

SEFI 2023 Plenary Panel Event 04

Plenary 4 **CONTEMPORARY LANDSCAPE, DRIVERS AND DEVELOPMENTS IN ENGINEERING EDUCATION FOR SUSTAINABILITY** 14/Sept/2023 (Thu)
10:00am - 11:00am

A Keynote Delivered by **Professor Ed Byrne**

Summary The 'landscape' around sustainability education in engineering has continued to evolve. Engineering education for sustainability largely emerged originally out of environmental engineering imperatives, though more recent developments have considerably broadened the scope of 'sustainability' teaching in professional engineering programmes. This has implications for associated curriculum developments as well as having pedagogical implications. Principal drivers for these developments emanate from the evolving requirements of professional engineering bodies internationally. These drivers have been supported and supplemented by an enhanced sense of urgency in the wake of the impacts of an unsustainable societal construct (e.g. the consequences of accelerated climate change, biodiversity loss, energy and food imperatives, etc.), as well as broader drivers such as around university policy, industry expectations for graduate attributes, and evolving societal imperatives. Having reflected on the above, some specific examples of how engineering education for sustainability may be incorporated into the curriculum are considered.

Professor Ed Byrne



Edmond Byrne is Chair Professor of Process and Chemical Engineering at University College Cork. He is programme director on the BE(Hons)/ME in Process & Chemical Engineering. The programme won the Sustainability Teaching Award (2016) from the Institution of Chemical Engineers (IChemE). His research interests include engineering education for sustainable development, for which he has published widely, and transdisciplinary approaches to sustainability transformation, on which he has co-edited two books (Transdisciplinary Perspectives on Transitions to Sustainability, Routledge, 2017; Metaphor, Sustainability, Transformation; Transdisciplinary Perspectives, Routledge, 2021). He chaired the 10th Engineering Education for Sustainable Development conference (EESD2021), hosted at University College Cork in 2021.