

GLODAP, ocean carbon and biogeochemistry data	NSF and various	PU-AOS, UiB, UEA, AWI, UPMC, et al.
RECCAP, REgional Carbon Cycle Assessment and Processes	Multiple and ESSP	UEA, UBERN, MPG, MetO, UiB et al.
NCAR CCSM, community climate system model	NOAA, NSF and various	UiB, UNIRESEARCH, UBERN

B.3.1.5 Assumptions and external factors that may determine whether the impacts will be achieved

The impact of CARBOCHANGE on policy makers and climate change mitigation will strongly depend on the pathways for delivery to the end users. We plan a number of targeted products to be delivered to policy makers. We will design these deliverables thoroughly and on the highest scientific level (but at the same time completely understandable by informed policy makers) and thus make them ultimately efficient. In order to make the information provided of optimal impact, a direct consultation with European and international policy makers would be the most efficient way to transfer the new knowledge to the political and legislative realm. One of the main tasks of the CARBOOCEAN scientific project manager thus will be to thoroughly and diplomatically explore the optimal pathways for CARBOCHANGE outreach deliverables to reach the policy makers and their teams without getting diluted and un-heard in the vast amount on not relevant climate change information floating around. This direct approach will complement the general dissemination approach pursued in addition.

B.3.2 Plan for the use and dissemination of foreground

B.3.2.1 Measures for the dissemination and/or exploitation of project results

Target groups for dissemination of CARBOCHANGE results: The new results of CARBOCHANGE on the vulnerability of the ocean carbon sink under climate change and the respective implications for climate stabilisation scenarios and relevant policies address first of all policy makers. Also the impact of CARBOCHANGE – namely to provide a solid foundation for policy actions on climate change mitigation – identifies policy makers as relevant primary end users next to the scientific community on climate change (including interdisciplinary groups dealing with climate change impacts, ocean acidification, societal issues associated with climate change such as migration and food production, and energy production). As new policies also require a well informed general public and a multiplication of knowledge through media, we focus here on policy makers, the mass media, and the general public as primary target groups.

Communication means: All WPs will disseminate their results, however, special emphasis and deliverables on outreach will be provided in WPs 8, 9, and 10. A core element of the CARBOCHANGE communication system will be its professionally designed project website including a “who is who” to directly channel respective requests to the appropriate PIs and partners of the project. Information of the project PIs about the EU publication on communications (a. *European Research – a guide to successful communications*, Luxembourg: Office for Official Publications of the European Communities, 2004, ISBN 92-894-7882-9, 48pp.; b. *Communicating Science – a scientist’s survival kit*, by Giovanni Carrada, European Commission, Directorate-General for Research, Office for Official Publications of the European Communities, 2006, ISBN 92-79-01947-3, 76pp., see: http://ec.europa.eu/research/science-society/science-communication/index_en.htm) will be forwarded to all project PIs at the start of the project and at the kick-off meeting to facilitate communication with other scientists, policy makers, and the public at large.

In order to distribute new scientific results (data sets, model output, modelling tools, methods, and quantifications) to the **scientific community** we will use the following dissemination means: .

- Publications in peer reviewed journals including highest level transdisciplinary scientific journals.
- Promotion of open access journals.
- Dedicated peer reviewed publications of data sets.
- Newsletters of large international journals.
- Project website including a CARBOCHANGE data portal.
- Use of data bases which allow download of data through public graphical interfaces
- Oral and poster presentations at international conferences dealing with climate change
- Dedicated CARBOCHANGE sessions at international conferences.
- Presentations at annual meetings of national and international projects.

- Dedicated email notification of specifically targeted users (electronic reprints etc.)
- Consequent acknowledgment of the EU funding agency and CARBOCHANGE

In order to inform **policy makers**, we will use the following means of communication:

- Summaries for policy makers of international assessments such as the 5th IPCC report
- Policy briefs (where applicable through large international projects such as SOLAS and GCP).
- Fact sheets about the project on the basic scientific facts about the ocean carbon sink
- Special section on informations for policy makers on the project website.
- Articles in information journals for politicians such as the *Parliament Magazine*.
- Direct communications with the scientific EU officer and specifically targeted EU meetings
- Direct communications with relevant policy makers
- Booths and/or presentations at important policy meetings (such as the post-COP15 meetings).

For communication means for informing the mass **media** and the **general public** at large will aim at:

- Press releases.
- Special sections for press, TV, and broadcasting on the project website, use of open access journals.
- Press kits on website.
- Dedicated oral presentations at local, regional, and national level (such as open house events) ,
- Invitation of press representatives to open sessions of annual CARBOCHANGE meetings.
- Public outreach events at annual CARBOCHANGE meetings.

Increase of the project's impact through these measures: We expect a considerable increase of the project's impact through these measures, as we will target concise but nevertheless comprehensive enough informations to specific end users in order “to pick them up, where they stand in their respective actual context”. The communication to other scientists, to policy makers, and to the general public will provide the three pillars of (a) new expert knowledge in order to close further knowledge gaps, (b) cutting edge knowledge and background information in order to efficiently design feasible policies on climate change mitigation, and (c) information to the general public who needs to legitimate and execute the measures for climate change mitigation in their daily life.

B.3.2.2 Plans for the management of knowledge (intellectual property) acquired in the course of the project

The management of knowledge in CARBOCHANGE will be regulated in detail through four measures: the consortium agreement (regulating also the use of previous knowledge in the project), the data management, the data policy, and the IPR panel. As our proposed work at this stage does not foresee any patentable knowledge, we expect that we can build on our experience from previous and ongoing European as well as international research projects. Baseline for all management knowledge will be good scientific practice (as described, e.g., at *Guide to Good Practice in Science and Engineering Research*, Office of Science and Technology, EPSRC 2002-2006, Engineering and Physical Sciences Research Council, UK, 5 pp., see: <http://www.epsrc.ac.uk/ResearchFunding/GrantHolders/GuideToGoodPracticeInResearch.htm>). The *consortium agreement* will regulate all issues on intellectual property rights and their protection including the use of previous knowledge to be exploited by CARBOCHANGE. We will explicitly encourage the use of open access journals for publications in order to make all material including figures easily usable and exploitable by others. The *data management* procedures will ensure a proper handling of all data and their meta information so that the intellectual property rights of scientists are protected, but also relevant data policies are fulfilled in order to maximise the impact and exploitation of observational as well as model output data. The *data policy* will be based on the data policy used previously in projects such as the FP6 *Integrated Projects* CarboEurope-IP and CARBOOCEAN. We will update these policies in particular with new issues emerging from the EU FP7 coordination action COCOS, aiming at an improved interoperability of data sets internationally and at shortening the time interval between data production and public release. The *IPR panel* will monitor the handling of Intellectual Property Rights in the project and will contribute to solving potential cases of conflict before they become an issue.