



## **CARBOOCEAN- the European Motor for marine Carbon Cycle Research**

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CARBOOCEAN is an Integrated Project (IP) funded by the European Commission (contract 511176-2) with 14.5 Million EUR over a 5 year period to assess the marine carbon sources and sinks with special focus on the Atlantic and Southern Oceans of -200 to +200 years from now. It combines the key European experts in the field from 14 countries and cooperates with 7 research institutes from the US. Data is made available through the CARBOOCEAN data portal, a search engine which uses a distributed network database that allows access to the data holdings from all partners involved (CDIAC, IFREMER, WDC-MARE).

CARBOOCEAN will investigate the following unresolved questions: How large are the Atlantic and Southern Ocean CO<sub>2</sub> sinks precisely? What do European rivers and shelf seas contribute to the large scale CO<sub>2</sub> sources and sinks pattern of the North Atlantic Ocean in relation to uptake within Western Europe? What are the key biogeochemical feedbacks that can affect ocean carbon uptake? What is the quantitative global and regional impact of such feedbacks when forced by climatic change in the next 200 years? With respect to FP7, imperative attention will also be paid to pCO<sub>2</sub> sink monitoring, ocean acidification assessment, and biogeochemical feedback quantification.

In cooperation with CarboEurope IP, CARBOOCEAN IP will generate the missing scientific knowledge that is essential to a global quantitative risk/uncertainty judgment on the expected consequences of rising atmospheric CO<sub>2</sub> concentrations. In order to involve both policy and the general public both IPs created “CarboSchools”.