

Human footprint on the seafloor

Keys from the Past

Doors to the Future

Friday
September 2nd
2011

Royal Belgian Institute of Natural Sciences
Natural History Museum
Vautierstraat 29, 1000 Brussels

Target audience

Scientific community, policy makers, industry and public at large

Programme

08.30 - 09.30	Registration	12.45 - 14.00	Lunch (posters & demonstrations)
09.30 - 09.40	Introduction Vera Van Lancker (RBINS-MUMM)	14.00 - 17.00	Future challenges
09.40 - 10.30	Ecosystem changes during the past 100 yrs Natural vs human-induced variability An integrated view on beach, shoreface and coastal zone changes Job Janssens (Flanders Hydraulics Research) Changes in macrobenthos: past vs present Jean-Sébastien Houziaux (RBINS-MUMM) To sea, or not to see Vera Van Lancker (RBINS-MUMM)	14.00 - 14.20	Reflection on future infrastructure works in the marine environment : Vlaamse Baaien Luc Van Damme (Flemish Authorities)
		14.20 - 15.20	Reconciling human activities with EU's Marine Strategy Framework Directive Moderator: David Connor (European Commission, DG Environment) Panel discussion
		15.20 - 15.50	Coffee break (posters & demonstrations)
10.30 - 11.00	Coffee break (posters & demonstrations)	15.50 - 17.00	Integrated monitoring tools: ways forward Moderator: Florence Cayocca (Ifremer, France) Erik Toorman (Catholic University Leuven) Panel discussion
11.00 - 12.45	Dealing with increased human pressure and climate change - Need for system knowledge Suspended particulate matter dynamics in coastal turbidity maximum areas Michael Fettweis (RBINS-MUMM) Hydro-meteorological influences on sediment transport Matthias Baeye (Ghent University, Renard Centre of Marine Geology) Hydro-meteo and climate change Jaak Monbaliu (Catholic University Leuven, Hydraulics Laboratory) Sediment fluxes in the Belgian coastal zone Dries van den Eynde (RBINS-MUMM) Sand dynamics on beaches and shorefaces Toon Verwaest (Flanders Hydraulics Research) Optimizing monitoring tools for future services Kevin Ruddick (RBINS-MUMM)		This discussion will be followed by demonstrations and posters on monitoring approaches
		17.00	Reception

Supporting Projects (Belgian Science Policy)



Quest4D

OPTICAL REMOTE SENSING OF COASTAL WATERS
BELCOLOUR-2 PROJECT



<http://www.vliz.be/projects/quest4D>
<http://www.mumm.ac.be/BELCOLOUR>

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Theme

In an era of increasing needs from marine living and non-living resources, a more sustainable development should focus, also, on finding ways to **optimize present-day practices of human activities**. On the one hand, **increasing awareness** is needed on the ways humans affect sediment processes (both water column and seabed) and their implications to marine life; on the other hand, synergies with industry are needed to come to more **sustainable practices**. With increasing sea-level, coastal safety will demand huge quantities of sand. Research has shown that resources are not renewed, and will become depleted on the long-term. The Quest4D project (Belgian Science Policy, Belspo) has demonstrated long-term and far field effects from past human activities, also on the benthos. However, prediction of such effects for future activities (e.g. large-scale engineering works) is yet not possible. **Careful consideration** when intensifying human activities is hence needed.

Meanwhile, Quest4D anticipates by providing a **scientific knowledge base**, together with modelling tools, and indicators on how sediment processes may affect ecosystem functioning. More **integrative monitoring and long-term data series**, preferably along ecological continua, are indeed a prerequisite, provided seas and oceans are one the grand challenges of the 21st century (Ostend Declaration, EurOCEAN 2010).

During this symposium, highlights of the Quest4D consortium are presented and discussions are held on some future challenges, on a Regional, Federal to European level. Monitoring is an important aspect in this respect. A plea is held for **integration** of measurements, observations and modelling at different spatial and temporal scales. Innovative products (incl. sediment transport applications) will be demonstrated from BELCOLOUR-2, a state-of-the-art optical remote sensing project, Belspo funded.

Partners



A joint Quest4D-Belcolour-2 initiative

Final registration date: August 29, 2011

Per e-mail to: q4d@mumm.ac.be (lower case)
Per fax to: +32 (0)2 770 69 72 Tel. +32 (0)2 773 21 29 (Vera Van Lancker)
Please mention name, institution/firm, function, e-mail

Posters (max A0) related to monitoring practices are welcome.
Title should be clearly mentioned on registration.

Related Initiative

Conference on Marine Aggregate Extraction:
Needs, Directives and Future perspectives, October 17th, 2011
Organiser: FPS Economy, SME's, Self-Employed and Energy
<http://economie.fgov.be/nl/modules/activity>
<http://economie.fgov.be/fr/modules/activity>



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Public transport directions
<http://www.naturalsciences.be/information/visitor/access>