GUIDEBOOK

FOR RAISING AWARENESS AND BUILDING THE CAPACITY OF YOUTH WORKERS

Contents

1. Introduction

In this chapter you will be introduced to the SYNC project and its objectives, as well as to the present Guidebook and how to use it.

1.1 About the SYNC project

According to a recent Eurobarometer, protecting the environment and climate change was considered the highest priority for the EU by 67% of young respondents. Youth participation in various social movements for climate and environmental protection as well as consumption habits towards sustainable food and clothing further manifests the turn of the youth towards sustainability and alternative models of economic development. COVID-19 devastatingly also underlined the need to turn towards sustainable production and consumption and for alternative economic models in the future.

Based on this reality, SYNC aims to develop a non-formal educational framework to introduce young people and youth workers to the Circular Economy concepts and values and to unleash the innovation and entrepreneurial potential of young persons in this field.

To achieve that, the specific objectives of the SYNC project are to:

- Inform and raise young people's awareness on circular economy entrepreneurship,

- Build the capacity of youth organisations to be able to inform and guide youth towards circular economy concepts and values and to explore youth's entrepreneurship and innovation potentials,

- Strengthen the entrepreneurial skills of young people to play an active role in the circular economy,

- Provide a digital environment for innovation and support the design of business ideas,

- Reinvigorate cross-national and cross-sectoral knowledge transfer to build momentum towards increasing the availability of educational resources to foster youth entrepreneurship in circular economy.

SYNC is a 24-month transnational cooperation of six (6) organisations in five (5) different European countries: Greece, Portugal, Romania, Germany and Belgium. To find out more information about the project and access its results please visit: https://www.sync-project.eu/.

1.2   About the guidebook

1.2.1 Target group of this guidebook

The SYNC Guidebook is a tool for trainers/youth workers who provide learning and training to young people in the context of employment counselling/training, lifelong learning, and/or youth work. The Guidebook will facilitate youth workers to prepare, develop, and implement comprehensive training for young people on the topic of Circular Economy and its link with innovative entrepreneurial and employment practices. The target audience for the SYNC training is young people that are looking for entrepreneurial/employment opportunities, as well as young people that are interested in exploring and initiating environmentally friendly business models.

1.2.2 Structure of this guidebook

The present Guidebook aims to provide trainers/youth workers with all the necessary information and exercises so as to design a comprehensive training for young persons on Circular Economy and entrepreneurship. To this end, it contains the following chapters:

1. Introduction to the project and the guidebook

2. The 4 Ws & H of circular economy

3. Engaging the Youth & Facilitation Skills

4. Design thinking

5. Next steps & financing a Circular Economy business

All chapters include theoretical information along with practical interactive exercises to be performed at trainings with young people, either face-to-face or online. The Guidebook is available in 5 languages (English, Greek, Portuguese, Romanian, and German).

1.2.3 Learning objectives

The SYNC Guidebook intends to provide a framework for youth workers to accelerate specific knowledge and competencies among young persons on the concept of Circular Economy and its connection to innovative entrepreneurial and employment practices. After the administration of the present Guidebook, young persons will achieve the following key learning outcomes, based on Bloom's taxonomy (Forehand, 2005):

· Recognise and explain the basic aspects of Circular Economy and how it can be transformed to innovative business models;
· Describe and analyse the challenges and risks caused by the Linear Economy model as well as the benefits and opportunities offered by the Circular Economy approach for the environment and youth;
· Identify and determine the skills and competences needed to engage with Circular Economy;
· Familiarise with the design-based thinking process and identify its innovative aspects;
· Determine and apply the design-based thinking process to business ideas;
· Examine entrepreneurial initiatives under the lens of Circular Economy;
· Select and use relevant information and tools in order to put entrepreneurial ideas into practice.

1.3 How to use this Guidebook

The SYNC Guidebook provides youth workers, who wish to conduct trainings on Circular Economy to young

persons, with a range of training tools and options to select the most suitable for the needs of the trainee group.

The Guidebook is complementary to the electronic "Toolkit for Youth and Circular Entrepreneurship", developed within the SYNC project, which directly targets young persons and provides general information about Circular Economy, as well as country-specific information and good practice results. The Toolkit is available on the project website in 5 languages

(English, Greek, Portuguese, Romanian and German) and can be distributed to participants during the SYNC training. In addition, the training can be enhanced with the use of video testimonies from young circular economy entrepreneurs in each participating country that are developed in the context of the project and are available on the SYNC YouTube channel. Last, but not least, the Guidebook is accompanied by the SYNC online course as well as Lessons learnt and youth recommendations, which are available on the SYNC website in 5 languages.

1.3.1 Practical tips for youth workers

In this section, youth workers can find some practical tips on how to get the best out of the materials presented in this Guidebook:

· Be familiar with and have good knowledge of the material included in the Guidebook/training;
· Be appropriately prepared to present the information and answer to possible questions and obstacles
· Be familiar with the venue and/or the place where the training will be held (e.g., online platform, chairs, material for exercises etc.)
· If possible, have more than one facilitator in the training. When more than one facilitator is present, participant engagement and interest are increased. This is because the different personal and professional styles available generally facilitate the learning procedure and rapport building. At the same time more attention, ideas and instructions are provided to learners, and thus, the likelihood of meeting participants' needs increases. In addition, possible challenging and/or conflicting situations could be abolished more effectively; while the workload is shared. Distributing responsibilities is proven to be significantly convenient and useful, particularly when keeping notes, answering questions and coping with administration needs is required.
· Keep in mind that the main roles of the youth workers are:
o to enable coherence among participants
o to maintain the structure of the group
o to facilitate the creation of a safe space where all participants feel able to express themselves freely; while also encouraging them to do so.

1.4 ACTIVITIES

According to a recent Eurobarometer, protecting the environment and climate change was considered the highest priority for the EU by 67% of young respondents. Youth participation in various social movements for climate and environmental protection as well as consumption habits towards sustainable food and clothing further manifests the turn of the youth towards sustainability and alternative models of economic development. COVID-19 devastatingly also underlined the need to turn towards sustainable production and consumption and for alternative economic models in the future.

Based on this reality, SYNC aims to develop a non-formal educational framework to introduce young people and youth workers to the Circular Economy concepts and values and to unleash the innovation and entrepreneurial potential of young persons in this field.

1.4.1 Activity 1

Activity title:	Icebreaker – Dream Job
Description (structure and duration)	Distribute post-it notes and markers to participants and ask them to write their dream job. Give them 3-5 minutes to write up their answer and ask them to stick the post-it note to the flipchart/blackboard in the classroom. After everyone is finished, the learners are invited to have an overall look at the board with all the post-it notes. The learners, are invited one by one to stand up and introduce themselves and their dream job to the group. The trainer asks participants to reflect and discuss how their dream job could fit into a more sustainable/environmental friendly context.
Duration:	30-40', depending on the size of the group.
Location:	Classroom or Online
Needed resources:	Flipchart/ Blackboard, Post-it notes, Markers
Gamification option:	If the training is performed online, use an online tool (for example mentimeter or mural) and share the link with participants so that they can instantly reply to the question "What is your Dream Job?". Give the participants 3-5 minutes to write up their answers. After everyone is finished, share the screen with the group so that all the answers are visible. Participants are invited, one-by-one, to introduce themselves and their dream job to the group. The trainer asks participants to reflect and discuss how their dream job could fit into a more sustainable/environmental friendly context.

1.4.2 Activity 2

| Activity title:	What does it mean? – Environment & climate Change
Description (structure and duration)	The activity aims at enhancing reflection on the topics that will be addressed at the training. Invite participants to brainstorm on the most common terms they have heard being used when referring to the environment and climate change. Choose 2-3 concepts, for example: • Environment • Climate change • Sustainable livelihood • Resilience • Biodiversity • Resource Acquisition • Etc. Distribute markers and blank sheets of paper and ask participants to write down what they know about this term/what does it mean to them. At this point, reassure participants that there are no right or wrong answers to this question. Ask participants to write down the answers on a sheet of paper and hang it on the wall. Engage participants in a brief discussion on the terms and their connotations. To lead the discussion, refer to existing terminology on environmental and ecological aspects such as the World Bank Glossary of Environmental Terms or the European Environmental Agency Glossary.
Duration:	20'-30', depending on the size of the group.
Location:	Classroom or Online
Needed resources:	Flipchart/ Blackboard, Blank sheets, Markers, Tape
Gamification option:	If the training is performed online, use an online tool (for example mentimeter or mural) and share the link with participants so that they can instantly reply to the question "How do you define [insert term to be discussed]?". Give the participants 3-5 minutes to write up their answers for each term. After everyone is finished, share the screen with the group so that all the answers are visible. Engage participants in a brief discussion on the terms and their connotations.

2. The 4 Ws & H of circular economy

In this chapter, you will learn what, why, to who, when and how the circular economy can be beneficial in people's professional and personal lives, and above all, how can the circular model be applied in business by young entrepreneurs.
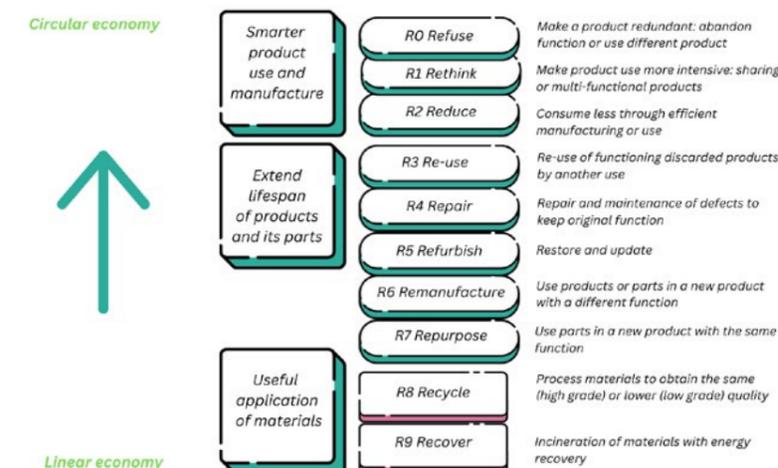
2.1   What: definition of circular economy

In the last few years, the concept of the circular economy became famous by appearing as an alternative to the predominant Linear Economic model. The linear economy operates on the assumption that resources are abundant and cheap, however, it is not sustainable as it exceeds planetary boundaries (2015 cit. European Environment Agency, 2016). It prioritizes producing as many materials as possible for a low cost, with no concern for the ecological footprint behind production and consumption.

With an opposite mindset, the circular economy model prioritizes the environment and defends sustainable values, through more conscious use of natural resources (Velenturf and Purnell, 2017), to eliminate waste and pollution, circulate products and materials, and regenerate value (Ellen Macarthur Foundation, n.d.).
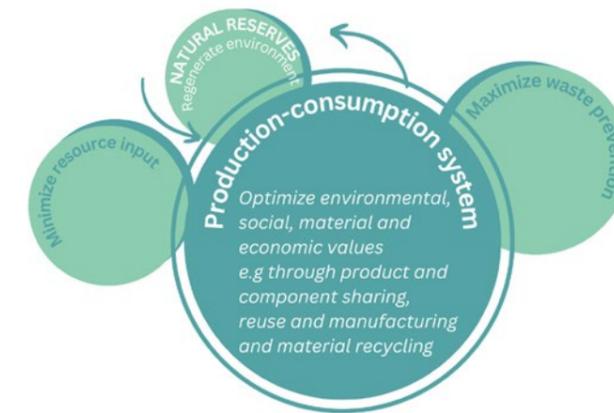
Figure 1: "In a circular economy resource use is improved by minimizing the extraction of natural resources maximizing waste prevention and optimising the environmental, social material and economic values throughout the lifecycles of materials, components and products". Source: Velenturf & Purnell, n.d.

2.1.1   Definition

Following this perspective, the European Parliament defines the circular economy as "a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, the life cycle of products is extended" (European Parliament, 2015). Accordingly, different approaches and methods were developed, and are known as R-strategies. Those initiatives may vary but, usually, they stick to similar approaches from high to low circularity (Potting et al., 2017), as you can see in the image below:

The circular economy strategy on the image "enables the formulation of circularity strategies in which the primary function of a product is maintained" (Potting et al., 2017, p. 15).

Figure 2: circular economy: measuring innovation in the product chain.

2.2   Life cycle thinking (lct)

According to the Life Cycle Initiative, hosted by United Nations (UN) environment programme, LCT "is about going beyond the traditional focus on a production site and manufacturing processes to include environmental, social and economic impacts of a product over its entire life cycle" (Lifecycle initiative, 2012). Following this perspective, we can also see LCT as a way of thinking, which will guide our behaviours as producers and as consumers and that can be applied to our daily life decisions, including our home and work environment (UNEP, 2004, p. 6).

Looking at the stages a common t-shirt goes through helps us understand what a "life cycle" is.

Figure3: The process of Life cycle transmitted into the production and usability of a T-shirt

Acting towards the environment requires critical thinking and a deep perspective about the environmental impacts of what we consume and produce, which is also inserted in an LCT perspective. This perspective seeks to find possible "improvements to goods and services in the form of lower environmental impacts and reduced use of resources across all life cycle stages". (European Commission Directorate-General for the Environment & European Commission Joint Research Centre, 2010, p. 6). Considering the LCT approach, how can people apply that in their businesses? According to UNEP (2004), thinking in terms of a life cycle, especially in business means "(...) recognise that each choice sets the stage for not only how the product will look and function, but also for how it will impact the environment and the community as it is manufactured, used, disposed, or re-used and recycled. For example, washing machines, refrigerators, and other appliances can be made from recycled materials, be free of harmful substances, use minimal water and energy, and be designed to have a long life. Each product characteristic is determined when the product is designed and will impact the environment differently" (UNEP, 2004, p. 14).

2.3   Why: circular economy benefits and impact

At this point, we are aware of what circular economy is and how it works, but why is it so important? What is the real impact of this model at the economic and environmental levels? Considering that, we present some of the benefits related to the economic and environmental impacts of the circular economy model:

ECONOMIC GROWTH

"Ecological economics sees the economy as a subsystem of Earth's larger ecosystem. It questions conventional economics and its assumptions, e.g. market economy leads to the best solution and that economic growth increases well-being." (Lassi, 2020). Researchers demonstrated that the circular economy model can generate more than 4,5 trillion in economic outputs until 2023, through job creation and innovation. The only way that this can happen is if people are open and attentive to the sustainable opportunities and cooperations that are happening worldwide (Future Planet, n.d.).

JOB CREATION

Concerning job advantages, the circular economy can be beneficial in different aspects, such as reinforcing decent rights for workers. According to the ISD Report "Effects of the Circular Economy on Jobs", launched in 2020, "(...) many jobs in Europe linked to waste management and recycling are often low-wage and raise worker safety issues due to exposure to harmful substances (European Public Service Union, 2017)." Following the trend, the construction sector is increasing and focused on hiring workers "without the necessary levels of unionization or regulation that go along with decent work principles" (Circle Economy, 2020). Thus, the International Labour Organization predicts, with the circular economy, a net increase of 6 million jobs by 2030 and new jobs in different areas will also appear (recycling, repair, rent and remanufacturing.) (Future Planet, n.d.).

REDUCE WASTE

Waste is one of the biggest social, economic, and environmental issues globally. According to the Report provided by Organization for Economic Co-operation and Development (OECD) in 2022, the production and waste volume of plastic increased drastically, from 234 million tons in 2000 to 460 million tons in 2019. Therefore, plastic waste was duplicated, going from 156 million tons in 2000 to 353 million tons in 2019 (Lusa, 2022). This waste deeply affects our ecosystem and human health. Adopting the circular economic model, it is possible to reduce these numbers through the creation of industries and businesses with sustainable values and policies.

REDUCE RESOURCE CONSUMPTION

Decrease resource consumption is a natural impact of the circular economy because the main purpose is to avoid the complete end-life of the product, by the implementation of a responsible production using recycled resources, which will, naturally, decrease the investment in raw materials. "In a closed-loop system, materials are not disposed of and continue to be of value, without incurring costs for their management." (IISD, 2020, p. 2). From a broader perspective, the circular model can potentially minimize the use of these resources by up to 70% by focusing on recycling and remanufacturing (Future Planet, n.d.).

2.4   Who: young entrepreneurs: sustainable entrepreneurship

There are a lot of expectations concerning the behaviour and actions of the younger generation in many areas of society, and the environment is one of them. It is expected that values like inclusion, diversity, sustainability, eco-friendly measures, and equality will be promoted in any business.

Accordingly, a sustainable entrepreneur is "opportunity oriented and aims at generating new products, services, production processes, techniques, and organizational modes which substantially reduce social and environmental impacts, and which increase the quality of life" (Schaltegger, 2013). Following this vision, what is expected from the younger generations of entrepreneurs is awareness and self-conscience in the management of their businesses and being aware of the existing limits of the linear economic model. Young entrepreneurs need to adapt their consumption habits in the professional fields, by perceiving circular economy as a benefit for the producer, the consumer, and the planet.

Working and contacting directly with youth can be a challenging task because it is a creative target. Nevertheless, most of the time, youngsters don't know how to put their ideas into practice, the right means to do it, or where to start. Therefore, presenting them with some tips can be a good idea:

Do your research! Sustainable recycled materials are not always cheaper. How can you find a solution? Is there any organization/initiative where you can have access to recycled resources? Which are the necessary materials for your product? Can you establish a partnership with a local business that has these materials? It is important to remember, that the transition between the linear and the circular model has political support from the EU and from national governments, which makes the process less challenging. In addition, there is already some societal pressure for companies and businesses to become climate-neutral (World Economic Forum, 2022).

• **Be creative!** If you invest in eco-friendly practices, how will you attract the target? For example, some coffee shops offer a discount for customers that bring their reusable cups. Can you offer the customers some benefit if they bring their bags? Think big! (Goodfellow, 2020)

• **Make promises and keep them!** Think about the promises you will make to your customers, employees, colleagues, partners, suppliers, and investors regarding the environment. And, of course, keep your promise along the way (Elliot, 2021).

• **Define your target customers!** As it was discussed, the amount of customers interested in investing in sustainable business is increasing. It is important to try to clearly define your client/customers, and who has the problem that your business brings the solution to. After you set that, it is important to deeply know them, knowing their opinions, their interests, etc. This will have a good impact on your business (Elliot, 2021).

• **Get inspired!** Knowing other young entrepreneurs with their successful businesses is a great practice that may incentivise young people at building their sustainable initiatives. You can find good examples in the Youtube Channel of the project Sync, with the testimonials of some young entrepreneurs from different countries (Portugal, Belgium, Greece, Germany and Romania), let them be an inspiration for anyone interested!

2.5   How: business in circular economy

But what about your business? Now it is time to demonstrate how an entrepreneur may apply the circular economy model or integrate the concept into the basis of their project ideas, ensuring that their actions help and respect the environment. There are 5 different types of circular business models (Board of Innovation, n.d.):

· Coordinating circular value chains through data: Identification of products and materials from recycle to reuse (Board of Innovation, n.d.)

· Circular product design: "designing products, from recycle to reuse" (Board of Innovation, n.d.).

· Use, reuse, share, and repair: "Creating durable goods from recycled and reused parts can be input for downstream circular business models" (Board of Innovation, n.d.).

· Collection & reverse logistics: "Close the material life-cycle loop by creating products that can be upcycled, repurposed, and re-sold" (Board of Innovation, n.d.).

· Sorting & preprocessing: "Finding alternative value in the parts that make a product whole" (Board of Innovation, n.d.).
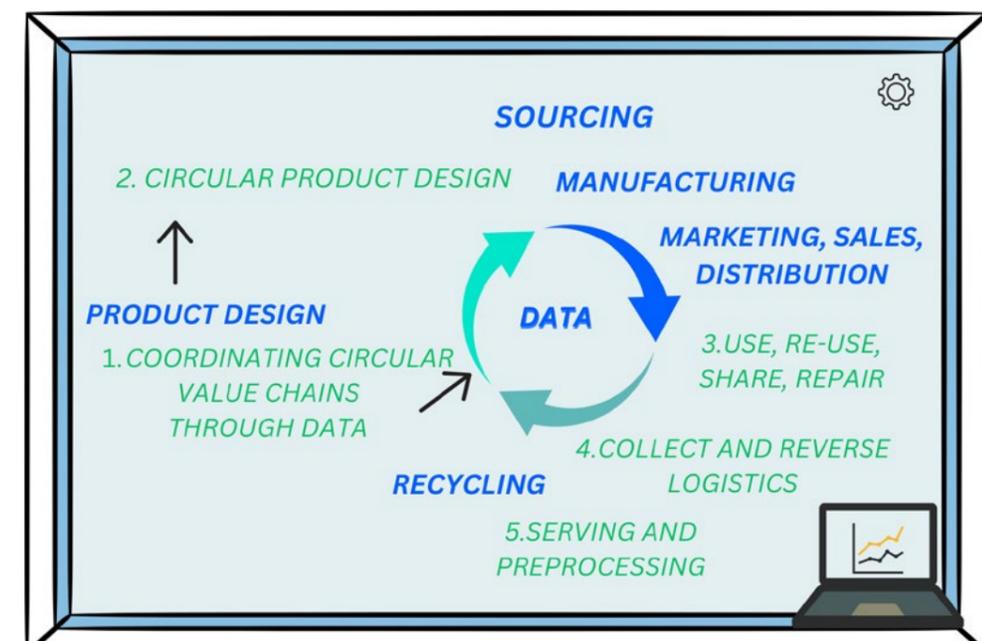

Figure 4: 5 types of circular business models. Source: Board of Innovation, n.d

According to the World Economic Forum (2022), any business interested in taking a sustainable path needs to take circular input into account. This example may help you understand and guide you through your business decision: "[it] is better to recycle used tyres into rubber floor tiles, ink, carpets or car parts, than to export them to India increasing one of the world's worst pollution crises." (World Economic Fórum, 2022). Thus, it is possible to interpret that a circular-born product or service is not an end-of-current-usage-life, it is an end-of-current-usage-loop. Using excess and recycled materials can minimize the pollution that some of the existing products produce by being thrown away.

It is not simple to implement a circular technique in a business; it calls for commitment and in-depth research. Young business owners must be aware of the areas that their operations have an impact on and work to reduce or reverse those effects, which may necessitate a total change in their business strategy rather than simply particular aspects of it. Effective leadership, with a clear grasp of the circular economy concept, execution, and its benefits to the business and the environment, is required to lead these changes. This indicates that effective communication is also essential for putting a circular model into practice. (CESCY, p. 11 in 2022).

It's crucial to remember that attracting clients takes more than just having a viable idea. (2022, CESCY, p. 15). Customers, who are increasingly making thoughtful purchases with sustainability and the environment in mind, can be attracted by sharing the story and distinctive sustainable principles and aims behind the project idea and products (Deloitte United Kingdom, 2022). Additionally, consumers are taking more initiative in their drive to live more sustainably, so business owners must be ready to address challenging inquiries about their operations, initiatives, and strategies. Any entrepreneur with sustainable ideas must use a critical thinking technique to assess problems based on concrete data to develop a complete picture of what is happening. As Marr puts it: "to analyse issues based on hard evidence (as opposed to personal opinions, biases, etc.) in order to build a thorough understanding of what's really going on." (Marr, 2022).

2.6   When: future is circular

This chapter aims not only to present the circular economy concept but to embrace its advantage in economic, social, and environmental aspects. However, the information is useless if not applied to different businesses and people's routines. The circular economy proved to be more than a sustainable model; it works by sharing a set of values that ensure that the planet will survive for future generations. And that is why the future is circular, because it must be. Although transitioning from a linear to a circular economy is not easy, it is extremely necessary. Reducing resource consumption, carbon emissions, and pollution is something that all people should fight for.

Adopting the circular economy model and sustainability as the basis of any idea, will not only benefit the environment, but it will promote innovation and increase competitiveness. The future is circular, and it is also in the hands of the younger generation. Now it is time to do some practical activities to test young people's knowledge and instigate their creativity and willingness to support eco-friendly measures in their business and their daily lives.

2.6.1 Activity 1

Activity title:	Circular Autopsy
Description (structure and duration)	This activity's goal is to teach youngsters about the concepts of the circular economy by looking into and analysing their favourite products and talking about the benefits. This activity can take anywhere from 45 to 90 minutes. The activity can happen in groups, you can divide the youngsters into groups of 4-5. • Ask each group to select one of their favourite products, such as a smartphone, piece of apparel, or appliance. • To learn more about the product's construction, ask the groups to research the components and materials utilized in its production. • Give the participants 20 minutes to learn about the product in their groups. • Present the results of each group's research to the class, emphasizing the materials and parts utilized and any possibility for reusing, repurposing, or upgrading them. • They should look for chances to incorporate circular economy principles into the creation and design of the product. • Discuss the advantages and drawbacks of applying circular economy principles to product design and manufacturing after all the presentations. For the discussion part of the exercise, you may want to use the following guiding questions: - What materials and components are used in the construction of your selected product? - How can these materials and components be reused, repurposed, or upgraded? - In what ways can circular economy principles will be incorporated into the design and manufacturing of this product? - What are the advantages and drawbacks of applying circular economy principles to product design and manufacturing? - How can we, as consumers and society, encourage the adoption of circular economy principles in product design and manufacturing?
Location:	Classroom
Needed resources:	Projector for presentation, internet access

2.6.2 Activity 2

Activity title:	Circular Autopsy
Description (structure and duration)	This exercise can be adapted to fit different durations. This activity aims to improve teamwork, communication, critical thinking, and problem-solving skills in participants while introducing them to the principles of the circular economy and how they can be applied to business operations. Divide the group into groups of 3-4 participants. Give each group 20 minutes to come up with a business plan that uses the ideas of the circular economy. The concept should be for a good or service that is made to be reused or recycled to prevent waste. After 20 minutes, each group should give the class a presentation of their company concept. They should describe the good or service, how circular economy concepts are used, and any difficulties or hurdles that could emerge. Following presentations from each group, hold a class discussion about the benefits and downsides of using circular economy ideas in a company and how entrepreneurs might address difficult questions about the economic circularity of their operation. Give the participants 10 minutes to think of a critical question they would want to ask to an entrepreneur who wants to apply the ideas of the circular economy to their business. Have a representative of each group to ask their question to the class and discuss the answers. If students have trouble coming up with questions, you might suggest the following ones: • How will your business ensure that the materials used in the production of your product can be easily repurposed or recycled at the end of its life? • How will your business measure and track the success of its circular economy initiatives? • What is your business's plan to collaborate with suppliers and other stakeholders to close the loop on waste? • How will your business ensure that the circular economy practices are inclusive and fair to all parties involved? • How will your business guarantee that the circular economy practices are environmentally friendly and sustainable?
Location:	Classroom
Needed resources:	Projector for presentation, internet access

3. Engaging the youth & facilitation skills

The chapter "Engaging the youth & facilitation skills" is aimed at providing information on the skills that are relevant for the youth to enhance and the tools to equip youth workers with facilitation competencies, related to the circular economy.

3.1 Introduction

This chapter emphasizes the significance of involving the youth in the circular economy and the skills required for effective engagement. It explains that the future of work is changing rapidly, and the skills necessary for success are also evolving. The circular economy is critical for a sustainable future, and the involvement of the youth is crucial for its success. The chapter highlights specific skills relevant to the circular economy that can be enhanced in youth through the right tools and resources. The development of these skills can contribute to building a sustainable future and benefit personal and professional growth. By engaging the youth in the circular economy, we can empower them to make informed decisions and bring fresh ideas to the table resulting in positive change in their communities.

3.2   Relevant skills for youth enhancement

This subchapter focuses on specific skills that are important for young people to develop in order to participate in the circular economy. The objective is to help young entrepreneurs successfully involve young people in the circular economy by providing them with the necessary skills.

Active listening: When someone listens carefully and attentively, the result is to understand better what the other person asks for or the needs that he/she has. This can be succeeded with the limitation of distractions and focalizing in understanding. The key elements of active listening include:

• **Attentive:** Being attentive means giving your full attention to the speaker and avoiding distractions such as electronic devices or other stimuli

• **Asking open-ended questions:** Asking open-ended questions encourages participants to provide more detailed and informative answers, leading to a deeper understanding of their perspectives.

• **Showing empathy:** Showing empathy involves recognizing and acknowledging the emotions of others, and responding in a way that shows understanding and support.

• **Being self-aware:** Being self-aware means recognizing your own biases and limitations, and actively working to overcome them in order to be fully present and engaged in the conversation.

• **Being conscious of your body language:** Being conscious of your body language is important as it can convey a lot of nonverbal information to participants, such as your level of interest and engagement in the conversation.

By utilizing active listening skills, facilitators can create an environment that is conducive to open and honest communication, which can lead to better understanding, collaboration, and problem-solving in the context of the circular economy.

Creativity: Encouraging creativity is essential for engaging the youth in the circular economy. Facilitators should provide opportunities for participants to think outside the box or come up with innovative solutions. Thinking outside of the box means approaching problems or situations in new and innovative ways. Some examples of opportunities to think outside of the box could include:

• **Brainstorming sessions:** Encourage open and creative thinking by inviting people to share ideas without criticism or judgement.

• **Reverse thinking:** Look at a problem from the opposite perspective and try to find a solution.

• **Role-playing:** Take on different perspectives and act out scenarios to see things from a different angle.

• **Mind mapping:** Use diagrams and visual aids to

brainstorm ideas and connections.

• **Random word association:** Take a random word and try to connect it to the problem or idea at hand. Flexibility: Refers to the technique to adapt and adjust to changing circumstances and situations. In the context of engaging the youth in the circular economy, being flexible means being able to adjust one's approach and methods to meet the unique needs and preferences of young people. There are several ways to improve flexibility including:

• Practicing mindfulness and self-reflection to become more aware of one's own thought patterns and behaviours.

• Being open to new ideas and perspectives, and actively seeking out diverse opinions and feedback.

• Trying new experiences and stepping outside of one's comfort zone.

• Embracing change and uncertainty and viewing challenges as opportunities for growth and learning.

• Developing strong communication and interpersonal skills to build trust and rapport with others.

3.3 Facilitation competencies for youth workers

In the context of the circular economy the role of youth workers and educators in supporting the development of essential skills in young people is crucial. To be effective, these personnel must possess the facilitation skills required to create and deliver interesting and powerful learning experiences.

Leadership: Leadership is required for facilitating and coordinating group activities and achieving the desired outcomes. As a leader a youth worker:

• Create a positive and inclusive learning environment that encourages collaboration and active participation.

• Communicate effectively, inspire and motivate participants and lead by example.

• Guide their team through the process of identifying and addressing complex issues related to sustainability and resource efficiency.

• Have a clear vision and a mission.

• Provide constructive feedback.

• Foster an inclusive and collaborative environment.

• Take responsibility for their actions to build trust and respect with the team members.

• Increase workshops to the team members.

Principals of Facilitation Skills

Maintain neutrality: It is one of the fundamental principles of facilitation, which involves remaining impartial and unbiased throughout the facilitation process. Maintain neutrality means:

• Avoiding taking sides or advocating for a particular viewpoint.

• Creating a safe and non-judgmental space where all participants feel heard and respected.

 Outcomes:

• Building trust and rapport with participants, as they feel comfortable sharing their perspectives without fear of judgement or retribution.

• Increased participation and engagement, as participants are more likely to actively contribute to the discussion.

• More diverse range of opinions and ideas to be shared

• Creating a more robust and comprehensive solution to the problem or challenge at hand.

• Reducing conflict and tension within the group.

Stand in the storm: It is the ability to promote new insights within a team even if it requires challenging existing viewpoints and perspectives. This skill involves:

• Managing conflict.

• Encouraging diverse perspectives without bias.

• Finding ways to bring disagreements into the conversation.

• To use this skill effectively, a facilitator must be able.

• To stay present in the midst of conflict.

• Avoid taking sides.

• Guide the team towards productive resolution.
Outcomes:

• Increased creativity. With different viewpoints and perspectives without bias and innovative ideas.

• Better problem-solving. Helps address issues in teamwork.

• Improved communication. When disagreements are brought into the conversation and managed effectively it can lead to improved communication and understanding between team members.

• Greater trust. When a youth worker can manage conflict and stay in the conflict without deviating it can build trust among team members as they feel heard and valued.

Honour the Wisdom of the Group: It is a principle of facilitation that emphasizes the importance of respecting and valuing the knowledge, experiences, and perspectives of all members of a group. This means:

• Recognizing that each individual brings a unique set of skills, knowledge and ideas to the group and that these diverse perspectives can lead to more creative and effective solutions.

• Encouraging open and respectful communication.

• Actively listening.

• Fostering an environment of trust and collaboration.

• Avoiding dominate the conversation or imposing their own ideas onto the group.

• Acknowledging and valuing the contributions of all members even those who may not have as much experience or expertise in a particular area.

 Outcomes:

• Building confidence

• Encouraging participation from all members, leading to a more inclusive and successful outcome.
Hold the Group's Agenda: It is a facilitation principal that involves ensuring that the group stays focused on its goals and objectives. Some key aspects of this include:

• Clarifying the group's purpose. Facilitator has to work with the group to identify its purpose and objectives or ensure that everyone understands what is expected of them.

• Creating an agenda: The facilitator should develop an agenda that outlines the key topics to be discussed and that helps to keep the group focused on and on track.

• Managing time: The facilitator should be mindful of time constraints and work to keep the group

moving forward within the allotted time.

• Encouraging participation: The facilitator should encourage all group members, to participate in the discussion and help to ensure that everyone's voice is heard.

• Managing conflict: The facilitator should be prepared to manage conflict and ensure that disagreements do not derail the group's progress toward its objectives.

Be future focused: This facilitation skill involves encouraging the team to think about the future and consider what is feasible beyond the current problem. It involves:

• Creating a plan that includes questions.

• Prompt the team to think about the bigger picture and long-term goals.

 Outcomes:

• Encourages creativity and innovation. Youth workers can encourage their team to think outside of the box, find new creative solutions to current problems and innovation.

• Supports strategic planning. By considering the future youth workers can support strategic planning and decision-making. This can help to ensure that their team is working towards long-term goals and objectives rather than just focusing on short-term fixes.

• Promotes sustainability. Focusing on the future can help to promote sustainability in the circular economy. Youth workers can encourage their team to think about the long-term impacts of their actions and decisions and to consider how they can create a more sustainable future for generations to come.

3.4 Activities

In the activities, we provide the details of the activities that we suggest for empowering the process of the whole chapter. We have created activities that are adaptable to online or in-person meetings and their base is creativity.

3.4.1 Activity 1

Instructions: Start by explaining the concept of the circular economy to the youth participants. Divide participants into teams. Challenge each team to come up with a business idea from what is on the drawing that incorporates the principles of the circular economy. Encourage them to think creatively and consider how their business idea can reduce waste, promote resource efficiency, and have a positive impact on the

environment. Each team should develop a brief business plan that outlines the key features of their idea, such as the target market, products/services, and how the circular economy principles are integrated into their business model. After each team has developed their business plan, have them present their ideas to the group. As a group, discuss each business idea and evaluate how well they align with the principles of the circular economy. Provide feedback and encourage participants to refine their ideas further.

Activity title:	Circular Economy Challenge
Description	The aim is to develop critical thinking and creativity skills, team empowerment and brainstorming and reverse thinking. Duration approximately 10 minutes. Use a whiteboard and draw random waste materials. Each person draws a waste material, and the others write ideas of how this material could be reused as a circular economy product. For example, a group/person draws a glass bottle of beer. Then all the teams should have a brainstorming conversation of how this bottle can be reused with another purpose. The best idea will be the winner by voting.
Location:	Online or in person
Needed resources:	Internet and electronic device for online usage, paper and marker for in person usage.
Gamification option:	Via MS Teams or any other platform that contains whiteboard for many participants.

3.4.2 Activity 2

Instructions: Start by explaining the concept of the circular economy to the youth participants. Divide participants into pairs. Explain that each pair will co-create a story that illustrates the benefits of the circular economy in action. Encourage them to think creatively and use their imagination to come up with an engaging and impactful story. Each pair should take turns adding to the story, building on the ideas of their partner. Participants can use pen and paper or a digital platform to write their story. Once each pair has completed their story, have them present it to the group. As a group, discuss the key themes and messages conveyed in each story and how they relate to the circular economy. Encourage participants to think about how they can apply the principles of circular economy in their own lives and share their reflections with the group.

Activity title:	Co- Storytelling
Description	The goal of this activity is to develop collaboration, communication skills and teamwork and brainstorming and reverse thinking. Duration about 10 minutes. Divide the youth into small groups and give each group a theme related to the circular economy. Encourage the youth to work together to create a story that incorporates the theme. Have each group share their story with the larger group and discuss the themes and solutions presented. Example: A group has a glass bottle of wine from an island in Greece. They start by making a story of how this bottle became a bottle of wine and they end up that this bottle can be used as a lamp base.
Location:	Online or in person
Needed resources:	Internet and electronic device for online usage, some paper and pens for in-person usage.
Gamification option:	Meeting platform for many participants

4. Design thinking

This chapter introduces the steps of the Design Thinking process, explains them and provides a number of methods and tools that can be used to facilitate each step.

4.1   Introduction

In a circular economy, materials and products should be shared, leased, reused, repaired, refurbished and recycled for as long as possible. This extends the life cycle of products. The circular economy therefore offers plenty of room for innovative ideas to achieve this. And that's where design thinking comes in. Design Thinking is a philosophy, combined with a set of tools, to help us solve problems creatively. Design thinking provides us with a systematic and structural approach to solving complex problems from many fields and to find new solutions. As such, it is well suited to working with young people on issues and problems in the circular economy and possible solutions and ideas for innovative businesses and services.

4.2   Concept

Many changes in our world are driven by innovation. Innovation means to create something new; may it be from already known parts which are assembled in a new fashion, or something entirely new and unknown before. Innovation is present in all fields of our society, it is fuel for economic growth and progress, and provides new solutions to problems and challenges. An important pre-requisite of innovation is creativity, the soil in which new ideas root and flourish.

Design thinking provides us with a systematic and structural approach to solving complex problems from many fields and to find new solutions that meet the needs of those involved. The method is based on a multi-step, agile and iterative process. This design thinking process helps us to narrow down and actually understand our problem, identify solution spaces, and generate concrete ideas. In each step of this process, we apply different creative techniques and thus approach innovative solutions for our problem. Users and their needs are always in the foreground.

4.3　What is design thinking and how does it work?

Briefly summarised, Design Thinking is a philosophy, combined with a set of tools, to help us solve problems creatively. (Find out more in the video that gives a great overview of what it is and how it is used: https://www.youtube.com/watch?time_continue=153&v=gHGN6hs2gZY)

The iterative process is divided into 6 steps.
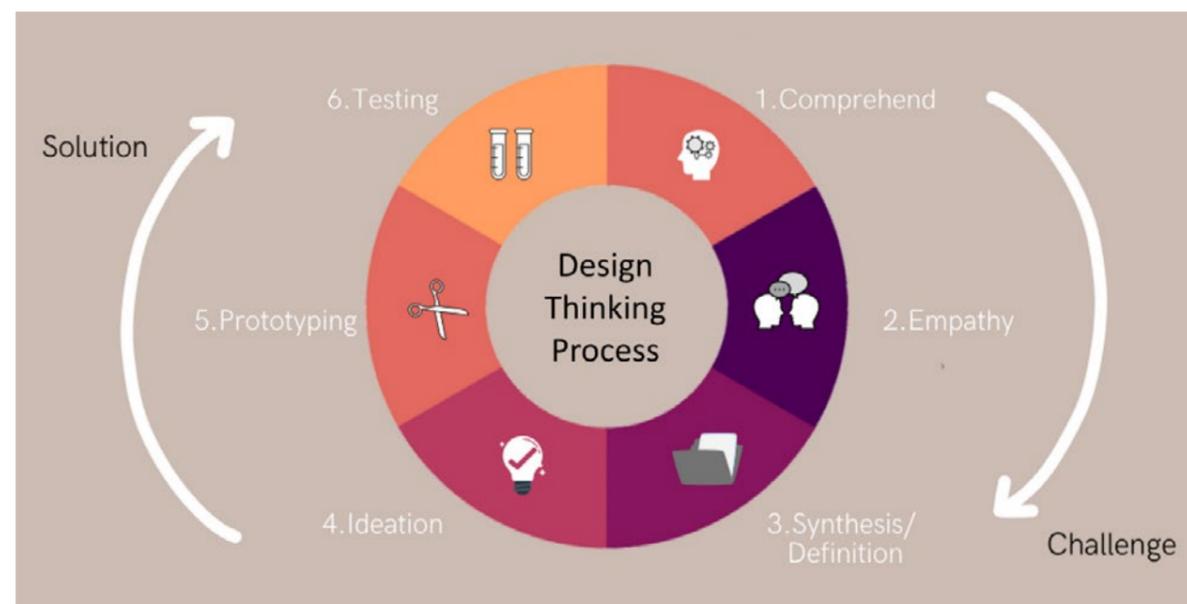
4.4　Understand the problem

The Design Thinking Process starts by focusing on the problem or challenge we want to solve.

Identifying the problem is the first step in the design thinking process. It is only possible to sustainably solve a challenge if it is understood holistically. For this reason, uncovering and combining the information is the starting point of the Design Thinking process.

Mind maps are a special form of presenting ideas and information to visualize relationships between them. In short, it's about tying the loose ends together and getting the bigger picture.

A mind map is created by the team, either on paper or digitally.

At the beginning, the topic of the map is placed in the centre and marked as a central concept or train of thought. Then everyone writes down everything they can think of related to the issue, firstly individually, then all issues are collected and grouped around the topic of the map. In addition to words, visuals such as icons or pictures can be used. As a tip: If you are working with paper, use individual post-its so that you can group them later. Finally, arrange and connect the terms with lines and show similarities with colours or symbols.

The six questions method helps to get a basic understanding of any situation.

The clarification of the questions Who? Why? What? When? Where? and How? support the team in generating a common basis of understanding of the context of the challenge. This procedure is simple, does not require a lot of time and prevents misunderstandings later.

1**. Who?** Identify the people involved.

2. **Why?** Identify reasons that require action and list them.

3. **What?** Identify relevant actions. Create a list of them.

4. **When?** Are there decisive time factors? Gather information about it.

5**. Where?** Write down any places that might be relevant.

6. **How?** Identify how scenarios have worked out in the past and list them.

If you want to use a (free) online tool to create mind maps. This is especially useful if your team works from different places, for further editing and sharing. Here are some mind mapping tools:

· Coggle for mind map beginners

· Mindly for mobile mind mapping

· MindMeister for collaborating on a mind map with a team.

· Scapple for fluid, non-traditional mind mapping.

· Stormboard for in-person mind mapping sessions

· Ayoa for a modern approach to mind mapping

· MindNode for Apple users

· SimpleMind for not having to subscribe to anything.

4.5　Get empathetic

The second phase focuses on the target groups of the still immature idea. Other people can be included, such as bystanders, to contribute with views and opinions. The more opinions, emotions, and needs come together, the better and more varied the results are for the further process.

5-Whys is a simple and quick questioning technique for a root-cause analysis that tries to get to the "pain point" of a challenge or problem. It helps to deeply analyse a situation, because often the obvious construction sites are not the cause but only a symptom of a chain of problems.

1. Formulate a sentence that describes the current challenge. Make it visible to the whole team.

2. Try to find the answer 'why' this is together as a team.

3. The answer to the question should also be put down in writing.

4. Now, together, transform the previous answer into the next why-question to be clarified.

5. Repeat this step five times until you get to the real pain point.

The "Emotional Journey Map" technique illustrates the user's journey. The map shows the emotional journey of the user when using a product or service. The focus is on the interaction with the product and on what gets stuck with the users: Does the product satisfy them or not? With this technique, important knowledge can be gathered before prototyping (it can be used in different phases).

1. Define the activity for which you want to map out the emotional journey. For example, it could be a person's ride on the subway while heading home.

2. Define the course of actions of your type of user within the present scenario.

3. Together determine the high and low points of user-friendliness during the course of action. Research results can also help you at this point.

4. List the evaluation points found individually (you can also use numbers that you assign for the points) and connect them to a line.

5. Look at the low points of the user journey together and think about how you can avoid them.

Qualitative interviews are very suitable for getting to know potential users and questioning their needs. In the interviews, information about the user and the context should be gathered. It is important that the session is well prepared, including the questions - appropriate to the phase of the design thinking process you are currently in (this technique can be used in different phases).

1. Formulate questions in advance and put yourself in the role of the user: "What concerns the user?"
2. Try to formulate the questions as openly as possible and avoid closed questions with yes / no answers (most of the information is between the lines)
3. Pay attention to what your interviewees say and also question the statements made.
4. Record the information you provide. Use a voice recorder or camera if possible - taking notes yourself takes longer and can distract you.
5. Filter the information after the interview and record the findings and statements that are most interesting for your challenge.

4.6   Synthesize and define

In the third phase, we summarise our findings and knowledge. What insights can we gain? We share our knowledge within the team. We interpret our previous analysis and draw new insights and weigh the findings. The picture of our users clearly increases in detail.

The aim of this phase is to share the knowledge with our team and to generate tangible findings. We summarise our findings in a persona, for example. The persona represents our user group with its needs. This persona allows us to feel empathy in the generation of ideas in the next phases of the Design Thinking process. We finally conclude this phase with a How Might We question.

Synthesis or definition: In this step, the most important findings from the first two phases (understanding & empathy) are combined. So-called personas are created that map the needs of future users in a targeted manner

Personas are useful when the context or users are not sufficiently known.
Personas are representations of fictional people who represent potential types of users of your idea, product, or service. They are designed on the basis on information gathered in the previous phase, through research or interviews with the target groups. The creation of personas helps the DT team to gain a greater understanding and empathy for the users and to be able to further develop the project according to the needs and preferences of users.
· Understand your key audience. This can include data collected and gathered by yourself (e.g., through interviews) or draw on information from market research
· Divide then the fictitious users into individual groups and filter their specific needs from the preliminary information
· Create one or more personas based on the groups and try to avoid stereotypes. A bit of imagination is required at this point

4.7   Ideate solutions

In the fourth phase of the process, we develop ideas and outline solutions. Which idea solves the problem? We use various creative methods to develop new solutions with our extensive knowledge. Our focus is on quantity. We develop as many ideas as possible in order to come up with innovative solutions afterwards.
The goal of this phase is to generate as many ideas as possible and then prioritise them. For example, we can use the

Wow-How-Now method for prioritisation. It is then important to agree on one or two ideas to be then tested in the next phase.
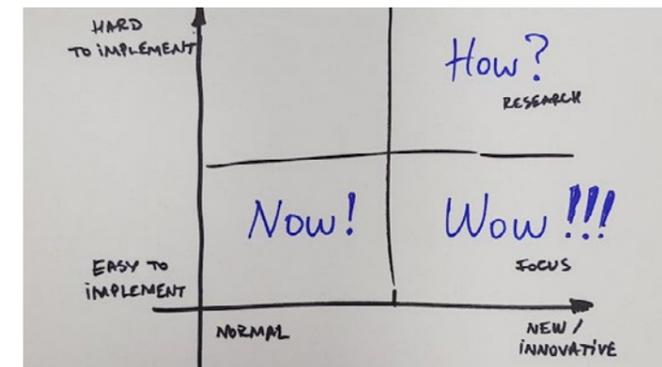
The Ideation phase leads into the "solution space". Here it is important to create solutions and approaches specifically for the previously defined personas. Various creative techniques are used to channel the flow of ideas.
The Wow-How-Now method is suitable when the process of collecting ideas is largely completed and you need to set priorities. The ideas collected are evaluated according to their originality or innovative strength as well as on the basis of their feasibility and entered into a matrix. In this way, the team can decide which ideas to select to continue the process.
1. The DT team draws a two-axis matrix (2x2).
    a. The Y-axis is referred to with the term originality,
    b. The X-axis with feasibility.
2. The field at the top left is labelled " How " (the originality is high, but the practicability is poor);
    a. "Wow" follows at the top right (the originality is high, so is the feasibility - the best ideas will be found here later);
    b. "Now " is written at the bottom right (the originality is low, but the feasibility is feasible - short-term measures can be collected here).
    c. In the field at the bottom left, ideas are written down that are neither original nor feasible - they will not be used for the rest of the process.
3. Be sure to discuss these decisions in the team.

Bodystorming is very reminiscent of the brainstorming method. The difference lies in not only discussing a (fictitious) challenge or question, but also physically empathizing with the situation. In this way, the actual perspective of the potential user is taken and understood. In this way, the ideas can be developed in a more targeted manner.
· Think in advance where the situation should be examined more closely.
· Go there with your DT team and observe the behaviour and interaction of the users
· Record everything that influences the actions (e.g., the framework conditions). You can take notes or film the situation (videos are ideal for analysing the situation later)
· Determine team members who, taking into account the knowledge gained, put themselves in the situation as "users" and act out the situations
· Analysis of the findings: Ask the team members about their subjective experiences and feelings during the re-enactment

The brainwriting method can be used as an alternative or as preparation for classic brainstorming. In contrast to brainstorming, in which an open discussion arises from the start, the participants initially collect their ideas in silence just for themselves. Then each person can present the points they have collected to the group. The goal that every person has their say (not just the extroverts), can be easily achieved with this method.
1. At the beginning it is necessary to formulate a concrete question, if it is not already there (e.g. "How can we ...?")

2. Then each person in the group formulates some ideas on post-its. This process should be done in silence and with a timeline. It also makes sense to set the maximum number of post- its or ideas per person (e.g., 5 per person) in order to also limit the time for the subsequent presentation and discussion.

3. After the actual brainwriting process, the ideas become visible to everyone presented in the group and clustered if possible. At this point, the method can flow smoothly into an open brainstorming session

The method of bisociation or also stimulus image or stimulus word technique describes the creative process of generating ideas in which images or terms from unfamiliar areas are combined with one another. The technique is ideal for breaking through established thought patterns and finding completely new approaches.

1. The DT team looks at pictures, words, or videos that at first glance have nothing in common. It doesn't have to be stimuli from one category only – it is also possible to use a combination such as photos and words. Ideally, the group analyses two stimuli, especially if the technology is new to them (maximum five)

2. Then the team members individually note which associations the stimuli trigger in them - of course in relation to the original challenge

3. In the following brainwriting phase the new ideas were collected and discussed in terms of potential and feasibility.

4.8   Build a prototype

In the fifth phase of the process, we bring our idea(s) identified in the previous phase to life. Now our solution is made tangible. How do we visualise the idea?

The goal is to test the solution with our users and gain new feedback and further insights. We focus on creating prototypes as quickly as possible and with little effort. The prototypes are continuously adapted based on feedback from our customers. At the beginning, a sketch or a handcrafted element is often sufficient. A wide variety of materials can be used for this. Examples of analogue models include paper, modelling clay, and building blocks. Digital tools can be used just as well, for example to display an app or to realize an object with the aid of a 3D printer - there are no limits to creativity!

The fifth phase of the process is a very important one, but also one of the funnier. In prototyping, the thoughts and ideas previously developed are translated into a tangible product. A wide variety of materials can be used for this. Examples of analogue models include paper, modelling clay, and building blocks. Digital tools can be used just as well, for example to display an app or to create an object with the aid of a 3D printer - there are no limits to creativity! The aim is to create a prototype that can be used to obtain feedback.

Simple prototypes made of paper, for example, are used to represent the essential characteristics of a product or service in a simplified manner. It's not about showing the full range of functions, but about illustrating the project for potential user groups. Since it is only about a basic understanding and the interaction with the object, we consciously work with simple means.

 For creating a paper prototype, you can use these materials:
o Paper and processing tools (e.g., scissors, glue, colours)
o alternative materials such as clay or blocks, plaster, etc.

 Proceed like this:
· Identify and define the essential criteria and features of the product or service idea
· Then consider which material is best suited to depict your idea in an abstract and reduced form
· Model the prototype with the help of suitable materials (e.g., paper, clay, building blocks, wood, etc.)

· Go out with your prototype and show it to different people you meet (by chance). Show the people the essential characteristics and collect feedback (note the feedback)
· Document the results of the feedback and possible discussions and use these findings for the further development of the idea.

For the role play method, one or more (ideally) uninvolved persons simulate a situation with the developed idea.
Through the role play, on the one hand, the uninvolved people should have a realistic user experience with the prototype, and, on the other hand, they should provide the DT team with a gain in knowledge. The degree of specifications and improvisation for the scenery can be determined individually.
1. Identify and define the situation to be analysed and then determine the people involved as well as the framework for the action
2. Then the roles are allocated to the uninvolved or performing persons
3. While performing the role-play, pay attention to your script but be open to it other, spontaneous courses of action
4. After the role play, document and discuss the results and the resulting feedback loops.

Storyboards are another form of prototype that visualizes an idea through a sequence of photos, sketches or collages or shows the user experience with the prototype. The form of representation helps users to understand the context and can also stimulate discussions.
1. To design a storyboard, you can either use plain paper or pre-formatted templates (link provided below).
2. Specify together the topic and the message that you want to represent through the story and then create roles for your story.
3. Then write the story down briefly in bullet points like a script and divide it into suitable sections or scenes. Limit yourself to c. 4-12 scenes her converts images.
4. Decide together how you want to represent the story (e.g.. Drawing, digital graphics, etc.).
5. At best, use a storyboard template (digital or printed)
6. The storyboard can then be used to explain the purpose of your project or serve as a basis for discussion with users.
 Templates:
 https://boords.com/storyboard-template
 https://www.canva.com/create/storyboards/

4.9   Test and evaluate

In the final phase, we test the prototype with our clients/users. What feedback do they give us? We get qualitative feedback. We continue to test and develop our idea until our client – our user – recognises our idea as a problem's solution. The aim is to test our ideas to find out whether our solution meets the needs of our users.
For example, we can use the card sorting method to test our features. Ideally, our product or service is rated by external, uninvolved people. It is important that our prototype is continuously adapted and that we pay attention to our user's feedback. If an idea is not well received by them, we go back to phase 4 and choose another idea to test. Feedback should ultimately contribute to an improvement of the prototype in iterative loops.

The final step of the design thinking process is testing the prototype(s) that have been developed. This is a significant but challenging section that requires team members to jump over their shadows. Because it is essential that the product or service is rated by external, uninvolved people. For this reason, it is advisable to simply "go out" with the prototype and ask unknown people: How is the idea and the implementation being received? What can be improved? What do the potential users want?

From the questions it becomes clear that the design thinking process is not finally completed at this point - the feedback should ultimately contribute to an improvement of the prototype in iterative loops.

User tests are used to have prototypes tested by selected users. All or only part of the functionality can be made available. When operating the prototype, undiscovered potentials but also possible weak points become apparent. The simple user testing can be carried out in different stages of development in order to incorporate feedback.

1. Show the users your prototype, as best as possible without further explanations, in order to get a first unfiltered opinion. If the idea is not self-explanatory, just explain the context, which is needed for further understanding.

2. Let your users report during the testing what they are doing and how they experience the application.

3. Observe the processes carefully and do not intervene in any way.

4. During the testing and / or afterwards, asks you valuable questions such as "Would you use the product / service? And if so, why, or why not?"

The Capture Grid offers the DT team the opportunity to note and cluster all findings from the user tests. The 2x2 matrix lists all aspects that have been understood well or badly, as well as ambiguities and new ideas. The classification into the four areas helps enormously with the structuring.

1. Sketch the 2x2 grid (matrix) on a whiteboard (manual or virtual)

2. At the top left there are positive (+) aspects, at the top right negative aspects. At the bottom left, ambiguities are listed (?) And at the bottom right new ideas that arose during the testing (!)

3. Start the testing and transfer the findings as directly as possible to the feedback grid.

4. Discuss and checks the grid after each test run the users and, if necessary, add further aspects

5. The grid can be added to or modified by further testing

If you want to find out more about this method check out these pages:
https://www.designthinking-methods.com/en/5Testen/testCaptureGrid.html

The preparation of a testing card helps you to prepare an optimal test scenario for your prototype. Specific questions are collected on the card that relate to the prototyping object and its application in the test. In this way, the goal is kept in view when interacting with potential users. In addition, the tests are so well prepared that the knowledge gained can flow directly into the further development or finalization of the project.

1. Together, think about questions that reflect the essential factors of your project (and what you want to check). For example, ask yourself what kind of feedback do you need for the next steps? Who is your ideal user? Which scenario should the users put themselves into during testing?

2. Write down the final questions and comments for the users on your testing card. It is also helpful if you can describe your prototype in one sentence. So, you can "pick up" the users at the beginning.

3. Go through the questions yourself after completion to adapt or expand them if necessary.

4. Then carry out the tests using your prototype and your testing card and document the results for further development.

Find more information by referring to this link:
https://www.designthinking-methods.com/en/5Testen/testingCard.html

The aim of the method "Wizard of Oz prototype" is to save unnecessary time and financial resources. Instead, the need for individual functions is checked in advance. In this way, the user only tests a simulation of the planned range of functions, which leads to valuable feedback.

1. Think carefully about which functions of your prototype should be tested

2. Then think about how and with which tools you can simulate this range of functions as realistically as possible (a combination of tools is also possible at this point)

3. Carry out the tests calmly and observe the user behaviour without commenting on it

4. After the testing, you can find out about the user experience in discussions and collect further feedback

Find more information by referring to this link:
https://www.designthinking-methods.com/en/5Testen/wizardofOzTE.html

5. Next steps & financing a circular economy business

In this chapter you will be introduced to some tools to help youth develop their entrepreneurial initiatives and engage with available opportunities.

5.1 The need to have a more practical approach to circular economy

This chapter is meant to support youth workers in facilitating a more factual/practical understanding of the concepts of circular economy, to motivate them to improve their skills, dare to get involved in social enterprises or build their own and to support them on their entrepreneurial journey.

Even though we can say that young people care about the environment and engage in some circular activities, Krajnc et al (2022, p.16 - 18) state that they lack knowledge and the experience or training in this area to see themselves as agents of change. While there are multiple sources of information and materials aiming to increase the awareness and understanding of circular economy concepts, there is a strong need for a rather practical understanding of what it means to have a circular-model business or what it means to integrate circularity in a business activity.

The skills or knowledge the youth need to close this gap are related to reasoning, thinking, evaluating, making connections, and creating new solutions, linking business models and entrepreneurship. (Krajnc et al, 2022, p. 16 - 18). One of the main recommendations for filling these gaps is to connect with local (social) entrepreneurs, to find out more about their personal experience with applying a circular business model in a specific local context.

Educating young people is key to the future transition to a circular based economy and it is important for interdisciplinary curriculums to exist to move closer to a sustainable development (Krajnc et al, 2022, p.17). Change is not only the responsibility of institutional or political actors, but there is a need for making sure that young people have as many resources as possible at their disposal to become motivated to pursue a sustainable entrepreneurial journey or at least a circular lifestyle.

We can ensure this through promoting:

1. Knowledge and understanding of circular economy concepts and principles, as well as social entrepreneurship – making sure that young adults have access to well-curated information and to other reliable information sources that they can personally check. In order to increase young people's awareness and knowledge with regards to circular economy principles and entrepreneurship, the SYNC Project Result 3 will consist of a non-formal online course and platform for circular economy, which will be freely accessible and available online.

2. Empowerment and an entrepreneurial spirit – as mentioned previously, young people don't see themselves as agents of change, even if they are willing to make changes, they don't know where or how to start, so it is necessary for them to become aware of the potential impact they could have, even if it's on a smaller scale compared to national or European level initiatives. Change starts from within, so individuals play an important role in this process of shifting the world from a linear economic model to a circular one and individual behaviours bring their own contribution to this. It is important to keep this in mind and instil in young people the wish to take care of the environment by assuring them that every small sustainable step they take counts in the long run. For example, if they might not be ready yet to start a business, they can make small sustainable changes at home or at the place they already work (e.g. suggest meatless Mondays for the team, recycling bins in the workplace etc.).

3. Opportunities – since young people don't have the knowledge / resources to make changes by

themselves, curriculums, and training like the SYNC Project Result 1, created specifically for young people should be available for free, should have detailed and easy to understand information and should also act as a motivational tool. In the next subchapter we have compiled a list of such opportunities as a starting point for this journey.

4. Examples of circular economy businesses – another way to show young people the potential of a circular based business and motivate them to follow their entrepreneurial ideas is to give them examples. A starting point would be the video interviews with small business owners that are uploaded to SYNC's Youtube page. These interviews feature young people who own a circular model of business and talk about their journey, the highs and lows of owning such a business and more on what it means to have a social enterprise1.

5.2   Ensuring access to information and research infrastructures

Detailed information and resources on circular economy, sustainable business models, grant opportunities, networking with like-minded people etc. can usually be found on European platforms or NGOs dedicated to this cause.

While information on the subject can be found at a national level, the international resources are the most detailed and useful for someone wanting to understand circular economy and what it entails. One example of the most known and resourceful international entities is the Ellen MacArthur Foundation, which deals exclusively with trying to change mindsets regarding climate change, waste, pollution through the principles of circular economy and it is a great resource for anyone interested in this subject, it is an accessible and user-friendly platform, with articles, videos, podcasts, studies, job opportunities etc.

Another good resource for someone interested in the circular economy is the European Green Deal, EU's strategy for dealing with the threats and challenges faced by our environment and the set of policies adopted by the EU to reduce net greenhouse emissions by at least 55% by 2030.

The Green Deal is a comprehensive resource for better understanding what our environment is facing and how a transition to a circular economy could help achieve the EU's goals. You can also encourage young people to check the Sustainable Development Goals, the Circular Economy Action Plan. Since the EU's Green Deal and the pledge to lower carbon emissions and move towards a more sustainable lifestyle, governments have been starting to adapt their legislation to accommodate the transition to a more circular based economy. Here is a list of other helpful tools and resources available at an European level:

The Circular Design Guide – https://www.circulardesignguide.com/ - this platform is a collaboration between the Ellen MacArthur Foundation and IDEO, a global design company, collecting resources and stories around circular economy.

The EU circular Economy Finance Support Platform – https://www.greenfinanceplatform.org/policies-and-regulations/eu-circular-economy-finance-support-platform – The platform includes a Green Finance Measures Database, consisting of policy and regulatory measures issued by public authorities, such as governments, central banks, financial regulators, and public financial institutions.

European Circular Economy Stakeholder Platform – https://circulareconomy.europa.eu/platform/en – a joint initiative by the European Commission and the European Economic and Social Committee, bringing together stakeholders involved in circular economy across Europe and supporting the exchange of good practices. The platform has a newsletter, shows events on circular economy, announces EU Circular Talks, includes a knowledge hub and a toolbox and references LinkedIn groups and conversation forums.

Circulary – http://www.circulary.eu/ - a web tool that is constantly updated with new examples of

circular economy business models, from innovative small and medium sized enterprises (SMEs), as well as other businesses, including their contact data. The tool includes a list of challenges that circular businesses usually meet, partners or investors they have, sectors covered. New businesses can be submitted at any time. The following video is a good introduction to the platform: https://youtu.be/x5-Eu06p60M.

Eurobarometer Survey – https://europa.eu/eurobarometer/surveys/detail/2257 – is a collection of data coming from cross-country public opinion survey conducted regularly in Europe. Results can be filtered by country. It is a good source of information, especially for those looking to start a business, to check the local values or opinions on environmental topics, or even of political or social nature.

Therefore, a recommended next step for anyone looking to implement a circular business model would be to check European and national policies, as well as what kind of businesses are suitable locally, if there are tax exemptions, or any other regulations (there could be tax breaks for specific sectors of activities).

5.3   Creating a stakeholder list

A stakeholder can be any person or institution that can affect or can be affected by your business or initiative. They can be either internal to the team, as well as customers, members of a community, creditors, etc. Not all stakeholders have the same influence over a business, nor will they be affected in the same way as others. It is a best practice to have a comprehensive list of all stakeholders when starting a business, as it can be used later to help define your business activity, whether it is part of communication, sales, finance, etc.

For example, for financing purposes, it is important to know what people or groups can provide support, financially, at any level. It can be the business' customers (through sales or crowdfunding), European or national institutions that provide grants, or just crediting institutions, which will expect a reimbursement later.

5.4   Identifying financing opportunities and community support at a European level

When looking to start a business, it is useful to know about sources for financial support. A business can have various financial requirements, here are some examples (of course, it depends on the type of business):

· Development funding (feasibility analysis, prototyping, etc.)
· Direct product costs (buying needed raw material for production)
· General management and administration costs: from marketing, legal or intellectual property or rights, distribution, office supplies, travel and accommodation costs, insurance, utilities, accounting, etc.
· Staff costs: direct (salaries, taxes) or indirect
· Equipment and machinery – needed for production or the daily activity of the business.

And the list goes on – assessing the financial resources and potential flow is an essential part of a business plan.

Most financing opportunities for small circular businesses can be found on programmes developed by the EU, such as Erasmus Entrepreneurs, European Youth Foundation, ClimAccelerator. While these types of financing opportunities can at first be intimidating, the process of applying for funding being sometimes tedious and requiring a lot of paperwork, these grants are more suitable for a small circular business than let's say venture capital, which most of the time comes with bigger risks and expects rapid profits and can even bankrupt a small sustainable business.

Grants are a much safer and better option especially for these types of businesses centred on a social aspect. Besides this, these types of platforms also include mentorship programmes, online / offline events, a community of like-minded people where tips & tricks are shared and people support each

other on their entrepreneurial journey.

There are multiple opportunities offering funding at European level, in order to help national economies adopt a circular model, such as Horizon Europe, Regional policy support for the circular economy, or the LIFE programme. Other ways of financing a business (the list is not limited to the items named):

• Personal funds, friends & family
• Competitions
• Accelerator programmes
• Private investors
• Venture capital funds
• Crowdfunding
• Sponsorships
• Online fundraising
• Bank loans
• Impact funds (for social businesses)
• Invoice discounting / factoring
• Leasing

It is important to underline that the suitability of a financing choice depends on the lifecycle of the business, its size and the owner's and the team's level of knowledge and competencies.

5.5   Identifying career development opportunities

Business accelerators or hubs are a great opportunity for people wanting to start their own business, but don't know where to begin. They provide training and resources from start to finish and teach people everything they need to know, from how to develop an idea to how to create an airtight business plan. At the end of these training sessions there are usually events where people can pitch their business ideas to investors. What makes these hubs a great choice for people that want to start a business is the fact that they are local, they have their own training and business programmes (and grants) but are also connected with other such hubs at an international level. Another benefit is the networking and mentorship components, getting in touch with other entrepreneurs, learning from their success stories, but also from their mistakes.

5.6   Activities

The following activities are meant to be interactive, engaging, and useful for young people. By trying to create a business plan for their sustainable business idea and by listening and talking to small business entrepreneurs they can experience first-hand what it means to be a business owner, what it means to have a sustainable business.

5.6.1 Activity 1

Activity title:	Reworking an idea - Case studies – existing circular businesses
Description	This activity's goal is to teach young people to think about circular economy principles are applied, using a particular case. This activity helps them think critically, sustainably, while also engaging with their peers. • The trainer presents a list of circular businesses (either local, or international - http://www.circulary.eu/ is a good source for this, or just personal research). • Participants are split into groups of 4-5 people. • Each group chooses a business. • Each group has 20 minutes to research the business: how it started, the sector/industry it belongs to, who are the customers, what is its goal, how it applies circular economy principles, what challenges it encountered, what went well, values. • Then groups have an additional 30 minutes to come up with ideas of improving the business model, potential next steps or developments that would increase the business' reach, circularity OR to come with a new business idea, inspired by the one they studied. • Each group presents their improved or new business idea (10 min per group): the sector/industry it belongs to, who are the customers, what is its goal, how it applies circular economy principles, potential obstacles they expect and how they could overcome them. If they feel inspired by the business, they should be encouraged to contact it and find out more.
Duration:	One hour.
Location:	Online / offline How to adapt the activity to the online: Trainer could use Zoom or other online conference software, split the participants into online rooms. Business examples could be sent via the Zoom chat option.
Needed resources:	Handouts with the business ideas, paper to take notes on (if the activity is in person). Device with internet connection if the activity is online

5.6.1 Activity 2

Activity title:	Sustainable business Q&A - Organising a workshop with a small business owner that applies circular economy principles
Description	This activity's goal is to teach young people to think critically about their business idea and how they can make it (more) sustainable. This activity involves two parts: • The trainer finds a circular business owner to invite as a guest for this activity. • The trainer invites the participants to think of a circular business idea and create a business pitch for it, through answering the following questions – in pairs or groups (60 minutes): 1. What kind of business is it going to be? 2. Who will be the customers? 3. What are the business' objectives, priorities, or values? 4. What motivates them personally and professionally? 5. How is their idea bringing more value in comparison with what the competitors are doing? 6. What do they need to get the idea off the ground? What is the ideal person they would pitch the idea to? • Participants present their pitch to the guest circular business owner (5 minutes per pair/group) – the guest gives a short feedback to each pair/group. • Additional (optional) Q&A between young people and small business owner (60 minutes): getting first-hand advice from the small business owners, talking about the highs and lows of having a sustainable business, what was their first business idea, was it a sustainable business from the start (if not, what changes did they make, what changed their mind; if yes, what made them think about it from the beginning), what makes their business sustainable, why do they care about sustainability, how did their business get started (their own money, what type of funding etc.)
Duration:	2 hours at the most.
Location:	online / offline How to adapt the activity to the online: Trainer could use Zoom or other online conference software
Needed resources:	Paper to take notes on (if the activity is in person) Device with internet connection if the activity is online

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