

DREDGING IS CHANGING

The Practice. The Science. The Business.

16 - 20 MAY 2022 TIVOLI CONGRESS CENTER, COPENHAGEN, DENMARK Organised by



on behalf of



which incorporates

WEDA

Western Dredging Association

CEDA

Central Dredging Association

EADA

Eastern Dredging Association

Diamond sponsors:







THE CONGRESS

From around the world: Over 500 participants and 50 exhibitors representing over 170 companies, and 40 countries, across the entire supply chain. Over 120 peerreviewed technical presentations. Broad scope, diverse perspectives.

WODCON is the World Dredging Congress and Exhibition. First organised in 1967 in New York, USA, and held throughout the world since, this series of congresses is the most important event for dredging professionals across the world.

It is the only completely global event dedicated to dredging, reclamation, maritime construction and dredged sediment management where all key players in the field come together. WODCON is a valued and unique platform for the global exchange of knowledge, building brand awareness, exploring and creating new partnerships and collaborations, and nurturing existing connections.

WODCONs are held once every three years by the World Organisation of Dredging Associations (WODA).

WODA rotates the responsibility for organising WODCONs between its three member associations, WEDA, CEDA, and EADA and the organising member holds the congress in its region.

CEDA is delighted to host and organise the next event in this prestigious series of world congresses for the world-wide dredging community, with the key support from its Danish members.

WODCONs' attendees are actively looking for new information and business opportunities, and are open to hearing about new ideas. advancing technologies and new projects.

WODCONS ARE ALL ABOUT THE HIGH-QUALITY TECHNICAL CONTENT. PREMIUM **NETWORKING** AND DOING GREAT BUSINESS.

WHO WILL ATTEND?

WODCON XXIII will bring together decision makers and representatives of manufacturers, universities, research institutes, consultants, ports, government agencies, the financial world and public authorities. There will also be contractors working in navigation, coastal and inland flood protection, deep-sea mining, offshore wind energy, and oil and gas production. Providers of a broad range of services including brokers, insurers, financiers, lawyers and many more, will also be in attendance.

Attendees come from more than 40 countries around the world. They bring a diverse range of expertise, experiences, contacts and projects to the congress.

CEDA recognises the importance of our young professionals, in driving the industry forward, and aims to increase the number of young attendees at the event. Young CEDA will be involved in offering a dedicated technical and social programme, and some discounted registration fees will be available for those who qualify.

WELCOME TO WODCON XXIII COPENHAGEN

Dear member of the dredging industry community and beyond,

On behalf of the World Organization of Dredging Associations (WODA) the Central Dredging Association (CEDA) has the honour and privilege of inviting you to participate actively in the twenty third World Dredging Congress -WODCON XXIII in Copenhagen, Denmark.

UNDER THE INTRIGUING TAGLINE: 'DREDGING IS CHANGING' CEDA IS PREPARING THE TRIENNIAL WORLD DREDGING EVENT FROM THE 16TH TILL THE 20TH OF MAY 2022.

Challenges, responsibilities and opportunities of our dredging industry community will give you the necessary impulses. Novel developments in adaptation to climate change, techniques, multipurpose approaches, dredging contracts, stakeholder inclusion, public / private engagement will give you a head start in your business. It promises to become an unforgettable mix of networking, state-of-the-art knowledge transfer, technical sessions and visits. All set in the background of beautiful and peaceful Copenhagen in the brilliant conferences facilities of the Tivoli Congress Center.

Copenhagen is a cosmopolitan city where everyone feels at home. It is an ideal place for new trends, business and relaxation. The capital of Denmark offers a safe and comfortable environment where enjoying leisure time and doing business are equally pleasant.

Through innovation, participation and a creative approach, WODCON XXIII will provide the latest knowledge in the field of the dredging sector in the broadest sense. WODCON XXIII will as well focus on new technologies and concepts. Also at that time the prestigious Fehmarn Belt Tunnel Link and such landmark projects as Lynetteholm, the completely new district in the middle of the Port of Copenhagen, as well as the new Storstrøm Bridge will be well under construction.

With a selection of speakers from around the world, cutting-edge studies, research, experiences and procedures will be presented, alongside exciting innovative sessions and simulation-based workshops. In summary, the main objective of WODCON XXIII is to ensure international excellence in dredging.

The World Organization of Dredging Associations recognises and strongly values a constructive partnership between all stakeholders within the sector. As a result the exhibition will be a focal point of the congress. The program is structured to optimise the opportunity for participants to visit the exhibition and interact with the exhibitors and sponsors. The excellent location of the congress offers exhibition stands conveniently located close to the session rooms. The exhibition area offers enjoyable breaks between sessions.

We hope you will take part in THE WODCON XXIII.

We have done everything possible to make your participation in WODCON XXIII unforgettable.



On behalf of the World Organization of Dredging Associations, Sincerely yours,

Johan G.S. Pennekamp M.Sc. B.Sc. Chairman of the organizing committee WODCON XXIII

INTRODUCTION TO THE **CONGRESS THEME**

"Dredging is Changing" and this change is evident everywhere.

Dredging is an essential tool. The use of dredging expertise is expanding beyond the traditional areas of port development, river deepening and land reclamation. Dredging is now also integral to offshore energy, nature restoration and deep-sea mining expansion opportunities. The need for more cost-efficient and environmentally friendly construction practices has been a driver for innovation in dredging equipment and engineered solutions.

Today, all industries are challenged with meeting the sustainability objectives detailed in the UN's 2015 Sustainable Development Goals (SDGs). These challenges have continued to drive innovation in all dredging sectors, from project proponents such as government agencies and ports, to regulators, consultants and shipyards. WODA has been a leader in sustainability, and in 2013, at WODCON XX in Brussels, Belgium, WODA members signed the 'WODA Principles for Sustainable Dredging'. The fact that it still stands today, is a testament to WODA's progressive contributions to the science of dredging. WODA continues to be committed not only to meeting current sustainability objectives but also to meeting future needs.

The dredging sector's contribution to the UN SDGs is illustrated through the following activities:

- Using innovative equipment, technologies, processes and approaches, to minimise the negative impacts on the natural environment and society.
- Developing innovative solutions where we can create added value when undertaking projects that are essential for the socio-economic welfare.
- Dredging as a required sustainable tool to construct navigation infrastructure that supports humanity through access to food and supplies, promotes ethical work environments, and promotes economic growth and trade, industry innovation and infrastructure, and sustainable cities and economies.
- Dredging as a tool to provide coastal protection and infrastructure which supports flood risk management, clean water and sanitation, and, through these efforts, climate action.

Sustainability is manifested in the way we plan, design and implement projects, and in the technology and processes we use. This is a constantly and rapidly changing field and, at WODCON XXIII, we have an opportunity to learn from each other and collaboratively design new tools for the future.

In addition to the scientific and technical sessions, there will be many opportunities for companies and organisations to showcase their innovative products and services, and to develop business connections, in the exhibition and during dedicated pitch talk sessions.

CALL FOR ABSTRACTS

The WODA Technical Papers and Programme Committee (WTPPC) invites abstracts for contributions from all members of the community, scientists and practitioners representing: project promoters, academia, research and knowledge institutes, engineering firms, regulators, equipment designers and manufacturers, suppliers of ancillary equipment, and legal firms and financiers in traditional, as well as in emerging areas of dredging.

LANGUAGE

The official language of WODCON XXIII is English: all abstracts and papers as well as the presentations must be in English. The organisers will not be able to accept contributions in any other languages.

TOPICS FOR ABSTRACTS

We are interested in receiving abstracts on topics which include, but are not limited to, the following:

- Advances in dredging equipment and technology
- · Mitigating and adapting to climate change
- Energy efficiency of projects and equipment including alternative fuels, emission reduction
- Management of dredged sediment (beneficial use, treatment, disposal)
- · Habitat improvement and restoration, countering loss of biodiversity
- Nature-based solutions
- Ecosystem services
- Environmental control of projects
 - turbidity
 - underwater sound
 - surveying
 - monitoring (including modelling)
- Financing sustainable marine and freshwater infrastructure projects
- · Regulations, international policy and its consequences for dredging
- Contracting, including early contractor involvement
- Trends on integrated product and project development
- · Social impact assessments and stakeholder involvement

The above listed topics can be discussed on their own, or as part of project examples. Some examples are listed below:

- Traditional areas such as:
 - Port construction and maintenance
 - Navigation channel development and maintenance
 - River deepening
 - Coastal and inland flood protection
 - Beach nourishment
 - Remediation dredging
 - Reservoir dredging
 - Immersed tunnels
 - Land reclamation
 - Aggregate dredging
 - Offshore oil and gas
- Emerging areas, such as:
 - Offshore renewable energy
 - Offshore pipeline and cable burial and protection
 - Deep-sea mining
 - Energy islands

ABSTRACT GUIDELINES

The WTPPC invites abstracts in English language in three categories, each with its own specifications and requirements, as outlined below.

GENERAL REQUIREMENTS

Each abstract submission, paper and presentation application will be reviewed by the WTPPC, and will be approved before publication in the congress proceedings, or presentation at WODCON XXIII. All contributions must be free of direct commercialism. (There will be opportunities for commercial exposure, for companies and organisations, during dedicated programme elements of WODCON XXIII.)

SUBMISSION DETAILS

The deadline for abstract submission in each category is 17 September 2021

Authors in the **CEDA** and **WEDA** regions must submit abstracts online. To submit your abstract, please go to https://wodcon2022.org/abstract-submission/ and click on the link for your region.

Authors in the **EADA** region must submit abstracts by e-mail to: eada@pka.gov.my

ABSTRACT DETAILS

Category 1: Abstracts for published papers and oral presentations at the congress

- Abstracts should be 300 words maximum. Please also provide 5 keywords.
- The TPCC of each region will assess the abstracts and invite successful authors to write full papers. All draft manuscripts will undergo a peer-review for quality, correctness, originality and relevance. All accepted papers will be included in the congress proceedings.
- Final papers should be 4000-6000 words in length. They must be original and should not have been published, or offered for publication, elsewhere.
- Presentations will be 20 minutes long, including 2 minutes for a brief discussion.
- The best congress paper, by an author under 35 years of age, will win the International Association of Dredging Companies' Young Authors Award. The winner will receive this award during the event. For details, please visit the congress website.

Category 2: Extended abstracts for oral presentations at the congress

- The extended abstracts should be approximately 750 words. Please also provide 5 keywords.
- The TPCC of each region will assess the extended abstracts and invite successful authors to submit their final abstracts and presentation materials. All materials will undergo a peer-review for quality, correctness, originality and relevance.
- The extended abstracts will be published in the congress proceedings.
- Contributions in this category will be presented in different formats. For this purpose, presenters will undertake to work with WODA's TPPC. Together, they will develop an appropriately mutual presentation format.

Category 3: Extended abstracts for hosting panel discussions at the congress

- Discussions which relate to applied research or projects, are strongly encouraged, where dredging contributes to the achievements of one or more of the 17 SDGs. The panel should have a broad composition and, in the case of projects, it should always have one panellist who represents the project proponent(s).
- Prospective panel session organisers should submit extended abstracts of approximately 750 words. These should describe the overall topics and important discussion points and provide 5 keywords. Abstracts should also include the names and affiliations of the panellists (at least 4 people including the moderator) and the discussion point to be covered by each.
- The TPPC of each region will assess the submissions and invite successful teams to contribute to the congress programme.
- The extended abstracts will be published in the congress proceedings.

Important deadlines for the authors (in all 3 categories):

Submission of abstracts:	17 September 2021
Notification of acceptance:	25 October 2021
Submission of draft manuscripts:	10 January 2022
Reviewer comments to authors:	9 February 2022
Submission of final papers:	9 March 2022





WHERE WODCON XXIII SUPPORTS BUSINESS

WODCON XXIII offers great opportunities to cut through the noise and raise your company profile with the people that matter. Position your organisation as a thought leader and solution provider in the worldwide dredging community.

CEDA recognises and values constructive partnerships between the various stakeholders in the industry infrastructure and society. With its diverse attendee profile, WODCON provides the perfect international platform for exchanging knowledge and forming business connections. There will be many and varied opportunities woven into the congress programme to meet the needs of growing businesses. Industry players will be able to enhance brand visibility, showcase excellence and innovation, demonstrate thought leadership, build valuable new connections and nurture existing ones.

DREDGING EXHIBITION

The exhibition floor will be central to the congress and it will serve as the main lounge for attendees. It will double as the space for the Ice Breaker, plus all lunch and refreshment breaks, so this will be a busy area for networking and doing business, as well as catching up with old friends.

THE DREDGING FORUM: LATEST INDUSTRY NEWS LIVE

This will be a place where companies and organisations can give short (5-10 min) pitches about their new product, method, or project, in dedicated, announced timeslots. The audience will be able to ask questions.

SPONSORSHIP

The WODCON XXIII sponsorship packages offer multiple levels and types of exposure, to suit your organisation's corporate strategy and budget.

ENOUIRIES

For more information, download the WODCON XXIII Sponsorship and Exhibition brochure, visit the congress website, www.wodcon2022.org or contact wodcon2022-exhibition@croneandco.com



GENERAL INFORMATION

DESTINATION AND VENUE

The Danish rank among the world's happiest people. In Copenhagen, and the beautiful surrounding region, you'll learn why. The buzzing capital mixes royal history, modern architecture and loads of culture with sustainable living and a mouth-watering restaurant scene.... and it's the home of the 'Little Mermaid'.

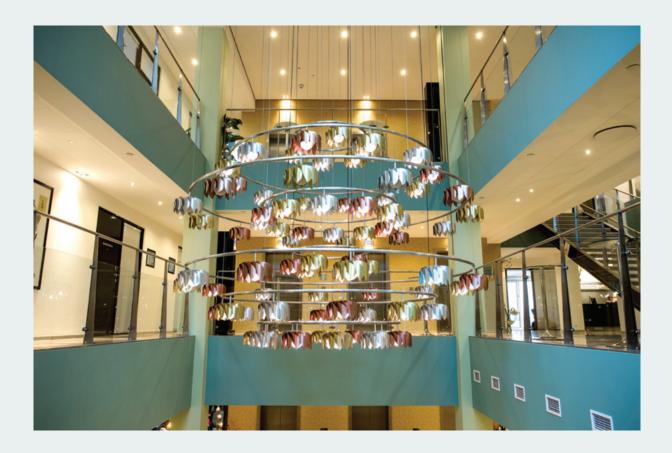
Our venue, the Tivoli Hotel and Congress Center (TCC), is right in the heart of Copenhagen. It offers direct access to shopping, amusements, museums, world-famous architecture and nature, all within easy reach.



Designed by Kim Utzon Architects, TCC is inspired by the magical universe of Tivoli Garden, the third-oldest operating amusement park and pleasure garden in the world. You'll find many clever references and details integrated into the decor of both the congress centre and the hotel. Expect to be met with sights including kaleidoscopic art, a majestic statue of Hans Christian Andersen and his popular fairy tales, black and white silhouettes of the clown figure Pierrot, and silver shining Columbine ballet dancers. The hotel also features colour-changing fireworks and mechanic flowers that furl and unfurl their petals... There are many associations with the Tivoli Garden and playful clues are hidden in the hotel.

If the wonderful city and the fascinating congress venue are not enough, dredging enthusiasts will no doubt be thrilled by the fact that Copenhagen, and its surroundings, is the home of many prestigious projects such as the already operational Oresund Link. As an added bonus, during WODCON XXIII there will be more projects under construction including the Fehmarn Belt Tunnel Link, Lynetteholm, the new district in the middle of the Port of Copenhagen, the new Storstrøm Bridge and the new energy island.

There's a lot to see and do.





REGISTRATION AND HOTEL ACCOMMODATION

Registration will be available from October 2021. Registration fees and additional information will be on the website, www.wodcon2022.org. Delegates must make their own hotel reservations. Visit the website for details of hotel accommodation and rates.

TECHNICAL VISITS AND SOCIAL EVENTS

Technical tours of dredging activities in the Copenhagen area, social events, and a spouses' programme, will be organised. Further information will be available on the website as these activities are confirmed.



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ORGANISING BODIES

WORLD ORGANIZATION OF DREDGING ASSOCIATIONS – WODA



WODCONs are organised by WODA, the World Organization of Dredging Associations, which is composed of three sister, professional not-for-profit associations: the Western Dredging Association (WEDA) serving North, Central and South America; the Central Dredging Association (CEDA) serving Europe, Africa, and the Middle East; and the Eastern Dredging Association (EADA) serving the Asian, Australasian and Pacific regions. The three member associations take it in turns to organise each WODCON in their region.

CENTRAL DREDGING ASSOCIATION - CEDA



The Central Dredging Association (CEDA) is an internationally recognised independent professional association. It is an easy-to-access leading platform for the exchange of knowledge and an authoritative reference point for impartial technical information. CEDA actively strives to contribute towards sustainable development by strongly recommending working with nature. CEDA members are corporations, professionals and stakeholders, involved in a diversity of activities related to dredging, marine construction and dredged sediment management. CEDA represents the common interest of all fields related to dredging and does not promote the interest of any particular industry sector or organisation. www.dredging.org.

CONGRESS COMMITTEE

Alan Alcorn, WEDA President and Chair, Moffatt and Nichol Engineers, USA Polite Laboyrie, CEDA President, Witteveen + Bos, the Netherlands David Padman, EADA Chair, Malaysia

EXECUTIVE COMMITTEE

CHAIR

Johan Pennekamp, Deltares, the Netherlands

MEMBERS

Thomas Cappellino, WEDA Executive Offices, USA
Anna Csiti, CEDA Secretariat, the Netherlands
Nicholas Grunnet, DHI, Denmark
Claus Iversen, Femern A/S, Denmark
Subramaniam Karuppiah, EADA Secretariat, Port Klang Authority, Malaysia
Daan Rijks, Royal Boskalis Westminster, the Netherlands

TECHNICAL PAPERS COMMITTEE

CHAIR

Cees van Rhee, Delft University of Technology, the Netherlands

MFMBFRS

CEDA

Cees van Rhee, Delft University of Technology, the Netherlands (Chair) Bernardete Castro, Royal IHC, the Netherlands Anna Csiti, CEDA Secretariat, the Netherlands Arjan de Heer, Witteveen + Bos, the Netherlands Marc Kindermann, Hamburg Port Authority, Germany Tobias Leysen, Rohde Nielsen, Denmark Dick R. Mastbergen, Deltares, the Netherlands Ebi Meshkati, Deltares, the Netherlands Jacco Osnabrugge, Royal IHC, the Netherlands Dirk Roukema, Blue Pelikans, the Netherlands Marc Sas, IMDC, Belgium Suman Sapkota, Damen Dredging, the Netherlands Marc Van Den Broeck, DEME, Belgium Luk Verstraelen, DEME, Belgium Thomas Vijverberg, Royal Boskalis Westminster, the Netherlands Jort van Wijk, IHC IQIP, the Netherlands

EADA

Subramaniam Karuppiah, Port Klang Authority, Malaysia (Chair) George Yesu Vedha, AMAREENA Group, India

WEDA

Shelly Anghera, Moffatt & Nichol, USA (Chair)
Robert Ramsdell, Great Lakes Dredge & Dock Co., USA
Donald Hayes, USACE, ERDC, USA
Paul Fuglevand, Dalton Olmsted & Fuglevand, USA
Walter Dinicola, Anchor QEA, LLC, USA
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