

Design Thinking tools for

Circular Economy

Module 3.2 – Training material

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LIST OF KEY WORDS

Design thinking - Design thinking is a mindset that supports us in finding solutions for wicked problems that meet user needs

Process - word „process“ in this text will apply to the design thinking approach

User - As a user, we will understand a person who is engaged in the service. The word may refer to someone who delivers the service or customer.

Idea - As an idea we will understand a draft of an innovative concept that solves a defined problem

Research - as research in this text we understand an organized activity focused on gathering and analyzing data about users. In design thinking process we focus on quality research based on such research methods as in-depth-interview, observations, etc.

Prototype - as a prototype we understand artifact that makes the idea tangible and helps to understand it. The prototype may present whole service ex. Storyboard or selected elements ex. Schedule of the meeting, gadgets, etc.

Core team - designing is a collective activity. To make it works, we need to gather an interdisciplinary team that will go through it.

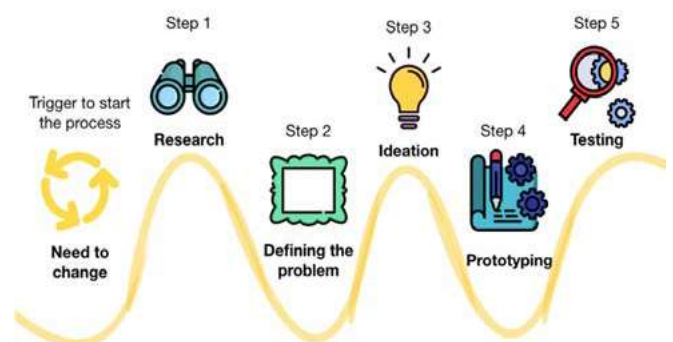


INTRODUCTION TO CIRCULAR ECONOMY - DESIGN THINKING PERSPECTIVE

Circular economy from a business perspective is a rational way of delivering services/products by e.g. of use of the resources and waste generations. However, it is not so easy to implement it as requires not only change of the approach but also changes in the business model. There are barriers related to the way business used to work as well as to consumers habits. Implementation of circular solutions very often requires crucial changes in the product, service or business model. Thus it can be treated as a problem that needs creative solutions and an open mind.

Design thinking is an efficient process to solve "wicked problems" to which changes related to circular approach can be classified. Problems named that way do not have just one right solution, involve many stakeholders, have different reasons and affects different areas, are vague, need to be clarified and their fundamentals need to be identified. In this context design thinking is a framework that helps to implement the change in an organized manner and as a results limits the risk and supports learning process.

Picture 1. Design thinking process



Design thinking can be considered as a systematized way of solving problems. First of all, it focuses on human needs, problems, expectations. What is worth to mention, human needs and expectations are changing nowadays rapidly, thus customer is an excellent source of inspirations. This approach reminds us that people don't need products and services but the values that they bring.

Design thinking helps to create products and services that at the same time meet users needs and enable to reach business goals. It can be used to improve an existing service/product or to create a new from scratch.

The process requires various perspectives that are assured by the multidisciplinary

team. Teams need to be composed of employees from different departments, with different backgrounds, customers (optionally) as well as other stakeholders such as vendors. Working on such a team can efficiently use knowledge, generate innovative ideas.

To understand the concept of design thinking it is important to clarify that output and outcome are perceived as two different concepts. The output is interpreted as solutions (example: webpage, meeting, a new way of providing the service). The outcome, on the other hand, is the description of the new desired situation. In design thinking approach it is essential first to identify what change we want to make before we think about particular solutions.

OBJECTIVES

It's worth to mention that both while using design thinking and circular economy are taking into consideration system in which they want to make a change and analyze implications of it.

Circular economy initiatives are related to a need for broad changes, creating new systems that have an impact on customers and employees motivation and habits. In this context tools and approach of modern design processes may be perceived as an efficient way to plan and implement changes in the organization. Of course it's just the beginning of the story.

Design Thinking main objectives:

- To immerse SMEs into the Circular Economy as a systematic process of tackling relevant business problems;
- To provide a social and thinking space for the recognition of innovation challenges and the design of circular solutions (an innovation new ventures, value propositions, new products or services.
- Using a practical hands-on approach.

Presented examples include the design of an original and feasible value proposition aligned with tourism business, tackling a particular organizational issues, the

Thus, before you will start to explore our manual get familiar with the content of materials dedicated to circular economy:

Cirtoinno Handbook
<https://cirtoinno.eu/ce-handbook>

development of a new product, new service or the radical innovation of processes, the adoption of new technologies to streamline key processes or to disrupt established markets and finally exercise their foresights and insights in the process of creation.

Design thinking is much more than the process and tools. It is also a way of work with the innovation in the organization that can be an answer for complicated and ambitious challenges. Many companies still use a linear approach: produce, use, throw. Starting to work on circular economy solutions requires denying the status quo and asking challenging questions, such as What would happen if we will redesign our whole business using circular economy potential? What should we design in another way? What impact would it have on the value we create for the stakeholders?

While asking ourselves those question we challenge the business model as well as social behaviors, and role that stakeholders play. That's why design thinking helps to look for new solutions that from the beginning are defined as one that has sustainability, long term values, creating new standards and delivering business value in the DNA.

In the manual, you will find information how to prepare your organization to go through the design process as well as tools that will support you in asking the right questions and looking for the surprisingly innovative answers.

THEME - STAGES OF DESIGN THINKING

LIVE,
WORK,
CREATE.

Design thinking is composed of the following stages:

1. Discovery

Empathy plays a crucial role in the design thinking approach. Designers and team that participates in the process need to understand users they are designing for.

Understanding of users not only means learning about their problems and needs but also their context: social, cultural, etc. Not only functional needs and expectations but also emotional one need to be recognized. For example, using a car:

the practical need is to go from point A to B, while emotional can be related to

the need for freedom, social status. That is why while designing circular solutions it is important to understand customers motivations associated with the impact they have on the environment and other people, how do they perceive the role in the ecosystem. As we mentioned circular approach is logical, but it is counter-intuitive for consumers who are getting used for buying cheap things that they throw away just after they are used.

In projects that are related to circular changes, engaging other stakeholders seems to be even more critical than in other cases as they are an essential part of the circular ecosystem. Their need,

motivations, and expectations need to be identified and addressed at the beginning of the process.

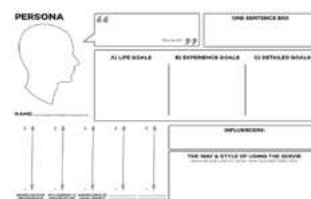
Mapping whole system inspires to think what can be the "second life" of the product. Enable to recognize relations in the system. Understanding the context, and collecting crucial data is the knowledge that will be used during the designing process.

Both qualitative and quantitative methods are used at this stage to learn about users. Numerous different techniques and tools are used to explore and understand the behavior of the people involved. Learning about users needs don't need to be expensive thus it can be used by companies regularly.

2. Defining the problem

It is vital to make sense of the data collected at the previous stage and make first design decisions: choosing which data are essential for the scope of the project. Thanks to the exploration phase, the project team can find answers for such important questions as what needs related to circular economy users have? What impact on humans and the environment has the current project that we redesign? What relation the customer has with a product after he/she finished to use it?

Visualizing data is one of the methods that help to find patterns. Such tools as personas, journey maps, stakeholder maps, etc. are used to make it easier to understand which problems should be addressed.



Picture 2. Example of Persona canvas



Picture 3. Customer Journey

Collected information helps to name the real problem. Usually, the design problem includes the following information:

- type of the user we want to help
- the issue that needs to be changes
- an expected outcome of the change

Example: How to help conference organizers in planning their purchases so they can produce less trash.

THEME - STAGES OF DESIGN THINKING



3. Ideation

With the support of creative techniques, the team generates dozens of ideas on how the problem may be solved. It's about exploring as many ideas as possible and identifying problems as early as possible to learn from them. It's also about selecting just those concepts that answer real customer needs and help to achieve business goals. Ideation can be split into two phases:

- qualitative, where the main goals are to create as many solutions as possible
- quantitative, where ideas are selected according to chosen criteria and further developed

All main stakeholders that include customers, employees, and management, as well as engineers and designers should be involved in generating solutions.

Understanding that it is normal not being right with the first idea is a necessary part of the design process. It is based on iterations and requires learning from each idea, using learning outcomes and implement them in the next solution. Implementation of new business solutions is always fraught with high risk.

At the same time having a circular approach in mind, we should develop the concept and find alternative ways of delivering the value. Circular economy framework inspired to look for better solutions that eliminate waste, business model (from product to the service), etc.

While generating ideas during the design process, very often a list of so-called quick fixes is created. Quick fixes are ideas that can be implemented in a short time without high costs and solve defined problems or satisfy needs. Keep them in notes and don't lose them during the process as they can have a significant impact.

For example, AccorHotels implemented plenty of ideas that all together make a huge quality change. Buying products in bigger packages rather than in more smaller ones, planning menu in a way that all events of for instance vegetables will be used, serving smaller portions of meals but giving a chance to refill them.

4. Prototyping

This stage is about iterative prototyping and testing of selected ideas and concepts. The idea behind it is to check the concept as soon as possible and learn what works well and what needs to be changed. Thus it limits the risk of implementing the idea that is not satisfying for the users.

Prototypes should deliver the answer to such questions: what experience our solution provides? What economic, rational and emotional values it gives? How solution supports a circular approach? What circular solutions related to the infrastructure, systems, and partnership required the solution?

5. Implementation

To generate efficient solutions and implement them, the organization should adjust itself to the changes required by the solution.

According to the design thinking approach, the product is never finished and is modified while the time, answer new changes, is continuously developed.

The company also needs to be open enough to implement changes in organizational culture and perception of its role on the market.

Prototyping is about making the concept tangible with limited resources (time, money, materials). With the use of methods such as storyboard, poster, mock-ups, leaflets, role-playing, paper prototypes ideas start to be tangible. Prototyping process helps to develop the concepts, identify risks, see new opportunities. Furthermore, it helps the whole team to understand the idea in the same way. The crucial here is to make the idea tangible with limited resources (time, money, materials). Prototypes are used for tests with users.

CASE STUDIES



In this part of the document, few case studies of companies that created innovative solutions based on circular economy approach are described.

Reduce: Simple change in product choice lowers energy consumption

Gavarni Hotel located in Paris has switched to towels made from organic cotton in the beige color that allows them to be washed at 30 degrees Celsius and therefore saved energy cost. Following this choice, the hotel has selected organic cotton or eco-labelled cotton, avoided excessive sizing, as well as has selected durable polyester-cotton blends or linen for bed sheets. The energy consumption of 50/50 polyester-cotton over 100 laundering cycles is 42 % lower than for pure cotton sheets because of the durability of polyester.

Learn more at:
<http://www.gavarni.com/en/ecolabel-hotel-paris/>

Reuse: Coffee grounds closed in the loop

Coffee is a very ineffective product, because only 0.2% of it is consumed in a cup of this drink. Rotterzwam, a Dutch company, has used coffee grounds waste to grow oyster mushrooms. Company uses the enzymes that are in these coffee grounds to create a new product suited for human consumption. The mushrooms are sold locally in restaurants and catering. Additionally, traditional Dutch snacks such as bitterballen and kroketten are made from these oyster mushrooms, creating a high-value product.

Learn more at:
https://www.rotterzwam.nl/en_US/

Recycle: Changing waste management habits and procedures

The Savoy hotel in London is a classic, luxury five-star venue employing over 600 staff members. It offers 268 rooms and 62 suites, two restaurants, two bars and a tea room. In 2010 it has been reopened after major makeover and has implemented new waste recycling program. It included staff training to relearn procedures and habits, as well as daily staff briefings to incorporate environmental management topics, including waste separation, reuse and recycling. In result, over 95 % of non-food waste is now kept from landfill and unsorted waste generation for the hotel and restaurants is equivalent to approximately 0.3 kg per guest-night. Additionally, organic waste in the amount of 344 tonnes per year is separated and sent for energy recovery.

Learn more at:
<https://www.thesavoylondon.com/about-us/sustainability-initiatives/>

Redefine: Tourist destination challenge redefined collectively

Association for Car Free Tourism Destinations in Switzerland (GAST) has been formed by entrepreneurs and inhabitants from nine Swiss villages. This association's goal is to position car free tourism as a high quality product. A ban on vehicles with internal combustion engines, as well as a general speed limit of 15–20 km/hour for electro-buses, electro-cars and electro-taxis, helps to ensure a relaxed atmosphere and preserve the natural surroundings. As a consequence this destinations are considered as unique because of the tranquillity, clean air and extended space for pedestrians and nature.

Learn more at:
<https://www.auto-frei.ch/index.php/en/>



EXERCISE



1. OBSERVING AND PLANNING

Application of the PDCA model to design thinking

Design thinking is much more than just a set of tools and canvases; it is about understanding human needs and answering them while creating circular products or services. What is important to emphasize, both user and providers need should be recognized and considered during the designing process.

It is a useful set of methods for companies that look for innovation in their business. Wherever the entrepreneurs meet "wicked problems," design thinking is an approach that could help to find a satisfying answer. It means we can use it to improve the way of supply chain planning, the way the organization arranges furniture in its hotel, the way the spa-staff provides services, etc.

Design thinking is a mindset, and it requires proper organizational culture: open for experiments, ready for the continuous learning process, open for real interdisciplinary teamwork and not afraid

of trying and making mistakes. Just then it can support companies' growth efficiently. Projects based on this methodology should be just the beginning of more significant organizational change.

Thus before starting to implement the methodology, it is worth to check if we are ready to work using this approach.

However, even to start to consider if this approach is for us. First, we need to notice that the change is required. This need can come as a result of the observation of internal processes and the surrounding.

Observation plays a considerable role also when it goes about looking for inspirations. We should include activities related to learning about what we may change in our process to make it more circular.

Furthermore, we can observe customers

behavior (not only our customers) can help us to see that some areas are not covered and can be beneficial or some processes should be redesigned.

You may recognize that the change is required at the level of:

- the feature of the product / particular touchpoint in the service
- one process of the service
- whole service / whole product
- new business strategy

It is worth to ask ourselves questions relevant to each level to find out which one we should focus on. List of exemplary questions is presented in Table 1.1.

Each need for the change is an opportunity to make your company more circular.

Design thinking can be highly supportive of continuously finding new meanings, both as business strategies, products, services, and the way they are used. It can

help to answer the multiple-questions of why customers will buy (or why they will change behavior), clarify and make sense of things and be the catalyst to bringing insights and concepts together.

Make sure that you have all stationery materials that will be useful during the process: flipchart paper, sticky notes, markers,

Plan who from your team you would like to invite to work with you on new solutions. Take care that project team members will have different experiences. It's worth to ask people from different departments to join. On the other hand don't make your team too extended as it will make planning the meetings too complicated and also less efficient. We recommend to work in groups composed of 6 members. This size of the group enables to organize easily, at the same time enables an intense exchange of ideas.

Table 1.1.

Focus	Important questions
New business strategy	<ul style="list-style-type: none"> • Does our business strategy help to reduce resource consumption? • Does our business strategy influence waste management? • Does our business strategy influence long-lasting savings for the business? • Does our business strategy influence the development of innovative workplace? • Who are the beneficiaries of our strategy? • Who are the major stakeholders? • How engaged are the employees with the strategy? • How value chain is organized? • Who is engaged in the value chain creation? • Does our strategy response to circular economy business model? • What is the most important impact of our business on the environment in the value chain? • What's going on with the waste generate? • Are any circular economy activities provided by our stakeholders including local community and authorities?
Products improvement	<ul style="list-style-type: none"> • Which attributes of the product are attractive to the users? • How profitable is the product? • Is the reduction of a product waste profitable? • Is raw materials management optimal when manufacturing the product? • How different is the product compared to those following a "linear" production model? • How different is the product compared to what other products produced according to "circularity"? • Who buys the product today? • Who are the potential users of the product? What is their attitude to a circular economy? • How engaged are the employees in the product – current (linear) and potential (circular)?
Services improvement	<ul style="list-style-type: none"> • Which attributes of the service is attractive to the users? • How profitable is the service? • How different is the service compared to "linear" competitors offering? • How different is the service compared to "circular" competitors offering? • Who buys the service today? • Who are the potential users of the service? What is their attitude to a circular economy? • How engaged are the employees in the service – current (linear) and potential (circular)?

After you will recognize that there is a need of change we need to observe our organization to find an answer if we are ready to work with use of design thinking approach. If we are positive, we can start to define how to plan it so it will fit our organizational culture.

In the Table 1.2 some helpful questions were listed:

Scope	Have you identified which areas project will apply to (product, service, one touchpoint, feature, business strategy)
Skills	Is there anyone in your organization who may facilitate (has proper skill and time to play this role) the project or there is a need for an external expert? Who will be responsible for all organizational aspects of the project?
Time	How much time your employees can spend working on the solution? how many working days you can spend on workshops?
Team	Who from your team can contribute to the process (be part of the core team)? Will you invite external experts and customer to the process?
Physical space	Is there any comfortable space in your company you can use for your workshops or you need to rent the room outside the company?
Attitude	Are you ready for giving the power to your employees and make them responsible for the solution? Are you comfortable with the fact that design thinking is learning the process so not all solutions will be the good one? Are you eager to experiment? Can you accept that what customers are saying is crucial for designing process?



2. IMPLEMENTATION

Design thinking process implementation requires excellent openness in the company. It can bring much more value than just the concepts of new products and services. It helps to develop employees competencies, build long-term relations with customers, explore new areas of companies development, improve internal processes, etc. Preparing the organization for process implementation is essential.

You can implement in your organization the whole process: from empathy to tests and then implementation plan or just chose elements that you need most at the moment (ex. learning about users).

The process itself is very flexible. It means that you can organize two days workshop (design sprint) or make full process (ex. 8-12 weeks of work, around two days of workshops each weekend). It depends on the scope of the project, how much time you can spend working on it and your expectations. It's good to have someone who has an experience in this methodology to help you to adjust the process to your needs.

While deciding what tools you want to use you can find help on web pages dedicated to this topic that will equip you with some templates and explana-

tions such as www.circulardesignguide.com, www.designabetterbusiness.com, www.ideoclab.pl and www.cirtoinno.eu

While implementing the process, there are a few things you should remember about.

Build the team

You cannot go through the process on your own. To make it successful, you need to:

- find a person responsible for process facilitation and documentation
- find a person responsible for all organizational issues related to the project
- built core team who will go through the process.

Focus on the problem to solve

Companies commonly fail to effectively solve their challenges or meet their goals because they do not correctly identify the problem. The first part of the process is concentrated on this task. The well-defined problem includes company perspective - what you want to reach (eg.: reach new target group) and users perspective their expectations, problems, etc. The process requires from you not only learn about customers but also deeply understand your organization and people working in it. As it was mentioned defining a precise problem

that need to be solved is part of the process. However to start our work we need to name the scope/are we want to work on.

Have more debriefs (or start having them)

This is the part that people have the most trouble with: it's important to understand that design thinking is a process of iterating on previous experiments so that the product can improve and become better. However, learnings need to have

a feedback process to be implemented. To make design thinking works we need to create a culture in your organization that doesn't only accept mistakes but also can learn out of them. And as you can imagine it is not easy. You can start your change in at least few different ways: you may work with mistakes at the level of particular ideas or/and at the level of processes that are used in your company. The concept is explained briefly in the Table 1.3.

Table 1.3. Steps for creating a learning culture.

1. Being open about what went wrong	Determining what tests failed or were less successful than they could have been, and what can be improved next time
2. Viewing of failure as learnings	If one approach did not work it narrows down the list of possible approaches.

Embrace the feedback loop

The goal of design thinking is to achieve the best answer or solution possible to a question or challenge. The best answer likely will not be the first answer; thus, there needs to be a constant loop of getting feedback and testing new assumptions. The way idea may be implemented is presented in Table 1.4.

Table 1.4. Steps for implementing loops.

1. Testing and iterating (as much as possible)	Finding new ways and angles to test assumptions a company might come across and would not have been likely to think of otherwise.
2. Keeping frequent feedback sessions	If one approach did not work, it narrows down the list of possible approaches.

Process implementation in few steps:

- define design challenge (what is your desired outcome)
- identify restrictions that affect the process (time, money, people possible engagement)
- find facilitator (in your organization or outside)

- prepare process that will help you to reach your goal and take into the account named restrictions
- build core team
- implement the process (remember the feedback)



3. CHECKING AND REVISING

Design thinking is an iterative process that is planned in a way that enables to collect new information whole the time and use them to improve the concept.

However, changes may also occur at the level of process implementation as such. It may be beneficial for the organization to monitor differences between the way process was planned and how it has finally proceeded. Analyzing the differences may help to shape the process in a way that works best for your organization.

Design thinking is a mindset, but for each scope, tools need to be chosen carefully to deliver the best value in defined frames. Therefore it is crucial to evaluate on a regular base what value used tools brought. Very often for one team/ company some tools work perfectly as for others they do not deliver the expected results. It is essential to collect this knowledge and use it when implementing design thinking process for the next time. A strong understanding of design process stages and tools and reflection on the

process can contribute to an organization and can help to solve real problems – a transition from linear business model to circular model - that affect their organizations. Table 1.5 can help to monitor the process in the more systematized way.

Effective business change always depends on the team-work. Therefore design thinking methodology is used to create effective teams and to communicate complex ideas clearly within an organization and to a broader audience and

garner support from their community. It is essential to observe the team and process that it faces as it can affect strongly project outcomes. While observing team members, you have a chance to find engaged employees who can be great change-makers in your organization. It's worth to collect all observations in a systematized way as table 1.6 presents.

Table 1.5. Checking table – Design thinking process implementation

1	Activities/tools planned for exploration phase	<ul style="list-style-type: none"> • 9 interviews with representatives of 3 users groups • observations in 3 selected spots, each observation last around 3 hours 	<ul style="list-style-type: none"> • 12 interviews with representatives of 3 users groups • co-creation workshop with customers 	<ul style="list-style-type: none"> • recruitment of planned number of interviewees was to hard • after interviews team has decided that observations will deliver more required information than co-creation workshop
2	Activities/tools planned for defining the problem phase			
3	Activities/tools planned for ideation phase			
4	Activities/tools planned for prototyping and testing phase			
5	Evaluation during the process			
6	Communication during the process			
7	Circular potential of created products/service/strategies			

Table 1.6. Checking table – Team process – actions related to business strategy, products, services

Actions	Implemented activities /achieved outputs	Planned activities / desired outputs	Why changes were implemented
1 Participants of the project (according to his/her background, interpersonal skills, experience etc.)	Core team will be composed with customer service, accountancy, kitchen, clean	Core	
2 Moderator (role, engagement)			
3 Team members personal development			
4 External experts and users engagement			
5 Employees and third parties level of understanding of circular economy			

As a result of the analysis you should point out crucial changes that should be implemented in the next design thinking process you will proceed in your organization.

We believe that this document is just the beginning of your adventure with design thinking approach. To find further inspiration check some reliable resources we present in the table 1.7.

Table 1.7. List of resources

Resource title	WWW address	Description
1 Circular Design Guide	https://www.circulardesignguide.com/	Materials (guidebook, tools, presentations) about designing circular products and services created by IDEO.
2 Ellen MacArthur Foundation	https://www.ellenmacarthurfoundation.org/	Ellen MacArthur Foundation - an organization with a long history of being engaged in circular economy promotion.
3 Case Studies from Europe - Ellen MacArthur Foundation	https://www.ellenmacarthurfoundation.org/case-studies/search?q=europe	
4 The circular economy: Moving from theory to practice	https://www.mckinsey.com/~media/McKinsey/Business%20Functions/Sustainability%20and%20Resource%20Productivity/Our%20Insights/The%20circular%20economy%20Moving%20from%20theory%20to%20practice/The%20circular%20economy%20Moving%20from%20theory%20to%20practice.ashx	Report about circular economy prepared by consultancy agency McKinsey Center for Business and Environment Special edition, October 2016
5 Forum for the Future	https://www.forumforthefuture.org/blog/changing-role-designer-circular-economy	An article: The changing role of the designer in the circular economy
6 Eco Design Thinking	http://www.ecodesignthinking.com/design-thinking-applied-to-circular-economy/	An article: A step-by-step process to put "The Circular Design Guide" into action
7 Circular Economy Asia	http://www.circulareconomyasia.org/circular-design-in-the-real-world/	An article about circularity in practice
8 Chris Grantham: Circular Economy Portfolio Director	https://medium.com/ideo-colab/designing-a-more-circular-world-together-784feda30910	An article: Designing a More Circular World, Together
9 Rethinking Sustainability in Light of the EU's New Circular Economy Policy	https://hbr.org/2018/07/rethinking-sustainability-in-light-of-the-eus-new-circular-economy-policy	Harvard Business Review article
10 How Businesses Can Support a Circular Economy	https://hbr.org/2016/02/how-businesses-can-support-a-circular-economy	Harvard Business Review article
11 Circular Economy Guide - Strategies and Examples	https://www.ceguide.org/Strategies-and-examples#465	Collection of case studies, examples of implementing circular economy in business and non governmental organizations.
12 Developing products for a circular economy	https://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/developing-products-for-a-circular-economy	An article about design thinking and circular economy from McKinsey agency



TRAINING MATERIAL

Design Thinking tools for Circular Economy

Module 3.2 - Guide for Trainers

LEAD PARTNER

Agencia Rectorsa Pinaros S.A.

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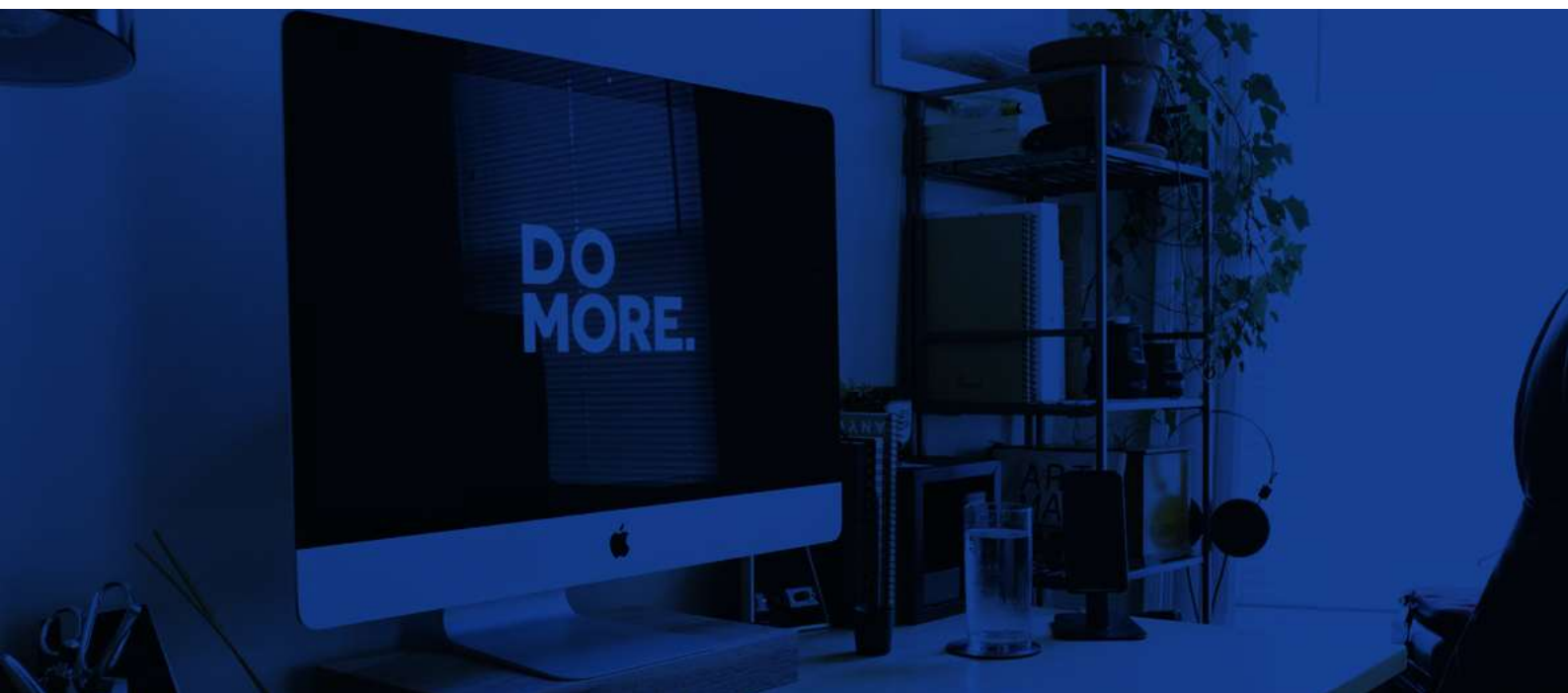
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INTRODUCTION

The goal of the workshop is to introduce the process of design thinking and tools that can be used by participants while developing ideas supporting a circular economy. Participants of the training should read the training materials (reference) to prepare their company to go through the process. Ideas generated during the process should be developed with the use of the Business Model Innovation and Marketing modules.

The primary goal of the training is to introduce the service design and design thinking approach to the participants and for them to learn how selected tools may be used to create a new circular solution for a business. Participants should understand the fundamentals of the process and the main differentiators.

Furthermore, participants should be able to:

- use selected tools relevant to all stages of the design thinking process
- validate an idea (developed concepts of products or services). Validate sacrificial concepts developed during the ideation phase.
- organize a project team in their organization

SUGGESTED AGENDA

DAY I – 9:00-15:30

Time Topics

INTRO

09:00 - 09:15	Getting to know each other
09:15 - 09:45	Brief Introduction to the Design Thinking Method (presentation)

CHALLENGE

09:45 - 10:05	Defining future vision & goals
10:05 - 10:45	Defining scope of the project - possible challenge areas
10:45 - 11:00	Refreshments

STAKEHOLDERS MAP

11:00 - 11:30	Creating a stakeholders map
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CLIENT-CENTRIC

11:30 - 12:15	Intro to qualitative research and research for inspiration (presentation)
12:15 - 13:00	User context and its environmental impact - CJ with modifications - additional elements related to CE Learning what problems can be solved
13:00 - 14:00	Lunch

VALUE PROP & DESIGN CHALLENGE

14:00 - 14:40	Drafting Value proposition
14:40 - 15:10	Drafting Client-centric challenge

WRAP UP AND NEXT STEPS

15:10 - 15:30	Summary of the workshop, introducing next steps
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- Expectations, hopes, risks, motivation
- Why we are here (agenda, end goals, relation to the Circular Economy etc.)
- Explanation of the sprint approach
- Redefining what design is (mindset)
- Design as a process and as a strategy (role, use, practice)
- Crucial elements of the process and tools (stages, tools - how and why)
- Naming and identifying possible areas of improvement
- Making a brief decision on what to focus on (client potential vs. circular economy based innovation/change potential)
- Learning about user needs and how addressing them can bring value to the business
- How to conduct research without big financial contribution
- Presentation of a low risk/low barrier research methods. My company as a source of R&D
- Persona with elements of empathy map

SUGGESTED AGENDA

DAY II – 9:00-15:30

Time	Topics
------	--------

GENERATING IDEAS

09:00-10:30	Introduction to generating ideas Ideation based on selected creative techniques
-------------	--

10:30 - 10:45	Refreshments
---------------	--------------

SELECTING IDEAS

10:45 - 12:30	Selecting ideas according to defined criteria: user needs / business value / circular effect
---------------	---

PROTOTYPING AND TESTING

12:30 - 13:00	Prototyping concepts - introduction to prototyping - Storyboard
---------------	---

13:00-14:00	Lunch
-------------	-------

14:00 - 15:00	Testing concepts
---------------	------------------

IMPLEMENTING DESIGN THINKING IN THE ORGANIZATION

15:00 - 15:30	Workshop summary - how we can use tools in our companies
---------------	--



OBJECTIVES

The training should be provided by a person who has at least basic experience in design thinking methodology. Since a training is based on this approach requires flexibility and ability to adjust methods to needs and dynamics of each group.

The training can be delivered to members of a few companies - represented by 1-2 employees. In this case, it should be considered as a possibility to introduce methods and approach and not a way to develop a concept that can be used by this particular company. In this case, representatives of different companies will work in mixed groups. Thus, handled topics will be more general.

Design thinking is a collective experience. It is therefore recommended that 4-5 employees represent each company that participates in the workshop. It gives a chance not only to explore the tools but also to work on a topic that is accurate for a particular company.

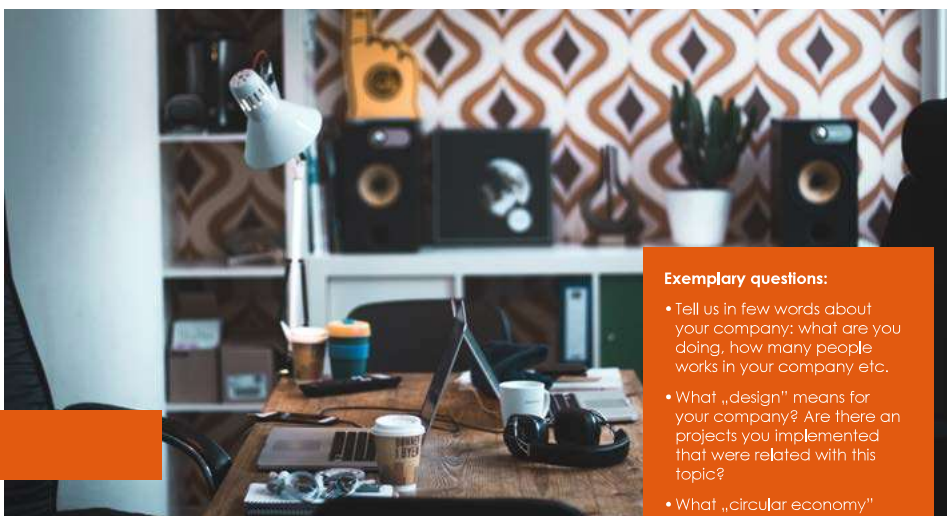
An introduction to the circular economy should precede the workshop e.g. Module 1 of this training or the CIRTOINNO handbook (references). Participants should attend an training dedicated to the Circular Economy topic before design thinking workshop. Additionally, it is worth to present some examples of circular ideas before the ideation session. Especially ones that depict that circular ideas can include also relatively small changes.

During the training, participants use their observations to define customers and their needs. Before the workshop, participants may be asked to conduct a short survey among their customers so they can use the knowledge in the workshop. The survey should focus on such topics as their needs, importance of green solutions, elements of the offer that are crucial for them.

Exemplary questions:

- Tell us in few words about your company: what are you doing, how many people works in your company etc.
- What „design“ means for your company? Are there an projects you implemented that were related with this topic?
- What „circular economy“ means for your company? Are there an projects you implemented that were related with this topic?
- What's the crucial challenges you meet running the company (ex. No interest of customers during the winter)
- What you have done in last years for minimizing an impact on the environment?
- Who is the most important stakeholders for you? (except customers)

It is recommended that two trainers deliver the training if the group has more than 12 participants.





GUIDE OF SLIDES

Below you will find a description of each slide included in our presentation. Please keep in mind that it is just a framework and our recommendation. You can adjust the schedule and the content according to the group needs and expectations.

Our primary goal here is to equip participants with the tools they can use to change their business and not only to make them understand what design thinking is. We want to encourage SME representatives to find a way of implementing design thinking approach in their organization and show that even selected tools may bring value.



DAY 1

Introduction to design thinking approach.
Understanding customer.



Slide 1 Presentation of the topic of the workshop

The trainer should emphasize that the workshop is concentrated on how design thinking may be used while creating circular solutions and not on design thinking as such.



Slide 2 Trainers introduction



Slide 3 Participants introduction

Participants should write on sticky paper their names and what is their superpower. For instance: Anna, simplify what's complicated, Mark, asks tricky questions. Papers may be used as name tags.



Slide 4 Expectations

It is essential to learn what are participants expectations for the workshop. Participants should write on sticky notes what are their hopes and aspirations. Moderator collects notes, cluster them and provide a comment on a selection on them. It is important to let participants know what expectation will be addressed during the workshop and which are not within the scope of it.

Slide 5 Plan of the workshop

Briefly, introduce the schedule of the workshop. Point out that participants will experience "a sprint approach." It means that they will spend on each activity limited time, and experience the whole process. Participants will learn how to use tools and can use them in their company after the training and spend some more time working on them. It is especially recommended if during the workshop they were working in mixed groups - together with representatives of other companies.

1st day		2nd day	
09:00 - 09:45	Introduction	09:00 - 09:45	Structure
09:45 - 10:45	Needs and challenges	10:00 - 10:45	Coffee break
10:45 - 11:30	Coffee break	10:45 - 11:30	Idea selection
11:30 - 12:00	Idea creation	11:30 - 12:00	Prototyping
12:00 - 12:45	Lunch	12:00 - 12:45	Launch
12:45 - 13:30	Value proposition and design challenge	13:00 - 13:45	Summary
13:30 - 14:00	Summary	14:00 - 14:45	Summary

Slide 6 Design thinking

In the next few slides crucial assumptions related with design thinking approach will be presented. It is worth to ask participants if they have heard or used design thinking approach. If so, they should be encouraged to share with their experiences during the whole training.



Slide 7 Triggers of change

Graph depicts three main triggers of change that are strongly related to each other:

- Consumers expectations
- Changes in technology
- Changes in business models



Slide 8 Design thinking as a connector

Design thinking helps to find solutions/ideas in which three mentioned aspects are taken into consideration.



Slide 9 Fundamentals of design thinking approach # 1

From slide 9 to 13, fundamentals of design thinking approach are presented. Slide 9 introduces the first element: **User in the center**

A user in the center is most important in design thinking mindset. It means that to create good and useful products and services we need to learn what are the needs, fears, expectations of our customers, what are their habits, what may motivate them to change, etc. Circular solutions are very often related to a need for changing behaviors, thus we need to understand current behaviors and motivations behind them. While designing our solutions we need to take care also for other stakeholders engaged in the process: employees and suppliers need to learn about their needs and expectations because just services where all parties situation will be improved may work well.



Slide 10 Fundamentals of design thinking approach # 2

The slide presents the second crucial element for design thinking: **Interdisciplinary work**. Design thinking is a collective activity. It requires to set up an interdisciplinary team that can contribute to the topic. Employees, users, external experts can form the team. It is important to have a diversified group so various perspectives will be included. In projects that should lead to a circular change, it is worth to invite also representatives of vendor companies.



Slide 11 Fundamentals of design thinking approach # 3

The third element of circular elements is presented:

Rapid prototyping and testing with users

During the design thinking process, we try to learn as much and as fast as possible. To verify if our ideas are right, we prototype them with simple materials and collect feedback from its potential users. It helps to use resources in the company in a more efficient way as we don't spend months on building products that no one wants. Examples of prototypes: storyboard, leaflet, poster, mock-ups of application of webpage.



Slide 12 Fundamentals of design thinking approach # 4

Openness for iterations and fast reactions on change

The process requires constant learning. While collecting information, we may decide that one step back need to be taken to collect more data, verify information, etc. Making a step back means to take a look on previously taken actions (e.g. conducted research) and decide if they need to be repeated or other activity with the same goal should be introduced to collect additional information, generate other ideas etc.



Slide 13 Fundamentals of design thinking approach # 5

Creative and analytical thinking

The process requires from its participants both creative and analytical thinking. It means that very often we may feel not too comfortable with one stage of the process but in next, we think another way around. Thus, it is even more critical to remember while building the project team to compose it of people with the different way of thinking.



Slide 14 Main stages of the process

Graph depicts 5 main stages of the process. Each step should be described very roughly, as participants will experience them during the whole training.

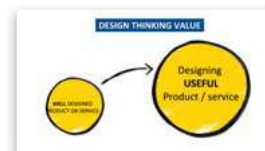
Design thinking is composed of the following 5 stages:

- Discovery/ Empathize - learning about the needs of users, identifying the desired change of the current situation
- Defining the problem - naming the problem that needs to be changed to achieve the desired goal
- Ideation - generating solutions that can solve the problem
- Prototyping - making selected ideas tangible
- Testing - checking with users what they think about a created solution



Slide 15 Design thinking is not copy thinking

The slide reminds that design thinking should help to find new solutions. Its goal is not to be copied and implemented what others already do.



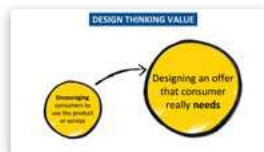
Slide 16 Design thinking value #1

Slides from 16 and 17 depicts value that design thinking brings.

Slide 16 presents that what is usually perceived as a value in product and services is that they are well design. Designing useful products and services is what we want to achieve using design thinking.

Slide 17 Design thinking value #2

Companies plan their activities to encourage their customers to use their products/services. We want that the effect of using design thinking would be an offer that users need and thus they don't need to be encouraged to use them. They can easily see the value in it for themselves.



Slide 18 Product/service vs design

Slide presents that behind product and services there is a design. It is something "under the water," customers can only see and experience tangible results of it (product/services) but not the whole "thinking process".



Slide 19 Design questions

When we talk about design we are talking about asking the right questions: Why do we want to make a change in our organization/product? For whom we design the difference? How do we want to make the change? What are the products and services that will "deliver" the change."

The order in which questions are asked is important and not only the questions itself. We should always start with Why? and then ask Who?, How?, and What? Not the other way around, as we are used to.



Slide 20 Design challenges

From this moment on participants will start to use selected tools to find solutions for their problems. In the beginning, the group needs to decide what challenge/problem they want to phase. It is important to emphasize at this moment that the process should be used to face "**wicked problems**."

Wicked problems are those that do not have just one right solution, involve many stakeholders, have different reasons and affect different areas, are vague, need to be clarified, and their fundamentals need to be identified.

Examples of problems that are appropriate: what to do to encourage a new group to visit our hotel, how to assist customers not to waste the food if there is a buffet, how to make a SPA more efficient (not in technical aspects but the way the customers use it) etc.

Participants may decide if they want to work in mixed groups - representatives of few companies in one group or split according to the company they represent. As it was mentioned before, going through the process is a collective activity, in both cases the recommended group size is 5-6 persons, the minimum number of participants in a group is 4.

Slide 21 COVER STORY

Exercise 1 : COVER STORY

The Activity may be introduced after the groups decide what challenges they want to face. The activity was originally presented in the book Gamestorming (trainer may recommend this book/ webpage as a great resource of references). We simplified and adjusted the tool to the purpose of our training.

As an introduction to the task the trainer should recall the difference between output and outcome.

In design thinking output and outcome are perceived as two different concepts. The output is understood as solutions (example: webpage, meeting, a new way of providing the service). On the other hand outcome is the description of the new desired situation. In the design thinking approach it is important to first identify what change we want to make before we think about particular solutions.

The activity helps to name what is the required outcome.

Detailed description of the task is presented in Appendix 1.



Slide 23 Stakeholder map

Stakeholder map is a tool that help us to gather and systematize knowledge about stakeholders. At presented example we identified follow type of stakeholders:

- Internal: employees (specific groups or roles), trade unions;
- External directly affected: customers, suppliers, financiers or investors, communities;
- External indirectly affected: media, competitors, NGOs, special interest groups, government institutions, consumer advocate groups.



Slide 24 STAKEHOLDERS MAP

Exercise 2 : STAKEHOLDERS MAP

The slide is an introduction to Stakeholder map activity.

Detailed description of the task is presented in Appendix 2.

Slide 22 Stakeholders

In the next step we will try to identify stakeholders that are important for our project. As a stakeholder we understand everyone who may affect on our project and those we will have affect on. Analyzing stakeholders is especially important for circular projects as it presents ecosystem we are part of and inspires to co-operation.



Slide 25 Customer perspective

Participants have identified what problems they have and what they want to achieve as a company. From this moment we will try to change perspective and learn what is important for our customers.

Slide 26-27 Persona – 1

Persona is one of the most common tools used during the designing process. Slides 27-28 help to introduce the topic to participants.

Persona is an archetype of the user. The description that displays the essential characteristics: motivations, expectations, problems, lifestyle, etc.

It is vital to inform participants that Persona should be built with the use of information gathered during the research phase as if you make it just using your beliefs it may be very stereotypical. For the workshop purposes, Persona will be prepared based on participants knowledge and experience. To avoid creating confusion it should be named as "proto-Persona." The difference between persona (formed on a base of data from research) and proto-Persona (build based on team experiences) should be clarified.



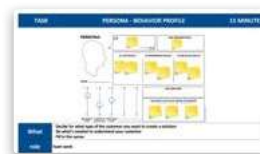
Slide 28 Persona - 2

The trainer should explain that description of a potential user as presented on the slide is not enough if you want to use design thinking as behind the short story many completely different person can be identified. Different understand as having diversified motivations, problems, expectations etc.



Slide 29 Persona - quote

A quote is presented to emphasize that best expert from the products are those who are using them.



Slide 30 PERSONA

Exercise 3 : PERSONA

The slide is an introduction to the activity "Persona."

The participants should create a persona for their projects. There may pop up a question on whose persona they should create if there are at least a few groups that want to be reached with their solution. In this case, they should be advised to create a persona of representatives of groups they want to achieve first, one that has the most significant potential.

Detailed description of the task is presented in Appendix 3.



Slide 31 Value Proposition

Value Proposition may be perceived as an extension of the Persona. It is a tool that helps us to analyze values that are important for our customers and the jobs they need to do.



Slide 32 Customer perspective

The slide emphasizes that the way of thinking about customer needs should be redefined. We used to believe that customers want cars, hotels, etc. However, if you think about it, we do not need a hotel but a comfortable place to stay at night when we are not at home. We do not need a car but to move from one place to another. This way of thinking opens a whole new spectrum of ideas of how we can answer to the need, and there are always more than one way to achieve that.

Slide 33 VALUE PROPOSITION

Exercise 4 : VALUE PROPOSITION

Activity should be introduced to participants.

The value proposition canvas is the next tool that helps us to understand our customers better. It helps to understand what jobs or tasks related to our project persona we need to do and what can be helpful while fulfilling them and what can be challenging.

Detailed description of the task is presented in Appendix 4.



Slide 34 Customer Journey

Customer Journey is a tool that helps to understand our customers better, especially explore the way they use the services or products we want to develop.

Alike with Personas, a Customer journey should be built with knowledge from research. Thus, the one made during the workshop can be handled as a hypothesis. It is recommended that participants after the workshop will conduct their research: in-depth-interviews with customers that fit their persona profile, observations etc. They should use collected data to validate.



Slide 35 Natural paths

Illustration on the slide depicts that even if there is a way we want someone to go, he/she will find him/herself the most convenient way. Our job is to identify how users really use services, and how their journey looks like.



Slide 36 Experience and emotions

Slide highlights that using a service from a customer perspective also has an emotional aspect and is itself an experience. While thinking about our services we should concentrate on what emotions it awakens, and not only on what the customer is doing.



Slide 37 Touch-points

The slide explains how customers perceive services.

It presents examples of elements that build the service: products, marketing, online tools, printed materials, and people we meet on our way. The trainer should point out that from the customer perspective using a service is one experience. Thus, it is not important which department in the company that is responsible for the touchpoint.



Slide 38 CUSTOMER JOURNEY

Exercise 5 : CUSTOMER JOURNEY

Introduce the next activity to the participants.

The customer journey helps us to imagine how a Persona is using the service. It may be used at the beginning of the process to learn where any potential areas can be improved or /and to present how a new solution may work.

The customer journey is composed of four stages:

- Awareness
- Decisions
- Use
- Grow/leave

Detailed description of the task is presented in Appendix 5.

Slide 39 How might we...?

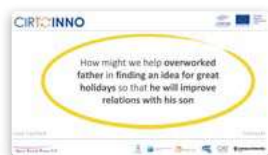
The slide is an introduction to the next stage of the designing process. From the stage **Empathize** (stage 1) we will move to the stage **Define the problem** (stage 2).



Slide 40 Example

An example of defining the design challenge is presented.

The trainer should discuss crucial elements of the challenge: a defined group, problem, and expected outcome. It should also be highlighted that the challenge can neither be too narrow or too wide.



Slide 41 HOW MIGHT WE...?

Exercise 6 : HOW MIGHT WE...?

After analyzing pains, gains, and jobs to be done, participants should define a design challenge. In the beginning, each participant may try to set it, but in the end, one problem per group should be defined.

Detailed description of the task is presented in Appendix 6.



Slide 42 Summary - Day 1

Crucial elements of the day should be recalled, and they should be linked to the stages of the process.



Solving the challenges defined during day 1

Slide 43 Creativity

The second day of the workshops begins with the Ideation phase, on which creativity plays a vital role. The role of the trainer is to make participants of the workshop feel more comfortable with the fact that it is an aspect to generate an idea, especially that in many cases they are not used to such methods of work.

Slide 44 Creativity - quote

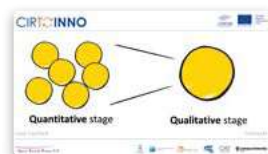
The quote presents how creativity is understood in the process. We need to emphasize that creativity is something everyone can achieve. Sometimes we make it asleep and need to awaken it.

Slide 45 Stages of ideation phase

Illustration presents two main stages of the creative process: the quantitative where we are focused on generating as many ideas as possible, without judging them, and the qualitative phase where we select designs that meet our criteria. Most commonly it is verified if the concept meets customers needs and at the same time enable to reach business goals. In our case, they are equally important if the idea has a circular potential.

Slide 46 Creativity as a part of organizational culture

Information on the slide highlights the fact that it is the responsibility of an organization to give space to its employees to improve the services they deliver.



Slide 47 Phases of creative process

The slide presents elements of the creative process:

- **Immersion** - it is a phase when we learn about the problem, to be able to generate ideas we need to understand the topic well. In design thinking, it is usually equal with discovery/empathize phase of the project.
- **Transformation** - that's the moment when we work on our ideas. In our case with the support of tools that can wake up our creativity and motivate us to think outside the box
- **Incubation** - it happens after the workshop when we start to do other things, but our brain is still working on the concept
- **Illumination** - that's so-called 'aha' moment when we put all puzzles together can see any solution that is appealing to us
- **Verification** - testing the idea with others: co-workers, users, etc. collecting information about their opinions

Elements of natural creative thinking are intertwined in design thinking.



Slide 48 CASE #1

On slides 48-50 cases of circular solutions are presented. They were selected to highlight that changes don't need to be always huge and sometimes small idea can have a great impact.

Reduce: Simple change in product choice lowers energy consumption

Gavarni Hotel located in Paris has switched to towels made from organic cotton in the beige colour that allows them to be washed at 30 degrees Celsius and therefore saved energy cost. Following this choice, the hotel has selected organic cotton or eco-labelled cotton, avoided excessive sizing, as well as has selected durable polyester-cotton blends or linen for bed sheets. The energy consumption of 50/50 polyester-cotton over 100 laundering cycles is 42% lower than for pure cotton sheets because of the durability of polyester.

Slide 49 CASE #2

Reuse: Coffee grounds closed in the loop

Coffee is a very ineffective product, because only 0.2% of it is consumed in a cup of this drink. **Rotterzwam**, a Dutch company, has used coffee grounds waste to grow oyster mushrooms. Company uses the enzymes that are in these coffee grounds to create a new product suited for human consumption. The mushrooms are sold locally in restaurants and catering. Additionally, traditional Dutch snacks such as bitterballen and kroketten are made from these oyster mushrooms, creating a high-value product.



Slide 50 CASE #3

Recycle: Changing waste management habits and procedures

The **Savoy hotel** in London is a classic, luxury five-star venue employing over 600 staff members. It offers 268 rooms and 62 suites, two restaurants, two bars and a tea room. In 2010 it has been reopened after major makeover and has implemented new waste recycling program. It included staff training to relearn procedures and habits, as well as daily staff briefings to incorporate environmental management topics, including waste separation, reuse and recycling. In result, over 95 % of non-food waste is now kept from landfill and unsorted waste generation for the hotel and restaurants is equivalent to approximately 0.3 kg per guest-night. Additionally, organic waste in the amount of 344 tons per year is separated and sent for energy recovery.



In Appendix 10 other examples are presented. They can be used to have some more inspirations during the workshop.

Slide 51 ANALOGY

Exercise 7 : ANALOGY

The first creative activity is introduced. Before participants start to work on it, it may be beneficial to organize "warming up activity" eg. in 5 minutes participants need to find 30 ways what to do with an old box.

While introducing the activity, it is essential to highlight that all ideas should be written, that they should not think if the concept is possible to implement. The warm-up activity can be used to depict this rule.

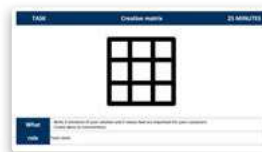
Detailed description of the task is presented in Appendix 7.



Slide 52 CREATIVE MATRIX

Exercise 8: CREATIVE MATRIX

Creative Matrix is next tool that wakes our creativity up. Detailed description of the task is presented in Appendix 8.



Slide 53 SELECTING IDEAS

Exercise 9: SELECTING IDEAS

We recommend using a two-step selection process. First of all, we will use the graph as shown on the slide. Detailed description of the task is presented in Appendix 9.



Slide 54 Prototyping

Next stage of the process is **Prototyping**. At this stage, participants will concentrate on developing ideas that they have selected.



Slide 55 Prototyping - definition

Prototyping definition used in service design projects.



Slide 56 Why do we prototype?

On the slide a few reasons why prototyping plays an essential role in the designing process are presented.



Slide 57 Prototyping principles

Prototyping principles are presented. It is especially important to highlight that Prototyping is a continuation of the creative process.



Slide 58 Examples of prototyping methods

A few examples of how the prototypes methods will be introduced. It is important to mark that prototypes should present the value of the solution, and what makes it unique.

It is important to mention, that just a few ways of prototypes are about to be presented. Participants should be encouraged to find their own way to the present a solution. A poster or a leaflet is also possible.



Slide 59 Service origami

Service origami is a mock-up that presents how the newly created solution may work. Especially engaged actors and interactions between them. It may be helpful to show how the solution is used.



Slide 60 Paper prototype

The paper prototype is used to show how screens of online solutions may work.



Slide 61 Storyboard

Storyboard is a simple comic story that depicts how a service works. Very often it is the first prototype that is prepared to understand how a whole solution can work.

Slide 62 Roleplaying

Roleplaying is another way to present how a service may work. It is especially useful if the core idea is about face to face relation between service provider and user for ex. customer service, call center etc.



Slide 63 Movies

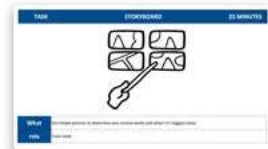
Short movies that present how solution works may be prepared. No professional equipment is required, you can use your phone.



Slide 64 Storyboard

Exercise 10 : STORYBOARD

We recommend that a storyboard should be the first prototype. It helps to see how the whole concept works. Encourage participants to draw simple pictures. The most important is to show what is crucial and unique with the solution.



Slide 65 Testing

Exercise 11 : TESTING

Explain to participants that they should test the concepts with their users that fit to the Persona profile. However, for workshop purposes, they will present ideas to each other, as we want to show how to collect feedback from others.

Before presentations, participants should write down questions they want to ask. It is essential to explain that it is not selling presentations and they should not explain to users why the solution is good, but listen to how others are thinking. Two types of information should be collected: what is a potential risk with the solution and what is perceived as especially interesting with the solution.

After testing, the participants should think of what changes they should do in their projects to make it more relevant.



Slide 66 Thank you

At the end of the meeting, the trainer should collect feedback from the participants. We also recommend asking how participants want to use the presented tools in their organizations.





APPENDIXES

APPENDIX 1

COVER STORY

One catchy sentence that presents what's most important in the article.

„First European environmental transparent hotel“

(title)

“ First time I have no compunction while using the SPA facilities” (quote) ”

Quote of user of the service

3 most important facts about the change

- Small tricks in the kitchen enable to offer „zero wast“ menu
- Customers care as much as stuff to keep to place environmental friendly
- All conference materials that left after the event are given to local schools

(5 key mentions)

Illustration that depicts new situation

(photo or quote)

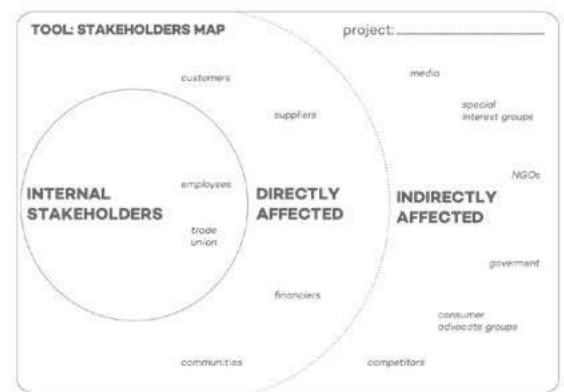
Illustration that depicts new situation

(photo or quote)

Illustration that depicts new situation

(photo or quote)

APPENDIX 2 STAKEHOLDERS MAP



Introduction to the activity:

Stakeholders are all individuals and institutions that influence company and its activities, participate in the creation or implementation of selected company projects or are directly interested in the results of the implemented projects. The company can be positively or negatively influenced by stakeholders (directly or indirectly). Also, the company's activities can bring them positive or negative changes. Stakeholders map creates an example of general 'big picture' of the design environment and is an important type of knowledge for a design thinking team to poses.

Based on the initial research and interviews conducted a preliminary, general mapping of stakeholders should be generated for the purposes of analysis and synthesis of the industry and company dynamics as well as relationships. This activity helps to frame an internal and external impact on the company and the impact on potential future product or service design concepts. Only key and important stakeholders should be defined. The purpose of this mapping is to gather information on what type of people or institutions have crucial influence to be taken in the consideration during the design thinking process. Additionally, it is important for researchers to see the whole network of related people and companies after and during the research process.

APPENDIX 3 PERSONA

The recommended canvas of Persona is adjusted to projects that goal is to find a circular solution.

It is composed of the following elements:

- **Motto** - One sentence that shows what is important for the persona.
- **Life goals** - What is our personas' ambitions? (Eg. Being a great parent, being an expert, etc.)
- **Experience goals** - What are the desired experiences? (Eg. Be a better version of him/herself)
- **How the persona wants to feel while using the services?**

- **Detailed goals** - What are the goals related to using the service that the persona want to reach?

- **Influencers**: Who has an impact on the persona? Who is perceived by the persona as a role model?

- **The way and style of using the service** (eg. hotel /restaurant):

- **How our persona is using the service we want to redesign?** Is he/she eg. visiting the hotel to relax or as part of a business trip?

- **How essential are additional services for the persona etc.**

The significance of environmental impact/willingness to change or try new solutions/



APPENDIX 4 VALUE PROPOSITION

First of all, activities to be done should be identified and written down.

We should answer the question "What tasks do our Persona need to do?".

Participants can decide if it will be more beneficial for their project to write in „Job“ sections:

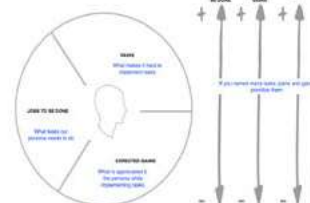
- **List of tasks.** For example: book a hotel, buy guide book, order taxi to the airport
- **more goal orientated jobs.** For example: being a great parent; have great stories to tell friends; take care of work-life balance

Next, participants should name what makes it challenging for the Persona to implement tasks ("pains") and what the persona has appreciated while executing tasks ("expected gains").

VALUE PROPOSITION



VALUE PROPOSITION



APPENDIX 5

The participants should fill in a form to show how customers are using the services currently.

CUSTOMER JOURNEY				
	1. AWARENESS	2. DECISION	3. USE	4. SHOW/LEAVE
FACE TO FACE	Interactions with employees	Interactions with employees	Interactions with employees	Interactions with employees
INTERNET	Online touchpoint	Online touchpoint	Online touchpoint	Online touchpoint
PRODUCT PLACE	tangible elements that are element of the service (ex. Luggage)	tangible elements that are element of the service (ex. Luggage)	tangible elements that are element of the service (ex. Luggage)	tangible elements that are element of the service (ex. Luggage)

Later areas that may be improved, that can have a circular potential should be marked.

CUSTOMER JOURNEY				
	1. AWARENESS	2. DECISION	3. USE	4. SHOW/LEAVE
FACE TO FACE	<ul style="list-style-type: none"> To try something new A wide range of choice Uniqueness 		<ul style="list-style-type: none"> Welcome greeting by the receptionist 	<ul style="list-style-type: none"> Call from the hotel after 2 weeks from the leave to offer special discount
INTERNET	<ul style="list-style-type: none"> booking.com Feedback profile of the hotel 	<ul style="list-style-type: none"> Checking available dates talking with child on Messenger 	<ul style="list-style-type: none"> Google map to find the place 	
PRODUCT PLACE			<ul style="list-style-type: none"> Room Dining room Playground 	<ul style="list-style-type: none"> Paper survey

APPENDIX 6 HOW MIGHT WE...?

Introduction to the activity:

The "How Might We ...?" activity is a framework question for the Ideation phase. Before jumping to ideas we reframe the Design Challenge into a very specific "How Might We ... ?" question that will become a key benchmark during the ideation phase and keep everyone focused on the cause we are designing for. Such framing of a Design Challenges should be based on key problematic, unsolved or 'burning' touch points from the Value Proposition profile or Customer Journey. In practice usually, 3-9 main design challenges are created while some extra ones are left as supportive for further consideration.

How might we helpin
(who)
..... so that
(job to be done) (solved pain or delivered gain)

How might we help **overworked father** in **finding an idea for great holidays** so that **he will improve relations with his son.**

APPENDIX 7 ANALOGY

The first creative activity is named **Analogy**. It can be split into the following parts:

- Write 5 analogies to your expectations about problem solution (Ex. Low season in the holiday should be like a big family celebration; Using SPA should be like networking session) The analogy that is less connected and most surprising should be selected. Add characteristics to chosen analogies. The tricky thing here is that all the descriptions should be positive or neutral, they should not be negative (eg. family celebration - meeting with family members we do not see so often; splitting responsibilities during preparation; everyone comes with stories to share, etc.)
- Go back to the first problem. Ask for the description and think what they mean for our challenge eg. What can we do to "meet with family members we do not see so often" in low season? - eg.

When you come to our hotel with a group of 7 friends in the low season you can invite two more people to come etc.

Participants should write down as many ideas as they have but not less than 10.



APPENDIX 8 CREATIVE MATRIX

Exercise:

	Calm	Independence	Freedom	Creativity	Honesty
Booking	After you cook a stay you have 7 days to change your mind and reject or change the reservation		you can book a room for half a day as an option to full days		
Information		Chatbot answers questions related with hotel/ reservation 24/7 via Messenger		Information is presented in a form of comic book	
Cosmetics		There is one place in the hotel with wide range of natural cosmetics and everyone can chose one to try it (and leave it back)		Additional information about each ingredient of cosmetics are provided	

1. Write down 5-7 values that are important to your customers. You should be able to identify them thanks to the Persona profile that was created during the first day of the training. Eg. calm/ independence/ freedom/ creativity etc. On purpose of our additional goal of circularity write circular (even if it is not important to our Persona).
2. Write 5 elements of the "issue/service" you are trying to modify. For example, if you are designing a new, more circular, way of using a spa you can write down: booking/ cosmetics/ treatments/ information provided about a spa etc.
3. Add values in a row and elements in a column. Your task is to generate ideas on "intersections" like freedom/ reservation - idea: you can book a room for half a day as an option to full days.

Do not think if you want or will be able to implement the idea. Concentrate on filling in the matrix and having fun. At this stage, you do not need to worry if it is functional or not.

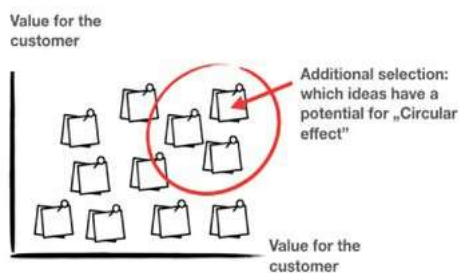
Table 1. Creative Matrix

	Value 1	Value 2	Value 3	Value 4	Value 5
Element 1	Idea 1	Idea 4	Idea 7	Idea 10	Idea 13
Element 2	Idea 2	Idea 5	Idea 8	Idea 11	Idea 14
Element 3	Idea 3	Idea 6	Idea 9	Idea 12	Idea 15

APPENDIX 9 SELECTING IDEAS

On the X axis write down: customers needs/ expectations, and on Y: other the business value. Put ideas on the chart. There is no scale here. Ideas need to be located relative to each other.

Analyze what help to reach business goals at the same time as deliver value to customers. Think which of the ideas that have the largest circular potential and choose them for further development. You do not need to decide on one idea. Think about how you can combine them to create one coherent experience.



APPENDIX 10 CIRCULAR ECONOMY - EXAMPLES

Redefine: Tourist destination challenge redefined collectively

Association for Car Free Tourism Destinations in Switzerland (GAST) has been formed by entrepreneurs and inhabitants from nine Swiss villages. This association's goal is to position car free tourism as a high quality product. A ban on vehicles with internal combustion engines, as well as a general speed limit of 15 – 20 km/hour for electro-buses, electro-cars and electro-taxis, helps to ensure a relaxed atmosphere and preserve the natural surroundings. As a consequence these destinations are considered as unique because of the tranquillity, clean air and extended space for pedestrians and nature.

Huerta Cinco Lunas is a small 2.5 hectare farm in Andalusia, Spain certified as organic by Agrocolor (AGR-02/1033) that provides bed and breakfast accommodation in three rooms within a traditional Andalusian farmhouse ('finca'), renovated using local materials in the traditional style. From the organic garden, the owners produce a range of produce, including eggs laid by hens fed with organic waste from the kitchen. Crops are fertilized using animal manure from a neighbouring organic farm compost from the kitchen. Weeds are controlled through manual weeding. Breakfast provided to guests is comprised of approximately 80 % organic ingredients, many of which are produced onsite: marmalades and jams, eggs, fruits and vegetables. Purchased products include organic cereals, and non-organic bread, coffee, tea and milk. Including evening meals provided for guests on request, the overall share of locally sourced food in the offer is approximately 70 %.

Otarian restaurant chain offers a 100 % vegetarian menu, substantially reducing the environmental burden of food compared with average restaurants serving meat. Sourcing policy is based on the principle 'as close to home as sustainable' to reduce transport-related impacts, and air freight is avoided. Otarian cooperate with suppliers to reduce packaging, for example to avoid double packaging and difficult-to-recycle packaging such as bubble-wrap. Packaging is consolidated by using the same crates for different products, and by extensive (re)use of reusable crates and compostable packaging made from bagasse (a by-product of cane-sugar production).

The **'Eat Jamaican'** campaign supported by SuperClubs was launched in November 2003 by several Jamaican associations and businesses to promote locally-produced goods to residents, visitors and exporters. SuperClubs is a global all-inclusive tour operator that engaged with the 'Eat Jamaica' campaign, coordinating local procurement and promotion of local food across its Jamaican hotels. In 2004, SuperClubs started working more intensively with Jamaican farmers to provide incentives and technical assistance programmes. The hotel also provided the Jamaican government with policy guidelines for initiatives that would benefit both the agricultural and tourism industries. Currently, SuperClubs purchases over USD 110 million worth of local produce annually. One challenge has been to ensure a continuous supply of high quality produce from local suppliers. SuperClubs resorts promote local produce as a unique tourist attraction, for example in 'Celebrating Jamaican Cuisine and Culture' weekend events that combine local culinary delights, music, arts and crafts.

APPENDIX 11

LIST OF SLIDES

Slide 1: Presentation of the topic of the workshop

Slide 2: Trainers introduction

Slide 3: Participants introduction

Slide 4: Expectations

Slide 5: Plan of the workshop

Slide 6: Design thinking

Slide 7: Triggers of change

Slide 8: Design thinking as a connector

Slide 9: Fundamentals of design thinking approach # 1

Slide 10: Fundamentals of design thinking approach # 2

Slide 11: Fundamentals of design thinking approach # 3

Slide 12: Fundamentals of design thinking approach # 4

Slide 13: Fundamentals of design thinking approach # 5

Slide 14: Main stages of the process

Slide 15: Design thinking is not copy thinking

Slide 16: Design thinking value #1

Slide 17: Design thinking value #2

Slide 18: Product/service vs design

Slide 19: Design questions

Slide 20: Design challenges

Slide 21: COVER STORY

Exercise 1 : COVER STORY

Slide 22: Stakeholders

Slide 23: Stakeholder map

Slide 24: STAKEHOLDERS MAP

Exercise 2 : STAKEHOLDERS MAP

Slide 25: Customer perspective

Slide 26-27: Persona - 1

Slide 28: Persona - 2

Slide 29: Persona - quote

Slide 30: PERSONA

Exercise 3 : PERSONA

Slide 31: Value Proposition

Slide 33: VALUE PROPOSITION

Exercise 4 : VALUE PROPOSITION

Slide 34: Customer Journey

Slide 35: Natural paths

Slide 36: Experience and emotions

Slide 37: Touch-points

Slide 38: CUSTOMER JOURNEY

Exercise 5 : CUSTOMER JOURNEY

Slide 39: How might we...?

Slide 40: Example

Slide 41: HOW MIGHT WE...?

Exercise 6: HOW MIGHT WE...?

Slide 42: Summary - Day 1

Slide 43: Creativity.

Slide 44: Creativity - quote

Slide 45: Stages of ideation phase

Slide 46: Creativity as a part of organizational culture

Slide 47: Phases of creative process

Slide 48: CASE #1

Slide 49: CASE #2

Slide 50: CASE #3

Slide 51: ANALOGY

Exercise 7 : ANALOGY

Slide 52: CREATIVE MATRIX

Exercise 8: CREATIVE MATRIX

Slide 53: SELECTING IDEAS

Exercise 9 : SELECTING IDEAS

Slide 54: Prototyping

Slide 55: Prototyping - definition

Slide 56: Why do we prototype?

Slide 57: Prototyping principles

Slide 58: Examples of prototyping methods

Slide 59: Service origami

Slide 60: Paper prototype

Slide 61: Storyboard

Slide 62: Roleplaying

Slide 63: Movies

Slide 64: Storyboard

Exercise 10 : STORYBOARD

Slide 65: Testing

Exercise 11 : TESTING

Slide 66: Thank you