BLACKBIRD FOR TRAINING

Modern Port Efficiency Development and Management

26 – 30 April 2027
Barcelona (Spain)



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Introduction

Modern ports are the backbone of international trade and global supply chains. With rapid technological transformation and digital innovation, port efficiency and management excellence have become critical for maintaining competitiveness and sustainability.

This program aims to equip participants with a deep understanding of the strategic role of ports in global logistics, while providing advanced tools and methods to enhance operational and administrative performance through strategic planning, digital transformation, and the adoption of smart and sustainable technologies.

Course Objectives

By the end of this course, participants will be able to:

- Analyze the port's role within international trade and the global supply chain.
- Evaluate port structures — organizational, operational, and service elements — to identify strengths and weaknesses.
- Use Key Performance Indicators KPIs and measurement tools to improve operational efficiency.
- Apply strategic planning techniques, infrastructure development, and multimodal transport linkages to enhance connectivity.
- Manage port development projects expansion, automation, digitalization considering cost, feasibility, risk, and environmental factors.
- Adopt innovative technologies IoT, AI, digitalization to enable smart, sustainable port operations.
- Understand the legal, regulatory, safety/security, and environmental sustainability frameworks governing ports.
- Strengthen public-private partnerships and engage stakeholders to boost overall port performance.

Course Outlines

Day 1: Introduction to Modern Ports and Their Global Role

- Overview of maritime trade and the global vision of ports.
- Types of ports and their related logistics activities.
- Organizational structure of port systems and key stakeholders.
- Case study or site visit if applicable to a local or simulated port environment.



Day 2: Operational Efficiency, KPIs, and Process Analysis

- Core port operations: loading, unloading, storage, and cargo handling.
- Addressing congestion, delays, and costs through process improvement.
- Measuring operational and administrative performance using KPIs.
- Practical analysis tools: simulations, case studies, and process mapping.

Day 3: Strategic Planning, Infrastructure, and Hinterland Connectivity

- Demand forecasting for vessel and cargo movements.
- Infrastructure planning: berths, terminals, warehouses, road/rail access.
- Enhancing multimodal transport connectivity and inland logistics links.
- Building port-hinterland partnerships for integrated logistics services.

Day 4: Technological Development, Automation, Digital Transformation, and Sustainability

- Smart port technologies: IoT, AI, Big Data, and predictive analytics.
- Automation in cargo handling: robotics, automated cranes, and digital operations.
- Environmental sustainability: emissions reduction, energy efficiency, and circular economy.
- Managing organizational change: people, culture, and stakeholder engagement.

Day 5: Project Management, Risk, Legal Frameworks, and Partnerships

- Port project management: feasibility studies, cost estimation, financing, and procurement.
- Legal and regulatory frameworks: safety, security e.g., ISPS, environment, and stakeholder obligations.
- Public-private partnerships PPP and stakeholder collaboration models.
- Group workshop: developing a real-world port improvement action plan.
- Course wrap-up, evaluation, and certificate awarding.

Why Attend this Course: Wins & Losses!

- Gain a solid understanding of how modern ports drive global trade and supply chain efficiency.
- Develop practical skills in operational management, KPI analysis, and process optimization.
- Explore the latest technologies shaping smart and sustainable port operations.
- Learn to manage complex development projects with strategic and analytical insight.
- Build leadership capacity to implement digital transformation and performance excellence initiatives.

Conclusion

The Modern Port Efficiency Development and Management course provides a powerful blend of strategic insight, operational know-how, and technological awareness essential for shaping the future of maritime logistics.



By mastering performance optimization, sustainability integration, and stakeholder engagement, participants will be equipped to transform their ports into world-class, future-ready hubs that drive efficiency, competitiveness, and innovation across the global supply chain.

