



**World Federation of Engineering Organizations
Committee on Engineering and the Environment 2015-2019
Face to Face meeting #11
Institution of Civil Engineers – One Great George Street – London
Brunel Room – 09:00 – 13:00**

Agenda

	Item	Owner	Appendix # and Location in Meeting Pack
1	Welcome and Introduction	JV	Verbal
2	Minutes and Actions from Rome/teleconferences	JV/RC	Appendix A , Page 2 and Appendix B , Page 8
3	Chairman's Update	JV	Appendix C Page *
4	CEE Revised Strategy	JV	Appendix D , Page 23
5	Theme Chairman's update	Climate Change Adaptation	DD Appendix E, Page *
6		Climate Change Mitigation	RC Appendix F, Page *
7		Engineering and Agriculture	FT Appendix G, Page *
8		Sustainability and Mining	JK Appendix H, Page *
9		Sustainable Practices for Engineers	DL Appendix I, Page *
10	CEE member updates	All	Verbal
11	World Construction Forum Ljubljana, Slovenija, April 8 -11, 2019	Željko Vukelic	Verbal
12	Admin – membership and Comms	RC	Verbal
13	Dates of next meetings and teleconferences	JV	Verbal

* items to follow in final meeting pack



APPENDIX A

World Federation of Engineering Organizations Committee on Engineering and the Environment – 2015-2019

**Teleconference – 19th September 2018
13:00-15:00 British Summer Time**

Attendance

Name	Organisation	Country
Jean Venables (Chair)	Institution of Civil Engineer	UK
Rob Curd (Secretariat)	Institution of Civil Engineer	UK
Tan Seng Chuan (regional vice- chair)	Institution of Engineers Singapore	Singapore
Darrel Danyluk (regional vice- chair)	Engineers Canada	Canada
David Lapp	Engineers Canada	Canada
Farai Mavhiya (left early due to technical fault)	Zimbabwe Institution of Engineers	Zimbabwe

Minutes

Item	Details	actions
1	Welcome and Introductions	
1.1	The Chair welcomed the group to the second teleconference of the CEE. Attendance was as given above.	
2	Update on actions since last teleconference	
2.1	RC updated on actions carried out since the last teleconference. An updated action list can be found in appendix A.1	
3	CEE Chairman's Update	
3.1	No further updates since the last Teleconference	
4	Theme Chairmen's Updates	
4.1	Climate Change Adaptation DD updated the committee on the recent activity of the task group on Climate Change Adaptation. Preparations are underway for the groups participation in COP24 this December in Poland. Nominations for attendance had been received with the closing date being September 24 th . An application has also been submitted for a joint side event with the mitigation task group partnering with GIZ (German corporation for international cooperation). Results should be posted in mid-October. There are also to submissions for events 'outside the tent' at the EU and Polish pavilion.	



Item	Details	actions
4.2	Climate Change Mitigation RC updated the committee on the recent activity of the task group on Climate Change Mitigation. The group will be giving a presentation at the GEC in October. They are collaborating with the adaptation group on the COP24 event and they also plan on holding a joint meeting with the WFEO Energy Committee on the 20 th October. Work on the UK climate and energy plan is underway and progress will be reported at GEC.	
4.3	Engineering and Agriculture Task Group chair unable to attend call.	
4.4	Sustainability, Engineering and Mining Task Group chair unable to attend call.	
5	GEC activity and FTF meeting 11	
5.1	JV confirmed the next CEE meeting will be on the 20 th October and hoped those on the call would be able to attend. DD will not be able, however TSC and DL are able. Items for the agenda will be requested via email prior to the 20 th and papers will be circulated following this.	
6	Strategic Plan	



Item	Details	actions
6.1	<p>Following discussions in Rome 2017 and Paris March 2018, the committee still feels there is a case for the CEE to set up and run a task group on Water. The current task groups on Agriculture and Mining are both struggling with lack of resource therefore it is suggested that the CEE sunsets these groups and that they focus on a new task group on water. This does not prevent any future activity on agriculture or mining taking place. ICE feels that they can resource this new task group suitably and the CEE therefore can focus on two UNSDG areas;</p> <p>6- Clean Water and Sanitation 13- Climate Action</p> <p>RC to revise the strategic plan to reflect this decision RC to carry out some desk research on what has been done on water and where CEE could best contribute</p> <p>D. Lapp proposed that promoting awareness and knowledge of the codes of practice for sustainable development and environmental stewardship as well as climate change adaptation be incorporated into the current strategic plan as another task. These are existing WFEO products that are sitting on the website with little promotion or outreach. A pro-active strategy that could include international/regional webinars would be an initial low-cost tactic with encouragement to national and international members to step up their efforts locally.</p> <p>Engineers Canada together with Polytechnique Montreal have developed a Massive Open On-Line Course (MOOC) for the Canadian version of the WFEO codes of practice on sustainable development and environmental stewardship. It is being offered in English and French streams. The course starts October 24 and is free with registration. The MOOC is being promoted as follows:</p> <p>Registration is now open for the massive open online course (MOOC) being developed by Engineers Canada and Polytechnique Montréal based on the National Guideline on Sustainable Development and Environmental Stewardship for Engineers. This new, free online course, called “Sustainability in Practice”, is a great professional development opportunity for engineers to learn how to apply the sustainable development and environmental stewardship guidelines in their daily practice. A teaser video is online. Classes begin on October 24, 2018.</p> <p>POST MEETING NOTE – WFEO EXECUTIVE BOARD HAVE CREATED A NEW TASK GROUP ON WATER TO BE LEAD BY IIE IN SPAIN AND PORTUGAL THEREFORE THIS WOULD BE A DUPLICATION _ DECISION TO BE MADE IN OCTOBER MEETING REGARDING HOW TO PROCEED</p>	RC RC
7	Any Other Business	
7.1	TSC updated the group regarding an event he was attending at AIT in November on Climate financing.	
7.2	RC update the group on an External Review of IPBES (the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services) survey – and would distribute the link. click here	
8	Next meeting – Face to face meeting in London – October 20th	
9	Closing Remarks and Adjournment	

World Federation of Engineering Organizations Committee on Engineering and the Environment – 2015-2019

Appendix A.1 Updated Action List

WFEO CEE – action list update for online meeting 19-09-18
Updates on actions open since last teleconference included only
Obsolete actions removed

Agenda Item	Minutes	Action	Update
General	Jean would like us to write separately to full Members of CEE and Observers, and do so in a targeted way, to make sure, for example, that we do not seek decisions from Observers. I (RKV) have started to generate separate Group Lists in Outlook for Members and Observers.	RC and RKV	RC working on mailout with JdM
5	Task Groups DD to ask Costa Rica to produce guidance on how they have been successful in applying for funding	RC DD	DD updated in the meeting that this was achieved through a long term partnership.
	Nominations for potential attendees at COP 24 must be received by Darrel Danyluk by mid-May, so that he has time to process them and apply by end June	DD RC	Nominations were received COP 24 covered in main agenda
	Darrel suggested that Jean raises problem of non-response to invitations at meeting of All STC Chairs	JV to do this by email, in time for discussion in March. RKV to draft in consultation with RC & DD	This is covered in the STC self-assessment form
	Volunteers to be sought to assist on the engineering and agriculture task group	RC – add to website, expressly ask all CEE members to spread the word, ask Jacques to ask all WFEO members, add to WFEO Flash?	superseded

	Fethi to write a draft text for a letter to go to all WFEO members about his planned workshop	RKV to write to Fethi, with JV checking my email	superseded
	Need to ask Mining Task Group to write up what they have done in a publishable form.	RKV to review their report and web pages and suggest an approach that RC can make to Jessica	superseded
6	Roundtable Reporting of Member and Observer Activities and Issues		
	DD suggested that water SDG 6 is added as a task group – submit as part of strategy		Water added as part of CEE strategy
7	Progress with acceptance, translation and adoption of WFEO Codes of Practice: Electronic copies of all codes and related documents to be secured from David Lapp Then send them by email to Jianping Wu so that he can arrange translation into Mandarin and/or Cantonese. RC to identify what additional languages we have within CEE and write to relevant members and ask for them to be translated	RKV – Done RKV, cc RC RC RC	Done To be completed
	DD offered to write a webinar and present the codes of practice – RC to investigate logistics	RC	To be completed
8	WFEO CEE Communications Update on actions suggested in Lima 2016 – item 8.2 in summary Suggested additions add links to government and policy makers - David Lapp – opinion pieces – create articles and find opportunity for personal opinions	RC RC & RKV to discuss who writes what	To be completed
9	2016-2019 Strategic Plan Highlight which targets are related to the SDGs – colour coded version out and then comments back in 2 weeks Review the groups to identify if we need to create a task group on water.	RC	Little response from the CEE members – suggestions for next steps welcome – Revised strategy

	<p>Identify the water elements and then think as a committee what we need to concentrate on – word doc with tracked changes – and full name with initials inside the file name.</p>		<p>shared for comment 18/09/18 and updated version prepared for next F2F meeting</p>
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**World Federation of Engineering Organizations
Committee on Engineering and the Environment – 2015-2019**

**Face-to-Face Meeting No. 10
Monday 27th November 2017
Sheraton Roma Hotel & Conference Centre
Viale del Pattinaggio, 100, 00144 Roma RM, Italy**

Summary Minutes for Circulation to CEE

Item	Minutes	Action
1	<p><u>Welcome and Introductions</u></p> <p>JV commenced the meeting. Formal introductions of those at the table were given and the presence of observers noted.</p> <p>Full attendance of the meeting can be found in appendix A</p> <p>The following items were raised for AOB and will be covered under item 11;</p> <ul style="list-style-type: none"> - Updates from the President Jorge Spitalnik - Presentation on EV car sharing and autonomous driving from Jianping Wu (later agreed to be part of his China progress report) - Presentation on Resilience from Jing He - Conference in Kenya 	
2	<p><u>Meeting Summary: Face-to-Face Meeting No. 9, 3rd December 2016</u></p> <p>The summary of the meeting was agreed to be an accurate record.</p> <p>Actions arising from the meeting were discussed under item 3</p>	
3	<p><u>Review of Actions agreed at FTF Meeting 9</u></p> <p>Full details can be reviewed in appendix B. All actions are considered resolved other than the following;</p> <ul style="list-style-type: none"> 3.1 From previous action 5.1 – Swiss contact to liaise with the World Meteorological Organisation (WMO) – Massimiliano Capezzali, the Swiss National Member, was identified as possible help in this matter and agreed to seek out and provide details of a suitable contact 3.2 From previous action 6.1 Kuwait to send study on disposal of used tyres Majeed Al-Qassab offered to contact the Kuwaiti member who was not present 3.3 RC to circulate a list of members to update contacts 	<p>RC</p> <p>RC</p> <p>M A-Q</p> <p>RC</p>
4	<p><u>CEE Chairman’s Overview Report</u></p>	

Item	Minutes	Action
	<p>4.1 The Chairman gave her update. She indicated that ICE support had increased a few weeks before this meeting and that Robert Curd of ICE is now providing secretariat support.</p> <p>4.2 She gave thanks to the Institution of Engineers Singapore for her invitation to attend the World Engineer’s Summit as a keynote speaker.</p> <p>4.3 Following her attendance at the Committee on Energy meeting the previous day it was also agreed to arrange a workshop with the committee on energy and the task group on climate change mitigation (FC-ES)</p>	
<p>5</p> <p>5.1.1</p> <p>5.1.2</p> <p>5.1.3</p>	<p>Theme Chairmen’s Progress Reports for 2016</p> <p>5.1 Climate Change Adaptation</p> <p>Darrel Danyluk reported on the CEE Task Group on Climate Change Adaptation.</p> <p>He stated that, following the COP23 in November 2017, he feels more optimistic about the UNFCC process than he did when preparing his written report. Since the Nationally Determined Contributions s were agreed at COP21, there has been increasing willingness to take action as opposed to protect vested interests, and the meeting in Bonn over the last two weeks had displayed that change of emphasis more than the previous gatherings.</p> <p>DD indicated that there is still the need to stress that climate change mitigation and adaptation will require practical solutions as opposed to just policy and advocacy. It was agreed that CEE should suggest to the UN through Gong Ke that a committee of professionals and practitioners is formed to support the UNFCC regarding matters of engineering.</p> <p>DD informed the group that COP24 would be held in Poland and that Lidia Zakowaska, of the University of Krakow and a member of the WFEO Women in Engineering Group, was arranging for a number of students to attend. He also stated that Lidia would be contacting the Polish Government in an attempt to arrange an engineering day to take place at COP24.</p> <p>DD requested that applications to attend the 2018 UNFCC be received by the end of May. Information required includes: name /</p>	<p>All interested members</p>

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	<p>passport / who the nominee works for / email address / date of birth. A form will be sent round to CEE members to apply.</p> <p>The papers and presentations presented by DD and DL are available on the WFEO website.</p> <p>DD also updated the group to the fact that the relationship with GIZ had been rekindled and GIZ and Engineers Canada had signed a contract last week looking at project in the Nile Basin, a collaborative project between Canada, Brazil, Costa-Rica and Vietnam. DD stated that this was a good example of CEE supporting its national members. The contract is for 32 months with the documentation being used to further education on climate change in the countries involved. DD will report back on an annual basis.</p> <p>It was noted that the GIZ contract is with Engineers Canada not WFEO because WFEO is not a registered entity. It was requested that JV investigate and discuss with the Executive Board what it would take to enable WFEO to enter future commercial ventures.</p> <p>It was also requested for DD to ask Costa Rica for some recommendations or best practice for how they successfully applied for their funding so that this learning could be shared with other nations.</p> <p>5.2 Climate Change Mitigation</p> <p>RC gave a presentation on the Future Climate – Engineering Solutions group which fulfils the role of Task Group on Climate Change Mitigation for the CEE.</p> <p>FC-ES is a global engineering alliance working together with national governments to develop, share and implement best practice in national climate plans and energy systems. Engineering associations from each participating country are tasked to develop an engineering-based climate and energy plan for their country for the period up to the year 2050.</p> <p>He stated that the FC-ES group have currently drafted the fourth phase of the framework document and are seeking comments from CEE members before publishing it. RC stated that he would circulate the document for comment.</p>	<p>DD</p> <p>JV/RC/RKV</p> <p>DD</p> <p>RC, then all Members</p> <p>RC</p>

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	<p>Once completed he hoped that the report could be featured on the WFEO website and be branded with the WFEO logo. DD suggested that the report should also be adopted as a guideline document similar to the model codes of practice.</p> <p>Once feedback had been received on the draft document it will be circulated to the national members before being put forwards to the executive board for ratification.</p> <p>5.3 Engineering and Agriculture Fethi Thabet gave an update on the Engineering and Agriculture Task Group.</p> <p>He stated that he has struggled to gain additional members for the Task Group despite asking for volunteers. He also needed support for the workshop mentioned in his written report. FT agreed to prepare a one-page Summary of his plans for the Group, his need for new members and support for the workshop. Once that is produced, JV will contact all national members to seek further volunteers for the group. This will include the amount of time and what is expected in terms of contribution.</p> <p>FT also stated that WFEO has strong links with Farming First and that They support the proposed workshop on Engineering and food security in Africa</p> <p>5.4 Sustainability, Engineering and Mining Unfortunately Jessica Kogel was unable to attend to present her report. The report was noted as given in section 5.4 of the meeting papers.</p>	<p>FT</p> <p>JV/RC</p> <p>FT</p>
6	<p>Roundtable Reporting of Member and Observer Activities and Issues All members present gave a verbal report of activity as follows;</p> <p><u>Martin Manuhwa - Engineering Council of Zimbabwe</u> Martin informed the group the Zimbabwe was still politically stable following the recent events (the resignation of President Robert Mugabe). There is a ministry in charge of climate and they are engaged in the IFCCC process.</p>	

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	<p>The new regime will be putting the reduction of famine as a priority, increasing the skills and capacity of farmers and agriculture. They will also be pursuing an anti-corruption agenda.</p> <p><u>Kashim A. Ali - Nigerian Society of Engineers</u> Nigeria’s priorities also include anti-corruption as well as improving the physical security of farmers from threats such as Boko Haram in order to improve food security.</p> <p>They are also focusing on addressing contamination from multinational oil companies. In terms of education they are currently offering a bachelor’s degree in environmental engineering.</p> <p><u>A Majeed Al-Qassab - Bahrain Society of Engineers</u> Majeed updated the group on a number of projects in Bahrain, they have completed pilot projects on solar and a petrochemical company has developed a fish farm on a discharge site. This project received the LEED award and he requested that be nominated for a WFEO 50th anniversary award.</p> <p>He worked with Darrel on an environmental certification process using the model code of practice.</p> <p>Majeed also indicated that the Bahrain Society of Engineers is planning to hold conference on the environment in Bahrain. The call for papers would go out from Bahrain next year and he hoped that it would be possible for WFEO to endorse the event. A date in 2019 will be considered.</p> <p><u>Dr Martin Van Veelen - South African Institution of Civil Engineering</u> Martin raised 4 key areas for South Africa;</p> <ol style="list-style-type: none"> 1- There is a focus on Acid mine drainage. 2- The challenge of reducing Co2 emissions. 90% of South Africa’s energy mix is supplied from coal fired power stations. They are able to reduce the emissions using carbon capture and storage but this process uses a lot of water which can impact on water security and employment opportunities in rural areas. 3- Water security in general is an issue which could be relieved with better planning. Residents of Cape Town are currently limited to 87 litres per person per day. 	

Item	Minutes	Action
	<p>4- An overall reduction of municipal engineers which has affected wastewater treatment with untreated sewage being discharged.</p> <p>S'thandazile S Ncube indicated that politicians in South Africa are now looking towards engineers to provide solutions, which he regarded as a positive step.</p> <p><u>Darrel Danyluk – Engineers Canada</u> Darrel updated the group that although Canada contributes 1.8% to global emissions that 90% is from renewable sources and 10% from coal. There is concern over water contamination from fertilizers. Darrell suggested that SDG6 on water should therefore be something that the CEE focuses on. Darrel also reported that the climate change protocol was also being picked up and used by many organisations.</p> <p><u>Kwabena Agyei Agyepong- Ghana Institution of Engineers</u> Kwabena reported that there were issues with rivers being damaged through illegal mining. To counter this there a ban was issued on unregulated surface mining.</p> <p>There is also an anti-corruption drive taking place.</p> <p><u>Julius M Riungu – Kenya – Federation of African Engineering Organisations</u> Julius reported that Kenya has plans to reduce emissions using solar, wind and geothermal energy. He attends the UN environmental assembly who were next due to meet in December.</p> <p><u>Tan Seng Chuan – Institution of Engineers Singapore</u> Tan Seng updated that the IES registers chartered engineers for environment and water, provided they follow the criteria and have 7 years' experience with 2 years in a responsible position.</p> <p>IES is now focusing on the circular economy and reducing waste to zero.</p> <p>They are also concerned with sea-level rise and flood control as well as using smart technology to improve efficiency in terms of flood control, autonomous vehicles and emissions.</p>	

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	<p><u>Jianping Wu- China Association for Science and Technology</u> Jianping reported that the Chinese government was now heavily investing in improving the environment. CAST has over 200 associations including groups on the environment, climate change and sustainable urban engineering. It would be beneficial to link some of these groups into the CEE where appropriate.</p> <p>Jianping gave a presentation on Chinese work related to electric vehicles, car sharing and autonomous driving in order to tackle emissions. If an autonomous system could be developed in a similar fashion to the bike hiring schemes, which are popular in China, London and other cities, there could be a huge opportunity for reduction in emissions and congestion.</p> <p><u>Tomas A Sancho Marco IIE Spain</u> Tomas reported the following</p> <ul style="list-style-type: none"> - They had organised four workshops around the 2030 agenda and SDGs. - They have planned an international conference on SDG 6 with UNESCO and the Latin American bank taking place in the spring of 2018. <p>They had also organised an international conference on SDG 6 which will be part of the 50th anniversary program and held in Madrid.</p>	
7	<p>Progress with acceptance, translation and adoption of WFEO Codes of Practice: WFEO Code of Practice on Principles of Climate Change Adaptation for Engineers and WFEO Code of Practice for Sustainable Development and Environmental Stewardship for Engineers.</p> <p>It was agreed to send round an electronic copy to all attendees whose native language is different from the non-English editions already available and ask for volunteers to translate.</p> <p>DD also offered to present a webinar on both codes.</p> <p>A Majeed Al-Qassab promised to send to Rob Curd the Arabic translation of the Codes he said had been done recently.</p>	<p>RC</p> <p>All Members to indicate interest to RC</p> <p>AMA-Q</p>
8	<p>WFEO CEE Communications JV presented the communication strategy to the group and opened it for discussion.</p>	

Item	Minutes	Action
	It was suggested that a key audience should also be government and policy makers and that another type of medium could be thought pieces and blog articles to stimulate discussion.	RC
9	<p>2016-2019 Strategic Plan</p> <p>It was agreed that a mapping exercise of each of the SDG targets would be carried out in order to identify which ones the task groups should focus on. This would be circulated for comment prior to it being considered by the Task Group Leaders for possible positive influence on their work programmes.</p> <p>It was also agreed to investigate the possibility of establishing a new task group to focus on SDG 6 water.</p> <p>Once completed, the above would form our strategic plan alongside the current task group objectives.</p>	<p>RKV</p> <p>RKV</p> <p>RKV as part of the mapping, then All Members</p>
10	<p>Overall Plan for the coming year</p> <p>The plan of activity for the coming year was largely outlined in the communication strategy.</p> <p>Once the actions agreed in section 9 above were completed these would be added to the overall plan and circulated.</p>	RC/RKV
11	<p>Any Other Business</p> <p>1) WFEO president George Spitalnik attended with the following requests;</p> <p>a) Re the 2nd UNESCO publication on Engineering, water and development, JS asked all members of the Committee to respond to requests.</p> <p>b) JS mentioned the High level meeting in 2018 Caribbean countries, organised by UPADI and the Organisation of American States, which will be discussing infrastructure problems related to climate change. WFEO will be asked to co-sponsor, so JS again asked all CEE members to be prepared to respond to requests.</p> <p>2) Jing He, of the China Association for Science and Technology gave a brief presentation on the Resilience of buildings and civil engineering works. She is preparing a technical report for ISO TR 22845 and asked CEE members for contributions.</p>	<p>All Members</p> <p>All members</p> <p>All Members</p> <p>All Members</p>

Item	Minutes	Action
	3) Julius M Riungu alerted the group to a conference in Kenya 17th-21st September 2018 focusing on SDG14.	
12	Summary of agreed actions from this meeting See table below	
13	Next meeting – in London during the annual WFEO Meeting in October 2018	

WFEO CEE – Rome2017 – DRAFT action list – SUPERSEDED BY ACTION LIST IN APPENDIX

A.1

Agenda Item	Minutes	Action
General	All members are asked to <ul style="list-style-type: none"> respond to circulated emails in a timely manner copy any WFEO CEE communications you make to Rob Curd (rob.curd@ice.org.uk) copy any replies to Rob Curd to Jean Venables (jean@venablesconsultancy.co.uk) and vice versa, and replies to Roger V (roger@venablesconsultancy.co.uk) to Rob C. 	All Members
3	Review of Actions agreed at FTF Meeting 9 From previous action 5.1 – Swiss member to liaise with WMO – Massimiliano Capezzali identified and will provide contact. Need also to invite the Swiss National Member to nominate Massimiliano Capezzali as a member of CEE – he indicated that, having visited us this time, he would like to join CEE.	RC RC to determine who the Swiss National member and tell RK&JV. Then JV to write
	From previous action 6.1 Kuwait to send study on disposal of used tires – Talal Alqahtani offered to contact the Kuwaiti member that was not present	RC
	Circulate a list of members to update contacts. Then upload the result to the CEE web pages.	RC
5	Task Groups DD to ask Costa Rica to produce guidance on how they have been successful in applying for funding	RC DD

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	<p>ASK exec committee to consider how in the future how we might enter into commercial ventures – does WFEO need to incorporate and/or set up a trading arm</p> <p>Start this action by formally asking Theo in WFEO office what WFEO’s legal status is now</p>	<p>JV</p> <p>RKV to draft for JV</p>
	<p>Through Gong Ke – approach the UN about creating a committee of professionals – engineers – agronomists etc. to comment on climate change</p>	<p>JV</p>
	<p>Nominations for potential attendees at COP 24 must be received by Darrel Danyluk by mid-May, so that he has time to process them and apply by end June</p>	<p>RC to liaise with DD about how best to ask CEE members, and how wide to send invitations. RC to then draft a specific email to CEE members telling members to apply direct to DD, and then ask JdM to write to ALL members as well</p>
	<p>Darrel suggested that Jean raises problem of non-response to invitations at meeting of All STC Chairs</p>	<p>JV to do this by email, in time for discussion in March. RKV to draft in consultation with RC & DD</p>
	<p>An RKV suggestion. Darrel <i>said</i> in his verbal report that he now felt somewhat more positive. Perhaps he could write up the recent Bonn experience for WFEO Flash, CEE Newsletter and our web pages</p>	<p>RC to approach DD</p>
	<p>Darrel hinted that he could still do a guide to taking Students to COPs</p>	<p>RC to ask him if he is willing to do it.</p>
	<p>RC to investigate how FCES can work with countries that have already developed their own energy and climate plans.</p> <p>There was also a request to circulate FC-ES’s outputs to all CEE Members.</p>	<p>RC</p> <p>RC</p>
	<p>Volunteers to be sought to assist on the engineering and agriculture task group</p>	<p>RC – add to website, expressly ask all CEE members to spread the word, ask Jacques to ask all WFEO members, add to WFEO Flash?</p>
	<p>Fethi to write a draft text for a letter to go to all WFEO members about his planned workshop</p>	<p>RKV to write to Fethi, with JV checking my email</p>

Agenda Item	Minutes	Action
	Need to ask Mining Task Group to write up what they have done in a publishable form.	RKV to review their report and web pages and suggest an approach that RC can make to Jessica
6	<p>Roundtable Reporting of Member and Observer Activities and Issues</p> <p>Majeed Al Qassab would like to recommend a company for the WFEO 50th anniversary awards – RC to follow up with Majeed</p>	RC
7	<p>Progress with acceptance, translation and adoption of WFEO Codes of Practice:</p> <p>Electronic copies of all codes and related documents to be secured from David Lapp</p> <p>Then send them by email to Jianping Wu so that he can arrange translation into Mandarin and/or Cantonese.</p> <p>RC to identify what additional languages we have within CEE and write to relevant members and ask for them to be translated</p>	<p>RKV – Done</p> <p>RKV, cc RC</p> <p>RC</p> <p>RC</p>
	DD offered to write a webinar and present the codes of practice – RC to investigate logistics	RC
8	<p>WFEO CEE Communications</p> <p>Update on actions suggested in Lima 2016 – item 8.2 in summary</p> <p>Suggested additions</p> <p>add links to government and policy makers - David Lapp – opinion pieces – create articles and find opportunity for personal opinions</p>	<p>RC</p> <p>RC & RKV to discuss who writes what</p>
9	<p>2016-2019 Strategic Plan</p> <p>Highlight which targets are related to the SDGs – colour coded version out and then comments back in 2 weeks</p> <p>Review the groups to identify if we need to create a task group on water.</p>	<p>RKV – Colour highlighting done, RC and JV have reviewed, and the resulting combined draft has been circulated on Jean’s behalf to:</p> <ul style="list-style-type: none"> • Members • Observers and

Agenda Item	Minutes	Action
	<p>Identify the water elements and then think as a committee what we need to concentrate on – word doc with tracked changes – and full name with initials inside the file name.</p>	<ul style="list-style-type: none"> • STC chairs for info and perhaps adoption by them. <p>Email to members asks for their ranking of the Targets related to water, as a first step to deciding the scope of the Water Task Group.</p> <p>RC to coordinate responses and then discuss with JV & RKV</p>
11	<p>Other Business</p> <ol style="list-style-type: none"> 1) Requests for the President – see Minute 11. 2) Participation in conference in Kenya 17th-21st September 2018 focusing on SDG14. 3) Assistance to Jing He from China on guide to resilience 	<p>Rob, can you follow these Presidential suggestions up and see what CEE needs to do, then come back to JV with a proposal.</p> <p>Items 2) & 3) – All Members</p>

Attendance list – Members

Name	Country	Organisation
Julius M Riungu	Africa	Federation of African Engineering Organizations
A Majeed Al-Qassab	Bahrain	Bahrain Society of Engineers
Darrel Danyluk	Canada	Engineers Canada
David Lapp	Canada	Engineers Canada
Jianping Wu	China	China Association for Science and Technology (CAST)
Jing He	China	CAST
Kwabena Agyei Agyepong	Ghana	Ghana Institution of Engineers (GhIE)
Kashim A. Ali	Nigeria	Nigerian Society of Engineers
Tan Seng Chuan	Singapore	Institution of Engineers Singapore
Dr. Martin Van Veelen	South Africa	South African Institution of Civil Engineering

Name	Country	Organisation
Tomas A Sancho Marco	Spain	Instituto de la Ingenieria de Espana
Massimillio Capezzali	Switzerland	EEANT – Swiss National Committee
Fethi Thabet	Tunisia	Tunisian Order of Engineers
Jean Venables (Chairman)	UK	Institution of Civil Engineers
Roger Venables (Honorary Secretary)	UK	
Rob Curd (Secretariat)	UK	Institution of Civil Engineers
Paul Jowitt	UK	Commonwealth Engineers Council
Meggan Maughan-Brown	USA	American Society of Civil Engineers
Farai Mavhiya-Bhiza	Zimbabwe	Engineering Council of Zimbabwe
Martin Manuhwa	Zimbabwe	Engineering Council of Zimbabwe

Members not attending

Name	Country	Organisation
Eng. Essa Alrashidi	Kuwait	Kuwait Society of Engineers
Dr. Željko Vukelic	Slovenia	Slovenian Chamber of Engineers

Observers for all or some of the meeting

Name	Country	Organisation
Vanima Lalsa		Freelance
Ahmad Al-Jolo		Federation of Arab Engineers
Mario Magnin	Argentina	Copime- Jonta Central
Zhang Wei	China	China Association for Science and Technology
Reshoud Alazami	Kuwait *	Kuwait Society of Engineers (KSE)
Rashed Alatel	Kuwait *	KSE

Name	Country	Organisation
Sand Alataibi	Kuwait *	KSE
Talal Alqahtani	Kuwait *	KSE
Ali Mohseni	Kuwait *	KSE
Jaber Ashkanani	Kuwait *	KSE
Susan Freeman-Greene	New Zealand	Engineering NZ
Anena Daisy Latim	South Africa	South African Institution of Civil Engineering (SAICE)
S'thandazile S Ncube	South Africa	SAICE
Wanglin Pillay	South Africa	SAICE

* Attended only briefly



WFEO / FMOI

APPENDIX D

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.



ice

- 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



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.

