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Masterclass in Circular Economy & Supply Chain

ONLINE COURSE 4, 5, 8, 27-29 April 2022

ABOUT

The transition towards a circular economy is a key element of the EU Green Deal as it can contribute reducing primary resource extraction as well as environmental impacts throughout products' life cycles. Assessing the risk of supply chain disruptions for raw materials as inputs into production processes is now crucial for companies, countries, and economic blocs like the EU.

This course will provide insights on how to orchestrate socio-technical change towards a circular economy and enhance new value creation. At the end of the course, the attendees will be able to understand the concept of the business model and its implications for business strategy and competitiveness. Students will be introduced to the analysis of strategic and critical raw materials that may affect governments and companies, and suggest strategies for mitigating the risk or exploiting the opportunity of adopting a circular approach to tackle sourcing issues.

The course has been co-developed by EIT RawMaterials and ADACI.

OBJECTIVES

- Gain insights on how to orchestrate socio-technical change towards a circular economy and enhance new value creation
- Understand the concept of the business model and its implications for business strategy and competitive advantage
- Learn about the circular economy paradigm and its consequences for strategic thinking, business modelling and supply chain management
- Get familiar with the principles and the methodologies for industrial symbiosis implementation
- Understand the four phases of the Life Cycle Assessment (LCA) method and the advantages and potential limitations to waste recycling
- Discover the most recent advances in the identification of critical and strategic raw materials and the limitations of critical raw material indicators
- Analyse critical raw materials that may affect governments with strategies for mitigating

TARGET LEARNERS

- Professionals and entrepreneurs interested in circular economy business opportunities
- Executives and function managers in areas such as management, research and development, production, logistics, sales and marketing, finance
- Supply chain managers, sustainability managers, or similar
- Officials in authorities and governments

AGENDA

MODULE 1

Alberto Claudio Tremolada, ADACI, IT

- Introduction to circular supply chain economy

MODULE 2 (in English)

Maria Åkerman, Maria Antikainen and Minna Halonen, VTT, FI

- Socio-technical change towards a circular economy
- New value creation in circular economy ecosystems
- Foresight methods for transformation
- Examples of existing circular economy transformation

MODULE 3

Alessandro Rossi, University of Trento, IT

- Basic knowledge of circular economy business modelling
- Widen the adoption of the circular economy and maximise its benefits

MODULE 4

Marco La Monica, Antonella Luciano & Sara Corrado

- Eco-innovation and industrial ecology
- Industrial symbiosis and resource audit
- Life Cycle Assessment (LCA): introduction, methods and assessment of the environmental burdens and benefits of waste recycling

MODULE 5 (in English)

Arjan de Koning, University of Leiden, NL

- Assess the criticality of raw materials
- Calculate simple criticality indicators
- Mitigate critical raw material supply chain disruptions
- Increase self-sufficiency through circular economy strategies

MODULE 6

Panel of experts from ADACI, IT

- Closing roundtable