WASTE MANAGEMENT

WORKING IN WASTE MANAGEMENT SECTOR

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SOUTH BALTIC BRIDGE

FOR GREEN TECH FUTURE!

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She is looking for solutions that allow to achieve the goals of the organization and respond to the real needs of users.

Using the service design approach, she designed solutions for corporations, SMEs, public institutions and NGOs. The service design approach is also used to collect requirements for IT systems. Experienced moderator of processes and workshops based on service design and design thinking methodology.

Speaker at many conferences devoted to service design, including Element Talks, Experience Camp, World Usability Day, European Economic Forum.

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What is DESIGN THINKING ?

Design thinking is an approach that helps us to find a satisfying solution for wicked problems.

Wicked problems are the ones that:

- have many potential solutions

- engage many stakeholders

- are vague (we know that there is a problem, but we can't call it precisely)

Design thinking helps us to look for solutions systematically and support us with various tools.

Design is
as much about creation
as it is about exploration and analyzes.

The process is composed of five main stages:

EXPLORATION 1

LEARNING ABOUT THE CONTEXT, USERS. TRYING TO UNDERSTAND THE TOPIC DEEPLY WE WILL WORK ON

DEFINING THE DESIGN CHALLENGE 2

DECIDING WHAT EXACT PROBLEM WE NEED TO SOLVE TO HAVE AN IMPACT ON THE CURRENT SITUATION

IDEATION 3

GENERATING IDEAS THAT WILL SOLVE THE PROBLEM

PROTOTYPING 4

MAKING IDEAS TANGIBLE WITH LIMITED RESOURCES

TESTING 5

VALIDATING THE CONCEPTS WITH OTHERS

EXPLORATION

DEFINING THE PROBLEM

IDEATION

PROTOTYPING + TESTING

Design thinking is all about people, their needs, expectations. We try to discover them and find a way to answer them.

NOTE: IF YOU ALREADY HAVE A SOLUTION THEN YOU DON'T NEED TO GO THROUGH THE DESIGN THINKING PROCESS.

IT CAN BE HELPFUL IF THERE IS A CHANGE REQUIRED BUT YOU ARE STILL LOOKING FOR AN IDEA THAT WILL HELP YOU TO REACH IT.

DESIGN THINKING
in practice

DESIGN THINKING IS ABOUT DOING, EXPERIMENTING AND EXPLORING. WE SELECTED FOR YOU SOME TOOLS THAT WILL HELP YOU TO GO THROUGH THE PROCESS AND TAKE MOST OUT OF IT.

NOTE: DON'T WORK ALONE

DESIGN THINKING IS A COLLABORATIVE ACTIVITY. IT WORKS WHEN YOU HAVE PEOPLE WITH DIFFERENT EXPERIENCES AND PASSIONS AROUND YOU. THINK WHICH COLLEAGUES YOU CAN INVITE TO YOUR PROJECT.

USUALLY, PROJECT TEAMS HAVE FROM 4 TO 6 MEMBERS.

Defining the scope:

WASTE MANAGEMENT is an important theme. As you know, it is also very width. We believe that it is worth to use a design thinking approach to make small but meaningful changes in your closest community. Below you will find three topics that we believe are worth to consider while thinking about waste management:

- **WASTE SORTING:** What can we do to make more people sort waste at their houses, offices, schools?
- **LESS PLASTIC:** What can we do less plastic in our daily life?
- **CULTURE OF REUSING OBJECTS:** What can we do to encourage people to give a second life to items they don't want to use any more?

ACTIVITY:

DISCUSS WITH ALL TEAM MEMBERS IF ANY OF PRESENTED TOPICS ARE INTERESTING FOR YOU. IF YOU DON'T WANT TO WORK ON ANY OF THEM, THINK ABOUT OTHER ISSUE RELATED TO THE WASTE MANAGEMENT THAT YOU WOULD LIKE TO SPEND YOUR TIME AND ENERGY ON.

After you will decide about the topic, create o posters with your first associations with the issues. What comes to your mind when you think about it?

ACTIVITY:

It is usually tough to answer the question of what we want to achieve. To make it easier to use the "Cover story" [Annex No. 1] activity. Look at the prepared canvas. You can print it or rewrite on the bigger paper name of elements that you will be asked to fill in. Imagine that you implemented your project. You managed to reach all your goals. You have achieved great success. One of the most influential magazines about environmental issues wrote a cover story article about your project.

DESIGNING A NEW WORLD

DESIGNING THE CHANGE STARTS WITH THE DREAM OF HOW THE WORLD SHOULD LOOK LIKE. BEFORE WE BEGIN TO THINK ABOUT ACTIVITIES, WE NEEDTO DEFINE HOW WE WANT TO CHANGE THE CURRENT SITUATION. THIS PERSPECTIVE HELPS TO COME WITH MORE EXCITING IDEAS AND OPEN OUR MINDS FOR NEW SOLUTIONS.

What will readers find out in the text?

WHAT IS THE TITLE OF THE ARTICLE

Take your time to prepare a cover story and enjoy the process of preparing the article. Work on it together will all team members. It is crucial that all of you will have the same vision what change you want to make.

When your cover story is ready, look at it and write down what should change to make presented vision real e.g., simplify the rules of waste segregation, restaurants engagement in making the change (not using plastic sticks, cups, etc.).

WHAT

- ESSENTIAL
- FACTS
- WILL BE
- LISTED

Whose quotes will be used and what they will be about?

WHAT INTERESTING NUMBERS ABOUT THE PROCESS WILL BE HIGHLIGHTED?

123

BEFORE SOLVING THE PROBLEM, YOU NEED TO LEARN ABOUT IT.

DISCOVERY

BEFORE SOLVING THE PROBLEM, YOU NEED TO LEARN ABOUT IT.

WE NEED TO IMMERSE IN THE TOPIC, UNDERSTAND DIFFERENT ASPECTS OF IT. OUR DISCOVERY PHASE WILL BE COMPOSED OF THREE MAIN STAGES:

- GENERAL INFORMATION
- SURROUNDING
- USERS

General information:

Let's start with the big picture of the topic. We need to learn a bit more about waste management.

Narrow your exploration to the theme you will work on e.g., less plastic in daily life, etc.

ACTIVITY:

EACH MEMBER OF YOUR GROUP SHOULD FIND AND READ SOME ARTICLES ABOUT THE SUBJECT. TRY TO FIND SOME CASE STUDIES THAT PRESENT HOW DIFFERENT COMMUNITIES, INSTITUTIONS WERE IMPLEMENTING CHANGES RELATED TO YOUR TOPIC. WRITE DOWN ESSENTIAL AND INTERESTING FACTS. SHARE YOUR NOTES WITH OTHER MEMBERS OF YOUR TEAM. PREPARE TOGETHER THE POSTER NOT TO LOSE ANY CRITICAL PIECE OF INFORMATION.

SURROUNDING

Identify what places, institutions, are related to the scope of your projects, who may have an impact on it.

LOOK ONCE MORE ON YOUR "COVER STORY"
AND DECIDE WHO WILL BE ENGAGED IN THE CHANGE.

ACTIVITY:

CREATE A LIST OF ORGANIZATION, INSTITUTIONS, TYPE OF USERS THAT NEED TO BE ENGAGED IN THE CHANGE.

SPLIT THEM INTO THREE GROUPS:

- CRUCIAL FOR THE PROJECT ✱
- IMPORTANT ●
- LESS IMPORTANT ○

USERS

Last but not least, think about people

WHO WILL BENEFIT FROM YOUR SOLUTION? FOR WHOM YOU ARE DESIGNING IT?

When we create solutions, we need to define what problems we solve and who has them. Even if you think that everyone can benefit out of your answer, decide for whom you will dedicate it in the first place.

Understanding users are crucial for our process.

At the beginning of your decision process, take a look at the effect of your work, and see what users type were selected as a crucial one. You should concentrate your design process on them.

It may also happen that there were no chosen users as critical stakeholders - just institutions. Then spend some time in your group and try to find an answer on a question: For whom we should design our solution. Name 1 or 2 groups.

ACTIVITY:

PREPARE THE PERSONA [ANNEX NO. 2] USING THE PREPARED CANVAS. PERSONA IS A WAY TO PRESENT AND COMMUNICATE TO OTHERS EASILY FOR WHOM YOU ARE DESIGNING FOR.

After you have prepared the person, there is a tricky part. While filling in the canvas, you have written down your impressions. Now you should meet with people who fit in the profile.

MEET WITH PEOPLE WHO FIT IN THE PROFILE: E.G. STUDENT OF YOUR HIGH-SCHOOL WHO DOESN'T SEGREGATE WASTE, RESTAURANT OWNERS WHO ARE USING PLASTIC CUPS, TEACHERS ENGAGED IN, ETC.

DURING THE MEETINGS, YOU SHOULD LEARN WHY THEY BEHAVE THAT WAY? WHY THE THEME IS OR ISN'T ESSENTIAL FOR THEM.

Before the meeting prepare the list of a few questions, you want to ask. Don't ask if, but rather: WHY, HOW.

Give them a chance to tell you their story...

You should meet with around six people who fit into your profile.

6x

NOTE:

DON'T EDUCATE OR CORRECT ANYONE DURING YOUR MEETING, TRY TO UNDERSTAND. DON'T JUDGE ANYONE'S BEHAVIOR.

THE INTERNET CAN ALSO BE A VALUABLE SOURCE OF INFORMATION ON OUR TOPIC. YOU CAN FIND GROUPS ON SOCIAL MEDIA, COMMENTS UNDER ARTICLES RELATED TO THE PROBLEM, CHECK WHAT PHOTOS PEOPLE PUBLISH ADDING HASHTAGS RELATED TO THE TOPIC. COLLECTING THIS DATA, YOU MAY LEARN ABOUT OTHERS POINT OF VIEW, LEARN WHAT WAKES PEOPLES EMOTIONS.

Very often we came with great ideas that don't solve any problems, and as a result, no one want to use them.
We want to avoid this situation. Thus we define the challenge after we have learned about our users' needs.

Defining

THE DESIGN CHALLENGE

THE DESIGN CHALLENGE IS USUALLY DEFINED IN THE FORM OF THE QUESTION:

How might we help ...(WHO)... in ...(WHAT)..., so that ...(EFFECT)...?

WHO:

WRITE DOWN WHAT GROUPS YOUR PERSONA REPRESENTS

WHAT:

WHAT PROBLEM OF OUR PERSONA WE WANT TO SOLVE

EFFECT:

WHAT IS THE EXPECTED OUTCOME OF THE SOLUTION

EXAMPLE:

How might we help students in waste segregation so that they won't avoid it, perceive it as fun?

How might we help young people in DIY activities so that they will be more eager to reuse their clothes etc.?

ACTIVITY:

WRITE DOWN YOUR DESIGN CHALLENGE. KEEP IN MIND THAT THE HARDEST PART IS NOT TO MAKE THE

CHALLENGE TOO WIDE EITHER TOO NARROW. IT NEEDS TO BE SPECIFIC, BUT WHEN YOU THINK ABOUT IT AT LEAST A FEW DIFFERENT IDEAS SHOULD COME TO YOUR MIND.

IDEATION

During the next stage of the process, you will have a chance to generate some ideas.

We will use two methods that will help you to find exciting solutions for your challenge.

Before you start, remember about fundamental rules of the ideation phase.

THERE ARE NO BAD IDEAS

WORK AS A TEAM
- INSPIRE EACH OTHER

DURING THE FIRST STAGE OF THE PROCESS DO NOT THINK IF IT'S PRACTICAL AND IMPLEMENTABLE

HAVE FUN !

ACTIVITY:

FIRST ACTIVITY WILL HELP US TO COME WITH AT LEAST 36 IDEAS. YOU WILL NEED STICKY NOTES AND PENCILS.

LOOK AT YOUR PERSONA/S. WRITE DOWN SIX VALUES/CHARACTERISTICS OF SOLUTIONS THAT ARE IMPORTANT TO THEM. EACH VALUE SHOULD BE WRITTEN AT A SEPARATE STICKY NOTE. EVEN IF YOU HAVE TWO PERSONA PROFILES, ALL IN ALL, WRITE DOWN JUST SIX ELEMENTS.

CREATIVE MATRIX

EXAMPLE :

FAMILY TIME, FUN, EASINESS, MODERN, TRADITION

NOW TAKE A LOOK AT YOUR TOPIC AND WRITE DOWN 6 RELATED ACTIVITIES

EXAMPLE :

REUSING CLOTHES: EXCHANGE, RENOVATION, LOOKING FOR IDEAS, SHARING RESULTS OF WORK WITH OTHERS ETC.

Organize your stick-notes in a way presented on a picture above. Write down ideas that are on the crossing of value and activity e.g., family time and exchange / family time and renovation, etc.

AT THIS STAGE, YOU DON'T NEED TO WORRY IF YOU WILL BE ABLE TO IMPLEMENT THE IDEA. HOWEVER, IT IS ESSENTIAL THAT YOU WILL WRITE DOWN A PRECISE IDEA. FOR A CONNECTION MODERN AND RENOVATION "RENOVATE IN A MODERN WAY" IS NOT A SOLUTION BUT "USING 3D PRINTERS IN THE RENOVATION PROCESS" ALREADY IS.

ACTIVITY:

NEXT ACTIVITY WILL HELP US TO GO BEYOND MOST COMMON IDEAS. WRITE DOWN THE SENTENCE ABOUT YOUR TOPIC: "SEGREGATING WASTE (PUT HERE CRUCIAL ELEMENT FROM YOUR TOPIC) IS AS ..."

WRITE AT LEAST 6 DIFFERENT ENDINGS OF THE SENTENCE.

ANALOGY

Segregating waste is...

EXAMPLE 1):

SEGREGATING WASTE IS AS: • TEST AT SCHOOL • SOLVING A PUZZLE RIDING A BIKE • etc ...

PICK THE TWO MOST INSPIRING ENDINGS OF THE SENTENCE. TRY TO FIND TWO THAT ARE NOT SIMILAR TO EACH OTHER. THEN WRITE DOWN FIVE ADDITIONAL INFORMATION ABOUT EACH SELECTED ELEMENT. ALL NEED TO BE POSITIVE OR NEUTRAL.

EXAMPLE 2):

TEST AT SCHOOL • THERE IS ONE GOOD ANSWER FOR EACH QUESTION • REQUIRES MATERIALS SUCH AS BOOKS, NOTES TO BE PREPARED • IF YOU ARE WELL PREPARED YOU GET A REWARD ETC.

LAST PART OF THE ACTIVITY IS THE HARDEST BUT ALSO THE MOST SATISFYING ONE. TAKE EACH ELEMENT OF THE DESCRIPTION AND TRANSFORM IT INTO THE SOLUTION FOR OUR MAIN TOPIC. TRY TO TRANSFORM ALL ELEMENTS. IF YOU HAVE MORE THAN ONE IDEA, WRITE ALL OF THEM.

EXAMPLE 3):

IF YOU ARE WELL PREPARED YOU GET A REWARD —> STUDENTS WHO WILL SEGREGATE WASTE IN THEIR CLASS PROPERLY CAN WIN A TRIP FOR THE WHOLE CLASS TO A LOCAL MUSEUM

SELECT IDEAS

It finally comes the time to select ideas we will further develop. We will choose those that have the biggest potential. What does it mean? Of course, in different projects, you can decide to concentrate on various criteria. In our case, we will focus on two aspects: if we solve the problem, you have defined and do we answer user needs.

1 *ideas we concentrate on and further develop*

2 *ideas that should be implemented as it is easy to imagine how they should work and no creative brainstormis needed to clarify them*

3 *ideas we can come back to after circumstances will change, and resources will be more available*

4 *we cross out those ideas from our list*

ACTIVITY:

LOOK AT IDEAS FROM TWO ACTIVITIES. ORGANIZE THEM USING A CHART BELOW.

PROTOTYPE

Probably at this stage of your work the idea is very general.

Example: organize a contest in the school about waste segregation

Everyone who will read it may have a completely different concept of how it should work. Prototyping will help us to develop the idea and have a common understanding of it.

PROTOTYPING IS ABOUT DOING NOT TALKING, SO TAKE THE MATERIALS YOU HAVE NEXT TO YOU AND TRY TO MAKE A BOARD GAME AS YOU SEE IT, PREPARE THE POSTER THAT COULD PROMOTE THE EVENT, ETC.

ACTIVITY:

LOOK AT EXAMPLES OF PROTOTYPE [ANNEX NO. 3] AND PREPARE A PROTOTYPE OF YOUR SOLUTION

TESTING

Problem with the ideas is that we easily **fall in love** with them. That's why to minimize the risk that we will be only one who will enjoy them, we need to validate it with others.

ACTIVITY:

PREPARE A LIST OF PEOPLE WHO CAN GIVE YOU MEANINGFUL FEEDBACK TO YOUR IDEA, FOR INSTANCE, EXPERTS IN THE WASTE MANAGEMENT FIELD. REMEMBER THAT WHOSE FOR WHOM THE SOLUTION IS DEDICATED NEED TO BE PERCEIVED AS EXPERTS AS WELL, AS THEY ARE THE ONLY ONE WHO CAN TELL YOU IF YOUR SOLUTION ANSWERS THEIR NEEDS.

The hardest thing in testing is not trying to sell your idea. While testing, WE NEED TO LISTEN, not convincing that our solution is right.

TESTING USUALLY IS COMPOSED OF THE FOLLOWING PARTS:

PROTOTYPE PRESENTATION

(if it's possible don't explain how your prototype works, give people a chance to interact with it)

COLLECTING GENERAL OPINION

(what our testers liked about the idea and what they didn't)

ASKING QUESTIONS ABOUT PARTICULAR ELEMENTS OF THE SOLUTION

(especially the one that are still vague, or wakes up a lot of emotions in your team)

Plan your testing and fill in prepared form.

CELEBRATION AND IMPLEMENTATION

CONGRATULATION!

You have just finished your first process using a design thinking approach.

If you won't be able to implement the idea by yourself, think who may help.

Look at the institutions you mapped when discovering the surrounding and try to set up the meeting when you can present your concept.