

Chemical pollution in Europe's seas: The monitoring must catch up with the science

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According to a recent poll of more than 10,000 citizens from ten European countries, pollution is the primary concern of the public at large among all issues that threaten the marine environment. A new position paper of the Marine Board-ESF shows that such public concern is not misplaced and is supported by scientific evidence.

About 30,000 of the chemicals currently on the EU market have a production volume higher than one tonne per year. Increasing numbers of these substances end up in rivers, estuaries and seas with potentially damaging effects on [marine organisms](#), ecosystems and processes.

The oceans and seas are of growing strategic importance to Europe, both economically and socially. At the same time, the impact of human activities on marine ecosystems has increased markedly with [chemical pollution](#) as one of the main pressures. The latest Marine Board position paper on "Monitoring Chemical Pollution in Europe's Seas: Programmes, Practices and Priorities for research" shows that regulatory frameworks and monitoring programmes do not address the full range of potentially damaging pollutants, and completely overlook many of the 'new' pollutants which have entered use in recent years.

"The level of knowledge and awareness of the presence and potential impacts of new and emerging marine pollutants is still very limited" explains working group co-Chair Patrick Roose from Belgian Management Unit of the North Sea Mathematical Models (MUMM). Co-Chair Colin Janssen from the University of Ghent adds: "To be

genuinely effective, monitoring programmes will need to be dynamic and take into account a continually expanding list of chemical pollutants, the impact that different pollutants can have on organisms, ecosystems and processes, and to attribute efforts and resources according to the perceived risk."

Marine Board Position Paper 16, "Monitoring Chemical Pollution in Europe's Seas: Programmes, Practices and Priorities for research", provides an overview of the existing monitoring and assessment frameworks, a critical evaluation of current monitoring practices, and examples of emerging chemicals of concern and mechanisms used to include them in monitoring programmes.

The paper calls for better coordination, cooperation and harmonization between existing monitoring efforts and those under development, to avoid duplication of effort, loss of expertise and a reduced willingness to fulfil the obligations towards regional conventions. It also recommends implementation of state-of-the-art and more integrated environmental risk assessment procedures to evaluate the full impact of chemical substances on the different compartments of coastal and open sea systems.

"Until today, the monitoring of European seas has been largely based on the measurement of chemical concentrations in water, sediments and biota. As such, they are failing to take sufficiently sophisticated approaches to gain insights on the true impacts of chemicals on individuals, populations and whole [marine ecosystems](#)" says Kostas Nittis, Marine Board Chair. He concludes: "Until a more scientifically robust and sophisticated approach is adopted, existing [monitoring](#) programmes are only providing a part of the picture."

The Position Paper will be presented at the European Maritime Day in Gothenburg on 21 May 2012 (see

http://ec.europa.eu/maritimeaffairs/maritimeday/index_en.htm for full programme).

More information: The report is available online:
www.marineboard.eu/component/publications

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