MODULE I DESIGN THINKING KICK-OFF

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GENERAL OBJECTIVE

Design Thinking is an approach used for creating new products and services based on a deep understanding of the problems and needs of users. The process is based on the assumption that it is focused on the user in order to an in-depth understanding of his conscious and unconscious needs. Moreover, it refers to creative collaboration - looking at the problem from many perspectives, looking for new solutions, going beyond the usual patterns. It also focuses on experimenting and testing hypotheses - building prototypes and collecting feedback from users frequently. This module introduces the design thinking process, explains its assumptions and shortly describes the phases of this process. It aims to give a general overview of the Design Thinking process and its manner of use, so as to facilitate the use of the whole handbook. In the document, hints and guidelines for other teams using the handbook are included. Also, potential barriers of relevance to the proposed solutions and proposed ways to overcome them are identified and assessed.

SUMMARY

The Guide details the process of planning and organizing sessions of Design Thinking. It includes the ideas of topics and questions for each, scenarios and plans for participants and suggestions for actions, ideas for learning from other organizations and organizing sessions outside the workplace. The guide also consists of additional sections, includes useful sources, templates, etc. The idea is to support the team in thinking outside the box, changing the mindset from innovation as a technology-related concept to exploring the idea of innovation in the workplace. The handbook is prepared in an easy-to-use and attractive way. This clear and simple structure allows users to focus on the content. Having in mind replicability, it is developed in line with graphic design rules.

CONCEPTUAL MAP





Chapter 1 Methodology and Mindset

WHAT IS DESIGN THINKING?

Design Thinking is a human-based approach to innovation that aims to establish creative ideas and effective business models by focusing on the needs of people. The basic idea behind design thinking is that you apply the approaches and methods of designers to the development of innovations (*DESIGN*) while also engaging in a systematic, fact-based analysis of the feasibility and economic viability of these innovations — just like what a researcher does (*THINKING*).

Designers start with their **customers' problems or wishes** and consider them from the perspective of their target users. With this knowledge, designers develop the first useroriented ideas, visualize their creative solutions at an early stage, and then design prototypes. They quickly request their customers' feedback and change their concept on this basis. Step by step, the designers approach the best solution for their target users.



In design thinking, it is important to keep the **5Ps** in mind:

- »» Practices: You apply proven methods from various disciplines, such as design, market research, ethnology, psychology, engineering sciences, and strategic management.
- »» People: You assemble a team that contributes different competencies and perspectives.
- »» Principles: You follow principles that determine the team's approach and position — mindset, in other words — and that serves as a guideline for the team's collaboration.
- »» Processes: You're flexible and you handle the different work and decisionmaking processes in an agile manner.
- »» **Places**: You offer places for a group and individual work that encourage creativity and also enable focused work.

THE MINDSET

"If your mindset is unprejudiced...it is open to everything. In the beginner's mind, there are many possibilities, but in the expert's mind there are few." – Shunryu Suzuki

The Beginner's Mind

Assume a beginner's mindset in order to put aside biases and approach a design challenge with fresh eyes - without your own experiences, expertise, beliefs, preconceived notions, etc.

How to assume a begginer's mindset?

- Don't judge •
- Question everything
- Fail early on and often; learn • quickly
- Be truly curious •
- Find patterns
- Free of expectations about what • will happen
- Listen



The mindset and success factors are crucial because each makes us capable of acting and helps us pose the right questions. It is the small changes in our mindset that enable us to pose questions differently and look at problems from other points of view.

From the user's point of view

The focus on **human beings** and the **potential users** of a solution is another key element of design thinking. Then there are the questions of feasibility and economic viability. This balancing act usually accompanies us to the final prototype and often beyond it. Successful innovations therefore evolve from the needs of the customer/user (**desirability**), a solution that is profitable (**viability**), and technical implementabil it (**feasibility**).

"Design thinking is a human-centred approach to innovation that draws from the designer's toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success." —Tim Brown, president and CEO of IDEO



Figure 1 Retrieved from the book "The Design Thinking Toolbox – A Guide to Mastering the most popular and valuable innovation methods" by Lewrick M., Link P., and Leifer L. (2020)

WHAT CAN WE DO WITH DESIGN THINKING?

Design Thinking supports you in your creative work regardless of whether your question deals with a big or small problem, and it provides you with possible solutions. The approach can be used for all kinds of questions. These might be new products, services, business models, or social and organizational concepts.

Developing new products Difficulties arise when we have to recognize the right application areas of technologies to present the greatest benefit for a large number of people. We have to know who might be the product's target users and which of your potential customers' needs you might satisfy. Design thinking can help find applications that promise success.

Service innovations involve changes in how the services are delivered. The potential for service innovations is often underestimated. Services involve particularly in-depth exchanges with customers so that a human-based approach like design thinking can offer numerous ideas when it comes to improving and redesigning services.

Creating new services

Establishing a culture of innovation Some companies continue to achieve competitive advantages through the agile, creative, and flexible recognition and utilization of entrepreneurial opportunities. These companies have a culture of innovation that promotes their employees' creativity and successfully turns into new products, services, processes, or business models. With these principles and approaches, they set the foundation for a corporate culture that **promotes innovation**.

Social innovations are solutions for social problems and challenges that aren't driven by the goal of making profits. Design thinking starts with the problems and wishes of people and makes them the top priority. The solution can be a product or a service.

Designing social and organizational innovations



Chapter 2 The 5 phases

THE 5 PHASES

A brief resume



Figure 2 Retrieved from the book "Design Thinking For Dummies" by Müller-Roterberg C. (2020)



EMPATHISE

UNDERSTAND AND OBSERVE THE WORLD AROUND YOU

DESCRIPTION

Empathy is the foundation of human-centred design. The problems you're trying to solve are rarely your own, they're those of particular users. Build empathy for your users by learning their values.

In the first phase of Design Thinking, we want to learn more about the **potential user**, his/her needs, and the tasks that he/she must complete. At the same time, we define the creative framework more exactly, for which we want to design solutions. Also, we need to think about the way we work now, and the way we want to work in the "future".



1. Observe how users interact with their environment. Capture quotes, behaviours and other notes that reflect their experience. Watching users gives clues as to what they think and feel—what they need.

2. Engage users directly—interact with and interview them. Engaging users reveals deeper insights into their beliefs and values.

3. Immerse yourself in your users' experience. Find (or create if necessary) ways to immerse yourself in specific environments to understand first hand who you're designing for.

DEFINE

DEFINE THE PROBLEM & CHALLENGE STATEMENT

DESCRIPTION

After you understand and observe the challenge, based on qualitative and quantitative data that you have gathered during the first phase, you can define your specific problem. This is probably one of the most challenging phases of the Design Thinking process, as in order to define a challenge, you need to synthesize and arrange your observations that you have made during the Emphasize stage.

A proper problem statement will remarkably improve your whole Design Thinking process and results - guide you and provide a focus on precise needs that you uncovered. Also, a good problem statement is crucial to initiate the third phase (the ideate phase) in the right direction.

To define the problem, answer 4 questions:



IDEATE

GENERATE AS MANY IDEAS AS POSSIBLE

DESCRIPTION

If you have developed your POV, it's a good time to start ideating. Knowing what challenges needed to be solved, you can finally start to imagine solutions. Ideate is the phase that requires creativity and innovation, as it represents a process of "going wide". It is an exciting phase that requires looking beyond the usual methods.

During the ideation phase, by using creative activities such as brainstorms or sketching, you come up with ideas in the form of questions and solutions. Importantly, the ideation phase aims to generate as many ideas of solutions as possible (without prejudice and stereotypes), that you can filter later.

"At this stage, the focus is on the number of ideas rather than quality. The main aim of an ideation session is to uncover and explore new angles and avenues—to think outside the box."

A successful ideation session:

- Introduce a change of scenery move your session to a new environment.
- Create a relaxed environment.
- Use what you've learned from the Empathise and Define stages.

PROTOTYPE

CREATE A PROTOTYPE OF THE IDEA AND GET FEEDBACK

DESCRIPTION

Once you have finished the ideation phase, the next step is to review the inventory of ideas and choose the most accurate one. These are the ideas you'll use in the prototype phase. This phase involves producing an early version of the product in order to navigate problems with the current design. It's important to be judicious in your selection of ideas and select the right amount of them because you will need to create a prototype of each one. Prototyping aims to look at your ideas profoundly, so you can get an impression of how they will "behave" in reality. Prototypes aren't always tangible items. It is just as important to prototype a service, experience, process, or other intangible.

The building of prototypes helps us to test our ideas and potential solutions, quickly and without risk, with our potential users/clients (or even with ourselves!). To build a prototype, we use simple materials that are good enough to test a function or an experience! It may help to build a story around the prototype to make it easier to explain in context.

Remember that prototypes are supposed to be quick and easy to test design solutions. It is important that you:

- Start building.
- Don't spend too much time on prototyping the ideas.
- Remember what you're testing for.
- Build with the potential user in mind.

TEST

TEST YOUR PROTOTYPE WITH REAL USERS/CLIENTS

DESCRIPTION

The next step is to "go out" with your idea and test the prototype with users to gather feedback on it. This feedback will be the basis for further adjustments. The test of the respective prototype takes place in the interaction with a potential user/client. You need to know how users feel and think about it and learn how they interact with the prototype.

This means that we not only receive feedback on the prototype but also refine our view of the problem and the user. Testing is a fundamental part of the Design Thinking process. It allows to gain inspiration, eliminates errors and be guided. Testing provides important evidence of intuition and helps to alter products and services where required.



Planning a test: