

## **Abstract**

### **Next Generation, High Resolution, DEcadal and Long-Term Climate Simulations for IrelAnd leading to improved Policy Formulation (DELTA)**

The research described seeks to provide a robust basis for undertaking high resolution climate projections at the regional scale. The novel aspect of this research is the focus on the near-term or decadal time horizon, unlike traditional climate studies which focus on the end of century projections. Recent advances in global climate modelling, which have sought to link both weather and seasonal forecasts and climate change timescales, have made this objective achievable. However, significant obstacles at downscaling global climate model output to that of the regional scale remain. This research seeks to contribute to this internationally important scientific area of research, leading to an improved understanding of the processes involved, and thereby improving our capacity for 'predicting' near-term/decadal changes in the climate system at scales appropriate for robust decision making.