Digitalization, Innovation and Port ecosystems

“VII Encuentro Latinoamericano y Caribeño de Comunidades Logísticas Portuarias”

- August 2023
Context

Digital Transformation in Ports as a catalyst for Operational Excellence, Resiliency and Adaptability

PORT ECOSYSTEMS  \(\rightarrow\)  DIGITAL TRANSFORMATION  \(\rightarrow\)  BLUE ECONOMY
Introduction
"...this is about accelerating the digitalization of our industry and driving real change for our customers. Our strategic vision is to become the Global Integrator, offering truly integrated logistics solutions that connect, protect and simplify our customers’ supply chains”

Mr. Vincent Clerc
Group CEO A.P. Moller - Maersk
"We never saw such fast progress in Digitalization as with the pandemic. But as any transformation journey it can not happen in isolation, especially in Shipping where everything is interconnected: being standardization key from data and process perspectives”

Mr. Andre Simha
Group CDO & CIO Mediterranean Shipping Company
Technology Trends 2023

Source: https://www.infotech.com/research/ss/2022-tech-trends
The SmartPort ‘promised land’

Digital Transformation as catalyst towards Supply Chain visibility, flexibility and predictability

**Physical Infrastructure**

**Digital Twin Enabling Data-Driven Decision Making**

- **Process Understanding**
- **Data Integration**
- **Measure & Analyze**
- **Anticipate & Optimize**

NextPort by Moffatt & Nichol
Take-aways

01 Ports needs to leverage technologies & adapt to new ways of working for Supply Chain Digitalization and its subsequent Optimization.

02 Generating, enabling and using Data is key to transform & connect Processes, with standardization and interoperability as key topics.

03 Digitalization is a core competence, a meeting point for processes and optimization – technology is only the enabler, not the purpose.
The **bigger picture**, Key drivers for Digitalization
New Logistics & Business Models
Data-driven seamless Supply Chain for Customer-centric agility (and sustainability)

“It is not just a question of being fast. It is this concept of trying to know what our customer wants and then having a very integrated supply chain between manufacturing, logistics, of course design. Twelve years ago, we were not even thinking about this fully integrated approach, or we didn’t have technology so much involved in the business”

- Pablo Isla
Former Inditex CEO

An important call for every Supply Chain actor…

Lead logistics 100% determined on Transport Decarbonization

Collaboration and Innovation to join forces

Balanced initiatives combining applied R&D and tangible Industry impact

Maritime Digitalization Start-ups

**Tracking Intelligence & Analytics**
- ladar Ltd
- GSTS
- FleetMon
- cloudeo
- ORCA AI
- FAME
- aquaplot
- GeoSpock
- exactEarth
- spire
- AMS

**Vessel Management**
- ioCurrents
- Captain Manager
- we4sea
- WINDWARD
- KAIKO
- nautix
- Smart Ship
- deepsea

**Digital Regulations & Documentation**
- R4S
- Regs4ships
- OneOcean
- ess DPCs

**Environment Monitoring**
- SINAY
- METIS CyberTechnology
- GREENSEA GUARD

Source: Munich Venture Partners website, 2021.
Tackling a complex Problem Space
Relevant and connected Use Cases is key to move forward
Supply Chain is rapidly evolving and transforming with data-driven customer centric logistic models and subsequent new business paradigms.

Transport & Logistics decarbonization is a massive force that will require questioning and challenging the whole Industry way-of-working.

While Technology is more accessible than ever, encompassing its impact with processes re-engineering and an ecosystem approach are key.
NextPort.ai, team and focus on SmartPorts
Data Driven Decision Making

Describe / Analyze / Plan (and Prescribe) / Optimize by integrating Data and then applying A.I.

DIGITAL TWIN PORTS AS DIGITAL INFRA TO TRANSFORM DECISION MAKING

DATA PORT PLATFORM AS CORE FOUNDATION FOR SIMULATION & OPTIMIZATION
“In order to reach Operational Excellence, we are promoting the Digital Control Tower concept for Real Time Visibility, Improved predictability & prescriptive capabilities”

Jesus Medina,
APBA Chief Digital & Innovation Officer
User Augmentation at Control Rooms

An inclusive approach to generate the required evolution with and for existing Users

Real Time monitoring with exceptions handling
Predictive & prescriptive capabilities
“What If” Scenario simulations evaluation
Next-level digital tools & data analytics UX
Practical and Hands-On Innovation
Enabling Workforce of the Future and Customer Centric Development
Take-aways

01 **Ports need to embrace Data** new capabilities to generate evolution in **decision-making optimization**, at All levels and value chains in the Port (including less tech-oriented).

02 As Ports are complex, to **Be Practical & Bold** to innovate is key: challenging existing **Way-of-Working** but being perseverant with **Change Management**.

03 Being Blue Economy an engine of our Social-economic dynamization, to enable **Workforce of Future** is a fundamental area attracting and retaining **Talent to Ports**.
Thanks

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