





| **Project Acronym** | Enter the Circle |
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| **Denmark** | People of 2050 |
| **Greece** | Learning Seed |
| **Greece** | UNICERT S.A. |
| **Cyprus** | Institute of Entrepreneurship Development |

**Project Information**

**DOCUMENT INFORMATION**

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| **Editor(s):** | Eleni Vasdoka (Learning Seed)  Aikaterini Lykomitrou (UNICERT S.A.)  Georgia Griva (UNICERT S.A.) |

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(\*) Action: C = Creation, I = Insert, U = Update, R = Replace, D = Delete

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# ANNEX IV

## General Plan of the Module - Template

| **Module** | | Sustainable Business Models | | | |
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| **Short rationale** | | The modul Sustainable Business Models is designed to provide learners with a holistic understanding of the principles, strategies, and impacts associated with sustainable and circular business practices.  It aims to equip learners with both theoretical knowledge and practical insights, fostering critical thinking and problem-solving skills. By exploring various aspects, including circular economy principles and collaborative strategies, the lesson plan prepares learners to navigate the complexities of sustainable business practices in a global context.  Ultimately, it empowers learners to become conscientious leaders capable of driving positive change within organizations, aligning with evolving expectations for transparency and commitment to environmental and social responsibility. | | | |
| **EQF level** | | 3 | | | |
| **Sub - Modules** | | 2.1: Business Models for Slowing the Loop  2.2: Business Models for Closing the Loop  2.3: Business Models for Narrowing the Loop  2.4: Extending Product Lifecycles: Reuse, Repair, and Remanufacture  2.5: Collaborative and Sharing Economy Models  2.6: Ecosystem Approach to Circular Business Models | | | |
| **Training hours** | | 9 hours | | | |
| **Learning aims** | | This training aims to:  O1: Understand the Interconnected Elements of Circular Business Models:  Define the key components of circular business models, including resource optimization, collaboration, innovation ecosystems, and the impact on various stakeholders.  O2:Analyze the Role of Stakeholders in Circular Business Models:  Examine the influence of stakeholders such as consumers, regulatory bodies, suppliers, and communities in shaping and implementing circular business practices.  O3: Evaluate the Environmental and Social Impacts of Sustainable Business Practices:  Assess the environmental and social implications of sustainable business practices, considering resource conservation, waste reduction, and community well-being.  O4: Apply Collaborative Strategies to Enhance Circular Business Models:  Explore and apply collaborative strategies, including networking, partnerships, and community engagement, to enhance the effectiveness and scalability of circular business models. | | | |
| **Learning outcomes** | | By the end of the training, a learner will be able to:  LO1: Students can articulate the elements that constitute circular business models and recognize their interconnectedness within a broader economic and environmental context.  LO2: Students can analyze how different stakeholders contribute to or challenge the success of circular business models and propose strategies for effective stakeholder engagement.  LO3: Students can critically evaluate the positive and negative impacts of sustainable business practices on the environment and society, fostering a comprehensive understanding of corporate sustainability.  LO4: Students can develop and propose collaborative initiatives that leverage partnerships, networking, and community engagement to strengthen the circular aspects of business models, emphasizing real-world application. | | Link to aims  O1 - LO1  O2 - LO2  O3 - LO3  O4 - LO4 | |
| **Knowledge** | | **Skills** | | **Competences** | |
| Circular Economy Principles | | Critical Thinking | | Systems Thinking | |
| Resource Efficiency Technologies | | Collaboration and Networking | | Leadership in Sustainability | |
| Ecosystem Interdependence | | Data Analysis | | Adaptability | |
| Collaborative and Sharing Economy Models | | Design Thinking | | Ethical Decision-Making | |
| Extended Product Lifecycle Strategies | | Communication Skills | | Cross-Cultural Competence | |
| Sustainable Business Innovation | | Problem-Solving | | Innovation Management | |
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| **ANALYSE OF TRAINING** | | | | | |
|  | **Topic** | **Short Description** | **Duration** | | **Materials** |
| 1 | Business Models for Slowing the Loop | * Overview: Examines methods to decelerate resource consumption and waste generation. * Key Strategies: Resource efficiency audits, lean manufacturing, sustainable supply chain, waste reduction programs, packaging optimization, product design for sustainability, recycling, circular practices, energy and water management, employee engagement, green procurement, lifecycle assessments, regulatory compliance, transparency and reporting, collaborative initiatives, and continuous improvement. | 1,5 h | | scenario or product category (e.g., electronics, fashion)  paper or a whiteboard |
| 2 | Business Models for Closing the Loop | * Overview: Focuses on techniques to maintain the value of materials and products in circulation. * Key Strategies: Design for durability, modularity and repairability, scheduled maintenance, upgradable components, customer support, spare parts, refurbishment and resale, recycling, circular supply chains, data-driven maintenance, consumer education, and environmental assessment. | 1,5 h | |  |
| 3 | Business Models for Narrowing the Loop | * Overview: Explores business models leveraging intelligent technologies to enhance resource efficiency. * Key Aspects: Smart sensors and IoT integration, data analytics and predictive maintenance, energy management systems, supply chain optimization, resource tracking and traceability, automation and robotics, circular economy technologies, demand forecasting and inventory management, renewable energy integration, smart buildings and infrastructure, collaborative platforms, waste reduction and | 1,5 h | | Case Study Examples: Renault (Car Remanufacturing), IKEA (Furniture Recycling) |
| 4 | Extending Product Lifecycles: Reuse, Repair, and Remanufacture | * Overview: Delves into strategies for extending product lifecycles sustainably. * Strategies: Reuse (product refurbishment, secondary markets, design for reuse, take-back programs), Repair (customer support and education, authorized repair networks, access to spare parts, warranty and service contracts), Remanufacturing (component harvesting, quality control, design for remanufacturing, closed-loop supply chain). | 1,5 h | |  |
| 5 | Collaborative and Sharing Economy Models | * Overview: Investigates collaborative and sharing economy models within the circular economy. * Key Aspects: Resource optimization through sharing assets, product longevity through extended use, reduced waste, circular supply chains, sustainable transportation, reduced environmental footprint, access over ownership, community building, challenges, and business innovation. | 1,5 h | | Case study examples:   * Patagonia's Worn Wear Program * Eileen Fisher's Renew Program |
| 6 | Ecosystem Approach to Circular Business Models | * Overview: Explores the interdependence of circular business models and ecosystems. * Considerations: Environmental interdependence, resource availability, circular supply chains, regulatory frameworks, market ecosystems, consumer behavior, innovation ecosystems, collaboration, impact on ecosystem health, scalability and resilience. | 1,5 h | |  |
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| **Assessment Methods** | | Here you should write down the assessment methods you would like to add. The assessment should evaluate the overall knowledge of the learner. The level should be easy-medium since we want to approach beginners. | | | |
| **List of References / Additional Recommended Reading** | | References:  Ellen MacArthur Foundation. (2013). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition.* Retrieved from https://www.ellenmacarthurfoundation.org/publications  Stahel, W. R. (2016). *Circular Economy: A User's Guide.* Springer.  Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). *A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems.* Journal of Cleaner Production, 114, 11-32.  Business for Social Responsibility (BSR). (2020). *Circular Economy Playbook: From Periphery to Core.* Retrieved from https://www.bsr.org/en/collaboration/groups/circular-economy  World Economic Forum. (2019). *Circularity Gap Report 2019.* Retrieved from<http://www.circularity-gap.world/>  Recommended Reading:  McDonough, W., & Braungart, M. (2002). *Cradle to Cradle: Remaking the Way We Make Things.* North Point Press.  Hawken, P., Lovins, A., & Lovins, L. H. (1999). *Natural Capitalism: Creating the Next Industrial Revolution.* Little, Brown and Company.  Hoffman, A. J. (2015). *Getting Ahead of the Green Wave: How to Capitalize on the Environmental and Social Sustainability Trend.* Harvard Business Review, 93(5), 24-26.  Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2012). *Business cases for sustainability: A stakeholder theory perspective.* Journal of Business Ethics, 110(1), 1-14.  Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business.* Capstone.  Iles, J. (2018). *Sustainable Business: Theory and Practice of Business Under Sustainability Principles.* Routledge. | | | |

# ANNEX V

## Plan of each Sub-Module

| **Module** | | 2. Sustainable Business Models | | | | | | |
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| **Title of Sub-Module** | |  | | | | | | |
| **Basic Concepts** | | Circular Economy: An economic system designed to minimize waste and make the most of resources, promoting a closed-loop approach to production and consumption.  Resource Efficiency: The optimal use of resources to minimize waste and environmental impact while maximizing the value extracted from those resources.  Life Cycle Thinking: Considering the environmental and social impact of a product or service throughout its entire life cycle, from raw material extraction to disposal.  Business Models for Sustainability: Strategies and frameworks adopted by businesses to achieve economic success while promoting environmental and social responsibility.  Collaborative and Sharing Economy: Economic models emphasizing shared access to resources, products, and services to maximize utilization and minimize waste.  Ecosystem Approach: Recognizing the interdependence between circular business models and broader economic, social, and environmental systems.  Extending Product Lifecycles: Reuse, Repair, Remanufacture: Definition: Strategies focused on prolonging the life of products through refurbishment, repair, and remanufacturing.  Intelligent Technologies for Resource Efficiency: Definition: The application of advanced technologies, such as IoT, AI, and data analytics, to optimize resource use and reduce environmental impact.  Consumer Mindset and Awareness: Understanding how consumer beliefs, values, and awareness influence purchasing decisions and overall demand for sustainable products.  Waste Reduction and Recycling Technologies: Technologies aimed at minimizing waste generation and maximizing the recovery of materials through advanced recycling methods. | | | | | | |
| **EQF Level** | | 3 | | | | | | |
| **Sub - Modules** | | 2.1: Business Models for Slowing the Loop  2.2: Business Models for Closing the Loop  2.3: Business Models for Narrowing the Loop  2.4: Extending Product Lifecycles: Reuse, Repair, and Remanufacture  2.5: Collaborative and Sharing Economy Models  2.6: Ecosystem Approach to Circular Business Models  2.7: Networking and Collaboration with Stakeholders and Partners | | | | | | |
| **Training Hours** | | 9 hours | | | | | | |
| **Learning Aims** | | This training aims to:  O1: Understand the Interconnected Elements of Circular Business Models:  Define the key components of circular business models, including resource optimization, collaboration, innovation ecosystems, and the impact on various stakeholders.  O2:Analyze the Role of Stakeholders in Circular Business Models:  Examine the influence of stakeholders such as consumers, regulatory bodies, suppliers, and communities in shaping and implementing circular business practices.  O3: Evaluate the Environmental and Social Impacts of Sustainable Business Practices:  Assess the environmental and social implications of sustainable business practices, considering resource conservation, waste reduction, and community well-being.  O4: Apply Collaborative Strategies to Enhance Circular Business Models:  Explore and apply collaborative strategies, including networking, partnerships, and community engagement, to enhance the effectiveness and scalability of circular business models. | | | | | | |
| **Learning Outcomes** | | By the end of the training, a learner will be able to:  LO1: Students can articulate the elements that constitute circular business models and recognize their interconnectedness within a broader economic and environmental context.  LO2: Students can analyze how different stakeholders contribute to or challenge the success of circular business models and propose strategies for effective stakeholder engagement.  LO3: Students can critically evaluate the positive and negative impacts of sustainable business practices on the environment and society, fostering a comprehensive understanding of corporate sustainability.  LO4: Students can develop and propose collaborative initiatives that leverage partnerships, networking, and community engagement to strengthen the circular aspects of business models, emphasizing real-world application. | | | | | Link to aims  O1 - LO1  O2 - LO2  O3 - LO3  O4 - LO4 | |
| **Knowledge** | | **Skills** | | | | | **Competences** | |
| Circular Economy Principles | | Critical Thinking | | | | | Systems Thinking | |
| Resource Efficiency Technologies | | Collaboration and Networking | | | | | Leadership in Sustainability | |
| Ecosystem Interdependence | | Data Analysis | | | | | Adaptability | |
| Collaborative and Sharing Economy Models | | Design Thinking | | | | | Ethical Decision-Making | |
| Extended Product Lifecycle Strategies | | Communication Skills | | | | | Cross-Cultural Competence | |
| Sustainable Business Innovation | | Problem-Solving | | | | | Innovation Management | |
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| **Prerequisites** | | Educational Level: None specifically required, but participants should have a basic understanding of business concepts and environmental issues.  Age: 18- 30 Years.  Experience: None required, but participants with prior experience in entrepreneurship, business management, or environmental sustainability may benefit more.  Knowledge: A basic knowledge of business principles and environmental sustainability concepts is helpful but not mandatory. | | | | | | |
| **Supported material** | | Youtube Videos, Websites, Tools or other resources | | | | | | |
| **Activities/Actions** | | Brainstorming, Case Study Review, Group Discussion, | | | | | | |
| **Analyse of Sub-Module** | | | | | | | | |
| **Title of Sub-Module** | | | | **2.1: Business Models for Slowing the Loop** | | | | |
| **Name of the Activity** | | | | Activity 1: Circular Design Thinking | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 30 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction to Circular Design Thinking | Briefly explain the concept of circular design thinking, emphasizing its role in creating sustainable business models.  Highlight key principles, such as designing for longevity, recyclability, and minimizing waste. | | | | 3 min | |  |
| 2 | Group Formation | Divide the class into small groups of 3 to 5 students.  Encourage diversity within groups to bring varied perspectives to the discussion. | | | | 2 min | |  |
| 3 | Scenario/Category Introduction | Provide each group with a scenario or product category (e.g., electronics, fashion) that aligns with the business models for the circular economy.  Briefly explain the specific challenges or opportunities related to that scenario. | | | | 5 min | | scenario or product category (e.g., electronics, fashion) |
| 4 | Brainstorming | Instruct groups to brainstorm ideas for a product or service within their assigned scenario.  Emphasize the importance of considering circular economy principles in their designs. | | | | 10 min | |  |
| 5 | Sketching | Ask groups to sketch their design ideas on paper or a whiteboard.  Encourage them to annotate their sketches with features that align with circular economy principles. | | | | 5 min | | paper or a whiteboard |
| 6 | Group Presentations | Each group presents their design to the class.  Encourage them to discuss how their product or service contributes to a circular economy, addressing aspects like recyclability, durability, and environmental impact. | | | | 5 min | |  |
| **Name of the Activity** | | | | Activity 2 Social Impact Analysis | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 35 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction to Social Impact | Introduce the concept of social impact in the context of circular business models.  Discuss how circular economy practices can positively affect local communities. | | | | 3 min | |  |
| 2 | Group Formation | Divide the class into small groups, ensuring diverse perspectives within each group. | | | | 2 min | |  |
| 3 | Exploring Social Impact | Assign each group the task of exploring and discussing different aspects of social impact related to circular businesses.  Topics may include job creation, community engagement, or improvements in quality of life. | | | | 10 min | |  |
| 4 | Preparation for Presentation | Instruct groups to prepare a short presentation summarizing their findings.  Emphasize the importance of linking social impact with environmental sustainability. | | | | 10 min | |  |
| 5 | Group Presentations | Each group presents their findings to the class.  Encourage a discussion after each presentation, allowing other groups to ask questions and share insights. | | | | 5 min | |  |
| 6 | Whole Class Discussion | Facilitate a whole class discussion on the interconnectedness of environmental and social sustainability.  Encourage students to reflect on how businesses can contribute positively to both aspects. | | | | 5 min | |  |
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| **Title of Sub-Module** | | | | **2.2: Business Models for Closing the Loop** | | | | |
| **Name of the Activity** | | | | Activity 3 Case Study Analysis | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 35 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction to Case Studies | Briefly explain the importance of real-world examples in understanding business models for closing the loop.  Introduce 2-3 case studies representing different industries (e.g., fashion, electronics, or food) with successful closed-loop models.  **Example**: Renault (Car Remanufacturing), IKEA (Furniture Recycling) | | | | 5 min | | Case Study Examples: Renault (Car Remanufacturing), IKEA (Furniture Recycling) |
| 2 | Group Formation | Divide the class into small groups, ensuring diverse perspectives within each group. | | | | 2 min | |  |
| 3 | Case Study Review | Assign each group one case study to analyze.  Instruct them to identify key elements of the closed-loop business model, challenges faced, and the overall impact on sustainability. | | | | 15 min | |  |
| 4 | Group Discussion | Facilitate a group discussion where each group shares their analysis.  Encourage comparisons between the case studies and exploration of common trends or unique approaches. | | | | 8 min | |  |
| 5 | Whole Class Reflection | Conclude the activity with a whole class reflection on the insights gained.  Discuss the transferability of closed-loop principles across different industries. | | | | 5 min | |  |
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| **Name of the Activity** | | | | 4 Activity Design Your Closed-Loop Business (Individual/Group Activity) | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 30 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction to Design Challenge | Present a design challenge: "Imagine you are starting a new business. Design a closed-loop model for your chosen industry or product category."  Emphasize the importance of incorporating circular principles. | | | | 5 min | |  |
| 2 | Brainstorming | Give individuals or groups time to brainstorm ideas for their closed-loop business model.  Encourage creativity and consider factors like resource efficiency, waste reduction, and product life cycle. | | | | 10 min | |  |
| 3 | Concept Presentation | Each individual or group presents their closed-loop business model to the class.  Focus on how the proposed model addresses challenges and contributes to sustainability. | | | | 10 min | |  |
| 4 | Peer Feedback | Facilitate a feedback session where classmates provide constructive input on each presentation.  Encourage discussions on innovative aspects and potential improvements. | | | | 5 min | |  |
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| **Title of Sub-Module** | | | | **2.3: Business Models for Narrowing the Loop** | | | | |
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| **Name of the Activity** | | | | Activity 5 Case Study Analysis - Fashion Industry Circular Models | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 45 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Briefly introduce the concept of circular business models in the fashion industry.  Emphasize the importance of sustainable practices in an industry known for its environmental impact. | | | | 5 min | |  |
| 2 | Case Study Presentation | Present two case studies related to circular fashion business models.  Discuss key elements, innovations, challenges, and successes of each case.  Encourage active participation and questions from students.  Case study examples:   * Patagonia's Worn Wear Program * Eileen Fisher's Renew Program | | | | 15 min | | Case study examples:   * Patagonia's Worn Wear Program * Eileen Fisher's Renew Program |
| 3 | Group Discussion | Divide the class into small groups.  Assign each group one of the presented case studies.  Instruct groups to discuss the key aspects of the case study, focusing on the circular business model employed. | | | | 5 min | |  |
| 4 | Group Discussion | Divide the class into small groups.  Assign each group one of the presented case studies.  Instruct groups to discuss the key aspects of the case study, focusing on the circular business model employed. | | | | 5 min | |  |
| 5 | Group Presentation | Each group presents a summary of their case study analysis to the class.  Emphasize critical thinking, insights gained, and potential improvements or challenges faced by the companies. | | | | 5 min | |  |
| 6 | Class Discussion | Open the floor for a broader class discussion.  Encourage students to draw connections between the case studies and identify overarching trends or patterns in circular business models in the fashion industry. | | | | 10 min | |  |
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| **Name of the Activity** | | | | Activity 6 Designing a Sustainable Smart Building | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 45 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Discuss the significance of smart buildings in resource efficiency and sustainability. Introduce the components of smart buildings, such as energy management systems, IoT devices, and automation. | | | | 5 min | |  |
| 2 | Brainstorming Session | Have participants brainstorm ideas for incorporating intelligent technologies into a building to maximize energy efficiency, water conservation, and waste reduction. Provide examples and inspire creativity. | | | | 15 min | |  |
| 3 | Group Activity | Form small groups and assign each group a specific aspect of smart building design (e.g., energy management, water systems, waste reduction). Ask them to develop a concept for their assigned area using intelligent technologies. | | | | 15 min | |  |
| 4 | Group Presentation | Each group presents their smart building concept, explaining how their proposed intelligent technologies contribute to resource efficiency. Encourage discussions on potential challenges and benefits. | | | | 10 min | |  |
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| **Title of Sub-Module** | | | | **2.4: Extending Product Lifecycles: Reuse, Repair, and Remanufacture** | | | | |
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| **Name of the Activity** | | | | Activity 7 Strategies for Extending Product Lifecycles | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 40 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Briefly introduce the strategies of reuse, repair, and remanufacturing. Emphasize the environmental and economic benefits of extending product lifecycles. | | | | 5 min | |  |
| 2 | Group Formation | Divide participants into small groups, ensuring a mix of perspectives and backgrounds within each group. | | | | 5 min | |  |
| 3 | Strategy Exploration | Assign each group one of the three strategies (reuse, repair, or remanufacturing). Ask them to explore the provided information on benefits and challenges associated with their assigned strategy. | | | | 10 min | |  |
| 4 | Group Discussion | Encourage groups to discuss the following:  Key benefits of their assigned strategy.  Main challenges and how they can be addressed.  Comparative advantages and disadvantages of each strategy. | | | | 5 min | |  |
| 5 | Strategy Rotation | Rotate the groups, so each one gets exposed to information on all three strategies. This ensures a comprehensive understanding of the topic. | | | | 5 min | |  |
| 6 | Whole Group Discussion | Facilitate a whole group discussion where each group shares insights from their assigned strategy. Encourage participants to ask questions and engage in a collaborative exploration of the topic. | | | | 10 min | |  |
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| **Name of the Activity** | | | | Activity 8 Designing a Circular Product | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 45 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Discuss the concept of circular design and its role in creating products with extended lifecycles. Emphasize the principles of modularity, durability, and ease of repair. | | | | 5 min | |  |
| 2 | Product Design Brief | Provide participants with a hypothetical product design brief, outlining the product's purpose, target audience, and desired features. Emphasize the importance of incorporating elements for reuse, repair, and remanufacturing. | | | | 10 min | |  |
| 3 | Individual Design Session | Allow participants some time to individually sketch or outline their product designs, considering how each strategy can be integrated. Encourage creativity and innovation. | | | | 10 min | |  |
| 4 | Group Review | Form small groups and have participants share their designs with their group members. Encourage constructive feedback and discussion on how each design incorporates circular principles. | | | | 10 min | |  |
| 5 | Whole Group Presentation | Invite each group to present one standout design to the entire class. Discuss the unique aspects of each design and how it addresses the challenges and benefits associated with extending product lifecycles. | | | | 10 min | |  |
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| **Title of Sub-Module** | | | | **2.5: Collaborative and Sharing Economy Models** | | | | |
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| **Name of the Activity** | | | | Activity 9 Success Stories and Challenges in Collaborative Economy Models | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 35 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Briefly recap the key principles of collaborative and sharing economy models outlined in the lesson. Emphasize the potential benefits and challenges associated with these models. | | | | 5 min | |  |
| 2 | Case Study Selection | Provide participants with a selection of case studies showcasing different collaborative and sharing economy platforms. These could include examples like Airbnb, Zipcar, TaskRabbit, or others. Each case study should highlight the impact on resource optimization, reduced waste, and sustainable practices. | | | | 10 min | | Case Study Examples: Airbnb, Zipcar, TaskRabbit |
| 3 | Group Case Study Analysis | Divide participants into small groups and assign each group a specific case study. Instruct them to analyze the success factors and challenges faced by the platform in promoting collaborative and sharing practices. | | | | 10min | |  |
| 4 | Group Discussion | Have each group present a brief summary of their case study analysis to the entire class. Encourage discussions on the replicability of successful models and potential strategies to overcome challenges. | | | | 5 min | |  |
| 5 | Reflection and Q&A | Facilitate a brief reflection session, encouraging participants to share their insights and thoughts on how collaborative and sharing models contribute to the circular economy. Open the floor for questions and discussions. | | | | 5 min | |  |
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| **Name of the Activity** | | | | Activity 10 Designing a Collaborative Platform Prototype | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 40 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Discuss the concept of collaborative platforms and their potential impact on resource efficiency and waste reduction. Highlight the role of innovation in designing platforms that align with circular economy principles. | | | | 5 min | |  |
| 2 | Platform Design Brief | Provide participants with a hypothetical design brief for a collaborative platform in a specific industry or sector (e.g., transportation, housing, or tools). Outline key requirements and challenges, encouraging participants to consider circular economy principles. | | | | 10 min | |  |
| 3 | Individual Ideation | Allow participants time to individually brainstorm ideas for their collaborative platform designs. Emphasize the integration of circular practices and sustainability. | | | | 5 min | |  |
| 4 | Group Prototype Design | Form small groups and instruct participants to combine their individual ideas to create a collaborative platform prototype. Encourage them to sketch or outline the key features, user interactions, and sustainability measures. | | | | 5 min | |  |
| 5 | Prototype Presentation | Each group presents their collaborative platform prototype to the class. Participants should explain how their design incorporates circular economy principles and contributes to resource optimization and waste | | | | 5 min | |  |
| 6 | Group Discussion and Feedback | Facilitate a discussion where groups can provide feedback to each other. Encourage participants to discuss the feasibility, scalability, and potential challenges of the presented prototypes. | | | | 10 min | |  |
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| **Title of Sub-Module** | | | | **2.6: Ecosystem Approach to Circular Business Models** | | | | |
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| **Name of the Activity** | | | | Activity 11 Ecosystem Simulation - Understanding Circular Business Dynamics | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 40 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Explain the concept of the interdependence of circular business models and ecosystems.  Briefly discuss key elements such as environmental factors, resource availability, supply chains, regulations, market ecosystems, and consumer behavior. | | | | 5 min | |  |
| 2 | Role Assignment | Distribute small cards with role descriptions to participants. Roles may include circular business representatives, suppliers, consumers, regulatory bodies, environmental organizations, and other relevant stakeholders. | | | | 5 min | |  |
| 3 | Ecosystem Simulation | Use the flip chart or whiteboard to draw a representation of the ecosystem. Label different sections for environmental factors, resource availability, supply chains, regulations, market ecosystems, and consumer behavior.  Ask participants to place sticky notes or small cards in the corresponding sections to represent their roles within the ecosystem.  Facilitate a discussion on how each stakeholder's actions and decisions impact the overall ecosystem. | | | | 15 min | | flip chart or whiteboard  sticky notes |
| 4 | Scenario Introduction | Introduce a simulated scenario (e.g., a change in regulations, a shift in consumer preferences, or a disruption in the supply chain).  Ask participants to discuss and adjust the placement of their roles on the ecosystem representation to respond to the scenario. | | | | 5 min | |  |
| 5 | Reflection and Discussion | Facilitate a reflection session where participants discuss the challenges, adaptations, and collaborative measures needed to maintain a balanced ecosystem.  Emphasize the importance of collaboration and adaptation in the context of circular business models. | | | | 10 min | |  |
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| **Name of the Activity** | | | | Activity 12 Networking and Collaboration Workshop | | | | |
| **Number of People Required** | | | | 6+ | | | | |
| **Total duration of the Activity** | | | | 60 min | | | | |
|  | **Step** | **Description of each step** | | | | **Duration** | | **Materials** |
| 1 | Introduction | Discuss the importance of networking and collaboration in circular business models.  Highlight the diverse stakeholders involved and the potential benefits of collaboration. | | | | 5 min | |  |
| 2 | Collaboration Scenario Cards | Prepare small cards with collaboration scenarios. Each card should describe a specific collaboration opportunity or challenge (e.g., partnering with a recycling facility, collaborating with a competitor, or forming a community engagement initiative). | | | | 5 min | | Cards with collaboration opportunity or challenge (e.g., partnering with a recycling facility, collaborating with a competitor, or forming a community engagement initiative) |
| 3 | Scenario Exploration | Distribute the collaboration scenario cards to small groups or individuals.  Ask participants to brainstorm and discuss how they would approach the collaboration scenario, considering potential benefits, challenges, and strategies. | | | | 15 min | |  |
| 4 | Group Presentations | Each group or individual presents their collaboration scenario, discussing their proposed approach and considerations.  Encourage discussions on the role of networking in addressing challenges and seizing opportunities. | | | | 15 min | |  |
| 5 | Interactive Networking Session | Facilitate a networking session where participants engage with each other, sharing insights, and exploring potential collaboration opportunities.  Encourage participants to exchange contact information and discuss how they can support each other in the context of circular business. | | | | 10 min | |  |
| 6 | Reflection and Discussion | Conclude the workshop with a reflection on the importance of networking and collaboration.  Discuss key takeaways, lessons learned, and potential next steps for participants to foster collaborations in their professional contexts. | | | | 10 min | |  |
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| **ANNEXES** | | | |  | | | | |
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| **Assessment Methods** | | Group Discussion, Simulation Exercises, Case studies | | | | | | |
| **List of References / Additional Recommended Reading** | | References:  Ellen MacArthur Foundation. (2013). *Towards the Circular Economy: Economic and Business Rationale for an Accelerated Transition.* Retrieved from https://www.ellenmacarthurfoundation.org/publications  Stahel, W. R. (2016). *Circular Economy: A User's Guide.* Springer.  Ghisellini, P., Cialani, C., & Ulgiati, S. (2016). *A review on circular economy: the expected transition to a balanced interplay of environmental and economic systems.* Journal of Cleaner Production, 114, 11-32.  Business for Social Responsibility (BSR). (2020). *Circular Economy Playbook: From Periphery to Core.* Retrieved from https://www.bsr.org/en/collaboration/groups/circular-economy  World Economic Forum. (2019). *Circularity Gap Report 2019.* Retrieved from<http://www.circularity-gap.world/>  Recommended Reading:  McDonough, W., & Braungart, M. (2002). *Cradle to Cradle: Remaking the Way We Make Things.* North Point Press.  Hawken, P., Lovins, A., & Lovins, L. H. (1999). *Natural Capitalism: Creating the Next Industrial Revolution.* Little, Brown and Company.  Hoffman, A. J. (2015). *Getting Ahead of the Green Wave: How to Capitalize on the Environmental and Social Sustainability Trend.* Harvard Business Review, 93(5), 24-26.  Schaltegger, S., Lüdeke-Freund, F., & Hansen, E. G. (2012). *Business cases for sustainability: A stakeholder theory perspective.* Journal of Business Ethics, 110(1), 1-14.  Elkington, J. (1997). *Cannibals with Forks: The Triple Bottom Line of 21st Century Business.* Capstone.  Iles, J. (2018). *Sustainable Business: Theory and Practice of Business Under Sustainability Principles.* Routledge. | | | | | | |
| **Differentiation** | | | Depending on the requirements of each individual student | | | | | | |
| **What is the worst that could happen with this training?** | | | | **What will you do to correct it?** | | | | | |
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