

Centre for ice, Cryosphere, Carbon and Climate (iC3)- closing large scale uncertainty in Polar ice sheet impacts on the global carbon cycle

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Recently funded for 10 years by the Research Council of Norway centres of excellence scheme, iC3 aims to fill a major research gap in polar science by quantifying the future impact of ice sheet change on Earth's carbon cycle over policy-relevant timescales. It will achieve this by uniting complementary expertise at UiT The Arctic University of Norway, the Norwegian Polar Institute and a network of collaborators in an unprecedented research endeavour spanning both the Arctic and Antarctic. In developing an integrated, interdisciplinary hub of experts studying the cryosphere, oceans, atmosphere and geosphere, iC3 will close order of magnitude uncertainty in polar carbon budgets, addressing the hypothesis that changing ice sheets (and aligned cryosphere) profoundly impact Earth's carbon cycle, directly affecting human societies via feedbacks to our future climate and invaluable polar ecosystems.

The centre will leverage excellent Norwegian infrastructure and innovative technologies to gather and integrate novel datasets at both poles, with state-of-the-art numerical models to assess future impacts at regional to global scales. iC3 will deliver high impact via initiatives dedicated to Innovation and Training Future Leaders, alongside strategic, internationally-visible programmes to drive engagement with academics, the public and policy makers.