



EUROPEAN DREDGING ASSOCIATION

**EUDA WORKSHOP ON
“GREEN INNOVATIONS KEEP THE EUROPEAN DREDGERS
AT GLOBAL LEADING EDGE”**

WEDNESDAY 3RD NOVEMBER 2010, 14.00, BRUSSELS

INTRODUCTION

Where traditionally dredging was associated by the public with deepening waterways and removing polluted mud, dredging has evolved to become the key activity in new land and waterways creation, in protecting and strengthening of sandy coastal areas and in maintaining the depth of waterways with relatively clean bottoms.

In recent years more and more clients and stakeholders consider sustainable development as increasingly important and, as a consequence, environmental and ecological aspects of dredging activities have become strategic issues of paramount importance to keep a leading edge over foreign competitors. European dredging companies are therefore taking the lead in behaving responsibly and contributing to a cleaner and more sustainable (marine) environment.

This leadership of the European dredging companies is the result of their continuous search to improve their equipment and processes as well as reduce adverse impacts:

- Dredging companies are constantly renewing and modernising their fleet, thanks to which the machinery becomes increasingly cleaner and more efficient and allows for reduction of greenhouse gases.
- Modern dredging equipment is developed so that adverse effects to the marine environment during dredging (such as turbidity, spreading of contaminants) are minimised.
- Dredging companies actively participate in the development of the so called eco-dynamic design, which integrates the ecosystem's approach in marine coastal management.
- Dredging companies are actively commenting on and involved in the development EU Framework Directives and Guidelines that have a direct or indirect impact on marine construction projects.

The Workshop should focus on these aspects with the speakers bringing their views from their different backgrounds and further elaborate on the accomplishments of the European Dredgers and the way forward. The different angles and perspectives include: legislation and guidelines, marine research and science, marine infrastructure design, development of large marine infrastructure projects and development of dredging equipment.



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PROGRAMME

13.30 – 14.00 REGISTRATION OF PARTICIPANTS

14.00 – 14.15 WELCOME AND OPENING BY THE WORKSHOP CHAIRMAN

*Introduction to Dredging and to the objectives of the Workshop by
Eugen Jansen, Chairman of EuDA’s Environment Committee.*

14.15 – 15.00 SETTING THE SCENE

- ⇒ *The role of ecosystems in marine environments with a focus on dynamics, stability, indicators, evolution by **Prof. Patrick Meire**, Antwerp University.*
- ⇒ *Brief perspective from European Commission on the environmental aspects of the Maritime Policy linking with the Marine Strategy Framework Directive, the Water Framework Directive and the Communication on Integrated Coastal Zone Management linking with dredging and marine construction. by **Birgit Snoeren**, European Commission, DG Environment, European Union.*

15.00 – 15.45 INTEGRATED COASTAL ZONE MANAGEMENT

- ⇒ *Presentation of key dredging related initiatives in the Member States on Ecosystem’s Approach in Integrated Coastal Zone Management.*
- ✓ **Building with Nature** : ***Stefan Aarninkhof**, ECOSHAPE in The Netherlands*
- ✓ **Building with Nature** : ***Bart Verboomen**, Vlaamse Baaien 2100 in Belgium*

15.45 – 16.00 COFFEE BREAK

16.00 – 16.40 EXAMPLE CASES OF INNOVATIONS IN DREDGING OPERATIONS

- ⇒ *How can the experience gained with the monitoring programme for Maasvlakte 2 be used to understand and improve the impact of dredging on marine environments in coastal zones (definition of meaningful indicators)? by **Tiedo Vellinga**, Port of Rotterdam*
- ⇒ *Overview of environmental research for marine aggregates extraction in UK— (Marine Aggregate Levy Sustainability Fund) by **Mark Russell**, BMAPA and **Dr Richard Newell**. independent Science Coordinator for the MALSF.*

16.40 – 17.00 OPEN DISCUSSION AND CONCLUSIONS

*(moderated by **Erik Mink**, EuDA Environment Committee).*

- ⇒ *How to economically apply the ecosystem’s approach in marine coastal management?*
- ⇒ *How can forces of nature be put to use in shaping coastal structures and works?*
- ⇒ *Can industry create a win-win situation with positive economical, societal and environmental impacts?*

17.00 – 18.00 CLOSING COCKTAIL

Venue: *Hotel Silken Berlaymont Brussels, 11-19, Boulevard Charlemagne, B-1000 Brussels Belgium.*



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SPEAKERS



Eugen Jansen - Netherlands / EuDA: *Workshop Chairman, Chairman of EuDA's Environment Committee; Mr Jansen graduated in coastal engineering at the Technical University Delft in 1982. His present position is Regional Manager North Europe at Van Oord Dredging and Marine Contractors, based in Rotterdam.*

He worked 6 years for Svasek BV and 5 years in marine engineering for De Weger, which is now part of Haskoning. In 1991 he was employed by Ballast Nedam Dredging, which then became Ballast Ham Dredging, and since 2003 Van Oord. During the last 19 years he was involved in a number of activities linked to the environmental aspects of dredging: CSB research programs and the set up of the environmental monitoring program of the the Öresund bridge tunnel project in Denmark - Sweden.



Prof. Dr Patrick Meire - Antwerp University: *Mr Patrick Meire studied biology and obtained his PhD at the University of Ghent (Laboratory of Animal Ecology, Nature Conservation and Biogeography).*

He has been a visiting research fellow of the University of Oxford, Department of Zoology (1983). In 1989-1990 he worked at the Dutch Delta Institute for hydrobiological Research. Then in 1990 he became senior researcher at the Institute of Nature Conservation, a research Institute of the Flemish Government.

Since 1995 he holds the chair for Integrated Water Management at the Institute of Environmental Studies of the University of Antwerp (part time visiting professor) and since 1999 he is full-time professor at the University of Antwerp, Department of Biology and head of the ecosystem management research group (ECOBÉ).

Mr Patrick Meire's research career is focused on the study of the environmental impact of human activities on aquatic and wetland systems and the translation of these insights into concepts for integrated water and ecosystem management. His multidisciplinary research includes the study of the impact of large scale coastal engineering works, inundation protection and coastal development programmes.

Understanding the interaction between the habitat structure (geomorphology), hydrodynamics and the ecological functioning (nutrient cycling, productivity, carrying capacity,..) provides the basis for the development of new methods to derive conservation objectives for a system, based on the ecological functioning and the delivery of ecological goods and services.



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The research group ecosystem management of the University of Antwerp that he is heading has as main objective to provide a sound scientific basis for ecosystem management in general and integrated water management in particular.



Birgit Snoeren – European Commission: *Within the DG Environment Marine Unit, Ms Birgit Snoeren is the official in charge of Integrated Coastal Zone Management - ICZM. She is responsible for all aspects relating to the implementation of the EU Recommendation on ICZM. She acts as the EU focal point for the ICZM Protocol to the Barcelona Convention. Adaptation to risks and climate change is a key priority for ICZM in the EU.*

Ms Snoeren joined the European Commission in 1992. Prior to her appointment to the coastal zones position in January 2002, she held posts in various Directorate Generals of the European Commission.



Stefan Aarninkhof – ECOSHAPE: *Mr Stefan Aarninkhof is a senior engineer at Hydronamic, the engineering group of Royal Boskalis Westminster nv.*

He graduated as a civil engineer from Delft University of Technology in 1996. He subsequently received a PhD, also from Delft University, and spent 10 years at Delft Hydraulics (nowadays Deltares).

Stefan presently holds the position of Program Manager of the innovation program Building with Nature, carried out by the Foundation EcoShape.



ir. Bart Verboomen - Vlaamse Baaien 2100: *Mr Bart Verboomen started in 1993 as project engineer and later on as project manager of big dredging and marine related projects worldwide, off-shore works and clearing of wrecked ships for the marine building giant DEME, Bart Verboomen is at the moment general manager of 'NV Baggerwerken Decloedt en Zoon' of which the head office is situated in Oostende. Graduated as an electromechanical engineer from university, he also is managing director of all technical departments of the DEME-group.*

Bart has been involved since the inception of the Vlaamse Baaien 2100 programme. He is currently Member of the Board of Vlaamse Baaien 2100.

Bart is also actively involved in scientific networks dealing with dredging and related activities: he is a board member of Flanders Marine, CEDA and PIANC.





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Tiedo Vellinga MSc - Port of Rotterdam: *Mr Tiedo Vellinga obtained his MSc degree in Civil Engineering (coastal engineering) in 1979 at the Delft University of Technology. Since then he has been working for the Port of Rotterdam Authority in the field of infrastructure- and water management.*

His main present positions and activities are:

- *Associate Professor Ports and Environment, Hydraulic Engineering Section, Delft University of Technology;*
- *Director Environmental Monitoring Maasvlakte 2, Rotterdam Port Authority. Responsible for the monitoring of the environmental effects of the realisation and the use of Maasvlakte 2 (www.maasvlakte2.com);*
- *Projectmanager for the development and implementation of the Environmental Ship Index (ESI), one of the IAPH World Ports Climate Initiatives (www.wpci.nl).*

Specific fields of expertise are: port environmental management and sediment management. Tiedo Vellinga wrote numerous publications and is an active participant in international networks related to these fields of expertise. He has been an active member of PIANC since 1981 and is a member of the PIANC Environmental Committee since its start.



Mark Russell - BMAPA: *Mr Mark Russell is Director of the British Marine Aggregate Producers Association (BMAPA), the representative trade body for the UK marine aggregate sector, which he joined in 2001. He has worked in the marine aggregate industry for over 15 years, having first gained a first degree in marine geography and a Masters degree in marine resource development & protection before joining ARC Marine Limited (now Hanson Aggregates Marine Limited) as resources manager in 1995.*

Mark represents BMAPA on the EuDA environment committee and at the ICES Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem (WGEXT), and has been the industry representative on the steering group for the Defra Marine Aggregate Levy Sustainability Fund since the research programme started in 2003.





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Dr Richard Newell – DEFRA (MALSF): *Dr Richard Newell is a recognised expert in the physiology and ecology of intertidal and shallow water organisms, with specialist interests in energy and material flow through marine ecosystems, and assessment of the impact of industrial and other developments on coastal resources. Dr. Newell has acted as Environmental Consultant for major industries worldwide for over 30-years, and has represented them from the site-selection phase, through construction and during the operation of plants in Europe, North America, Malaysia and Australia.*

Recent work has centred on the impact of marine aggregate dredging on biological resources. Research carried out by Marine Ecological Surveys Ltd in 2002 has been funded both through the US Government Minerals Management Service and by the British Marine Aggregate Producers Association (BMAPA). In 2003 Marine Ecological Surveys Ltd were awarded a major research contract by the Office of the Deputy Prime Minister (ODPM) to carry out research on the impact of marine aggregate dredging on the marine environment. This work has led to a number of research publications in the international literature and to contributions to international conferences during the past 5 years.

He is a registered Environmental Assessor and is registered as an expert witness with the Law Society and the UK Register of Expert Witnesses. He has given evidence in numerous Public Inquiries, including the recent Public Inquiry for the proposed London Gateway Port Project, and the House of Lords Select Committee on the Humber Estuary. He is currently Science Co-ordinator for the Defra Marine Aggregate Levy Sustainability Fund (MALSF) and an advisor to DP World on the London Gateway Port in the lower Thames Estuary.



Erik Mink - EuDA: *Mr Frederik Mink joined Interel European Affairs in 2005 as a Senior Associate with a focus on Maritime Policy, Energy and Environmental issues. He is also Environmental Adviser to the European Dredging Association.*

Frederik has 10 years of hands-on experience in European Affairs as Secretary General of the European Dredging Association, covering a wide range of European and international regulatory issues. The major topics covered maritime shipping policy, marine infrastructure, status of seafarers and environmental impact of marine activities.

Prior to his role for the European dredging industry he worked for more than 20 years for the Westinghouse Corporation in the nuclear division.

Frederik has professional experience with research programming, technical management and project development in an international context.

He has degrees in engineering and business administration.

Venue: *Hotel Silken Berlaymont Brussels, 11-19, Boulevard Charlemagne, B-1000 Brussels Belgium.*



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ORGANISING ASSOCIATION



European Dredging Association, www.european-dredging.info:

Founded in 1993, EuDA is a non-profit industry organisation for European dredging companies and related organisations, representing approximately 25,000 European employees “on land and on board of the vessels” in direct employment and more than 48,300 in indirect employment (supply and service companies) with approximately 750 seaworthy European flagged vessels.

Dredging activities are not well known by the larger public, but as a matter of fact European dredging companies are world market leaders with about 80% of the worldwide open dredging market and a turnover of €6.8bn in 2008. Although 70% of operations take place outside Europe, 90% of the returns flow back to Europe.

EuDA represents the interests of the European dredging industry, primarily at the European institutions. The Association will pursue its goals by endorsing policies to create fair and equitable conditions for competition; commits to respecting applicable National, European and International rules and regulations; commits to operating its fleet safely, effectively and responsibly. EuDA serves its members in all kind of requests related to dredging issues which are coordinated by the Secretariat and executed by its specialised working groups, composed of experts from the member companies. Presently EuDA is strongly focusing Social and Environmental issues.