Environmental Compliance and Traceability in ERP Training Course

Professional Development Training Course Outline

Category	Enterprise Resource Planning (ERP)	**Duration**	5 Days
Base Fee	$1,500 USD	**Delivery Mode**	Online / On-site Hybrid

Course Introduction

In an era defined by ESG (Environmental, Social, and Governance) mandates and increasing global scrutiny, mastering Environmental Compliance and Supply Chain Traceability within an Enterprise Resource Planning (ERP) system is no longer optional it is a strategic imperative. Organizations face escalating pressure from regulators, consumers, and investors to demonstrate true Corporate Sustainability and minimize their carbon footprint. Environmental Compliance and Traceability in ERP Training Course addresses the critical knowledge gap where environmental policy meets digital operations, equipping professionals with the essential skills to transform regulatory obligations into a competitive advantage.

This specialized program dives deep into leveraging ERP functionalities including advanced IoT integration, real-time analytics, and Blockchain readiness to achieve granular data accuracy for environmental reporting. By focusing on practical application and end-to-end visibility, participants will learn how to automate regulatory compliance, track material origin, manage hazardous waste, and generate auditable sustainability reports like GRI and SASB directly from their core business system. The goal is to establish a culture of proactive risk management and drive measurable resource efficiency throughout the global value chain.

Programme Curriculum

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Course Duration

5 days

Course Objectives

Upon completion of this course, participants will be able to:

1. Strategically Integrate environmental compliance and traceability processes directly within the existing ERP backbone.
2. Navigate complex global ESG reporting frameworks and translate requirements into ERP data structures.
3. Implement real-time monitoring for emissions and resource consumption using ERP-integrated IoT and sensor data.
4. Master product lifecycle traceability to ensure compliance with RoHS, REACH, and other key regulations.
5. Configure hazardous waste and by-product management modules in the ERP for accurate manifesting and disposal tracking.
6. Perform mock recalls and audit simulations within the ERP to validate the integrity of end-to-end compliance records.
7. Apply AI/ML predictive analytics in ERP to forecast potential non-compliance risks and optimize proactive interventions.
8. Utilize ERP features for transparent supplier and vendor compliance management and data exchange.
9. Develop sustainability dashboards and automated reporting tools within the ERP for stakeholders and regulatory bodies.
10. Drive circular economy initiatives by tracking material flows and recovery rates using ERP inventory and production data.
11. Secure data integrity and build immutable audit trails by understanding the application of Blockchain in ERP traceability.
12. Establish a data governance framework for environmental metrics to ensure audit readiness and reporting credibility.
13. Calculate and optimize Scope 1, 2, and 3 GHG emissions using specialized ERP functionality and integrated logistics data.

Target Audience

1. Environmental, Health, and Safety (EHS) Managers
2. Corporate Sustainability & ESG Officers
3. ERP System Owners and Functional Consultants

4. Supply Chain and Logistics Managers
5. Quality and Compliance Auditors
6. IT/Business Analysts supporting ERP/EHS systems
7. Operations and Manufacturing Leaders
8. Risk Management and Internal Control Specialists

Course Modules

Module 1: Foundations of ERP & Environmental Compliance

- Defining the intersection of ERP, EHS, and Environmental Regulations
- Understanding the ERP's role in the Compliance Lifecycle
- Data structure and master data requirements for environmental metrics in an ERP
- Overview of key regulatory drivers and their data impact.
- Integrating GIS and Location Data within ERP for site-specific compliance.
- Case Study: A global chemicals manufacturer utilized their ERP's Material Master Data to tag substances with regional regulatory flags, reducing non-compliance risk during cross-border shipping by 25%.

Module 2: End-to-End Traceability & Product Compliance

- Implementing Lot, Batch, and Serial Number Tracking for environmental attributes.
- Configuring Forward and Backward Trace capabilities within the ERP for ingredients and components.
- Managing Conflict Minerals and Ethical Sourcing data through Supplier Relationship Management integration.
- Using ERP to manage Product Recalls and product-specific Disposal Instructions.
- Validation of Component Compliance against the Bill of Materials in ERP.
- Case Study: An electronics firm used their ERP to trace a non-compliant component back through four tiers of the supply chain in under 2 hours, avoiding a major market withdrawal penalty.

Module 3: Waste, Water, and Air Emissions Management

- Setting up Waste Stream classification and segregation in the ERP Inventory Management module.
- Automating Waste Manifesting and Regulatory Reporting from the ERP.
- Tracking Water Use and Effluent Discharge data via ERP-integrated utility meters and IoT.
- Calculating and monitoring Air Emissions and permit limits within ERP EHS modules.
- Configuring Non-Conformance workflows for environmental incidents.
- Case Study: A pharmaceutical plant used real-time ERP data integration to identify a leak in a water-intensive process, achieving a 15% reduction in water consumption within one quarter.

Module 4: Energy Management and Carbon Accounting

- ERP configurations for tracking Energy Consumption by cost center, equipment, and production batch.
- Automated calculation of Scope 1 & 2 Greenhouse Gas Emissions using ERP utility data and conversion factors.
- Using ERP to collect and estimate Scope 3 Emissions data
- Developing Energy Reduction Programs and monitoring KPIs against ERP baseline data.
- Integrating Renewable Energy Credits and Carbon Offsets into the financial ledger.
- Case Study: A manufacturing group used their ERP's financial and production data to generate a compliant Scope 1 & 2 GHG report in one day, cutting a process that previously took three weeks of manual work.

Module 5: Supplier & Third-Party Environmental Risk

- Establishing Environmental Due Diligence and Audit Trails for all suppliers in the ERP.
- Managing Supplier Environmental Scorecards and performance tracking in the Procurement module.
- Implementing "Green Procurement" policies and enforcing material restrictions via ERP requisitions.
- Using Blockchain or secure ledgers for unchangeable records of supplier compliance declarations.
- Integrating third-party Sustainability Rating data into the ERP vendor master record.
- Case Study: A fashion retailer mandated all Tier 1 suppliers to upload their water-usage certificates into a shared ERP portal, drastically improving the accuracy of their supply chain ESG data.

Module 6: Audits, Risk Management, and Incident Response

- Using the ERP Audit Management module to schedule, plan, and execute internal/external environmental audits.
- Mapping environmental risks to business processes in the ERP for Proactive Risk Assessment.
- Configuring the ERP for Environmental Incident Reporting and root cause analysis.
- Establishing Corrective and Preventive Actions workflows within the ERP EHS module.
- Generating Auditable Compliance Records and Digital Signatures in the ERP.
- Case Study: An oil and gas company's ERP alerted a site manager to a potential permit breach based on trending emission data, enabling a preventive shutdown and avoiding a $500,000 fine.

Module 7: Sustainability Reporting and Data Governance

- Customizing ERP reports to align with international standards
- Building Interactive Environmental Dashboards for leadership using ERP Business Intelligence (BI) tools.
- Implementing Data Governance policies for environmental data quality and validation.
- Strategies for managing Non-Financial Data alongside financial data in the ERP.
- Communicating Environmental Performance to external stakeholders using secure ERP data extracts.
- Case Study: A consumer goods company streamlined its annual GRI reporting process from months to weeks by centralizing all relevant environmental data within a single ERP platform.

Module 8: Future Trends: IoT, AI, and Digital Twins

- Integrating Internet of Things (IoT) sensors and devices with ERP for automated data capture.
- Leveraging Artificial Intelligence (AI) and Machine Learning (ML) for predictive compliance analysis in ERP.
- Introduction to Digital Twin technology in ERP for process optimization and environmental simulation.
- The role of Cloud ERP in enhancing environmental data scalability and accessibility.
- Exploring emerging regulations and the need for Agile ERP Configuration.
- Case Study: A heavy industry firm implemented an AI layer over their ERP data to predict equipment failure that could cause an oil spill, improving their maintenance scheduling and reducing environmental risk by 40%.

Training Methodology

This course employs a participatory and hands-on approach to ensure practical learning, including:

- Interactive lectures and presentations.
- Group discussions and brainstorming sessions.
- Hands-on exercises using real-world datasets.
- Role-playing and scenario-based simulations.

- Analysis of case studies to bridge theory and practice.
- Peer-to-peer learning and networking.
- Expert-led Q&A sessions.
- Continuous feedback and personalized guidance.

Register as a group from 3 participants for a Discount

Send us an email: info@fineskilltrainingcenter.org or call +254769199797

Certification

Upon successful completion of this training, participants will be issued with a globally- recognized certificate.

Tailor-Made Course

We also offer tailor-made courses based on your needs.

Key Notes

a. The participant must be conversant with English.

b. Upon completion of training the participant will be issued with an Authorized Training Certificate

c. Course duration is flexible and the contents can be modified to fit any number of days.

d. The course fee includes facilitation training materials, 2 coffee breaks, buffet lunch and A Certificate upon successful completion of Training.

e. One-year post-training support Consultation and Coaching provided after the course.

f. Payment should be done at least a week before commence of the training, to Fineskill Training Center account, as indicated in the invoice so as to enable us prepare better for you.

Upcoming Scheduled Sessions

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Online	$1,000
23 Nov 2026	27 Nov 2026	Physical	$1,500
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$3,000
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$4,500

Start Date	End Date	Location	Price
23 Nov 2026	27 Nov 2026	Physical	$6,000
23 Nov 2026	27 Nov 2026	Physical	$6,000

Ready to enroll or request a customized program? Book online or contact us:

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