

The post-covid landscape for shipping and ports: business as usual?

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Antwerpen, 30/9/2021



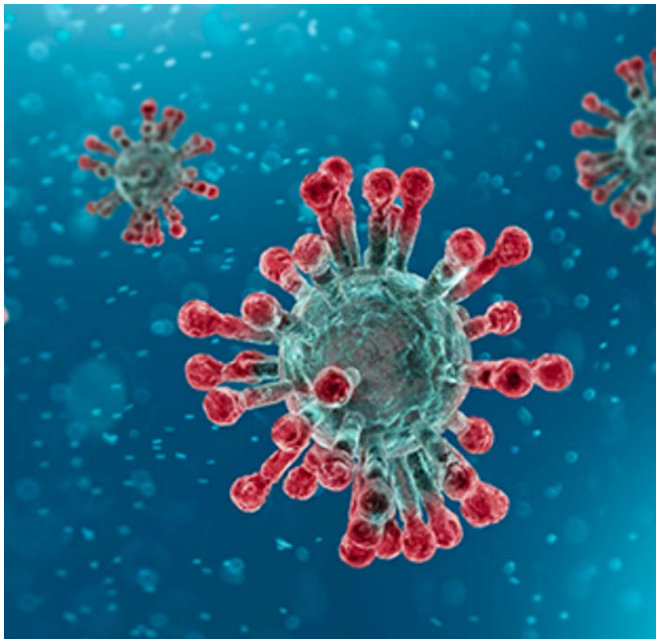
MATT



*'I'll have my usual —
whatever that was'*

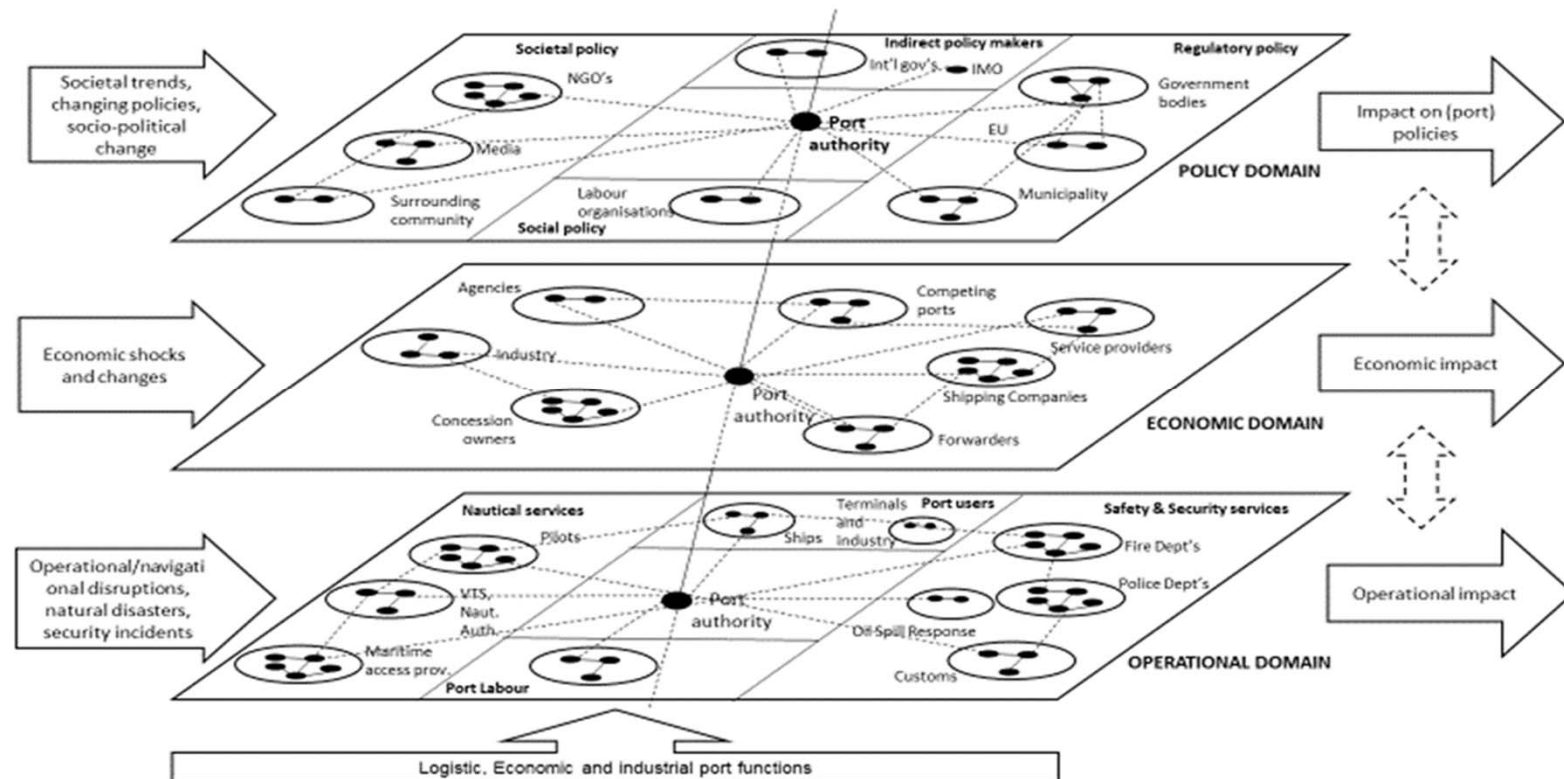
Overview

1. Risk and resilience
2. Climate and energy
3. Data collaboration
4. Sustainable development
5. Conclusions and reflections



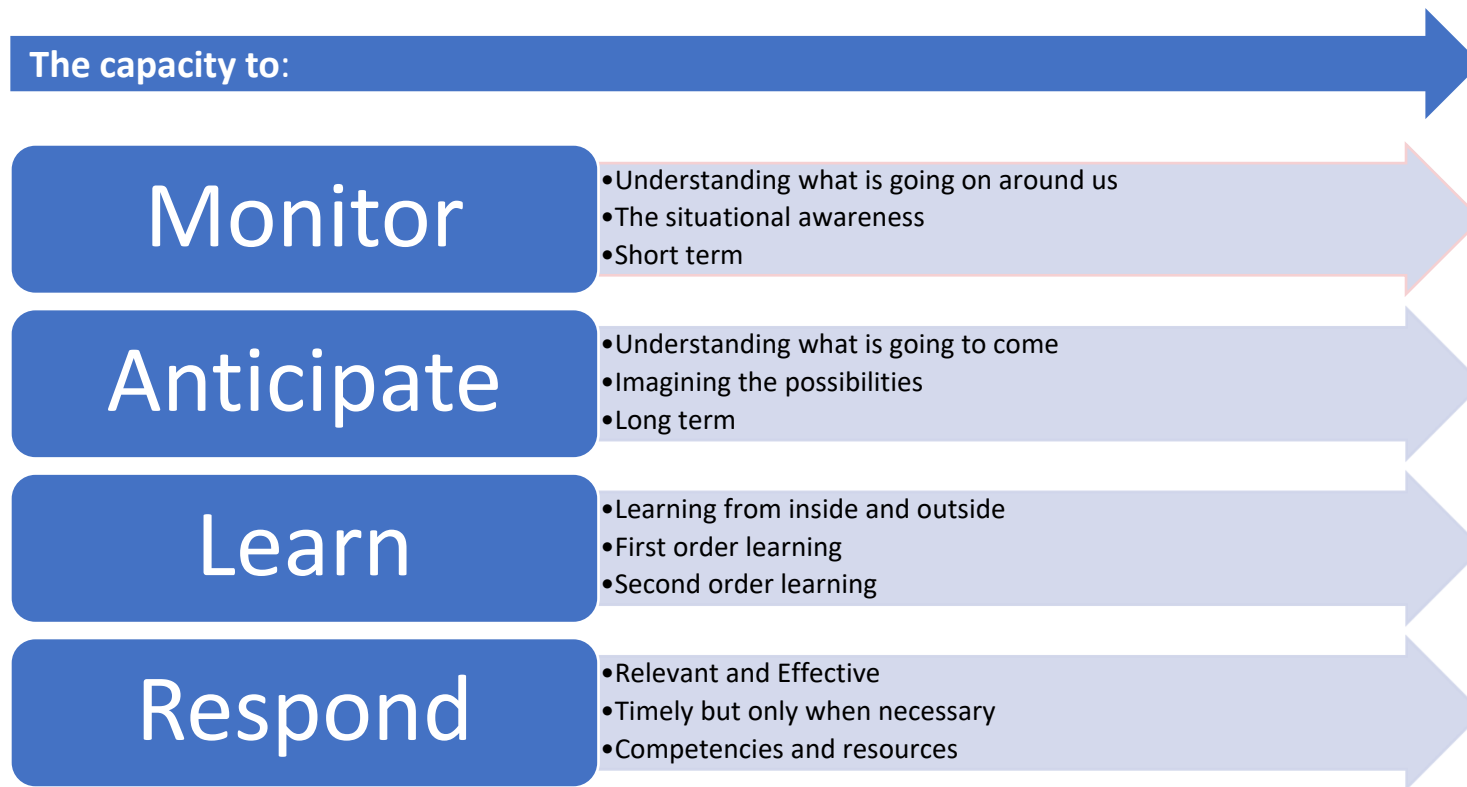
1. Risk and resilience

Port ecosystem in relation to adversities



Source: Vanlaer 2021

Increasing organisational resilience potential



Source: Vanlaer 2021



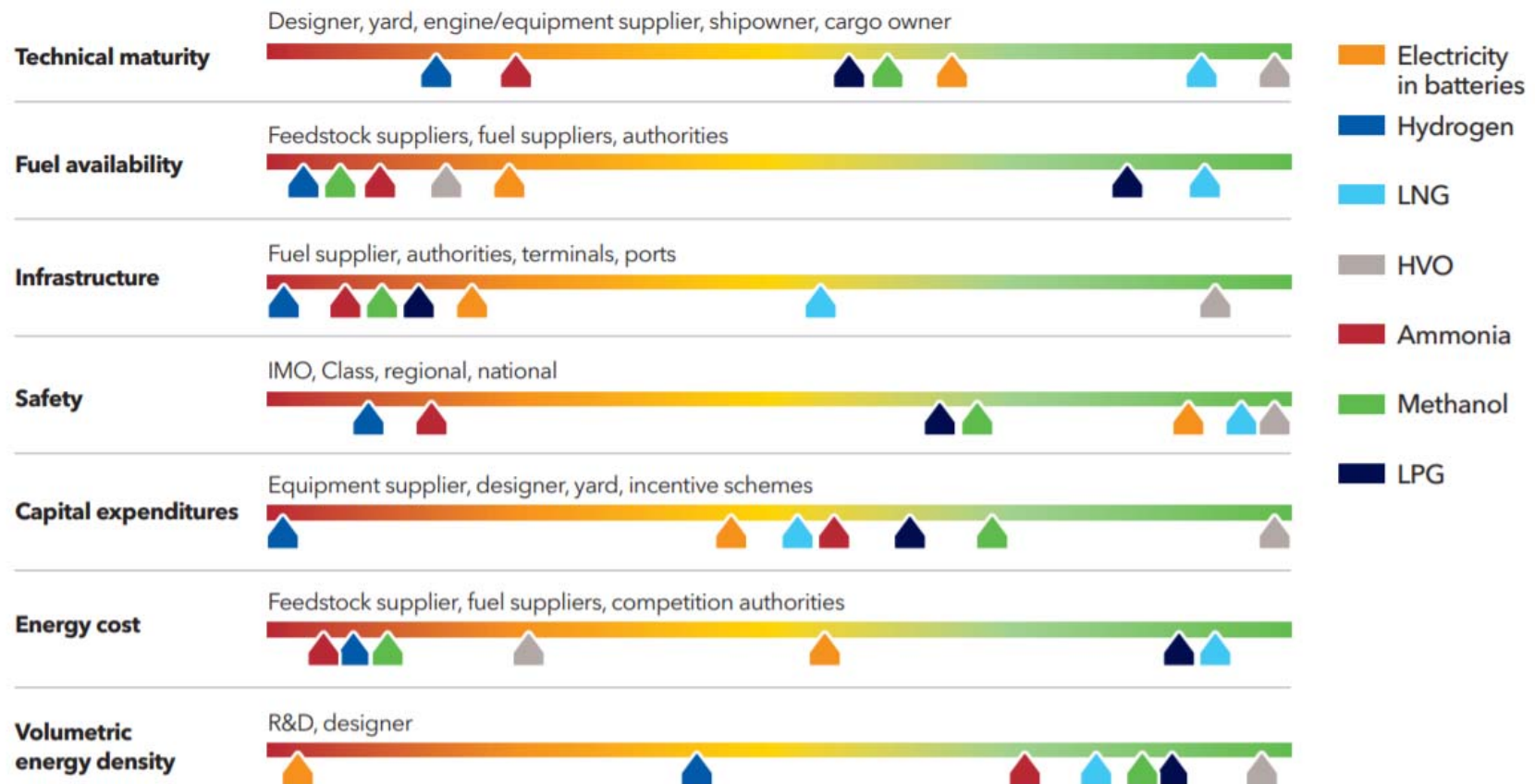
2. Climate and energy

Ports as decarbonisation hubs



Source: DNV-GL and Eurelectric (2020)

Indicative status of key barriers for selected alternative fuels in 2020



Source: DNV-GL (2020)



3. Data collaboration

How would you describe the status of implementing electronic data exchange at your port(s) following the IMO FAL requirement?

Answer choices	Responses %	Responses actual
No action yet / inception stage	31.53%	35
Design stage	17.12%	19
Implementation stage	17.12%	19
Operational stage	34.23%	38
TOTAL		111

Source: IAPH 2021



Source: World Bank / IAPH 2021



4. Sustainable development



RESILIENT DIGITAL INFRASTRUCTURE

- China Merchants Port Group - Innovation Prospers Sustainability
- Collaborative project - SPEED
- MPA Singapore - Digital Port Ecosystem



RESILIENT PHYSICAL INFRASTRUCTURE

- Port of Brisbane - Brisbane International Cruise Terminal
- Port of Kaohsiung - Master Plan 2017-2021
- Port of San Diego - EConcrete Coastallock Blue Economy Pilot Project



CLIMATE AND ENERGY

- Collaborative project - 2020 Northwest Ports Clean Air Strategy
- Port of Gothenburg - CinfraCap Carbon Infrastructure Capture
- Port of Rotterdam - Zero Emission Services



COMMUNITY OUTREACH & PORT CITY DIALOGUE SOCIAL DIMENSION

- Gladstone Ports Corporation - Expansion of community parklands
- Hamburg Port Authority - homePORT
- Ports of Auckland - SeePort Festival and Concert



COMMUNITY OUTREACH & PORT CITY DIALOGUE ENVIRONMENTAL DIMENSION

- Port of Açu - Protecting Sea Turtles
- Port of Marseille - Energy recovery from cruise ships' wastewater
- Port Saint John - Debris Free Fundy and Rope Recycling



HEALTH, SAFETY AND SECURITY

- Port of Açu - Together in the fight against Covid-19
- Port of Antwerp - Wearable device program
- Port of Marseille - Smartbolt digital cargo seal



GOVERNANCE AND ETHICS

- DP World - Global Education Programme
- Ports Australia - Port Sustainability Strategy Development Guide
- Port of Cartagena - UN SDGs integration in port sustainability strategy

Application of the 17 UN SDGs in ports



- Setting a good minimum wage for the port employees and encouraging similar practices in the port community
- Taking responsibility for the application of ethical standards throughout the supply chain (e.g. working conditions and human rights in developing countries)
- Including sustainability requirements (e.g. Fairtrade label) in procurement
- Supporting local communities in need through social projects targeting sustainable growth
- Supporting local social institutions (e.g. schools, orphanages, NGOs)



- Supporting local projects targeting the provision of food to families/communities in need
- Encouraging the transfer of food surpluses out of the warehouses in the port to charities, food banks and community organizations
- Supporting the trade/storage of Fairtrade and other ethically-produced agricultural products in cooperation with NGOs and community organizations
- Sourcing Fairtrade food products for own catering



- Improving health and safety awareness of employees and local communities through training and transparent communication on health and safety risks
- Minimizing environmental externalities (e.g. air pollution, water pollution, noise) of port operations and greening of the port and urban areas
- Initiatives on sustainable / safe mobility and projects targeting congestion
- Enhancing port safety and security and minimizing risks
- Awareness raising and actions against the use of addictive substances (e.g. tobacco, alcohol, drugs)
- Protecting habitats and biodiversity in and around the port area



- Competence and talent policy for port employees
- Enhance life-long learning for the port employees
- Cooperating with local schools, universities and research centres in educational programs, internships and port visits
- Offering training to port professionals through dedicated institutions
- Creating synergies with universities in port research and development projects



- Gender-neutral hiring and remuneration policies
- Promoting women to leadership roles; training and hiring more women for port operational positions (e.g. crane operators)
- Leveling the male/female ratio of port employees for operational and managerial positions
- Taking measures that make the port working environment more attractive to women (e.g. separate toilets, promotional campaigns, family-friendly HR-policy)



- Providing drinking water and clean sanitation facilities for port employees and visitors (e.g. vessels' crew, truck drivers)
- Minimizing/optimizing water consumption in the port area
- Harvesting rainwater for port use
- Protecting water-related ecosystems (e.g. estuaries, wetlands, mangroves) in and around the port area
- Projects protecting freshwater resources (e.g. wastewater and stormwater treatment)



- Locally producing and/or sourcing renewable energy
- Supporting research and development on clean energy technology
- Producing and/or recovering energy from industrial waste streams
- Investing in energy-efficient port equipment (stationary and mobile material handling equipment, lighting and technology)
- Encouraging clean energy initiatives from third parties (vessels, tenants and operators) through appropriate instruments (incentives, clauses in lease/concession agreements)
- Providing Onshore Power Supply from renewable sources
- Providing cleaner (marine) fuels in a safe and efficient manner
- Optimizing port operations and processes (logistics, port calls)



- Achieving economic growth through diversification, innovation and technological modernization
- Generating economic growth in an environmentally sustainable manner
- Ensuring that economic growth positively impacts local communities economically and socially
- Promoting employment, including opportunities for disadvantaged groups and young people
- Striving for a healthy and safe working environment for all: specific actions related to safety and ergonomics, and creating a good work-life balance
- Generating a sustainable model for cruise tourism
- Taking responsibility for applying ethical standards throughout the end-to-end supply chain (e.g. working conditions and human rights in developing countries)



- Devising sustainable port development policies supported by relevant key performance indicators
- Digitally optimizing infrastructure and port operations/processes/services
- Piloting, testing and implementing innovative IT and digital technologies in the port for public and private use
- Foreseeing the adaptation of port infrastructure to withstand climate change
- Adapting port infrastructure and processes to meet market demands (such as increasing ship size)
- Sustainable port development projects
- Investing in infrastructure for all transport modes to enable a balanced modal split
- Minimizing environmental impact of the port activities



- Achieving equality within the port independent of gender, origin, belief, conviction etc.
- Port community initiatives being all-inclusive irrespective of socio-economic background (e.g. supporting sensitive social groups)
- Social background-neutral hiring and remuneration policies
- Taking responsibility for the application of ethical standards throughout the supply chain (e.g. working conditions and human rights in third world countries)
- Financial support to local communities in need and social projects targeting sustainable growth of neighboring communities
- Ethical investment and banking



- Improving sustainable mobility and reducing congestion for both employees and goods
- Restoring ecosystems and making the port accessible and attractive for people in neighboring urban areas
- Minimizing environmental externalities of port operations (e.g. air pollution, water pollution, noise)
- Disaster recovery planning
- Community engagement programs and initiatives
- Supporting local communities in need through social projects targeting decent living and working opportunities that generate sustainable growth of neighboring communities
- Supporting local social institutions (e.g. schools, orphanages, NGOs)



- Sustainably managing natural resources, chemicals and waste
- Implementing responsible procurement and sustainable investments in port area management and development as well as the end-to-end supply chain etc.
- Encouraging circular economy and industrial reuse and mutually beneficial use of resources in the port community
- Optimizing port operations/processes/services
- Reducing food wastage and food loss in the production / supply chain (e.g. connecting the cruise industry with an NGO addressing poverty in your city or region)



- Improving energy efficiency of port operations, processes and services
- Enabling the reduction of carbon and greenhouse gas emissions within the port area
- Adapting port infrastructure and port-related operations to Climate Change
- Providing services to reduce greenhouse gas emissions at sea and on the waterways, as well as the hinterland part of the supply chain
- Producing and/or sourcing renewable energy
- Encouraging third parties (vessels, tenants and operators) to take clean energy initiatives, by providing incentives and integrating clauses in lease and concession agreements



- Taking measures to prevent waste from ending up in the oceans (e.g. port reception facilities, fishing for litter, clean-up actions)
- Promoting sustainable fishing activities
- Supporting research regarding sustainable use of maritime resources
- Reducing the emission of CO₂, SO₂, NO_x, NH₃ from port-related activities to avoid acidification of the oceans
- Minimizing water pollution through adequate wastewater treatment facilities
- Protecting coastal and estuarine ecosystems
- Minimizing disturbing factors such as underwater noise for marine mammals



- Supporting local projects regarding nature development and biodiversity
- Recovering and protecting nature and biodiversity in the port surroundings
- Preventing deforestation through the usage/procurement of sustainably-certified wood and paper
- Offering nature and environmental education programs to employees
- Port area development in balance with ecosystems
- Minimizing environmental externalities of port operations (e.g. air pollution, noise)



- Constructive dialogue between employer and employees
- Good governance (a clear policy statement, stakeholder analysis, defined measurements, consistent reporting...)
- Peace initiatives (e.g. peace education on the work floor, prevention of illegal arms trafficking)
- Addressing security: cyber security measures, commercial and operational data protection, improving the careful use and protection of personal data
- Open dialogue and collaboration with all stakeholders (including emergency services, customs and armed forces) and availability of a hotline for complaints and questions
- Transparent internal and external communication



- Partnerships with local communities for port-city relation initiatives
- Partnering with other ports and parties in the logistics chain in joint projects of common interest
- Public-private partnerships for funding and implementing sustainability projects
- Establishing supply chain partnerships for ensuring CSR values throughout the chain
- Cooperating with other ports for educational/training purposes (e.g. joint port training programs and centers)
- Joint research and development projects involving port stakeholders, academia, industry and authorities

5. Conclusions and reflections

- Disruption is becoming 'business as usual'. Resilience management and business continuity planning are a must for critical infrastructures such as ports.
- Digitalisation of the maritime sector is lagging behind, lack of trust between stakeholders in data sharing is the prime barrier to overcome.
- Decarbonisation ambitions are increasing, leading to regional disparities amidst uncertainty about fuel choice and funding.
- Energy transition offers multiple opportunities for ports, certainly for those that are in energy trade.
- An integrated approach to sustainability is emerging in the port sector , but it is still far from standard practice.

- Will globalisation make (some) way for regionalisation? How will this affect supply chains?
- Is the economies-of-scale business model of global shipping and logistics still valid?
- Has the landlord port governance model reached its expiration date? Should port authorities become more entrepreneurial?
- How does an entrepreneurial role fit with that of a neutral community-builder that strives for a resilient port ecosystem ('trust port')?
- Has the single-port governance model reached its limits? Will we see more far-reaching forms of cooperation?
- How can the divide between ports in developed and developing economies be bridged?



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