

FINAL PROGRAMME

# Dredging in a Changing World

*Leading science and business in the dredging industry*

27-29 MAY 2024 | WTC ROTTERDAM | ROTTERDAM, THE NETHERLANDS

# CEDA Dredging Days 2024

C O N F E R E N C E

ORGANISED BY



PARTNERS OF CEDA DREDGING DAYS 2024



SUPPORTERS OF CEDA DREDGING DAYS 2024





## MONDAY, MAY 27TH 2024

TIME

ROTTERDAM HALL

MEES ROOM I

MEES ROOM II

PENN ROOM I

12:30 - 14:00  Registration - Clubhouse13:15 - 14:00  Young CEDA and Student Get-Together - Clubhouse

14:00 - 15:30 **SESSION 1: Opening and Keynotes**  
 Moderator: Mike Van der Vijver – MindMeeting, the Netherlands

Opening by Polite Laboyrie, CEDA President, Witteveen+Bos, the Netherlands

**Keynote address:** Lara Muller, Director Public Sector, Invest International, the Netherlands:  
*Money makes the world go green*

**Keynote address:** Egbert van der Wal, Director Port Development, Port of Rotterdam, the Netherlands:  
*Shaping the energy transition – an outlook on Port of Rotterdam in 2050*

15:30 - 16:00  Coffee Break - Clubhouse

16:00 - 17:30 **SESSION 2: The Future of AI in Dredging**  
 Chairs: Annouk Rey – Boskalis, the Netherlands and Kirsten Orsel – Royal IHC, the Netherlands

Panel:

- Gerben de Boer – Van Oord, the Netherlands
- Petyo Popov – Royal IHC, the Netherlands
- Tim van der Biezen – Boskalis, the Netherlands

With a special appearance by ChatGPT

Explore the future of dredging with AI during the Young CEDA session. What are the effects of AI on the dredging sector in the near future, and what will the far future look like? Participate in interactive group sessions and contribute to shaping the future of dredging together with a panel of AI experts within and outside the dredging sector. A special appearance will be made by ChatGPT on the expert panel.

17:30 - 17:45 **Handing Over the Presidency**

After more than 8 years of serving as CEDA president, Polite Laboyrie (Witteveen+Bos, the Netherlands) will officially hand over the presidency to Kathleen De Wit (IMDC, Belgium).

17:45 - 20:30  Drinks, Followed by Walking Dinner - Clubhouse

## TUESDAY, MAY 28TH 2024 (cont.)

TIME

ROTTERDAM HALL

MEES ROOM I

MEES ROOM II

PENN ROOM I

08:00 - 09:00  Morning Coffee - Clubhouse09:00 - 10:30 **SESSION 3: Sustainability Managers Debate**  
Moderator: Mike Van der Vijver – MindMeeting, the Netherlands

Introduction by: Marije Hensen – Atradius, the Netherlands

Panel:

- Bernardete Goncalves Castro – Royal IHC, the Netherlands
- Remco Neumann – Port of Rotterdam, the Netherlands
- Hannelore Ruytjens – Jan De Nul, Belgium
- Marielle Scale – Boskalis, the Netherlands
- Rachel Terry – Van Oord, the Netherlands
- Jiska Verhulst – DEME, Belgium

Sustainability Managers will discuss the latest topics in relation to sustainable project development in the dredging industry. The session will be introduced by Marije Hensen, whereafter the panel can reflect, with active participation from the audience.

10:30 - 11:00  Coffee Break - Clubhouse11:00 - 12:30 **SESSION 4: Reservoir Dredging: Addressing Decades of Neglect**  
Moderator: Mike Van der Vijver – MindMeeting, the Netherlands


Panel:


- Teresa Alvares – Portuguese Environment Agency (APA), Portugal
- Ilka Carls – Ministry of Environment and Energy, Free and Hanseatic City of Hamburg, Germany
- Xiuhan Chen – Delft University of Technology, the Netherlands
- Pieter de Boer – Rijkswaterstaat, the Netherlands
- Olivier Marcus – Damen Shipyards, the Netherlands
- Amgad Omer – Deltares, the Netherlands
- Sritama Sarkar – ABL Group, United Kingdom


Join us for a transformative session on the Guideline on Reservoir Dredging. Explore solutions to decades of neglect in managing reservoir sedimentation, crucial for sustainable dam systems.


Discover innovative approaches from initial survey, dredging methods to material management, addressing water storage loss, hydro-power impacts, flood control, and ecosystem health. Engage in lively discussion to shape a sustainable future for global reservoirs.

**SESSION 5: Coastal and Inland Flood Protection**  
Chair: Boudewijn Decrop – IMDC, Belgium


 Beach nourishment as protection against flood, wave overtopping, and erosion; experiences from coastal flood protection projects in Denmark from start till end  
[Schlør S](#) and [Bundgaard K](#) – NIRAS, Denmark


 Nature Based Solutions: Coastbusters and Bankbusters proof of concept pilot projects for ecosystem based engineering  
[Sterckx T](#), [Huygens M](#) and [Mascart T](#) – DEME Group, Belgium;  
[Geldhof R](#) and [Stratigaki V](#) – Jan de Nul Group, Belgium


 Can sandy Nature-Based Solutions protect the Flemish coast against 3m sea level rise?  
[Bolle A](#), [Verheyen B](#) and [Van Caster N](#) – IMDC, Belgium;  
[Volckaert A](#) and [Hauquier F](#) – Arcadis, Belgium

 Five years of Prins Hendrik Zanddijk  
[Fordeyn J](#), [Vanwesenbeeck G](#) and [Foré K](#) – Jan De Nul Group, Belgium

**SESSION 6: Maintenance Dredging and Environmental Aspects of Dredging**  
Chair: Said Alhaddad – Delft University of Technology, the Netherlands

 Effectiveness of environmental management and mitigation measures – the Addu city reclamation case  
[Fonias E](#), [van Eekelen E](#), [Shanavas AK](#) and [van Miltenburg M](#) – Van Oord Dredging and Marine Contractors, the Netherlands

 Bridging the depths: lessons learned from deep-sea mining for better predicting turbidity plumes  
[Ali W](#), [Kirichek A](#), [Helmons R](#) and [Chassagne C](#) – Delft University of Technology, the Netherlands

 Numerical assessment of turbidity currents generated by cutter suction dredgers  
[Mahgoub M](#), [Alhaddad S](#) and [Keetels GH](#) – Delft University of Technology, the Netherlands

## TUESDAY, MAY 28TH 2024 (cont.)

TIME	ROTTERDAM HALL	MEES ROOM I	MEES ROOM II	PENN ROOM I
12:30 - 13:30	 Lunch - Clubhouse			
13:30 - 15:00	<p><b>SESSION 7: Energy Transition and Decarbonisation (I)</b> Chair: Giulia Sforzi – HR Wallingford, United Kingdom</p> <p> Open innovation towards zero emission dredging <i>de Jong A</i> – Blue-Dutch Innovation, the Netherlands; <i>van Melis T</i> – Boskalis, the Netherlands; <i>de Geus M</i> – Van Oord, the Netherlands; <i>Sneep T</i> – Royal IHC, the Netherlands</p> <p> Looking forward to the net zero future of dredging vessels <i>Verduynst PM</i> and <i>Gabriel J</i> – DEME, Belgium</p> <p> Sequential dredging and reclamation for the construction of the Princess Elisabeth island, the world's first offshore energy island <i>Van Doorslaer K</i> – DEME, Belgium; <i>Jacobs A</i> – Jan De Nul, Belgium; <i>Guillermin P-Y</i> – Elia Asset, Belgium; <i>Brouwer M</i> – Royal HaskoningDHV, the Netherlands; <i>Bijl E</i> – CDR, the Netherlands; <i>Somers R</i> – IMDC, Belgium</p> <p> Towards climate neutral and circular dredging; the role of clients in the transition of dredging industry <i>Zondag H</i>, <i>Stofbergen E</i> and <i>Lauwerijssen Ch</i> – Rijkswaterstaat, the Netherlands; <i>Hupkes E</i> – Port of Rotterdam, the Netherlands</p>	<p><b>SESSION 8: Dredging Technologies and Processes</b> Chair: Rick van de Wetering – Royal IHC, the Netherlands</p> <p> NPSH<sub>R</sub> scaling for centrifugal pumps <i>de Hoog E</i> and <i>Hofstra CF</i> – Royal IHC, the Netherlands; <i>in 't Veld JM</i> – IQIP, the Netherlands; <i>Talmon AM</i> – Deltares, the Netherlands</p> <p> Mechanical excavation of clayey soils, a review of the physical phenomena occurring <i>Winkelman MO</i>, <i>Schott DL</i> and <i>Helmons RLJ</i> – Delft University of Technology, the Netherlands</p> <p> Inline real-time process monitoring based on ultrasonic measurement and tomography <i>Maas R</i> and <i>Boerma M</i> – Rhosonics, the Netherlands</p> <p> Behavior and erosion capacity of an inclined plunging jet <i>Keij RM</i> and <i>Talmon AM</i> – Delft University of Technology, the Netherlands; <i>Nobel AJ</i> – Boskalis, the Netherlands</p>	<p><b>SESSION 9: Natural Resources and Reservoir Dredging</b> Chair: Annelies Bolle – IMDC, Belgium</p> <p> A dredging dilemma: screening risk to herring and sandeel <i>Kyle-Henney M</i>, <i>Reach I</i>, <i>Barr N</i>, <i>Warner I</i>, <i>Lowe S</i> and <i>Lloyd Jones D</i> – MarineSpace, United Kingdom</p> <p> Underwater remote mining: a comprehensive analysis of the innovative Ekati diamond mine's urm system <i>Boomsma WBA</i> and <i>de Jonge LJ</i> – IHC Mining, the Netherlands</p> <p> Sediment management in a circular economy <i>de Boer PD</i> – Rijkswaterstaat, the Netherlands</p> <p> Risk profile for reservoir dredging <i>Sarkar S</i> – ABL Group, United Kingdom; <i>Sarkar MK</i> – Excavation &amp; Equipment Manufacturing, India</p>	<p><b>MASTER CLASS: Production Estimation</b> 13:00 - 15:30</p> <p>Separate registration required</p>
15:00 - 15:25	 Coffee Break - Clubhouse			
15:25 - 16:15	<p><b>SESSION 10: Safety</b> Moderator: Mike Van der Vijver – MindMeeting, the Netherlands</p> <p>Panel:</p> <ul style="list-style-type: none"> <li>Anders Bergstrøm – Rohde Nielsen, Denmark</li> <li>Stefan Bruggeman – Jan De Nul, Belgium</li> <li>Maurice de Kok – Van Oord, the Netherlands</li> <li>René Sens – Damen, the Netherlands</li> <li>Johan van der Vorm – Boskalis, the Netherlands</li> <li>Herman van Dijk – Van Heck, the Netherlands</li> <li>Léon Voogd – Port of Rotterdam, the Netherlands</li> <li>Freddy Wynants – DEME Group, Belgium</li> </ul> <p>Safety is an increasingly important topic and during this session we seek to share safety culture perspectives and information, raise awareness, and facilitate collaboration between safety and operations professionals worldwide.</p>			






## TUESDAY, MAY 28TH 2024 (cont.)

TIME	ROTTERDAM HALL	MEES ROOM I	MEES ROOM II	PENN ROOM I
16:15 - 17:05	<b>SESSION 11: In Loving Memory of prof.dr.ir. Cees van Rhee and prof.ir. Wim Vlasblom</b> By: Rudy Helmons – Delft University of Technology, the Netherlands and Johan Pennekamp – Deltares, the Netherlands			
17:05 - 17:15	Gathering Participants - Clubhouse			
17:15 - 17:30	Walk to City Hall Rotterdam			
17:30 - 19:00	Reception - City Hall Rotterdam			

## WEDNESDAY, MAY 29TH 2024

TIME	ROTTERDAM HALL	MEES ROOM I	MEES ROOM II	PENN ROOM I
08:00 - 09:00	Morning Coffee - Clubhouse			
09:00 - 10:30	<b>SESSION 12: Decarbonisation: Chicken and Egg Dilemma</b> Moderator: Mike Van der Vijver – MindMeeting, the Netherlands  How to overcome the chicken and egg dilemma in decarbonisation and step into the future as first mover? What are the options and hurdles for contractors, shipbuilders, fuel suppliers, clients and their consultants and financiers? Can supply of post-fossil fuels be guaranteed, and if so what would be the effect of using these on project costs? What are views from society on the pathway to net-zero and the related costs? Take up the role of one of the stakeholders and participate actively to embody the collective challenges and opportunities on the path of decarbonisation.			
10:30 - 11:00	Coffee Break - Clubhouse			
11:00 - 12:30	<b>SESSION 13: Land Reclamation, Beneficial Use and Dredging for Civil Infrastructure</b> Chair: Thomas Vijverberg – Boskalis, the Netherlands  Resource based dredging for landscape-scale greening <i>Bosman G and ten Velden D – The Weather Makers, the Netherlands</i>  "Unsuitable" to "suitable", a change in the reclamation design paradigm <i>Hoffmann C and Hompes F – Van Oord Dredging and Marine Contractors, the Netherlands</i>  Continued...	<b>SESSION 14: Early Contractor Involvement</b> Moderator: Mike Van der Vijver – MindMeeting, the Netherlands  Introduction by: Andrea Chao – Bird & Bird, the Netherlands Introduction by: Jaap de Koning – Witteveen+Bos, the Netherlands  Early Contractor Involvement is a contracting strategy initiated by the developer to optimize values in project delivery and...  Continued...		

## WEDNESDAY, MAY 29TH 2024 (cont.)

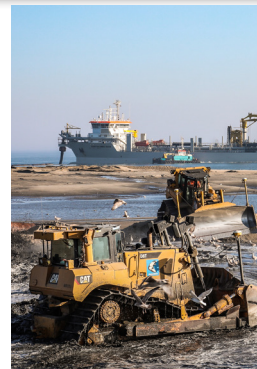
TIME	ROTTERDAM HALL	MEES ROOM I	MEES ROOM II	PENN ROOM I
11:00 - 12:30	<p>Continued...</p> <p> Circular use of harbor dredged sediment: sediment layer thickness optimisation for sustainable clay production <i>Mc Leod C and Barciela-Rial M – Applied University of Arnhem and Nijmegen, the Netherlands; van Puijenbroek M – Wageningen Marine Research, the Netherlands; van der Star W – Deltares/Ecoshape, the Netherlands</i></p> <p> On the desalination of dredged sediments for beneficial use: case studies, challenges and best practices <i>Barciela-Rial M and Mc Leod C – HAN University of Applied Sciences, the Netherlands; van der Star W – Deltares, the Netherlands</i></p>	<p>Continued...</p> <p>objectives through parties' participation and knowledge sharing. This session will give an overview of the latest developments in ECI and then continue as an interactive session on when and how to start ECI and the forms of contract currently available and their reference projects. Both situations with and without ECI experience will be addressed.</p>		
12:30 - 13:30	<p> Lunch - Clubhouse</p>			<p><b>MASTER CLASS: Hydraulic Transport</b> 12:30 - 15:00</p> <p>Separate registration required</p>
13:30 - 14:40	<p><b>SESSION 15: Energy Transition and Decarbonisation (2)</b> Chair: Martijn Kom – Boskalis, the Netherlands</p> <p> The electrical grid as enabler for decarbonization of the dredging industry <i>de Ronde JK, Walraven T and Ammerlaan R – Bakker Sliedrecht, the Netherlands</i></p> <p> Decarbonisation transformation: challenges and opportunities for dredging market <i>Rascioni S – Wärtsilä, Italy; Heidelberg D – Wärtsilä, the Netherlands</i></p> <p> Evaluating the potential of fuel cells for the dredging industry <i>Mestemaker BTW – Royal IHC, the Netherlands; van Biert L – Delft University of Technology, the Netherlands</i></p>	<p><b>SESSION 16: Data-Driven Technology and Adaptive Management</b> Chair: Suman Sapkota – Damen Dredging Equipment, the Netherlands</p> <p> Application of machine learning in determining design parameters of dredging vessels <i>Goeree JC and Alvarez Grima M – Royal IHC, the Netherlands</i></p> <p> Adaptive Management for environmental aspects of dredging and reclamation projects: reactive and pro-active <i>Decrop B – IMDC, Belgium; et al.</i></p>		
14:40 - 15:10	<p> Coffee Break - Clubhouse</p>			
15:10 - 16:25	<p><b>SESSION 17: Young CEDA Pitch Talks</b> Chair: Leon Hendriksen – Stema Survey Services, the Netherlands</p> <p>Sustainable reservoir sediment management using fully automated dredges <i>Gehrmann L – Hülskens Sediments, Germany</i></p> <p>Decreasing CO2 emissions within the Dutch dredging sector <i>Nooren M – Permian Global, the Netherlands</i></p> <p>How to measure the strength of very soft clays? A building material in the making <i>Jaksic L, Konstantinou M, van Kessel T, Talmon A and Meshkati E – Deltares, the Netherlands</i></p> <p>Continued...</p>			



## WEDNESDAY, MAY 29TH 2024 (cont.)

TIME	ROTTERDAM HALL	MEES ROOM I	MEES ROOM II	PENN ROOM I
15:10 - 16:25	<p><i>Continued...</i></p> <p>Towards minimal environmental impact of flatfish trawling by utilizing dredging-related knowledge  <i>Bult S – Delft University of Technology, the Netherlands</i></p> <p>Laboratory experiments to explore the effect of flocculation on sediment dispersion  <i>Wahab S, Chassagne C and Helmons R – Delft University of Technology, the Netherlands</i></p> <p>Integrated approach for sustainable sediment-based building blocks: circular sediment management and construction practices  <i>Pal D – Ph.D. Research Scholar, Sediment Expert, the Netherlands; Derksen G – Royal IHC, the Netherlands</i></p>			
16:25 - 16:35	Wrap-Up of the Conference			
16:35 - 16:45	IADC Young Pitch Talk Award			
16:45	Closing			

The CEDA Dredging Days 2024 Technical Papers Committee reserves the right to adjust the programme as appropriate.



## COORDINATING COMMITTEE

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