Thrive! Entrepreneurial skills as solid base for a future in the Creative Industry

Module 1

Starters / Young Entrepreneurs

Student manual

The "Thrive! Entrepreneurial skills as solid base for a future in the Creative Industry" project has as central aim to support the (young) (female) entrepreneurs and companies and its employees in the creative sector to go through a transformation and innovation process that is necessary to survive the present times and to become a company with a sustainable business case.

This project has been funded with support from the European Commission. This publication reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

The project partners within this program are:

Contact address:

Stivako
Boeingavenue 207
1119 PD Schiphol-Rijk
The Netherlands
tel. +31 20 5435670
info@stivako.nl

Project website: www.thriveproject.eu

Table of Content

Course introduction

This course will introduce you to entrepreneurship and design thinking. You will be grouped in teams, and together with your team, you will solve a problem by a client.

The course is divided into eight modules. Each of them comes with a syllabus chapter, providing you with with background information, and with links to additional materials (web articles, videos, etc.). Each module also contains practical assignments that you and your team members will work on.

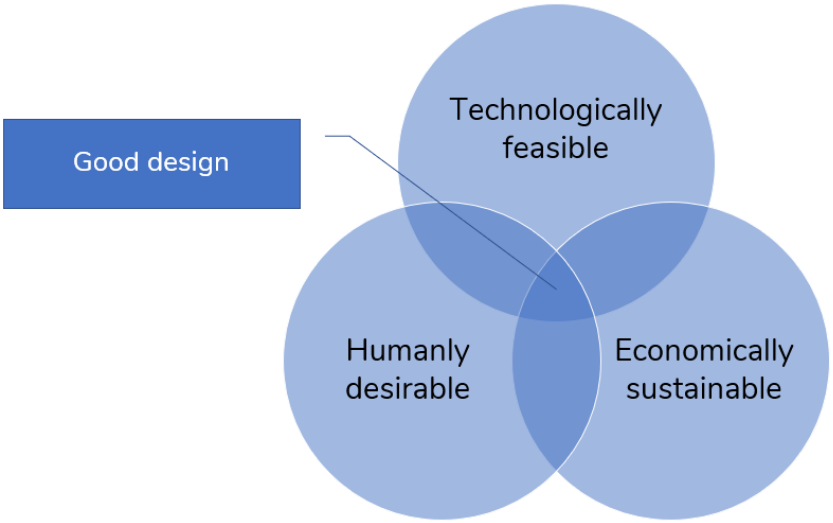
The course contents are as follows:

1. **Introduction to human-centered design to tackle wicked problems.** This introductory module will introduce you to our methodology. It will teach you the theoretical methodology of human-centered design, which you will use throughout the course. Furthermore, it will explain you what wicked problems are, and how human-centered design can help you to tackle those problems.
2. **Division of labour: team composition and complementarity.** During this course, you will work in a team. Get to know your team mates, and learn what their strengths and expertise are. You will also analyse which competences are absent in your team, and how you will deal with this.
3. **Client introduction and problem briefing.** During the course you will work on a wicked problem, presented by a real client. You will learn to prepare yourself for a briefing to relevant questions, and to make a planning based on a client's briefing.
4. **Finding the problem (discover and define).** You will quickly discover that most problems are not what they initially appear to be. Via a process of divergence and convergence, you will analyse the problem and find its root causes to be tackled.
5. **Ethical and sustainable thinking.** You will learn about ethical and sustainable questions, focussed on the creative industries. You will apply the lessons learned on your own problem and potential solutions.
6. **Finding the solution: ideate and prototype.** You will brainstorm and develop multiple solutions through cheap prototypes, test them, and come up with the best solution.
7. **Motivation and perseverance.** You will learn about motivation and perseverance, both on a personal and a team level. Using the theory, you can reflect on the work performed in the past components.
8. **Implementation and presentation.** As the final module, you will work on creating a plan to implement your idea in practice and present your solution to the client.

1. Introduction to human-centered design to tackle wicked problems

During this course, you will, in a team, tackle a real-world problem put forward by a client. To do so, we will use a methodology called **human-centered design**. The rationale behind this methodology is that good design is built on three important elements:

- The design is **technically feasible**.
- The design is **economically sustainable**.
- And, most importantly, the design is **desired and adopted by its intended users**.



Good design is technologically feasible, economically sustainable, and -most importantly- desirable.

Human-Centered Design is a methodology to design products and services that hit this sweet spot of good design. We will do so by focussing on solutions that are *humanly desirable*. The following video by IDEO gives a short introduction to human-centered design.

- What is Human-Centered Design, by IDEO: https://www.youtube.com/watch?v=NBu1kkSCHfs

Perhaps you've heard about human-centered design before, perhaps not. But it's also possible that you've heard terms like *user-centered design*, *designing thinking* and *design research*. These are all design and/or research philosophies that are based on the same principles. So, we will follow the human-centered design methodology in this course, but if you encounter any of these other methodologies you will discover many similarities.

HCD mindset

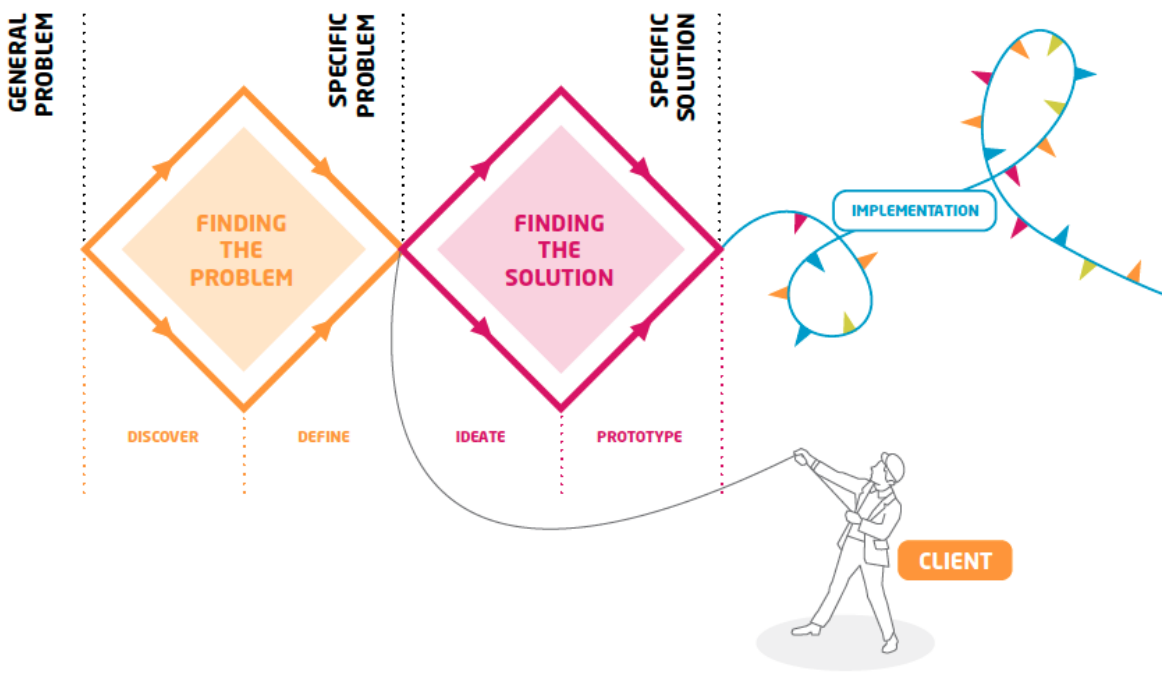
Human-centered design requires a certain mindset. Below are eight statements, that we need you and your team mates to subscribe to. Please study them carefully and discuss them with your team to see if you all agree.

1. **Everybody is creative!** Regardless of whether you have a design background or something that is traditionally seen as less creative, please be aware that everyone is a creative being, even you. We were all creative as kids, so you must still have this skill somewhere in you. Creativity comes in many forms: some are very good at drawing or building things, while others are creative in developing ideas or applying existing concepts in new ways. Find your creativity and utilise it. Build your *creative confidence*.
2. **Learn from the people** for whom you're designing. Don't always look at the world from your own perspective but empathise with the people you are designing for. New ideas don't come falling from the sky, but they are the result of insights, empathy and understanding of other people.
3. If you don't know an immediate solution to a problem, then **research it!** Solutions often require a certain insight. Don't make too many assumptions but test your hypotheses.
4. **Show, don't tell!** Words are ambiguous. When you want to discuss or show your idea, find ways to bring your ideas to live. Draw them, make a mock-up, do role-playing, make prototypes!
5. **Embrace ambiguity!** There is no one truth, nor is there only one right solution to a problem. In your journey, you will find conflicting information, and when you talk to people, they will tell you many different things. Accept that your end users are not homogeneous, they are personalities with differences. Sometimes it's better to develop a very good solution for a small subset of your user group than a mediocre solution for everyone.
6. **Failure is an opportunity for learning!** There's no harm in failing as long as you fail early and fail cheaply. So, go out and test ideas immediately before developing them. If you fail early and cheaply, it means you learned something, and you can close certain doors or pivot your idea to something better.
7. **Ask feedback!** Constantly. From early ideas to final solutions, your end users will indicate you what works and what doesn't. Don't take criticism personally but welcome it as opportunities for improvement.

- **Be optimistic!** There is no room for cynicism in human-centered design. Believe there is a solution for your problem somewhere, and keep on working towards it. Progression is always possible.

Methodology

The human-centered design methodology consists of three main phases: a double diamond and an implementation phase.



The double diamond and implementation. Source: Artevelde University College.

The two diamonds each consists of a phase of divergence and convergence. In the coming modules, you will walk through the diamonds in more detail, but here is a short overview:

- **Diamond 1: Finding the problem.** One problem with design is that we often jump to solutions to quickly. In the first diamond, you're only investigating the problem - we're not thinking about solutions yet. We're going to try to understand the users and find out what their problems really are. After all, often problems have underlying causes. You might think you're going to solve problem *x*, and find out along the way that the real problem to fix is *y*.
    - **Discover (divergence):** You're going to find out as much about the users and the problem as possible. Talk to people, observe them, try to really understand why they do things the way they do. Collect as much as possible.
    - **Define (convergence):** in this phase you're going to organise all the information you got into a limited amount of key problems you feel you need to tackle. Next, you're going to analyse these problems, and select one or a few you want to solve in the next diamond.
- **Diamond 2: Finding the solution.** Finally, you can start thinking about solutions in this phase! But thanks to the first diamond, your solutions will hopefully be more focussed towards the *real* problems that need solving.
    - **Ideate (divergence):** Time to be quantitative again! Try to come up with as many ideas as possible that might solve the problem. Nothing is too crazy or ambitious, selection happens in the next phase.

    - **Prototype (convergence):** You're going to select a few solutions that seem both ambitious and realistic. You're going to make quick prototypes to test with your users. You will find out that some solutions don't work in practice or need modifications. Learn and adopt! The idea is to cut down again and end up with only the best solutions.
- **Implementation.** We're not going to cover it in this course, but once you've found the best solutions, and you've tested them with real users, you can implement them. This means that you're going to turn them into real products, think about the business model, etc.

Additional information

- How to prototype a new business, IDEO.
- Desirability, Feasibility, Viability: The Sweet Spot for Innovation, Kristann Orton.

2. Division of labour: team composition and complementarity

Now that you know your teams, you need to define internal roles. This module will teach you to analyse both your technical skills needed for the assignment, as well as your personal soft skills. You will analyse which competences you lack in your team, and how you will deal when these competences will be required.

Beforehand

More and more we need to work in teams. The complexity of problems we try to solve asks for different disciplines, cultures and even race. The diversity on different levels, of a team brings added value into a team. Research shows that start-ups will grow faster when a good team is in place.[1]

What do we need in a team?

According to a study on Entrepreneurial teams three diversity aspects are important: (Zhou, 2015)

- **Demographic diversity**: Age (phase in life), gender, "tenure"
- **Personality diversity** according to the big five characteristics: openness, conscientiousness, extravert, agreeableness, emotional stability. Personal interests and lifestyle, values.
- **Informational diversity**: education, educational background, experience, competences, function.

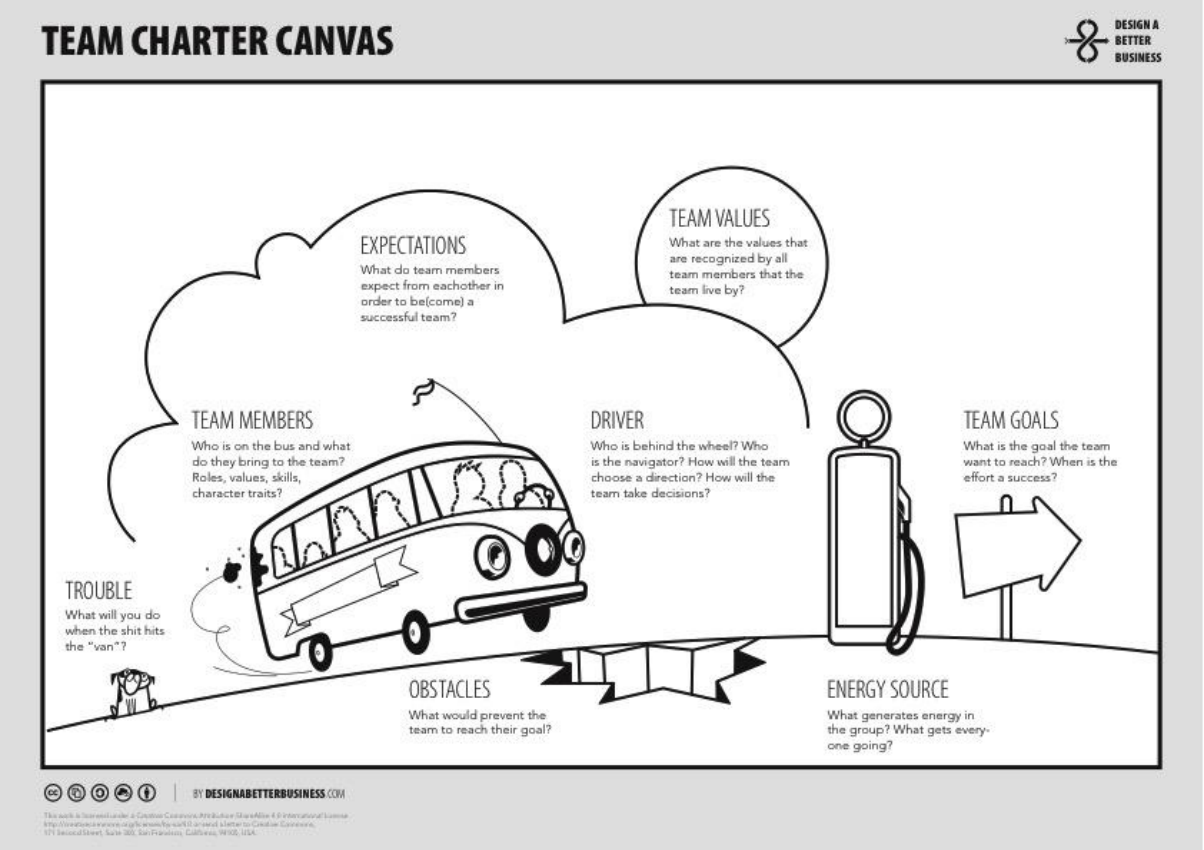
According to an MIT study, some teams are smarter, and we all know that, but what are the characteristics of teams that are smarter? [2]

> *"First, their members contributed more equally to the team's discussions, rather than letting one or two people dominate the group.*
>
> *Second, their members scored higher on a test called Reading the Mind in the Eyes, which measures how well people can read complex emotional states from images of faces with only the eyes visible.*
>
> *Finally, teams with more women outperformed teams with more men. Indeed, it appeared that it was not 'diversity' (having equal numbers of men and women) that mattered for a team's intelligence, but simply having more women. This last effect, however, was partly explained by the fact that women, on average, were better at 'mindreading' than men."*

There are several tools that can help you with the formation of your team and the division of roles, like the team charter and the network spin.

Team Charter

To work with the Team Charter[3], follow the exercise below. Arrange for a comfortable environment. Surely not a meeting room.



The team charter canvas.

Let everyone do a short introduction. The person speaking should be standing. Another way is to have everybody make one simple visual of who they are, what is important for them, and what they strive for. This is a great way to getting to know each other and for breaking the ice.

Checklist

- Arrange a relaxed, positive and private environment
- Have markers (fine tip) and paper for everybody
- Print or draw the canvas on a big sheet of paper
- Have plenty of sticky notes and markers ready
- Allow yourself 45-60 minutes of undisturbed time

Team members present themselves.

As mentioned, it is very important that everybody is introduced properly, that people know what everybody's expectations are (why they are in the room) and that there is a relaxed atmosphere.

Team members have to tell where they want to be on the bus

Ask every team member where they want to sit in the bus. If someone wants to sit in the driver's seat. That's great! More room for you as a facilitator to facilitate!

Individual

Individually people need to write on sticky notes what their expectations are (max. 3), what they see as obstacles (max. 3), their 1 most important value, and what will give them energy. Also, each should write down the most important value they want to add to the group.

A step back

Take a step back and discuss the values expectations, values, energy sources, and obstacles. Again, it is not a discussion about right or wrong, but about making sure they all can identify themselves with what is put on the charter. Either the team will come up with common input, or if not, the sum of the sticky notes is what the team represents.

Identifying common themes

When clustering the sticky notes per topic. Overarching themes may arise. This is great but should not be forced. Don't try to be too practical here as a facilitator.

Team goals

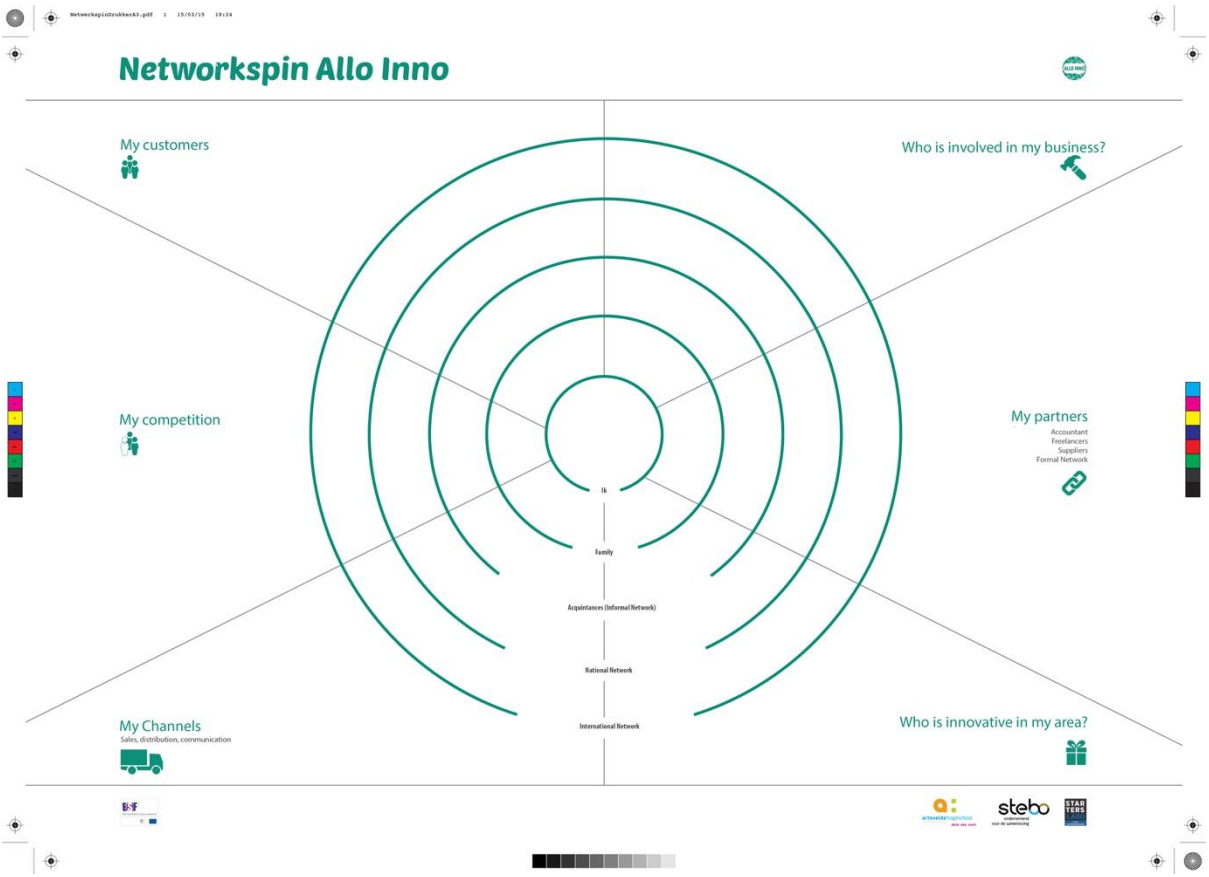
Now that everything is filled in an everybody recognizes themselves as an acknowledged and valued team member, let's fill in the team goals. The team should discuss and come up with a maximum of 3 goals. Make sure they are not all directly related to their functional goal.

The team contract

After the session is finished, have all team members sign the team charter canvas. It is their contract amongst each other to make the team successful.

Network spin

The network spin is developed within Artevelde University College, with funding from the ESF Allo Inno project. It allows you to map the network that your team already has, and that you would like to acquire.



The network spin

Each team member fills in his or her network. Networks are important to reach out to people who you **'really'** know. They can help and support you among your projects, startup and other things even outside your work they can be very important.

We start with the informal network, from family to friends. Then we map our professional network. The idea is that you really know the people, that means you can call them, you have their specifications to contact them.

You can use this tool to evaluate whether your network grew while working on your projects as an individual or as a team (before and after).

Entrecomp to measure soft skills

Entrecomp is an EU Framework on entrepreneurial competences.[4] You can also use it as a tool to measure your entrepreneurial soft skills set.[5] We work with soft skills to support entrepreneurs with their personal and professional growth. From previous research we detected the most important ones for an entrepreneur. (ESF Start2Go 2017-2018) Within these soft skills we can measure (from 'foundation' towards 'advanced') what the current status is and how the evolution or experience and improvement is when the project is finished.

3. Client introduction and project briefing

In this module, your will meet your 'client'. These clients are people or organisation, who based on their experience in the field, identify certain design challenges or opportunities for improvement.

Note that the clients are not necessarily the ones who experience the challenge or opportunity themselves; it could be that they see problems for other stakeholders they work with. For example, a law firm could provide a case based on the observation that vulnerable groups in society don't have access to legal representation. In this case, the members of the vulnerable groups are the users having the problems. Or a sector federation in the print industry could identify the need with many printing companies for more knowledge regarding sustainability. In this case, the target group of the problem are the printing companies, despite the sector federation being the client. But the client may not just bring challenges they see as problematic, they might bring an opportunity or ambition that they want to take advantage of or achieve as well.

Preparation

Just because the client will do the briefing, it doesn't mean that you can lean back in this module. Prepare for the briefing in the following ways.

Inform yourself

- Do you already know the client? Can you already find out — e.g., via an internet search or via your networks — what their business is, who their clients are, what kind of projects they do, how they profile themselves compared to their competitors, where they are located and conduct their business, etc.?
- Do you have knowledge on the sector of the client? Try to read up on some trends or current events in the sector of your client, for instance is specialist magazine or blogs.
- Do you have some information on the briefing already? Perhaps the teacher has provided you with a title or a short summary. Try to find out as much as you can beforehand.

Think about the information you need

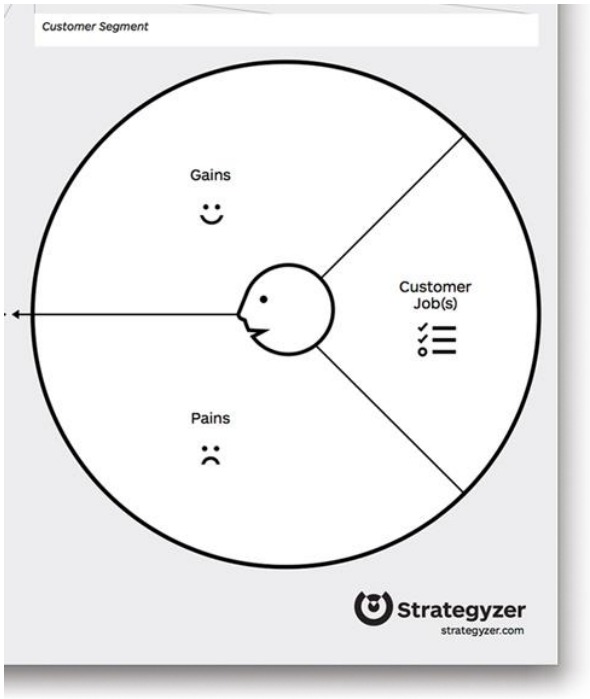
Apart from the knowledge above, you can probably already make a list of questions you would like to get answered during the briefing. Examples:

- What are the priorities for the client? Why do they want this project executed? What is in it for them?
- Via which channels and how intensely does the client wish to communicate? Will you have regular meetings?

- Are there any intermediate deadlines? What kind of (sub)products would the client like to see?
- Does the client already mention important stakeholders, and if so, can they provide you with contact details or initiate a meeting?
- Will the client provide you with documentation or other knowledge you need?
- Will you work in an open collaborative spirit, or does the client want the people you talk to sign non-disclosure agreements?
- Will the client provide a budget?

Analysis

When you analyse the briefing, the *Value Proposition Canvas* by Alexander Osterwalder might help you.



Part of the Value Proposition Canvas from Alexander Osterwalder (strategyzer.com).

This canvas allows you to analyse the value proposition you can create for the end user. Probably you can't fill in all the fields at this moment but treat this as a 'living document'. Try to fill it in now, and probably you will modify and extent it during the later modules.

Perhaps you are already familiar with the value proposition canvas. In that case you might notice something odd. The figure above only shows half of the canvas. Since we're applying a *Human-Centered Design* process, first we're going to concern ourselves with understanding the problem thoroughly, before thinking about solutions. Since the other half of the value proposition canvas is about solutions, we can skip that until module 6.

Start from the perspective of your end user. Note that this is not necessarily the client – perhaps they created a briefing with a problem of a different group. Fill in your end user under *Customer Segment*. If you think you have multiple end users or customer segments, or if you're unsure at this point, feel free to create multiple canvasses.

Under *Customer Job(s)*, try to list all the activities your end users concern themselves with on a typical day. During module 4 (the empathising stage) you will get to know your users much more in depth but try to already make a start here.

When the end users are busy executing these activities, they might run into certain problems. E.g., they lack certain information, and certain actions are very frustrating to them. These are the *pains* your users encounter. These are not literal pains, but it's stuff that annoys them, costs them time, etcetera. List them here. All these pains are inspiration for your team to find good problems to solve.

Next to pains, your users can also see *gains*. These are not problems as such, but they are things that would make their life easier or more pleasant. What would make them smile, or make their day?

Now you have an initial idea about your end users, their work, their frustrations and their wishes. In the next module, we are going to refine this.

Additional information

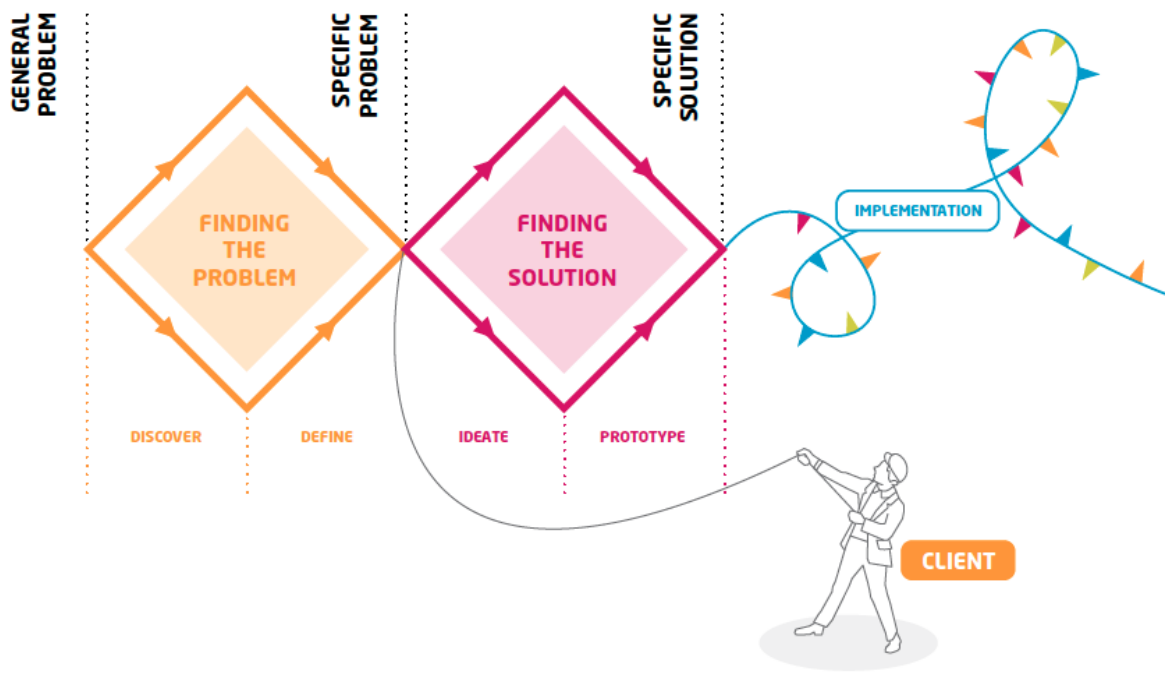
- Value Proposition Design, talk by Alexander Osterwalder on Youtube. https://www.youtube.com/watch?v=b_X18bmpHaw.
- From first sketch to the final success, keynote talk by Dennis Lück (JungvMatt), amongst others how he creatively (re)interprets client briefings. Recorded for the Erasmus+ project Commercialpolis. https://vimeo.com/292928027.

4. Finding the problem

Your client has presented you with a general problem or opportunity in their briefing. Probably you've analysed by now who the target audience is (the 'problem owners'), but that doesn't mean you completely understand the problem, let alone your target audience. In this module, you will *empathise* with them in order to better understand their needs, wishes, desires, etc.

One of the key concepts of human-centered design, is that instead of *designing the thing right*, you want to *design the right thing*. The first diamond should take care of this.

We will do this in two phases. First will diverge (the *discover* phase), and then we'll converge (the *define* phase) in order to arrive at a specific key problem. That means we'll work through the first of the two diamonds, in the figure below.



When we're finding the problem, we're not thinking about solutions yet. This might be difficult or awkward initially but try to refrain from already bringing possible solutions forward. This phase is just about understanding. Don't try to fix things yet, we'll deal with that later.

Since this is a very important and time-consuming exercise, you have two modules time to work on this. Module 5 will be mostly theoretical, so you can use the working time of the next module to work on the define-phase.

Discover

The goal of the discover phase is to completely immersive yourself in the topic space of your problem. That means you will do research, you will investigate. The aim is to get as much information as possible – we'll deal with selecting the most relevant information later.

You can get information from your target audience directly but try to also think broader then that. Investigate their environment, their working or living conditions, learn what experts have to say on the topic, etcetera.

How to find inspiration

There are several methods to find inspiration. Here we will introduce for of them, but this list is not exhaustive.

Talk to people

Meet people and talk to them. Try to understand them completely. These people can be the target audience of your

general problem, but it can also be people they interact with.

Try to find methods that both you and the people you're talking to find comfortable. This can be standard interviews, but later, we'll provide some more creative options as well.

Talk to experts

Apart from the people you're designing for, you can also talk to experts. The big difference is that with the first group, you try to *empathise*, to understand their world and their lives. When you're talking to expert, the focus is not on personal experience, but rather about the professional expertise of the person. People will talk about their own lives and provide you with valuable anectodical clues, whereas experts will provide you with research, numbers and trends. Experts can be researchers, but also policy makers, managers, journalists, etc.

Immersion

Apart from talking, you can also empathise by experiencing things yourself. Immersion means you try to (re)live the experience of the target audience. Are you working on an educational problem for students? Try to attend one of their classes to see what the experience is like. Designing for prison inmates? Apart from talking to them, see if you can get the full experience by spending some hours in cell. Or if your client is a direct marketing printer promoting a leisure centre, go along and try the leisure centre and speak to other guests. This will allow you to create a much deeper understanding of the people you're designing for as might experience some of their emotions.

Analogous inspiration

Apart from experiencing the real thing, you can also look at similar situations and find inspiration in how these people deal with similar problems. When designing an operating theatre where medical professionals work under great stress and time pressure you might find inspiration in Formula 1, where pit-stop teams work under a similar stress. When designing for youth movements where teams of adolescents need to make independent decisions, you might look at how leadership is dealt with in the military for inspiration. Of course, this doesn't mean you can or need to copy solutions one-on-one, after all, it is only inspiration.

Who to learn from

The next question is who you can learn from. You can look for typical users, but sometimes you can also make more interesting choices. When trying to develop something for a broad audience, average or typical users can be a good choice. Outliers, however, can be very interesting, when you're interested in developing something for a niche. Who are the power users, the real fans, the people with special needs?

How to learn

People are complex beings. You might want to empathise with them because they perform a certain role (e.g., they are a 'student', or a 'surgeon') but they are more complex beings than that. They might also be a father, a musician, a football fan, a shy person, a diligent worker, etc., and this all has an impact on how they behave in their role. Try to understand the whole person.

For instance, try to understand what drives them. What are their values, needs, ambitions, …? If you want to learn their priorities, try to get insights into how they spend their money or time. For most people these a very scarce resources, so the way they spent them tells you a lot about what's really important to them.

Try to meet with people in a natural environment for them, like their home or their working place. This might mean more travel time for you, but it has several advantages. First of all, it is usually an environment where they feel comfortable and might share more. Second, once they are in the right environment, apart from telling you things, they can also show you. This helps you to understand them better.

And most importantly, people are the experts on their own lives. Try not to judge or steer. Just listen and learn.

Techniques

The most common way to empathise is by doing interviews. Preferably you do this face-to-face, but when this is not possible phone or online interviews might be an option. This might sound simple, but here are some tips:

- Try not to stick to your question list rigidly. If people venture into topics they want to talk about, encourage them and ask follow-up questions.
- Try to make a topic list of the most important things you want to discuss. This is your checklist to see if you covered everything that is essential.
- Try to think of some icebreakers to get the interview going or to introduce new topics.
- Make sure you can document the interview. Perhaps record it (always ask for permission) or ask someone else to come with you to take notes while you talk.
- Take pictures of people and places. This will help you do bring back memories later. Of course, always ask people beforehand if you can take their picture.
- If you work in large teams, feel free to split up, e.g., in groups of two, to do more interviews. The team members will learn about your interviews in the next phase.
- If you do interviews together with team members, divide the roles beforehand. Discuss who will take the lead in asking questions and who will take notes. This doesn't always have to be the same person but agree on this before every interview starts.

Apart from interviews with questions, there are other techniques as well that might suit you:

- *The five why's.* When a respondent tells you something, ask 'why?' When they give an answer, ask 'why?' again. Do this five times. You might recognise this as a way children learn to discover the world (and annoy their parents, so be careful when you use this technique), but it is also a very good way to dig deeper and really understand the motivations of people.
- *Draw it*. Sometimes a drawing tells you more than many words. Bring paper and pens, and let respondents draw what they mean.
- *Show me.* Similarly, instead of letting them explain certain procedures, ask them to show you. This way you can observe them and might miss details the respondents wouldn't have told you, for instance because it is too obvious to them (but not to an outsider).
- *Tell me about the last time*. When people talk about general procedures, they often forget about details and exceptions. Instead, ask them about the last time something happened and let them tell that story in detail. So, instead of asking shop staff how the return policy in their store is, ask them to tell about the last person who came to return certain items and how that went.
- *Superpowers*. To understand what skills and competences are important, ask people what superpower they would like for their job if they could choose. Mind reading? Encyclopaedic knowledge in their head? Having people immediately trust them? The answer tells you a lot about what really is important in their role.
- *Card sort.* Often people are kind and willing, and if you ask them 'is topic *x* important to you' they will often say 'yes'. To find out their true priorities, you can use a card sort. Just prepare several small cards with topics written on them and ask the respondent to sort them in a certain order. For instance, from most important to least important. Or from most difficult to least difficult. This will force them to make decisions and prioritise the items. You will gain even more insights if you ask them to think aloud while they do this.

Your discovery phase ends when you feel you have all the information you need. A common way to notice this, is the *saturation point*. When you're talking to more people, but you feel that everything they say is something you already heard before in a previous interview, you've reached the saturation point. There's no hard rule for this, normally you will know yourself if you feel confident with the amount of information you've got or not. If you don't do enough work in this face, it will make your job in the later phases more difficult, or you might discover later that you're designing the wrong solution.

Exercise

Go out and empathise with people to understand the general problem you will be designing for. Make a plan beforehand who you would like to interview, and how you will do it. Feel free to adapt your plan as you go along. Earlier interviews might give you inspirations for questions or methods to use in later interviews. Make sure you document everything.

Define

Where the discovery phase was about diverging, the define phase is about converging. You're going to bring all your information back and distil the most important information out of it. We'll do this in three steps:

1. Download the learning.
2. Find themes and insights.
3. Craft 'How might we…' questions.

Downloading the learnings

You probably have learned heaps during your empathising. This information is mostly in your head, and hopefully you also documented most of it. Especially if you work in teams, you might have not been present at all interviews. Therefore, we're going to 'download' the learnings, meaning that we download it all from your heads and notebooks into a space where the whole can access it.

To do this, you need a quiet place with your whole team present, and lots of paper (preferably flip-charts), post-its and markers.

Work through your interviews one by one. Take a big sheet of paper and put the name of the person on top. If you have a picture, attach it to the paper. One of the people present during the interview, preferably the interviewer or the note-taker, tells the story of the interview. Give as much details as possible, use pictures and drawings when needed. All other team members take post-its and pens, and as soon as they hear something they find interesting or significant, they quietly write it on a post-it. Write one idea or statement per post-it. Don't explain them yet, just listen and write. Stick the post-its on the big sheet for each interview and hang the sheets on visible places in the room.

Go through all the interviews this way: one person talking, all others writing post-its. At the end, your workspace should be full of sheets of paper with post-its.

Finding themes and insights

We now have a room full of papers and post-its. It's time to create some structure in them. One good way to do this is by organic clustering. Prepare by reading all the post-its, so you have a rough idea of which ideas are available. Also, make sure you have one wall or large table empty – this is your workspace for the organisation.

The next step is what we call 'gemming'. You're going through all the post-its individually, and each person can take the five ideas or statements they find the most important and bring

them into the workspace.[6] These are your gems. That doesn't mean that all other ideas are not important, but for the moment we're going to focus on these gems.

With the whole team, go over all the selected gems. Team members can explain in a few sentences why they selected that gem, if they want. As soon as everybody is ready, start organically clustering the gems. Move post-its so that similar ideas are hanging near each other. As soon as you see thematic clusters emerge, name them for everyone to hear, and write down the name (e.g., on a differently coloured post-it) to mark the cluster. Keep on clustering until you have around 5 or 7 themes. Make sure there's plenty of space, and the clusters are wide enough apart for the next step.

Now, once you have your clusters, go back to your original flipcharts with post-its and find ideas that fit into the clusters. Move them to the clusters as well. This way, out of the chaos of all your interviews, you've identified 5 to 7 important themes with a lot of ideas surrounding them.

All the post-its that do not end up in a cluster will be discarded for now. Don't throw them away, but we're not going to actively work with them anymore. Apparently, they are not important enough (otherwise they would have been picked as a gem) nor do they relate to one of the core themes (otherwise they would have been clustered).

Crafting 'How might we…' questions

Within the themes that were created by you and your theme, we're going to formulate 'How might we…' (HMW) questions. This is a question that starts with 'How might we…' Note that this formulation is intentionally positive. We're still talking about problems here, but we're slowly creating the bridge to working on solutions.

Look at your work so far and identify the most interesting themes and insights. For each of them, try to create a HMW question. This is turning challenges into opportunities for design. If one of your insights is that students don't have enough time to exercise as much as they would like, a good HMW question could be "How might we integrate exercising and sports in the existing daily routines of students?'

Make sure your HMW questions are not too narrow or broad. "A good HMW is like a faucet. A question that is too narrow only allows for a few ideas to pour out. But one that is too broad will feel unmanagable, like you're trying to fill the ocean. Your HMW should spark a steady stream of at least 5-10 ideas almost immediately." (IDEO DesignKit Facilitator's Guide, p. 52) If you feel your question is too narrow, ask yourself (and your team) "Why do we want this?" to get to a higher level. If you feel your question is too broad, ask yourself (and your team) "So, what's stopping us?" to get to more tangible challenges.

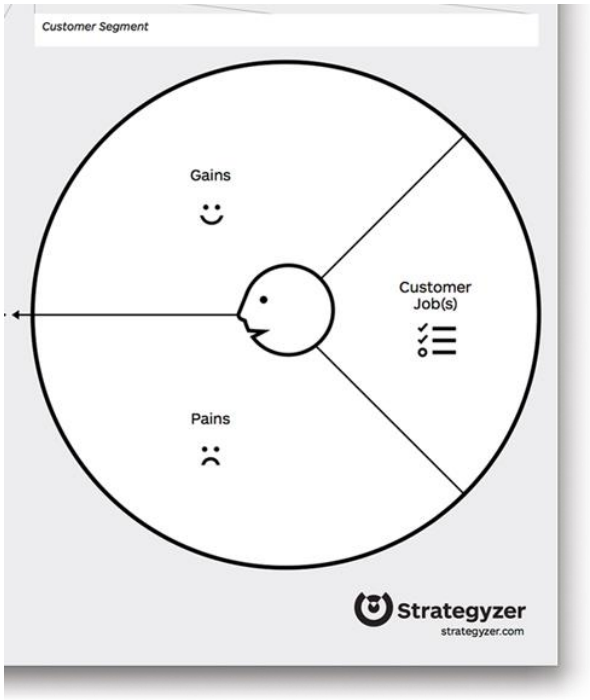
To end this phase, together with your team settle on one to three HMW questions that you will work on for the remainder of this course. We're not in the middle of the double diamond, where we have one to three specific yet relevant problems to tackle.

Exercise

With your team, apply the procedure described on your project so far. Try to arrive at one to three 'How might we' questions.

Analysis

After finishing this exercise, it might be good to bring back the *Value Proposition Canvas* by Alexander Osterwalder.



Part of the Value Proposition Canvas from Alexander Osterwalder (strategyzer.com).

You have already filled this in at the end of Module 3, but with your new insights you might want to update your model. In module 6, we'll expand this model.

5. Ethical and sustainable thinking

For this module, we present you with four themes that are relevant to the creative industries and entrepreneurship in the creative industries:

- Sustainability and ethics of paper
- Sustainability in product design
- Social design
- Ethics regarding AI and technology

Since these themes are rather short in this syllabus, we invite you to dive into the links in the 'additional information' section of the themes that interest you.

Sustainability and ethics of paper

In the public eye, paper is often seen as not ecological, as its production process requires wood. For this reason, people prefer digital media for environmental reasons, disregarding the ecological footprint of the digital economy. However, even when using paper, there are aspects to consider to make your endeavours more ethical.

Several labels for paper exist, ranging from sustainable forestry (FSC 100%, FSC MIX, FSC Recycled, PEFC Certified, PEFC Certified & Recycled), to paper production (EU Ecolabel, Blaue Engel in Germany, Nordic Swan in Scandinavia, ISO 14001, EMAS, the universal recycling symbol, …).

Exercise

Find out what the different labels stand for. You can take the list above, but you can also visit some local office supply stores and see what labels the paper products are marked with. Make an overview of what the different labels mean and what the differences are between them.

Social design

Design can have many goals. It can be used to make life easier or to sell more products, but it can also be used to improve society. The latter is called 'social design'. It is the concept that states that not only can design bring about social change, it is also the designer's moral responsibility to think about the societal consequences of their designs. This is not a new idea. For example, in 1964, 22 designers published the manifesto *First Things First* about the role of graphic design within advertising. In the early 1970s, Victor Papanek published his book *Design for the Real World*, where he addresses disciplines like product design and architecture.

On a wider and more conceptual level, Kate Raworth has launched the concept of doughnut economics as an alternative to economic growth. In her view, an economy should strive to be between two lines, a *social foundation*, a minimum in which everyone on the planet has sufficient food and social security, and the *ecological ceiling*, which is the limit up to which consumption does not degrade the environment beyond repair.

In parallel, people have been talking about the *circular economy*, which is a model in which products (and its accompanying services and business models) are designed to be recycled and repurposed. The Ellen McArthur Foundation has listed five strategies to rethink your product or service to be more in line with the circular economy:[7]

1. **Product as a Service:** Offers that focus on leasing access to a solution instead of selling ownership of a product. Services can reduce cost volatility and create stickier customer relationships.
2. **Embedding intelligence:** Building technology into materials or products to gather user data and generate valuable insights to improve the customer experience.
3. **Product Life Extension:** Extending the lifecycle of products to ensure they remain economically useful by maintaining or even improving them through remanufacturing, repairing or upgrading.
4. **Smart material choices:** Considering a product's end of life treatment in the choice of materials and inputs, i.e. durable, biodegradable, recycled or recyclable materials.
5. **Closed loop / Take back:** Providing a service to collect old or used products and recovering the value in the materials by recycling or reusing them to make new products.

Additional information

- Rereading Victor Papanek's "Design for the Real World", by Christopher Hawthorne. 2012, Metropolis. https://www.metropolismag.com/ideas/rereading-design-for-the-real-world/
- On Ethics in Graphic Design, by Paul Nini. 2004, AIGA. https://www.aiga.org/in-search-of-ethics-in-graphic-design
- Doughnut Economics, a talk by Kate Raworth on her book. https://www.youtube.com/watch?v=CqJL-cM8gb4
- The Circular Economy Explained, https://www.youtube.com/watch?v=zCRKvDyyHmI

Exercise

With your team, read and watch the additional information. Can you improve your current design to make it more ethical or sustainable? You can use the five circular economy strategies as an inspiration: can you apply on of those on your existing idea?

Ethics regarding AI and technology

In recent years, a lot of attention has been given towards digital ethics. Technology is not seen anymore as something that is neutral from values and political or societal consequences. When algorithms are being trained on biased data, the algorithms themselves will not be neutral as well. This was illustrated by Amazon, which built an algorithm to make a first selection of job applications by comparing their letters and resumes to the results of other

hiring rounds in the past years. Because the company mostly hired men before, the algorithm's selection mechanism turned sexist against female applicants as well. Also, algorithms often optimise on certain factors, while ignoring wider contexts. When these factors have to do with audience engagement, algorithms can start to promote clickbaith or fake news. The most striking example of this is the hearing of Facebook's CEO Mark Zuckerberg in the American Senate and the EU Parliament. At the same time, many big app developers find themselves in a juxtaposition: their business is to monetise the amount of time people spend using their apps, while at the same time they realise it is unethical to make their apps 'too addictive'. Because of this, Apple introduced their 'screen time' tools that allow users of their devices to self-limit the time they spent with certain apps.

Additional information

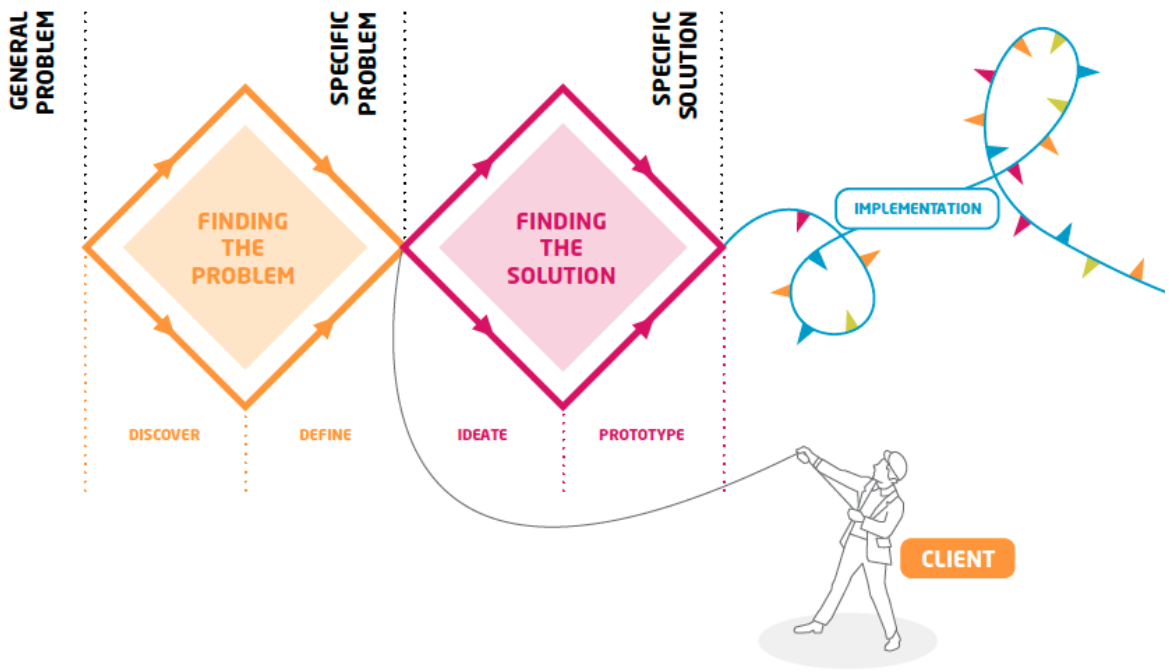
- 5 Reasons Why Technology Can Never Be Neutral, Mickey Z., 2011, Foreign Policy. https://www.foreignpolicyjournal.com/2011/03/27/5-reasons-why-technology-can-never-be-neutral/
- What does a fair algorithm actually look like? Louise Matsakis, 2018, Wired. https://www.wired.com/story/what-does-a-fair-algorithm-look-like/
- Tech Addiction and the Paradox of Apple's 'Screen Time' Tools, Arielle Pardes, 2018, Wired. https://www.wired.com/story/apple-screen-time-digital-wellness-tech-addiction/
- The Best Interface is No Interface, by Golden Krishna. 2015, New Riders Publishing. An article on The Verge about this book: https://www.theverge.com/2015/3/17/8103593/golden-krishna-best-interface-is-no-interface-excerpt

Exercise

With your team, read or watch the items linked above and discuss them with your group. Reflect on how what you've learned relates to the solution you are developing within this project.

6. Finding the solution

If you've completed the exercises of module 4, you should have one to three 'How might we' questions. That means that in our double-diamond journey, we are now in the middle between the two diamonds, where we have narrowed down the general problem to one or more specific, actionable problems.



Just like in the first diamond, we're going to work with two subphases again. In the ideate phase (divergence) we're going to create as many ideas for possible solutions as possible. In the prototype phase (convergence) we're going to narrow down these ideas again and refine them to arrive with the solution(s) that has/have the most potential.

Again, for the practical part of this module, you will have more time. Module 7 will be mostly theoretical again, so you can use the working time of the next module to continue with this diamond.

Ideate

In the ideate phase, we're going to generate ideas for each of your HMW questions. This works by means of a brainstorm. With your team, gather around a whiteboard or have an empty wall and plenty of post-its. Tackle one HMW question at a time.

You might have done brainstorms before, with or without rules. This time we're going to

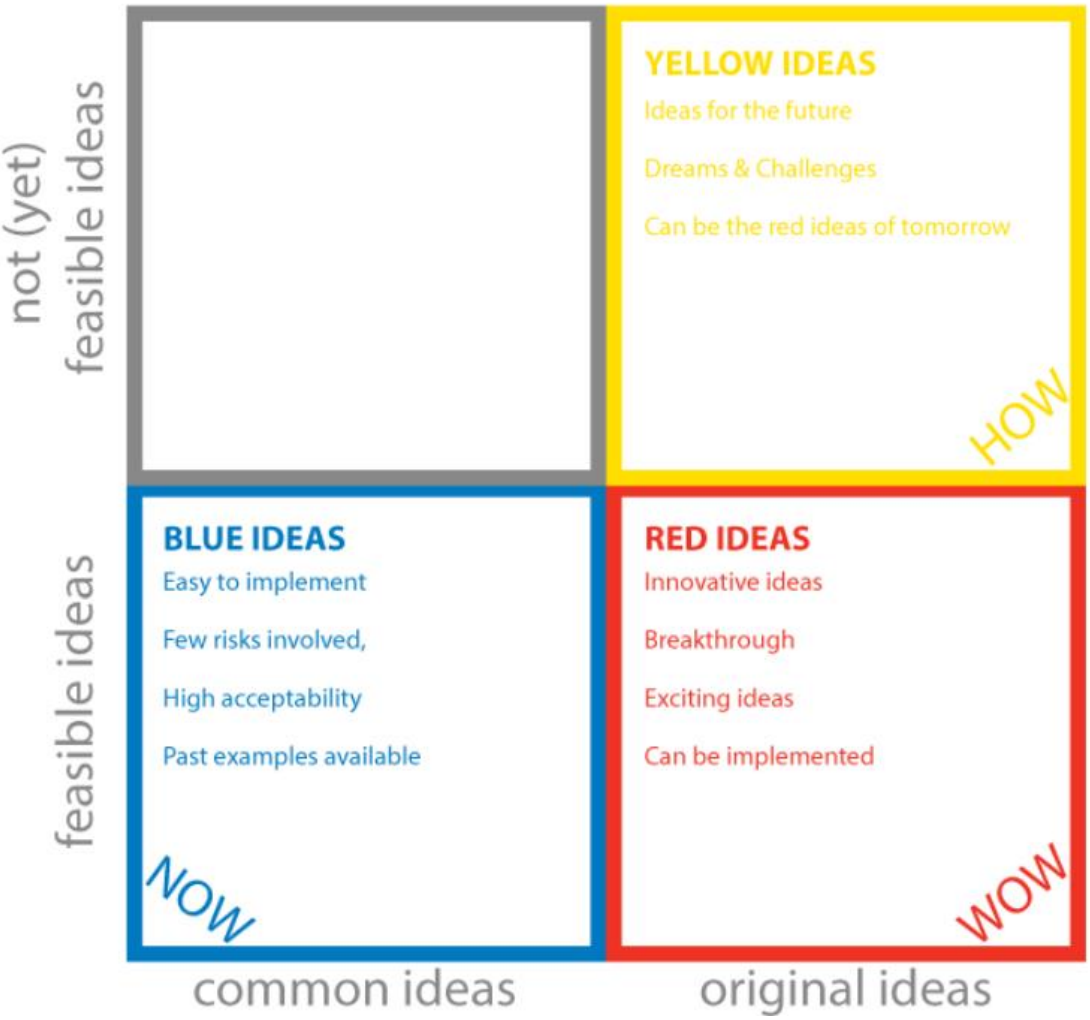
have eight strict rules.

1. **No judgement.** Don't judge the ideas of your team mates. Nothing is impossible, nothing is too weird. Any idea counts now.
2. **The wilder the better.** Don't be too confined by reality. You don't have to build everything you say here, so spit it all out. Maybe an idea is unrealistic or too ambitious at this point, but it might inspire team members for more realistic ideas (see rule 3).
3. **Build on ideas.** Brainstorming is not an individual activity. When you bring an idea forward (e.g., by sticking a post-it on the board), say your idea out loud. When it's not your turn, listen to the ideas of others. It might inspire you to come up with improved or new ideas.
4. **Focus.** No idea is too wild but try to stay within the topic. You're only focussing on one HMW question at a time, so refrain from everything that has nothing to do with that specific question.
5. **One conversation at a time.** When you bring an idea forward, the conversation is on you and your idea. Don't write things down in silence, it's a group process. When it's not your turn, respect your team mates, listen to them, and see how their ideas might inspire you.
6. **Be visual.** Don't write complete stories on one post-it. Keep it simple and keep it visual. A drawing or an icon is better than five lines of text. Stick figures are people too. If you don't draw, limit yourself to a few keywords. This helps you to keep an overview of your brainstorm board.

7. **Quantity beats quality.** Focus on generating as many ideas as possible. Quality doesn't matter so much, we'll filter them in a later step. The more ideas the better.
8. **Have fun.** Keep the atmosphere positive, this will inspire more creative ideas.

Once you feel your team has exhausted all your ideas for one HMQ question, move on to the next. Once you've tackled all of them, you should have one to three boards full of ideas.

To decide which ideas are the best to work on, you can use the COCD method. This method classifies ideas into four quadrants based on two criteria: whether the idea is common (easy) or original (innovative), and whether the idea is feasible or not (yet).



Since we're working on a relatively short-term design challenge, it's better to focus on the feasible ideas. That means we're mostly interested in the blue and red quadrants of the COCD-model. The blue ideas are the realistic ideas. These are the low-hanging fruits. They might not change the world in a radical way, but you might feel very confident that you will succeed in realising the idea. The red ideas are more innovative. They will probably have a bigger impact, but at the same time they are also riskier, and there is a chance they might fail. These are the ambitious ideas.

In general, with change projects, you want to ideally realise a blue and a red idea at the same time. The red idea will have a big impact if it succeeds. But if it fails, you always still have the more realistic blue idea to fall back on – so your project won't be a failure.

You can implement the COCD method on your brainstorm by applying a team vote. Each time member gets two or three blue stickers and two or three red stickers. If you don't have stickers, you can also work with markers and putting dots on ideas. Without discussing with others, each team member votes using their gut instinct on their favourite realistic ideas (blue) and their favourite ambitious ideas (red).

Once everyone has voted, look at which ideas turned out to be most popular. If there are ties, feel free to have a group discussion, and if necessary, an additional vote. Based on this process, select one to three ideas to take with you to the prototyping phase.

Exercise

With your team, do a brainstorm session for each of your HMW questions. Afterwards, use the COCD voting mechanism to arrive at one to three ideas for prototyping.

Prototype

The next phase is the prototyping. Here, we're going to bring the best of your ideas to live to test them with real people. Of course, you could also tell people about your ideas, but creating real prototypes make your ideas tangible and will elicit much more response from the people you are designing for.

Of course, your solutions might not be perfect, especially the first time around. That's why prototyping is a test. Within human-centered design, failure is a learning opportunity, but you want to fail as cheaply as possible. That's why, in this stage, we're not building full products and services yet, but prototypes that will help the people imagine what the real thing will look like. At the same time, you can take all the feedback you can get to modify and improve your prototype while you go along.

Prototypes don't have to be perfect. In many cases, it is even better if they are not. If people see an artefact you clearly made with a piece of cardboard, a marker and two ropes, they feel much freer to criticize it as when they see the same artefact already moulded in high-quality plastic. Don't make your prototypes look as if you've invested a lot in them already, because then people will refrain their feedback to save your feelings. And remember, what we're after in this stage is feedback, not praise.

You can see the same principle when you look at the wireframes that web and app designers use to show mock-ups to clients. These wireframes often look sketchy and with handwritten fonts, while the designers could have just as easily made mock-ups with real buttons and modern typefaces, but just because the designs look nothing like the real thing, clients are not paying attention to aesthetics yet and focus on the functional design and feel free to give feedback.

Of course, there can be many types of prototypes. A good way to start is a *storyboard*. You can draw them yourself or you can use online tools like bitstrips. But essentially, what a

storyboard allows you to do is to map the whole user journey of the person using your product or service. Showing the storyboard to them might illicit a lot of responses.

Another type of prototypes is a rough *mock-up*. Use hobby craft materials, use Lego, use coloured types of clay, everything is good enough. As long as the people you're testing with get a sense of what you're designing for them. If your desired product is a magazine, start with prototyping mock-up articles, and later a mock-up edition, to test with the audience. If it's a newsletter or a direct mail, start by creating some sample editions.

When you're designing apps or websites, a very good way is also using *paper prototyping*. Here you draw screens on pieces of paper and ask the user to perform certain task. As soon as they press a button on your piece of paper, you change the paper, so that a new one appears (see the *additional information* at the end of this module for more information.)

When designing services, *role playing* can be an excellent way to prototype. Is it too difficult to build a final product or service yet? Make the idea come alive by creating a *fake newspaper article* about it. Or start by making a *promotion video*.

When you go out and test your protoype, make sure to elicit feedback from your user. Introduce the protype as a work in progress, invite the users to treat the prototype as if it were real, and explicitly ask for ways to improve it. Don't try to sell your idea, but rather see how people react to it.

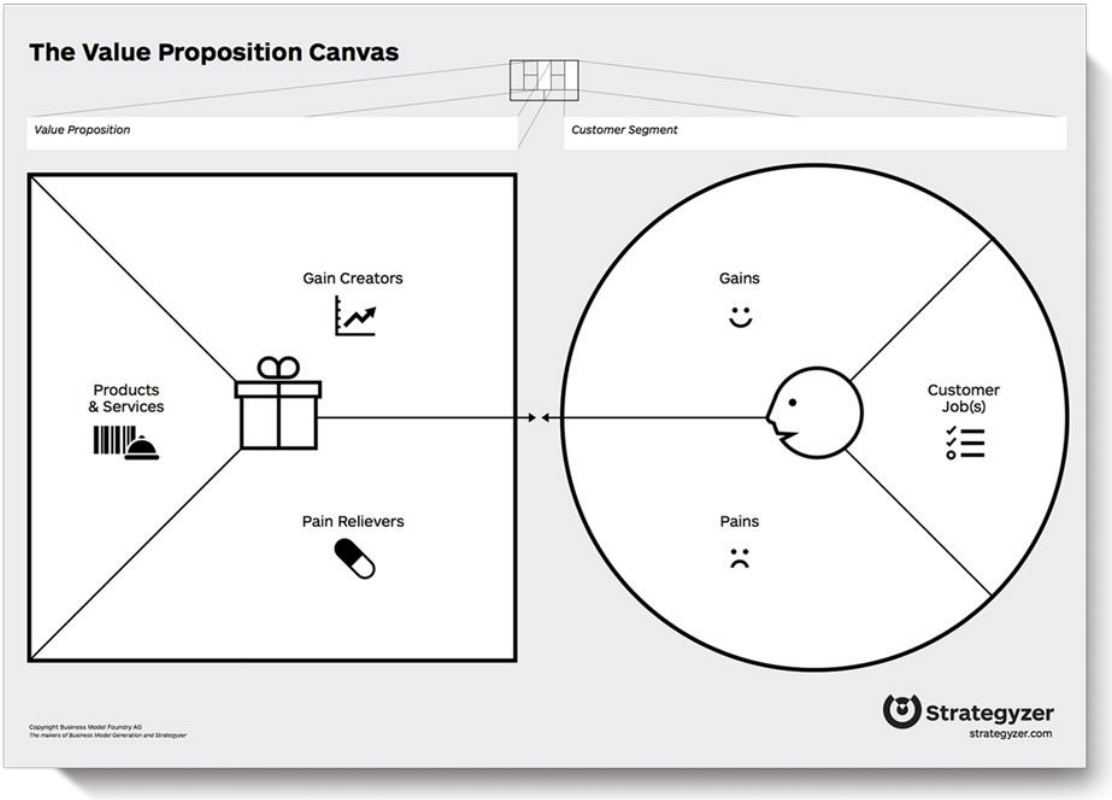
Next up, try to integrate the feedback as you progress your prototypes. The more confident you are that your prototype is on the right track, the more you can invest in making it real.

Exercise

Create prototypes for your ideas and go out and test them with potential users. Get as much feedback as you can, and improve your prototype based on this feedback.

Analysis

Let's have a look again at the *Value Proposition Canvas* from Osterwalder. The model you've seen so far, is only half of the model. Below you see it in full.



The full Value Proposition Canvas from Alexander Osterwalder (strategyzer.com).

You already completed and refined the right side in the last modules, but now let's look at the left half. Each pain that a person in your target group is faced with is a problem you can solve. See your HMW questions for instance, and the solution ideas you've created for them. This is what Osterwalder calls *pain relievers*: things you can do to solve or lessen a pain for your target group. Not all ideas arise from problems, sometimes you work starting from a potential gain: then you're designing a *gain creator*. The pain relievers and gain creators are still ideas. Your prototypes, and later implementations, fall under the *Products & Services* based on these ideas. Fill them in here and complete your model. If you progress and refine your idea, feel free to come back to this model and adapt it accordingly.

Additional information

- 10 prototyping tools, Board of Innovation. https://www.boardofinnovation.com/staff-picks/favorite-prototyping-tools/
- Paper Prototyping: The 10-Minute Practical Guide, by Jerry Cao. https://www.uxpin.com/studio/blog/paper-prototyping-the-practical-beginners-guide/

7. Motivation and perseverance

Motivation and perseverance are topics that many people struggle with, and in this young people are no exceptions. A research report by SRI[8] calls this concept 'grit' and defines it as the "[p]erseverance to accomplish long-term or higher-order goals in the face of challenges and setbacks…". The report focusses on students, and relates this perseverance to three mutually influencing 'psychological resources':

1. *Academic mindsets*: how students see themselves as learning and relate to their learning environment. This includes beliefs, attitudes and values.
2. *Effortful control:* the amount of willpower to focus on tasks that are important for long-term goals but in the short term are not directly desirable or motivating.
3. *Strategies and tactics:* the actionable skills that students have to take responsibility and take initiative and to be productive, e.g., defining tasks, planning, assessing risks.

The theory stipulates that in order to persevere, one needs to have all three: the right mindset, the control and the strategies and tactics to act.

An important work on the concept of grit is the book *Grit. The power of passion and perseverance* by Angela Duckworth[9]. Like the title says, for Duckworth grit consists of two components:

1. *Passion*: the consistency of goals over a longer period of time. Passion in this sense is not a temporary thing, like intense enthusiasm, but something that you strive for over a very long time span.
2. *Perseverance*: overcoming setbacks, working hard, finishing things and not easily giving up.

Exercise:

On https://angeladuckworth.com/grit-scale/ you can assess your own grit-score on a five-point scale based on ten quick questions.

The good thing is, that according to Duckworth, grit can be trained. The best way to improve your grit is by practice, using the four following steps:

1. **Setting a stretch goal.** Focus on a small skill that you want to improve. Set a goal for yourself that at this moment you cannot reach yet.
2. **Apply full concentration and effort.** Isolate yourself from your environment if this helps you.
3. **Receive immediate and informative feedback.** Look for realistic things to improve in the next iteration.
4. **Repeat with reflection and refinement.** Keep working until you meet your stretch goal. And when you meet it, choose a new stretch goal.

You can apply this to many skills that will help you in your entrepreneurial career, e.g., giving pitches, networking at business events and keeping up to date with trends in your field.

According to theories by Csikszentmihalyi[10], it is important to choose your stretch goal carefully. Setting a too ambitious goal, will lead to anxiety and a dropped motivation. Setting your goal too easy will lead to boredom and a lack of motivation to progress.

To really improve your skills, it requires deliberate effort every time you practice. *Deliberate practice* is more effortful and less enjoyable than other forms of practice. Grittier people tend to find deliberate practice more enjoyable than less gritty people, and they also do more of it. The best thing to enforce deliberate practice in your life is to make it a habit. Duckworth recommends finding out the best conditions for your deliberate practice (e.g., time of day, location) and then make it a habit to practice every day under these conditions.

One way to build a habit for yourself and to stick to it, is the method invented by Jerry Seinfeld called *Don't break the chain*. It works by finding yourself a calendar that you look at a lot. It can hang in a visible place (like your office or bedroom), or you can use your agenda or diary if you already are in the habit of looking into it on a daily basis. Once you start with your habit, but a big red X on that day in your calendar. After a few days you have a chain. Now, your only task is to not break the chain: skip one day and your chain is broken. Because you look at this calendar all the time, it serves as a very strong reminder. This idea is also explored in contemporary apps by means of gamification. For instance, the app *Duolingo*, which trains you to learn new languages, calls this concept a *streak*. You get a point for every day you practice. Skip only one day, and your score drops back to zero. Once you have a high score, you will be very motivated to not break your streak, or chain.

Exercise:

Think of a skill you want to improve in. Set yourself a stretch goal and explore the best conditions for you to create a habit. Now, start your deliberate practice. Use the chain/streak method if you feel it might help you.

Additional information

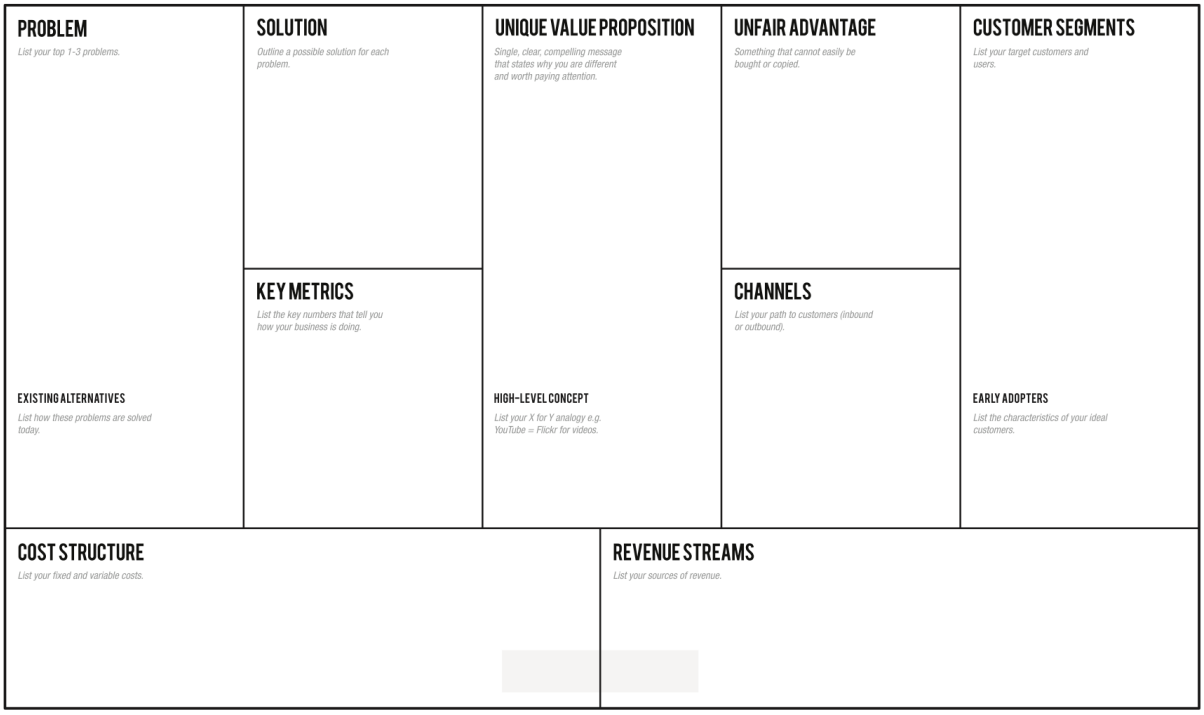
- *The power and problem of Grit.* In this episode of the NPR podcast *Hidden Brain*, the presenter Shankar Vedantam talks to Angela Duckworth about het work on grit. https://www.npr.org/2016/04/04/472162167/the-power-and-problem-of-grit
- *The 1% Factor*. Video interview with Sir David Brailsford (cycling coach and manager of Team Sky) at the London Business Forum on his 'marginal gains' philosophy and developing aculture of not giving up. https://www.youtube.com/watch?v=NQxYlu12ji8

8. Implementation and presentation

Now that you have a good prototype, there are only two steps left. Making a plan for the real-world implementation of your idea and present it to your client.

Implementation

In the past module you've created a prototype that should meet the members of your target group's needs. You've covered the *human desirability*, and hopefully in the process you've also thought about the *technical feasibility*. The only thing left to make your idea 'real' is the *economical sustainability*. You can make a plan for this using the *Lean Canvas* by Ash Maurya. This is a variation on the well-known *Business Model Canvas* by Alexander Osterwalder – the same person who also created the *Value Proposition Canvas* you've used before – specifically geared towards startups.



This is the canvas:

The Lean Canvas by Ash Maurya.

The canvas has nine fields to fill in. You can do this digitally using certain apps and websites[11] or you can print it out and use post-its with a group. The canvas mostly serves as a check-list for your ideas, as it lists nine aspects to think about. Most important is that you have a plan for each of these nine aspects and that this these nine aspects are coherent with each other.

Now we'll explain each of the nine aspects one my one.

Unique Value Proposition

We'll start in the top middle, with the value proposition. This should be easy for you by now, as you should know your value proposition by now, as you've used it in the *Value Proposition Canvas* as well. You can describe it as-is, but you can also add a more high-level concept to it, which Maurya calls an *x of y* analogy. E.g., 'we will be the Uber for your heavy shopping bags'.

Customer Segments

Define your customer segments here. Try to see if you can distinguish subgroups that might have different expectations for a value proposition and other functionalities. E.g., you could see that Spotify caters to both the casual music fan (who just want to press 'play' and hear music they like) and people with a passion for music (who want to build their own music collections, create their own playlists, etc.). Also try to see if you can identify early adopters, who should be easy to get aboard in using your product and services, and can serve as role models (and test users) for the majority.

Channels

Now that you know who your customers are, try to identify the best channels you can use to reach them, to either inform them about your product or service, but also to keep in contact and build a bond.

Unfair advantage

You can start a successful business, but if you don't have an unfair advantage, a player with existing customers and bigger pockets can easily copy your idea and run with it. E.g., look at what Instagram (owned by Facebook) did to copy Snapchat and take over their market. Think about what makes your idea special and hard to copy. Do you have the best algorithm? Do you have special important partners? Do you know the local market better than the big players? Etcetera.

Problem and solution

This can be copied from the *Value Proposition Canvas* as well. Try to come up with existing alternative solutions to the same problems as well. These might not be direct competitors on first sight, but from a customer perspective they all solve the same problem – so you do compete with them.

Key metrics

You want to fix your users' problems. Or create gains for them. But how do you know if you are succeeding? Try to come up with some metrics to see if you're on the right path. (And of course, measure these metrics afterwards.)

Cost structure

What would your costs look like when you would operationalise your business idea? Do you need to hire offices? Staff? Do you need to hire capacity in data centers? Also, try to understand how scalable your idea is. Offering your service to ten customers is different than offering it to ten thousand.

Revenue streams

Finally, how do you intend to make money? You can charge your users, but there are alternatives. If you have a two-sided market (e.g., a marketplace) you can only charge one side to attract more of the other with a free offering. You can apply a freemium model, where only some users pay.[12] You can also let third-parties pay, like with an advertisement scheme or by applying for subsidies or donations.

Exercise:

Try to completely fill in the Lean Canvas with your team for your idea. If you run into problems or unknowns, investigate to find an answer. Make sure your canvas is coherent and logical.

Presentation

With all the information and insights you've developed during the past eight modules, it's time to turn them into a pitch towards your client. Depending on the time you have, you need to make choices on what to present and what to omit. Think about this well in advance and do take into account it is often better to make a few points really well, then to try to tell everything and rushing through a presentation. Stick to the highlights, and leave the details in hand-outs or for the Q&A.

In the *additional information* section of this module, you can find some pointers towards giving clear presentations and pitches.

Exercise:

Create a pitch for your client. (And your teacher and fellow-students, but the client is the main audience you should adapt the presentation to.) Rehearse the presentation with your group. Use a test audience if you think this will help.

Additional information

- Blogpost by Ash Maurya on the idea behind his *Lean Canvas*. https://blog.leanstack.com/why-lean-canvas-vs-business-model-canvas-af62c0f250f0
- Presentation tips by Garr Reynolds. http://www.garrreynolds.com/preso-tips/ If you want to learn to present better, Reynolds' work, including his book *Presentation Zen*, is a must-read.
- 7 Steps for Writing a Powerful Elevator Pitch, by Alyssa Gregory. https://www.thebalancesmb.com/how-to-write-an-elevator-pitch-2951690

- *Made to Stick: Why Some Ideas Survive and Others Die* by Chip and Dan Heath (2007, Random House) is a book about what makes ideas and stories memorable. An animated video with the core idea of the book can be found on YouTube: https://www.youtube.com/watch?v=0a8cFtMo8mk

Endnotes

[1] https://tomtunguz.com/emotional_intelligence/

[2] https://www.nytimes.com/2015/01/18/opinion/sunday/why-some-teams-are-smarter-than-others.html?_r=0

[3] https://designabetterbusiness.tools/tools/team-charter-canvas

[4] https://ec.europa.eu/jrc/en/entrecomp

[5] Skills are practical competences a person can possess. Hard skills are functional and technical, while soft skills focus on personal, emotional and social aspects. Mastering a programming language or knowing how to operate a machine are examples of hard skills. Communicative skills, assertiveness, and providing good feedback are examples of soft skills.

[6] You can adjust this number based on your group size. If you work in a very small team (individually or two people), agree on a slightly larger number. If you work in a very large team, agree beforehand that each member can only select three gems.

[7] Strategies and descriptions copied from the Circular Strategies card deck, by the Ellen MacArthur Foundation.

[8] SRI International (2018). *Promoting Grit, Tenacity, and Perseverance: Critical Factors for Success in the 21st Century.* SRI International, Menlo Park, CA. Available from https://www.sri.com/work/publications/promoting-grit-tenacity-and-perseverance-critical-factors-success-21st-century

[9] Duckworth, A. (2016) *Grit. The Power of Passion and Perseverance.* Scribner.

[10] Csikszentmihalyi, M. (1990). *Flow: The psychology of optimal experience.* New York, NY: Harper & Row.

[11] For instance Canvanizer, https://canvanizer.com/

[12] If you're interested in freemium model, the work of Omar Mohout on *Lean Pricing* is highly recommended. E.g., his 2015 book *Lean Pricing: Pricing Strategies for Startups,* published by Die Keure.