

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**



**DIGITAL
TRANSFORMATION**



**BLUE
ECONOMY**

Introduction



From our Industry Leaders

...relevant statements about the topic

"...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

From our Industry Leaders

...relevant statements about the topic

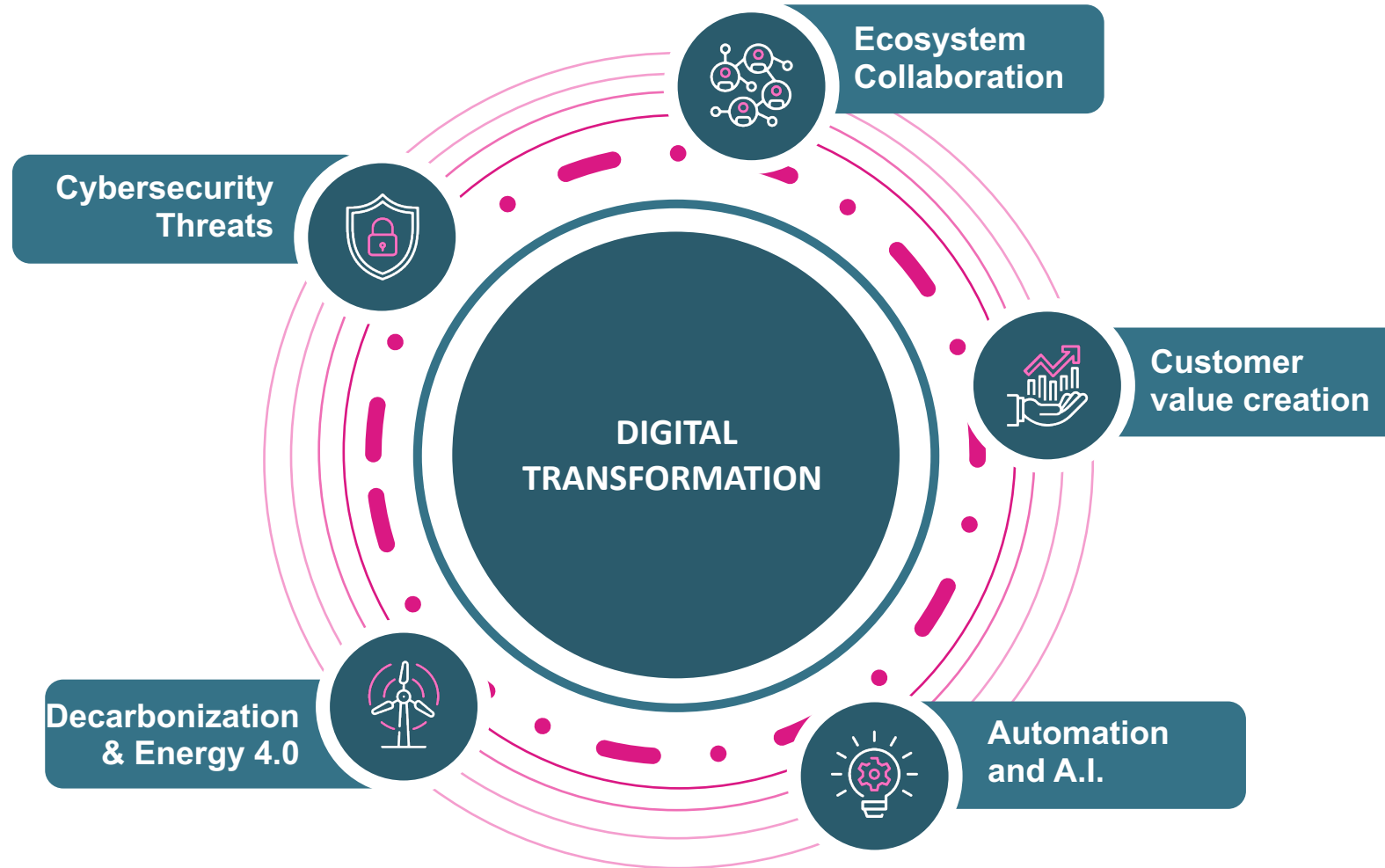
"We never saw such fast progress in Digitalization as with the pandemic. But as any transformation journey it can not happen in isolation, especially in Shipping where everything is interconnected: being standardization key from data and process perspectives"



Mr. Andre Simha

Group CDO & CIO Mediterranean Shipping Company

Technology Trends 2023



Source: <https://www.infotech.com/research/ss/2022-tech-trends>

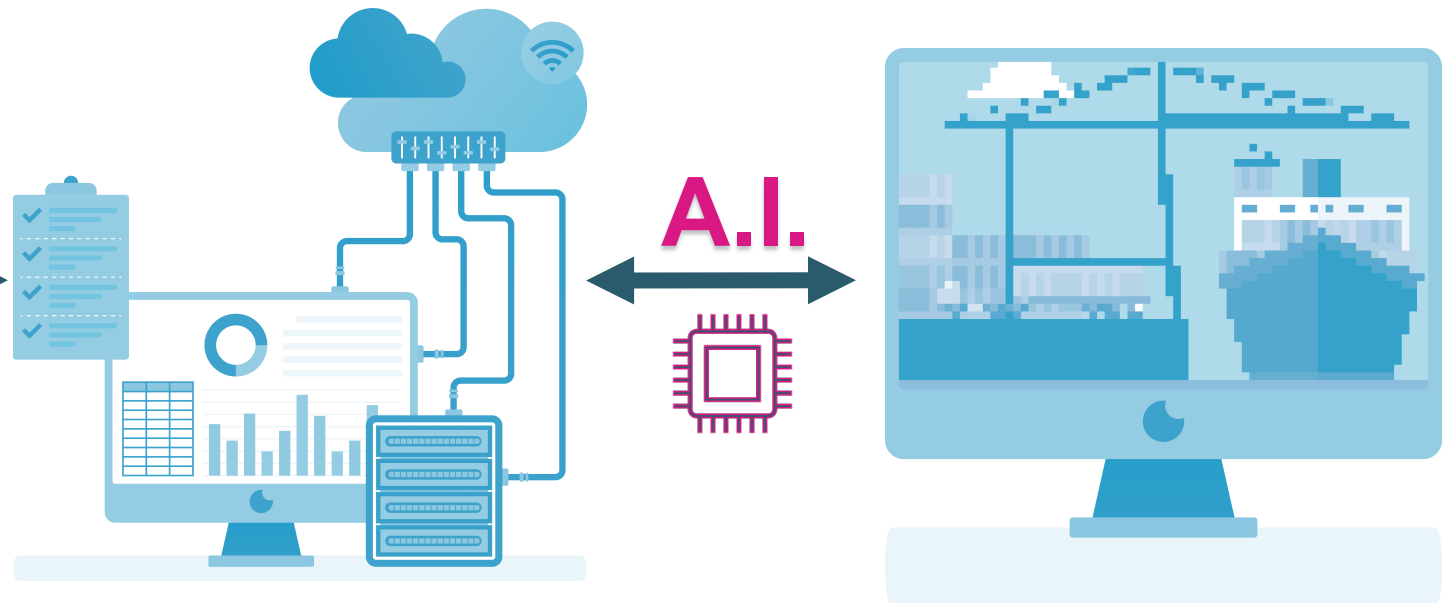
The SmartPort 'promised land'

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**

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

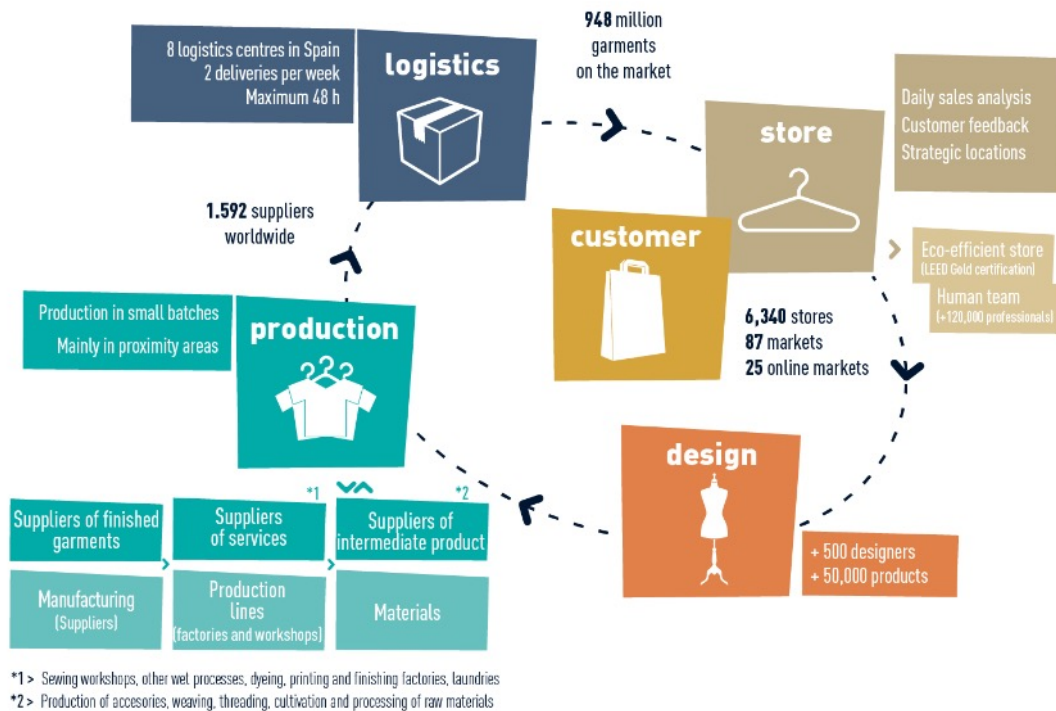
Digitalization is a core competence, a meeting point for processes and optimization – **technology is only the enabler**, not the purpose.

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

Source: Harvard Business Review about Zara, 2015.

An important call for every Supply Chain actor...

Lead logistics 100% determined on Transport Decarbonization



Source: [Amazon sustainability & carbon footprint, 2020.](#)

Collaboration and Innovation to join forces

Balanced initiatives combining applied R&D and tangible Industry impact

Maritime Digitalization Start-ups

Tracking Intelligence & Analytics



Smart Ports & Port Call Optimization



MVP

Vessel Management



Digital Regulations & Documentation



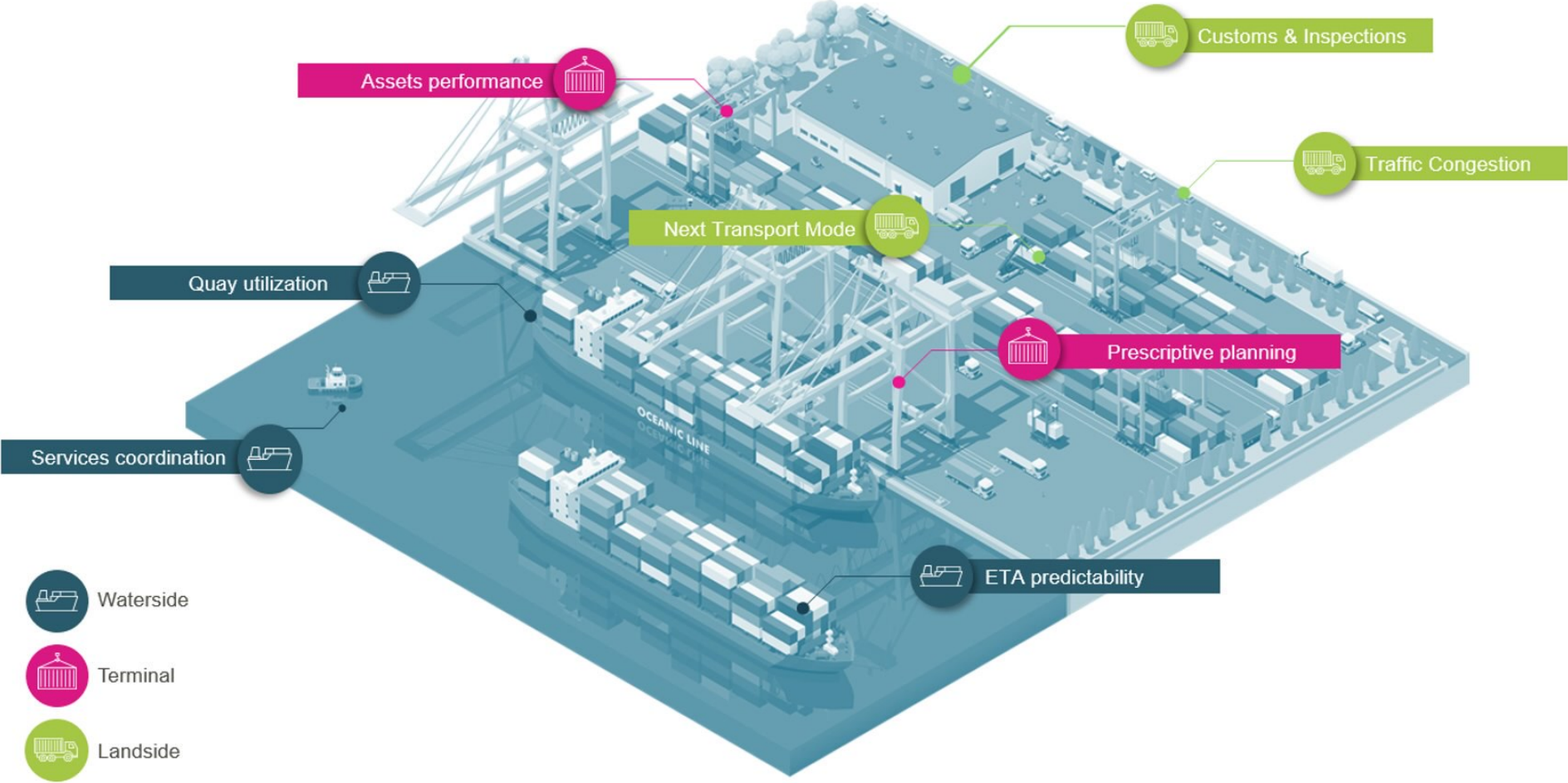
Environment Monitoring



Source: [Munich Venture Partners website](#), 2021.

Tackling a complex Problem Space

Relevant and connected Use Cases is key to move forward



Take-aways

01

Supply Chain is rapidly evolving and transforming with **data-driven customer centric logistic models** and subsequent new business paradigms.

02

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

03

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

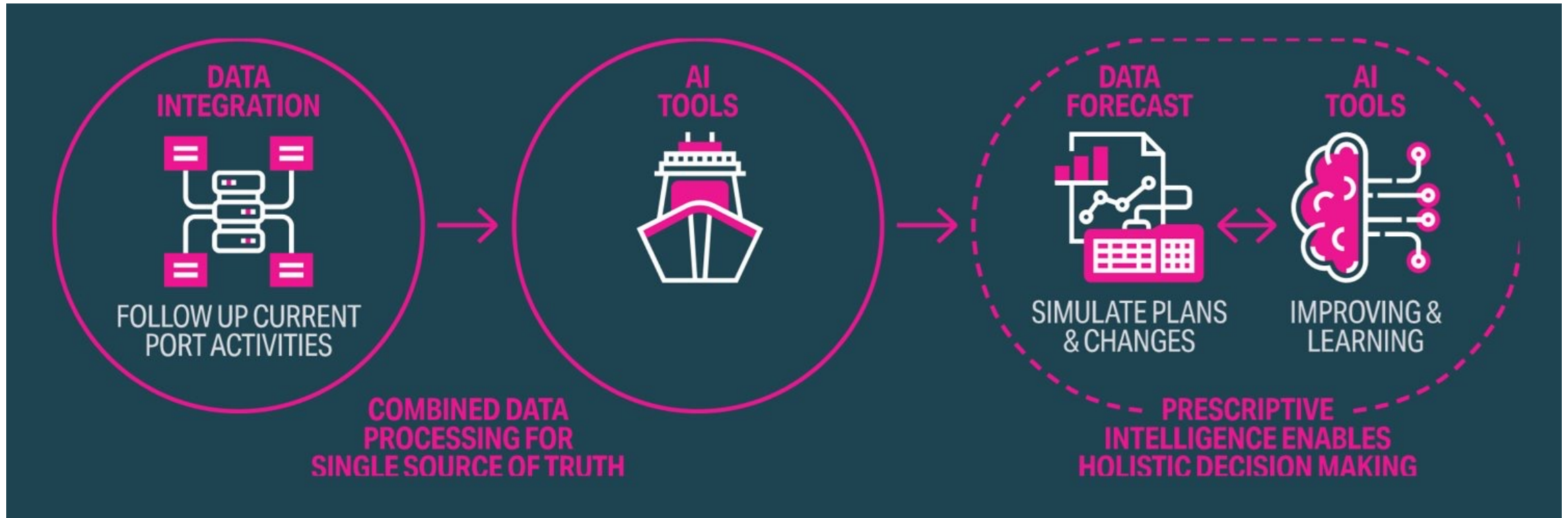


Data Driven Decision Making

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

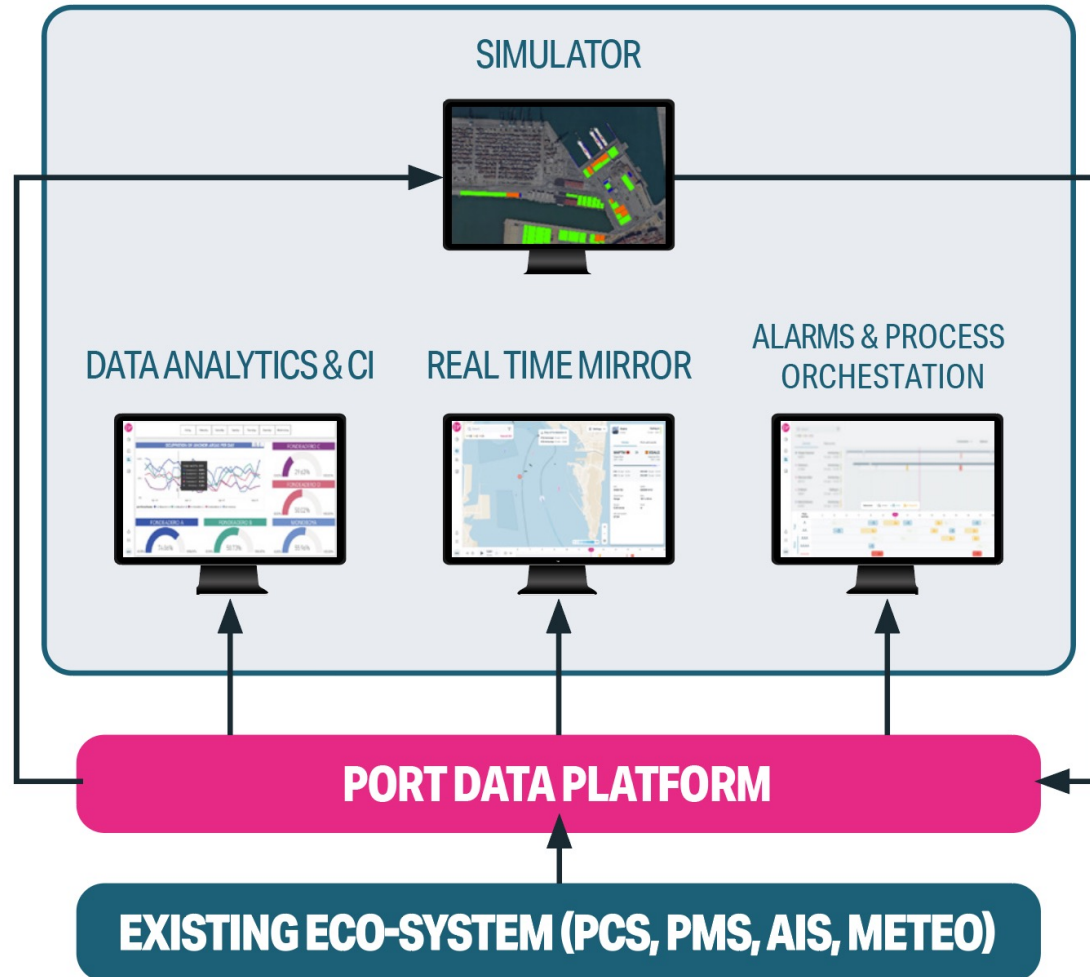
DIGITAL TWIN PORTS AS
DIGITAL INFRA TO TRANSFORM DECISION MAKING

**DATA PORT PLATFORM AS
CORE FOUNDATION
FOR SIMULATION & OPTIMIZATION**



Pilot in Port of Algeciras

New paradigms in Ports with Digital Twin and A.I.



“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



**KNOWLEDGE
SHARING**



**COMMUNITY
COLLABORATION**



**APPLIED
INNOVATION**

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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