



## Declaration

# Global Engineering Education Standards and Capacity Building for Sustainable Development

UNESCO, as the United Nations agency for education, science and culture, supports engineering through its Natural Science Division, and acknowledges engineering as a most significant means to achieve sustainable development, to progress capacity building education level and gender equity, and safeguard world heritage.

The International Engineering Alliance (IEA) is a global not-for-profit organisation across seven multilateral engineering accords and agreements relating to engineering education and professional competence/registration/licensure.

The World Federation of Engineering Organizations (WFEO) is the peak body for engineering globally, bringing together national engineering institutions from some 100 nations and representing more than 30 million engineers. The members of WFEO are the main national and regional professional engineering institutions of the world. WFEO is a member of the United Nations Scientific and Technological Community Major Group and has an official Associate status with UNESCO. Many of the national members of WFEO are signatories to the IEA Accords and Agreements.

WFEO has a Memorandum of Understanding (MoU) with IEA and other international engineering organisations involved in engineering education including the International Federation of Engineering Education Societies (IFEES), the International Centre for Engineering Education, a UNESCO Category II Centre.

### **Considering that:**

1. The 2030 Agenda for Sustainable Development and its 17 Sustainable Development Goals (SDGs), adopted by the United Nations General Assembly 70/1 in September 2015 takes an integrated approach to future development, combining progress in economic prosperity, social inclusion and environmental sustainability;
2. Engineers and engineering are critical for achieving the UN Sustainable Development Goals. Engineers are needed in both developed and developing countries to invent, innovate, design and implement technologies and systems that will progress every one of the SDGs.
3. The engineering institutions of the world recognise that there is global level shortage of engineers with the requisite skills to address the challenges of sustainable development.

**Accordingly, we declare:**

As a recognised member of the UN major science and technology group, WFEO, and UNESCO, through its Natural Science Division, and IEA commit to working together and to the following principles for action:

1. Recognise the Current IEA Graduate Attributes and Professional Competencies Framework as international engineering benchmark standards;
2. Support IEA review of the IEA Graduate Attributes and Professional Competencies to ensure that they meet the requirements for new technologies and engineering disciplines, new pedagogies and include contemporary values such as sustainable development, diversity and inclusion and ethics;
3. Extend the global reach of the IEA Agreements and Accords through capacity building efforts, such as mentoring and training, that support the development of engineering accreditation and professional competence/registration/licensure systems, appropriate to each jurisdiction;
4. Support the development of professional engineering institutions through capacity building efforts to ensure engineering quality and standards are maintained;
5. Support the development of national, regional and international registers and liaise with governments for the regulation of engineers to ensure their competence, performance, integrity and accountability throughout their careers, and
6. Facilitate the international mobility of engineers.

These actions will be achieved by bringing together leaders and experts in engineering for a shared and unified purpose in a partnership that will progress the supply of competent professional, technologist and technician engineers, in order to help achieve the Sustainable Development Goals.

Signed on this day 21 November, 2019:

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