



Ocean Acidification  
International  
Coordination Centre

OA-ICC

# Ocean Acidification International Coordination Centre (OA-ICC)

Communicating, promoting and facilitating global actions  
in a changing ocean world

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<http://www.iaea.org/nael/OA-ICC>  
[oceanacidification.wordpress.com](http://oceanacidification.wordpress.com)



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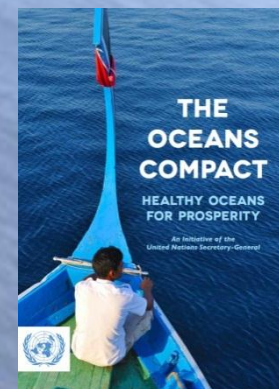
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## Background

- End of European Project on Ocean Acidification (EPOCA): need for international coordination identified by the scientific and research user communities (SOLAS IMBER Ocean Acidification Working Group and international Ocean Acidification Reference User Group)
- Increasing concern of IAEA Member states
- Need to work towards a sustainable development and use of the oceans, as emphasized in the U.N. Secretary-General's recent document "The Oceans Compact" and in the outcome document of Rio+20 (both mention ocean acidification).





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Rio+20 outcome document, paragraph 166:

*“We call for support to initiatives that address ocean acidification and the impacts of climate change on marine and coastal ecosystems and resources. In this regard, we reiterate the need to work collectively to prevent further ocean acidification, as well as enhance the resilience of marine ecosystems and of the communities whose livelihoods depend on them, and to support marine scientific research, monitoring and observation of ocean acidification and particularly vulnerable ecosystems, including through **enhanced international cooperation in this regard.**”*





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## Nuclear applications in ocean acidification research

- The IAEA is active in the field of monitoring and protecting the environment from radioactivity, but also in any field where isotopic and nuclear applications are relevant to understand environmental issues.
- Isotopic and nuclear techniques are unique tools e.g. to:
  - Study the Impact on primary production, growth and calcification rate, using e.g. Ca-45
  - Reconstruct past pH, using the isotopic ratio B-11/B-10 as a proxy
- IAEA Environment Laboratories in Monaco: ocean acidification-related research carried out since 2008.

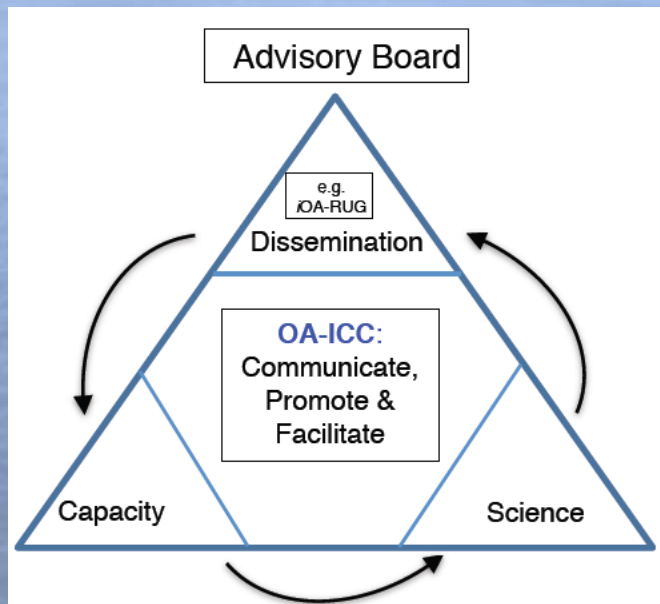


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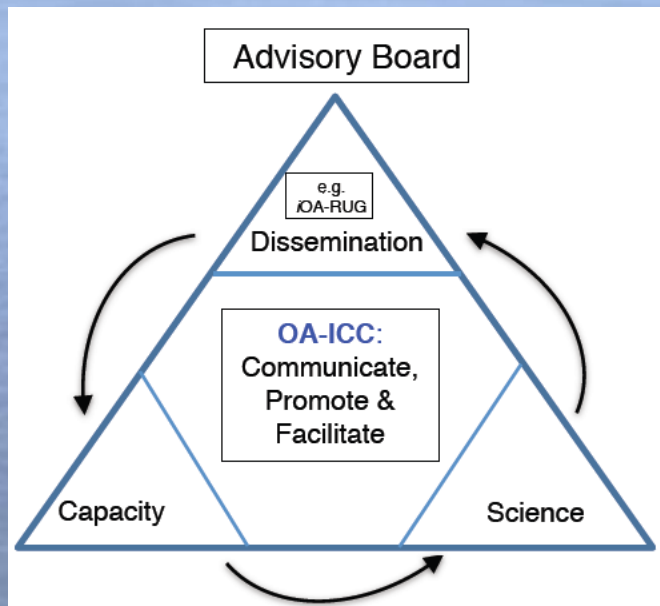
- **Tasks:** implement key overarching activities that must be performed at the international level to make effective use of the science investment
- **Office:** based at the IAEA Environment Laboratories in Monaco and supported by Member States and through the IAEA Peaceful Uses Initiative (PUI). Launched in summer 2012 (fully operational in early 2013) for a planned duration of 3 years.
- **End users:** scientific community and science users (policy makers, media, the general public, other stakeholders and Member States)



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- **Functioning:** Operated by three full-time staff (project officer, communication assistant and data curator) and a senior Science Coordinator, under the supervision of the IAEA Programme Manager. Advice provided by an Advisory Board with representatives from key institutions (e.g. IOC-UNESCO, NOAA, FAO, Prince Albert II of Monaco Foundation) and leading scientists in the field (e.g. SOLAS-IMBER Ocean Acidification Working Group).







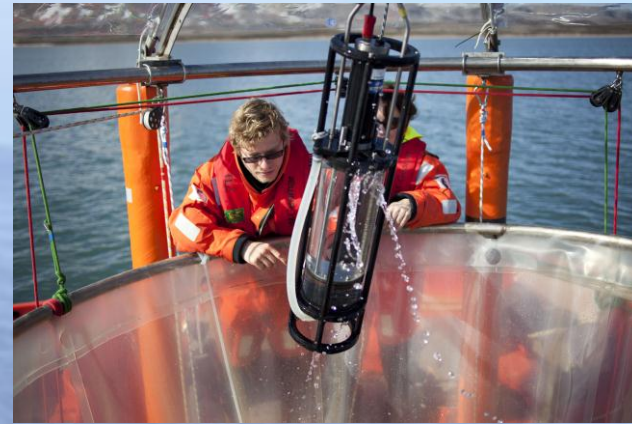
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## Coordination of scientific activities

- International observation network
- Joint platforms/facilities & experiments
- Collaboration between natural and social sciences
- Exchange of students and postdocs
- Intercomparison exercises
- Best practices
- On-line bibliographic database
- Data management
- Capacity building



Example of international cooperation on OA: mesocosm facilities developed at the Helmholtz Centre for Ocean research (Kiel) and used during a field campaign of the European Project on Ocean Acidification (EPOCA) in Svalbard, summer 2010. The experiment involved 40 scientists from 10 institutes. Photo: Nick Cobbing (c)





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## Dissemination and outreach

- Close collaboration with the international Ocean Acidification Reference User Group (iOA-RUG; group of stakeholders) and other members
- Participation in international partnership bringing ocean acidification to UNFCCC COP meetings (lead: UKOA; PML)
- Dissemination of ocean acidification news via a dedicated information outlet (former EPOCA blog) and web site



<http://www.iaea.org/nael/OA-ICC>  
[oceanacidification.wordpress.com](http://oceanacidification.wordpress.com)

[www.oceanunderstress.com](http://www.oceanunderstress.com)

1/3 OF THE LIVING SPACE ON EARTH • 1/3 OF THE OCEAN'S MARINE ORGANISMS • OCEAN'S CLIMATE • ALMOST HALF OF THE OCEAN'S BIODIVERSITY PROVIDED BY OCEAN PLANTS • 1/3 OF THE OCEAN'S BIOMASS IS MADE UP OF PLANKTON • 1/3 OF THE OCEAN'S BIOMASS IS MADE UP OF PLANKTON • 1/3 OF THE OCEAN'S BIOMASS IS MADE UP OF PLANKTON





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## Funding and support

Supported by the IAEA 'Peaceful Uses Initiative' (PUI), and through direct and in-kind contributions from several IAEA Member States and research projects on ocean acidification: Australia, France, Italy (ENEA), New Zealand, Spain, United Kingdom, United States, Integrated Marine Biogeochemistry and Ecosystem Research (IMBER), Surface Ocean Lower Atmosphere Study (SOLAS), Biological Impacts of Ocean Acidification (BIOACID), Mediterranean Sea Acidification in a Changing Climate (MedSeA), UK Ocean Acidification Programme (UKOA)

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## Examples of recent and planned activities

*Evaluation and advice:* First meeting of OA-ICC Advisory Board planned for spring 2013

*Observation network:* “2nd workshop of Global Ocean Acidification Observation Network - Coastal Observing Systems”, 24-26 July 2013, St Andrews, Scotland

*Capacity building:* Support of South America short course (tbc)

*Collaboration between natural & social sciences:* Second international economics/science workshop in Monaco, November 2012. Small preparatory meeting planned for April 2013 (Vienna); larger social and natural science workshop planned for 2014.

*Data management:* Workshop on the management of ocean acidification data, bringing together the data curators of major research programmes, fall 2013, Monaco (tbc)

*Dissemination:* Contribution to the production of the latest policy brief produced by the iOA-RUG, launched at the 3rd International Symposium on the Ocean in a High CO<sub>2</sub> World; participation in international exhibition stand at the UNFCCC COP18, Doha, Qatar (partnership between PML, UKOA, BIOACID, SCRIPPS, OCEANA, MedSeA and the OA-ICC)



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## Contact

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