



May 2021 Newsletter

Welcome to the May 2021 newsletter of NavClimate, the Navigating a Changing Climate initiative¹. This newsletter provides an update on our initiative and highlights various recent activities of the NavClimate partner and supporter organisations. And what a difference a year makes, with so many proposed activities postponed or cancelled, and a whole new way of working as online events become the norm...

News about NavClimate

As you may recall, the Navigating a Changing Climate initiative was set up in 2015 with an Action Plan running until 2020 and concluding events in 2021. Well, here we are in 2021, so what's happening?

The pandemic has unsurprisingly disrupted some of our original plans. Following the cancellation of the COPEDEC conference, and hence the Navigating a Changing Climate 'conference-within-a-conference', the NavClimate partners discussed the ongoing uncertainties associated with the pandemic and decided to move forward more flexibly, with a series of events run by the individual partner associations. Our 2021 events will therefore include the following.



IAPH's postponed 2020 conference will go ahead virtually in June 2021 and will include various climate-relevant sessions under the '**Climate and Energy**'; '**Risk and Resilience**'; and '**Data Collaboration**' themes (see <https://www.worldportsconference.com/index.html>)

The European Sea Ports Organisation's (**ESPO**) rescheduled conference 'Regatta', which is also being held virtually in May 2021 includes sessions on **energy transition** and other aspects of **Europe's Climate and Greening Agenda** (see <https://www.espo-conference-regatta-2021.com/en#pagecontainer>)



IMarEST's Oceans of Knowledge October 2021 event, Climate Change and the Ocean, will explore the sustainable use of ocean resources; the ocean's role in **climate mitigation**; and **sea level rise** vulnerabilities (more details available at <https://www.imarest.org/events/category/categories/imarest-conference/oceans-of-knowledge-2021-climate-change-and-the-ocean>)

Following the success of the joint event with NavClimate supporter **SedNet** in February 2021 (see conclusions summary below), **PIANC's EnviCom** is currently working with NavClimate supporter **Ramboll** to develop and run a similar event on the theme **Working with Nature** for Climate-Resilient Ports and Waterways. This event is scheduled to take place in autumn 2021.

Members of **PIANC's** Permanent Task Group on Climate Change (PTGCC) will contribute a climate-themed session to the August 2021 World Canals Congress (<https://wcc2021.org/>) for NavClimate partner **Inland Waterways International**, and PTGCC members are also exploring options for a virtual event with NavClimate partner the International Harbour Masters Association (**IHMA**) on how Harbour Masters can identify and exploit opportunities for to strengthen resilience to climate change.

¹ NavClimate: a Marrakech Partnership Global Climate Action initiative. Find out more at <https://navclimate.pianc.org/>

Meanwhile, NavClimate partners **IMPA** are planning a climate change session at their conference in November 2021, and **Smart Freight Centre** continue to run various climate-related events and sustainable logistics training courses.

Events aside, as PIANC's role leading Navigating a Changing Climate draws to a close, the NavClimate partners have been discussing how to take the initiative forward. At the time of writing, discussions are ongoing to try to identify a new lead partner. In the meantime, however, **IMarEST** have kindly confirmed that the website will continue to be managed to enable the NavClimate partners and supporters to share climate-relevant information and as a resource for the wider sector: <https://navclimate.pianc.org/>.

For more news on the future of NavClimate, watch this space!

Sediment management opportunities to address the climate change challenge

On 10th and 11th February around 200 people participated in a virtual workshop organised jointly by Navigating a Changing Climate and SedNet, the European Sediment Network. The workshop attracted sediment managers, professionals and academics from around the world to listen to presentations, exchange experiences, and identify challenges and opportunities in relation to:

1. The role of sediment management in carbon sequestration and storage: opportunities to contribute to a net reduction in greenhouse gas emissions
2. Sediments and climate change adaptation: seeking flexible and adaptive solutions to strengthen resilience and adapt port and navigation infrastructure and operations
3. Habitat enhancement and creation, Working-with-Nature and other nature-based solutions
4. Sediment management, circular economy and the waste hierarchy: reduce, reuse, recycle

Among the main opportunities identified during the workshop were the following:

- Capitalising on sediment's carbon storage properties
- Saving costs and reduce transport emissions
- Applying improved knowledge and monitoring abilities to support adaptive management
- Contributing to the achievement of the UN Sustainable Development Goals (SDG)
- Applying nature-based solutions (NBS) for societal/infrastructure resilience and nature co-benefits
- Taking advantage of the many available green recovery initiatives
- Continuing to support technological innovation
- Embracing stakeholder engagement to identify and deliver win-wins

The following challenges were also identified by workshop participants:

- Attaining 'net zero' from sediment management activities, including dredging
- Dealing with climate change consequences, including uncertainties
- Reconciling sustainability and adaptation needs with ongoing human activities
- Tackling perceptions and scaling up from the many successful pilot scale projects
- Facilitating dialogue and changing entrenched current practice
- Developing specific technical know-how
- Addressing legal and regulatory issues
- Promoting and securing finance

The workshop outcomes will be published on the SedNet and Navigating a Changing Climate websites in the coming weeks. In the meantime, the presentations, etc. can be downloaded via <https://sednet.org/events/>.

5th ESPO Annual Environmental Report highlights growing importance of climate issues

Navigating a Changing Climate partner, ESPO (the European Sea Ports Organisation) monitors climate-related issues primarily through its Annual Environmental Report, published on the basis of data from the EcoPorts Network. In terms of ports priorities, climate change is a priority for European Ports. Air quality continues as the top environmental priority last year, followed by climate change, which has risen — in only three years — from being the tenth priority in 2017 to become the second priority for ports in 2020. Energy efficiency is the third priority of ports.



The 5th ESPO Annual Environmental Report <https://www.espo.be/news/espo-publishes-the-2020-environmental-report-for-t> is based on data provided by close to a hundred ports active in the EcoPorts Network. The analysis provided in the 2020 Environmental report is based on selected benchmark indicators, where the report considers more than 60 different indicators. The data was obtained from the responses of 97 ESPO-member EU/EEA ports to the EcoPorts Self-Diagnosis Method (SDM).

For 2020, the report finds a number of positive trends amongst key indicators. 96% of ports have an environmental policy in place, and 92% have a compilation of an inventory of significant environmental aspects. The report also demonstrates that ports have improved their performance in indicators such as the publication of publicly available environmental reports, and training programmes for employees.

81% of ports have set up an environmental monitoring program, with port waste being the most monitored issue. Transparency is also very important to ports, with 91% of ports communicating their environmental policy to stakeholders, and 86% of ports making it publicly available on their website. With regard to services to shipping, more than half of the responding ports are offering on shore power supply (OPS), and one third of them has made LNG bunkering available. In parallel, an increasing number of ports (57%) provide differentiated dues for ships that go beyond regulatory standards, with air emissions, waste and climate change being the main targets of these discounts. For the last three years of reporting, three new indicators related to CLIMATE CHANGE have been included in the ESPO Environmental Report. Since 2018, there has been a clear increase in the number of ports reporting operational challenges due to climate change (+11%). The same trend is observed with the percentage of ports that are taking steps to strengthen the resilience of their existing infrastructure to adapt to climate change, which currently stands at 65%. This is a clear evidence that climate change is a high priority issue for ports.

However, although most of the ports are taking it into consideration when planning the development of their future infrastructure projects (71%), this particular indicator has shown a decreasing trend since 2018 with -7%. This may be due to the fact that at any one time, only a certain number of ports will be actively planning such future projects. It should be noted that this consideration is a requirement of EcoPorts PERS alongside ISO 14001 and EMAS.

Out of the 65% of surveyed ports with a certified Environmental Management System, more than half of these have opted for ISO 14001 (63.5%) followed by the EcoPorts PERS (17.5%), making ISO and PERS the most popular standards in the sector. Additionally, some ports are certified with more than one standard such as ports with ISO and EcoPorts PERS (7.9%) or with the three certificates (7.9%).

**GREEN YOUR PORT,
JOIN ECOPORTS!**



IHMA Update on Port Call Optimization

Port Call Optimization is about optimizing the port arrival, port stay and port departure of ships. The initial request was made by a large shipping line during a congress of the International Harbour Master Association (IHMA). This concerned improving data quality and availability of nautical port call data. For them this is a very cost-efficient way to improve safety, security, and environment.

Following this request, the International Taskforce Port Call Optimization (ITPCO) was organized, comprising subject matter experts with hands on expertise in shipping, ports, and standards. ITPCO works together with Non-Governmental Organizations of the IMO (International Maritime Organization).

First step was to agree on the business process of port calls, in order to understand the complete scope of port call data, data ownership and how actors work together, based on a trade and port agnostic approach. Three data sets were defined in that process: nautical (depths, identification of berths), administrative (notifications and declarations) and operational data (operational time stamps).

Second step was to agree on the minimum data scope per data set that should be addressed, based on being compliant with International Maritime Organization regulations and clauses in BIMCO charter parties, but also to have the most impact on IMO objectives (safety, security, and environment).

Third step was to agree per data set on the most robust standardization body, which has the commitment from both shipping and ports, whilst avoiding incompatibility between standards and systems, and ultimately futile investments into implementing standards that are not fit-for-purpose, not future proof or not viable for all stakeholders across the supply chain. Standardization organizations were selected for both non-technical standards (data element definition, data model) and technical standards (API specifications, technical and business performance requirements). Both types of standards are commonly shared infrastructures on top of which parties can develop initiatives which are compatible and ensure interoperability.

Taking nautical data as an example and staying close to the heart of PIANC: the minimum for nautical data is about 1) general port data, 2) maintained depths and/or soundings, and 3) ID and location of terminals, berths, and berth positions.



To be compliant with the minimum contents of port information books, allowing safe berth to berth navigation, and to demonstrate due diligence that Hydrographic Office and Port Authority have worked together to discharge their collective SOLAS (Safety Of Lives At Sea) responsibilities and allowing charterers to demonstrate due diligence or absolute warranty regarding safe port clause in charter parties.

The most robust standardization body for nautical data is the International Hydrographic Organization (IHO) and based on existing definitions a proposal was sent to IHO through the IHMA to address this data set. But agreeing on standards alone is not sufficient. Data owners also need guidance and incentives to implement these standards; this is part of the Post Call Optimization agenda also.

Incorporating and developing the new ISO standard for calculating and reporting of GHG emissions



Work is well underway on a new international standard ([ISO 14083](#) “Quantification and reporting of greenhouse gas emissions arising from operations of transport chains”). The standard will cover emissions from both passenger and freight transport movements, with the methodology for freight transport being based on the existing industry standard the “GLEC Framework for Logistics Emission Accounting and Reporting”, published by [Smart Freight Centre](#). It is planned that once ISO 14083 is published, expected at the end of 2022, the existing European standard EN16258 will be withdrawn.

The approach taken in the standard is to set out a common approach in terms of calculating emissions, allocating them to the passengers and / or cargo being transported, and reporting of the calculation outputs. Having established the core methodology a series of mode-specific annexes examine how that applies to each transport mode in turn, taking account the structures and nuances of each mode and what that means in terms of the GHG emission calculation. As in the GLEC Framework, the preferred approach is to base calculations on primary data or intermediate values that are directly derived from it; at the same time it is recognized that primary data and derivatives are often not available to transport users and so alternative approaches are also set out based around transport energy and emission system models and the use of default emission intensity values.

NaCC coalition member [Smart Freight Centre](#) is coordinating the development of ISO 14083, with a keen eye on the approach to the inland waterway sector. In particular, it is working closely with the [European Inland Waterway Transport Platform](#) a partner



alongside Smart Freight Centre in the EU-funded IW-Net project regarding the input of information to the sector-specific annex on issues such as vessel categories, default emission intensity values and worked calculation examples for inland waterway transport, that supplement the provisions of the main standard. This is seen as an important opportunity for the sector to ensure alignment between existing sector practice and an international standard that is expected to play a significant role in the fight to cap future GHG emissions from transport. Any organizations that also wish to feed into the process can contact [Smart Freight Centre](#) for more information.

The IW-Net project is currently working to build and expand upon the vast existing research to increase the usage of inland waterways. The project aims to reduce the greenhouse gas emissions through improved infrastructure management, vessel design and digital connectivity. Through the living labs in the Danube, the river Weser and in the East Flanders region, IW-Net is identifying and demonstrating new vessel types for autonomous navigation and in uncertain water conditions, as well as solutions towards intelligent infrastructure and traffic management. If you wish to take part in this project or wish to know more, have a look at www.iw-net.eu or contact Smart Freight Centre on info@smartfreightcentre.org.

Accelerating global resilience to COP26 and beyond

[The Resilience Shift](#) and its host organisation, Arup, are both Navigating a Changing Climate supporters. The Resilience Shift is behind the [Resilience4Ports](#) initiative that recently brought together many different stakeholders to explore the urgent need for transformative change for ports worldwide, with a focus on how to build resilience alongside decarbonisation.



Their specific interest in ports (see report: [Resilience4Ports: Gateways to a resilient future](#)) is that they are working to build understanding of how whole-system thinking and collaboration are critical to enable transformative change. Wider systemic issues are barriers or enablers to building resilience and ports are complex systems with many interdependencies and vulnerabilities.

Though its work, The Resilience Shift has captured [essential insights](#) into what matters for resilience, and this [rich picture](#) illustrates visually how its work aims to accelerate resilience thinking and practice through a range of diverse initiatives.

The Resilience Shift operates as a network of strategic partnerships that brings together NGOs and philanthropy with the business resilience network, [Resilience First](#), and the engineering-led [International Coalition for Sustainable Infrastructure \(ICSI\)](#). This enables it to convene diverse interests around topics of interest, and it also works like a think tank, awarding grants, creating thought leadership and delivering initiatives aiming to influence changes in practice.

To adapt and thrive in the face of climate change, we need resilient infrastructure that can withstand, recover from, and adapt to an uncertain future.

In 2021, it is developing [Infrastructure Pathways](#) as an ICSI initiative to bring together existing guidance to provide a line of sight across the entire project lifecycle to embed climate resilience into infrastructure.

It is also supporting the Race to Resilience on the road to COP26 as it builds awareness of the urgent need to be more resilient in the face of the complex challenges and deep uncertainties we face.

You can find more from The Resilience Shift at its website including the [City Water Resilience Approach](#) – an end to end approach to building urban water resilience; a series of [industry primers](#) on best practice for resilience for ports, roads, rail, electric utilities and potable water; its work on [Resilient Leadership](#), [Covid resources](#), and other resources including a [Resilience Toolbox](#), [Publications](#) and more. Follow its latest news on [Twitter](#) or [LinkedIn](#), or subscribe to its [Blog round-up](#).

Climate change adaptation for seaports in support of the 2030 agenda for sustainable development - UNCTAD expert meeting report published

Drawing on UNCTAD's earlier [related work](#), the [8th session of the UNCTAD multi-year expert meeting on transport, trade logistics and trade facilitation](#) (27-28 October 2020) focused on the important issue of climate change adaptation for seaports in support of the 2030 agenda for sustainable development.

Ports are likely to be affected directly and indirectly by climate change-related effects with broader implications for international trade and for the development prospects of the most vulnerable nations, in particular the least developed countries and small island developing states. Given the strategic role of ports as part of the global trading system, and the potential for climate-related

damage, disruption and delay across global supply chains – with significant associated costs and economic and trade-related losses – enhancing their climate resilience is a matter of strategic economic importance.

The fully virtual UNCTAD expert meeting provided a timely opportunity to build on current momentum by considering how best to translate ambitious targets into action and to develop concrete policy recommendations that both help to advance the important issue of climate change adaptation for seaports in support of the 2030 Agenda and can serve as inputs for other intergovernmental meetings and processes (see the [background note](#) outlining key issues to facilitate the deliberations).

Participants of the UNCTAD meeting included experts from UNCTAD member states, intergovernmental organisations and specialised agencies, NGOs, academia and the private sector. The two-day meeting included panel discussions covering a wide range of topics ([programme](#)), including the challenges associated with climate change impacts and adaptation for ports, key issues and experiences along with recent developments and national experiences, as well as cross-cutting issues (e.g. energy efficiency and climate change mitigation) with a special session dedicated to the special case of small island developing States and other small island economies. The UNCTAD secretariat presented [key messages and recommendations](#) as submitted by the panellists to facilitate the interactive discussion.

The severity of the potential impacts on seaports and other coastal transport infrastructure was highlighted by many panellists, along with the important economic costs of inaction and the risks to sustainable development, in particular for the most vulnerable, including small island developing States. It was reiterated that climate-related risks for seaports needed to be approached as a business risk (rather than only an environmental risk) and the immediate challenges posed by the global health pandemic should not divert attention from the threats posed by climate change. It was clear based on the expert discussions that much was at stake and the need to adapt and strengthen the climate resilience of seaports was both important and urgent. Failure to adapt was not an option, yet effective adaptation required an understanding of the risks at the local and facility levels and the development of appropriate technical solutions, as well as finance and capacity-building, coordinated policy responses and supportive legal and regulatory approaches. Further information, [presentations of experts](#) and documentation, including the report of the meeting in all UN languages is available on the [meetings website](#).

A recent UNCTAD Report, [Climate Change Impacts and Adaptation for Coastal Transport Infrastructure: A Compilation of Policies and Practices](#) is also available electronically.

News from the Port of London Authority



Late last year (2020) NavClimate supporter the Port of London Authority (PLA) launched the Thames Green Scheme, an environmental indicator scheme for inland vessel operators to encourage them to adopt more environmentally friendly practices. Developed in partnership with vessel operators, applicants will be ranked in one of five tiers, from bronze, silver and gold, through to the highest ratings of diamond and platinum.

Rankings will be based on their performance related to air quality, carbon emissions, energy use, water quality, litter and waste. The first Thames Green Scheme accreditations have been awarded to Kent-based GPS Marine and Jetstream Tours in April 2021.

The PLA has also submitted the third round of Climate Change Adaptation Reporting Power to Department for Environment, Food and Rural Affairs in early 2021. The report included a review of the climate risk on PLA's operation and safety on the river based on the latest Met Office climate projections, reporting progress and updating the plan on adaptation, and presenting new actions on climate change mitigation under the PLA's Net Zero Programme.

This year, one of the PLA's focuses will be on refreshing the Thames Vision, a framework launched in 2016 to set out the collective ambition for the river in the next few decades. The update will reflect progress and changes, including the legally binding Net Zero commitment, COVID-19, and Brexit. A consultation on the future of the Thames will launch at the end of May on the PLA's website.

Webinar – 19th May 2021: Harnessing the potential of recreational boating against marine litter



Navigating a Changing Climate supporter organisation, European Boating Industry is organising a webinar on the potential of recreational boating in tackling marine litter. This is being organised with The SeaCleaners and will take place on 19th May from 11:00 – 12:00. The webinar is held on the occasion of European Maritime Day, which provides every year an opportunity for EU citizens to engage with maritime affairs and sustainable blue growth.



The webinar will be an opportunity for the boating community, including companies and boaters, to engage with the issue of plastic pollution. The event will include the participation of Yvan Bourgnon, President and founder of The SeaCleaners, as well as its Technical Director Frederic Silvert, who will share technological insights of the Manta, the flagship project of The SeaCleaners. The Manta is a revolutionary vessel currently being developed that will collect and process floating waste. Andreea Strachinescu, Head of Unit for Maritime innovation, Marine Knowledge and Investment in the European Commission's DG MARE, will present the EU's actions against marine litter and involvement of different actors in plastic waste collection.

To register, see: https://us02web.zoom.us/webinar/register/WN_iEFSp5AyRPS71mpkVPrzgg

A Potential New Tool for Copernicus: a European Coastal Flood Awareness System

January 2021 saw the launch of a new H2020 project aiming to develop a new coastal flood awareness system that could become a candidate to join the Copernicus [Emergency Management Service](#). This new tool will demonstrate the feasibility of a European Coastal Flood Awareness System (ECFAS, www.ecfas.eu) that will complement the existing framework for flooding awareness along large trans-national river systems ([EFAS](#)). The final aim is to produce a pan-European service to support the activities of coastal communities by collecting user needs and requirements and applying the pre-operational service to several pilot cases in Europe.

ECFAS Solution for European Coasts

ECFAS will provide a much-needed solution to bolster coastal resilience to climate risk and reduce the exposure of populations, infrastructure and services in the coastal zone by monitoring and supporting disaster preparedness, two factors that are fundamental to damage prevention, response and recovery if a storm hits.

End users are a crucial part of ECFAS, as they will help the ECFAS team to understand users' needs and to address them in the design of the European Coastal Flood Awareness System. Through engaging with end users, ECFAS hopes to develop a mutually beneficial collaboration and partnerships for service co-design, co-development, and co-evaluation.

First Webinar

The first ECFAS [webinar](#) took place on 12th May. It was an informative session where potential users and stakeholders from the EU Member States could learn more about the project, its potential applications and upcoming activities. The seminar was very successful with over 100 participants from all over Europe, which led to a very interesting and informed questions and answers session that was appreciated by all. The ECFAS team were certainly very pleased with the level of interest from the participants and encourage those who were not able to participate but are interested in the project to contact them by contacting ecfas.project@gmail.com.

ECFAS benefits from the advice and guidance from JRC, EEA, ECMWF, ESA and Mercator Ocean International. It also formally involves the Copernicus User Forum of Italy, Greece, Spain, Germany and France in the ECFAS Users Board.

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Photo: Flooding at Ebro Delta following storm Gloria, 2020 © Universitat Politècnica de València. Provider: 'Copernicus Open Access Hub' by ESA; Date and time of the employed images: 09 January 2020, 17:54:56, and 21 January 2020, 17:54:56. Mission: Sentinel-1A, Acquisition Mode: IW, Track: 30 Pass: Ascending, Product Type: Level-1 GRD, Produced by: CGAT-UPV.