA and GEC in Shanghai (October 2025)
- “The WFEO Model Code of Practice: Principles of Climate Adaptation for Engineers” will be presented at the 2025 GA and GEC in Shanghai (October 2025)

At COP 29 (2024), in Baku, Azerbaijan, WFEO partnered with the Canadian Institute of Engineers (CIE), Institute of Electrical and Electronics Engineers (IEEE) and ICE to develop a joint submission.

The side event *Accelerating Clean Tech for Energy and Agriculture in Small Island Developing States (SIDS): Enabling action for a Just Transition* discussed accelerating the deployment of clean tech solutions that enable equitable access to energy and support agricultural processes in small island states. It then focused on enabling action by harvesting knowledge of communities and expanding skills through capacity building to support a just transition.



Davide Stronati, Chair of the WFEO WG on Engineering and Climate Change; Saifur Rahman, Past IEEE President and Marie-Line Vaiani, Chair of the WFEO Committee on Energy presenting the COP 29 side event in Baku, Azerbaijan, 11 November 2024

Also in 2024, the WG Chair, Davide Stronati, and WG member Darrel Danyluk attended the UNFCCC inter-sessional Subsidiary Bodies (SB60) meetings in Bonn, Germany. Although a side event submission was not selected, one of the key takeaways from the congress was the lack of focus on engineering by UNFCCC. Through WFEO discussion with the IEEE, action has been endorsed and taken for a proposal to have an Engineering Day at COP 30 in Belem, Brazil 2025. The WG will devise another side event for COP 30 on this theme.



Delegates Davide Stronati and Darrel Danyluk outside the UNFCCC building, Bonn, Germany, 3 June 2024



WFEO Executive Council Member Dr. Jing He, Davide Stronati and Marie-Line Vaiani, Chair of the WFEO Committee on Energy; at the Blue Zone at COP 29, Baku, Azerbaijan, 11 November 2024