



*“Boosting the startup of green and ethical enterprises,
based on GreenComp competences”*



Contents

1. The project	2
1.1 The purpose of the manual	3
1.2 Manual's timeline	4
2. Online tools.....	5
2.1 Circular Economy	5
2.2 The SUSTAINABLE CREATIVE PROJECT CANVAS	12
2.3 Digital Beacon	15
3. Co-creation exercises	17
3.1 Digital Sustainability Hackathon.....	17
3.2 Sustainable Product Design Sprint.....	18
3.3 Eco-Innovation Brainstorming Session.....	18
3.4 Interactive Feedback Session.....	19

1. The project

The project aims to develop the skills and competences of startupper and entrepreneurs in sustainable entrepreneurship, boosting the creation of innovative green and ethical enterprises, that will foster the production of eco-friendly products.

Objectives:

Developing green and entrepreneurial skills for people holding or wanting to create a sustainable enterprise.

Development of exemplary learning materials for startupper and entrepreneurs, which will give initial access to the future sustainable business environment.

Foster capacity building through innovative approaches through the development of skills and sustainable business models.

Boosting the start-up of new sustainable enterprises in the post COVID-19 era.

Fighting against climate change, through the guidance in sustainable entrepreneurship and the production of eco-friendly products.

Promoting business sustainability at national, regional, and European levels.

Target Group of the project:

- Entrepreneurs, who want to upgrade their existing enterprise, adopting environmental and ethical aspects in their operations.
- Startupper, who have an eco-innovative idea and want to learn more about creating a sustainable enterprise.
- People interested in learning about sustainable entrepreneurship.

1.1 The purpose of the manual

The manual aims to prepare trainers and mentors for the implementation of the individual acceleration procedure.

The individual online acceleration procedures will include entrepreneurs/startuppers from the partner countries. During the mentor/trainer sessions, this document will be an essential resource, providing answers and clarifications on various aspects of the training process.



This way, they will be able to prepare their business plan, organize their further actions, etc. always about sustainable entrepreneurship. As a result, entrepreneurs and startuppers will have all the appropriate information and tools to create their enterprises and put into reality their eco-innovative ideas. Trainers will be able to engage with the content actively, with hands-on exercises, and seek detailed explanations to deepen their understanding and resolve any queries.

The total duration of the individual acceleration procedure is 20 hours. During this time frame, mentors and trainers will provide educational materials such as exercises, videos, and case studies to enhance interaction with participants. Trainers can also provide exercises and suggest that learners study at their own pace, always under their supervision.

1.2 Manual's timeline

Use the following timeline to guide learners throughout the training procedure, ensuring that each session is well-structured and comprehensive. Keep a record of the time allocated for each segment to guarantee that all training tools are covered thoroughly and punctually.

Ensure that participants have the time to engage with the material actively, work independently, and incorporate the training insights effectively. By adhering to the timeline, trainers can provide a balanced mix of instruction and hands-on practice on the training tools.

 GreenComp enterprises training tools Time line				
	Task Explanation	Time allocated to learners	Feedback discussion	Total duration
 Introduction	In 30 minutes, introduce both the project's and the manual's purpose to the learners.	Provide learners with 30 minutes to introduce themselves and meet each other.	Spend 30 minutes to answer any possible questions regarding the training procedure.	The overall time needed for introduction part is estimated to be 1,5 hours.
 Circular Economy	In 1 hour introduce circular economy to learners, along with the butterfly diagram.	Let learners work on their own pace for 2 hours to understand the meaning of circular economy and work in the case study.	Discuss with learners for 2 hours the findings of the case studies and resolve any possible queries that may arise.	The overall time needed to complete the tool is estimated to be 5 hours.
 sustainable creative project canvas	In 30 minutes explain to learners how sustainable creative canvas works.	Let learners to create their own sustainable project canvas in 2,5 hours and visualize how their businesses can benefit by it.	Let learner to present their canvas in 1,5 hour and discuss together the steps needed to imply these canvas into their businesses.	The overall time needed to complete the tool is estimated to be 4,5 hours.
 Digital Beacon	In 1 hour explain to learners how Digital Beacon works and show them an example of an impact report.	Let learners for 1 hour to explore tools' features and in 1,5 hour to test the platform by using a their company's url and create an impact report.	Discuss with learners for 1,5 hour about the findings of the impact report and give learners feedback on the methodologies they can use.	The overall time needed to complete the tool is estimated to be 5 hours.
 Co - creation exercises	Give learner 10 minutes to understand the purpose of each exercise and solve any queries.	Interact with learners through the 4 exercises for 2 hours and encourage them to express themselves about the training tools.	Discuss with learners for 1,5 hours about their feedback on the overall exercises and the practical tools that align with their enterprises.	The overall time needed to complete the co-creation exercises is estimated to be 4 hours.

2. Online tools

The online tools aim to empower trainers, mentors, entrepreneurs, and startupperes by offering practical guidance, fostering critical thinking, and equipping them with the necessary knowledge and resources to develop eco-innovative enterprises. From visualizing and designing sustainable business models to evaluating the environmental impact of websites, these tools facilitate a structured approach to entrepreneurship that prioritizes environmental sustainability, resource efficiency, and social responsibility.

Through hands-on exercises, case studies, and actionable insights, these tools enhance interaction, deepen understanding, and inspire proactive engagement with sustainable practices, ultimately enabling participants to create enterprises that contribute positively to both the economy and the environment.

2.1 Circular Economy

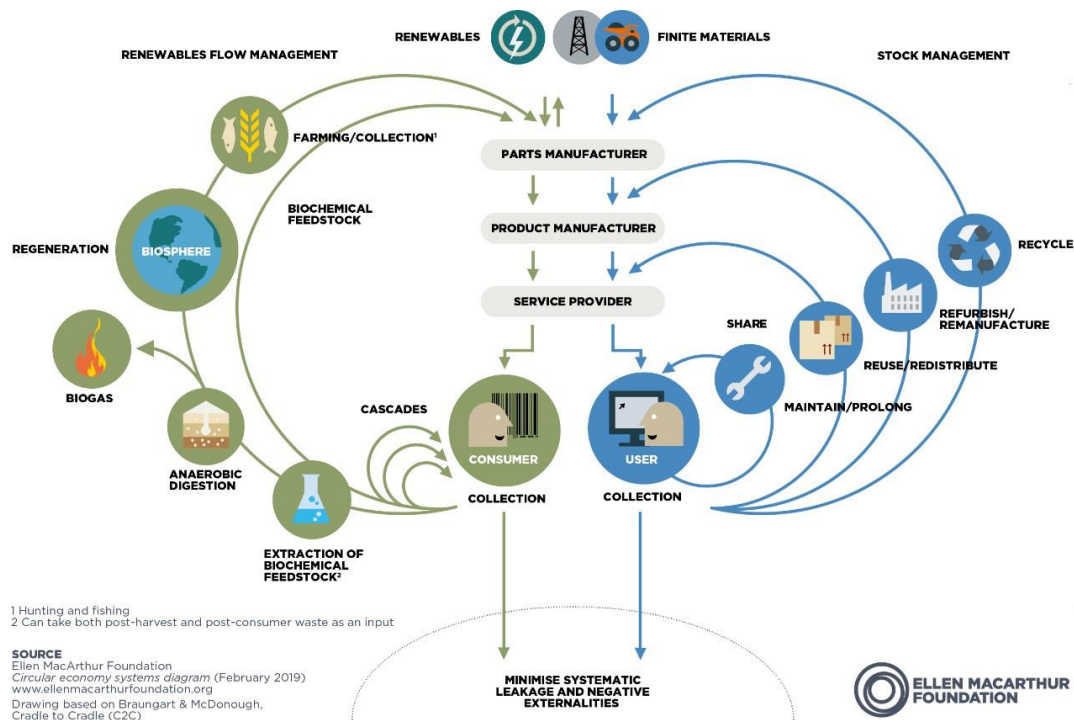
The circular economy is a system where materials never become waste and nature is regenerated. In a circular economy, products and materials are kept in circulation through processes like maintenance, reuse, refurbishment, remanufacture, recycling, and composting. The circular economy tackles climate change and other global challenges, like biodiversity loss, waste, and pollution, by decoupling economic activity from the consumption of finite resources.

The circular economy is based on three principles, driven by design:

- ✓ Eliminate waste and pollution
- ✓ Circulate products and materials (at their highest value)
- ✓ Regenerate nature.
- ✓ The goal is moving from an approach of the company of “designing for failure” and overconsumption, to a view of “designing to last” and “designing to reduce waste”.

The butterfly diagram.

The butterfly diagram illustrates the circular economy by dividing materials into two cycles: the biological cycle and the technical cycle. The biological cycle deals with biodegradable materials that can safely return to the earth, promoting regeneration, sustainable farming, composting, cascading use, and biochemical extraction. The technical cycle focuses on keeping non-consumable products in use through sharing, maintaining, reusing, redistributing, refurbishing, and remanufacturing, ensuring materials remain valuable and do not become waste.



How does the diagram work?

A. The biological cycle of the butterfly diagram

On the left-hand side of the butterfly diagram is the biological cycle, which is for materials that can biodegrade and safely return to the earth. This cycle mainly concerns products that are consumed, such as food. However, some other biodegradable materials, such as cotton or wood, may eventually make their way from the technical cycle into the

biological cycle once they have degraded to a point where they can no longer be used to make new products.

1st Step: Regeneration

At the heart of the biological cycle is the concept of regeneration. It is the third principle of the circular economy.

Instead of continuously degrading nature, as we do in the linear economy, in the circular economy we build natural capital. We employ farming practices that allow nature to rebuild soils and increase biodiversity. Our wider food system returns biological materials to the earth rather than wasting them. No longer should our focus be simply on doing less harm to the environment, but on how we can actively improve it.

2nd step: Farming

We can manage farms, and other sources of biological resources such as forests and fisheries, in ways that create positive outcomes for nature. These outcomes include, but are not limited to, healthy and stable soils, improved local biodiversity, improved air and water quality, and storing more carbon in the soil. They can be achieved through a variety of practices and can together help regenerate degraded ecosystems and build biodiversity and resilience on farms and in surrounding landscapes.

To achieve these ends farmers may draw on several different schools of thought, such as regenerative agriculture, restorative aquaculture, agroecology, agroforestry, and conservation agriculture, to help them apply the most appropriate set of practices to drive regenerative outcomes on their farms.

3rd step: Composting and anaerobic digestion

Composting is the microbial breakdown of organic matter in the presence of oxygen. It can be used to turn food by-products and other biodegradable materials into compost, which can be used as a soil enhancer, returning valuable materials to farmland in place of artificial fertilisers. The process is biological and involves naturally occurring microorganisms, such as bacteria and fungi.

4th step: Cascades

These loops of the biological cycle make use of products and materials already in the economy. This could mean, for example, using food by-products to make other materials, such as textiles made from orange peel, or designing new food products using ingredients usually considered waste, like ketchup made from banana peel. It could also mean using the material for applications such as animal feed. When products or materials can no longer be used, they move to the outer loops of the biological cycle where they are returned to the soil.

5th step: Extraction of biochemical feedstock

Taking both post-harvest and post-consumer biological materials as feedstock, this step involves the use of biorefineries to produce low-volume but high-value chemical products. On top of this, biorefineries can produce a range of other valuable products from organic materials through a series of steps. These processes could consecutively produce, for example, high value biochemicals and nutraceuticals followed by bulk biochemicals.

B. The technical cycle of the butterfly diagram

On the right-hand side of the butterfly diagram is the technical cycle, relevant for products that are used rather than consumed. This page will focus on the different stages of the technical cycle and look at how each step allows materials to remain in use rather than becoming waste.

1st step: Sharing

Sharing is the first port of call in the technical cycle and, while not appropriate for all products in the economy, it has the power to dramatically increase the utilization of many products.

A great example of this is tools. You may have heard the stat: the average power drill is used for just 13 minutes in its entire life. That is shocking underutilization - and yet still many of us own one. Why not share? Community tool libraries, like this one in Toronto, are a great way to facilitate this. Users pay by subscription, gain access to higher quality tools than they would buy for themselves, and declutter their homes at the same time. Libraries like this are popping up in communities all over the world and not only for tools.

2nd step: Maintaining

If sharing is a way to increase the intensity of product use, another way to maximize the value of a product is by prolonging its usable life. Maintenance is an important way of keeping products at a high quality and guard against failure or decline.

When you think about maintenance, you might think about taking a car for a service, or shoring up your home against the elements, but maintenance can be applied to most products that suffer wear and tear. For example, Clothes Doctor empowers people to look after their clothing by sharing knowledge about care and maintenance.

3rd step: Reusing

The next loop in the technical cycle of the butterfly diagram is reuse. Like sharing and maintaining, this step keeps products in use in their original form and for their original

purpose. Reuse business models are cropping up all over the economy, notably in packaging. Reusable packaging is one of the most effective ways of tackling packaging waste, particularly plastic, and is being adopted by businesses across industries, from food and drink to cosmetics and home cleaning.

Another booming reuse industry is in clothing. More and more people are selling their unwanted clothing and buying clothes from resale platforms, often at a fraction of the cost of buying new. This displaces the need for a new item to be made and stops an unwanted item from going to waste.

4th step: Redistributing

Redistribution is another way to keep products in use and stop them becoming waste. By diverting products from their intended market to another customer, the product is put to valuable use. For example, a fashion brand could redistribute unsold clothing from one store to another.

5th step: Refurbishing

Returning products to good working order is a way to restore their value. This could include repairing or replacing components, updating specifications, and improving cosmetic appearance.

Refurbishing can be carried out by individuals on their own products, or by specialists. The Right to Repair movement aims to make changes to regulations so that products are designed in a way that makes it possible for users to repair them by themselves.

6th step: Remanufacturing

The next stage of the technical cycle is remanufacturing. This is done when products cannot remain in circulation in their current state and need more intensive work to be used again. Remanufacturing involves re-engineering products and components to as-new condition with the same or improved, level of performance as a newly manufactured one. Remanufactured products or components are typically provided with a warranty that is equivalent to, or better than, that of the newly manufactured product.

It may require more investment in plant and machinery than do the inner loops of the technical cycle, but it means that products and components do not become waste and can remain in the economy, representing a cost saving to businesses and customers.

China has adopted the circular economy as a national priority since the late 2000s and has defined vehicle remanufacturing as a strategic sector.

7th step: Recycling

The final step in the technical cycle is recycling. This is for when a product can no longer be used and is beyond refurbishment or remanufacture or isn't suitable for those steps. It is the final way of keeping in use the materials from which the product is made so they don't become waste.

Let's practice!

Please follow the link <https://youtu.be/NBEvJwTxs4w> and have a look at the overall explanation of the butterfly diagram and how can you use it.



Image: Sustainable Global Resources Ltd.
Recycling Council of Ontario

Exercise.

Find a case study in the green sector that applies to the principles of the Circular Economy and discuss it with the facilitators. The example can relate to the following concepts. Give participants some time and then discuss with them the steps needed to implement a circular economy project in practice.

Read the following example and use it as a template to guide the conversation.

Example: Circular Economy Practices for Managers:

1. Product Life Extension:

- **Refurbishing:** Managers can implement refurbishing programs where used products are restored to like-new condition and resold. This can apply to electronics, furniture, or appliances.
- **Upcycling:** Transforming old or waste materials into new, higher-value products. For example, a fashion company could upcycle textile waste into new clothing lines.

Expected results:

The examples provided show practical applications of Circular Economy principles that managers can implement within their businesses to reduce waste, extend product life cycles, and create additional value from existing resources

Encourage participants to identify similar opportunities within their industries or companies. You should provide a step-by-step guide on how to set up a refurbishing or upcycling program. This should include sourcing materials, refurbishing processes, quality control, marketing strategies, and distribution channels.

2.2 The SUSTAINABLE CREATIVE PROJECT CANVAS

The Sustainable Creative Project Canvas (SCPC) will assist learners in visualizing and designing their business model through a creative planning process combining environmental priorities enabling them to reflect upon and address urgent sustainability challenges by:

- mapping, developing and planning different ideas
- thinking about the different aspects of the project
- finding out how to connect with people wishing to see, engage, or participate in the project
- connecting the big picture with the finer details of each of the potential stages of the project
- calculating the potential impacts of the project from different perspectives

How does Business Model Canvas works?



Have a closer look at the table.

Business Model Canvas		Designed for:	Designed by:	Date:	Version:
<p>Key Partners Who are our Key Partners? Who are our key suppliers? Which Key Resources are we acquiring from partners? Which Key Activities do partners perform?</p> <p>MOTIVATIONS FOR PARTNERSHIPS: Optimization and economy, Reduction of risk and uncertainty, Acquisition of particular resources and activities</p>	<p>Key Activities What Key Activities do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue streams?</p> <p>CATEGORIES: Production, Problem Solving, Platform/Network</p> <p>Key Resources What Key Resources do our Value Propositions require? Our Distribution Channels? Customer Relationships? Revenue Streams?</p> <p>TYPES OF RESOURCES: Physical, Intellectual (brand patents, copyrights, data), Human, Financial</p>	<p>Value Propositions What value do we deliver to the customer? Which one of our customer's problems are we helping to solve? What bundles of products and services are we offering to each Customer Segment? Which customer needs are we satisfying?</p> <p>CHARACTERISTICS: Newness, Performance, Customization, "Getting the Job Done", Design, Brand/Status, Price, Cost Reduction, Risk Reduction, Accessibility, Convenience/Usability</p>	<p>Customer Relationships What type of relationship does each of our Customer Segments expect us to establish and maintain with them? Which ones have we established? How are they integrated with the rest of our business model? How costly are they?</p> <p>Channels Through which Channels do our Customer Segments want to be reached? How are we reaching them now? How are our Channels integrated? Which ones work best? Which ones are most cost-efficient? How are we integrating them with customer routines?</p>	<p>Customer Segments For whom are we creating value? Who are our most important customers? Is our customer base a Mass Market, Niche Market, Segmented, Diversified, Multi-sided Platform</p>	
<p>Cost Structure What are the most important costs inherent in our business model? Which Key Resources are most expensive? Which Key Activities are most expensive?</p> <p>IS YOUR BUSINESS MORE: Cost Driven (leanest cost structure, low price value proposition, maximum automation, extensive outsourcing), Value Driven (focused on value creation, premium value proposition).</p> <p>SAMPLE CHARACTERISTICS: Fixed Costs (salaries, rents, utilities), Variable costs, Economies of scale, Economies of scope</p>		<p>Revenue Streams For what value are our customers really willing to pay? For what do they currently pay? How are they currently paying? How would they prefer to pay? How much does each Revenue Stream contribute to overall revenues?</p> <p>TYPES: Asset sale, Usage fee, Subscription Fees, Lending/Renting/Leasing, Licensing, Brokerage fees, Advertising FIXED PRICING: List Price, Product feature dependent, Customer segment dependent, Volume dependent DYNAMIC PRICING: Negotiation (bargaining), Yield Management, Real-time-Market</p>			
<p>Designed by: The Business Model Foundry (www.businessmodelgeneration.com/canvas). Word implementation by: Neos Chronos Limited (https://neoschronos.com). License: CC BY-SA 3.0</p>					

Figure 1 <https://neoschronos.com/download/business-model-canvas/docx/>

Let's practice!

Now it is your time to start from scratch a sustainable business Canva template by clicking here [Business Model Canvas Template in Word \(DOCX\) - Neos Chronos](#) and downloading the Word document.

Use the first template which is already filled, as a guide to lead the conversation and let participants work with the empty template.

Tips:

To outline a sustainable business vision and mission, it is crucial to ask learners how to reflect on the following key questions:

- What long-term social and/or environmental challenge are you trying to solve with your new business idea? Where should your organization be in five or ten years?

- What values will this business idea be determined by? Which mission do you pursue with your business idea? Which duty does it fulfill in this world?
- How can you describe your Vision and Mission shortly and understandably? Does this align with your core business sustainability strategy?
- What is the desired impact of your business idea on the SDGs?
- What concrete contributions will this business idea make to achieve the sustainable development goals by 2030?

Expected results:

The exercise will enable SMEs managers to visualize and systematically plan their projects with a strong emphasis on environmental priorities, ensuring that sustainability is embedded at every stage. Managers will be equipped with the skills to generate innovative ideas, consider the multifaceted aspects of their projects, and identify opportunities for stakeholder engagement.

2.3 Digital Beacon

EcoGrader is a tool designed to evaluate the environmental impact of websites by analyzing their performance, energy consumption, and sustainability practices. It provides actionable insights and recommendations to help web developers and site owners optimize their sites for better efficiency, faster load times, and reduced carbon footprint, ultimately promoting digital sustainability.

Calculate the environmental impact of a web page, see the breakdown, and learn what measures can be taken to improve it.

Why should you use this tool?

- The tool analyzes a website's carbon footprint, providing a detailed breakdown of emissions and offering measures to reduce them.
- It evaluates page size and other performance indicators, helping businesses optimize website speed and user experience.
- Businesses can generate a report comparing their website's carbon emissions to industry standards, allowing for benchmarking and targeted improvements.
- The tool offers actionable tips to lower emissions, enhancing sustainability and efficiency.
- By reducing emissions and improving website performance, companies can boost their reputation and gain a competitive edge.

Overall, facilitators should explain to participants that through digital training tools like “Digital Beacon,” everyone can, by applying simple practices and methods, make their businesses more sustainable and have a significant positive impact on society. By leveraging these tools, participants can gain a comprehensive understanding of how to integrate sustainable practices into their daily operations.

By adopting these practices, businesses can improve their efficiency, reduce costs, and meet the growing demand for environmentally friendly products and services. Additionally, as these sustainable practices become more widespread, the collective impact on society can be profound, leading to healthier communities and a more resilient economy.

Let's practice!

1st step: Visit the website here <https://digitalbeacon.co/> and start working on the tool. Navigate the platform and add a URL link to a company's website.

2nd step: Create your own Impact Report of a company's website and get informed about the:

- Uses Optimized Images: Opportunities for Improvement
- Modern Image Formats: Opportunities for Improvement
- Reduce Overall Page Weight
- Serve images that are appropriately sized to save cellular data and improve load time

Use the following example and analyze the findings with the participants.

OECON'S Impact Report - How to Improve Your Site:

<https://ecograder.com/report/IJkW8PsmQny8hbpn46pqfYbS>

3rd step: Allow learners to use the URL of their own business and discuss with them suggestions for improvement.

Questions to discuss with learners:

- What is the overall score of the website on EcoGrader, and what does this score indicate?
- How does page load time affect a website's environmental impact?
- How does image optimization contribute to reducing a website's energy consumption?
- What are some ways to reduce redundant data on a website?
- What steps can be taken to ensure a website remains sustainable in the long term?

3. Co-creation exercises

The purpose:

The co-creation activities are going to foster collaboration, leverage the diverse expertise of the target group, and enhance learning by involving multiple stakeholders in the development of innovative and practical solutions for sustainable entrepreneurship. These activities will encourage shared ownership, and creativity and will empower participants to get technical insights.

Implementation:

The key aspects of co-creation exercises include:

- **Collaboration:** Co-creation involves active collaboration among various stakeholders throughout the design process.
- **Inclusivity:** Co-creation aims to involve diverse perspectives.
 - **Iterative Process:** Co-design often involves an iterative approach, with multiple rounds of feedback and refinement. Participants provide feedback, which informs further iterations of the design.
- **Shared Ownership:** All participants share ownership of the outcome.

Estimated time for the completion of the co-creation exercise- 4 hours

3.1 Digital Sustainability Hackathon

Objective: Enhance digital sustainability through collaborative problem-solving.

Participants: SMEs Managers, Startupper, and people interested in applying sustainable practices in their business.

Steps:

- **Step 1:** Introduce participants to the Digital Beacon tool and its features.
- **Step 2:** Teams select a website (preferably one from a participating business) and use Digital Beacon to assess its environmental impact.
- **Step 3:** Based on the assessment, teams brainstorm and implement improvements to reduce the website's carbon footprint, enhance performance, and boost sustainability.
- **Step 4:** Open questions and interaction among participants

3.2 Sustainable Product Design Sprint

Objective: Develop sustainable products through collaborative design thinking.

Participants: SMEs Managers, Startupper, and people interested in applying sustainable practices in their business.

Steps:

- **Step 1:** Provide an overview of sustainable product design principles.
- **Step 2:** Teams select a product idea that aligns with sustainability goals.
- **Step 3:** Teams use design thinking techniques to develop their product.
- **Step 4:** Teams share their products idea with other participants and gather feedback for iterative improvement.

3.3 Eco-Innovation Brainstorming Session

Objective: Generate innovative ideas for eco-friendly products and services.

Participants: SMEs Managers, Startupper, and people interested in applying sustainable practices in their business.

Steps:

- **Step 1:** Conduct a brief brainstorming session on current environmental challenges and opportunities in various sectors.
- **Step 2:** Groups use creative brainstorming techniques and discuss new ideas for eco-friendly products or services.
- **Step 3:** Each group selects the most promising ideas and develops a preliminary action plan, considering feasibility, impact, and scalability.

3.4 Interactive Feedback Session

Objective: Summarize participants' overall feedback from the manual and the training activities.

Participants: SME managers, startups, and individuals interested in applying sustainable practices in their business.

Steps:

- **Step 1:** Summarize the manual's main tools.
- **Step 2:** Gather all participants' final questions and doubts.
- **Step 3:** Conduct a peer-to-peer session to discuss with learners the potential for implementing the manual's tools and methods into their businesses.