Logistics 4.0 and Digital Supply Chain Transformation Training Course

27 - 31 Dec 2026

Manama

4400 € (Per Person)

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Course Introduction / Overview:

The global supply chain is undergoing a monumental shift, moving from traditional, siloed operations to a highly integrated, intelligent, and automated ecosystem known as Logistics 4.0. This digital transformation is not merely about adopting new technology; it is a strategic imperative for survival and growth in a volatile global market. This course provides a comprehensive roadmap for understanding and implementing a successful digital transformation within logistics and supply chain management. We will explore the core pillars of Industry 4.0, including the Internet of Things (IoT), Big Data Analytics, Artificial Intelligence (AI), and Blockchain, and their practical applications in creating resilient, transparent, and efficient supply chains. As discussed by authors like Turan Paksoy in works such as "Logistics 4.0: Digital Transformation of Supply Chain Management," the focus is on creating a connected and data-driven network. BIG BEN Training Center has designed this program to bridge the gap between theoretical concepts and real-world implementation, equipping participants with the strategic foresight and technical knowledge to lead their organizations into the future of logistics. This course will empower you to redesign processes, leverage data for predictive decision-making, and build a competitive advantage through digital innovation.

Target Audience / This training course is suitable for:

- Supply Chain Managers and Directors.
- Logistics and Distribution Managers.
- Operations Managers and Supervisors.
- Procurement and Sourcing Professionals.
- IT Managers and Specialists supporting supply chain functions.
- Warehouse and Inventory Control Managers.
- Business Analysts and Process Improvement Specialists.
- Project Managers leading digital transformation initiatives.
- Consultants in the logistics and supply chain sector.

Target Sectors and Industries:

- Manufacturing and Industrial Production.
- Retail and E-commerce.
- Third-Party Logistics (3PL) and Fourth-Party Logistics (4PL) Providers.
- Freight Forwarding and Transportation.
- Pharmaceuticals and Healthcare.
- Automotive and Aerospace.
- Fast-Moving Consumer Goods (FMCG).
- Government, Public Sector, and Defense Logistics.
- Agriculture and Food Distribution.

Target Organizations Departments:

- Supply Chain Management.
- Logistics and Distribution.
- Operations Management.
- Procurement and Purchasing.
- Information Technology (IT).
- Warehouse and Inventory Management.
- Strategic Planning and Business Development.
- Customer Service and Order Fulfillment.
- Finance and Cost Control.

Course Offerings:

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

- Develop a strategic roadmap for digital transformation in logistics.
- Evaluate and select key enabling technologies for their supply chain.
- Integrate IoT devices for real-time tracking and asset management.
- Utilize big data analytics for demand forecasting and predictive insights.
- Implement AI and machine learning to optimize logistics operations.
- Design and manage smart warehouses with automated systems.
- Understand the application of blockchain for enhanced transparency and security.
- Enhance end-to-end supply chain visibility and build digital control towers.
- Manage the change process associated with implementing Logistics 4.0.
- Develop strategies for creating a sustainable and resilient digital supply chain.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be highly interactive, practical, and engaging, ensuring that participants can translate theoretical knowledge into actionable strategies. Our approach moves beyond traditional lectures to foster a dynamic learning environment. The course is built upon a foundation of expert-led instruction, where complex concepts of Logistics 4.0 are broken down into understandable components. This is heavily supplemented with real-world case studies from industry leaders who have successfully navigated their digital transformation journeys. Participants will engage in collaborative group discussions and workshops, allowing them to share experiences and solve complex problems together. Practical exercises, such as developing a digital implementation roadmap or analyzing sample logistics data, will be a core component of the training. These hands-on activities ensure a deeper understanding of the material. Continuous feedback and Q&A sessions are integrated throughout the course to address specific challenges and queries, creating a supportive and customized learning experience that empowers every participant to apply their new skills effectively in their professional roles.

Course Agenda (Course Units):

Unit One Foundations of Logistics 4.0 and Digital Transformation

- The evolution from traditional logistics to Logistics 4.0.
- Understanding the core principles of Industry 4.0.
- The strategic importance of digital transformation in the supply chain.
- Key pillars of a digital supply chain.
- Assessing organizational readiness for digital change.
- Identifying key performance indicators (KPIs) for Logistics 4.0.
- Case studies of successful digital transformation pioneers.

Unit Two Core Technologies Driving the Digital Supply Chain

- The Internet of Things (IoT) for real-time visibility and asset tracking.
- Big Data and Advanced Analytics for predictive decision-making.
- Artificial Intelligence (AI) and Machine Learning (ML) in logistics optimization.
- Cloud computing as the backbone for digital supply chain platforms.
- Robotic Process Automation (RPA) for administrative tasks.
- Digital Twins for supply chain simulation and modeling.
- Integrating legacy systems with new digital technologies.

Unit Three Smart Warehousing and Automated Operations

- The transition from traditional warehouses to smart distribution centers.
- Warehouse Management Systems (WMS) and their role in automation.
- Automated Guided Vehicles (AGVs) and Autonomous Mobile Robots (AMRs).
- Automated Storage and Retrieval Systems (AS/RS).
- The use of drones and robotics in inventory management.
- Optimizing picking, packing, and sorting processes through technology.
- Data analytics for warehouse performance improvement.

Unit Four Blockchain, Cybersecurity, and Supply Chain Visibility

- Fundamentals of blockchain technology in the supply chain.
- Enhancing transparency, traceability, and trust with blockchain.
- Smart contracts for automating logistics agreements and payments.
- Identifying and mitigating cybersecurity risks in a digital supply chain.
- Building a resilient and secure logistics network.
- Developing end-to-end supply chain visibility.
- The concept and implementation of logistics control towers.

Unit Five Strategy, Implementation, and the Future of Logistics

- Developing a comprehensive Logistics 4.0 implementation roadmap.
- Change management strategies for a successful transformation.
- Fostering a culture of innovation and continuous improvement.
- Green logistics and sustainability in the digital era.
- The future of last-mile delivery with drones and autonomous vehicles.
- The impact of 5G technology on connected logistics.
- Preparing for the next wave of logistics innovation (Logistics 5.0).

FAQ:

Qualifications required for registering to this course?

There are no requirements.

How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

Something to think about:

As automation and AI become central to Logistics 4.0, what is the evolving role of the human workforce, and how can organizations strategically manage this human-machine collaboration for optimal performance and ethical practice?

What unique qualities does this course offer compared to other courses?

This course distinguishes itself by adopting a holistic and strategic perspective on digital transformation, moving beyond a narrow focus on individual technologies. While other programs may concentrate on the technical aspects of AI or IoT in isolation, this training course emphasizes how to integrate these tools into a cohesive business strategy to drive tangible value. We focus on the "why" and "how" of implementation, not just the "what." A key differentiator is our strong emphasis on developing a practical implementation roadmap and managing the associated organizational change, which are critical yet often overlooked components of successful transformation. The curriculum, curated by BIG BEN Training Center, is enriched with contemporary case studies and forward-looking insights into future trends like green logistics and Logistics 5.0. This ensures participants are not only equipped to solve today's challenges but are also prepared to lead their organizations into the future. The course fosters strategic thinking, enabling participants to build resilient, agile, and intelligent supply chains that serve as a true competitive advantage in the modern economy.