

SIEMENS



SIEMENS ADVANTA

Turning Ports into **Cognitive and Sustainable Ecosystems**

To become data-driven enterprises

siemens-advanta.com

Rising to the challenges: Building a **digital and sustainable future** for the Port Industry

The port industry is on the verge of a significant transformation in a changing world. Challenges like climate change, supply chain disruption and a shift in globalization underscore the need for resilient, flexible systems to address these issues.

Smart ports will tackle these challenges by enhancing port safety, optimizing processes, implementing sustainable solutions, and more. Furthermore, a robust and scalable Digital Core will help to create Cognitive Ports to realize the advantages of NetZero and digital transformation.

Ensure People Safety

42 % of marine casualties or incidents took place in the port area

Increase Operational Efficiency

76 % of port operators optimizing operations as top priority

Maximize Intermodal Connectivity

+1,000 Freight Tech start-ups with focus on intelligence, automation & integration

Enhance Environmental Sustainability

40 % reduction of CO₂ emissions in shipping by 2030 (IMO target)

Optimize Resilience of Business

Black Swan Events – from Brexit over Covid-19 or blockage of Suez Canal to cyber risk

A Smart Port requires forward-looking solutions for maximum value creation such as:



Digitally connected Partner Ecosystems providing new port services



Centralized communication system across all ports systems to improve ports management and smooth supply chain operations



Digital Twins & AI to improve sustainability, asset management and safety via real-time and historical data



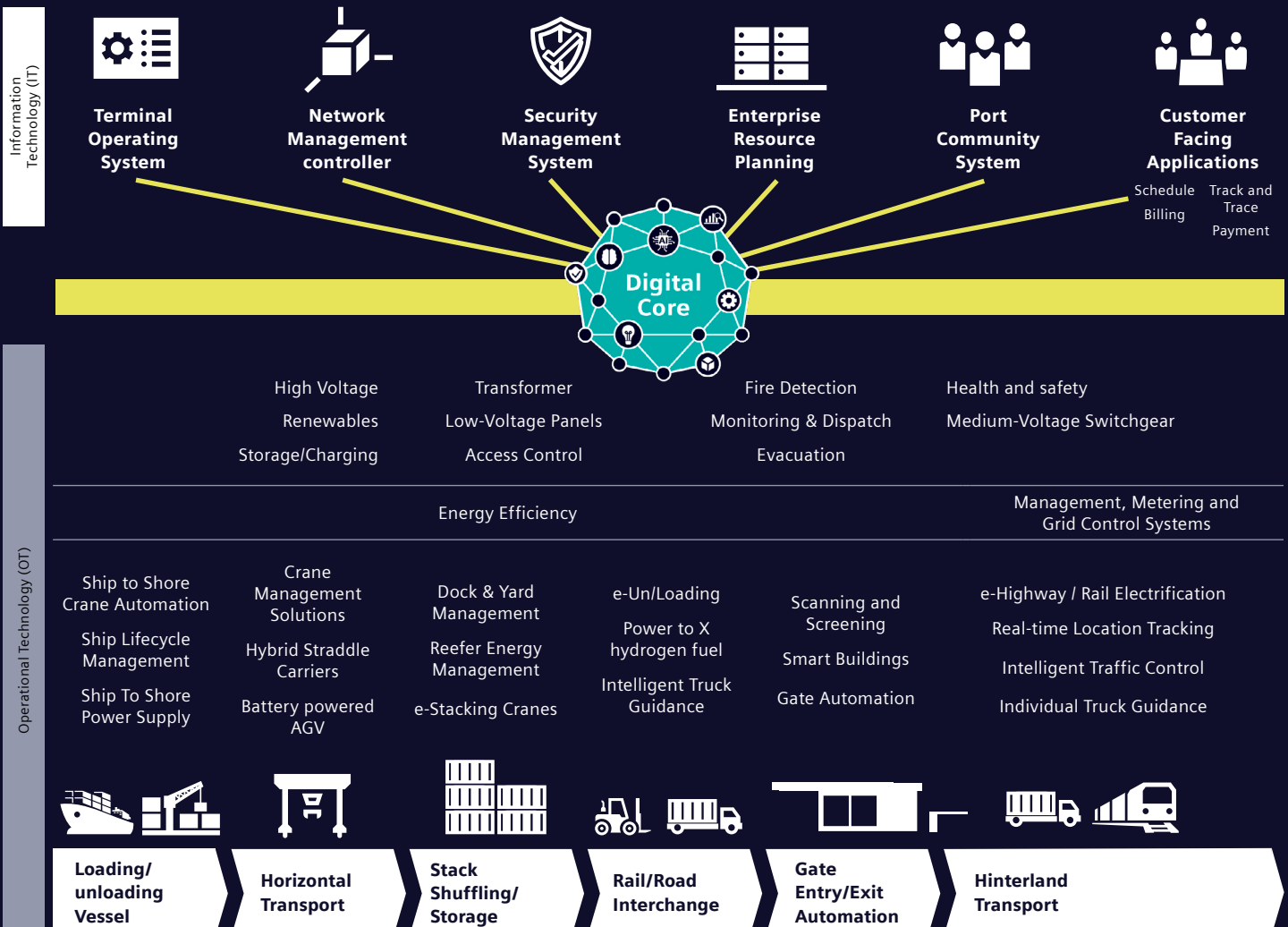
Blockchain applications for record of transactions across the supply chain

The Digital Core: Become a data driven smart port by creating an intelligent ecosystem across your enterprise IT&OT landscape

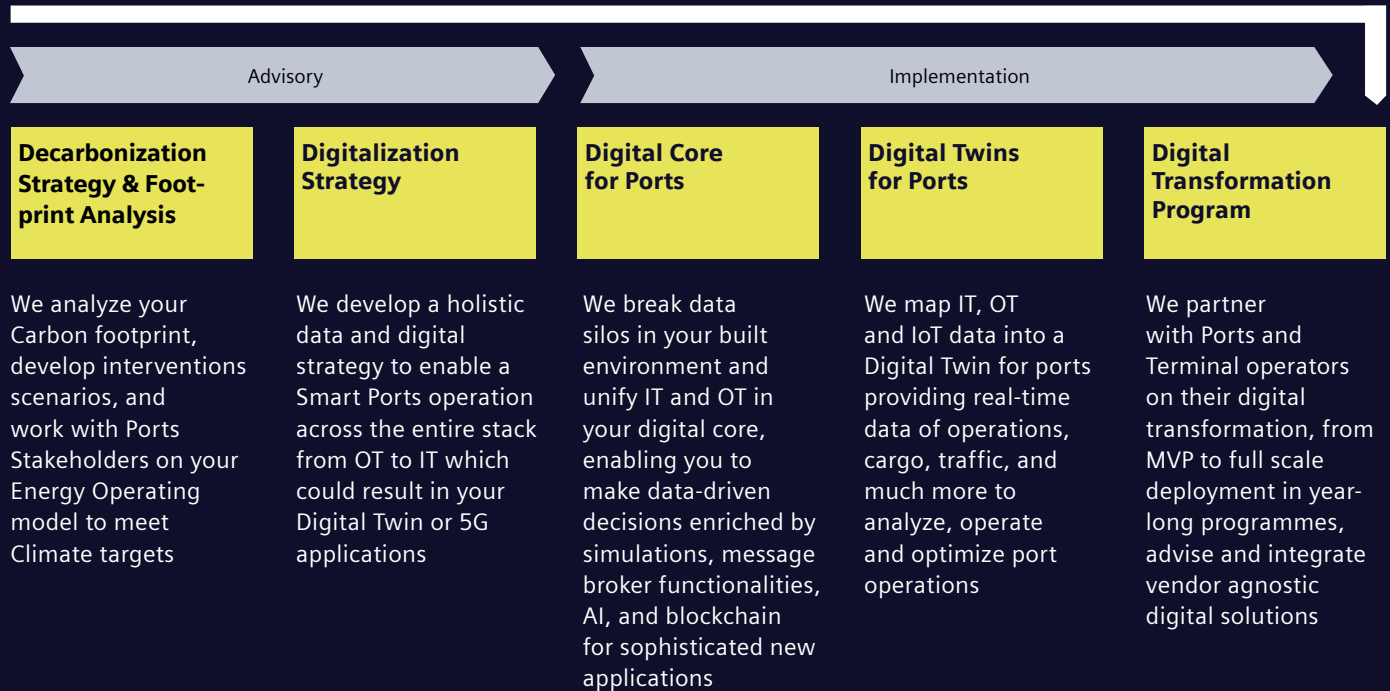
The Digital Core will enable companies to make data-driven decisions across a diverse IT/OT infrastructure. Its purpose is to create a core of intelligence independent of third-party software, enabling companies to create their own IP and drive new business models through structured data governance, modeling, integration, and security capabilities. It will fuel new business logic and processes, leveraging outputs

from various systems and new digital innovations that run in the Digital Core. Therefore, adding a customized Digital Core to the digitization mix enables enterprises to use qualified data and existing corporate knowledge to transform into a powerful decision-making body, using the latest innovation to grow their digital capabilities over time.

How we design your digital core



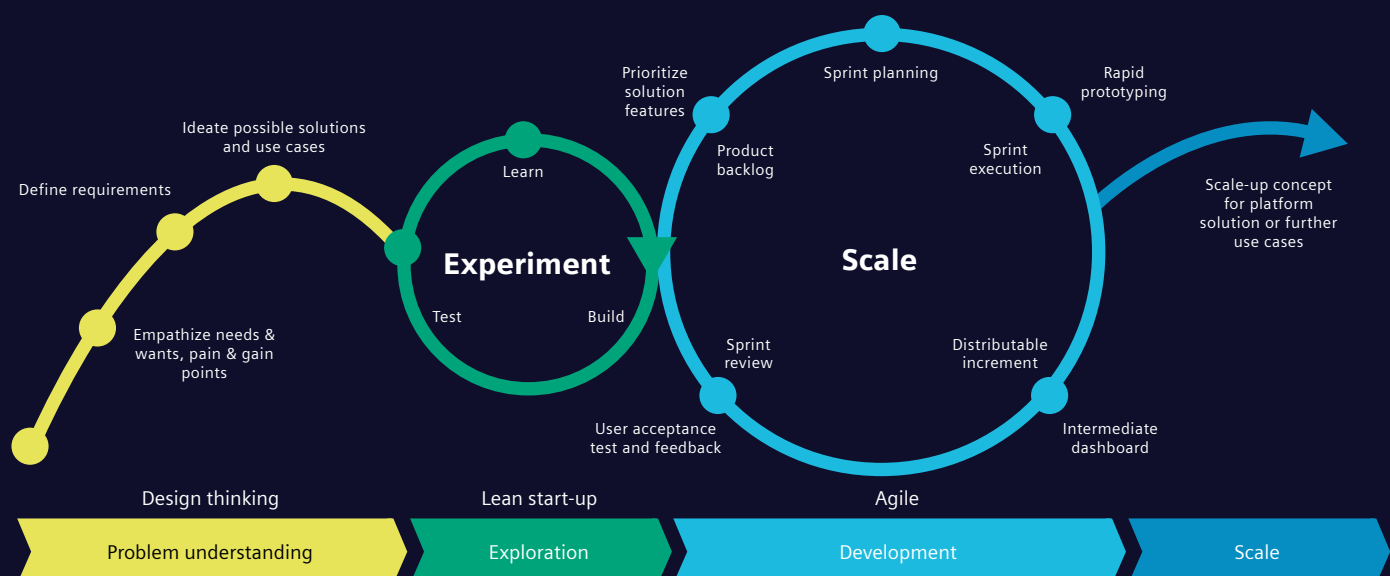
Our Service Portfolio



Our joint transformation journey – from advisory to full smart & sustainable Smart Port Solutions

From ideation to implementation, we leverage our global expertise to guide ports through their digital transformation journey. As for smart ports, our offerings include a 360° assessment of the port infrastructure, prioritized use cases, consideration of existing or planned systems to create a scalable digital core realizing all anticipated ports improvements.

Furthermore, we manage the end-to-end implementation, from sensors over 5G connectivity to system integration & digital platform deployment, streamlining the whole supply chain.



What we **achieve** for our customers

We enable a smart and sustainable port experience by meticulously planning each step according to our customer's distinct challenges. Utilizing digital twin solutions, we simulate and optimize new production processes, while self-learning software enhances efficiency in complex systems through

data analytics. Smart grid technologies further facilitate the integration of renewable energy sources into the grid. Our diverse technological capabilities empower us to provide tailored strategies for each unique case, ensuring optimal solutions for our customers.



Customer:

Mediterranean Port

Solution:

Technical Bid Evaluation for Port community systems project

Requirements of a single platform for the digital management of all the ports of a country in the Mediterranean area were defined under consideration of connectivity needs both operationally with the port systems and with the rest of the parties involved.



Customer:

Cargo Port in Oceania

Solution:

Single Window Pilot (Port Community System) Implementation

Design and technical implementation of single windows pilot scheme including new services like port call management and dangerous goods management services. This enabled the connection of all port agents for critical business processes.



Customer:

Global Logistics & Port Services Provider

Solution:

Multi-year Digital Transformation Program

Development of a four-year transformation program and budget, process improvements and new services identified, and key initiatives for logistics and maritime operations supported, achieving the client's strategic objectives.



Customer:

Port in France

Solution:

5G use cases and roadmap co-creation

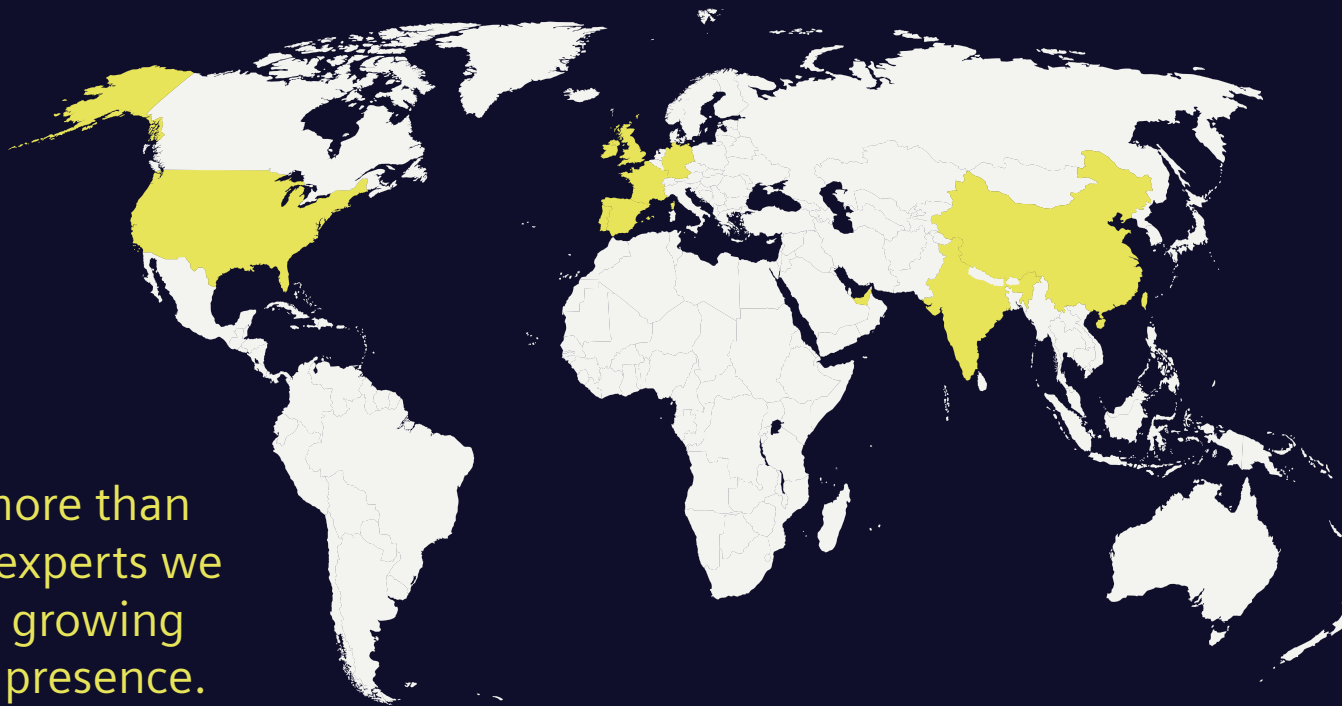
Clear 5G roadmap for each involved stakeholder created, incl. plan for prototyping, to increase the attractiveness and competitiveness of Port du Havre by transforming into a smart port.

Who we bring

Our team at Siemens Advanta is comprised of industry experts with a deep understanding of the built environment and the latest digital technologies. With a passion for innovation, we bring a wealth of knowledge and experience to every project.

Collaboratively, we work to tackle complex challenges and provide tailored solutions for our clients. Trust our team to deliver exceptional results and guide you toward success in digitalization, sustainability, and beyond.

With more than 1,000 experts we have a growing global presence.



Software developers
and engineers



Data
scientists



AI/ML
experts



Database
experts

Consultants



Security
experts



UX/UI
specialists



Solution
architects



About Siemens Advanta

Siemens Advanta is a strategic advisor and trusted implementation partner for digital and sustainability transformations on an enterprise level. Drawing on the Siemens tech stack, Siemens Advanta delivers end-to-end solutions, from strategy and operations consulting to solution architecture and implementation.

With comprehensive expertise in IT and OT, Siemens Advanta combines extensive experience from Siemens' own transformation journey with an established reliability stemming from customer projects across diverse industries and countries.

By leveraging the power of Siemens businesses and its partners, Siemens Advanta helps customers unlock the full value of Siemens technologies across their entire value chain.

Headquartered in Munich, Germany, Siemens Advanta operates with a global network of about 1,000 employees in 18 countries and 47 offices.

For more information, visit www.siemens-advanta.com

Get in touch

Leverage our capabilities, infrastructure, and domain expertise to obtain the technology solutions you need to integrate the digital transformation and remain competitive and proactive.

Business request: advanta@siemens.com