



Response to National Adaptation Framework Public Consultation

19th February 2024

Background

Trinity College Dublin's School of Engineering welcomes the opportunity to respond to the new draft Climate Adaptation Framework. This document is critically important in supporting national, regional, and local adaptation to achieve Ireland's goal of becoming Climate Resilient by 2050. Engineers have a critical role to play in terms of climate change adaptation in Ireland as they are equipped with the technical and problem-solving skills to work alongside climate scientists, economists, natural scientists, as well as other disciplines to deliver effective and transformative climate change adaptation to achieve climate resilience. Engineers are uniquely placed to assess the risk due to climate change impacts for many of Ireland's critical infrastructure and built environment sectors (i.e. transport, electricity and gas, communications, water, built environment, and built & archaeological heritage). Engineers can contribute their knowledge in relation to the physical response of these sectors to climate change impacts and can contribute to risk-informed decision making regarding the design and delivery of specific adaptation measures through the development of technical guidance for adaptation & resilience-building.

Addressing the Shortage of Engineers to Implement Climate Change Adaptation

Unfortunately, there is currently a severe shortage of qualified engineers in Ireland. Engineers Ireland have reported 70% of the public agree that engineers are critical to combatting climate change, but also report that 72% of employers see the shortage of engineers with the correct skills as the main barrier to business growth¹. Furthermore, the number of students sitting Leaving Certificate Examinations in STEM subjects decreased by 7% in 2023, and the number of engineering graduates from Levels 6,7 and 8 degree programmes decreased by 4%. The new draft Climate Adaptation Framework would further benefit from an analysis of the key professional disciplines required to support climate adaptation in Ireland, and the specification of a strategy to address those where there is a shortfall in terms of the number of experienced professionals and forthcoming graduates (i.e. Engineering).

Upskilling Requirements for Engineers (and Related Disciplines) to Deliver Climate Change Adaptation

Experienced and graduate engineers, as well as future engineers, would significantly benefit from upskilling in relation to climate change adaptation. To this end, Trinity College Dublin's Department of Civil, Structural and Environmental Engineering are in the process of developing a MSc in Climate Adaptation Engineering, which is expected to commence in the 2025/2026 academic year. The new draft Climate Adaptation Framework would further benefit from a skills gap analysis in relation to climate change adaptation and a review of existing and proposed further education programmes to address this gap.

¹ Engineers Ireland (2023) Engineering 2023: A barometer of the profession in Ireland, <https://www.engineersireland.ie/LinkClick.aspx?fileticket=ulpGez60bO4%3d&portalid=0&resourceView=1>

