WFEO COMMITTEE ON ENGINEERING AND THE ENVIRONMENT:

STRATEGY 2018-21

6 CLEAN WATER AND SANITATION

6.2 - Achieve access to adequate and equitable sanitation and hygiene for all, and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations

13 CLIMATE ACTION

13.2 Integrate climate change measures into national policies, strategies, and planning

13.3. Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning

1 INTRODUCTION

The work of the Committee on Engineering and the Environment (CEE) is aimed at enabling WFEO and the global engineering profession to support the achievement of the UN Sustainable Development Goals through the development, application, promotion and communication of:

1) Environmentally sustainable and accountable engineering practices and technologies;
2) The adaptation of infrastructures to the impacts of a changing climate, decreasing resources and increased populations
3) Assessing and promoting clean technologies and engineering practices to mitigate climate change;

4) Engineering perspectives on the sustainable management of water and sanitation for all, and;
5) Developing guidelines for practicing engineers on responsible environmental stewardship and sustainable and ethical practices in various areas of engineering practice.

The main outputs of our strategy will be aligned to SDGs 6 and 13, specifically the indicators 6.2, 13.1 and 13.2 as indicated above.

Activity in these areas will be carried out by the CEE task groups as indicated below.

The CEE has also developed two model codes of practice in both sustainable development and climate change adaptation.

The Model Code of Practice: Principles of Climate Change Adaptation for Engineers is available here; http://www.wfeo.org/wp-content/uploads/code-of-practice/WFEO_Model_Code_of_Practice_Principles_Climate_Change_Adaptation_Engineers.pdf.

The WFEO Model Code of Practice for Sustainable Development and Environmental Stewardship is available at: http://www.wfeo.org/wp-content/uploads/code-of-practice/WFEOModelCodePractice_SusDevEnvStewardship_One_Page_Publication_Draft_en_oct_2013-3.pdf

It is the CEE’s intention to promote use of these codes of practice amongst WFEO's members and related organisations.

2 CEE TASK GROUPS

TASK GROUP ON CLIMATE CHANGE ADAPTATION

OBJECTIVES

- To communicate about, and promote the adoption of, the WFEO Code of Practice on Principles of Climate Change Adaptation for Engineers.
- To understand the risks of a changing climate on existing and planned infrastructures – still needed. Delivery of a paper (5-6 pages) that looks at threats to and needs of critical infrastructure.
- To develop and demonstrate application of tools for engineers to use in assessing the impacts. Web search for resources and information.

- To train engineers and other professionals in the assessment of climate impacts on civil infrastructure and developing engineering solutions. Develop the Engineers Canada work to be more-widely applicable and deliverable.
- To provide and facilitate opportunities to post-graduate students to participate in Bonn and COP meetings for their professional development and appreciation of political realities. (All country members can nominate – the challenge is balancing numbers, effort and opportunities for places.)
- To continue to input the engineering perspective on adaptation into the UN process through the UNFCCC and the Nairobi Work Program.

GOALS

- To develop presentations and training materials on adaptation of civil infrastructure for use and delivery by CEE members and WFEO member countries to inform and educate policy and decision-makers.
- To influence the United Nations and WFEO member countries in policy development on matters related to adaptation of infrastructure to climate change.
- To work closely with UNESCO, OEDC, and WMO on projects of mutual interest.
- Provide public education on behaviours and environmental impacts

TASK GROUP ON CLIMATE CHANGE MITIGATION

OBJECTIVES

- To produce additional country reports for the Future Climate-Engineering Solutions Project.
- To advocate engineering solutions for climate change mitigation to the United Nations and WFEO member countries.
- To inform and educate policy and decision-makers.

GOALS

- To facilitate the engagement of WFEO member countries to participate in the Future Climate Engineering Solutions project.
- To develop presentations and training materials for use and delivery by CEE members and WFEO member countries to inform and educate policy and decision-makers.

TASK GROUP ON SUSTAINABLE PRACTICES FOR ENGINEERS

OBJECTIVES

- To communicate and promote the adoption of the WFEO Code of Practice for Sustainable Development and Environmental Stewardship for Engineers.
- To monitor and report on emerging policies, strategies and practices at national and international levels.
- To inform and educate the appropriate United Nations agencies.

GOALS

- To promote high standards of practice for engineers in the member countries of the WFEO and inform the international community.
- To develop presentations and training materials for use and delivery by CEE members and WFEO member countries to inform and educate policy and decision-makers by gathering data and analytics

3 ACTION PLAN TO 2021

The CEE action Plan is captured in the table below. Activities are grouped under task groups and tagged with the SDG they relate to as well as the WFEO aim (see section 5) that they align to.

Task Group	Activity	SDG	Alignment	2018			2019												2020												2021											
				O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
Climate Change Adaptation	Attendance at COP24	13.3	Influencing			▨																																				
	UNFCC event in Bonn	13.3	Influencing							▨																																
	Attendance at COP25	13.3	Influencing															▨																								
	UNFCC event in Bonn	13.3	Influencing																			▨																				
	Attendance at COP25	13.3	Influencing																											▨												
	UNFCC event in Bonn	13.3	Influencing																															▨								
	Attendance at COP26	13.3	Influencing																																							▨
	Presentation at GEC	13.3	Convening	▨																																						
	Continued Promotion of Climate Change Code of Practice	13.3	Improving				▨	▨	▨	▨																																
	Report on Collaboration with GIZ and Costa Rica	13.3	Partnering				▨	▨	▨	▨																																
Climate Change Mitigation	Presentation at GEC	13.2	Convening	▨																																						
	Continued Promotion of Energy plan best practice document	13.2	Improving				▨	▨	▨	▨																																
	UK climate and energy Plan	13.2	Influencing											▨																												
	Collation and Discussion of National plans	13.2	Influencing													▨																										
Water Task	Establishing Water Task Group	6.2	Convening	▨																																						
	Sanitation Challenge Workshop	6.2	Convening	▨																																						

	Sanitation Challenge Workshop	6.2	Convening					▨																																		
	Sanitation Challenge Report	6.2	Improving												▨																											
CEE activity	CEE 2018 f2f meeting	NA	Convening	▨																																						
	STC meeting Paris	NA	Convening							▨																																
	CEE2019 f2f meeting	NA	Convening														▨																									
	STC meeting Paris	NA	Convening																			▒																				
	CEE2020 f2f meeting	NA	Convening																									▒														
	STC meeting Paris	NA	Convening																														▒									
	CEE2021 f2f meeting	NA	Convening																																						▒	
	CEE Teleconference	NA	Convening				▒																																			
	CEE Teleconference	NA	Convening											▒																												
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5 ALIGNMENT

The action plan above has been aligned to WFEO's aims captured below:

INFLUENCING

The voice of engineering needs to be heard to inform policy. We work to inform and influence international institutions – primarily the United Nations system – on key global challenges such as climate change, sustainable development and poverty reduction. The declarations of our events are progressive calls to action for engineers and society.

CONVENING

In a globalised economy, technology, infrastructure and supply chains are global too. The impacts of technology – for better or worse – are felt across borders. We hold regular events and themed conferences and the World Engineers' Convention every four years so that engineers and leaders can network, inform policy and drive change. Our website helps you to discover the world's engineering professional organisations.

IMPROVING

The economic, social and environmental impacts of engineering can be huge. We bring our members together to develop and agree codes – such as our Code of Ethics and our Code of Practice for Sustainable Development and Environmental Stewardship – that help engineers everywhere to work as professionals in the public interest.

GROWING

Human progress demands that we increase the number of engineers around the world and ensure that they are trained and practice to appropriate standards. We mobilise engineering leaders to build capacity and attain common standards in all countries. We support the mobility of engineers by encouraging progress towards multi-lateral agreements for recognition of engineering qualifications and professional credentials.

PARTNERING

Engineering enables so much in our economies and societies that its stakeholders are diverse and disparate. We partner with others – such as UNESCO, the OECD and Engineering for Change – to work on joint projects that are in the international interest.

RECOGNISING

It is important to celebrate the incredible achievements of great engineers – to inspire, to recognise and to raise awareness. We award medals of excellence to engineers who make exceptional contributions to engineering, construction and education. Our national members are recognised national bodies for the engineering profession in their countries. Their representatives, our volunteers, are their acknowledged leaders.