



European Project on Ocean Acidification

Jean-Pierre Gattuso and the EPOCA consortium



ocean-acidification.eu
epoca-project.eu



Time line



- **July 2006: first discussions with Jim Orr**
- September 2006, Villefranche-sur-mer: meeting of the 10 core partners
- November 2006: visit to BXL (J.-P. Gattuso and C. Heinze)
- 22 December 2006: call for proposals
- January 2007, Gif-sur-Yvette: meeting of the core partners
- February 2007, Salzau: meeting of all PIs
- March 2007: planning group finalizes proposal
- 2nd May 2007: submission
- 31 October 2007: start negotiation
- February 2008: end negotiation
- **1st May 2008: project launch (4 years)**
- **10-13 June 2008: kick off meeting (Nice)**

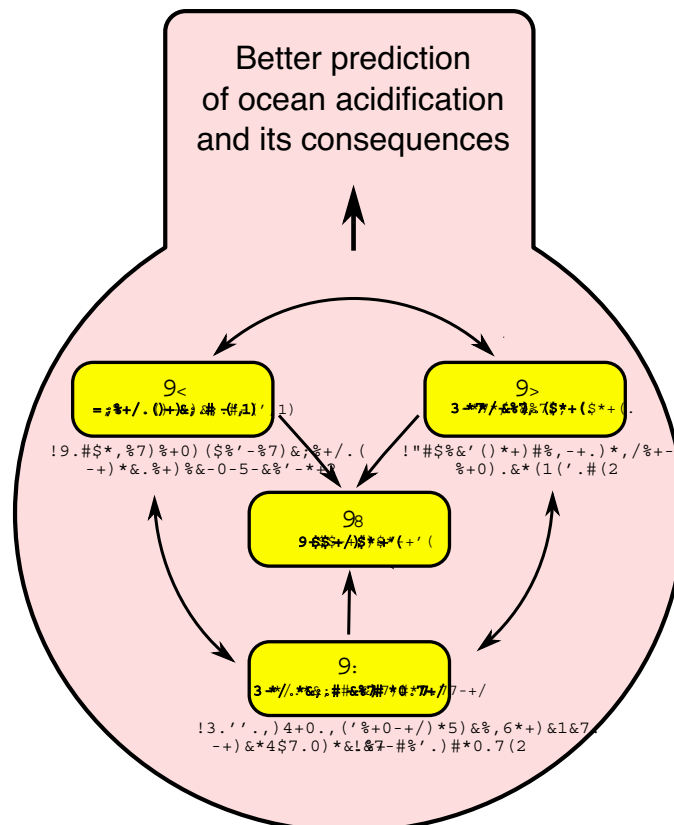
Two items in the first call of FP7 (Dec. 2006)

- **Ocean acidification and its consequences** (ENV. 2007.1.1.3.1). Funding scheme: collaborative projects (large-scale integrating projects)
- **Dynamic of marine ecosystem in a changing environment** (ENV.2007.2.2.1.4.). Funding scheme: collaborative projects (large-scale integrating projects)

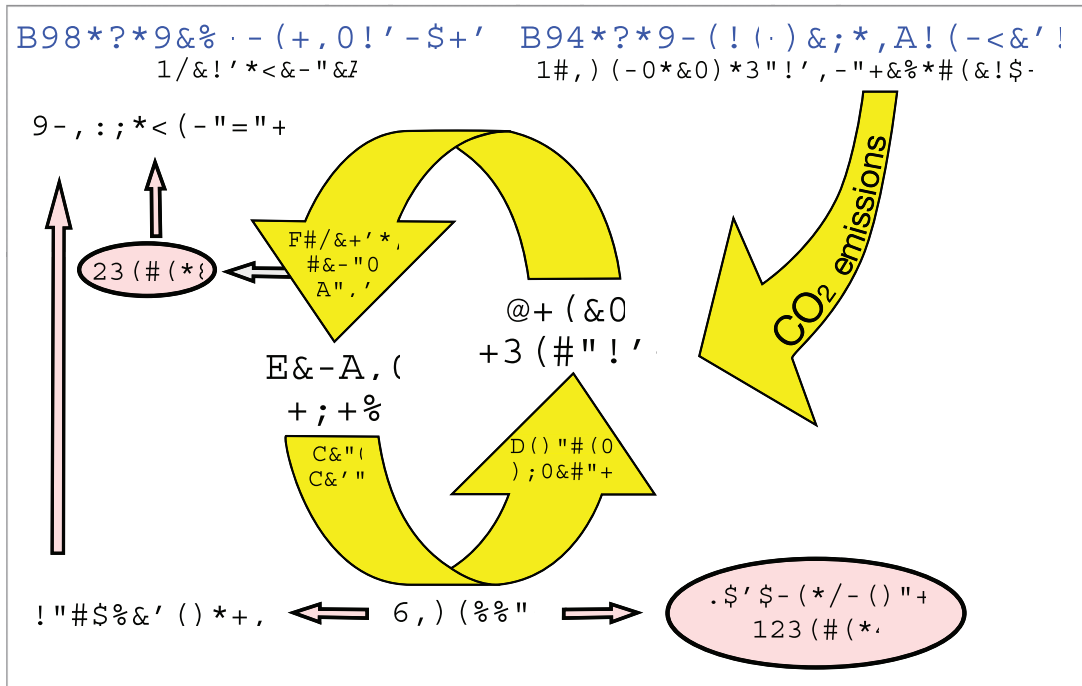
Consortium: 29 laboratories 100+ permanent scientists



- Improve the understanding of the past and present **spatio-temporal changes of ocean acidification due to increasing CO2 uptake**.
- Determine the **impacts of ocean acidification on marine biota**, their physiology, ecosystems, the potential for acclimation and adaptation, impacts on elemental cycling and **production of climate-relevant gases**.
- Improve understanding of future changes in ocean chemistry and biogeochemical feedbacks in terms of hotspots, uncertainties, and thresholds. It will also improve the description of the **carbon cycle in coupled ocean-climate models**. The key element cycles investigated are carbon, nitrogen, sulfur and iron.
- Synthesize information on **tipping points**.

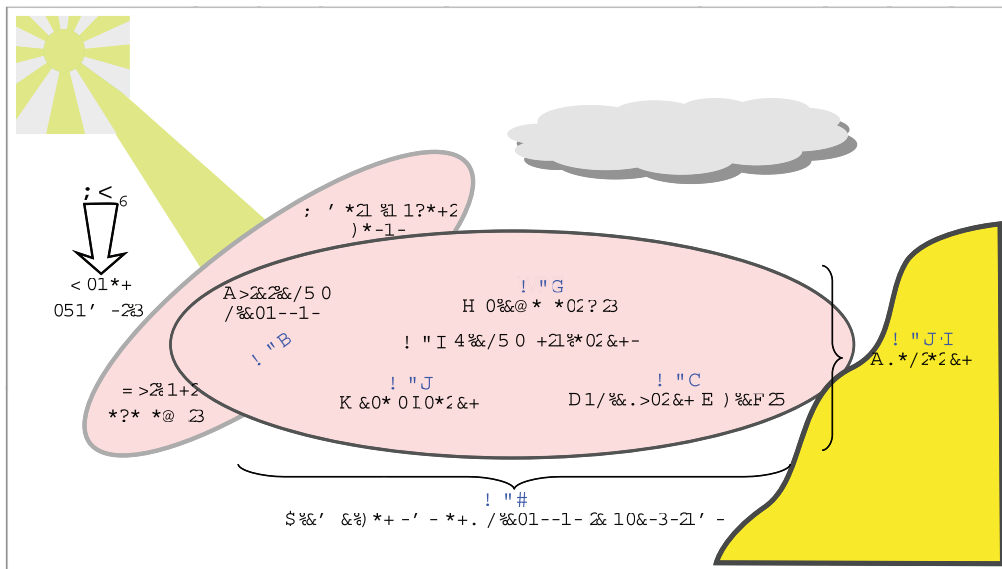


Theme 1: Changes in ocean chemistry and biogeography (J. Bijma)



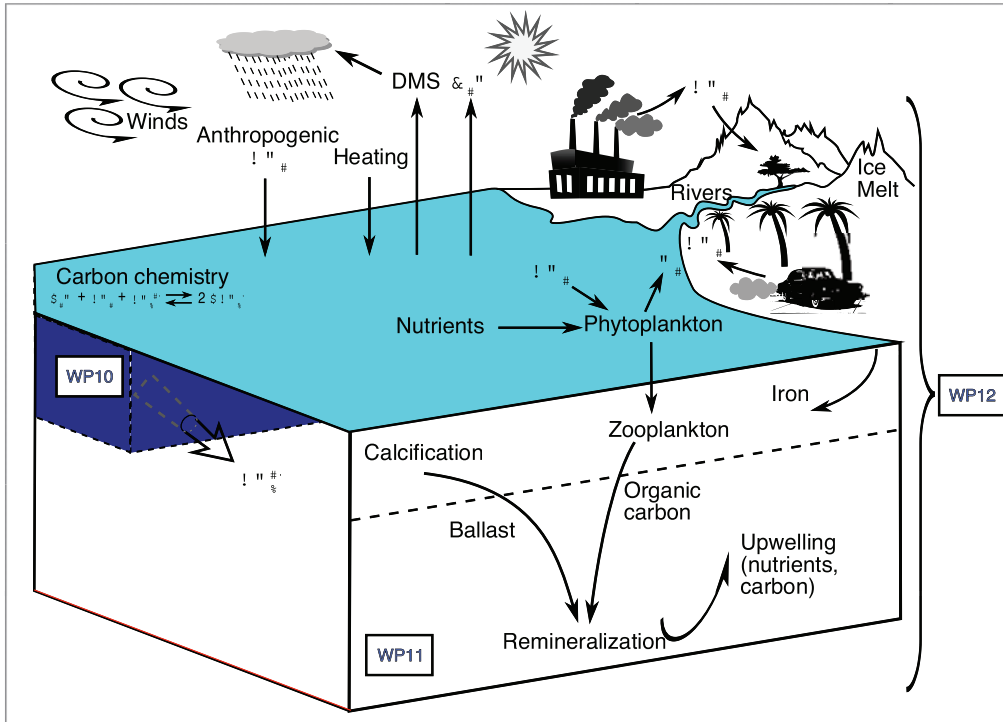
- WP2 Past variability of ocean chemistry (paleoreconstruction) (H. Elderfield)
- WP3 Present-day observations of ocean chemistry and biogeography (T. Tyrrell)

Theme 2: Ecosystem impacts, acclimation and adaptation (U. Riebesell)



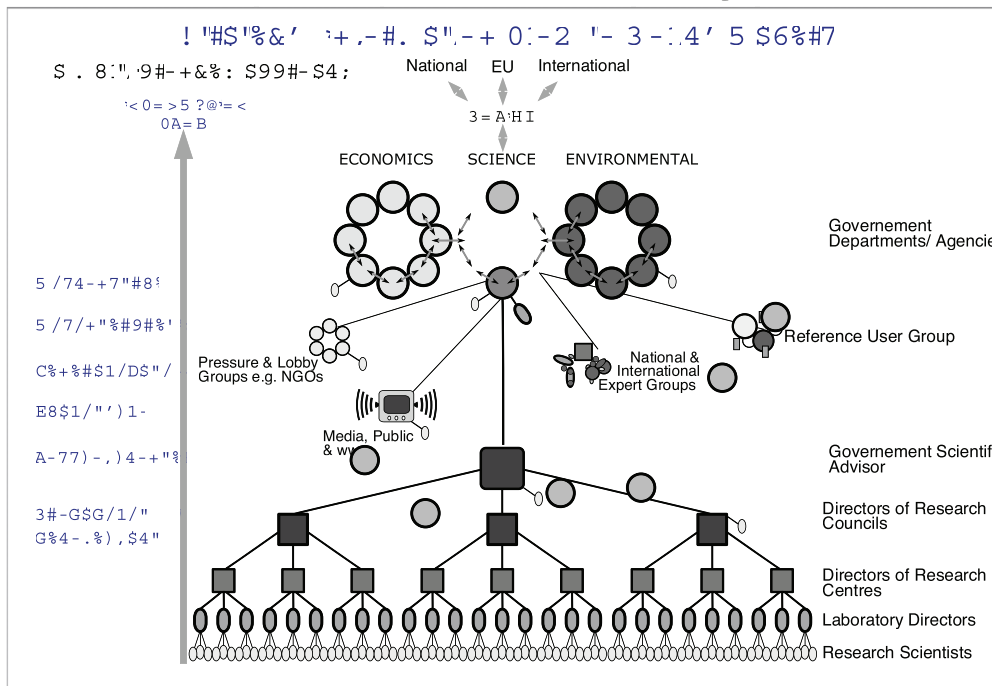
- WP4 Sensitivity of calcification (D. Iglesias-Rodriguez)
- WP5 Sensitivity of autotrophic processes (U. Riebesell)
- WP6 Performance: reproduction and growth (H.-O. Pörtner)
- WP7 Microbial diversity and activity, in particular nitrogen cycling (J. Middelburg)
- WP8 Impact on trophic interactions (F. Thingstad)
- WP9 From process studies to ecosystem models (cross-cutting with theme 3)(A. Oschlies)

Theme 3: Biogeochemical impacts and feedbacks (M. Gehlen)



- WP10 Future changes of ocean carbonate chemistry (F. Joos)
- WP11 Biogeochemical impacts (M. Gehlen)
- WP12 Assessment and Earth system feedbacks (F. Joos)

Theme 4: Synthesis, dissemination and outreach (C. Turley)



- WP13 Uncertainties, risks and thresholds (C. Turley)
- WP14 Dissemination, exploitation and management of knowledge (C. Turley)
- WP15 Data management (R. Schlitzer)
- WP16 Training (P. Saugier)

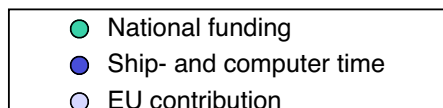
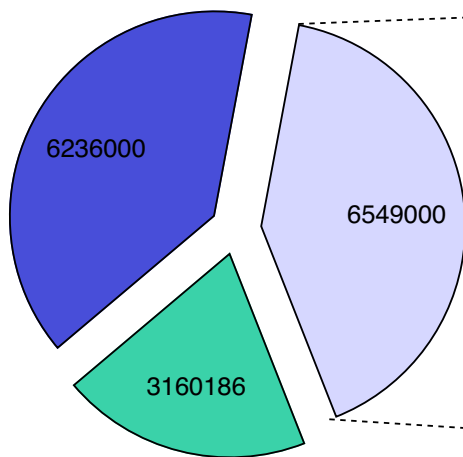
National, EU and international cooperation (letters of support)

- National projects: BOOM, PeECE, PEACE...
- EU projects:
 - NoE MARBEF and EUR-OCEANS
 - IPs CARBOOCEAN and SESAME
 - Proposals submitted to the other ocean acidification item: DYNAMO, HiSEAS, GLO-COAST, MEECE.
 - Proposals submitted to other items: EuroSITES
 - ERC proposals: CABICC, ECOTOC, MED-CORALS
- International IGBP programs: IMBER, LOICZ, SOLAS
- US programs: US Carbon Cycle Scientific Steering Group, Ocean Carbon and Biogeochemistry, NOAA Climate Program Office, NOAA Marine Fisheries Service, NSF Chemical Oceanography Division

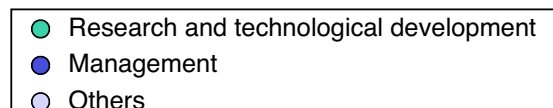
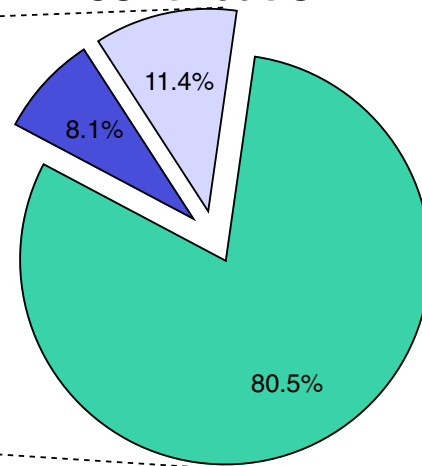
- **International Scientific Advisory Panel:** K. Caldeira, V. Fabry, R. Feely, J. A. Kleypas and K. Lee

Budget

Total budget: 15.9 M€



Distribution of EU contribution



- 27 partner institutions (29 laboratories)
- 105 permanent scientists involved
- Planning group:
 - Jelle Bijma (AWI, Germany)
 - Jean-Pierre Gattuso (coordinator, CNRS, France)
 - Marion Ghelen (LSCE, France)
 - Ulf Riebesell (IFM-GEOMAR, Germany)
 - Carol Turley (PML, United Kingdom)
- Budget:
 - EU contribution: 6.5 M€
 - Total budget: 16 M€
- May 2008-May 2012