Circular Economy and Sustainable Waste Management Training Course

21 - 25 Dec 2026

Cairo

3700 € (Per Person)

Ref: #ENV5378_275313

Course Introduction / Overview:

This comprehensive training course provides a deep dive into the transformative principles of the circular economy and integrated sustainable waste management. In a world grappling with resource depletion and environmental degradation, the shift from a traditional linear 'take-make-dispose' model is no longer an option but a necessity. This program is designed to equip professionals with the knowledge and tools to lead this transition within their organizations. Drawing on foundational concepts from pioneers like Walter R. Stahel, often credited as one of the originators of the circular economy concept, and insights from influential works such as "The Performance Economy", participants will explore how to decouple economic growth from resource consumption. BIG BEN Training Center has developed this course to move beyond theory, focusing on practical implementation, innovative business models, and the technologies driving resource recovery. It covers the entire lifecycle of materials, from circular design and production to advanced recycling and waste-to-value strategies, enabling participants to build resilient, profitable, and sustainable systems. This course is an essential journey for any professional aiming to create value, mitigate risk, and contribute to a regenerative future.

Target Audience / This training course is suitable for:

- Environmental Managers and Specialists.
- Sustainability Officers and CSR Managers.
- Operations and Production Managers.
- Supply Chain and Logistics Professionals.
- Product Designers and R&D Teams.
- Waste Management Professionals.
- Policy Makers and Regulators.
- Facilities and Plant Managers.
- Corporate Strategy and Business Development Executives.
- Entrepreneurs in the green technology sector.

Target Sectors and Industries:

- Manufacturing and Industrial Production.
- Construction and Demolition.
- Retail and Consumer Goods.
- Hospitality and Food Services.
- Waste Management and Recycling Services.
- Consulting and Environmental Services.
- Government, Municipalities, and Public Sector Agencies.
- Healthcare and Pharmaceuticals.
- Electronics and E-Waste Processing.
- Agriculture and Agribusiness.

Target Organizations Departments:

- Sustainability and Corporate Social Responsibility (CSR).
- Environmental, Health, and Safety (EHS).
- Operations and Production.
- Supply Chain Management and Procurement.
- Research and Development (R&D).
- Facilities Management.
- Strategic Planning and Business Development.
- Compliance and Regulatory Affairs.
- Product Design and Engineering.
- Logistics and Reverse Logistics.

Course Offerings:

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

- Analyze the failures of the linear economic model and articulate the business case for a circular economy.
- Master the principles of the waste hierarchy and apply them to organizational waste streams.
- Develop strategies for designing products for longevity, repairability, and recyclability.
- Evaluate and select appropriate waste-to-energy and resource recovery technologies.
- Design and implement circular business models such as product-as-a-service and industrial symbiosis.
- Navigate the local and international policy landscape for waste management and circularity.
- Conduct a basic life cycle assessment (LCA) to measure environmental impacts.
- Formulate a strategic action plan for transitioning an organization towards circular practices.
- Identify opportunities for cost reduction and revenue generation through effective waste management.
- Lead change initiatives to foster a culture of sustainability and resource efficiency.

Course Methodology:

The training methodology at BIG BEN Training Center is designed to be immersive, interactive, and highly practical. This course moves beyond traditional lectures to foster a dynamic learning environment where participants actively engage with the material. The program is built on a foundation of expert-led presentations that distill complex concepts into understandable and actionable frameworks. These sessions are complemented by a series of real-world case studies from various industries, showcasing both successes and challenges in implementing circular economy principles. A significant portion of the course is dedicated to hands-on workshops and group exercises where participants will work collaboratively to solve practical waste management problems and design circular business solutions. Interactive discussions, brainstorming sessions, and peer-to-peer learning are encouraged to leverage the diverse experiences of the participants. The methodology emphasizes a practical, problem-solving approach, ensuring that attendees leave not just with knowledge, but with the confidence and skills to apply what they have learned directly in their professional roles.

Course Agenda (Course Units):

Unit One: Foundations of the Circular Economy and Waste Management

- The Linear Economy: A System Under Pressure.
- Defining the Circular Economy: Core Principles and Frameworks.
- Introduction to Integrated Waste Management Systems.
- The Waste Hierarchy: Reduce, Reuse, Recycle, and Recover.
- Global Waste Generation Trends and Environmental Impacts.
- Key Terminology: Cradle-to-Cradle, Industrial Symbiosis, and Biomimicry.
- The Business Case for Sustainable Waste Management.

Unit Two: Waste Characterization, Reduction, and Recycling Technologies

- Methods for Waste Stream Analysis and Auditing.
- Strategies for Waste Prevention and Source Reduction.
- Innovations in Material Reuse and Repurposing.
- Advanced Sorting and Separation Technologies.
- Mechanical and Chemical Recycling Processes for Plastics.
- Management of Organic Waste: Composting and Anaerobic Digestion.
- Specialized Waste Streams: E-Waste, Hazardous Waste, and Construction Debris.

Unit Three: Circular Business Models and Supply Chains

- Transitioning from Products to Services: The Product-as-a-Service (PaaS) Model.
- Developing Sharing Platforms and Collaborative Consumption Models.
- Creating Value from Waste: Industrial Symbiosis and By-Product Exchange.
- Designing for Circularity: Product Longevity, Modularity, and Disassembly.
- Building Resilient and Circular Supply Chains.
- Reverse Logistics and Take-Back Systems Implementation.
- Case Studies of Successful Circular Business Transformations.

Unit Four: Policy, Regulation, and Economic Instruments

- The Role of Government in Driving the Circular Economy.
- Overview of Key International and National Waste Regulations.
- Extended Producer Responsibility (EPR) Schemes and Their Impact.
- Economic Tools: Landfill Taxes, Subsidies, and Green Public Procurement.
- Standards and Certifications for Waste Management and Sustainability.
- Navigating Compliance and Reporting Requirements.
- Future Policy Trends and Their Implications for Business.

Unit Five: Measuring Performance and Implementing a Circular Strategy

- Metrics for Measuring Circularity and Resource Efficiency.
- Introduction to Life Cycle Assessment (LCA).
- Material Flow Analysis (MFA) for Organizations and Regions.
- Developing a Strategic Roadmap for Circular Transition.
- Stakeholder Engagement and Fostering a Culture of Sustainability.
- Financing the Circular Transition: Investment and Funding Opportunities.
- Capstone Project: Creating a Waste Management and Circularity Action Plan.

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:

Considering the principles of industrial symbiosis, how might one industry's waste stream be completely reimagined as a primary resource for a different, seemingly unrelated industry?

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

This course distinguishes itself by offering a holistic and strategic perspective that seamlessly integrates the technical aspects of waste management with the innovative business models of the circular economy. While many programs focus narrowly on either compliance or recycling technology, this training provides a comprehensive framework that connects policy, finance, product design, and supply chain logistics. It moves beyond theoretical discussions to emphasize practical application, equipping participants with the tools to conduct waste audits, design circular business models, and develop actionable transition roadmaps for their own organizations. The curriculum is built on a foundation of real-world case studies, ensuring that the learning is relevant, current, and directly applicable to the challenges professionals face today. Furthermore, the course fosters a strategic mindset, teaching participants not just how to manage waste as a cost center, but how to transform it into a source of value, innovation, and competitive advantage. It is designed for leaders who want to drive meaningful change, not just meet minimum requirements.