

# Engineering The UN Post 2015 Sustainable Development Goals

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The United Nations (UN) Post 2015 Sustainable Development Goals are expected to be approved and to become effective January 1, 2016. There are 17 goals and 169 targets and they replace 8 Millennium Development goals with 18 targets. The new goals will guide UN sustainable development activities over the next 15 years. The UN has been a major driver of sustainable development beginning with the 1987 Brundtland Report, followed by numerous summits, agreements, and the Millennium Development Goals.

The World Federation of Engineering Organizations (WFEO) has provided input to the UN goal setting process. The WFEO represents the global engineering community at the UN and engineering societies based in the United States participate in WFEO through the American Association of Engineering Societies (AAES).

What are the implications for engineering education and practice? Under Goal 4, one of the targets is “by 2030 to ensure that all learners acquire the knowledge and skills needed to promote sustainable development.” Engineering graduates will need to have a deeper knowledge and understanding of sustainable development and the overall university education needs to ensure context particularly in the social aspects of sustainable development. It seems likely that many universities will try to address sustainable development broadly so engineering students should benefit. However, engineering faculty should take opportunities to ensure that the engineering aspects of sustainable development are addressed for all students.

A number of the goals e.g. Goal 6 - water & sanitation, Goal 7 - sustainable energy, Goal 9 - resilient infrastructure, and Goal 11 - resilient and sustainable cities are heavily dependent on engineering. However, an examination of the targets for even these goals that are heavily engineering should make it clear that achieving sustainable development as defined in the Goals will require a truly transdisciplinary approach.

Engineering educators need to play their part in ensuring that higher education provides all graduates with an appropriate working knowledge and understanding of sustainable development.