



PIANC

The World Association for Waterborne
Transport Infrastructure



PIANC
APAC
2024

Connecting Asia Pacific ports in a changing world

3RD PIANC ASIA PACIFIC
CONFERENCE
27-30 AUGUST 2024
SYDNEY, AUSTRALIA
www.piancopac.com

PIANC PRESIDENT ADDRESS

Francisco Esteban Lefler

APAC 2024 – Sydney (Australia) / 28th August 2024

PIANC IS

A worldwide network of professionals, providing expert advice on cost-effective and sustainable waterborne transport & recreation infrastructure,

And the leading partner for governments and the private sector in the design, development and maintenance of ports, waterways and coastal areas ...

SINCE 1885!



■



WHAT PIANC DOES

- Deliver **high-quality technical reports** within our International Commissions and Working Groups
- Create a **worldwide network of the best international experts**, both public and private, on technical, economic and environmental issues pertaining to waterborne transport infrastructure
- Support **Young Professionals and Countries in Transition**
- Keep the network connected through **PIANC's international/regional/local events**

Remain the leading international source of waterborne transport-related information in the 21st century





PIANC IS ABOUT COLLABORATION AND MAKING A DIFFERENCE (MARCOM AGA 2024)



OUR MEMBERS

THE PIANC MEMBERSHIP CONSISTS OF:

- **43** Qualifying Members (QM) of which **31** have a National Section (NS)
- About **1,800** Individual Members
- More than **500** Corporate Members
 - port authorities
 - professional associations
 - universities
 - public- and private-sector organisations
 - ...
- **17** Platinum Partners



OUR MEMBERSHIP



Earthstar Geographics SIO
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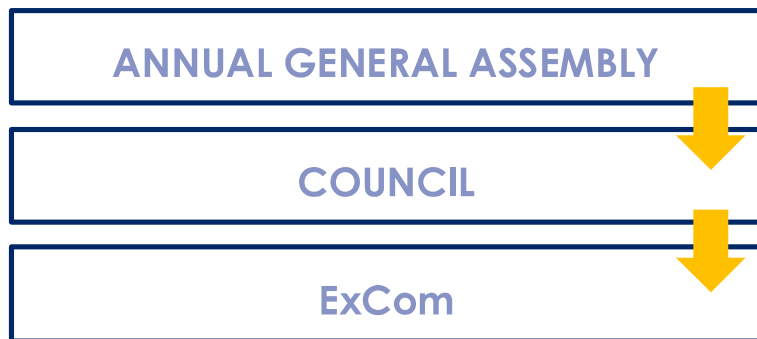


OUR MEMBERSHIP: 17 Platinum Partners



PIANC STRUCTURE

Management:



4 non-technical commissions:

International co-operation and relations with Countries in Transition (**CoCom**).

Focusing on PIANC's Young Professionals (**YP-Com**).

Dealing with the financial aspects of the Association (**FinCom**).

Dealing with the marketing and promotion of the Association (**ProCom**).

4 commissions for technical and scientific activities:

Inland Navigation Commission (**InCom**)

Maritime Navigation Commission (**MarCom**)

Environmental Commission (**EnviCom**)

Recreational Navigation Commission (**RecCom**)

SPECIAL FOCUS ON YOUNG PROFESSIONALS

- Specific commission (YP-Com) created in 2006 to better serve their needs and develop their involvement in PIANC's activities.
- Our objective: create an **international network of Young Professionals**, to share knowledge and facilitate contacts with the world's leading specialists across all working fields.
- Very active in many National Sections (31 delegates and 24 observers) and well represented (more than 100 YPs) in ongoing and former Working Groups.
- Year-round E-Networking
 - More than **3350 members** on 
 - Upcoming events & questions are posted regularly



AWARDS

PIANC DE PAEPE-WILLEMS AWARD (DPWA):

- special prize established as a recognition of outstanding technical research on waterborne transport infrastructure by young engineers (< age of 40).
- 3 prizes: 4,000.00; 2,000.00 and 1,000.00 EUR

MEDA AWARD (RecCom)



WORKING WITH NATURE AWARD (EnviCom)

- Visit <https://www.pianc.org/awards> for more information!



YOUNG PROFESSIONAL AWARD

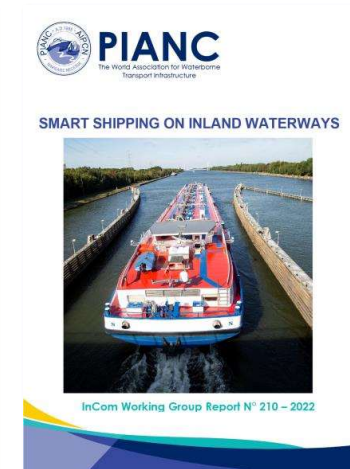
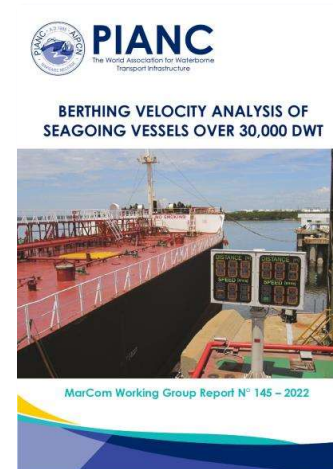
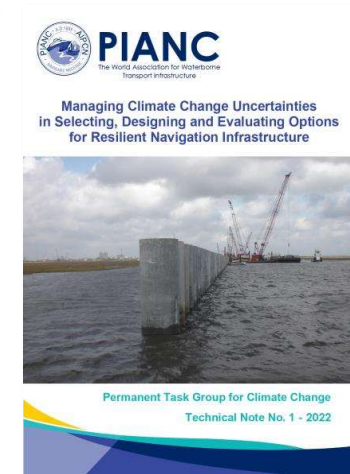
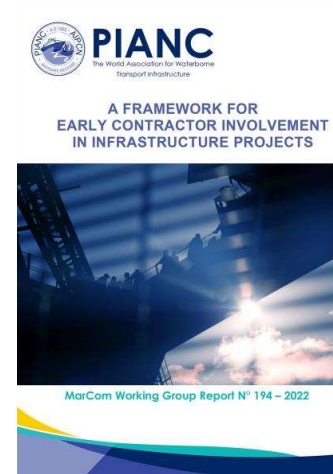
Granted every 4 year at the occasion of the PIANC World Congress to the author of the best paper.

OUR TECHNICAL REPORTS

THE CORE BUSINESS OF PIANC

- Provide **state-of-the-art guidance** on waterborne transport-related topics for professionals
- Drafted by **international Working Groups** supervised by a Commission
- An average of **50** Working Groups active at any time!

Available FOR FREE for all PIANC members on the Members Only pages!



OUR TECHNICAL REPORTS (MarCom)



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RECOMMENDATIONS FOR THE DESIGN
AND ASSESSMENT OF SINGLE POINT (SPM)
AND MULTI POINT MOORING (MPM) FACILITIES



MarCom Working Group Report N° 200 – 2023



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THE DESIGN OF TERMINALS
FOR RORO AND ROPAX VESSELS



MarCom Working Group Report N° 167 – 2023



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PIANC FENDER GUIDELINES 2024



MarCom Working Group Report N° 211 – 2024



OUR TECHNICAL REPORTS (EnviCom)



BENEFICIAL USE FOR SUSTAINABLE WATERBORNE TRANSPORT INFRASTRUCTURE PROJECTS



EnviCom Working Group Report N° 214 – 2023



ENVIRONMENTAL ASPECTS OF DREDGING, PORT AND WATERWAY CONSTRUCTION AROUND COASTAL PLANT HABITATS



EnviCom Working Group Report N° 157 – 2023



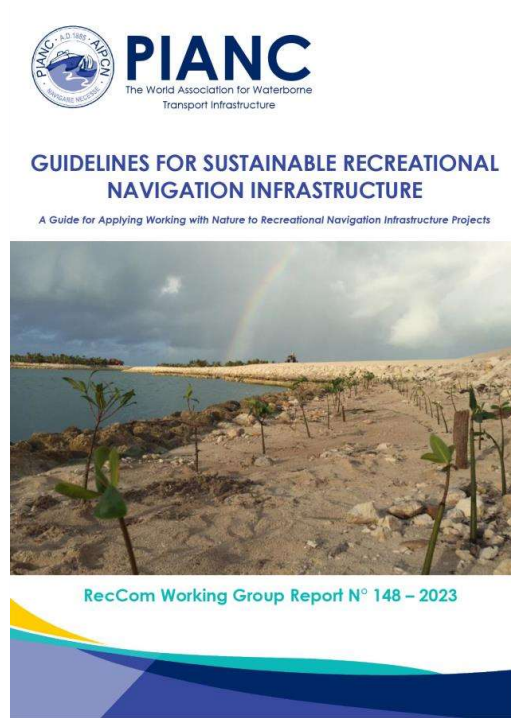
WATERBORNE TRANSPORT, PORTS AND WATERWAYS: A 2023 UPDATE OF CLIMATE CHANGE DRIVERS AND IMPACTS



EnviCom Task Group Report N° 3 – 2023



OUR TECHNICAL REPORTS (RecCom)



OUR SISTER ASSOCIATIONS

- PIANC co-operates regularly with many other national and international organisations, and international dredging organisations (IADC, CEDA, WODA).
- PIANC has also signed **Memorandums of Understanding** with fifteen **Sister Associations** to enhance the impact of both associations in the area of the related waterborne transport infrastructure, whilst respecting their individual entities, membership expectations and traditions:



THE PIANC 2024-2028 STRATEGIC PLAN (Approved AGA 2023)

The way ahead: main guidelines

- Strategic Plan 2024-2028
 - Finish the transition to the after pandemics situation integrating lessons learned
 - Integration of presential, hybrid and virtual activities
 - Highlight the relevance of networking
 - Compromise with ongoing transitions:
 - Climate
 - Energy
 - Environment
 - Digitalisation
 - Safety
 - Focus on Working with Nature
 - Introduction of KPIs



THE PIANC 2024-2028 STRATEGIC PLAN (Cont)

Objectives

- Development and improvement of global navigation infrastructure
- Enhance economic, social and environmental benefits
- Strengthen our network with new member countries and different kind of members
- Promote innovation and sustainability aligned with SDGs
- Strengthen capabilities and enhance visibility
- Consolidate our own digital transition



THE PIANC 2024-2028 STRATEGIC PLAN (Cont)

External Goals

- Maintain and expand credibility and recognition of our contribution
- Share expertise with decision-making bodies
- Cooperate with International Organisations
- Spread knowledge globally making use of digital communication channels
- Address challenges for our sector (waterborne transport and logistics) by a holistic approach to infrastructure.

THE PIANC 2024-2028 STRATEGIC PLAN (Cont)

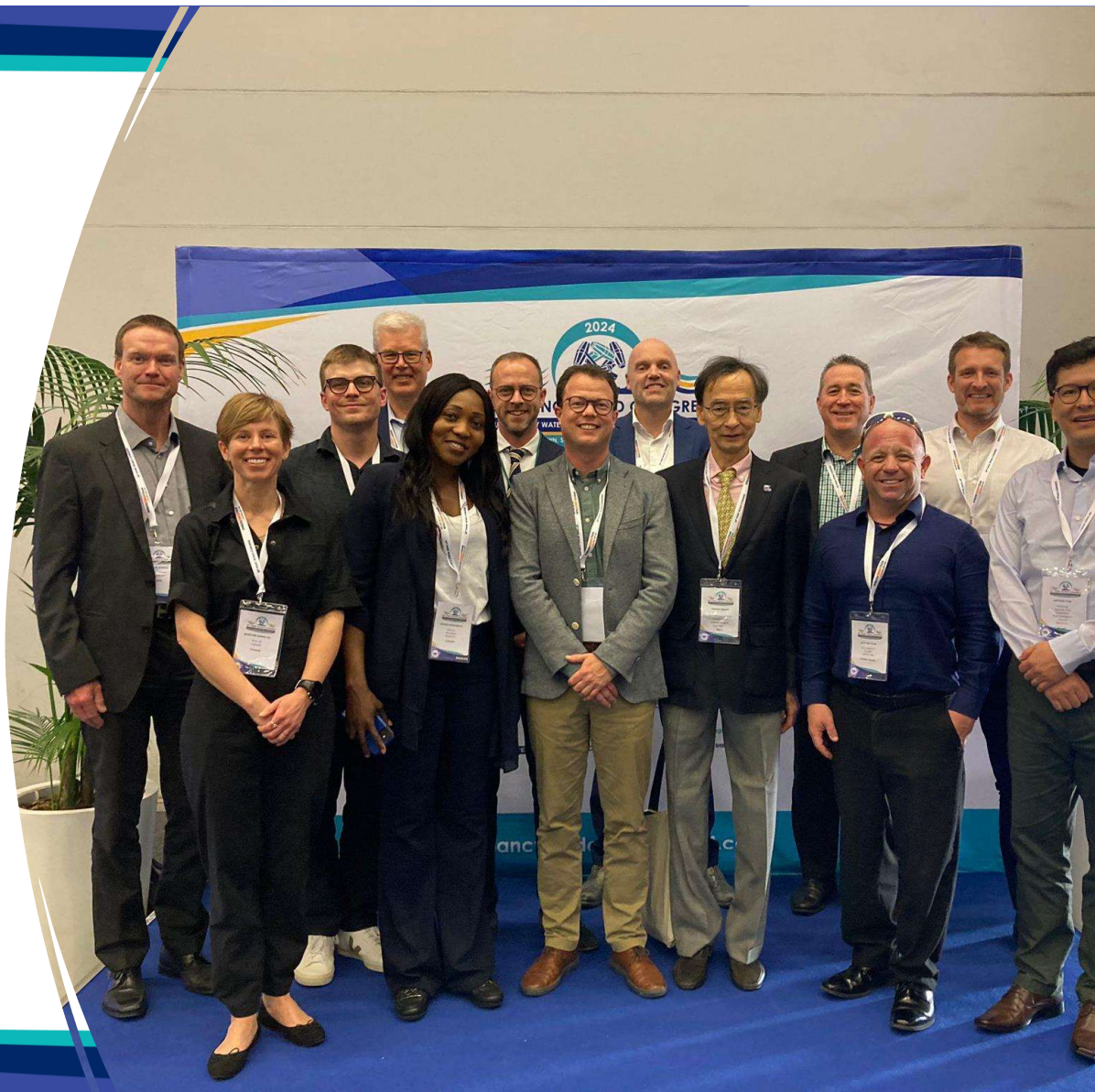
Internal Goals

- Increase membership
- Continue being a members-driven association
- **Enhance vitality of Qualifying Members and National Sections: Regional Events**
- Promote digital and hybrid events while keeping the necessary physical meetings and events to maintain the key networking role of PIANC
- Keep Human Exchanges and Friendships in all PIANC activities
- **Find a new balance between local, regional and global events**

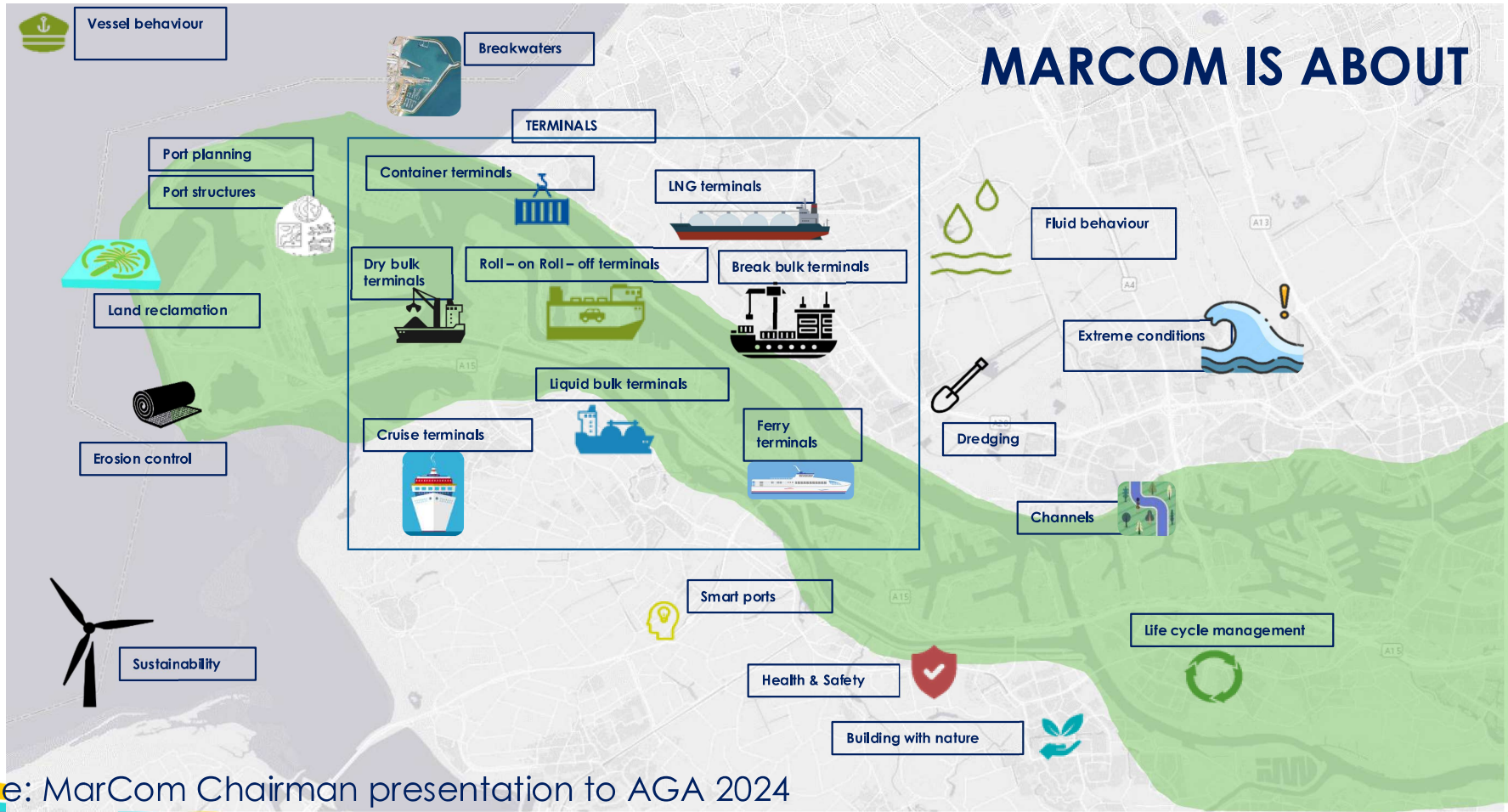


MARCOM MEMBERS

- 55 members from 25 countries across the globe
- MarCom is responsible for dealing with maritime ports and navigation channels topics of interest to PIANC.



MARCOM IS ABOUT



Source: MarCom Chairman presentation to AGA 2024



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MARCOM: RELEVANT ONGOING REPORTS

Total: 25 (8 expected to finish by the end of the year)

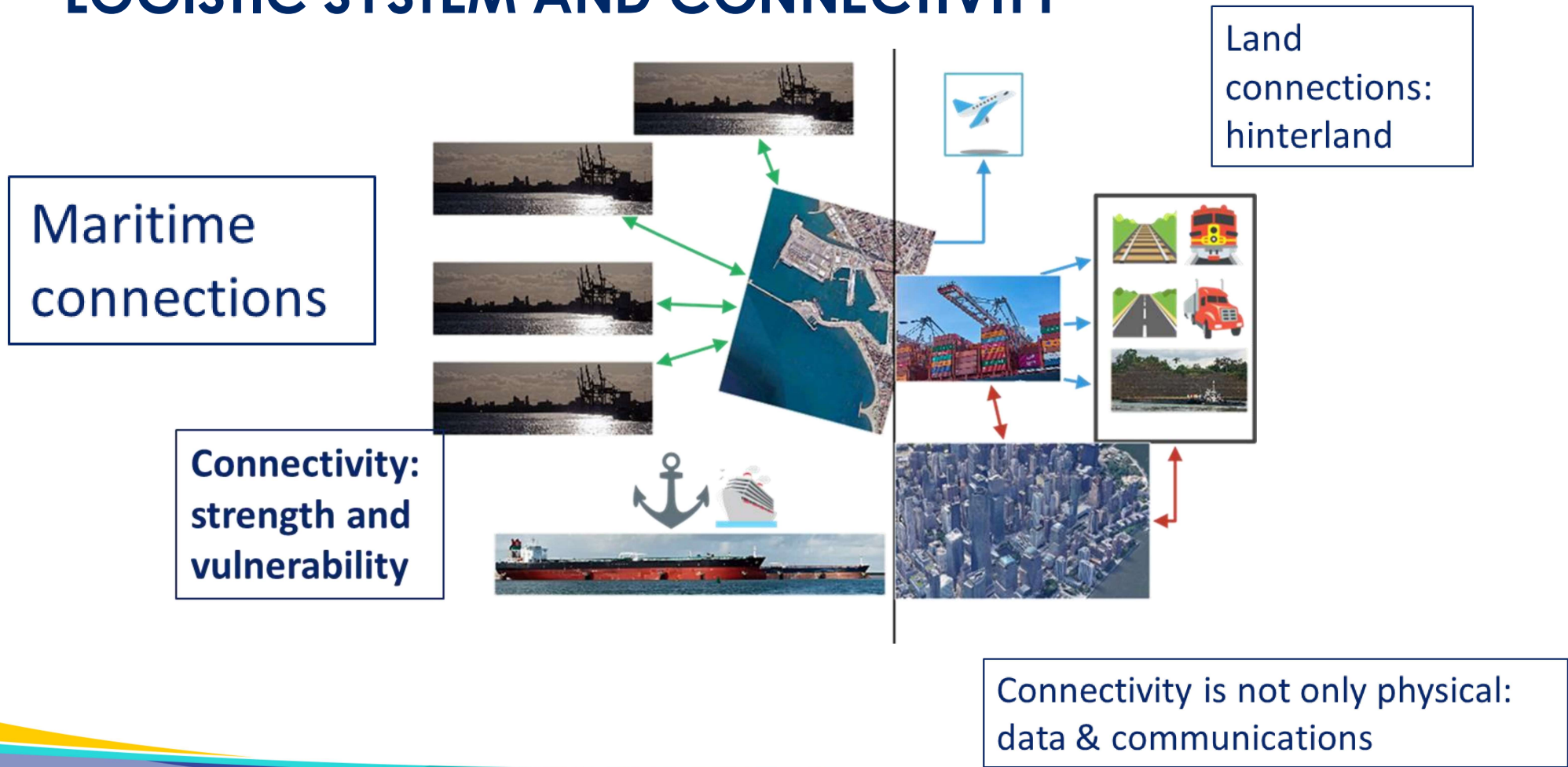
- WG 243 “Design, maintenance and **Sustainability** of Container Terminal Pavements” (+165)
- WG 153C “Recommendations for Design and Assessment of Marine Liquid and Gas Terminals **Handling Green Fuels** and Fossil-Based cargoes” (+153B)
- WG 248 “Guidelines for Onshore Power Supply for Ships”
- WG 250 “Update of WG 28 (2003) Breakwaters with Vertical and Inclined concrete Walls”
- WG 251 “Guidance in the Design of Parted Mooring Line Arresting Systems”
- WG 252 “Safety in Design of Marine Terminals and Marine Infrastructure Projects
- WG “Update of WG 184 Design Principles for Marine Dry Bulk Terminals”
- WG “Circular Monitoring of Ports”
- WG “Climate Resilience Guidance for Ports”

THE FUTURE: CHALLENGES & OPPORTUNITIES

- Logistic System and Connectivity
- Sustainability
- Climate Change
- Energy transition and new fuels
- Environment
- Infrastructure
- Resilience
- Digitalisation



LOGISTIC SYSTEM AND CONNECTIVITY



LOGISTIC SYSTEM AND CONNECTIVITY

Covid 19 and other low probability high impact events on Global Supply System and on ports and navigation

Impact on:

- Port operations
- Productivity of Ports
- New strategies and concentration of shipping companies and operators
- Adaptation of traffics (blank sailings)
- Stress on storage capacity of logistic network

Other stressors:

- Grounding of Ever Given
- War at Ukraine
- Geostrategic stresses in the Red Sea and Hormuz strait

SUSTAINABILITY



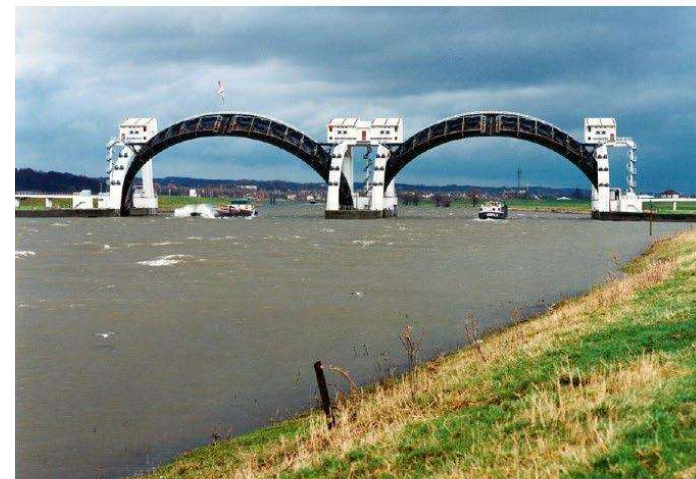
CLIMATE CHANGE

- MITIGATION
 - Decarbonisation
 - Reduction/suppression of emissions
 - Social contribution
 - Uncertainty
- ADAPTATION
 - Management of uncertainty
 - Adequation of investment to needs
 - Combine with resilience



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**WATERBORNE TRANSPORT, PORTS AND WATERWAYS:
A 2023 UPDATE OF CLIMATE CHANGE DRIVERS
AND IMPACTS**

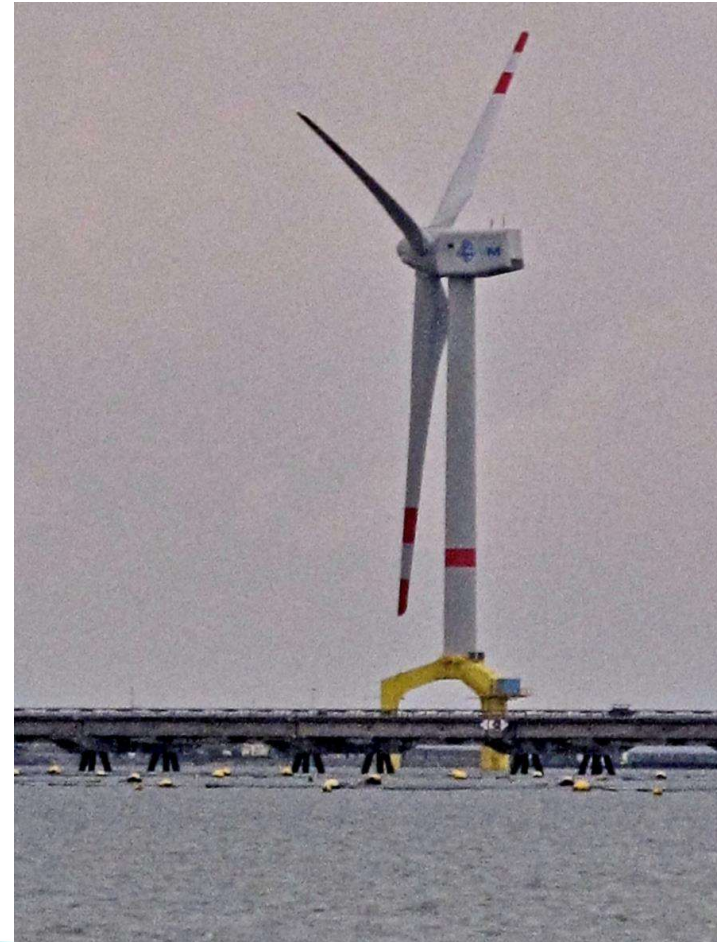


EnviCom Task Group Report N° 3 – 2023



ENERGY TRANSITION AND NEW FUELS

- Renewable Energy generation, supply and consumption in Ports:
- Adaptation to international trade and supply of new fuels
- New/future fuels with low/null emissions:
 - Manufacturing
 - Logistics
 - Bunkering:
 - The vessel and the Port
 - Green routes
 - Commercial implications
 - Risk of first movers
- Onshore Power Supply



NEW FUELS

New fuels: Terminals

- Hydrogen (green)
 - Methanol
 - Ammonia
 - Liquefied CO₂
 - Biofuels
 - Other
- Different physical features and safety requirements:
 - Phase changes LCO₂
 - Danger from Ammonia
 - Risk of Hydrogen leakages
 - Difficulties in changing



ONSHORE POWER SUPPLY

WG 248 MarCom (in formation)

- Vessels:
 - Cruise boats
 - RoRo
 - Container carriers
- Difficulties for standardisation
- Topics for discussion:
 - Availability: High demand
 - Design
 - Implementation
 - Operation
 - Safety
- Business case in discussion:
 - Cost: high CAPEX
 - High simultaneity factor
 - Lack of interest of electric companies
 - ¿... and what when zero emission fuels are available?
- Renewable generation
- Regulatory requisite in EU and many countries

ENVIRONMENT

Natural and urban

- Vulnerability of natural environment
- Complex interaction and management of urban environment: smart ports & smart cities
- Public opinion: towards the support of Communities
- PIANC Working with Nature



INFRASTRUCTURE

Not a necessary evil, nor a purpose in itself

- Physical support of activity
- Limits capacity
- Time for obtention:
 - Adaptation planning
 - Environmental risks
 - New contracting tools
- Land connectivity
- Bottlenecks
- Dredging: a particular case
- New design paradigms: resilient infrastructure



RESILIENCE

Stages:

- Readiness and anticipation
- Withstand damage and losses
- Absorption of impacts
- Fast recovery
- Adaptation for the future

Face long-term and short-term stressors

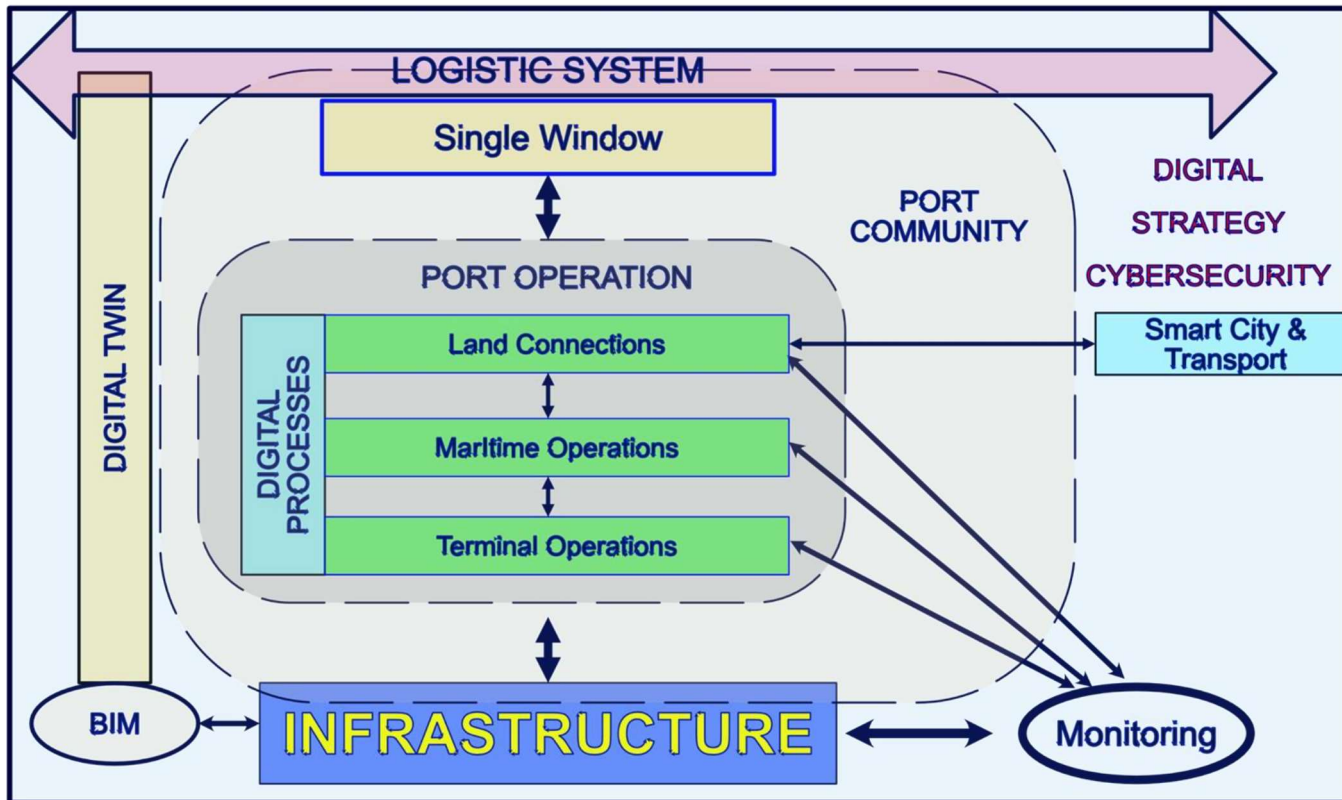
Consider:

- Cascade failures
- Governance factors
- Stakeholders (internal and external)

- Role of infrastructure
- Communications
- Holistic adaptation measures:
 - Structural (engineered)
 - Non-structural (governance and operational)
 - Create a cooperative environment
- Integrate uncertainty
- Monitoring of events
- Plan flexible and adaptable structures that can be raised and strengthened
- Business case: cost of not acting

DIGITALISATION

Opportunities of the new technologies: DIGITAL STRATEGY



A PERSONAL VIEW

The future is digital

- The Port is an element of more complex system: think holistic
- Challenges and general features of solutions are interconnected
- There are no pre-defined solutions: ready for problems that do not have a single solution
- Necessity: correct approach to problems and in-depth critical analysis
- Rapidly changing environment: dynamic response
- Search for solutions, knowledge, innovation and talent wherever they are: cooperate

NO RECIPES, NO FINISH LINE: EVERYTHING IS ON THE WAY





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Thank you for your attention.

For more information visit us at

www.pianc.org



Francisco Esteban Lefler
President