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in Central Dredging Association

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CEDA ANNUAL REPORT 20/21



WELCOME TO OUR DIGITAL ANNUAL REPORT FOR 2020 - 2021

In response to our members' preferences, and in an effort to be more environmentally friendly and cost-efficient, we have chosen to produce our annual report in digital formats.

We think that the landscape layout offers a more user-friendly option and we hope you agree. We've also taken advantage of the interactive possibilities offered by this format to provide more information on particular topics to interested readers.

Where you see these icons, you can click on them for more information, or download a document, as indicated.

Navigational buttons at the bottom right of each page will take you back or forward. You can click on the bars in the centre to go straight back to the contents page, where the entries as well as the page numbers are links to the destination pages.

We hope you like the new format and we would love to hear your feedback on how we can improve it for you.



MESSAGE FROM THE PRESIDENT AND THE GENERAL MANAGER

Years 2020 and 2021 with COVID-19's strong mark, presented unknown challenges to our members, the world and to CEDA as a membership association. As you will see from this report, we can proudly say, that together with our members, we prevailed.



Polite Laboyrie President

We all know the challenges COVID-19 presented to us, so we do not want to elaborate on that more than necessary. We only want to make two points: Pivoting to online with all our activities, has not been a small thing for a membership associations, where in-person contacts are one the prime values. The fact that, in spite of all the challenges in the private and work life, our members continued to be engaged with us, is not a small thing either and demonstrates what CEDA means to them.

With some exception in the early months of 2020 and end of 2021, we have done everything online.

This report outlines some of the activities that we have been involved in, throughout 2020 and 2021, including:

- We have totally revamped our flagship event, the CEDA Dredging Days[®]. Originally planned as an in-person event at a new venue, we organized CEDA Dredging Days 2021 as a fully digital event, with great success.
- At the time of writing this message, we are fully geared towards an in-person WODCON XXIII in Copenhagen. Needless to say, that due to COVID-19, we had to face numerous difficult decision points, but the WODCON XXIII Organising Committee, and our authors, exhibitors and sponsors have been resolute: It will be an in-person event.
- In November 2021, during Europort, we added a new event to our event palette: the CEDA Innovation Pitch Talks. In two afternoons 24 CEDA corporate members gave short, 15-minute presentations on a great variety of topics including groundbreaking challenging project and innovative products. Different from other CEDA conference presentations, by design, these innovation pitch talks may promote the company itself and/or products and/or services delivered.



Mieke van Loenen General Manager from 2022



Anna Csiti General Manager 1996 -2021



- Over the course of these two years the CEDA National Sections continued connecting their members in the virtual space. While everyone missed the personal contacts, we all recognise the silver line: the disappearance of geographical limits!
- Early in 2020, together with IADC, we organised a round-table discussion with representatives of the finance world.
 This was an essential first step towards getting to know each other, including each others languages and perspectives, a basic precondition towards working together for a common objective: contribution of private funds to financing sustainable marine and freshwater infrastructure. Moving to the financing aspects after the publication of the CEDA-IADC book "Dredging for Sustainable infrastructure" was a natural next move. As a result of that first round-table, together with our finance partners,
 - in the fall of 2021, we published a joint study
 "Financing Sustainable Marine and Freshwater Infrastructure";
 - we presented a well-attended panel discussion at CEDA Dredging Days 2021©;
 - we set up a CEDA Working Group on Certification of Sustainable Marine and Fresh Water Infrastructure Projects, and
 - we will present a session on the subject at WODCON XXIII.
- Our continued co-operation with IADC also included the developments of the CEDA-IADC course "Dredging for Sustainable Infrastructure" based on our joint book with the same title. Over the last two years, we presented four courses, each online, broken down into four half-day sessions each. Here again, we could clearly notice the silver line: the disappearance of geographical limits!

- In 2021 we extended our service to members by acquiring "Dredgepoint", the huge online database of dredging equipment, their owners and producers. Dregepoint is now part of the CEDA website, www.dredging.org.
- In 2021 We have started the search for new staff as both the general manager and the secretary were approaching retirement. We are delighted to say that in Mieke van Loenen, who started as assistant GM in October 2021, we have found the perfect successor of Anna. Mieke became CEDA's General Manager on 1st of January 2022. Anna continues to work with CEDA, in a part-time management advisory capacity, until June 2022. Already with Mieke's involvement we concluded the search for Yvonne's successor in January 2022. Linda Adams started to work at the CEDA Secretariat in March 2022.

You can read more about these and our other activities, and the commissions, working groups and national sections who have made them happen, in the following pages.

On behalf of the CEDA Board, we want to express our thanks to all our members and their companies for their continuing support, which was even more important to us during the last two years with the challenges we all faced, than in "normal" times. It clearly shows the value and importance of CEDA, as a fully independent, professional association for the dredging and associated communities. It also underlies the importance of our efforts to improve our services to members, so that they can rely on a 21st century-proof association as a source of objective dredging knowledge, high quality networking and representation of the dredging field in relevant international platforms. The strategy workshops we conducted and the pointed questionnaire we ran in 2021 are important steps to achieve that.





WHAT IS CEDA?

CEDA exists to champion the professional success of individuals and organisations in the dredging and associated fields.

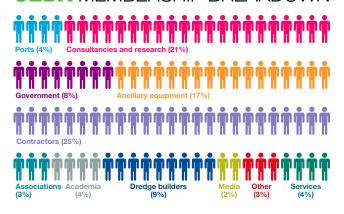
Leading Independent Forum

CEDA is an established authority and the leading independent forum for the professional dredging community, and associated industries, in Europe, Africa and the Middle East. We represent dredging professionals and organisations, from government, academia and business, in the region. We foster and promote the understanding and advancement of dredging to the wider community.

Source of Specialist Knowledge

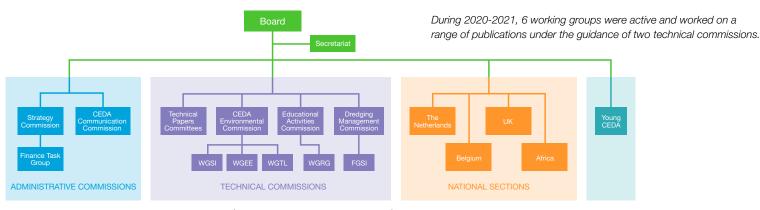
We are a recognised reference point for high-quality specialist knowledge on all aspects of dredging and provide a multidisciplinary network for professional contacts. Drawing on the collective knowledge of our members, and as an impartial organisation, CEDA regularly gives expert advice to government and international regulatory bodies.

CEDA MEMBERSHIP BREAKDOWN



Composition of CEDA's membership by main area of activity.

CEDA ORGANOGRAM



WGSI: Working Group Seafloor Integrity | WGEE: Working Group Energy Efficiency | WGTL: Working Group Turbidity Limits WGRG: Working Group Research Group | FGSI: Focus Group Soil Investigations



Diverse Membership

CEDA members are representative of consultancies, research and educational institutions, port authorities, government agencies, dredging contractors, designers and builders of dredging vessels, suppliers of ancillary equipment and organisations providing a whole range of related services.

Here are just some of the countries represented by our members:

Angola Italy
Argentina Latvia
Australia Morocco
Bahrain Mozambique
Belgium Netherlands

Canada Nigeria
Cyprus Norway
Denmark Portugal
Finland PR China

France Republic of Ireland

Germany Singapore
Ghana Spain
Greece Turkey

India United Arab Emirates

Indonesia United Kingdom

Ireland United States of America

At the end of 2021, CEDA had 271 individual members, 78 members less than two years before, when the previous report was published. At the end of 2021 we had 110 corporate members of which 5 have been administered by the African Section, 5 corporate members more, than two years before.

Connecting Professionals Globally

As part of the World Organisation of Dredging Associations (WODA), CEDA is in the best position to represent the professional values of our members around the world. CEDA's two sister associations, WEDA (Western Dredging Association) and EADA (Eastern Dredging Association), serve the Americas, and Asia, Australia and the Pacific regions respectively.



The WODA structure.

Since WODCON XXII in Shanghai, the chairmanship of WODA resided with CEDA's President, Polite Laboyrie. In this period, as agreed in Shanghai, three WODA Working Groups have been initiated on the following topics (see also on pages 30 - 31 in this report):

- Reservoir Dredging;
- Safety in Dredging;
- Environmental Effects in Deep Sea Mining.



Polite Laboyrie (left) is the Chairman of WODA until May 2022, when he will pass on the baton to the President of WEDA for the coming three years.



OUR VOLUNTEERS

CEDA is driven by its
members, many of
whom voluntarily provide
their time and expertise.
The growth of the
association is based on
their enthusiastic and
dedicated work. They are
the true pillars of CEDA.

In 2020 and 2021, over 165 members from 72 companies have been active in CEDA in various commissions and working groups.



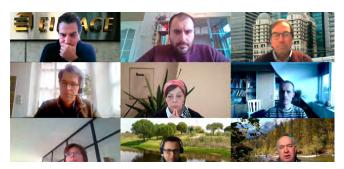


CEDA IS DRIVEN
BY ITS VOLUNTEERS











NATIONAL SECTIONS

Providing great opportunities to exchange knowledge, and network with peers, in your own language.

Our national sections, in regions with a cluster of CEDA members, encourage local networking with regional and national events. They organise their own technical programmes and site visits to the same high standards as any other CEDA event. The sections provide members with the perfect opportunity to meet peers, exchange knowledge and discuss local dredging topics, in their own language, in an informal, friendly and professional atmosphere.

There are currently four national sections. An elected committee leads the executive direction for each section.

- African Section
- Belgian Section
- **Dutch Section**
- **UK Section**

In both 2020 and 2021, our national sections ran a series of successful meetings, and site visits, on topical subjects. Altogether, they held 13 well-attended events during each year. Members can see many of the presentations on the appropriate national section pages of the CEDA website, www.dredging.org.

Here are highlights from the sections.





Belgian Section







Lydia De Cauwer Secretary

2020 and 2021 were different years in which we learned that webinars can be a very interesting way for our members to communicate, but also that webinars will always lack the power of physical contact with our members, colleagues and friends.

New Year's Receptions 2020

On January 28th, the Belgian Section was invited to organise its New Year's Reception on board the "Blauwe Reiger". Keynote speaker was Chris Danckaerts, CEO of the "Vlaamse Waterweg", who informed us about the developments of inland water transport in Belgium, with emphasis on the new



The New Year wishes for 2021 were exchanged on board of the "Blauwe Reiger".

link between the Scheldt and the Seine estuary.

During the General Meeting the Belgian Executive Committee

was renewed. We thank Bandi I 'Heureux for the many years.

was renewed. We thank Randi L'Heureux for the many years of active membership and welcomed Stefan Bruggeman and Tobias Levsen as new members of the Committee.

After the keynote speech, we held the reception, where we had the opportunity to meet old friends in an informal way and express our New Year wishes (without knowing it, this was almost the last occasion for a physical meeting for the coming years).

Corona limitations

In March 2020 Corona entered our country and activities were put on hold until the summer as we hoped to be back to normal in a few months.

However, at the end of September, we also had to cancel the autumn site visit to the construction site of the new lock in Terneuzen. At this point, we decided to cancel all physical meetings and start with the organisation of webinars to bring people together and to create opportunities to inform each other about recent evolutions in the sector.

Club Webinar 1: Worldwide Dredging Projects

As it was not allowed, nor acceptable, to organise a physical New Year's Reception, the Belgian Section arranged their first webinar on January 19th 2021, where speakers of the Belgian dredging contractors were invited to present one of their challenging projects to the auditorium.

 Thomas Durt (DEME) informed us about one of their largest port development projects: Tuas Terminal Phase 1 -Greenfield Port Construction with Sediments as Sustainable Building Blocks Denis Veeckman (Jan De Nul) spoke about a further development of the Port of Hamburg where they were responsible for the widening and deepening of the access channel where, of course, ecological constraints during dredging and placing the dredged material was a key issue.

Club Webinar 2: Autonomous Navigation in the Dredging Sector

It is well known that autonomous navigation is a key issue in Belgium with quite some innovation efforts. The dredging sector is certainly one of the driving forces for these recent developments.

On May 4th 2021 a second webinar was organised to show the recent developments with emphasis on full size implementations by our members:

- Patrick Degryse and Igor Pashkin (DCI Group Decloedt) informed us about the development of the "Watertruck" a full-scale prototype for inland water transport.
- Koen Geirnaert (DotOcean) explained the development and implementation of the site automation system of the "Marine Litter Hunter", a test installation in the Scheldt estuary to detect and remove floating litter from the river.



Restart Barbeque

During the summer of 2021, corona was slowing down and the Belgian Section took the initiative to organise a physical meeting on September 14th. To limit corona risks, an outdoor site visit was organised of the large-scale hydraulic test site in the Hedwige Polder, where we saw a number of full-scale erosion tests on the dykes that will be demolished in the coming year. Different bank protection techniques were tested as well. The test program will last for over a year.

Mr Hans Quaeyhaegens (Vlaamse Waterweg) explained to us in detail about the different running tests, as well as about the future tests that will be executed.

This physical meeting was an excellent opportunity to meet and have a drink with our colleagues in the dredging sector. Therefore, an (outdoor) barbeque was also organised, with a welcome word from our chairman.

Club Webinar 3: Sustainable Energy Transition – A Challenge

Unfortunately, corona returned, forcing us to fall back on a webinar for the next meeting on October 26th. Again, we focussed on an innovative trend in our industry: the sustainable energy transition with two different focusses:

- Piet Opstaele (Port of Antwerp) explained the crucial role of our ports in the process towards a more sustainable energy transition.
- The second speaker, Paul Vercruijsse (DEME) explained about the efforts of the dredging industry to improve the energy efficiency of the dredging activities.

Again, this was a very interesting webinar with a significant number of participants.



Jos Smits Chair, CEDA-BE



Hans Quaeyhaegens, Vlaamse Waterweg, had an attentive audience on the Hedwige Polder.



Dutch Section







Linda Adams
Secretary

The focus of the Dutch Section (CEDA-NL) is on knowledge sharing and networking. Our member meetings are organised to make this happen in an inspiring and combined manner: sharing knowledge and enhancing personal contact between professionals and stakeholders in the dredging industry. Many members of CEDA-NL are also active in various CEDA Working Groups and Commissions, which further expresses our role at the heart of the CEDA network.

We actively co-operate with complementary branch organisations like the Royal Dutch Branch Association of Shipbuilders (KNVTS), the Hydrographic Society Benelux (HSB) and Dutch Branch of the Association for Offshore Energy (IRO). Also, we liaise actively with Young CEDA to support the young professionals in the industry.

In the years 2020 and 2021 obviously the COVID-19 pandemic made organising live gatherings difficult. Partly, CEDA NL turned to online-events to keep serving our members.

Highlights from the period include:

- January 2020, the theme was 'Inland Dredging'. Being hosted by Rijkswaterstaat in Utrecht, the specific challenges and remarkable achievements on four inland dredging projects were introduced and lively debated.
- In an on-line event in June 2020 four speakers gave their respective views on what the consequences of the COVID-19 lockdown and travel restrictions meant for doing business. The central topic discussed was 'how to keep in touch with each other, and have understanding for basic human needs'. A heart-warming session in difficult times for everyone. Despite being a world-wide business involving large high-tech equipment, in the end it is the people that make it work.



 The AGM was combined with an on-line event introducing the CSD Spartacus (September 2020). The most-powerful CSD built by IHC for DEME was on the verge of being commissioned and handed over to its owner. Introductions were given from the perspective of the owner, the designer, and the builder. Sadly, the planned excursion to

- give our members the opportunity to take a view on board had to be cancelled due to COVID restrictions.
- In November 2020 the event 'Autonomous surveying' was held on-line. Various studies, experiments, pilots and experiences were presented to show what the future of surveying may bring.
- The topic of the January 2021 on-line event was 'Responsible shipbreaking'. Although the image of the shipbreaking industry is badly influenced by irresponsible practices still found in various developing countries, and ship-owners making use of those practices, various good and sustainable alternatives are available and indeed used by responsible fleet owners. The dismantling of the TSHD Rijndelta, after



- having served Van der Kamp dredging company for decades, was shown and explained in detail.
- In the April 2021 on-line event, the successful Boskalis project regarding the installation of a gas pipe in Denmarks' Lillebaelt (between Jutland and Funen) was presented.



 The 2021 AGM was combined with the on-line event on 'Deep Sea Mining'. Developments, studies and experiences of pilot projects were combined with reflections on the pros and cons of deep sea mining.

In November 2021 the Europort exhibition took place at the Ahoy complex in Rotterdam. CEDA-NL organised a new initiative called the CEDA pitch talks. The corporate members of CEDA were invited to give a 15 minute pitch talk regarding an innovation of their own choice. 24 corporate members used this opportunity to increase their visibility within the industry (and beyond), and to reach out to the community.



Our special thanks go to all our invited guest speakers who introduced the various topics with much enthusiasm and shared valuable information. Copies of the presentations are available in the member section of the CEDA website.

In November 2021, Johan Pennekamp retired from Deltares. He therefore also stepped down as chairman of CEDA-NL, a position he served for 20 years with much energy and lively presence. In December 2021, Yvonne Duivenman retired as

secretary from CEDA. Therefore, she also left a vacancy as secretary for CEDA-NL, a role she fulfilled the last 19 years with great precision and enthusiasm. Johan and Yvonne, on behalf of the CEDA-NL community, many thanks for your contribution during all these years.

Johan Pennekamp Chair, CEDA-NL

UK Section





Jamie Gardiner Chair

Shelagh Fleming
Secretary

The UK Section (CEDA-UK) is an associated society of the Institution of Civil Engineers (ICE) and plays an active role in the development of relevant UK legislation.

2020 and 2021 were rather different years for CEDA UK, given the COVID-19 pandemic; however, the committee continued to be proactive and continued to hold committee meetings and seminars, albeit virtually rather than in person. In December 2021, when some restrictions were lifted, the committee was able to hold its December meeting, event and drinks reception in person. The committee also awarded its first award for Outstanding Contribution to the UK Dredging Industry at this event, making it extra special.

Membership numbers dropped from 52 in 2019 to 39 in 2020 and 40 in 2021. The corporate numbers changed slightly from 9 in 2019 to 8 in both 2020 and 2021.

The CEDA UK Committee members continue to actively participate and we are looking forward to our 2022 programme.



Events and Activities

In 2020, due to the COVID-19 pandemic, it was not possible to hold any in-person events; however, we did hold two on-line technical webinars. These were very well attended.

Future considerations for the Ports and Dredging Industry



Ports are constantly expanding in order to be able to accept larger vessels and the ever-increasing growth of the global shipping market. As a respond to this, capital dredging campaigns are required to widen and deepen shipping channels, as well as to provide access to new berths and port infrastructure. There is also the increasing effort needed to maintain the navigational depths required to keep the shipping channels and berths open for use.

The dredging industry is facing numerous challenges to keep our ports open, whilst also minimising its impact on the environment. This seminar considered some of the issues the dredging industry faces, with a look to the future on how these are changing. This on-line event was attended by 158 people.

How the ports and dredging industry are changing, from the perspective of a Dredging Contractor and Harbour Authority



As an island nation, the UK relies heavily on its ports, which have always been fundamental to the economy; however, they face numerous challenges every day in order to be able to operate in the constantly changing regulatory and legislative environment, manage the ever increasing size and number of vessels and to provide the services they need to support them.

Likewise, the dredging industry is constantly having to adapt and look for more innovative and creative ways to meet the needs of its customers and other external influences. Building on our October seminar, this event considered the practical issues that port authorities and dredging contractors face and how they are adapting to overcome these. This on-line event was attended by 109 people.

In 2021, only the December event was held in person; however, we did hold a number of events on-line. These were also very well attended.

John Sargent Lecture: Building with Nature



The Building with Nature concept uses our understanding of the natural environment in the design of hydraulic engineering and marine infrastructure projects. This includes knowledge of natural forces and fluxes, such as wind, waves & currents, biodiversity patterns and geo-chemical processes. Additionally, Building with Nature considers human stakeholder collaboration as a vital part of the process.

In 2007, the EcoShape Foundation initiated the innovation programme 'Building with Nature', which brought together the Dutch government, private sector (engineering consultancies and contractors), universities, knowledge institutes and NGO's. Jointly, they have forwarded the concept by adopting a learning-by-doing approach and developing tangible projects.



The programme has brought forward several creative and effective maritime infrastructure solutions that boost nature, society and economy and which have been (and still are) tested in full scale pilot projects. All research findings (fundamental and applied) are made publicly available to facilitate the design and execution of full scale projects and strategic policy and decision-making.

This presentation discussed how developed knowledge and concepts are applied in several full-scale pilot and commercial projects that use Building with Nature as a leading principle, including the opportunities and barriers. The presentation also looked to potential future developments, including blue carbon capture and impacts of the changing climate.

Dredging contracting and dispute avoidance



Dredging is a unique niche industry within civil engineering and therefore has distinct associated issues. The design of the works, selection of the form and type of dredging contract and drafting of a dredging specification is crucial in ensuring that the project is completed as required by the employer but also to ensure that all parties are fully informed of the conditions under which the works are to be undertaken.

This webinar looks to examine forms and types of contracts commonly used in the dredging industry, the key items of disputes within the dredging industry and how they can be avoided or ultimately costed on a fair and accurate basis. 345 people attended the event, which is a CEDA UK record.

Marine aggregates in the UK



The UK has world class resources of marine aggregates and it has a mature and well regulated industry to manage their extraction. Forming a critical part of the supply chain for building materials in the UK, the industry typically extracts around 20 million tonnes per year. Marine sands and gravel meet around 25% of the demand for sand and gravel in England and Wales and are instrumental in supporting climate resilience through the replenishment of our beaches. This webinar examined recent developments in the management of marine aggregate extraction, in terms of the assessment of marine mineral resources, the relationship between dredging and our coastline, the way that the industry supports our understanding of marine heritage, and recent innovation in the design of new dredging vessels.



Dredging and the historic environment

With any construction or capital dredging project in the marine environment there is a risk of direct and indirect effects on known and undiscovered heritage assets. There is also the potential for impacts on the wider heritage resource such as palaeolandscapes or historic seascapes.

Development can therefore be subject to restrictions associated with the marine historic environment. Such restrictions can often be complex and difficult to navigate. Negotiating and progressing effective and proportionate mitigation strategies requires an in-depth understanding of marine heritage, relevant legislative, planning and licensing considerations and the potential impacts such activities can have on heritage assets.

This seminar provided an up-to-date review of current approaches to assessment, consenting and working with the relevant regulators, examining the way that practicality and feasibility of mitigation strategies is key to the success of the project. Followed by the most current thinking on approaches to palaeolandscapes and concluded with arguably one of



the best examples in recent times of a large complex capital dredging project and how marine archaeology mitigation was successfully achieved.

CEDA UK Outstanding Contribution Award



2021 saw CEDA UK present its first ever Outstanding Contribution award, which recognises individuals who have made an outstanding contribution to the UK dredging industry, e.g. by years of service, promotion of the industry or contribution towards inspiring, informing or founding best practice and innovation in the industry.

The 2021 Outstanding Contribution Award was presented to Farrell McCullough. Farrell started working in the dredging industry around 1965, where he was first employed by "London Dredging" on the bucket dredger "Stewart Clan". Whilst working for "London Dredging", which was eventually absorbed within the Boskalis group, Farrell worked mainly on the Thames and in Harwich, but also spent time in Nigeria. Around 1975, Farrell joined "Nash Dredging", this

later becoming part of what is now the Van Oord group. Subsequent to this move, the final one in his career, the majority of Farrell's time was spent managing Van Oord's operations on the Thames and Medway, in particular the coordination of water injection dredging activities. Having worked within the UK dredging industry for over 55 years, Farrell is a most worthy recipient of CEDA UK's first outstanding contribution award.

CEDA UK input to legislation

In 2020 CEDA UK took an active interest in the development of national and European legislation that could affect the dredging industry. The focus of the UK continued to be on what Brexit may bring and how that could affect maritime industries. There still remains considerable uncertainty and CEDA UK will maintain a watching brief as we move through 2021.

In the UK, CEDA attended the UK Water Framework Directive/Marine Strategy Framework Directive Navigation Sector Group which provided a forum for the navigation industry and government to liaise over the progress with these pieces of legislation.

Committee members have continued to play an active role in wider CEDA activities; Will Shields and Michael Costaras represented the Committee on the CEDA Main Board.

Future Events

In 2022 the Committee is planning several interesting site visits depending on project progress. Details will be provided when the visits are confirmed.

The title of the 2022 John Sargent Lecture will be on The UK's Net Zero Journey - A Marine Perspective. Our technical seminars in 2022 will be held in May, October and December.

Liaison with kindred organisations

In 2020 and 2021 the Committee continued to liaise with kindred organisations including PIANC, the Federation of Dredging Contractors (now 'dormant'), AINA and of course, the CEDA Main Board. We were represented on the ICE Maritime Panel by Paul Hesk. We will continue to work with the ICE as part of its knowledge sharing programme. CEDA will continue with its official observer roles in the London and OSPAR Conventions.

Furthermore, members of the committee will continue to chair the Thames Estuary Partnership's Dredging Liaison Group, helping to share knowledge and best practice.

Personnel

In 2020, Keith Dee, Jayne Hornsby, Will Shields and Colm Sheehan were all re-elected during the AGM.

In 2021, Nick Smith and John Brien stepped down from the UK Committee. The UK Committee would like to take this opportunity to personally thank them for their significant contribution to CEDA UK and wish them all the best for the future.

The UK Committee were also pleased to welcome Alex Schofield, Peter Birch and Jackie Lavender to the Committee and in addition, were pleased to welcome Morwenna See as the new Young CEDA UK representative, taking over from Lizzie Chellew. The UK Committee would like to thank Lizzie for all her hard work for Young CEDA UK over the years.

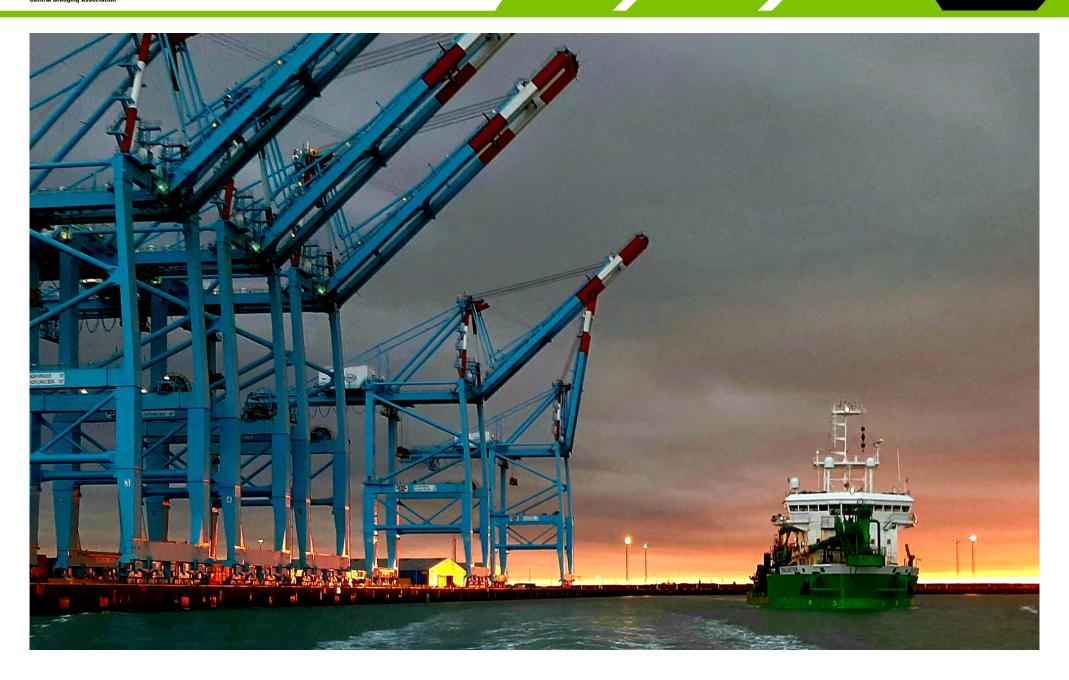


All members have made a strong Commitment to CEDA UK through attendance at meetings and leading technical seminars. I would like to thank the Committee members for their continued dedication to CEDA UK and enthusiasm for our activities. I look forward to, and appreciate, the continued input from all Committee members during 2022. I would also like to thank Shelagh Fleming and Shelly-Ann Russell for their support in 2020 and 2021 and look forward to working with them and their colleagues at the ICE in 2022.

Jamie Gardiner Chair, CEDA-UK









EVENTS

Providing the latest knowledge,
experience and great networking
opportunities, for the dredging industry.

CEDA Dredging Days 2021

Sustainable Dredging and Innovation. The science. The practice. The business. 28-29 September 2021. A virtual event.

Right after CEDA Dredging Days 2019, when the Board of CEDA decided to revamp our flagship event, it was clear that Dredging Days 2021 was going to be very different from the norm. We have listened carefully to feedback gathered from CEDA members and other stakeholders in the world of dredging. At the end of 2020 everything was geared towards an in-person conference and the re-invented CEDA Dredging Days 2021 was to be back with a vengeance in September 2021 at a new venue, but COVID-19 interfered. Early in 2021 we had to pivot to a fully virtual event.



This is how re-inventing the CEDA Dredging Days started. Our first brainstorming session, led by Mike Van der Vijver, in February 2020, still in-person.

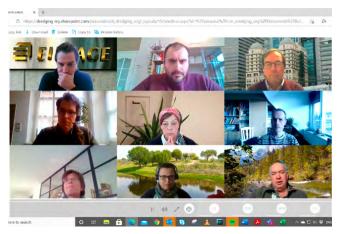


Difficult decision: Do we go for an in-person or a digital event?

During the afternoon there were visits to three projects/ activities which contribute to a sustainable environment. As part of the event, the conference networking area was organised by Navingo.

And what an event it was! The Organising, and Technical Papers and Programme Committees pulled out all the stops

to ensure that CEDA Dredging Days 2021 remained the best use of two days for dredging professionals in the region. We worked with virtual event veterans, Outsourced Events, to ensure the conference offered everything that participants would expect from the event.



The Technical Papers and Programme Committee at work.

Spread over two days, the technical sessions – a variety of paper presentations and panel discussions - covered new technologies and the way the industry does business, all viewed through the lens of sustainable best practice.

The conference opened with two exciting keynotes by Bob de Wit, Professor of Strategic Leadership at Nyenrode Business University, on "The impact of the digital revolution on the dredging industry" and Cees van Rhee, Professor of Dredging Engineering at Delft University of Technology on "Current and future market drivers for the dredging industry". The keynotes were followed by a conversation with



Professor de Wit and Professor van Rhee during which they shared their insights about how the world, and the dredging industry, will look in the future. Jort van Wijk of IHC IQIP did an excellent job as moderator.

In the technical sessions that followed - a variety of paper presentations and panel discussions - covered new technologies and the way the industry does business, all viewed through the lens of sustainable best practice such as:

- Developments in modelling and measuring hydraulic transport;
- Innovations in dredging equipment and technology;
- Fine sediment dynamics;
- Building bridges between dredging and finance for sustainable projects;
- Beneficial Sediment Use overcoming costs, legislation and technical challenges towards; sustainable development;
- Assessing environmental turbidity limits;
- Energy transition in the dredging industry providing insights from national strategies and international reduction targets, and offering potential technical solutions. See also the Section "Publications" / "Works in Progress" on page 26 in this report. Read a member's reflections about this session:

In a special Young CEDA session, CEOs answered to the industry's young professionals. See page 38 in this report for more.

To round up the conference, in the closing session, Professors Bob de Wit and Cees van Rhee, once again with Jort van Wijk as moderator, summed up the key topics from the conference and shared their thoughts on the vital part that dredging has to play in the digital revolution.

Access the papers and presentations:

(available free of charge to CEDA members)









We are grateful to our supporters.



CEDA Dredging Days 2021 Moments in Pictures



The Opening Keynote Session.



During one of the paper sessions.



Young CEDA Flash Talks.



Young CEDA ask a CEO.



Who will win the IADC Young Author Award?



IHC's Lunch and Learn session about the necessity of digitising in the maritime industry.



CEDA Innovation Pitch Talks @ Europort

3-4 November 2021. Ahoy, Rotterdam, the Netherlands.

This was a brand new initiative, driven by the aim to improve our services to our corporate members. With great enthusiasm and dedication, the CEDA-NL Executive Committee organised two afternoon sessions during the Europort 2021 Maritime Trade Show, where CEDA corporate members gave short, 15-minute presentations, on a great variety of topics including ground-breaking challenging projects, innovative products, corporate philosophies and novel approaches. Different from other CEDA conference presentations, by design, these innovation pitch talks may promote the company itself and/or products and/or services delivered.

In view of the very positive feedback, both by the presenters and the audience, we will certainly keep this new event on our event palette for the future. CEDA members can browse or download the presentations from the CEDA website.



Twenty-four CEDA member companies gave presentations at the CEDA Innovation Pitch Talks in November 2021.

WODCON XXIII: Dredging is Changing

16-20 May 2022. Tivoli Congress Center. Copenhagen, Denmark.

The next edition of the dredging world's most important event, the World Dredging Congress (WODCON) is "around the corner". Whilst the congress will take place in 2022, the lion's part of the work went into it's organisation during the years of 2020 and 2021.

Organised under the banner of the World Organization of Dredging Associations (WODA), WODCON is held once every three years. The three main member associations - CEDA, WEDA and EADA - take it in turns to host and organise the event. CEDA is honoured to be organising the next event and looks forward to welcoming all its members, supporters and industry friends, in the beautiful city of Copenhagen, Denmark, in May 2022.



The WODCON Technical Papers and Programme Committee has designed an outstanding, engaging programme. See on page 46 who the members are.

WODCON XXIII promises to be an unforgettable mix of networking, state-of-the-art knowledge sharing, technical sessions and visits, all set against the beautiful and peaceful backdrop of Copenhagen, Denmark.

Spread over three days, in 26 technical sessions, with varied, dynamic, and engaging formats, our expert speakers from all over the world will address the most current and relevant topics, such as the energy efficiency and decarbonization, renewables infrastructure, including energy islands, beneficial use of sediments, developments of ports and waterways, turbidity modelling and monitoring, marine construction, flood risk and costal protection, deep sea mining and many more. And of course, as we are in Copenhagen: A deep dive into various aspects of the landmark Fehmarnbelt Tunnel project.

Our high level keynote speakers are:

- Trine Bramsen, Danish Minister of Transport: "Dredging is Changing"
- Henrik Vincentsen, CEO Femern: "Other large-scale projects under development within our region to follow the Fehrmanbelt Tunnel Link"
- Kristoffer Bottzauw, Director General Danish Energy Agency: "Offshore wind next level: the Danish Energy Islands"
- Jakob Steffensen, Director, Innovation Lead, DFDS Seaways



We are also looking forward to the "Corporate Executives Sustainability Disruption Debate" with:

- Theo Baartmans, Royal Boskalis Westminster, The Netherlands
- Jan-Pieter Klaver, Royal IHC, The Netherlands
- Lars-Peter Søbye, COWI, Denmark
- Luc Vandenbulcke, DEME, Belgium
- Henrik Vincentsen, Femern, Denmark

We are also excited about the opportunity to view the Fehmarnbelt Tunnel works up-close-and-personal during our site visit on the last day of the congress.



The WODCON Organising Committee pulled all the strings and pushed all possible buttons to make the congress an unforgettable event. See on page 46 who the members are.

There will be many and varied opportunities woven into the congress programme to meet the needs of growing businesses. The dredging exhibition, the "Latest Industry News Live" sessions, with exhibitor and sponsor pitches, will give numerous opportunities for industry players to showcase excellence and innovation, to catch up with new developments and build valuable new connections and nurture existing ones.



Dredging for Sustainable Infrastructure Courses 4 occasions over 2020-2021. Online.

Over the spread of two years, together with IADC, we organised four online courses, each course comprising of four half-day sessions.

In the course, based on the CEDA-IADC guidebook Dredging for Sustainable Infrastructure published in 2018, participants learned how to achieve dredging projects that fulfil primary functional requirements while adding value to the natural and socio-economic systems by acquiring an understanding of these systems in the context of dredging, as well as stakeholder engagement, throughout a project's development.

Experienced lecturers describe the latest thinking and approaches, explain methodologies and techniques as well as demonstrate - through numerous practical examples - how to implement this information in practice by engaging workshops and case studies.

Mark Winkelman, R&D Manager at Damen Dredging Equipment, the Netherlands completed the first course and he gives a personal account of this experience, and what he took away from it, on his blog.



COURSE

DRFDGING FOR

SUSTAINABLE INFRASTRUCTURE



Engineering Department Van Oord

The team of lecturers.



Hydronamic Engineering Department, Boskalis



Engineering and the Environment, Excavatio and Dredging. Riikswaterstaat



Project coordinator Research and Monitoring Flemish Government



Sustainability Manage DEME Group



Senior Coastal Engineer



HR Wallingford



PUBLICATIONS

Researchers and practitioners worldwide rely on our publications as a valued source of dredging knowledge.

CEDA Working Group Papers

CEDA information, guidance and position papers are the direct result of the work produced by our working groups, which are set up to perform specific tasks. Their broadly diverse backgrounds and range of expertise, as well as CEDA's quality

control, ensure a comprehensive, high-quality and objective, treatment of each subject.

Our working groups bring together a wealth of up-to-date specialist knowledge and the experience of top international experts.

The groups have a definite lifetime and normally complete their work within a year.

Work Published

Open Loop Scrubbers

A CEDA Environment Commission Briefing Note. Published: May 2020. Exclusive to Members.

One of the topics discussed at the CEDA Environment Commission (CEC) meeting in April 2020 was the use of open-loop scrubbers and the implications for dredging and the disposal of treated wash water. The points discussed have been summarised in a briefing note which has been made available exclusively for CEDA members.

CEC will keep a watching brief on the topic and will decide, at a later date, if it should be discussed further by a dedicated working group and the publication of a CEDA information or position paper.

(CEDA Member login required.)

Guidelines Assessing and Evaluating Turbidity Limits

A CEDA Information Paper. Published: May 2020



Turbidity limits are encountered by the dredging industry all over the world and are optimised to protect the local environment. The Working Group on Guidelines for Assessing and Evaluating Environmental Turbidity Limits (WGETL)was set up by the CEDA Environmental Commission to draft the guidance paper for the industry.

The paper provides the crucial concepts for setting turbidity limits, with a balance between protecting the environment and

still allowing for dredging in a cost-effective way. It presents a step-wise methodology, ultimately leading to a set of limits, that together, protect the environment and allow for a given dredging operation to commence in an environmentally safe way.





The main points of the paper were presented in a webinar by two members of the working group: Alessandra Feola, Senior Researcher, ISPRA - Institution for Environmental Protection and Research, Italy and Klavs Bundgaard, Senior Project Manager, Niras, Denmark. The recording of the webinar is available for on-demand view free of charge.



The topic was also addressed at CEDA Dredging Days 2021. CEDA members can watch the session free of charge after login.



Soil Investigation

A CEDA Information Paper. Published April 2021.

Inappropriate or insufficient soil investigation is widely acknowledged as one of the most important factors leading to cost increases, time overruns and disputes between the owner and contractor, on dredging and maritime projects. In the case of major dredging or reclamation works, the soil investigation is often the most important study as it can significantly reduce, or limit, project risks and uncertainties.

The Dredging Management Commission's (DMC) soil investigation paper is not a 'How to' guide, as there is already plenty of good literature available on the subject. Instead - drawing on CEDA's rich member composition and range of expertise - this new paper focusses on the common issues and points of contention that often arise between the different contracting and investing parties on a project, and how the related disputes can be avoided as much as possible.



"... and we can save 700 lira by not taking soil tests."
(Courtesy of Engineering Testing Laboratory, Phoenix, Arizona)

The points made in the paper are illustrated, throughout the text, by real-life examples of good and bad practice. As an added bonus, there is an extended case study illustrating best practice on the Fehmarnbelt project, which incorporates a major submerged tunnel between Denmark and Germany. All examples of the issues surrounding soil investigation, and the lessons learned, have been kindly provided by CEDA members.

The paper is the 2nd plug-in for the CEDA Checklist for Successful Dredging Management (available from this page to CEDA members free of charge after login). (The 1st plug-in is the CEDA's Guidance Paper "Effective Contract-Type Selection in the Dredging Industry" published in 2019).

Members of the DMC Focus Group on Soil Investigation: Kathleen De Wit, IMDC, and Johny Van Acker, Dredging International, Belgium, gave a short presentation during one of the "Lunch and Learn" sessions of CEDA Dredging Days 2021. The presentations can be downloaded from the CEDA Website.





Works in Progress

Certification of Sustainable Marine and Freshwater Infrastructure Projects (WGC)

A feasibility study. Results expected middle of 2022.

Given the size and attractiveness of the sustainable marine and freshwater works segment, and the growing appetite for sustainable infrastructure projects, it is expected that, in due course, more avenues will open up to pursue sustainable marine and freshwater infrastructure projects and more private capital can be put to work.

To realise these projects, an important element is to develop a kind of certification to prove or certify that the project is sustainable. The partners of the financial sector suggested that perhaps CEDA could play a role in this. Certification is a way to prove, in an independent way, that a project is sustainable. The CEDA-IADC DfSI book could help to formulate objective criteria. CEDA is an independent organisation with experienced members from all parts of the public and private community. As CEDA, we are at the forefront of innovations and developments in the dredging industry and initiate analysis to several aspects of dredging. This makes CEDA well positioned to play a role in this.

To find out if and how CEDA could be involved in certification of sustainable marine and freshwater infrastructure projects the Strategy Commission of CEDA (CSC) set up a Working Group to do a feasibility study on this topic and to come up with suggestions.

The Working Group is looking into the following aspects:

- existing certification activities in other fields
- investigating the nature of the demand expressed by the finance sector
- how this certification could work
- business model for CEDA around this activity

At the time of writing this report, <u>WGC</u> is conducting interviews with members of the dredging field. They will report on their first findings at WODCON XXIII in a session dedicated to the subject.

Structured Information on Energy Efficiency in Dredging

A CEDA Information Paper. \\Publication is expected in June 2022.

In dredging, as with many other activities, the driver to improve energy efficiency traditionally was, and is, the continuous quest to reduce costs. Today, it is widely accepted that emissions related to fossil fuels contribute to climate change and global warming. Given this context, there is a growing interest in energy efficiency in relation to dredging projects and equipment.

This CEDA paper aims to provide information on the topic. It defines the drivers behind our quest for energy efficiency and benchmarks the CO2 emissions of the dredging industry. It summarises actual global, interregional and national policies, and legislation with a focus on Greenhouse Gas (GHG) emissions and considers the topic from the perspective of a dredging project as well as from the dredging equipment. Five case studies illustrate the points discussed.

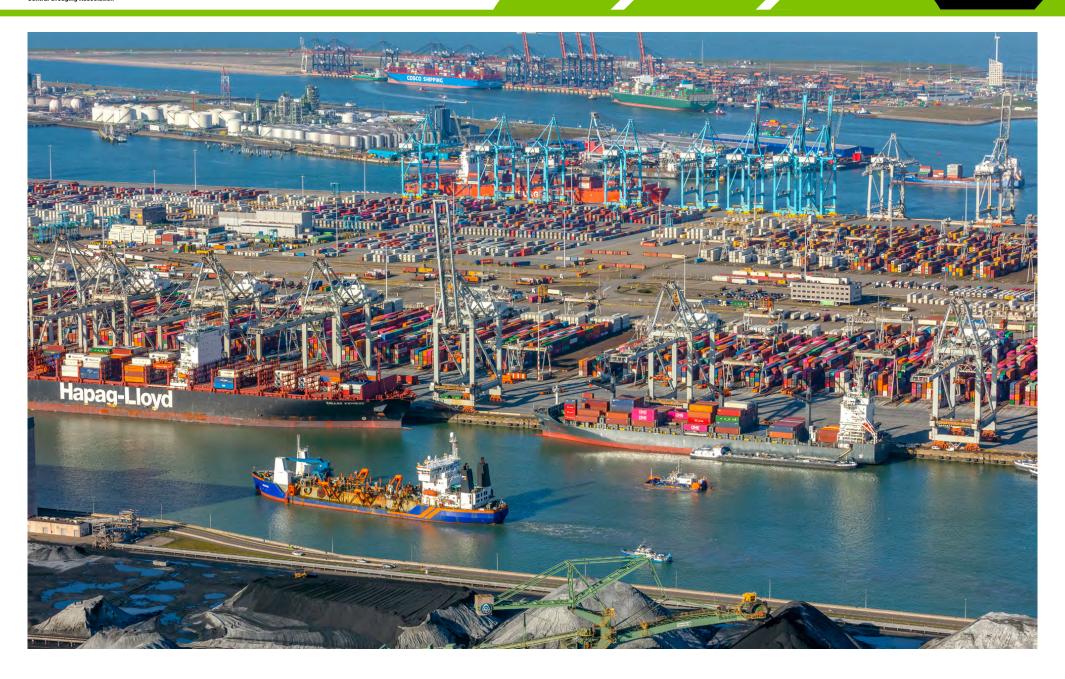
Spin-offs of this work include:

- The "Energy Transition in the Dredging Industry" session at CEDA Dredging Days 2021. CEDA members can watch the session free of charge after login
- The "Energy Efficiency and Decarbonisation" sessions at WODCON XXIII with high level keynote speakers
- The establishment of the CEDA Decarbonisation Commission to start work in early 2022

CEDA members can watch the session free of charge after login.









Adaptive Management for Environmental Aspects of Dredging and Reclamation Projects

A CEDA Information Paper. Publication is expected in 2023.

A number of publications, among which the CEDA information paper on Adaptive Management (AM), published in 2015, contains a high-level description of the different aspects of AM. The descriptions are often generic and do not include details of AM of specific parameters yet. In this fast-evolving topic, a number of information gaps and subjects that require revision have appeared the past years. For instance, a topic which has undergone a considerable evolution in recent years is 'pro-active adaptive management of turbidity'.

The CEDA Environment Commission (CEC) has, therefore, decided to establish a Working Group to prepare a CEDA information paper on Adaptive Management in dredging and land reclamation projects. The paper will provide an overview of key aspects, of all project phases, to aid structured decision-making, while implementing AM. It will collect case studies demonstrating that AM can be applied to guarantee environmental compliance, as well as ensuring the project completion without significant impact on the aquatic environment.

The paper will raise awareness of the benefits of AM, both for employers and contractors, and highlight current best practice. Accompanying dissemination tools will be prepared.

The working group started their work in 2021.

Publications in Co-operation with Partners

Work Published Financing Sustainable Marine and Freshwater

Infrastructure (SMaFI)

A joint study by Vital Ports, CEDA, IADC, B Capital Partners and Swiss Re Published: September 2021.

This report is an organic spin-off of the CEDA-IADC book "Dredging for Sustainable Infrastructure (DfSI)". It didn't take long until the question arose: "How could those projects described in the DfSI book be financed?" Early 2020, facilitated by Arjan Hijdra, Vital Ports, the Netherlands, representatives of CEDA and IADC met with representatives from B-Capital and Swiss Re. In a round-table discussion, they informed on each other's activities with a purpose to increase understanding of each other's world. In addition, participants investigated what has to be done to improve the connection between green labelled funds and sustainable waterborne infrastructure projects.

The round-table led to the conclusion that there is a need to clarify sustainable concepts and associated financial structures in order for the financial sector to become acquainted with the topic, but also to develop ideas to bring this to mainstream infrastructure investment asset classes. The report "Financing Sustainable Marine and Freshwater Infrastructure", is a result of this and aims to provide content for further dialogue to foster the uptake of green marine and freshwater concepts by private investors.

It is based on the findings of the mutual working group, which discussed nine case studies. The main conclusion is

that sustainable waterborne infrastructure solutions are available, have been tested and are economically viable. Private capital could help to accelerate the uptake of such solutions. The report is an important first step to realising this.



Follow up activities

- On 9 September a workshop with over 30 invited experts representing the dredging and financing worlds discussed the way ahead and provided valuable input for developing a roadmap for future actions.
- Shortly after its release, the SMaFI report was presented at the "Sustainable Development Impact Summit", organised by the World Economic Forum, as well as at the CEDA Dredging Days 2021. During a panel discussion at the latter event, experts explored how to continue building the bridge between the players in the dredging field and the private investment industry, to increase the investability of sustainable projects. The recording of the panel discussion is available for on-demand view free of charge.





 Establishing the CEDA Working Group on Certification of Sustainable Marine and Freshwater Infrastructure Projects (see on page 26 in this report) is also a follow up of our work on financing sustainable water based infrastructure, where dredging is a component.

Environmental Monitoring

A CEDA-IADC Fact Sheet. Published in September 2020.

Dredging activities will always create some change in the existing environment. Awareness of these changes, of their impacts on the coastal defences, natural habitats and water quality, are essential to ensuring that the improvements made by the dredging activities do not have unintended negative consequences. The main role of environmental monitoring is to:

- examine changes in environmental conditions in areas where dredging is taking place,
- ensure that impacts are acceptable, and
- make certain that dredging methods are environmentally sound.

A well-planned monitoring programme can predict what impacts may occur and, if they occur, what mitigating measures can be enacted.

This fact sheet answers essential questions such as:

- What is environmental monitoring?
- Why is environmental monitoring necessary?
- When to monitor during a dredging project?
- How to design environmental monitoring?
- What are the commonly monitored parameters & associated equipment?
- What is future of environmental monitoring?

Beneficial Use of Dredged Material

A CEDA-IADC Fact Sheet. Published in January 2021.

Dredging removes large volumes of sediments that need to be appropriately managed and beneficial use is the preferred way to manage dredged material. It concerns the use of dredged or natural sediment in applications that are beneficial and in harmony with human and natural development.



This fact sheet describes methods and answers questions about how to deal with large quantities of sediments in relation to dredging projects and ecological developments, such as:

- What is beneficial use of dredged material?
- Why is beneficial use of dredged material necessary?
- Why is beneficial use not yet a common practice?
- How can beneficial use be implemented in a dredging project?
- What types of beneficial use are available?
- Is the future of using dredged material beneficial?



WODA Working Group Papers

WODA stands for World Organisation of Dredging Associations. It is composed of three sister dredging 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.

During WODCON XXII in Shanghai, China, in 2019, the three associations agreed to set up WODA working groups to jointly address topics of common interest. This work is led by the WODA Technical Orientation Committee (TOC) with members of each association. TOC identifies working group topics and ensures consistency amongst those working groups. It reports to the WODA Board of Directors. Over the course of 2020-2021 two WODA working groups have started work and a decision about the third working group has been made.

All three WODA working groups will present their progress during WODCON XIII.

Work in Progress WODA Working Group: Reservoir Dredging

Reservoirs have become increasingly essential for today's society. They play a crucial role in hydro power generation, flood risk reduction, drinking and irrigation water supply and so on. At the same time, the global total net reservoir storage capacity has been constantly decreasing due to sedimentation. Dredging knowledge and technology can contribute to solution.

The aim of the working group is to provide guidance on how to achieve that, specifically, how:

- to extend the life time of a reservoir in a sustainable way, among which the implementation of dredging techniques will be the main focus
- to improve the productivity of a reservoir within its lifetime, in which the focus is to maintain its capacity of water storage by dredging techniques, so that the functions of the reservoir will be secured
- to include dredging as a long-term operation and maintenance action into the early design and planning phase of new reservoir and dam projects
- to utilize dredging techniques to improve the ecosystem in the reservoir area

The working group will also collect case studies on reservoir sedimentation management. These case studies will present best practices as well as pitfalls to avoid.

The target audience includes all relevant parties involved in reservoir management, including authorities, decision makers and other stakeholders, consultants, universities, equipment manufacturers and dredging contractors.



WODA Working Group: Safety in Dredging

The Working Group uses the following definition of safety for their work: "Safety in the sense of protection from danger, risk, injury, or damage for humans, structures, and equipment."

They, therefore, mainly focus on Safety in Dredging Operations while not excluding other aspects of safety such as equipment safety, environmental safety or environmental protection, financial safety or stability, political safety and risk, risks to public image, etc.

The intent of the WG is not to have its product(s)/deliverable(s) become official guidance or worldwide norms for safety, or to become the defining/official industry standard on safety in dredging.

The WG will, however, encourage adoption of common safety practices and norms, best management practices, etc. as applicable. The WG will focus on different approaches, effectiveness, and active management of safety systems with the ultimate goal of welcoming any organization to use its deliverables to enhance safety and develop broader safety norms and/or standards.

Instead of beginning with a traditional written report, the WG will focus on building a detailed "Dredging Safety Considerations" checklist.



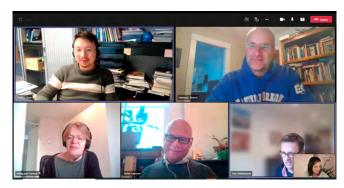
WODA Working Group: Environmental Aspects of Deep-Sea Mining

There is growing interest in the mineral deposits of the deep sea. This is largely due to depleting terrestrial deposits for metals such as copper, nickel, aluminium, manganese, zinc, lithium and cobalt, coupled with rising demand for these metals to produce high-tech applications such as smartphones and green technologies such as wind turbines, solar panels and electric storage batteries.

The marine dredging community are a natural choice of partner for the extraction of deep sea minerals, given the community's experience with extracting bulk materials from the seabed. However, DSM presents new challenges, in terms of the deposit types and extraction technology, the environments within which it occurs, and how its impacts can be managed. Coupled to this, the scientific evidence and associated permitting regime is evolving rapidly around the world, especially in international waters beyond national jurisdictions.

Following the discussions within the three WODA associations, it has been agreed to convene a WODA Environmental Effects of Deep Sea Mining Working Group.

The aim of the DSM Working Group is to promote the use of robust scientific evidence on environmental effects within policy and regulation of the Deep Sea Mining community, including the International Seabed Authority (ISA). It is a technical forum for dredging community specialists with an interest in environmental effects and is not seeking to advocate the development of the sector or particular organisational interests, or address other aspects of deep sea mining.



The WODA TOC makes the final touches to the DSM WG Terms of Reference.





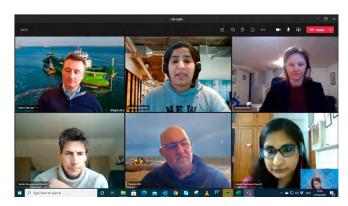
CEDA INDUSTRY NEWS

Since it was founded in 1978, CEDA has championed the professional development and success of those in dredging and associated fields. This has taken the form of sharing technical knowledge, supporting effective working practices and encouraging international networking and relationship-building.

In April 2020 the "Dredging and Port Construction" magazine, which had served as the official publication for CEDA and its members since the establishment of CEDA in 1978 closed down. Over the summer, we took the opportunity to review the best options to find a suitable replacement that will keep CEDA members up to date on industry news and CEDA activities.

The result is <u>CEDA Industry News</u>, a new section on the CEDA website that contains a monthly blend of dredging, ports and marine engineering news, and covers the various areas of interest to our members. While some of the articles will be free for anyone to read, there will be some in-depth articles produced every month that are exclusive to our members and require you to log in to access them.

CEDA Industry News is produced by the team of journalists



CIN Editorial Board in action during a content meeting.

and experts at Intent Communications, under the editorial remit of the <u>CEDA Communications Commission</u> (CCC). Intent Communications is led by Namrata Nadkarni, whom many members will know from her time editing DPC and Ports & Harbors.

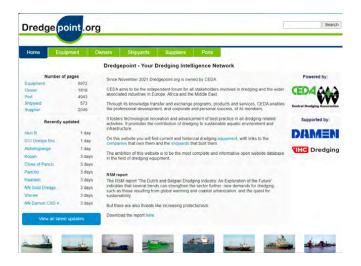


DREDGEPOINT

In November 2021, CEDA became the proud owner of Dredgepoint, an online database, with a tremendous amount of information.

On this website, which now can be accessed through the CEDA website, you will find current and historical dredging equipment, with links to the companies that own them and the shipyards that built them.

The ambition of this website is to be the most complete and informative open website database in the field of dredging equipment.





HIGHLIGHTS FROM THE COMMISSIONS

CEDA currently has five commissions, plus Young CEDA, which report to the CEDA Board. A sixth commission is in the making.

Administrative Commissions

- Strategy Commission
- Communications Commission

Technical Commissions

- Dredging Management Commission
- Environment Commission
- Educational Activities Commission

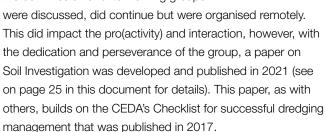
In the making:

Commission on Decarbonisation

The following are selected highlights from some of the commissions.

Dredging Management Commission (DMC)

The Dredging Management Commission (DMC) is a forum to bring various stakeholders together for discussions, innovations and matters regarding the management of dredging works in the broadest sense. 2020 and 2021 were difficult years due to COVID. The regular DMC meetings, at which the work of the commission and its working groups

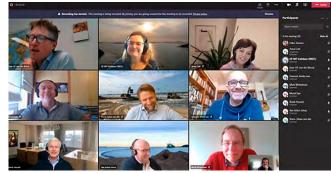


The Checklist is free for CEDA members to download.

A sample copy can be viewed here.



Koos van der Geer Chair



At one of the meetings of the Dredging Management Commission.

In 2020 we presented a well-attended webinar on our information paper published the year before. Topics that currently have



the attention and will be further developed, are the cultural and managerial aspects of Early Contractor Involvement (ECI), and a paper on the Installation of Subsea Cables.

Koos van der Geer Chair, Dredging Management Commission



Environment Commission (CEC)

The CEDA Environment Commission (CEC) develops and implements CEDA's environmental policy and represents the Association at meetings of international conventions and other regulatory forums.



A number of CEDA position papers and information papers have been produced Chair under the remit of the CEC working groups. The following working groups have all been active under the CEC umbrella in the last two years:

- Working Group on Seafloor Integrity (WGSI) Paper ready for publication.
- Working Group on Energy Efficiency (WGEE) Paper ready for publication. See on page 26 in this report.
- Working Group on Assessing Environmental Turbidity Limits (WGETL) - Paper published in May 2020. See on page 24 in this report.
- Working Group on Adaptive Management (WGAM) started in September 2021.

The CEC met during 3 online meetings in 2020 en 2021. In addition to this, two Task Groups were initiated to prepare the draft ToR for two new CEDA Working Groups (one on Adaptive Management and one on Greenhouse Gas Emissions from Sediment).



We could share a good laugh also online.

Environmental policy work

A key task of the CEC is to represent CEDA at meetings of international conventions and other regulatory forums, such as the London Convention and Protocol (LC/LP) and the Oslo and Paris Convention (OSPAR).

A number of Directives of the European Commission are relevant for dredging and related activities, including the management of dredged sediments. Therefore, CEDA is also involved as stakeholder in the implementation process of the Marine Strategy Framework Directive (MSFD) and is chairing the multi-association MSFD NAVI group, which is a stakeholder group providing input to the EU on this legislative process.

After representing CEDA and chairing the MSFD NAVI for 2 years, Katherine Cronin resigned from her role due to a job change. We would like to thank Katherine for all her hard work, her commitment and all the contributions she brought to the table during this period.

CEDA is also an active member of the WFD NAVI group which provides input to the EU on matters relating to the Water Framework Directive.

We also want to thank all our members who represent CEDA on various international platforms on a voluntary basis. It helps us to make sure that the vast amount of dredging knowledge and experience within our community is shared and used in policy-making. On the next page is a list of our current representatives.

Frederik Roose Chair, Environment Commission



CEDA Representatives at International Forums in 2020 - 2022



Pieter de Boer

Ministry of
Infrastructure
and Environment,
The Netherlands

• EU WASTE DIRECTIVE



German Federal
Institute of
Hydrology, Germany

INTERNATIONAL

Vera Breitung

◆ INTERNATIONAL

COMMISSION FOR THE

PROTECTION OF THE

RIVER DANUBE



Katherine Cronin
Deltares,
The Netherlands

- EU MARINE STRATEGY
 DIRECTIVE NAVI (CHAIR)
- EU MARINE STRATEGY
 DIRECTIVE STRATEGIC
 CO-ORDINATION GROUP
- EU MARINE STRATEGY DIRECTIVE WORKING GROUP ON PROGRAMME OF MEASURES, ECONOMIC AND SOCIAL ANALYSIS (POMESA)



Dafydd Lloyd Jones

Marine Space, UK

- ◆ EU MARINE STRATEGY
 DIRECTIVE WG WES
- EU MARINE STRATEGY
 DIRECTIVE NAVI



Jemma Lonsdale
Cefas, UK

LONDON CONVENTION

- 20112011001
- OSPAR



Tom Matthewson

HR Wallingford, UK

◆ OSPAR INTERSESSIONAL

CORRESPONDENCE

GROUP DEEP SEA

MINING



Witteveen+Bos,
The Netherlands

• OSPAR

• OSPAR INTERSESSIO

Ivana Prusina

OSPAR
 OSPAR INTERSESSIONAL
 CORRESPONDENCE
 GROUP MARINE
 STRATEGY DIRECTIVE



Heinrich Roeper
Hamburg Port
Authority, Germany
• EU WATER FRAMEWORK

- DIRECTIVE NAVI
- EU MARINE STRATEGY
 DIRECTIVE NAVI



Volker Steege
Federal Ministry
of Transport and
Digital Infrastructure,
Germany

◆ EU WATER FRAMEWORK
DIRECTIVE NAVI



Frank Thomson

DHI, Denmark

- EU MARINE STRATEGY DIRECTIVE, TECHNICAL SUBGROUP UNDER-WATER SOUND
- ◆ OSPAR INTERSESSIONAL CORRESPONDENCE GROUP NOISE



Commission on Decarbonisation

Decarbonisation (the route to arrive at operations which are free of emitting greenhouse gasses) is probably the biggest challenge the dredging industry faces collectively in the years/decades ahead. It rises above commercial interests and the influence of each individual stakeholder, and only a combined effort can lead to success in the quest toward zero-carbon solutions.



Paul Vercruijsse Chair

A major key towards decarbonisation is the use of post fossil fuels. However, a large-scale use of these post fossil fuels has significant technological, economical and regulatory challenges.

The Company Orders of Milliamsers of

The CEDA Board of Directors discusses the Terms of Reference of the new Decarbonisation Commission.

With its broad membership, actively involved in finding solutions for these challenges, CEDA has a unique position. Therefore, at the end of 2021, the CEDA Board of Directors decided to establish a permanent technical commission called the CEDA Commission on Decarbonisation (CCD).

CCD will act as a platform to collectively and regularly gain and share insight on how the dredging industry may be fuelled in, say, 15 years' time, and what this would mean in practice. This insight will contribute to developing policies and/or deciding investments in future times.

CCD has its roots in the CEDA Working Group on Energy Efficiency (see on page 26 in this report).

Paul Vercruijsse Chair, Commission on Decarbonisation



An enthusiastic and knowledgeable team of experts came together at the first meeting of the new CEDA Decarbonisation Commission (at the time of writing this report, the CCD just have had their first meeting.)



Young CEDA

In-person Board Meetings in COVID times

2020 saw the renewal of nearly the entire Young CEDA board. It was a difficult time to start for the new members as almost at the same time we were all restricted to working from home due to COVID. Most members had not met



Mark Petri Chair

each other face to face before. To my surprise we quickly developed a sense of camaraderie and our virtual board meetings became quite personal.

It was clear that people missed being in contact with each other and that board meetings were a great time to share what was going on in our lives. COVID restrictions undeniably had an impact on the mood of young people and it was very special to see that people who didn't know each other before, used the opportunity of the board meetings to vent their feelings.

Online Dredging Quiz 20 May 2020

We had to be creative in order to connect our members and we initiated several online events. Our first event was the 'Baggerquiz' on the 20th of May 2020. In this lighthearted and fun pub quiz we tested the dredging knowledge of our members. Although only 15 people attended it was a fun get together and especially the online chat afterwards was a nice break from the working at home situation.

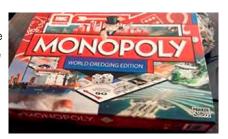
It also helped us hone our promotional actions for the next event.

Heel Benelux Baggert 18 March 2021

This second online event on the 18th of March 2021 called "Heel Benelux Baggert" drew a much larger audience of 60 people. During this event we had 5 speakers who each gave a fast paced pecha-kucha style presentation of 20 slides lasting 20 seconds each. In a short time we learned that still a lot was developing in the dredging market during COVID times.

Speakers where Rachel Terry (Van Oord) on Climate Risk Overview, Mattias Eyers (Jan de Nul) on the deepening of the Gdansk Port, Guido de Sain on the Szczecin Fairway (Joint Venture Dredging International /Van Oord), Camille Habets (Royal HaskoningDHV) on the Fehmarn Belt and Fedor Ester (DEMCON) on autonomous dredging.

The event ended with a quiz about the presentation and the award of a unique Dredging Monopoly to the best participant, courtesy of Royal IHC.



Ask a CEO and Flash Talks 28-29 September 2021

Young CEDA's contribution to the Dredging Days consisted of two events.

During the 'Ask a CEO', our members got the opportunity to ask any question they liked to 3 industry leaders:

- Peter Berdowski (CEO Boskalis),
- Kees van de Graaf (CEO Baggerbedrijf de Boer) and
- Johan van Voorthuijzen (Director Maritime & Aviation at Royal Haskoning DHV).

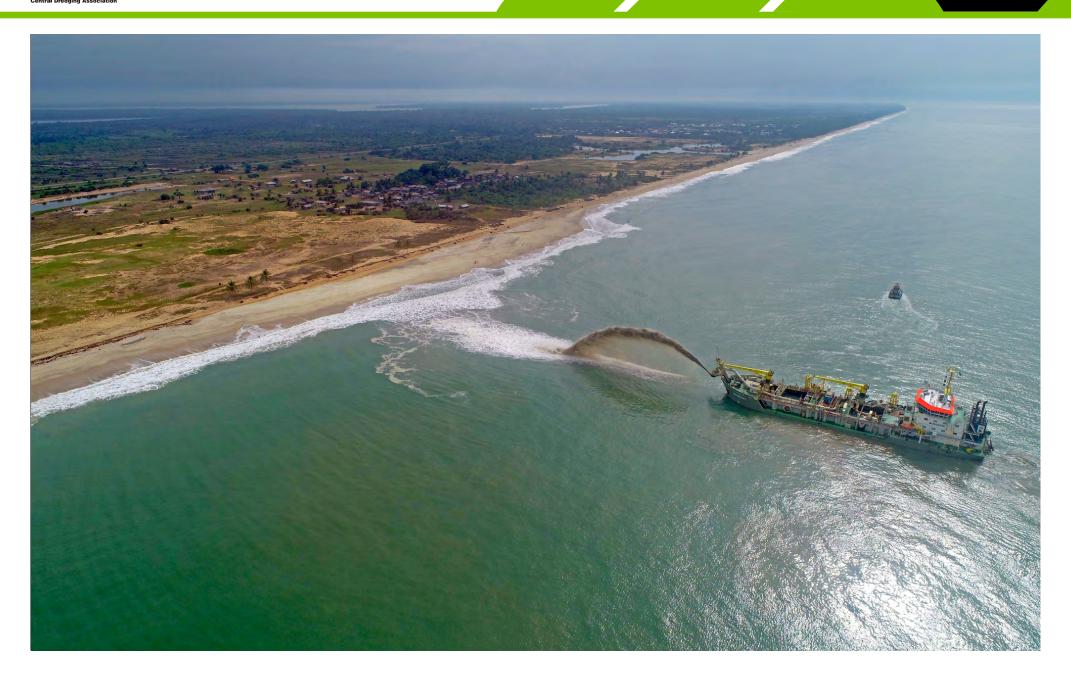


We discussed topics such as climate change, opportunities for youngsters and visions for the future of the industry.

During the Young CEDA Flash Talks, for three youngsters got the opportunity to present what they were working on: Martin de Geus from the Zero Emmission Hub on the Energy Island in the North Sea (Royal Haskoning DHV), Floris van Rees on the use of worms for the compaction of soils (Deltares), and Mark de Leeuw on Water Monitoring (Aqua Vision).

Mark Petri Chair, Young CEDA Board







FINANCES

Expenditures	2021	2020	Income	2021	2020
Experiultures			liiconie		
	k€	k€		k€	k€
Office and governance	34.1	34.1	Membership fees		
Staff	160.6	152.3	- Individual members	20.3	22.3
			- Corporate Members	212.2	206.4
			Incidental income	0.5	0.1
Environment Commission	0.0	0.4			
Dredging Management Commission	0.0	0.0			
Young CEDA	0.0	0.0			
Services and DPC subscription	52.6	24.3			
National Sections					
- African Section	0.0	1.3			
- Belgian Section	4.7	3.0			
- British Section	4.6	2.5			
- Netherlands Section	6.3	2.6			
Communications	1.1	3.7			
Provisions	0.0	0.0			
Total	264.0	224.2	Total	233.0	228.8

	2021	2020
Result	-31.1	4.6
Reserves	315.2	346.3

Figures

Individual CEDA members end 2021	271
Corporate CEDA end 2021	110
National section events over two years	18



ORGANISATION

CEDA Board of Directors

CEDA is governed by the Board of Directors, which generally meets twice a year. Due to COVID-19 all meetings were held on MSTeams, and the Board met more frequently.

Elections are held every two years. After the most recent election in September 2021, the Board of Directors is made up of 17 members from 7 countries. For the full list of Board members see page 43.



In 2020-2021, the Board meetings were shorter and more frequent.

CEDA Annual General Meeting

The Annual General Meeting (AGM) in 2020 took place on 5 November at the CEDA Secretariat. In 2021 we made use of our CEDA Dredging Dyas online platform, Swapcard, and we met online on 29 September after closing CEDA Dredging Days 2021.



At the audit committee meeting in the summer of 2021.

Secretariat

The day-to-day management of CEDA is carried out by a permanent secretariat based in Delft, the Netherlands. In 2020 and 2021 CEDA employed two staff members with 1.63 full-time equivalents: Anna Csiti, general manager and Yvonne Duivenman, secretary.



Anna Csiti General Manager



Yvonne Duivenman Secretary



Paula Scheenloop Student



Mieke van Loenen General Manager

Staff from 2022



Linda Adams Secretary



Amanda Lara Wall Student

After working for CEDA over 25 years and almost 20 years respectively, both Anna and Yvonne reached retirement in 2021.

Mieke van Loenen, Anna's successor, joined the Secretariat as assistant general manager in November 2021 and became general manager on 1st of January 2022. Anna continues working alongside Mieke as management advisor until after WODCON XXIII.

Yvonne Duivenman's successor, Linda Adams started on 1st of March 2022.

The Secretariat is supported by a part-time student assistant. This role was filled by Paula Scheenloop student at the Delft University of Technology, until September 2020, when Amanda Lara Wall, a student Erasmus University took over.

The main areas of work for the secretariat include:

- Planning, managing, executing and supporting, the execution of various CEDA projects
- Overseeing, organising and assisting, CEDA activities including CEDA Dredging Days, seminars and conferences
- Supporting the Board of Directors and the various CEDA commissions
- Acting as CEDA's contact point for other related organisations, individuals and national sections
- Developing and maintaining the online presence of CEDA
- Managing CEDA's financial and operational administration
- Membership administration
- Acting as the secretariat for the Dutch Section
 In addition to the central CEDA Secretariat, every national section organises its own national secretariat.



OBJECTIVES FOR 2022 - 2023

Our events and activities within the commissions, Young CEDA and the national sections, and our work with the International Conventions and groups within the European Commission, are very important to the work that we do. We are also actively participating in the WODA working groups, the first of which started in 2020. We look forward to taking those activities to the next level in the coming two years.

We are of course excited about WODCON XXIII in May in Copenhagen Denmark. It will be an in-person event, and after two years of online meetings, we can't wait to see each other and our colleagues from EADA and WEDA. An outstanding technical and social programme is waiting for us alongside many opportunities for developing business.

Below we highlight some of the initiatives that we are developing and working on:

- With great anticipation, we are looking forward to presenting the revamped CEDA Dredging Days in person in 2023.
- The new CEDA Commission on Decarbonisation will start their work in 2022. In view of the urgency of the subject we will certainly hear a lot from them in the coming two years.
- We will continue our engagement with the finance community, as a follow up of our joint study with IADC "Financing Sustainable Marine and Fresh Water Infrastructure" to improve the investment viability of such projects.
- There are information papers in the pipeline to be published in 2022-2023 on seafloor integrity, energy efficiency and adaptive management. The feasibility study on certification of Sustainable Marine and Freshwater Infrastructure Projects will also be issued in 2022.



- At least three new working groups will start on the topics of environmental effects of deep sea mining, underwater subsea cable integrity and early contractor involvement.
- As part of WODA, we will seek non-governmental observership, in the International Subsea Authority.
- And last but not least, we are looking forward to further developing the latest addition to our services to members, Dredgepoint.org.

After two years of working online, we hope that COVID-19 is behind us. The world and CEDA have changed and important lessons have been learned. These will be used to the advantage of our association and ensure a robust and sustainable future.



CEDA VOLUNTEERS

A word of thanks is due to all the volunteers who work for the benefit of CEDA. We pay tribute to all those silent and sometimes not so silent workers who give up their free time to contribute to CEDA's successes. In many cases, their employers allow them to do part of this work in their company's time, so we express our gratitude to those companies too.

Standing bodies

Board of Directors

Elected members

Miloud Abudib, Drapor Morocco (Chair African Section)

Michael Costaras, Jan De Nul, UK

Dirk Defloor, Dredging International (DEME), Belgium

Kathleen De Wit, IMDC, Belgium

Claudia Flecken, Hamburg Port Authority, Germany

Rogier Kalis, Royal IHC, the Netherlands

Andre Kik, Amsterdam Shipyards B.V., the Netherlands

Wim Klomp, Royal HaskoningDHV, the Netherlands (Chair Strategy Commission)

 $\textbf{Polite Laboyrie}, \ \textbf{Witteveen+Bos}, \ \textbf{the Netherlands} \ \textit{(President)}$

Mark Lee, HR Wallingford, UK

Johan Pennekamp, Deltares, the Netherlands (Vice-President,

Chair CEDA-Netherlands Executive Committee)

Cees van Rhee, Delft University of Technology, the Netherlands (Secretary/Treasurer, Chair Educational Activities Commission)

Daan Rijks, Royal Boskalis Westminster, the Netherlands

Will Shields, New Waves Solutions (DEME), UK

Jos Smits, IMDC, Belgium

Jan Vandenbroeck, S.D.I. (DEME), France

Ex officio members

Koos van der Geer, Van Oord Dredging & Marine Contractors, the Netherlands

Mark Petri. TenneT. the Netherlands

Frederik Roose, Ministry of the Flemish Community - Maritime Access Division, Belgium

Dirk Roukema, Blue Pelican Associates, the Netherlands (Chair CEDA-Netherlands Executive Committee)

Paul Vercruijsse, Dredging International (DEME), Belgium

General Manager

Anna Csiti, CEDA Secretariat, the Netherlands

Mieke van Loenen, CEDA Secretariat, the Netherlands

Strategy Commission - CSC

Anna Csiti, CEDA Secretariat, the Netherlands

Nicolas Hibert, Dredging International (DEME), Belgium

Wim Klomp, Royal Haskoning DHV, the Netherlands (Chair)

Polite Laboyrie, Witteveen+Bos, the Netherlands

Daan Rijks, Royal Boskalis Westminster, the Netherlands

 $\textbf{Frederik Roose}, \, \textbf{Ministry of the Flemish Community - Maritime}$

Access Division, Belgium

Mark Petri, TenneT, the Netherlands

Jan Vandenbroeck, S.D.I. (DEME), France

Retiring from the Commission in the course of 2020-2021

with special thanks for his contribution was:

Peter de Looze, Monitrax, the Netherlands

Communications Commission - CCC

Stefan Bruggeman, Jan De Nul, Belgium

Anna Csiti, CEDA Secretariat, the Netherlands

Kathleen De Wit, IMDC, Belgium

Nicolas Hibert, Dredging International (DEME), Belgium

Geert de Jong, Royal IHC, the Netherlands

Will Shields, New Waves Solutions (DEME), UK

Mieke van Loenen, CEDA Secretariat, the Netherlands

Retiring from the Commission in the course of 2020-2021 with special thanks for her contribution was:

Deborah Rowe, Sheba Marketing, UK (Secretary and Content Editor)



Dredging Management Commission - DMC

Johny Van Acker, Dredging International (DEME), Belgium

Erik van der Blom, Royal IHC, the Netherlands

Anna Csiti, CEDA Secretariat, the Netherlands

Wim Defevere, Port of Antwerp, Belgium

Kathleen De Wit, IMDC, Belgium

Murat Ege, AECOM, Qatar

Koos van der Geer, Van Oord Dredging & Marine Contractors,

the Netherlands (Chair)

Andre van Hassent, Port of Rotterdam, the Netherlands

Rienk Hessels, Rohde Nielsen, Denmark

Claus Iversen, Femern A/S (until August 2021), CIV Marine

Consultancy, Denmark

Camille Kapela, Egis Ports, France (Young CEDA representative)

Mieke van Loenen, CEDA Secretariat, the Netherlands

 $\textbf{Helmut Meyer}, \ \mathsf{Federal} \ \mathsf{Waterways} \ \mathsf{and} \ \mathsf{Shipping} \ \mathsf{Administration},$

Germany

Eggo Jan Rietema, Conway Advocaten & Attorneys-at-law,

the Netherlands

Hilco Timmer. Witteveen+Bos. the Netherlands

Bert Visser, Ministry of Infrastructure & Water Management/

Riikswaterstaat, the Netherlands

Johan van der Vorm, Royal Boskalis Westminster,

the Netherlands

Charles Wilsoncroft. HKA. UK

Retiring from the Commission in the course of 2020-2021

with special thanks for their contributions were:

Edward De Broe, Port of Antwerp, Belgium

Stan Putter, Conway Advocaten & Attorneys-at-law, the

Netherlands

Mark Winkelman, Damen Dredging Equipment, the Netherlands

Environmental Commission – CEC

Pierre-Yves Belan, CEREMA, France

Leonard den Boer, Royal IHC, the Netherlands

Pieter de Boer, Ministry of Infrastructure and Water Management

Centre for Public Works, the Netherlands

Klavs Bundgaard, NIRAS, Denmark

Anna Csiti, CEDA Secretariat, the Netherlands

Boudewijn Decrop, IMDC, Belgium

Alessandra Feola, ISPRA, Italy

Marijn Huijsmans, Witteveen+Bos, the Netherlands

Marc Huygens, Dredging International (DEME), Belgium

Igor Liska, International Commission for the Protection of the

Danube River, Austria

Jemma Lonsdale, CEFAS, UK

Tom Matthewson, HR Wallingord, UK

Grazyna Pazikowska-Sapota, Maritime Institute Gdansk, Poland

Alberto del Pino, Dravosa, Spain

Henrich Röper, Port of Hamburg, Germany

Frederik Roose, Ministry of the Flemish Community - Maritime

Access Division, Belgium

Stefanie Ross, Royal Boskalis Westminster, the Netherlands

Sina Saremi, DHI, Denmark

Michael Shilin, Russian State Hydrometeorological University,

Russia

Rita Silviera Ramos, Port Authority of Lisbon, Portugal

Volker Steege, Federal Ministry of Transport and Digital

Infrastructure, Germany

Retiring from the Commission in the course of 2020-2021

with special thanks for her contribution was:

Katherine Cronin, Deltares, the Netherlands

Young CEDA Board

Gerard Bloemendal, Van Oord Dredging & Marine Contractors

BV, the Netherlands

Oliver Heijmeijer, Royal Boskalis Westminster, the Netherlands

Hilmer Kodde, Van Oord Dredging & Marine Contractors BV,

the Netherlands

Jan-Berend Koster, Dutch Dredging BV, the Netherlands

Bram de Paepe, DEME, Belgium

Mark Petri, TenneT, the Netherlands (Chair)

Floris van Rees, Deltares, the Netherlands

Arjan Rietveld, Teledyne Reason, the Netherlands

Morwenna See, Royal HaskoningDHV, UK

Angelo van Tongeren, Jan de Nul, Belgium

Maarten in 't Veld, Royal IHC, the Netherlands

Retiring from the Commission in the course of 2020-2021

with special thanks for their contributions were:

Stefan Bruggeman, Jan De Nul, Belgium

Lizzie Chellew. Van Oord. UK

Roderik Hoekstra. Deltares, the Netherlands

Camille Kapela, Egis Ports, France

Jeremy Littlejohn, Royal Boskalis Westminster, UK

CEDA-Africa Executive Committee

Miloud Abudib, Drapor, Morocco (Chair)

Fogan Kodjo Adegnon, Port Authority of Lome, Togo

Felix Blutna Nandungue, Adminstration Des Port "Apgb",

Guinnee Bissau

Mohamed Choura, SEACNVS, Tunis

Sidi Mohamed Ould Didi, Minstere, Mauritania

Cheikh Nema Ahmed, BACS, Mauritania

Ahmed El Omari. Morocco

Abdelkebir Hmimou, Drapor, Morocco



Ahmed Lofti, Institution for Port Construction, Morocco

CEDA-Belgium Executive Committee

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Philippe Hyde, Antea Group, Belgium

Elias Van Quickelborne, Ministry of the Flemish Community/ Agency for Maritime and Coastal, Belgium

 $\label{eq:Frederik Roose} \textbf{Frederik Roose}, \\ \textbf{Ministry of the Flemish Community - Maritime}$

Access Division, Belgium

Jos Smits, IMDC, Belgium (Chair)

Angelo van Tongeren, Jan De Nul, Belgium

Francis Verhees, Jan De Nul, Belgium

Retiring from the Commission in the course of 2020-2021 with special thanks for their contributions were:

Tobias Leysen, at the time with Kiere, Belgium, currently: Rohde Nielsen A/S, Denmark

CEDA-Netherlands Executive Committee

Daan Baljet, Van Oord Dredging & Marine Contractors BV, the Netherlands (Secretary)

 $\textbf{Kees van de Graaf}, \, \textbf{Dutch Dredging}, \, \textbf{the Netherlands}$

Oscar ten Heggeler, Royal IHC, the Netherlands

Andre Kik, Amsterdam Shipyards B.V., the Netherlands (Treasurer)

Dirk Roukema, Blue Pelican Associates, the Netherlands (Chair)

Johan van der Vorm, Royal Boskalis Westminster,

the Netherlands

Lynyrd de Wit, Deltares, the Netherlands

Harry Zondag, Ministry of Infrastructure and Environment,

the Netherlands

Retiring from the Commission in the course of 2020-2021 with special thanks for their contributions were:

Johan Pennekamp, Deltares, the Netherlands (Chair)

Jaap Wiersma, Van Oord Dredging & Marine, the Netherlands

CEDA-UK Executive Committee

Peter Birch. The Canal & River Trust. UK

John Brien, Harwich Haven Authority, UK

Fritz van den Boogaard, Royal Smals, UK

Lizzie Chellew, Van Oord, UK

Michael Costaras, Jan De Nul, UK

Keith Dee, Royal Boskalis Westminster, UK

Nick Everington, The Crown Estate, UK

Jamie Gardiner, Royal HaskoningDHV, UK

Paul Hesk, Van Oord, UK

Katherine Holmes, Harris Holden, UK

Jayne Hornsby, Land and Water Group, UK

Jackie Lavender, Royal HaskoningDHV, UK

Jemma Lonsdale, CEFAS, UK

William Manning, Environment Agency, UK

Colm Sheehan, Anthony D Bates Partnership LLP, UK

Will Shields. New Waves Solutions (DEME). UK

Alex Schofield, Van Oord, UK

Retiring from the Commission in the course of 2020-2021 with special thanks for their contributions were:

Russel Bird, Peel Ports, UK

Nick Smith, Canal & River Trust, UK (Vice-Chair)

Payam Foroudi, Jacobs, UK

Temporary committees and working groups

Audit Committee 2020

Jeroen van den Berg, Royal IHC, the Netherlands Stefan Bruggeman, Jan De Nul, Belgium Joke Schroeten, IPS, the Netherlands

Audit Committee 2021

Jeroen van den Berg, Royal IHC, the Netherlands **Stefan Bruggeman**, Jan De Nul, Belgium

CEDA Dredging Days 2021: Organising Committee

Anna Csiti, CEDA Secretariat, the Netherlands

Kathleen De Wit, IMDC, Belgium

Arjan de Heer, Witteveen + Bos Consulting Engineers,

the Netherlands

Rogier Kalis, Royal IHC, the Netherlands

Andre Kik. Amsterdam Shipvards B.V., the Netherlands

Cees van Rhee, Delft University of Technology, the Netherlands

Frederik Roose, Ministry of the Flemish Community - Maritime

Access Division, Belgium

Wilhelm de Roth, Dutch Dredging, representing Young CEDA, the Netherlands

Deborah Rowe, Sheba Marketing, UK

Mike van der Vijver, MindMeeting, the Netherlands

Jort van Wijk, IHC IQIP, the Netherlands

CEDA Dredging Days 2021: Technical Papers & Programme Committee

Niels Borgers, Smals Dredging, the Netherlands **Johan Pennekamp**, Deltares, the Netherlands



Cees van Rhee, Delft University of Technology, the Netherlands (Chair)

Dirk Roukema, Blue Pelican Associates, the Netherlands **Marc Sas.** IMDC. Belgium

Thomas Vijverberg, Royal Boskalis Westminster, the Netherlands **Jort van Wijk**, IHC IQIP, the Netherlands

Mark Winkelman, Damen Dredging Equipment, the Netherlands Lieske Zalden, Hamburg Port Authority, German

CEDA WODCON XIII Organising Committee – CEDA representatives

Anna Csiti, CEDA, the Netherlands Nicholas Grunnet. DHI. Denmark

Claus Iversen, Femern A/S (until August 2021), CIV Marine

Consultancy, Denmark

Polite Laboyrie, CEDA President, Witteveen + Bos,

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Johan Pennekamp, Deltares, the Netherlands (Chair)

Daan Rijks, Royal Boskalis Westminster, the Netherlands

CEDA WODCON XIII Technical Papers & Programme Committee – CEDA representatives

Bernardete Castro, Royal IHC, the Netherlands

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Arjan de Heer, Witteveen + Bos, the Netherlands

Ronald van der Hout, Van Oord, the Netherlands

Marc Kindermann, Hamburg Port Authority, Germany

Tobias Leysen, Rohde Nielsen, Denmark

Dick R. Mastbergen, Deltares, the Netherlands

Ebi Meshkati Shahmirzadi, Deltares, the Netherlands

 $\textbf{Jacco Osnabrugge}, \ \mathsf{Royal \ IHC}, \ \mathsf{the \ Netherlands}$

Cees van Rhee, Delft University of Technology, the Netherlands (Chair)

Dirk Roukema, Blue Pelican Associates, 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

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Leila Benali, Atlantic Dredging, Morocco

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Ruben Brouwer, Royal Boskalis Westminster, the Netherlands

Michel Deruyck, Jan De Nul, Belgium

Ewout van Duursen, DAMEN Dredging Equipment,

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Alberto del Pino, Dravosa, Spain

Dirk Roukema. Blue Pelican Associates, the Netherlands

Paul Vercruijsse, Dredging International (DEME), Belgium (Chair)

Bert Visser, Ministry of Infrastructure & Water Management/

Riikswaterstaat, the Netherlands

Working Group Environmental Turbidity Limits

Klavs Bundgaard, NIRAS, Denmark (Chair)

Stijn Claeys, Flanders Hydraulics Research, Belgium

Jos De Cubber, Jan De Nul, Belgium

Lucie Evaux. Van Oord, the Netherlands

Alessandra Feola, ISPRA, Italy (corresponding member)

Frederik Goethals, DEME, Belgium

Johan Henrotte, Royal Boskalis Westminster, the Netherlands

Joël L'Her, Cerema, France

Iolanda Lisi, ISPRA, Italy (corresponding member)

Yves Planke, Port of Antwerp, Belgium

Bastian Schlenz, Femern A/S, Denmark

Jonathan Taylor, HR Wallingford, UK

Lynyrd de Wit, at the time Svasek Hydraulics currently Deltares,

the Netherlands

Working Group Platform Subsidised Research Programmes

Mike Hoek, Port of Rotterdam, the Netherlands

Geert Ketels, TU Delft, the Netherlands

Wim Klomp, Royal Haskoning DHV, the Netherlands

Ebi Meshkati Shahmirzadi, Deltares, the Netherlands

Cees van Rhee, Delft University of Technology, the Netherlands

Inge Van Tomme, Jan De Nul, Belgium

Working Group Seafloor Integrity

Annelotte Baas, Royal Boskalis Westminster, the Netherlands

Arjen Boon, Deltares, the Netherlands

Andrew Costen, Cardno, Australia

Annemiek Hermans, Royal Boskalis Westminster,

the Netherlands

Remment ter Hoofstede. Van Oord, the Netherlands

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Jannes Kamphuis. IHC, the Netherlands

Anne Lise Middelboe, DHI, Denmark (Chair)

Ine Moulaert, Jan De Nul, Belgium (Secretary)

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Kirsten Wolfstein, Hamburg Port Authority AoR, Germany

Tim Yzewyn, DEME, Belgium

Working Group on Adaptive Management

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Marc Brouwer, HaskoningDHV, the Netherlands

Boudewijn Decrop, IMDC, Belgium

Isabell Kleeberg, German Waterways Administration, Germany



Marc Kindermann, Hamburg Port Authority, Germany

Alessandra Feola, ISPRA, Italy

Marc Huygens, DEME, Belgium

Iolanda Lisi, ISPRA, Italy

Sina Saremi, DHI, Denmark

Wouter Schiettecatte, Jan De Nul, Belgium

Robrecht Schmitz, Sibelco, Germany

Volker Steege, Federal Ministry of Transport and Digital

Infrastructure, Germany

Working Group on Certification of Sustainable Marine and Freshwater Infrastructure Projects

 $\textbf{Kathleen De Wit}, \, \mathsf{IMDC}, \, \mathsf{Belgium}$

Lucy Gwen Gillis, IMDC, Belgium

Dirk-Jan Karssen, Fugro Engineers, the Netherlands

Wim Klomp, Royal HaskoningDHV, the Netherlands (Chair)

Polite Laboyrie, Witteveen + Bos, the Netherlands

Tobias Levsen, Rohde Nielsen, Denmark

Thibaud Mascart, DEME, Belgium

Tom Matthewson, HR Wallingford, UK

Luca Sittoni, Deltares, the Netherlands

DMC Focus Group on Soil Investigations

Kathleen De Wit, IMDC, Belgium

Johny Van Acker, Dredging International (DEME), Belgium

Mark Winkelman, Damen Dredging Equipment, the Netherlands

IADC, CEDA, Vital Ports joint study: Financing Sustainable Marine and Freshwater Infrastructure – CEDA Authors:

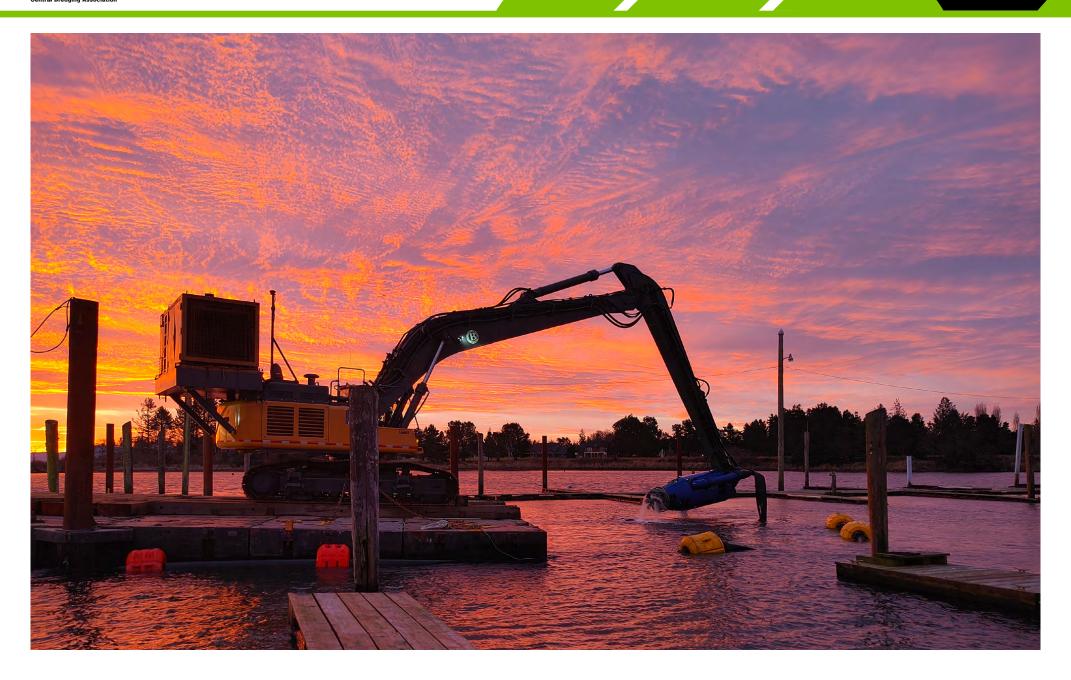
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Web: www.maccs.co.uk

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