



**WORLD FEDERATION OF
ENGINEERING ORGANISATIONS**
Committee on Engineering
and the Environment



Assisting the engineering profession in delivering SDGs – the work of WFEO and the developing legacy of the 2018 Global Engineering Congress

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on Engineering and the Environment 2015-2019**

WEC 2019 Melbourne



Sustainable Development Goals

	1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all	5 GENDER EQUALITY
6 CLEAN WATER AND SANITATION 	7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES
12 RESPONSIBLE CONSUMPTION AND PRODUCTION 	13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS

<https://sustainabledevelopment.un.org/?menu=1300>

Targets for Goal 13

- **13.1** Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries
- **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
- **13.A** Implement the commitment undertaken by developed-country parties to the United Nations Framework Convention on Climate Change to a goal of mobilizing jointly \$100 billion annually by 2020 from all sources to address the needs of developing countries in the context of meaningful mitigation actions and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible
- **13.B** Promote mechanisms for raising capacity for effective climate change-related planning and management in least developed countries and small island developing States, including focusing on women, youth and local and marginalized communities

The Paris Agreement on climate change

- The historic [Paris Agreement](#) provides an opportunity for countries to strengthen the global response to the threat of climate change by keeping a global temperature rise this century well below 2 degrees Celsius, and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. It entered into force on 4 November 2016.
- The UN continues to encourage all stakeholders to take action toward reducing the impacts of climate change.

Task Groups for the WFEO CEE

Climate Change Mitigation

Sustainable Practices for Engineers

Engineering and Agriculture

Climate Change Adaptation

WFEO CEE – Example Outputs

- **Two Model Codes prepared by CEE and approved by WFEO Executive Council**
 - ❖ ***WFEO Code of Practice for Sustainable Development and Environmental Stewardship for Engineers (in 2013)***
 - ❖ ***WFEO Code of Practice on Principles of Climate Change Adaptation for Engineers (in 2015)***

WFEO CEE – Example Outputs

- **Engineers Canada and Polytechnique Montreal have teamed up again to offer a free on-line course:**
- **A Massive Open On-Line Course (MOOC) on Sustainability in Practice**
- **Available in English and French and accessible world-wide – course will be run again in the Spring – look for it at wfeo.org.**

WFEO CEE – Example Outputs

COP23: Bonn, 2017

- **WFEO took an active part in the 2017 UN Climate Conference in Bonn, Germany, from 6-18 November. Leaders of national governments, cities, states, business, investors, NGOs and civil society gathered to speed up climate action to meet the goals of the Paris Climate Change Agreement.**

WFEO CEE – Example Outputs

COP24: Katowice, 2018

- **At the end of COP24, countries stressed “the urgency of enhanced ambition in order to ensure the highest possible mitigation and adaptation efforts by all Parties,” and agreed on a set of guidelines for implementing the landmark 2015 Paris Climate Change Agreement.**
- **Once again, WFEO were there to present an engineering viewpoint**

WFEO CEE – Example Outputs

Engineering
and
Agriculture



Tunis Declaration

Ing. Fethi Thabet
President of the Scientific
Committee EFS Africa 2019

Mr. Samir Ettaieb
Tunisia Minister of Agriculture,
Water Resources and Fishing

Prof. Elyes Hamza
President, Institution of Research
and Higher Education in
Agriculture, Tunisia

Prof. Dr Gong Ke
President-elect, WFEO

Ing. Oussema Khériji
Dean, Order of Tunisian
Engineers



Details on
WFEO
website
wfeo.org

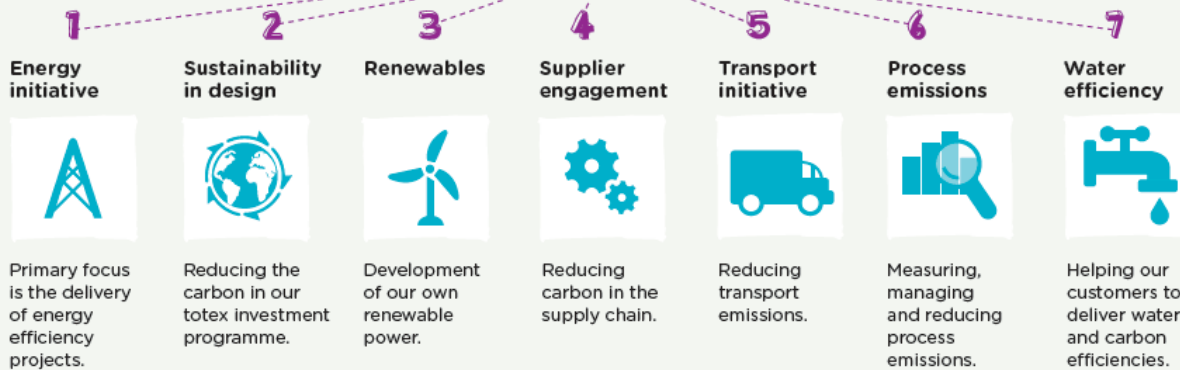
Low Carbon

- **Why?**
- **Impact of greenhouse gases**
- **Heat in oceans**
- **Storms – more, and more intense**
- **Coastal flooding risk increased**
- **Urgent**



**Reduced use of water
= reduced personal
carbon footprint**

GREENHOUSE GAS EMISSIONS ANNUAL REPORT 2018



Gross annual carbon emissions have decreased

- by 89,335 tonnes/CO₂e between 2015 and 2018,
- and 120,000 tonnes between 2010 and 2018
- So the rate of reduction is increasing.

“Capital (embodied) carbon emissions have reduced by 57% against our 2010 baseline.”

366,000 TONNES (of CO₂e)
measurement of greenhouse gas emissions in compliance with ISO 14064.

106GWh
of renewable generation equating to a 283% increase compared to 2010.



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Thank you

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