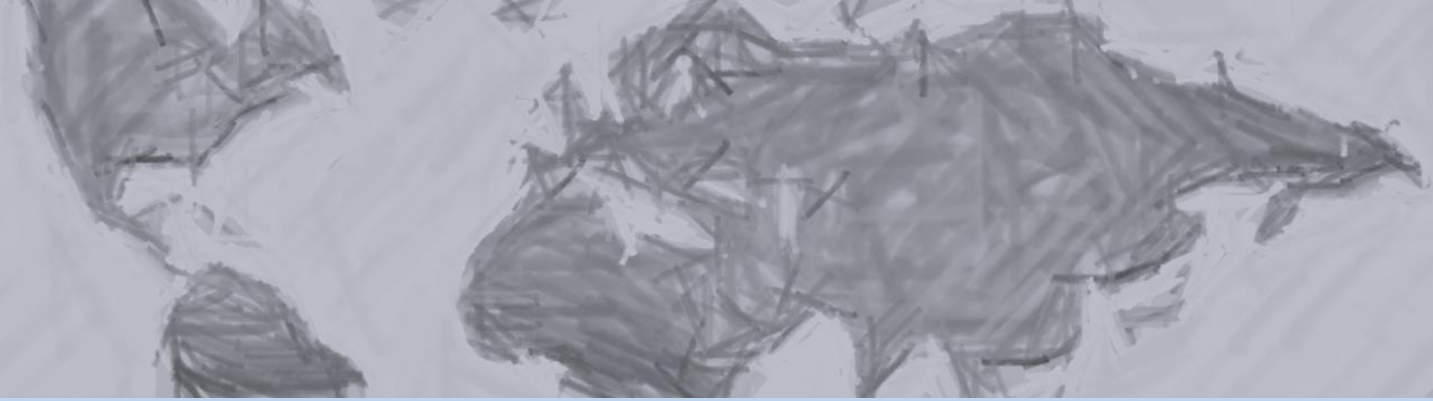




The World Federation of Engineering Organizations

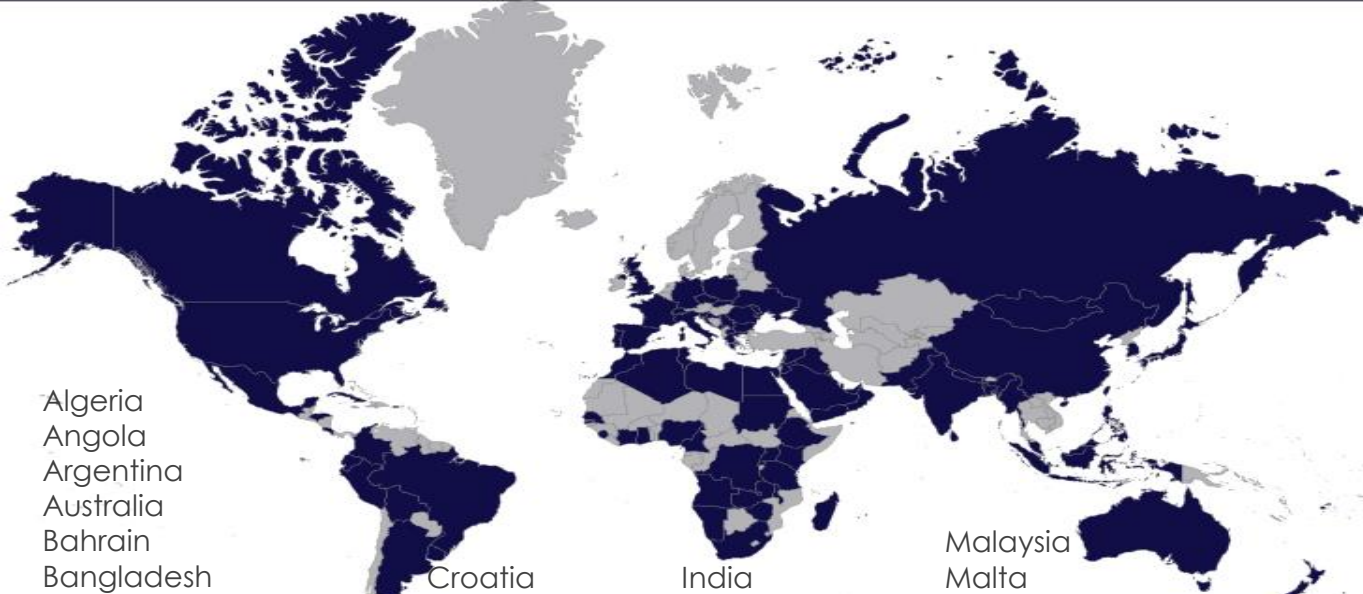
*Jacques de Méreuil, WFEO
Executive Director
Prague, 14 March 2023*

Engineering for Sustainable Development



- The peak international organization for the engineering profession
- Founded in 1968
- Under the auspices of UNESCO
- 90+ national engineering institutions
- Representing some 30 million engineers





Algeria
Angola
Argentina
Australia
Bahrain
Bangladesh
Bolivia
Brazil
Bulgaria
Burkina Faso
Cabo Verde
Cameroon
Canada
China
Chinese Taipei
Colombia
Costa Rica
Côte d'Ivoire

Croatia
Cyprus
Czech Republic
DR Congo
Ecuador
Egypt
Fiji
France
Germany
Ghana
Greece
Honduras
Hong Kong

India
Iraq
Italy
Japan
Jordan
Kenya
Korea
Kuwait
Lebanon
Liberia
Libya
Madagascar
Malawi

Malaysia
Malta
Mauritius
Mexico
Montenegro
Morocco
Mozambique
Myanmar
Nepal
New Zealand
Namibia
Nigeria
Oman
Pakistan

Palestine
Peru
Poland
Portugal
Puerto Rico
Romania
Russia
Rwanda
Saudi Arabia
Senegal
Serbia
Sierra Leone

Singapore
Slovakia
Slovenia
South Africa
Spain
Sri Lanka
Sudan
Switzerland
Syria
Tanzania
Tunisia
Uganda
United Arab Emirates
United Kingdom
United States of America
Ukraine
Uruguay
Yemen
Zambia
Zimbabwe

Engineering for Sustainable Development





- Associate NGO at UNESCO
- Co-leader of the Scientific and Technological Community Major Group at the UN
- 13 x Standing Technical and Policy Implementation Committees and Working Groups
- Executive Council and Executive Board
- General Assembly
- Supported by a secretariat based in Paris



WFEO Committees and Working Groups

- Engineering and the Environment (Hosted by UK)
- Energy (Hosted by France)
- Engineering Education (Hosted by Myanmar)
- Information and Communication (Hosted by India)
- Engineering and Innovative Technologies (Hosted by China)
- Engineering Capacity Building (Hosted by Zimbabwe)
- Disaster Risk Management (Hosted by Peru)
- Anti-Corruption (Hosted by Rwanda)
- Women in Engineering (Hosted by Nigeria)
- Young Engineers/Future Leaders (Hosted by Lebanon)
- Water (Hosted by Spain and Portugal)

and also

- UN Relations Committee (Hosted by the USA)
- Working Group on Infrastructure Report Card (Hosted by the Federation of African Engineering Organisations)



Influencing...

a respected source of advice & guidance on
engineering and technology

Supporting...

UN sustainable development goals

Partnering...

with our international peers in engineering and science

Growing...

engineering capacity and mobility

Improving...

the ethical engineering practice and a diverse
and inclusive

profession

Convening...

world engineers' events

Recognising...

excellence in engineering



Every one of the UN Sustainable Development Goals is advanced through engineering



WFEO – UNESCO Declaration, signed on March 7, 2018



WFEO / FMOI

CELEBRATING 50 YEARS OF INTERNATIONAL ENGINEERING LEADERSHIP

WFEO / FMOI
Maison de l'Unesco - 1 rue Miollis, 75015 Paris, France - Tel : +33 (0) 1 45 68 48 46
secretariat@wfeo.org - www.wfeo.org



Paris Declaration

Advancing the United Nations
Sustainable Development Goals
through Engineering



The World Federation of Engineering Organizations (WFEO) is the main body for engineering globally, representing nearly 100 nations and some 30 million engineers.

The members of WFEO are the national and regional professional engineering institutions of the world. WFEO is a member of the United Nations Scientific and Technological Community (UN STC) Major Group and has an official Associate status with UNESCO.

UNESCO, as the United Nations agency for education, science and culture, supports engineering through its Natural Sciences Sector, and acknowledges engineering as a powerful means to achieve sustainable development, capacity-building in engineering education and gender equality in developing countries, as well as the safeguarding of world heritage.



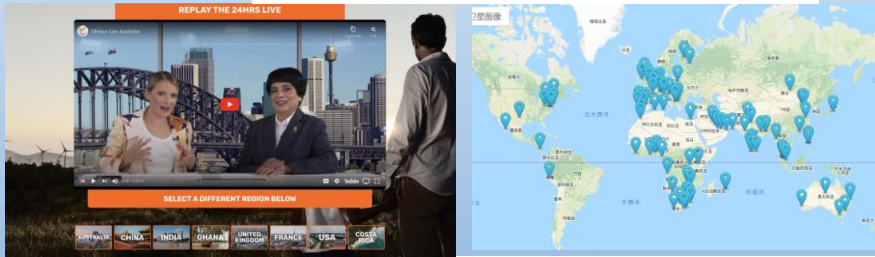
WFEO Engineering 2030 Plan

- **WFEO Engineering 2030** - A Plan to develop engineering capacity for a sustainable world through partnerships with educators, government, industry and professional engineering institutions
- a strategic initiative to address the gap in engineering capacity and the quality of engineering professionals
- a recognition that engineers are essential for sustainable development; good engineering is essential achieving UN Sustainable Development Goals Consistent with the mission and objectives of WFEO
- WFEO plays a key role in leading and coordinating the Plan
- Result of wide consultation between national and international members of WFEO and other international partners



UNESCO World Engineering Day for Sustainable Development - 4th March

A WFEO led initiative that celebrates engineers worldwide, launched in 2020



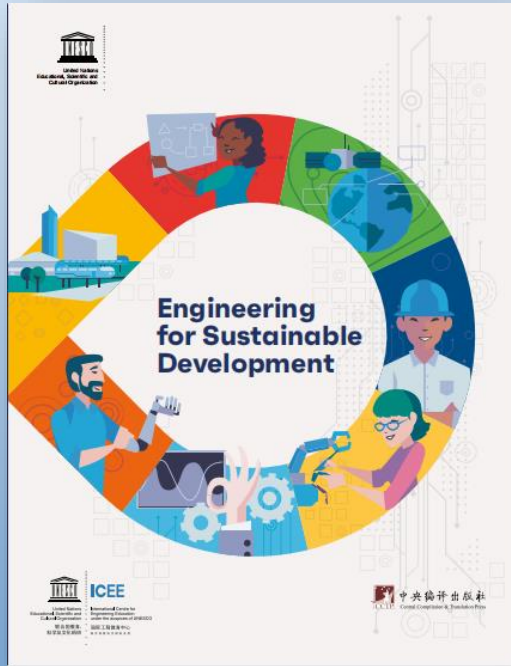
- For WED 2022, Two new international events were held: the 24 Hour-LIVE streaming of engineering from around the world and the global World Engineering Day Hackathon.



- 135 Global Events - Webinars, Stream, Talks and Competitions, from over 80 countries covering all continents, reached more than 56 million via social media channels.



UNESCO Engineering Report - 4 March 2021



Highlights of the Report

- Leveraging the crucial role of engineering in delivering the SDGs
- Focusing on engineering innovations and Stressing transition of engineering itself
- Indicating capacity building is a continuous process and is key for achieving SDGs by engineering
- Recognising regional particularities while promoting interregional cooperation

<https://en.unesco.org/reports/engineering>

Engineering for Sustainable Development



Climate Change Education Project – Mauritius 2019-2022

Partnerships for Climate Change Education

- UNESCO
- World Federation of Engineering Organisations (WFEO)
- Office of Climate Change Education (OCE)
- National Environment Agency Singapore (NEA)
- Mauritius Institute of Education (MIE)
- Institution of Engineers Mauritius

Project: Teacher training for world class climate change education for schools in Mauritius.

- first session – virtual - 29-30 June 2021
- second session – 22-25 November 2022, in person in Mauritius
- Funding: Donation of US\$10,000 WFEO Innovation Prize in Nov 2019 from National Environment Agency Singapore

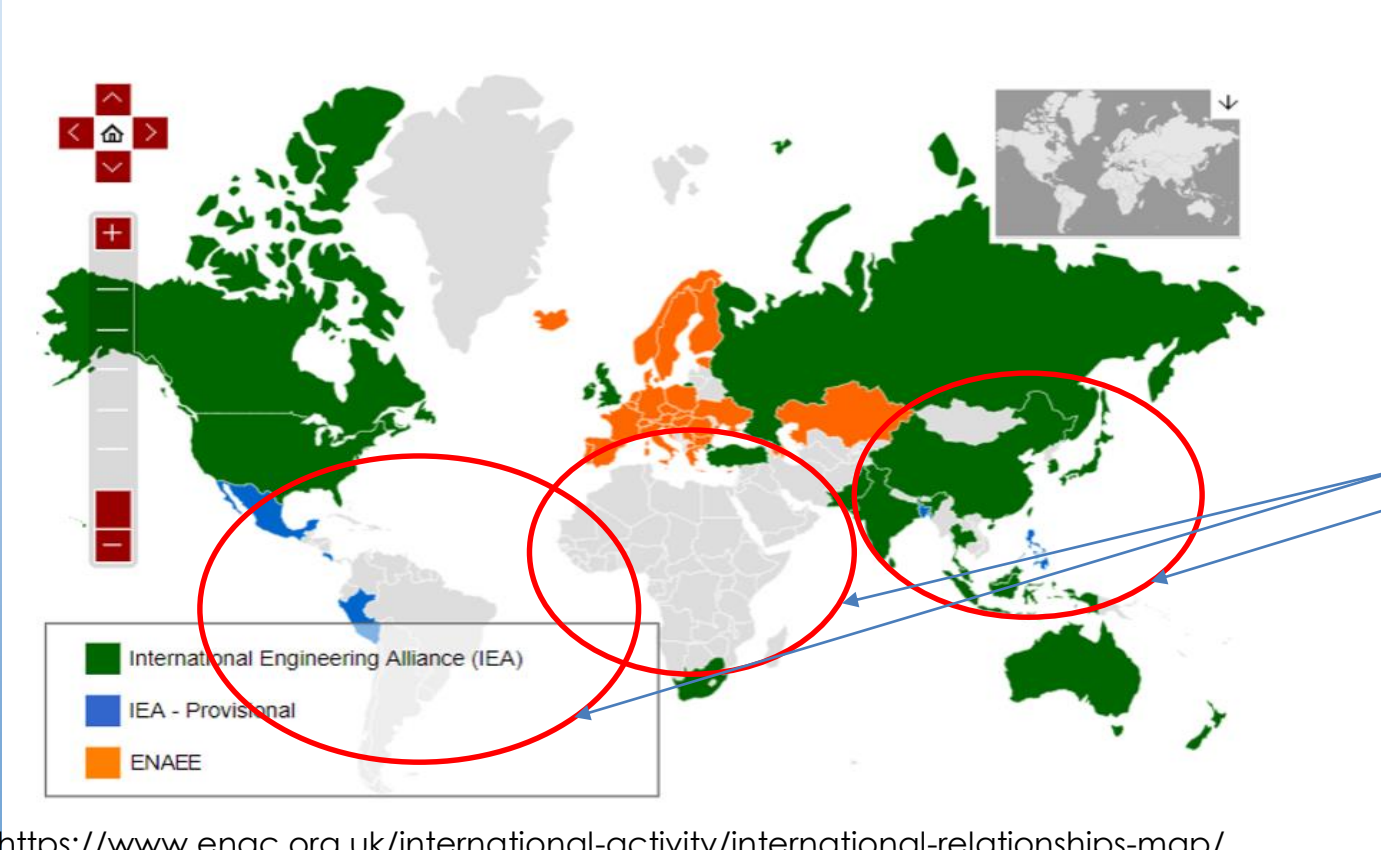


Climate Change Education Project – Mauritius - Outcomes

- Training for primary and secondary school teachers, approx. 80 in Mauritius and Rodrigues
- Training for Teacher Trainers
- Curriculum development for ongoing teaching of climate change – causes and effects
- Ongoing long term benefits for the people of Mauritius



Reach of Current Mutual Recognition Systems



Source: <https://www.engc.org.uk/international-activity/international-relationships-map/>



WFEO IEA Agreement, Melbourne, Nov. 2019

- **2nd term 2019-2023**
- **Purpose:**
 - Raise awareness of the importance of accreditation of engineering qualifications and competence assessment to global standards
 - Build the capacity of national accreditation and assessment agencies and underlying facilities
 - Build the capacity of national accreditation and competence assessment bodies to facilitate their joining the Accords and Agreements
 - Build political and financial commitment to the development of national engineering accreditation and competence assessment bodies
 - Seek partners and resources to achieve these aims



WG1: Approval of the revised GAPC Framework 21 June 2021

The decision by IEA signatories to approve the reviewed GAPC Framework is of great importance to engineers and to the world.

1. A significant achievement, in 18 months
2. *Recognition by UNESCO ensures that the IEA GAPC is the pre-eminent international benchmark for engineering education.*
3. Consultation across 60 nations, 1000 attendees, raised the profile of IEA and GAPC
4. Feedback from almost all signatories and from researchers and experts in engineering education around the world
5. The inclusion of a new category on Ethics and the alignment with the UN Sustainable development Goals has been widely commended
6. Translation into six UNESCO languages will improve accessibility and understanding and the global reach and recognition of the GAPC



WG2: WFEO and IEA: Proposals for Action – Advancing Standards in Engineering Education

1. **Global action to support WFEO members around the world – Asia, Africa, Latin America**
2. Development of **national engineering education systems** to comply with agreed benchmarks while meeting local requirements
 1. Training for mentoring and support for development of education assessment systems and accreditation of programs
 2. Training for educators – complementary programs by partners e.g. IFEEs
3. Building institutional capacity for accreditation bodies and professional engineering institutions – to deliver high standards of engineering education, training and professional development
 1. Governance for accreditation bodies and PEIs
 2. Training and development for leadership, governance and systems



WG3: Engineering Education Training

- **Working Group 3:**
 - Chair: Dr Marlene Kanga
 - IEA Nominated member: **TBA**
 - GEDC/IFEES Nominated Member: Prof Rupesh Vasani (India)
 - WFEO Nominated Member - Dr Zaw Min Aung, Myanmar Engineering Council, WFEO Member, CEIE Chair
- **Partnership with**
 - International Engineering Alliance (IEA)
 - International Federation of Engineering Education Societies (IFEES)
 - Global Engineering Deans Council (GEDC)
 - WFEO Members and IEA Signatories
- **Sharing of content of webinars already presented - Structured training for:**
 - Accreditation bodies
 - Professional engineering institutions
 - Engineering educators
 - Engineers, technologists and technicians – non-discipline specific training, career development
- **Establish recognition of training**
 - National and international registers
 - Facilitates mobility for engineers, technologists and technicians



WFEO Academy website – on line training at no cost for WFEO members

 **unesco**

 WFEO / FMOI

[ABOUT US](#) [CATEGORIES](#) [COURSES](#) [CONTACT US](#) [FAVOURITES](#) [SELECT LANGUAGE](#) ▾



WFEO ACADEMY

The World Federation of Engineering Organisation's is the peak body of professional engineering institutions internationally with some 100 national, regional and international engineering institutions as members and partners representing more than 30 million engineers.

[Ready to get Started?](#)



WFEO Academy website : UNESCO Support



The video player shows a woman speaking. The video title is "WFEO-UNESCO-Shamila" and it is "from Adrian". The video player includes a play button, a progress bar at 04:09, and the Vimeo logo. The background of the video features the UNESCO logo and a globe.



UNESCO OPEN SCIENCE

WFEO is proud to support UNESCO Recommendations on Open Science with free access to capacity building in engineering education and professional development for individuals and institutions to ensure the world has more engineers with the right skills for sustainable development.

UNESCO is a key supporter of this project and will engage its member states in promoting it. This project activities the UNESCO Open Science Recommendations and uses innovation and technology to transfer much needed skills to developing countries in Asia, Africa and Latin America.



WFEO Academy website - Courses

- The course materials will draw on the existing webinar resources of the members, affiliates and partners of WFEO
- These webinars will thus gain a wider audience and greater utilization.
- This is a sustainable approach, using the knowledge and good will of hundreds of experts that have given their time willingly for the webinars and will build knowledge and skills in the spirit of the UNESCO Open Science Recommendations.
- The training is available on demand, at any time and any place around the world, in more than 100 languages.
- The website uses AI for automatic translation
- **The content is available at no cost to individuals that are members and affiliates of the Federation.**
- The training benefits are expected to have long term impact on the economies that are supported and thus support the mandate of both WFEO and UNESCO in building capacity for engineering education.
- Visit: www.wfeoacademy.com





International Federation of Engineering Education Societies



Engineering for Sustainable Development



Engineering for Sustainable Development

- Participation
- Advocacy
- Representation



The world's engineers
united in rising to
the world's challenges.
For a better, sustainable world.



World Federation of Engineering Organizations
Fédération Mondiale des Organisations d'Ingénieurs

www.wfeo.org

secretariat@wfeo.org

[@wfeo](https://www.instagram.com/wfeo)



**WORLD
ENGINEERING
DAY** FOR SUSTAINABLE
DEVELOPMENT



Thank you

Děkuji !

