

UK Polar Network Day

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The Ice2sea Project

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Abstract: Ice2sea (<http://www.ice2sea.eu>) is a project funded by European Union Framework-7 for four years from March 2009. The project will study processes affecting the evolution of mountain glaciers, ice caps, and polar ice sheets. One Work Package involves high-resolution modelling both of the ocean and – using regional climate models – of the atmosphere. In another Work Package, dynamical ice models will be developed and run. The ultimate aim of the project is to assess the impact of ice on global sea level during the 21st and 22nd centuries. At the Met Office Hadley Centre, we will use the Met Office's regional climate model to study changes in the surface mass balance of the Greenland Ice Sheet over the 21st and 22nd centuries both under SRES scenario A1B and under another scenario, E1 (used in the ENSEMBLES project), in which emissions evolve such that global CO₂ concentrations stabilise at 450 ppm. Preliminary work currently underway involves testing the regional model output for sensitivity to choice of domain, to allow the selection of the optimum domain for the 200-year integrations to be performed later. Here, I will give a brief overview of the ice2sea project and the Met Office's contribution to it, and also present some initial results.

Research Area: Ice sheet modelling.
