



# Recognising the profession: World Engineering Day



*“Engineers have a hand in designing, creating, or modifying nearly everything we touch, wear, eat, see, and hear in our daily lives.”* – American Society of Engineering Education

## Summary

UNESCO’s recent declaration that 4 March will henceforth be celebrated as World Engineering Day for Sustainable Development was a significant moment for both early-career and established engineers alike. Starting in 2020, the annual celebration presents a global opportunity to recognise the profession and encourage the [next generation](#) of engineers to solve the challenges of the future.

## Engineering is everywhere

I realised quite recently that the expression “engineering is everywhere” could come across as hyperbolic, to some. How could this sweeping assertion – which admittedly sounds like it was written by some rather-chuffed-with-themselves marketing department – possibly hold a measure of truth to it?

I can understand that line of thinking. I mean, everywhere? How can one profession take us to the stars and yet also manipulate the properties of atoms? How can one profession connect the whole world and yet also empower an individual? In fact, how can one profession help to tackle the effects of climate change and yet also power the world, clean our water, save our lives, entertain us, create entirely new forms of intelligence, grow more food with less space, build the world's infrastructure (and help us to navigate it), and more?

And yet that's precisely the case. Engineering is the foundation of our society; it propelled us from our first use of tools to our first journey into space, and it will be fundamental to solving future global (and, potentially, interstellar) challenges. However, despite how much we rely on engineering, we rarely consider the work that engineers perform behind the scenes. As a prime example of this, consider the internet: in 2019, over four billion people use over 26 billion connected devices worldwide, but how many of them know who created it? More often than not, as QEP Prize Judge Ilya Marotta pointed out, we "take the tools and services around us for granted. We use them, but we don't know how they work or how they were created."

## Recognising the profession



Thankfully, this should start to change. A source for immense celebration came from a recent announcement from the United Nations Educational, Scientific and Cultural Organization (UNESCO). On 16 April 2019, the UNESCO Executive Board voted unanimously to declare 4 March henceforth as World Engineering Day for Sustainable Development. The final confirmation by the UNESCO General Conference comprising all member states is due in November 2019. The proposal, led by the World Federation of Engineering Organizations (WFEO), was backed by over 40 countries worldwide. It's a significant moment for both early-career and established engineers alike, and an opportunity to celebrate the profession, engage with the next generation, and encourage them to take up a career in engineering.

## The inspiration behind the proposal

In September 2015, the United Nations General Assembly announced the 2030 agenda for sustainable development along with its 17 sustainable development goals. The goals take an integrated approach to future development; they combine progress in economic prosperity, social inclusion, and environmental sustainability.

WFEO, which represents nearly 100 nations and 30 million engineers, recognised the importance of engineering in achieving these goals. On 4 March 2018, as part of their 50th-anniversary celebrations, they committed to advancing the UN sustainable development goals through engineering.

According to WFEO President Dr Marlene Kanga, who led the initiative, engineers and engineering are critical for achieving the UN sustainable development goals. They will:

- develop and implement the technologies and systems needed to progress the UN sustainable development goals as they relate to water, energy, the environment, sustainable cities, and natural disaster resilience
- design and develop infrastructure resilient to the increasing number of weather-related events such as floods, cyclones, and bush fires (especially in developing countries that are most exposed to these risks)
- support the growth and development of essential infrastructure in developed and developing countries alike
- create more inclusive technologies and innovations; their work will help to address the currently unequal access to technology, leading to greater prosperity and quality of life for all.

## Global celebration and collaboration

Current engineering celebrations are small-scale and regional – often organised through institutions within that region. As Dr Kanga points out, “an international day with co-ordinated celebrations across the world will be an opportunity to increase the profile of engineering and to gain media coverage for the events.” WFEO intends to ask institutions to register their events through a dedicated web site to build the momentum for celebrations. The goal for these events is, over time, to grow in both number and importance as more nations take part and take pride in their engineers.

4 March will also provide annual opportunities for government and industry to engage. The hope is that this will help both to address the ongoing shortage of engineers and to develop strategic frameworks for the implementation of engineering solutions for sustainable development.

Check back soon when we sit down with WFEO President Dr Marlene Kanga to further discuss her response to the announcement. The link will be available **here**.

<https://qeprize.org/createthefuture/world-engineering-day/>