

CARBOCHANGE: Kick-off meeting 8th March 2011

08 March 2011 – 10 March 2011 [University of Bergen](#)

- **Location:** Bergen, Norway
- **Venue:** Neptun Hotel, Valkendorfsгатen 8, N-5012 Bergen

On 8–11 March, 80 scientists from Europe, North America and Africa will gather in Bergen, for the official launch of CARBOCHANGE: “Changes in carbon uptake and emissions by oceans in a changing climate”. CARBOCHANGE is a large-scale Integrating Project from the EU Framework Programme 7

The University of Bergen and the Bjerknes Centre for Climate Research – a Centre of Excellence in Norway – are taking the lead in this key European research project for the coming 4 years. The goal of CARBOCHANGE is to quantify the oceanic uptake of human-produced carbon dioxide from the atmosphere.

CARBOCHANGE - “Changes in carbon uptake and emissions by oceans in a changing climate” - is a large-scale integrating collaborative research project of 7 million Euros funded by the EU’s 7th Framework Programme in the period 2011–2015. It is coordinated by the Geophysical Institute at the University of Bergen and the Bjerknes Centre for Climate Research. The CARBOCHANGE gathers a consortium of 28 research institutions from Europa, North America (USA and Canada) and Africa (Morocco and South Africa) with outstanding scientific expertise in the field of carbon cycle research.

Carbon dioxide from fossil fuel burning and land use changes is the main contributor to a human-induced climate change. Currently, the ocean takes up about 25% of the worldwide annually produced carbon dioxide but this rate is subject to continuous change. CARBOCHANGE investigates how large this uptake rate has been in the past, how it is changing at present, and how it will evolve in the future. Carbon dioxide in the surface ocean has to pass through the bottleneck of oceanic mixing on its way to the deep ocean. Climate change and biogeochemical processes further modify the oceanic absorption of carbon dioxide. CARBOCHANGE employs cutting edge measurement and modelling techniques to watch the ongoing carbon dioxide uptake by the oceans, to understand the underlying processes, and to predict changes in uptake to come.

It is essential to know for human societies how much carbon dioxide is absorbed and where the human-produced carbon dioxide in the ocean is going. Key issues are: (1) the amount of carbon dioxide remaining in the atmosphere determines the strength of climate change. (2) the carbon dioxide taken up by the oceans causes the progressing problem of ocean acidification with potentially severe consequences for marine life. CARBOCHANGE will provide science-based guardrails for political decisions on mitigation actions in order to hold the damage from carbon dioxide emissions and climate change at bay. CARBOCHANGE research has thus direct implications for two of Norway’s key economic factors: oil production and fisheries.

The coordination of this high-level international research project by the University of Bergen and the Bjerknes Centre of Climate Research underlines the expertise and leadership of these

institutions within the climate research communities, both at national and worldwide levels.

<http://www.uib.no/rg/chemoc/nyheter/2011/02/kick-off-for-carbochange>

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