



Overview

Semantic Analysis

 20 – 40 min

At a glance

Semantic analysis is a technique for understanding and analysing the meanings of individual words. Doing a semantic analysis involves writing out the development challenge and carefully examining each word, looking for the different connotations and associations that each word evokes. The perspectives that you discover within your team will help you develop a clearer, richer understanding of your challenge. Semantic analysis can also help to get clarity before or during a project clarification meeting – such as a kick-off meeting for phase 1_understand.



What it helps you do:

- Uncover new meanings and associations within your development challenge
- Find an overall understanding of your development challenge together
- Get clarity before or during a project clarification meeting



What you will need:

- A development challenge
- Your team
- Optional: the results from the *lab of tomorrow* challenge quiz or a *lab of tomorrow* challenge canvas
- Offline workshop:
Whiteboard or similar, board marker & pens, sticky notes, timer
- Digital workshop:
Digital whiteboard



Step by step

Semantic Analysis

 20 – 40 min

Preparation

- Write the development challenge in large block letters on a whiteboard

Process

- Underline the most important individual words in the development challenge.
- Individually, collect the meaning and associations that occur to you for each word and write each one on a sticky note.
- Also write down any open questions you have about the development challenge.
- Share and discuss your sticky notes. As you share, new thoughts will come up that wouldn't have occurred to you at first glance. Write these new associations on sticky notes, too.
- As you're discussing, remember that there's no »right« or »wrong«. The goal isn't to reach absolute agreement within your team. Rather, you're trying to figure out what individual associations lie beneath your development challenge and use these to develop a common understanding – even when some of the associations might seem contradictory.

Tip

Underline the individual words in different colors, then use matching colors for the sticky notes associated with that word. This helps create a stronger visual connection between the original word and its associated meanings.



Visual Instructions

Semantic Analysis

20 – 40 min

How might we prevent and control non-communicable diseases (NCDs) in Ghana in order to relieve the Ghanaian health-care system?

Open Questions:

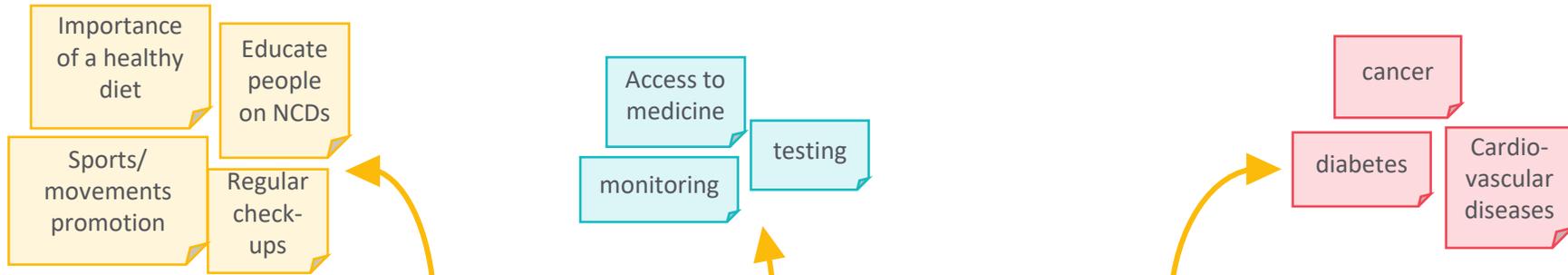
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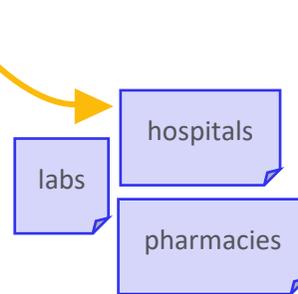
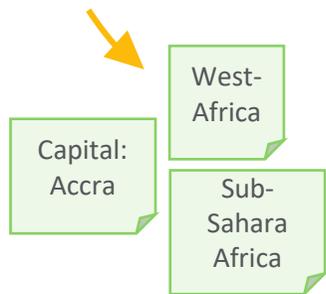
Example: Semantic analysis for the development challenge to prevent and control NCDs in Ghana

20 – 40 min

Semantic Analysis



How might we prevent and control non-communicable diseases (NCDs) in Ghana in order to relieve the Ghanaian health-care system?



Open Questions:





Overview

Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators



45 – 60 min

At a glance

The Stakeholder Ecosystem Map helps you to identify the most important stakeholders of your lab of tomorrow programme, reduces complexity of your project's stakeholder analysis by grouping stakeholders with common needs and interests and identifies key actors and their (inter-)relations with regards to your development challenge.

In your Stakeholder Ecosystem Map, you can identify outstanding stakeholders that may be of particular importance for tackling your development challenge.

By creating an understanding of (informal) networks, dependencies and conflicts among your stakeholders, this tool helps you to position yourself in the ecosystem and identify leverage points for the development of your future project. Eventually the Stakeholder Ecosystem Map directly translates into the acquisition of partners for the later Ideation Sprint.



What it helps you do:

- Identify the most important public, private and civil society stakeholders
- Identify pattern of similar stakeholders and to reflect on their interests and needs
- Identify key actors for the acquisition of participants for the Ideation Sprint
- Analyse their influence and their reciprocal relationships
- Visualize the relationships between stakeholders



What you will need:

- A development challenge
- Your team
- Offline workshop:
Whiteboard or similar, board marker & pens, colored sticky notes, timer
- Digital workshop:
Digital whiteboard



Step by step

Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators



45 – 60 min

Preparation

- Draw your development challenge in the middle of a whiteboard.
- Draw two squares – each approximately double in size – around the development challenge: the inner square for stakeholders that act on a national scale and an outer square containing stakeholders with an international scope of operations.

Process

- First, identify all possible actors of your challenge's stakeholder ecosystem with a quick brainstorming. Write each stakeholder on a separate sticky note. Then arrange the stakeholders according to their scope of operation – along international and national – onto the whiteboard.
- These questions might help you to identify stakeholders:
 - Which private actors (e.g. service providers, suppliers etc.) are potential solutions dependent on?
 - Which public sector actors have an interest in solving the challenge, which not?
 - Which civil society representatives might be relevant for the success of potential solutions?
 - Which actors may be critical towards new solutions?
 - Who are potential customers or beneficiaries of a potential solution?
 - Who might be willing to invest in solutions?
 - Who is crucial for expanding the reach of the potential solutions?

- Then cluster the identified stakeholders into subgroups. This step allows you to identify pattern of similar stakeholders and to reflect on their interests and needs. After clustering, collect basic information about each subgroup of stakeholders, i.e. your assumptions about the respective subgroups' opportunities and risks related to your development challenge.
- The following you identify key actors within each crucial subgroup. This step allows you to pinpoint those stakeholders that may be of particular interest for tackling your development challenge.
- Finally transfer the most important stakeholders into the LoT-Project Plan (see "Acquisition List") and make use of your Stakeholder Ecosystem Map's findings to plan your Ideation Sprint acquisition.
- *In an optional last step, you might also determine the relations of stakeholder and their subgroups and identify (informal) networks, dependencies and conflicts among stakeholders.*



Visual Instructions

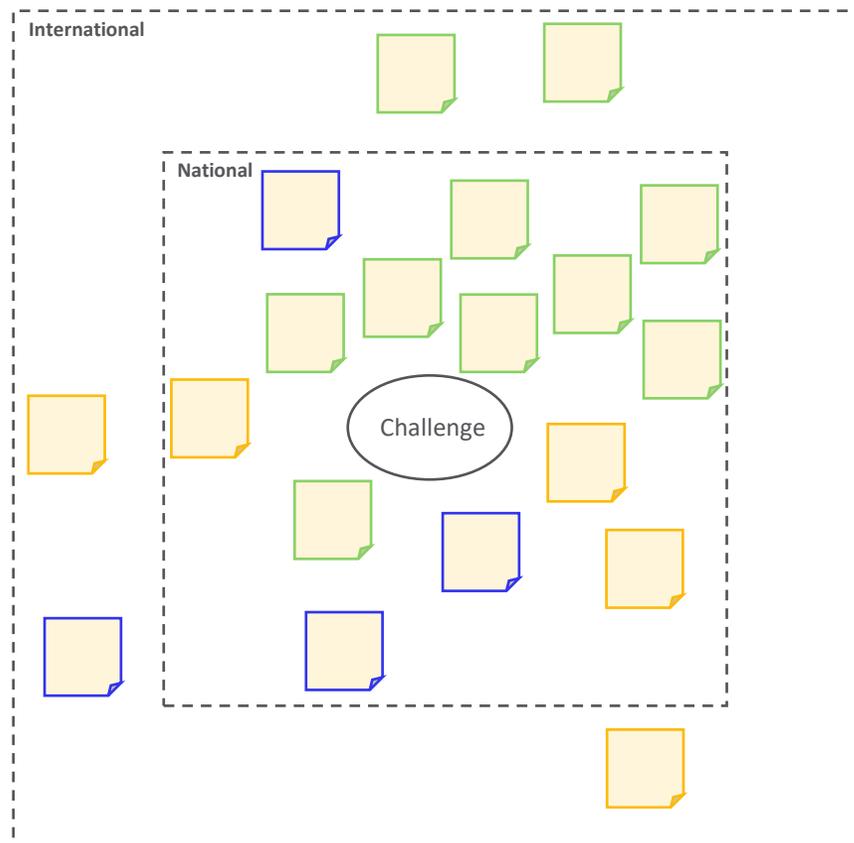
Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators



45 – 60 min



First, **identify the most important stakeholders related to your development challenge** with a quick brainstorming. Write each stakeholder (person, group, organization, institution, etc.) on a separate sticky note.

First, make use of differently colored sticky notes and class the identified stakeholders along private (e.g. green), public (e.g. yellow) and civil society actors (e.g. blue). Second, arrange the stakeholders according to their scope of operation – along international and national actors – onto the whiteboard.

Mind that this first brainstorm exercise should be as broad as possible and ideally include as any many actors of your challenge's stakeholder ecosystem as possible. Do not worry in case the allocation of some stakeholders (i.e. user groups or beneficiaries) is not perfectly sharp.



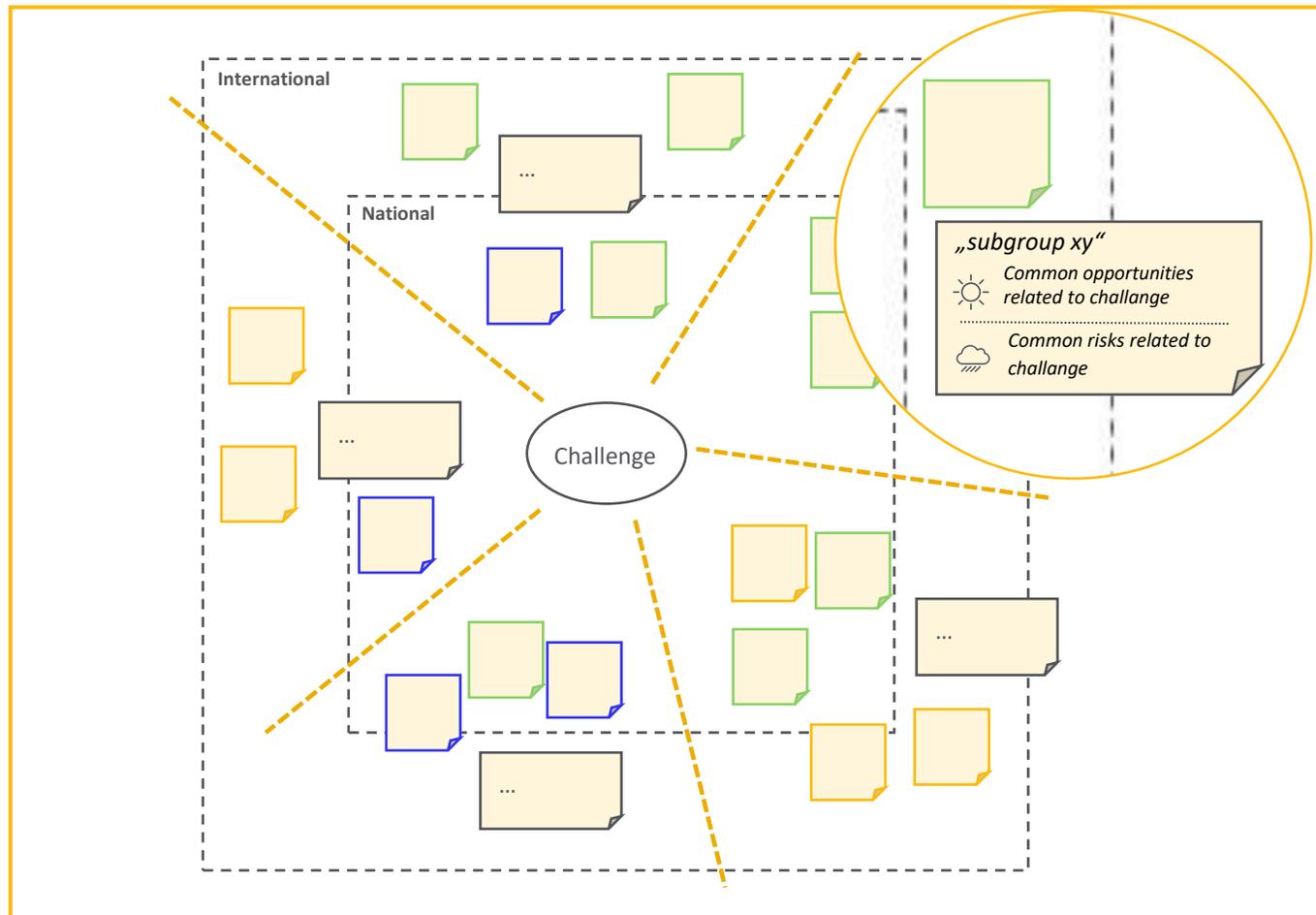
Visual Instructions

Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators

45 – 60 min



Second, **cluster the identified stakeholders into subgroups**. Discuss with your team and cluster stakeholders with similar interests on the whiteboard. For a visual clarity, divide the whiteboard with lines into pie-like sections for each subgroup. Then add a note to each group of stakeholders indicating a name and your basic assumptions about the respective subgroup in bullet points. Therefore look at:

- What are common opportunities and benefits for the group; relative to your development challenge?
- What are risks and undesired costs for the respective group; relative to your development challenge?

Mind that different subgroups' interests may be defined by a particular commercial, political or value-oriented perspective on your development challenge. Taken as an example, private sector interests may vary along their scope of operation (e.g. local acting SMEs vs. international corporates) or their position in the value chain (e.g. investors, retail, business support etc.). Other stakeholder subgroups may be defined around a common advocacy for a specific group of beneficiaries (i.e. civil society, public entities etc.).



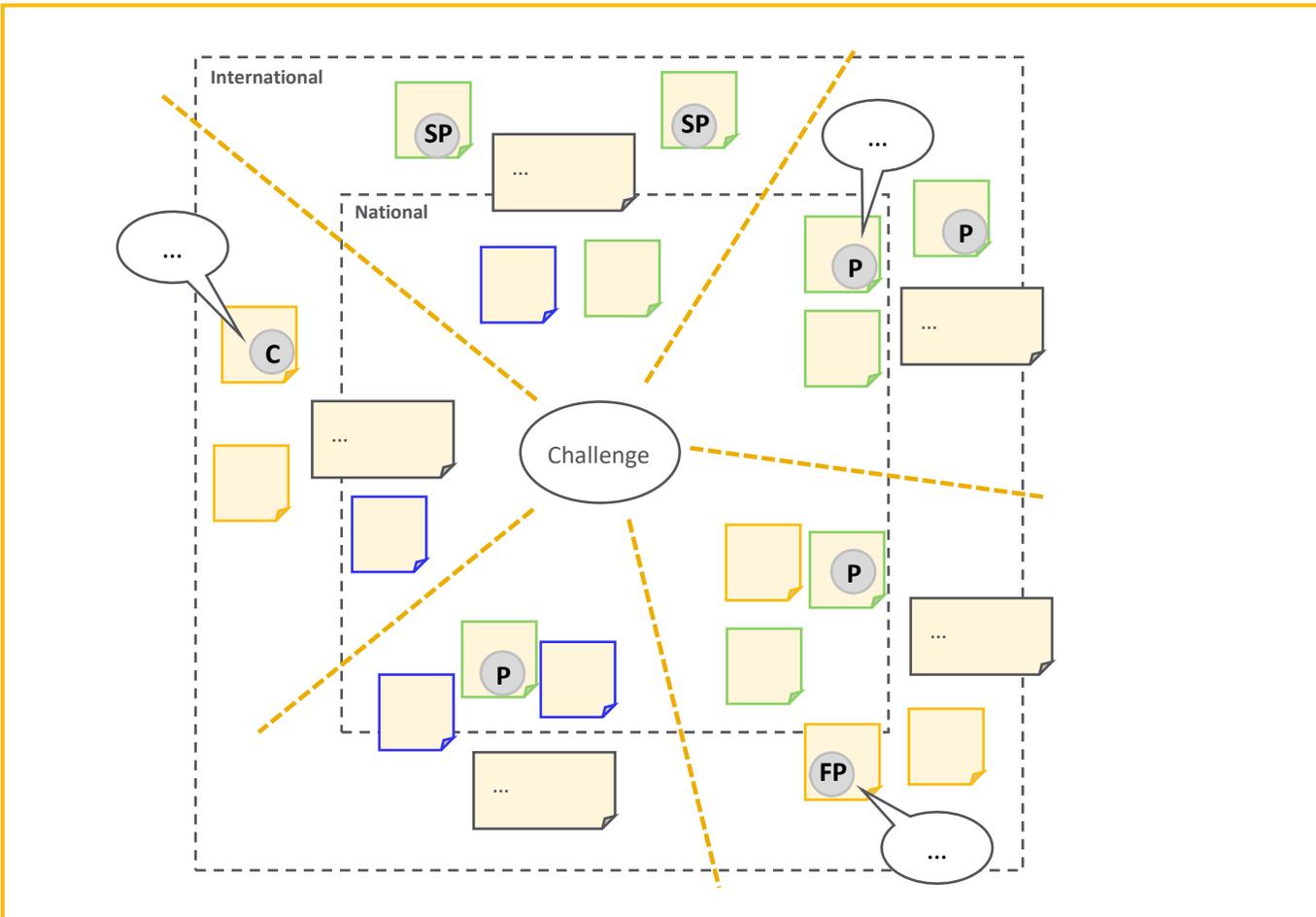
Visual Instructions

Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators

🕒 45 – 60 min



Third, **identify key actors within each crucial subgroup** you deem to be of high relevance for the **acquisition of partners for the later Ideation Sprint**.

Assess outstanding actors along the following categories and mark them on your Stakeholder Ecosystem Map:

- **Participant (P)**: National and European companies that can contribute to tackle the development challenge and that should be considered for the Ideation Sprint
- **Supporting Partner (SP)**: Political, civil society or research organisations that may contribute to a deeper understanding of the challenge
- **Funding Partner (FP)**: Actors who may support the lab of tomorrow - programme with funds, investments or in-kind services
- **Customers (C)**: Groups or organisations that are affected by the challenge and willing to pay for a solution

Make use of speech balloons to note any other pertinent information, such as behaviors you expect from crucial stakeholder as well as stakeholders' expectations vis-à-vis the lab of tomorrow - programme.



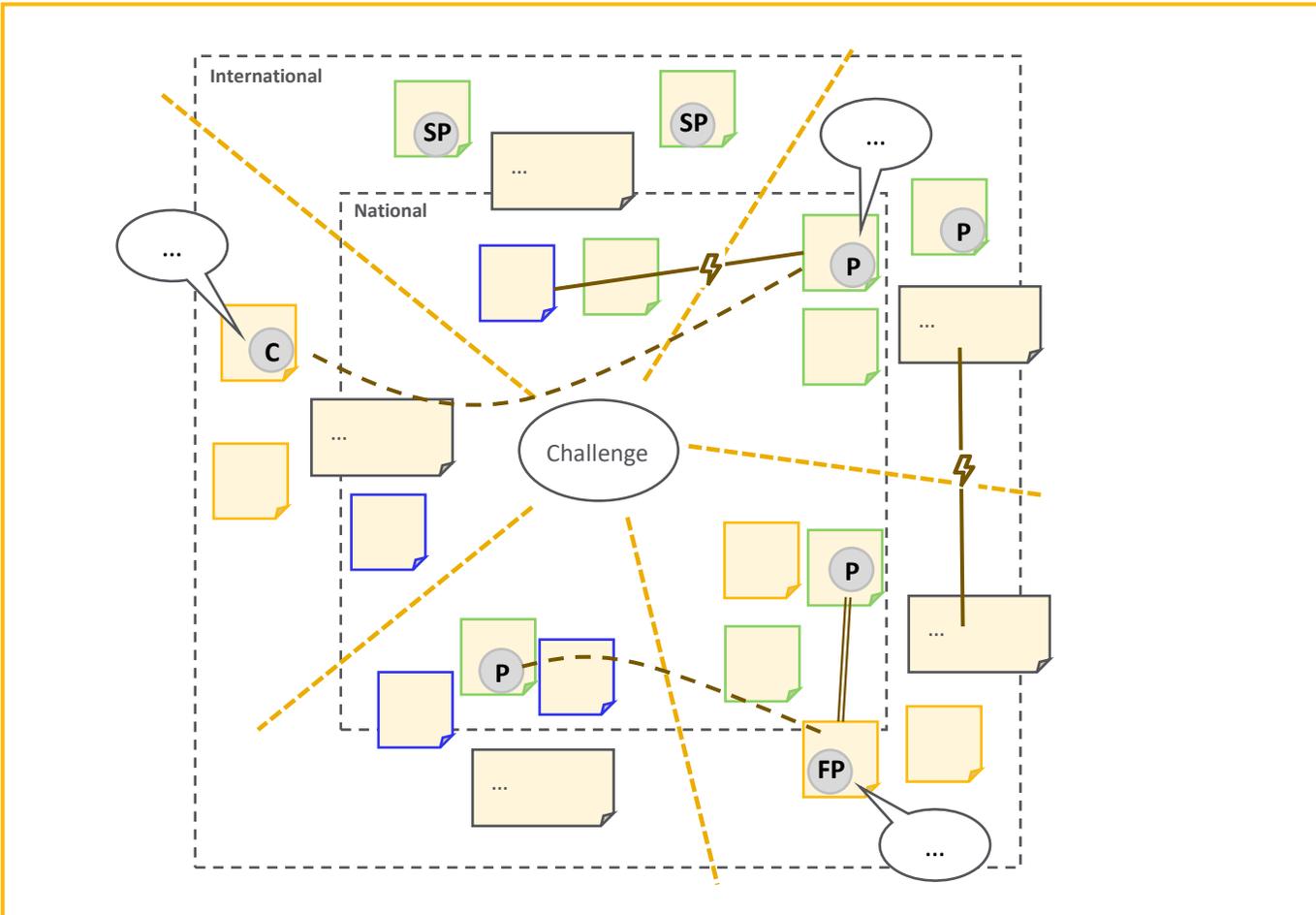
Visual Instructions

Stakeholder Ecosystem Map

Design Thinking Tool

Facilitators

45 – 60 min



Optional: IF you encounter sensitive, competitive and/or conflictual stakeholder relations within the ecosystem.

Depending on the context, an awareness of (informal) networks, dependencies and conflicts among stakeholders may be crucial to position yourself in the ecosystem, as well as to identify leverage points for your future development project. This analytical step may also inform the composition of the venture teams during your Lab of Tomorrow Ideation Sprint.

Thus, **determine the (inter-)relations of stakeholder and their subgroups**. The question of “where are potentials for new stakeholder cooperation” and “where might be untapped leverage to tackle the development challenge” may be of particular importance.

Start from your most influential Actors/subgroups and map the relations among them. Make use of the following legend and – in case you want to add further information on the relationships – use speech balloons:

- Close relationship
- Informal (or weak) relationship
- Contractual relationship
- Conflictual relationship



Overview

Charetting

 20 – 40 min**Optional:**

IF you do not fully understand the root causes of the overarching challenge AND/OR IF potential user groups aren't clear AND/OR IF we don't have a comprehensive understanding of their specific needs

At a glance

After having agreed on a development challenge, Charetting can help as an optional intermediate step to further disaggregate the overarching challenge and define suitable business opportunity hypotheses. You should apply the tool after you have created an overview with the semantic analysis and stakeholder/ecosystem map. Charetting then helps you to dig deeper, extend your assumptions, understand root causes and identify different aspects of the overarching challenge. You take possible users, imagine their likely problems or needs, as well as plausible reasons behind those problems or needs. It also helps your team to distinguish between causes and symptoms.

**What it helps you do:**

- Understand root causes of overarching challenge and disaggregate it
- Prepare defining Business Opportunity Hypotheses
- Identify relevant **user groups** and customers of potential Business Opportunity Hypotheses
- Get comprehensive understanding of **users'** problems and needs
- Reveal new aspects of the development challenge that are relevant for potential Business Opportunity Hypotheses
- Bring the team to a common point of understanding

**What you will need:**

- Overarching challenge
- Results from your semantic analysis and stakeholder / ecosystem map
- Your team
- Offline workshop:
Whiteboard or similar, board marker & pens, sticky notes, timer
- Digital workshop:
Digital whiteboard



Step by step

Charetting

 20 – 40 min

Preparation

- Divide your whiteboard into three columns. Label them »Problems/Needs«, »What's behind it?«, and »Users/Customers«.
- You start in the first column with different »Problems/Needs« as sub-aspects of the overarching challenge, look at »What's behind it?« next, and lastly identify which »Users« this problem is relevant for and which of these would pay for a potential solution as »Customers«
- For this **exercise** no previous research is necessary, bring in your own experiences and create assumptions as a team. Later on, your research will help you to validate or reject these assumptions.

Process

- Start by describing different sub-aspects of the overarching challenge or specific problems that may fall under the umbrella of the overarching challenge if you disaggregate it. Describe each specific problem on one post-it note and add it to the first column »Problems/Needs«. For example, people at risk of falling sick with NCDs might have the problem that they do not find the time to exercise regularly.
- When you've identified several problems and/or needs, choose one interesting sub-aspects/problem as the starting point for the next column.
- Move on to the next column: »What's behind it?« Here, you'll list your best guesses about the reasons for these problems/needs. Back to our example: maybe the reason that some people do not find time to exercise regularly is that they are too busy at work and spend too much time commuting. Choose a few more relevant problems or needs and assume what's behind them.

- Move to the last column: »Users« Here, you'll list the user groups this problem is relevant for or who specifically suffer from the identified problem/need. Describe potential **users** on sticky notes. Go into more detail than in the stakeholder/ecosystem map and be as concrete as possible (for example, »NCD patients in rural areas« instead of just »NCD patients«). Think of unusual or extreme **users** as well. In a challenge about non-communicable diseases, an extreme user group could be patients who have spent the majority of their last year in healthcare facilities. An example of an unusual **user** group might be young urban professionals (who usually are less often affected by NCDs) not taking care of their health. Stick these sticky notes in the »Users« column. Create additional post-it notes for users who would pay for a potential solution and may thus act as »Customers«.
- You can repeat this process as many times as you want.

NOTE:

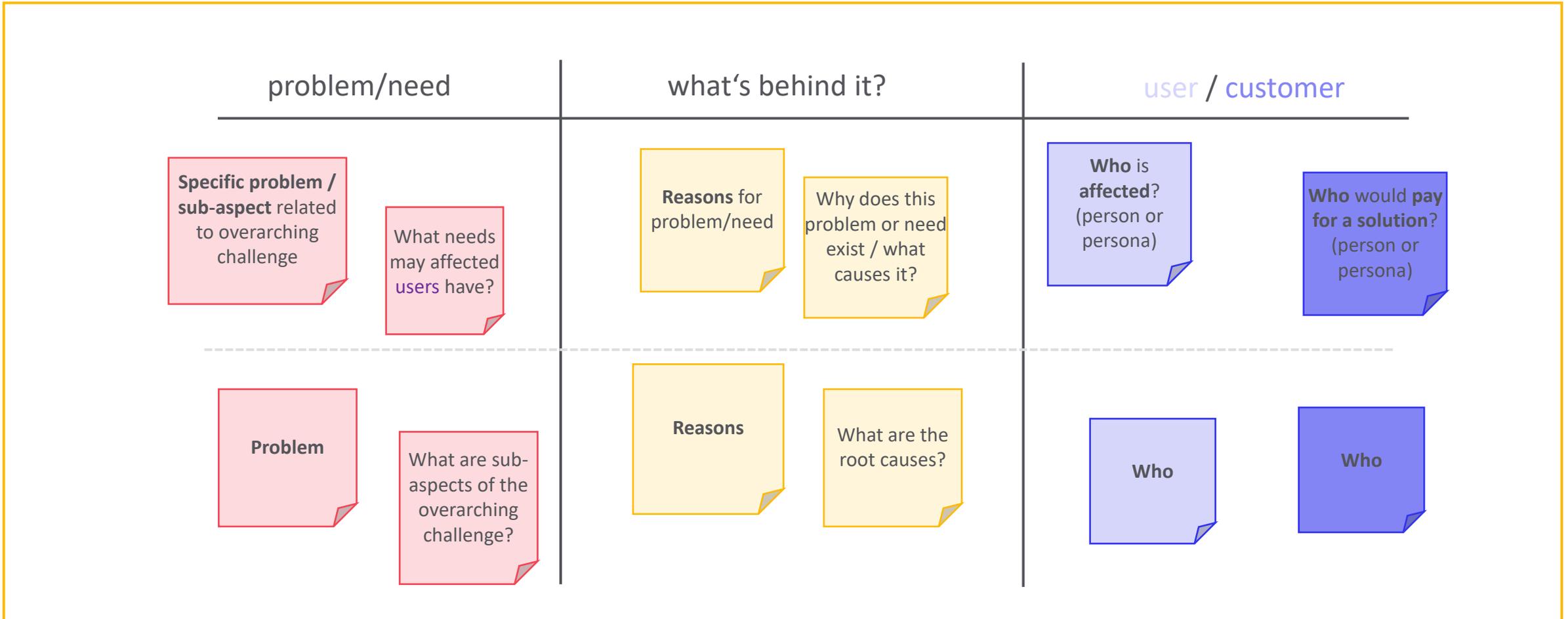
In an ideal case, each sub-aspect or specific problem you analyse via Charetting could eventually be translated into a business opportunity hypothesis



Visual Instructions

Charetting

🕒 20 – 40 min

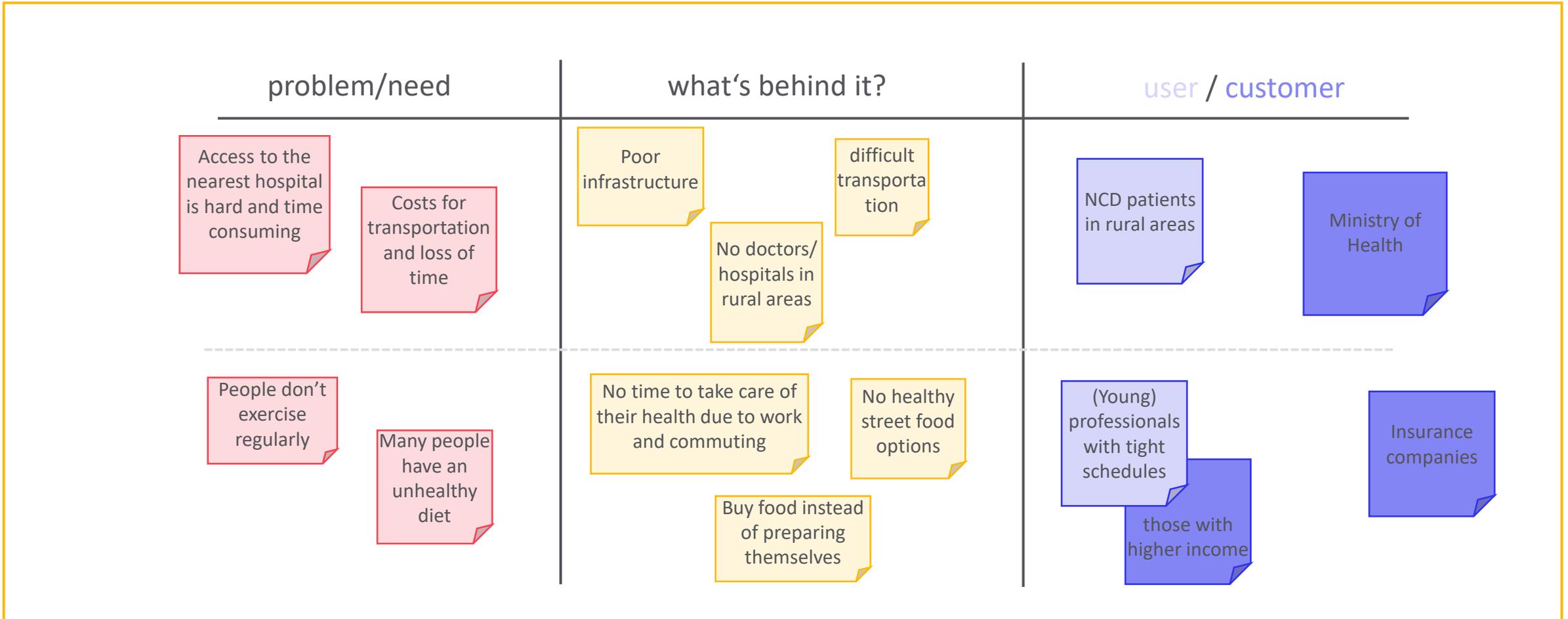




Example: Charetting for the development challenge to prevent and control NCDs in Ghana

Charetting

🕒 20 – 40 min





Overview

Business Opportunity Matrix

At a glance

The Business Opportunity Matrix helps you to identify business opportunity hypotheses, knowledge gaps for the research phase and in the last step select the most suitable business opportunities.

In the Business Opportunity Matrix, you add business opportunity hypotheses derived in the How Might We Questions Tool to a matrix and cross-check them with a set of questions, which help to test the suitability of the business opportunities. If you are not able to answer some of the questions sufficiently or at all, you'll mark these cells as research gaps and transfer them to the „Research Plan" and "Research Documentation Tool“. After you have found answers to your questions in the research phase, you go back and fill the knowledge gaps in the matrix. In the last step you look at all business opportunity hypotheses again, confirm or reject them and select the final suitable business opportunities.



What it helps you do:

- Identify business opportunity hypotheses, which provide a rough outline of how the final business opportunities might look like
- Reveal knowledge gaps, based on which the research phase is structured
- Select suitable business opportunities for the ideation sprint



What you will need:

- A development challenge
- Derived business opportunity hypotheses from your How Might We Questions Tool
- Your team
- Offline workshop:
Whiteboard or similar, board marker & pens, sticky notes, timer
- Digital workshop:
Whiteboard ([Link](#) to Business Opportunity Matrix on Miro Board)

Design Thinking Tool

Facilitators



120 – 180 min



Step by step

Business Opportunity Matrix – *Hypotheses (Part 1)*

120 – 180 min

Preparation

- Draw a matrix with approximate 10 lines and 10 columns in the middle of a whiteboard or use the [link](#) for the online board.
- Write the following predefined questions in the first line of the matrix (you can also delete or modify some of the questions to make them fit to your challenge):
 1. **Is there a clear target group?** (Who will buy and benefit from a solution?)
 2. **Is there a clear unmet need?** (Which problem of the target group must be solved?)
 3. **Are there potential solutions providers interested in creating new products or services that tackle the unmet need?** (Which companies or entrepreneurs would be willing to provide a solution?)
 4. **Are the constraints of tackling this challenge clear?** (Under which conditions – such as regulatory restrictions, market – does the solution need to work?)
 5. **Is there potential for different types of solutions?** (The corridor of potential solutions should be neither too broad nor too narrow. Different kinds of solutions should be possible to make the most out of the creative ideation process, but the business opportunity should also not feel too broad to tackle.)
 6. **Are there any technical or regulatory reasons speaking against the business opportunity?**

Process

- Brainstorm about further important development challenge specific questions which critically test the hypotheses and add them to the predefined questions in the first line of the matrix.
- Add the in the How Might We Questions Tool identified business opportunity hypotheses (the more, the better) to the cells of the first column.
- Go through each business opportunity hypothesis and answer the questions (not just with “yes” or “no”, but with more specific information) and document the answers on a sticky note in each cell. If a question can’t be answered at all, mark them as a knowledge gap with a red-colored sticky note. If a question can’t be answered sufficiently or only partly, mark them with a purple-colored sticky note.

- Add the identified knowledge gaps and partly open questions to the "Research Plan" and “Research Documentation Research Tool”.

-----*Research Phase*-----

(Pause the tool after filling the worksheet on the next slide and move on to the research phase where you will try to fill your knowledge gaps and partly answered questions. After the research phase you will then come back to your Business Opportunity Matrix and select your final business opportunities)



Visual Instructions



Business Opportunity Matrix – *Hypotheses Worksheet (Part 1)*

| | Is there a clear target group? (Who will buy and benefit from a solution?) | Is there a clear unmet need? (Which problem of the target group must be solved?) | Are there potential solutions providers interested in creating new products or services that tackle the unmet need? | Are the constraints of tackling this challenge clear? | Is there potential for different types of solutions? | Are there any technical or regulatory reasons speaking against the business opportunity? | Development Challenge specific questions |
|---------------------------------|--|--|---|---|--|--|--|--|--|--|
| Business Opportunity hypothesis | | | | Research gap: (explanation) | | | | | Research gap: (explanation) | |
| Business Opportunity hypothesis | Research gap: (explanation) | | | | | Research gap: (explanation) | | | | |
| Business Opportunity hypothesis | | | Partly answered: (explanation) | | | | | | | |
| Business Opportunity hypothesis | | | | | | | | | | |
| Business Opportunity hypothesis | | Research gap: (explanation) | | | Research gap: (explanation) | | | | Partly answered: (explanation) | |
| Business Opportunity hypothesis | | | | | | | | Research gap: (explanation) | | |



Overview

Preparing Empathy Interviews

 15 – 60 min
per Interview

At a glance

When you want to understand someone else's experience, qualitative empathy interviewing is the way to go. Empathy interviews focus on the emotional and subconscious aspects of your interview partner and allow the interviewer to gain insights on how users (or stakeholders) behave in given environments and situations. By hosting a conversation about personal stories and emotions, you can learn a lot of relevant information in a short amount of time. Your interest in their needs, problems, and motivations will lead your conversation to interesting, and possibly surprising, places. They can reveal solutions you might not have discovered otherwise or needs and challenges you might be overlooking.

Ideally, an interview should simply feel like a good, focused conversation. Nevertheless, it is useful to prepare interviews. Think about which users and other stakeholders you want to interview and prepare interview questions for a semi-structured interview. When you're preparing for an interview, think about what you really want to know from your interviewees, then consider what questions you can ask to best explore these themes. One result of interview preparation is an »interview guide« that serves as the basis of your interview. The scope and level of detail in the interview guide will depend on the length and type of the interview.



What it helps you do:

- Identify interesting interview themes and questions
- Develop an interview guide
- Organize and plan your interviews

What you will need:

- Results from ecosystem map and charetting
- Your team
- Offline workshop: Whiteboard or planning wall, board marker and pens, sticky notes
- Digital workshop: Digital whiteboard



Step by step

Preparing Empathy Interviews

 15 – 60 min
per Interview

Process – Set the Frame

- Transfer the potential **user** and stakeholder groups that are relevant to your development challenge from your ecosystem map and charetting and write them on sticky notes. Add groups that are missing.
- Decide which types of **users** or other stakeholders would be interesting to interview. If you already have specific people in mind, write them down. Also consider which groups you have access to or alternatively how you could create access.
- Empathy interviews can vary greatly in duration. Consider what kind of interview you want to do and think about the general scope of your interview.
- Guerilla interviews (approx. 15-20 min.) are unscheduled interviews with a short interview guide. You can do guerilla interviews anywhere you can find **users** or other interesting interviewees: on the street, in the subway, and really anywhere you can imagine.
- In-depth interviews on the other hand last 30 min. -2 hours. The longer length allows you to engage with many more facets of your development challenge and gives you the time and space to develop a detailed understanding of user needs. You'll need to prepare a more detailed interview guide and recruit your interviewees in advance. You'll also need to either find a place with comfortable seating or arrange for video calls or telephone interviews. They are a must-have in any longer project.
- Once you have determined what kind of interviews you want to conduct, it is time to draft the interview guides for the different groups. Empathy interviews are typically semi-structured interviews. They follow an interview guide, which helps keep the conversation on target, but still allows for spontaneity. Roughly summarized, an empathy interview is first about getting to know the interviewee and building trust, then explore your topics of interest and conclude by digging deeper into the most interesting areas (see the interview arch on the Visual Instruction page)
- Start with the interview guide for one user or stakeholder group and then move on to the next one. Of course, one interview guide might also fit several groups.



Step by step

Preparing Empathy Interviews

 15 – 60 min
per Interview

Process – Develop an Interview Guide

- Discuss within your team which overriding themes are most relevant to explore with your selected group and write them on sticky notes. You may have already come across interesting topics during the ecosystem map or the charetting.
- Use the themes to build interview questions that will let you explore the themes further and draw out interesting stories. The interview questions can also be used to test the hypotheses from the charetting.
- Write down these questions on sticky notes. The interview guides on the Practical Example page and the following question categories might help:
- For the beginning of the interview, write down simple questions to warm up the interviewee or more general questions that introduce the topic. (For example questions like “What’s your profession?” or “What do you associate with...”)
- Write down experiential questions that aim to find out stories, emotions, obstacles, or motivations. It is particularly helpful to ask about past experiences. (“Tell me about your experience with...” or “Tell your best/worst experience with...”)
- Write down specific questions to probe for certain aspects (“When was the last time you...”)
- Or “what if questions” that we ask at the end of thematic blocks or interviews. (“If you had one wish, what would you change?”)
- Note: The questions should be simple and understandable. It is usually more helpful to ask open-ended questions. They allow room to truly hear how a person experiences the world and lead to a more fruitful conversation.
- First, let the group collect some questions aloud or let individuals do so in silence. Choose the best questions and arrange them into an interview guide.
- Finally think about how you’ll introduce yourselves to your interviewee and how you can get them interested in the interview. For example, you might start by saying that the goal of the interview is about learning about your interviewee and solving their problems.
- Your interview guide is a safety net, but it isn’t written in stone. You should feel free to explore other interesting areas that come up during the interview and therefore add questions or leave others out.
- If necessary, create additional guides for interviews with other **user** and stakeholder groups. Sometimes only individual questions need to be changed, sometimes you need a completely different guide.



Step by step

Preparing Empathy Interviews

 15 – 60 min
per Interview

Process – Create an action plan

- Now it's time for the practical details. Agree within the team who takes care of what. Also think about where you can conduct interviews, and whether you'll need to do any preparation in advance.
- Ideally, you conduct an interview with 2 people, one interviewer and one note taker. Decide on your roles before the interview.

Tip

The Field Guide by SITRA provides a very good introduction to the mindset and questioning techniques behind human-centered field research, and is also very compact, so you can read through it quite quickly to learn more. You can download your free copy here:

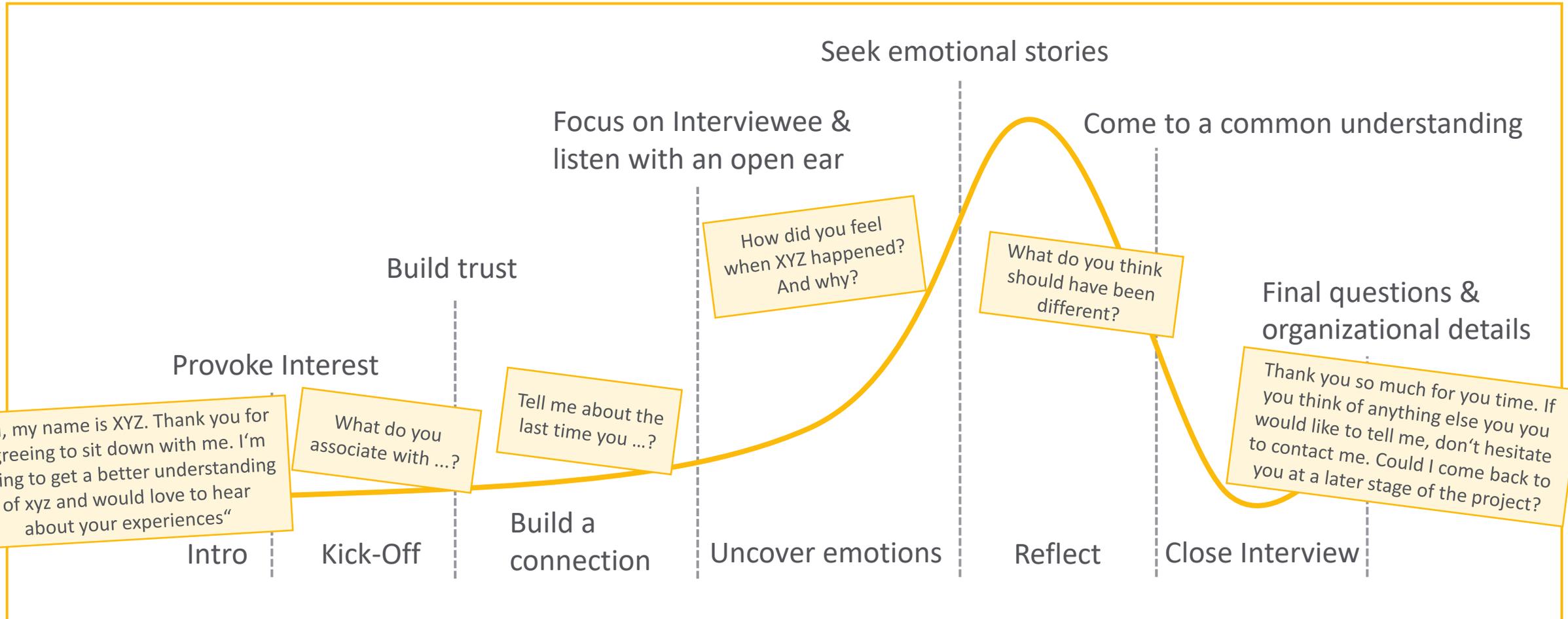
<http://www.helsinkidesignlab.org/files/731/Field%20Guide%20English.pdf>



Example

Preparing Empathy Interviews

🕒 15 – 60 min
per Interview





Overview

Conducting Empathy Interviews

 15 min – 2 hrs
per Interview

At a glance

Empathy interviews with users and other stakeholders help you to understand the perspective of your interviewees and to uncover problems, needs, motivations and emotions regarding your development challenge. After you have prepared the interviews (Prepare Empathy Interviews), it is now time to conduct them - here you should consider a few practical tips.



What it helps you do:

- Uncover problems, needs, motivations, and other emotions related to your development challenge to discover fields of opportunity for business solutions
- Understand the perspectives of your users (and other stakeholders)



What you will need:

- Interviewee
- One interviewer or two for splitting roles during interview
- Interview guide

- Face-to-face interview: Notebook & pen, camera
- Remote interview: Notebook & pen or text document, video call tool or telephone



Step by step

Conducting Empathy Interviews

 15 min – 2 hrs
per Interview

Preparation

Prepare for your semi structured interview with the tool [Preparing Empathy Interviews](#).

Process

An interview guide is a good basis, but not everything you need to conduct a good interview. These tips will help you with the practical implementation:

- **Be engaged and listen.** An interview should feel like a good conversation in which you're listening intently to your interview partner and are paying attention to their answers. Also, non-verbal cues such as eye contact, nodding, and smiling signal that you're engaged and interested.
- **Have a conversation.** Your interview guide is just that – a guide. It's not a checklist and your interviewee should never have the feeling they are taking a survey. When your interviewee has something interesting or exciting to tell you, just react spontaneously and go with the flow; don't try too hard to pull them back to your questions.

- **One question at a time.** Just ask one questions at a time, otherwise it might be confusing for your interviewees.
- **Go for stories.** Pay particular attention to questions that focus on concrete experiences and situations.
- **Dig deeper.** Pick up on your interviewee's answers. Especially the question "How did you feel?" and the question "Why?" are valuable questions to explore the interviewee's statement and emotions further. There is a rule called 5 why's: Asking "why" in response to five consecutive answers pushes the interviewee to examine and express the motivations behind their behavior and attitudes.
- **Allow for pauses.** Try not to fill any silence. After asking a question give them time to reflect and answer. Don't assume you know what they're going to say or put words in their mouth. Let them articulate their thoughts in their own words.



Step by step

Conducting Empathy Interviews

 15 min – 2 hrs
per Interview

Process

- **Stay unbiased.** Observe and ask questions without judging. Don't correct, refute or challenge. Don't suggest answers to your questions.
- **Ask naïve questions.** Unassuming questions encourage people to explain the logic of their behaviors. Be careful to pose these questions with genuine curiosity to avoid sounding patronizing.
- **Observe body language.** Observe body language and reactions of the interviewee. This allows for spontaneous questions based on observations. So please meet in person or think of video call if possible.
- **Take notes.** As much as is practical, take notes during the interview. This will help you relay the interview to team members who weren't present. Capture notes about interesting quotes, problems, opportunities, ideas, insights etc. With the permit of the interviewee also take a picture of them.

After the Interview

- **Reflect on the interview directly afterwards.** Mark the most important aspects of the interview. What are the highlight moments of the interview? Why did these stick out to you? What were key quotes? Reflect on your development challenge: How evolved is your understanding of your selected problem and your focus based on what you uncovered in your interview?
- **Iterate your guide.** An interview guide is not static - you can take out, change or add questions for a further interview

Tip

Have one person lead the interview and another person take the notes. This allows the interviewer to engage in the conversation with the interviewee without disruptions and maximises your ability to document everything relevant.



Visual Instructions

Conducting Empathy Interviews

 15 min – 2 hrs
per Interview



**Overview**

Research Documentation Tool

 Not specified**At a glance**

- The Research Documentation Tool helps you to systematically capture data from your desk research or interviews. It is strongly connected to the Business Opportunity Matrix Tool and focuses on receiving findings for the identified knowledge gaps of the business opportunity hypotheses and reveal additional topics which are important to consider.
- Throughout your research you will most likely gather a huge sum of data. During the research process, every person involved will add their information in the Research Documentation Tool in the foreseen fields in the Excel sheet. If interviews are conducted, there is a separate tab to document each interview specifically and in detail. In the last step, the findings are transferred back to the Business Opportunity Matrix Tool in the respective cells in order to test the hypotheses with the help of the derived findings.

**What it helps you do:**

- Fill the knowledge gaps or answer the partly answered questions, which were identified in the Business Opportunity Matrix Tool (part 1)
- Reveal further important areas, which were not thought of before
- Gather all important data from the research phase in one document

**What you will need:**

- Derived business opportunities from the Business Opportunity Matrix Tool (Part 1)
- Identified knowledge gaps and partly answered questions
- Your team
- Research Documentation Tool Excel - [Link](#)

**Step by step**

Research Documentation Tool



Preparation

- The Research Documentation Excel (tab 1) follows the same logic as the Business Opportunity Matrix tool. Copy and paste the highlighted research gap and partly answered question cells in the Excel template exactly to the location where they are according to the Business Opportunity Matrix Tool (Part 1).
- Add the specific gaps and partly answered questions to the red cells in tab 1 and briefly explain the issue.

Process

- Brainstorm what information you need to obtain in order to receive findings. For example legal information, market information etc.
- Discuss whether it is sufficient to do desk research or if interviews need to be conducted. If you decide that desk research might be sufficient, directly add a few bullet points where you might get these answers (websites etc). If you decide for interviews, conduct a quick brainstorming and directly add a few names of suitable interview partners.
- It is also possible to check in a brief desk research first and if it is not possible to derive the findings, move to interviews.
- For conducting your interviews, have a look at the **Preparing Empathy Interviews Tool**, which specifically guides you through each step of the interview.

- During the interviews, directly insert the findings in the **Interview Guideline Template** (tab 2) and add the main findings of the research gaps and partly answered questions in the yellow cells of tab 1.
- In the last step, transfer the findings to the Business Opportunity Matrix Tool (Part 2), where the derived hypotheses are tested and either confirmed, rejected or updated.

Optional:

- Mind that, if you encounter inconsistencies or new insights in your research findings, it might be helpful to take a second look at your overall research findings. In this case recommend you to make use of the Affinity Map Tool. This tool may help you to identify patterns and themes within your findings that are not sufficiently covered by the existing business opportunity Hypothesis.



Overview

Affinity Map



Minimum 2 hrs

Optional:

IF you encounter inconsistencies or new insights in your research findings.

AND/OR IF you want to identify patterns and themes within your findings that are not sufficiently covered by the existing Business Opportunity Hypothesis.

At a glance

The application of the Affinity Map is recommended in case you – while synthesizing your findings in the Research Documentation Tool – identified new essential insights that don't match with your Business Opportunity Hypotheses. The tool helps you to single out research findings that may lead to the development of additional hypotheses. The Affinity Map thus supports you in managing information gathered from diverse sources, such as interviews and document research.

**What it helps you do:**

- Obtain an overview of gathered research information
- Attribute research findings to existing Business Opportunity Hypotheses and reflect on their coherence
- Identify themes and areas for potential new Business Opportunity Hypotheses

**What you will need:**

- Research findings (i.e. derived from the Research Documentation Tool)
- Your team
- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Affinity Map



Minimum 2 hrs

Preparation

- At this point of the programme the Affinity Map is used to take a second look at your Business Opportunity Hypotheses and if necessary to identify themes and areas for the development of new hypotheses.
- Essentially, in your Affinity Map you will allocate and match all relevant research finding you've gathered during your prior field and context research with the identified users' challenges (as defined in your Business Opportunity Hypotheses).
- The Affinity Map is used if you come across information that doesn't fit or even contradicts your assumptions regarding your Business Opportunity Hypotheses. Thus pay particular attention to the insights gained from the Research Documentation Tool.

Process

- Go through the documentation of your research and note all relevant information on sticky notes and place them on the whiteboard. These findings may range from key facts to observations, experiences and statements from potential users, beneficiaries and stakeholders.
- Also mind to transfer all insights you gained while elaborating on you research gaps in the Research Documentation Tool (see 'Key Finding' cell of your Research Documentation Excel), write these findings on a different color of sticky note (i.e. red) and place them onto the whiteboard.
- As this activity is about gathering your team members' individual perspectives on your research findings, it is important to keep it as a free brainstorming exercise. Collect as many pertinent insights as possible, refrain from heavy discussions and feel free to build on the ideas of others.
- In the next step you will match your findings with your Business Opportunity Hypotheses. Therefore, distil the essence of each of your hypotheses in a few key words (i.e. note the user and their challenge), write them on larger sticky notes and distribute them over the whiteboard.
- One by one, pick up sticky notes and allocate related notes to the respective hypothesis. Keep one corner of your whiteboard free. In this "parking lot" you put those sticky notes with information you are not able to allocate to any of your hypotheses.



Step by step

Affinity Map



Minimum 2 hrs

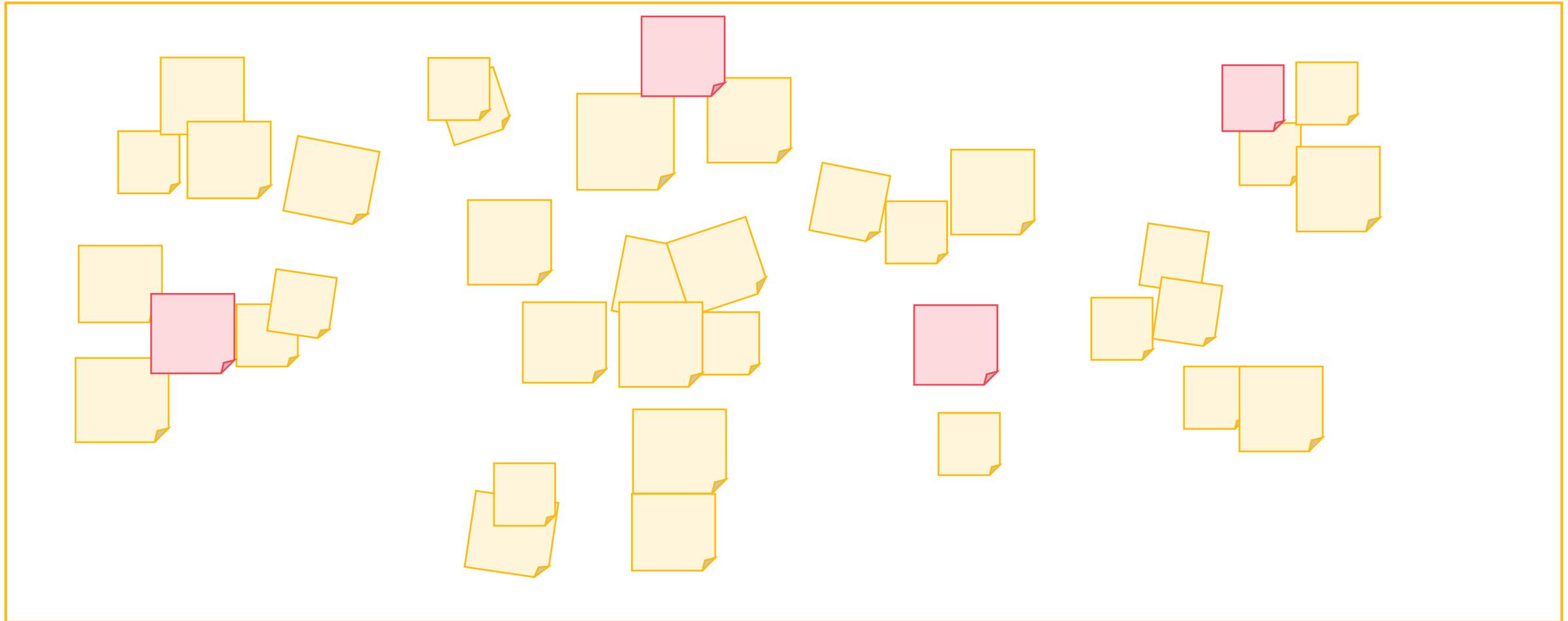
- Once you have allocated all your research findings, enter the next step: the interpretation of your results by examining each cluster of findings.
- Are there different interpretations or conflicting perspectives among your team members that indicate contradictions within your clusters of findings? Discuss with your team and in case of contradictions consider to put the finding to the “parking lot”.
- Now focus on those hypothesis-clusters that contain additional findings which you identified in the Research Documentation Tool. Discuss with your team the importance of these new findings and their impact on your overall Business Opportunity Hypothesis. Do the new findings further support your Business Opportunity Hypothesis? In case the new findings raise doubts about the consistency of your Business Opportunity Hypothesis you might consider reframing it.
- Finally, take a look at the “parking lot” of findings you were not able to allocate to your existing hypotheses. These findings may represent insights that feed into the development of a new Business Opportunity Hypotheses.
- In order to elaborate on their significance for the development of new Business Opportunity Hypothesis, discuss with your team: do the findings indicate clues regarding a specific user need that is not covered by any existing Business Opportunity Hypotheses? Do the findings suggest that there is a challenge which is not yet appropriately addressed?
- In that case you can identify potentials for a distinct new challenge in your “parking lot” findings or the need of reframing an existing hypothesis. We recommend you make use of the “How Might We”- Question Tool.



Visual Instructions

Affinity Map

 Minimum 2 hrs

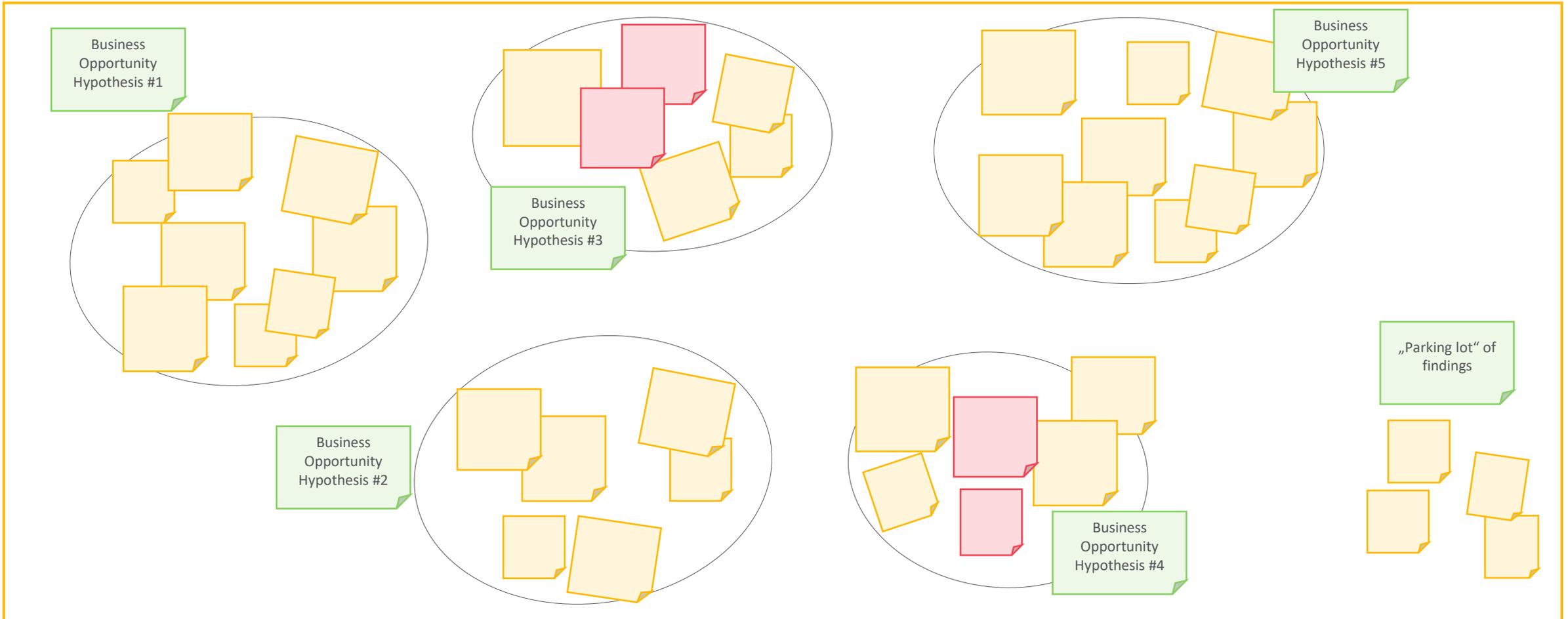




Visual Instructions

Affinity Map

Minimum 2 hrs





Overview

Point of View

 15 - 30 min
per POV

At a glance

The Point of View (POV) is a tool for synthesizing your results. It's a concise way to recognize hidden needs and patterns among your users. Formulating a POV helps you to articulate a focus within your development challenge. You'll use it as a frame for creating a solution that really fits your user's needs. A POV boils your observations down into a single sentence that expresses the perspective of a persona. The POV contains one or more needs you uncovered as well as the insights you inferred. The POV can be a precursor for one or more How might we questions, which are the jumping-off point for your business idea development.



What it helps you do:

- Bring together and articulate the needs and insights you identified
- Notice patterns in **users'** needs
- Develop a **user**-centered problem statement
- Set a focus to formulate How might we questions for later idea development



What you will need:

- Results from persona or **user** journey
- Your team

- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Point of View

 15 - 30 min
per POV

Preparation

- A POV has a specific structure that you can prepare in advance on a board. Write in large, clear letters: _____ (persona) needs to _____ (need), because _____ (surprising insight).

Process

- Decide for which need and insight and for which persona you want to create a POV.
- In the first blank space, fill in the corresponding persona.
- The next blank space is for this **user's** needs. A problem you identified as most important to your user, as well as most interesting to you. Describe the need as clearly as possible.
- Finally, fill the last blank space with the insights you inferred: Why might this **user** have this need? What **surprised** you about this need? What was especially interesting about it?

- Be careful that your insights aren't just superficial reasons or consequences of the need. Think about what's really beneath this need, not just what's immediately obvious.

Example

- Here's a POV that's **not** useful: Amivi needs to check her health to feel safe when engaging in physical activities.
- This POV just describes the consequences of the need, not the deeper reasoning behind it.
- Here's a more useful POV: Amivi, the NCD patient, needs to be able to easily check her medical condition, because she is afraid to engage in physical activities which might make her feel sick.
- This POV describes not only Amivi's needs, but also the deeper, underlying reasons for it.

- Agree on a final formulation for your POV. This sentence leads into creating How might we questions that will guide the ideation process in the next phase. An example: How might we provide approved, easily accessible testing and monitoring systems to NCD patients?

Tip

- Let everyone in your team come up with their own POV for a given persona. Together, vote and decide which POV statement is most insightful.
- If a persona has multiple urgent needs, you may also select more than one POV.
- Create a POV for each of the personas that you have derived from your research.



Example: Point of View for the development challenge to prevent and control NCDs in Ghana

Point of View

🕒 15 - 30 min
per POV

Amivi, the NCD patient,

user

needs to be able to easily check her medical condition,

need

because she is afraid to engage in physical activities which might make her feel sick.

insight

Amivi, the NCD patient,

user

needs pharmacies to provide the most affordable and effective drugs,

need

because she fears buying low quality and/or ineffective generics.

insight



Overview

How might we Questions

 15 - 30 min per
HMW question

At a glance

After conducting research and analyzing your findings, it's time to reframe your initial development challenge or break it up into a set of actionable business opportunities. A simple but powerful way to frame our questions (already used for the initial challenge) is to start with the words »how might we« and summarize both the user's needs and the problem we want to solve. HMW questions are a step towards solutions and a jumping-off point for generating ideas, but they don't yet include solutions themselves.

Coming up with good HMW questions takes some time, but the effort pays off later: good questions are the foundation for clear, targeted, and **user**-oriented business solutions in the Ideation Sprint.



What it helps you do:

- Focus on the main problems and needs you identified
- Starting point for generating ideas for business solutions
- Provide orientation and inspiration for idea development



What you will need:

- Identified user needs and insights from persona, user journey and/or POV
- Your team
- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

How might we Questions

 15 - 30 min per
HMW question

Preparation

- Look over the user needs and insights that you identified during analyzing your research. Your POV statements are an ideal starting point for creating your HMW questions.
- Choose all insights that you'd like to capture in a HMW question and take them one by one.

Process

- Start each HMW question with the words »How might we...«. Further building blocks of the HMW-Question are the persona or user group and the need you want to fulfil or the problem you'd like to solve for them. Optionally, you can also describe further context like contradictions, constraints, consequences etc. For example: How might we provide seamless access to continuous care at different facilities (need) for NCD patients on the go (user group) in a world where access to health facilities and insurance for care is fragmented and not synchronized (context)?
- Experiment by addressing analogies with other examples from the same context, exploring extreme and extraordinary insights, adding constraints and conditions influencing the solution space and taking up a user perspective.
- Create as many HMW questions as you can. Aim for at least 5-10 questions that describe your insight. Afterwards you can choose the most suitable.
- Go through the HMW questions you created. Make sure they're neither too narrow nor too broad. It can be a delicate balance. If they seem to already imply a narrow range of solutions, discard them. HMW questions should open up a rich, varied landscape of possible solutions, but if they're too general, they won't lead you toward concrete solutions.



Step by step

How might we Questions

 15 - 30 min per
HMW question

Example

Examples of HMW questions about improving the testing and monitoring options for NCD patients:

- Here's a HMW question that won't work well: How might we improve testing and monitoring systems in healthcare? This is both too unclear and too broad. The question focuses only on the testing and monitoring systems. There's no **user**, much less **user need**, in the question. And the word »healthcare« is fuzzy and vague.
 - Here's a better example: How might we provide accessible testing and monitoring systems to NCD patients in remote areas? Here, both the user and the problem are clear, and the question still leaves room for a variety of solutions.
- Once you have formulated all your insights as HMW questions, evaluate them to decide which ones to tackle in the Ideation Sprint, which ones to leave aside and to decide if more research is necessary. During the decision process consider the market demand, which is the willingness of one or more parties to pay for potential solutions, and if any technical or regulatory reasons speak against the HWW questions.

Tip

We call the final HMW questions business opportunities. You may complete a new *lab of tomorrow* challenge quiz for each business opportunity to map everything you know about them in one place. This will later allow you to compare different business opportunities and select the most substantiated ones for the Ideation Sprint.



Example: Point of View for the development challenge to prevent and control NCDs in Ghana

How might we Questions

15 - 30 min per
HMW question

How might we provide approved, easily accessible testing and monitoring systems

HMW problem

to NCD patients in Ghana

user

so they are empowered to conveniently manage their situation?

context (optional)

How might we enable pharmacies to provide the most affordable and effective drugs

HMW problem

to NCD patients

user

in a world where effectiveness is hard to determine and where people doubt the quality of generics?

context (optional)

**Step by step**

Business Opportunity Matrix – *Selection (Part 2)*

Design Thinking Tool

Facilitators



40 - 60min

Preparation

- After completing your research phase, go back to your Business Opportunity Matrix and fill the knowledge gap cells and partly answered questions with your findings from the "Research Documentation Tool".
- *Optional:* If your business opportunity hypotheses have to be significantly changed based on research findings and/or if the testing of your business opportunity hypotheses shows a need for additional business opportunities, an extra loop to derive or change business opportunities is recommended. For this step, go back to the **How Might We Questions Tool** that will help you with reformulating your hypotheses or developing new business opportunities. The additional and reformulated business opportunities will then be added to the **Business Opportunity Matrix Tool**.

Process

- Go through all business opportunity hypotheses again, test their suitability with the updated information of the previous knowledge gaps and either confirm them with the "yes symbol" () or reject them with the "no symbol" ().
- If the number of business opportunities with the "yes symbol" is higher than the maximum number you are looking for, each participating team member distributes star icons () in the amount of business opportunities that should be selected to the (in their opinion) most suitable business opportunity.
 - In the example on the next slide, the target are the selection of 4 business opportunities but there are 5 possible business opportunities. Therefore, each team member received 4 stars and distributed them to the business opportunities.
- Check the distribution of stars and decide according to majority which ones are selected as final business opportunities and mark them with number icons (the numbers don't stand for the importance of the business opportunities).



Overview

Graphic Gameplan

 60 – 90 min

At a glance

The Graphic Gameplan helps you with the project kick-off. It is not a classic project plan but gives you an overview to determine the most important factors. You can use it to create a dynamic action plan that helps your team keep track of the following points as the project progresses: What resources you have, what vision you share and where the project is heading, what your goals are, and what your next steps are, what challenges you face and what factors are crucial for a successful collaboration.



What it helps you do:

- Define the goals and steps along the journey towards project implementation
- Create awareness for available resources & common obstacles
- Set conditions for project development and success
- Develop a common understanding of the project within the venture team
- Visually develop a holistic overview of the project's lifespan



What you will need:

- Your venture team
- Offline workshop: Graphic Gameplan printed template (optional), whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Graphic Gameplan

 60 – 90 min

Preparation

- Draw or create the structure of the Graphic Gameplan on the board (as shown in the graphic on the [Visual Instruction](#) page).

Process

- The Graphic Gameplan consists of 7 fields. Proceed field by field in the following order. First, each team member writes sticky notes for each field in silence. Then the content of each field is shared in the group.

1. Team & Resources

- Write the names of your team members on the left side. What companies do they work in and what is their role there?
- What's their profession (professional superpower) and which other skills do they bring to the teams (personal superpower)?

- What other resources do you have available within the team (e.g. technologies, partners)
- What is the interest of your team members in the subject of the development challenge?

2. Vision

- What kind of future are you envisioning?
- Your vision is the picture of the future that you are working towards. It points beyond your project, gives you direction and serves as a guiding principle.
- State your vision clearly and concisely and write it in the centre of the cloud. A good vision statement is characterized by mapping the future into a vivid, concrete and descriptive scenario that everyone can easily imagine.

3. Goal setting

- What do you want to achieve?
- The goals section consists of two circles: an inner circle and an outer one.
- Project goal: In the inner circle, write the overriding goals your team is pursuing. What do you want to achieve as an end result? Ideally formulate SMART goals. This acronym stands for S = Specific: The goals should be concrete and clear, M = Measurable: You should be able to analyse results numerically, A = Actionable: There are clear actions that would lead to the goal being achieved, R = Relevant: it is something that needs to be done, and is possible to accomplish, T = Time Bound: Meaning a specific date for completion is embedded in the goal.)
- Secondary goals: Write your other, secondary goals in the outer circle. This might include also personal goals.



Step by step

Graphic Gameplan

 60 – 90 min

- In contrast to the vision, the goals describe concrete steps that are measurable and enable the formulation of clear instructions for action.

4. Next Steps & Phases

- How will you reach your goal?
- Place the agenda of your Ideation Sprint and get a common understanding of the programme.
- Add further steps that go beyond the Ideation Sprint.

5. Obstacles

- What challenges & problems might arise?
- In the process of determining goals and steps, you might think of barriers that will hinder you to accomplish things. Don't ignore those thoughts but note them in the »mountains« on the template in the section »obstacles«. After accomplishing the section »next steps & phases«, you deal explicitly with possible obstacles and add them to the ones already noted here.

6. Success Factors

- The success factors are behaviors and agreements for the team process, such as “meet deadlines” or “support each other”. External factors like reliability of partners, political stability of decisions or other topics related to your project should also be taken into consideration in this frame.

7. Open Questions

- Discuss which aspects are still unclear, and what you need to clarify. Note down all open questions regarding team & resources, vision, goal setting, next steps & phases, obstacles and success factors in the corresponding field.

Tip for using the Graphic Gameplan

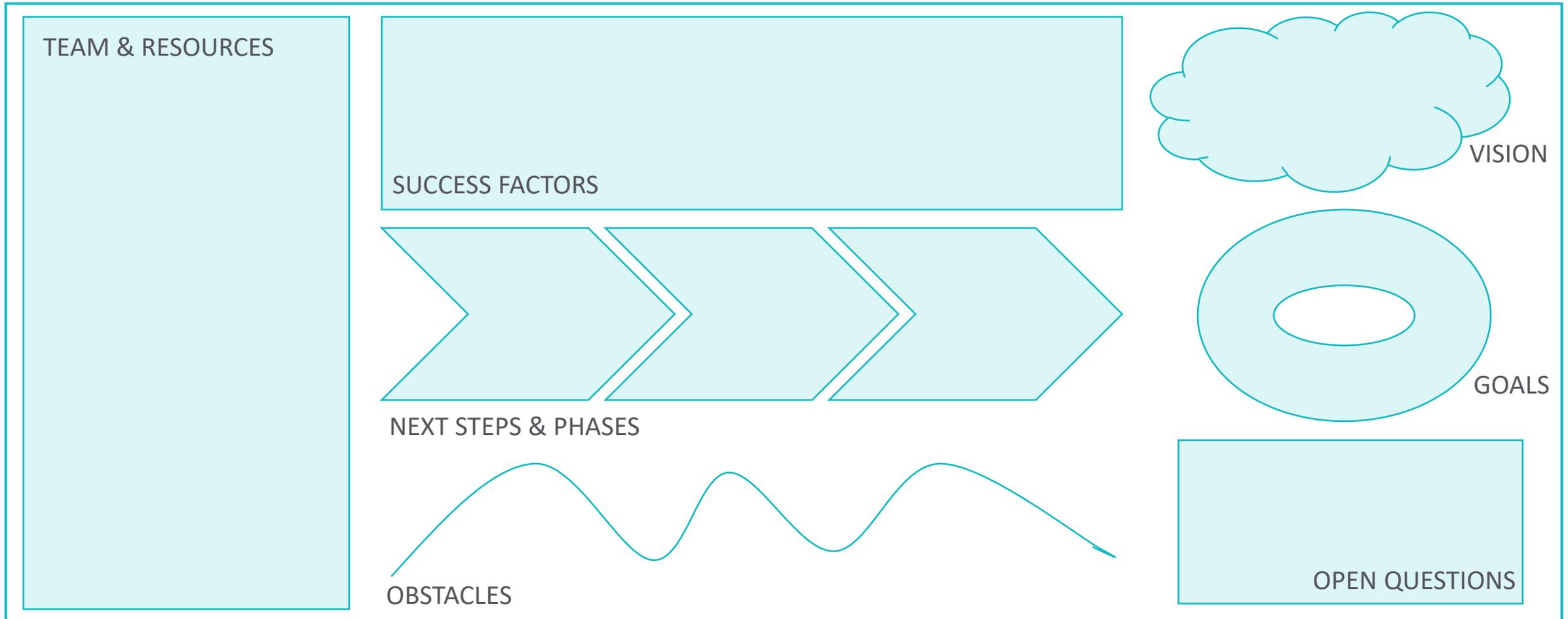
- Put the Graphic Gameplan where the whole team can see it. It will serve as a project map, helping to keep important points in mind.
- Feel free to modify and expand upon the Graphic Gameplan during the course of the project.
- When you reach important milestones, or at regular intervals, check to see whether you're still on track and reflect on whether the planned course was the right one. If it isn't, you can change and improve the Gameplan anytime.



Visual Instructions

Graphic Gameplan

 60 – 90 min





Example: Graphic Gameplan of a team working on the development challenge to prevent and control NCDs in Ghana

Graphic Gameplan

60 – 90 min

TEAM & RESOURCES

- **Andrew**, pharmacist, direct contact to users, **Superpower:** flyer design, photography
- **Cherifa**, web designer & communication, **Superpower:** arts & music
- **Kofi**, medical device development, **Superpower:** motivation & energy
- **Laura**, Telemedicine, **Superpower:** Wikipedia-addict

- Support each other, act as a team
- Keep each other updated on what we are working on
- Work towards satisfying identified user needs
- Put time and energy into raising funding
- Meet agreed deadlines

SUCCESS FACTORS



NEXT STEPS & PHASES



OBSTACLES

A world in which every patient can get the medical care they need

VISION

In 3 years:
 Improve access to testing and monitoring systems for NCD patients in Ghana by 20%

GOALS

- Team members' roles
 - How to raise financing?
- OPEN QUESTIONS



Overview

Expert Interviews

 50 – 60 min

At a glance

In the beginning of the sprint, each venture team is given sufficient time to deeply understand the business opportunity it is going to tackle. For this, the venture teams review the insights material from the insights report, empathise with their users and explore the ecosystem of their challenge. After the venture team has acquainted itself with their How might we question/business opportunity and the design agency's findings from the insights report, the team could conduct an expert interview. An expert is somebody who has a broad and deep competence in terms of knowledge, skill and experience in a certain field. Talking to an expert helps you to classify and review existing knowledge and insights and to clarify open questions. It gives you an outside perspective on your topic and deepens your understanding of the development challenge and How might we question and helps you to develop it further.



What it helps you do:

- Develop empathy for existing insights
- Clarify open questions
- Test hypotheses about existing insights and gain new insights
- Iterate How might we question and get a starting point for idea development



What you will need:

- Hypothesis and open questions derived from the insights material for each team's business opportunity (persona, user journey, how might we question, etc.)
- Experts
- Your team

- Face-to-face interview: Notebook & pen, camera
- Remote interview: Notebook & pen or text document, video call tool or telephone



Step by step

Expert Interviews

 50 – 60 min

Preparation

- Prepare an interview guide for the expert interview. Unlike empathy interviews with users and stakeholders these interviews aren't about uncovering the needs of the interviewee. Rather, the point is to tap into your existing knowledge to extend your understanding of the business opportunity/How might we question. Therefore, incorporate the information you already gained during the Ideation Sprint into the interview guide.
- Think about the questions you want to ask and in which topic blocks you can structure them.
- Determine how you will introduce yourself and introduce the topic. In an expert interview, it is also important that your interviewee feels comfortable and that you ask rather simple questions at the beginning so that they can warm up a bit.
- Distribute roles: Who is conducting the interview? Who is taking notes? Who is observing?

Process

- Try to make the interview feel like a good, focused conversation. Your interview guide is not a checklist. When your interviewee has something interesting or exciting to tell you, just react spontaneously and go with the flow.
- Also, an expert interview is led under similar rules as a user or stakeholder interview:
- **Be engaged and listen:** Listen carefully to your interview partner and pay attention to their answers. Also, non-verbal cues such as eye contact, nodding, and smiling signal that you're engaged and interested.
- **One question at a time:** Just ask one question at a time, otherwise it might be confusing for your interviewees.
- **Dig deeper:** Build on your interviewee's answers and ask further questions, if there is something that interests you.

- **Allow for pauses:** Try not to fill any silence. After asking a question give them time to reflect and answer. Don't assume you know what they're going to say or put words in their mouth. Let them articulate their thoughts in their own words.
- **Stay unbiased:** Observe and ask questions without judging. Don't correct, refute or challenge. Don't suggest answers to your questions.
- **Take notes:** Take notes during the interview as much as possible, so that it is easier to remember it later.

**Step by step**

Expert Interviews

 50 – 60 min**After the interview**

- Evaluate the interview: How has your understanding changed? What was particularly interesting? Have your open questions been answered? What core insights do you draw from the interview? Align the insights gained from the expert interview with the persona(s) and user journey(s) that you have already developed. With these combined insights you will acquire a new outlook on the biggest problems and needs of the user group. The new insights can be used to develop one or more new HMW questions that are based on the original HMW question. These serve as a starting point for the development of ideas for business solutions (also see the tool [How might we questions](#)).



Visual Instructions

Expert Interviews

 50 – 60 min





Overview

Brainstorming

 20 – 30 min

At a glance

Brainstorming is probably the best-known creative tool. During brainstorming, all team members jointly generate many ideas for a specific question (How might we question). All ideas are pronounced aloud, written on sticky notes and collected on a whiteboard. In addition to the classic brainstorming, there are many variants and modifications.



What it helps you do:

- Develop ideas for business solutions



What you will need:

- How might we question (redefined development challenge)
- Your team
- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Brainstorming

 20 – 30 min

Preparation

- Put your How might we question on the board, so it is clearly visible to everyone. Read the How might we question again, because it is the alpha and omega of a good brainstorming session (see tool How might we questions).
- In a face-to-face workshop have your team standing in front of a whiteboard, all equipped with sticky notes and pens.

Process

- Set the timer to 5-7 minutes for a brainstorming session. The time pressure helps you to stay focused and inspires your creativity.
- Develop business ideas together. When a team member comes up with an idea, he or she says the idea aloud, writes it on a sticky note, and attaches it to the board.
- Collect as many ideas as possible and observe the following rules for creative tools:
 - **Go for quantity!** As you develop your ideas, write down any that come to your mind. The more ideas you create, the higher the likelihood that really good ideas will emerge. If you do not limit your ideas, you're also more likely to find a creative flow and explore different directions.
 - **Connect existing ideas!** Connecting solutions that already exist in different ways is a great way to be innovative.
- **Build on the ideas of others!** Use the power of the group and inspire each other to come up with new ideas based on the ideas of other team members.
- **Defer judgment!** Do not judge ideas while using a creativity tool – neither your own ideas, nor those of others. If you judge, you will only block yourself and the other team members and interrupt the creative flow. You can assess the results on a later stage.
- **One person at a time!** So that you can inspire each other and find out what ideas your team members have developed, it is important that only one person speaks at a time, and the others listen **carefully**.
- **Be visual!** Pictures say more than a thousand words. Sketch small pictures next to the short descriptions of your ideas. It is easier for your team members to understand what you have in mind, and for the team to quickly recognize the ideas later.



Step by step

Brainstorming

 20 – 30 min

- **Encourage wild ideas!** Wild, extraordinary ideas expand the space of thought and lead us to the true innovations. Even if they seem impossible at first, it is when you think outside the box that you can draw on the full creative potential and see different perspectives.
- **Stay focused!** Don't be distracted during the development of ideas. Concentrate, stay on topic, and focus on solutions that answer your How might we question and fit the need you have identified.
- Within a brainstorming session you can conduct several rounds of brainstorming with different brainstorming variants one after the other. For example, you can combine classic brainstorming with the tool alternative perspectives.

Tip!

A variation of the classic (loud) brainstorming is the silent brainstorming. Silent brainstorming gives all team members five minutes to develop ideas and silently write them on sticky notes. Afterwards everyone introduces their ideas and develops the ideas further together. The exchange usually takes between 5 and 10 minutes.

Silent brainstorming is particularly well suited as an entry point, since there is less pressure, and everyone can first develop ideas for themselves. Often introverted team members can better develop their creative potential in a silent brainstorming session.

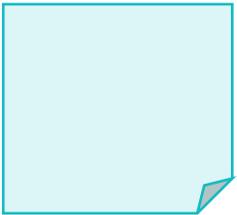
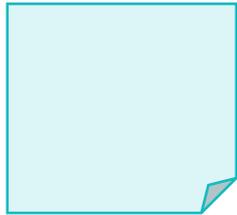
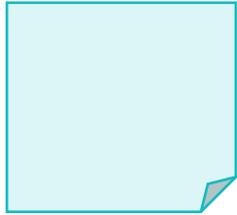


Visual Instructions

Brainstorming

 20 – 30 min

How might we **provide NCD patients** with approved, easily **accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?





Example: Brainstorming for the development challenge to prevent and control NCDs in Ghana

Brainstorming

🕒 20 – 30 min

How might we **provide NCD patients** with approved, easily **accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?

A single patch (like a plaster) a patient can put on the wrist

Patch contains micro needles to take samples at programmed times and two electrodes that measure systolic and diastolic pressure

...

Wearable device which checks blood pressure at set times and uploads to cloud

Add-on remote monitoring services for hypertension & diabetes patients

NCD patients gets affordable home use devices for long term monitoring.

Digital health data record connected to hospitals

Free urine test strips for glucose monitoring which are relatively easy to use, platform to upload results



Overview

Alternative Perspectives

 20 – 30 min

At a glance

Alternative Perspective is a variation of brainstorming. In the Alternative Perspectives approach, you take the perspective of a known organization, group or personality with a different perspective than you. From this perspective, you develop new ideas for your How might we question. For example, you might wonder how Harry Potter would handle your issue or how the company Google would solve your problem. Therefore, you can view your question from a new perspective to get inspired and free yourself from previous limitations and concerns in order to develop extraordinary business ideas.



What it helps you do:

- Get inspired with a unique perspective
- Develop exceptional ideas and solutions



What you will need:

- How might we question (redefined development challenge)
- Your team

- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Alternative Perspectives

 20 – 30 min

Preparation

- Put your How might we question on the board, so it is clearly visible to everyone.
- In a face-to-face workshop have your team stand in front of a whiteboard, all equipped with sticky notes and pens.

Process

- Select an alternative perspective and add this to your How might we question. For example, "How would _____ (e.g., Homer Simpson) tackle this challenge?" Or "How would we address the issue _____ (e.g., the time of Caesar or if were in the world of Star Wars)?"
- Set the timer for 5-7 minutes.
- Collect ideas for your How might we question with the perspective that you have selected in mind.
- Write the ideas on sticky notes and collect them on your board.

- Follow the rules for creative tools (see tool brainstorming).
- Select another perspective and repeat the procedure. You can do several brainstorming rounds in a row.
- Experiment with different perspectives. It is possible that a perspective is not as inspiring as you first thought. Don't be discouraged. Just choose a different perspective and keep going.
- You can also use the Alternative Perspectives tool in combination with other variations of the brainstorming tool (see brainstorming). Complete several brainstorming rounds with different variations in a row. For example, you could start with a round of silent brainstorming and do two rounds of alternative perspectives afterwards. A brainstorming session with several brainstorming rounds should take between 20 to 30 minutes in total.

Tip

Instead of brainstorming together from one perspective, each team member can take a different perspective. In this way, you get a variety of perspectives within a brainstorming round.



Visual Instructions

Alternative Perspectives

 20 – 30 min

How might we **provide NCD patients with approved, easily accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?

How would **Harry Potter** solve this challenge?

8 yellow sticky notes arranged in three rows: 3 in the top row, 2 in the middle row, and 3 in the bottom row.

How would **Elon Musk** solve this challenge?

8 green sticky notes arranged in three rows: 3 in the top row, 2 in the middle row, and 3 in the bottom row.



Example: Alternative perspectives for the development challenge to prevent and control NCDs in Ghana

Alternative Perspectives

 20 – 30 min

How might we **provide NCD patients with approved, easily accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?

How would **Harry Potter** solve this challenge?

Fly testing and monitoring kits to the patients on a broomstick

Create a magic potion that keeps blood sugar stable (diabetes patients)

Disapparition of NCD patients to the nearest hospital for check-ups

How would **Elon Musk** solve this challenge?

Develop device that includes all necessary features for testing & monitoring, incl. Doctor & nurse function

Create a micro chip to transplant that keeps blood sugar stable



Overview

Structuring and selecting ideas

 10 – 20 min

At a glance

After a successful brainstorming session, many, many sticky notes with your ideas will be on your boards. Before you choose an idea, you should first structure your ideas. This helps you to get an overview of the ideas, recognising relationships and, if necessary, evaluating the ideas. This will make it easier for you to decide between your many ideas later.



What it helps you do:

- Gain an overview of the existing ideas
- Recognize structures and relationships
- Rate ideas
- Create a basis for selecting ideas



What you will need:

- Ideas from former idea development
- Your team
- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Structuring and selecting ideas



10 – 20 min

Process

- Think about how you want to proceed and determine which criteria you want to use to structure your ideas. There are various possibilities for this. Take a look at the graphics on the [Visual Instruction](#) page.

Open-result thematic clusters:

- Organise your ideas thematically, group similar ideas and stick them together. Afterwards you can find headings for the individual idea clusters. This creates an additional overview.

Cluster according to predefined categories:

- If you already have certain criteria in mind through which you want to filter your ideas, it makes sense to arrange your ideas according to these structures.
- In this case, before clustering, opt for a structure that makes sense for your project and assign these corresponding criteria to the clusters.

- If you wanted to filter out particularly futur-oriented ideas, you could, for example, use the following clusters for your ideas: »Today – Tomorrow – Future«.

Idea selection:

- The next step is to select the most promising ideas and develop them further. Use dot voting for this: In a face-to-face workshop each team member marks the preferred sticky notes with glue dots or a pen, in a remote one, you can create coloured circles instead or use a voting function of the digital whiteboard you are using. You either decide in advance how many points each team member can use or you leave the number of votes open. This is what we call swarming. In this case everyone may make as many marks as they wish. Sticky notes may also be scored several times.

- You can also select your ideas by predefined criteria, like "easiest to implement", "best fit for user need", "simple to sell" etc.
- Consider who you are developing the solution for and recall your users when selecting ideas. You will continue with the most voted ideas for business solutions (approx. five ideas).



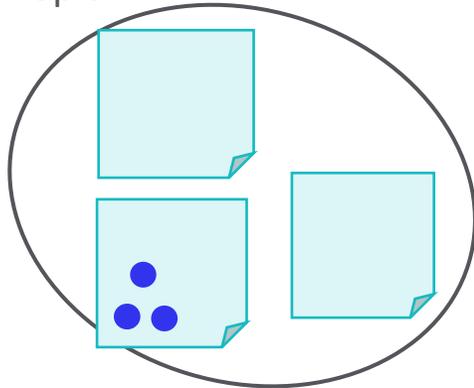
Visual Instructions

Structuring and selecting ideas

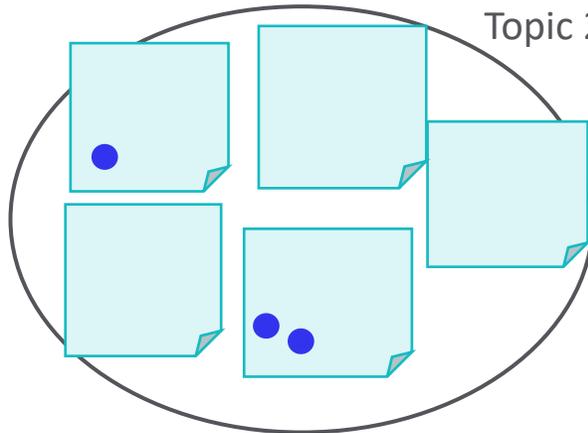
🕒 10 – 20 min

Open result thematic clusters

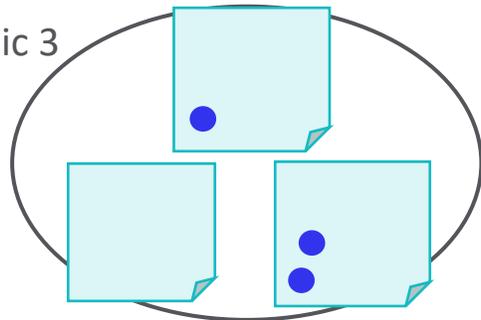
Topic 1



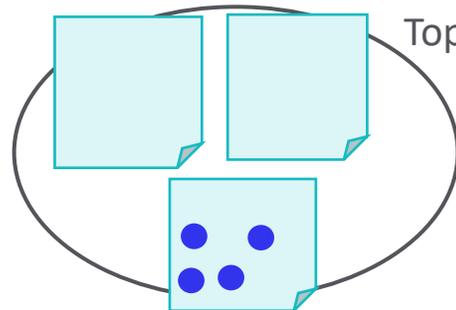
Topic 2



Topic 3

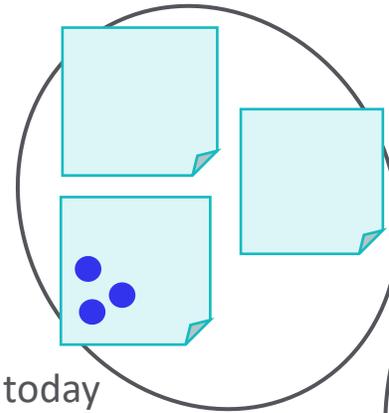


Topic 4

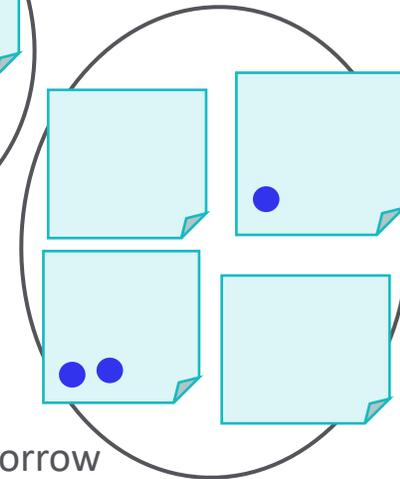


Clusters according to predefined categories

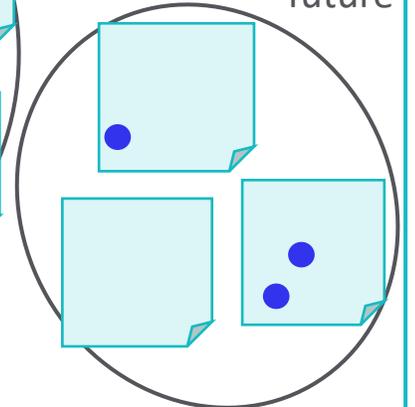
today



tomorrow



future

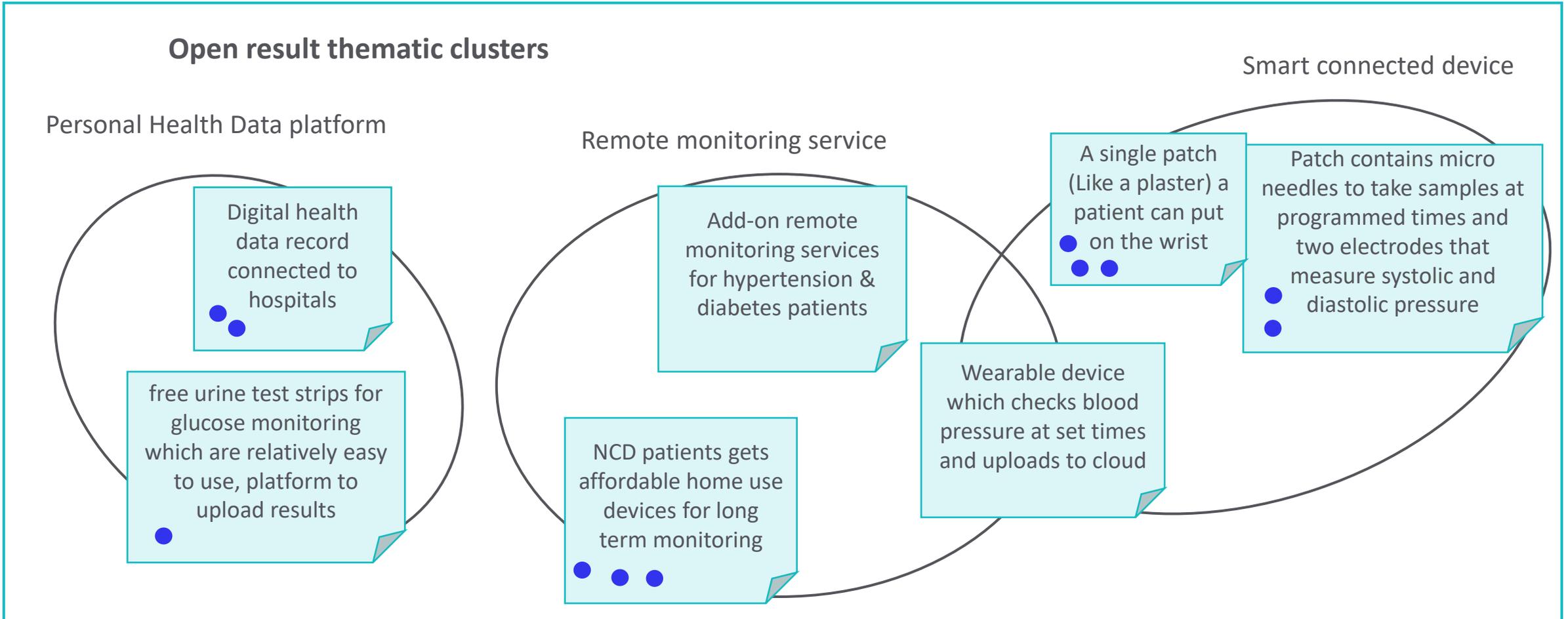




Example: Structuring and selecting ideas in the context of the development challenge to prevent and control NCDs in Ghana

Structuring and selecting ideas

10 – 20 min





Overview

Sanchez

 20 – 40 min**At a glance**

The Sanchez tool helps you further develop ideas from your brainstorming session. Choose your best ideas and develop five further ideas for each one. The goal is to create a wide variety of differentiated ideas. With this tool you can see what is hidden in your idea, thus you can better estimate the potential.

**What it helps you do:**

- Elaborate on your ideas and further develop them
- Understand the potential of an idea

**What you will need:**

- Selected ideas from former idea development
- How might we question (redefined business opportunities)
- Your team

- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard

**Step by step**

Sanchez

 20 – 40 min**Process**

- Put the selected ideas on your board and take one idea after another.
- Next, develop further ideas. For each idea, come up with 3-8 ideas that build on it.
- For inspiration, you might think of the following questions: How can this idea be developed even further? How can this idea be communicated? How can it be elaborated? How do the core elements of the idea work? How could the idea address user needs even better? How could it be easier to implement?
- When you think of something, write it on a sticky note and stick it to the board.
- Spend about 5 minutes for each round.
- After all Sanchez rounds you decide which ideas you want to keep in the final version.

Tip

You can also divide your team so that each team member is working solo. Let everyone choose a different idea from your previous brainstorming sessions that appeals to them. Set a timer for 5 minutes, while each team member develops their chosen idea as described above. Afterwards, everyone shares with the group what they came up with, and the others give feedback and expand further on the ideas.



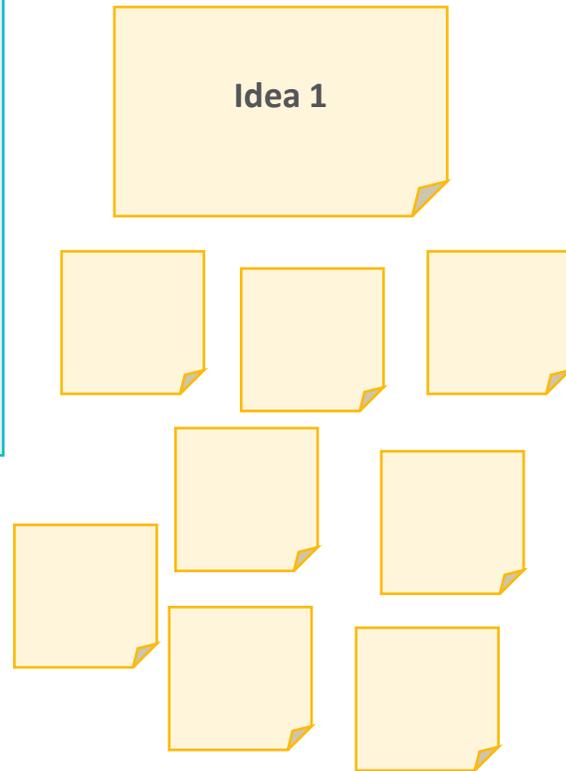
Visual Instructions

Sanchez

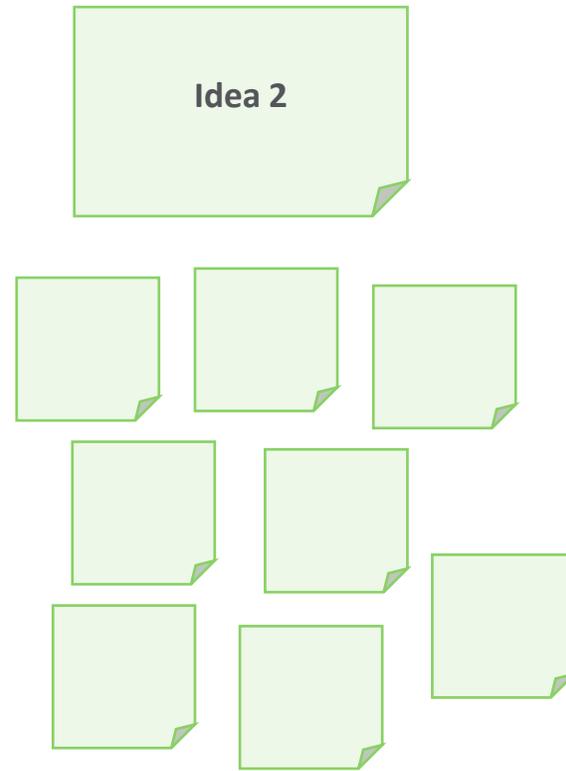
 20 – 40 min

How might we **provide NCD patients** with approved, easily **accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?

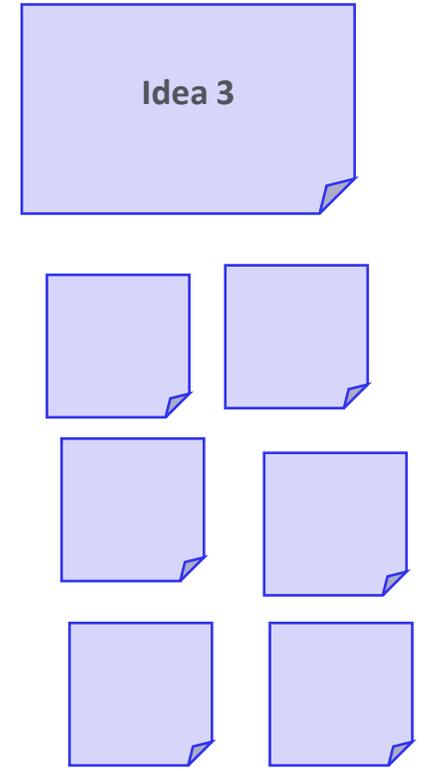
Idea 1



Idea 2



Idea 3





Example: Sanchez for a development challenge to prevent and control NCDs in Ghana

Sanchez

🕒 20 – 40 min

How might we **provide NCD patients** with approved, easily **accessible testing and monitoring systems** so they are empowered to conveniently **manage their situation**?

Patch with micro-needles

Micro-needles continuously take blood measures

Develop reusable and washable patches in order to avoid waste and costs

Results transferred to a mobile app/health platform

Affordable home use devices

Start: (Online) course on how to use them

Devices directly connected to a health platform

Second hand devices to make them more affordable

Automatic alerts when monitoring is due

Platform to upload test results

Device automatically uploads results

Can be accessed by clinics, pharmacies, labs, insurances,...

Direct communication through platform possible



Overview

Idea Napkin

 15 – 30 min

At a glance

The ideas selected so far are now processed with the idea napkin. The idea napkin is like a short profile of your business idea. It helps you to think through and to shape the idea. The idea napkin reminds you of your users and the needs you're trying to satisfy, matches them with your idea, and develops a common understanding of the idea within the team. The idea napkin forms the basis for building a prototype of your idea. With this tool, you will need less time in the actual prototyping session with discussions about the rough design of the idea and you can quickly make it experienceable in a prototype.



What it helps you do:

- Recognize the essence of the business idea and the associated user needs
- Create a common understanding of the idea
- Create a basis for the development of the prototype



What you will need:

- Approx. five business ideas elaborated with Sanchez
- Your team
- Offline workshop: The idea napkin template or DIN A3 paper, pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Idea Napkin

 15 – 30 min

Preparation

- Prepare the idea napkin templates according to the graphic on the previous page. Use one template per business solution

Process

The idea napkin is divided into the following fields:

- **1. Insights:** Here you describe for whom you developed your idea. For which context, for which situation is your idea intended? On what knowledge does your idea build? Which need does your idea satisfy or which problem for your user does it solve?
- **2. Value:** Describe the added value your idea brings to your user; what use do they have of your idea?
- **3. At a Glance:** Describe the core of your idea and in a maximum of three sentences.

- **4. Visualize the idea:** Create a sketch. Rough drawings are key to make your idea quickly understandable. You may also subdivide the visualization frame in several smaller frames and draw a rough storyboard to illustrate your ideas.
- **5. Name:** Consider a creative and catchy name for your idea.
- Now that you have concretized several ideas with the help of the idea napkins, you will further reduce them in the next step. For further work, you will select the idea that you think has the most potential. The [evaluating ideas](#) tool will help you to evaluate and select the ideas.

Tips

Instead of describing one business idea in more detail with the idea napkin in the group, each team member chooses one idea and fills out an idea napkin for their favourite business solution. When everyone is finished, team members present their idea napkins. Then you can select one or more of the ideas for the further process.

Make sure to visualize your idea: while it may look clear in your head, others might have a different picture in mind when imagining your idea in action.



Visual Instructions

Idea Napkin

 15 – 30 min

NAME:

The name of the idea

VISUALIZATION:

Drawing and photographing/ Photo collages

BRIEF DESCRIPTION:

The idea in 3-5 bullet points

USER NEED:

For whom is the idea intended? In which situations/ contexts is the idea relevant? Which insights lead to the idea (challenges, fears, wishes)?

VALUE PROMISE:

What added value does your idea create for the users?



Example: Idea Napkin for a development challenge to prevent and control NCDs in Ghana

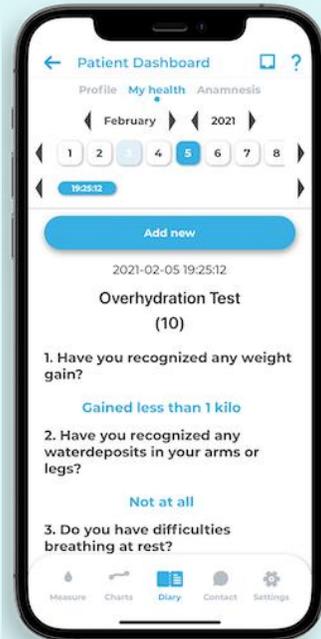
Idea Napkin

 15 – 30 min

NAME:

GlycMate

VISUALIZATION:



BRIEF DESCRIPTION:

- Mobile App that connects to a medical device that checks blood sugar, Glycated Haemoglobin and blood pressure
- The data retrieved is stored in a database
- The app allows users to insert data about their eating and gym habits

USER NEED:

- Users: people who live far from the nearest hospital or who have a tight schedule
- Without the solution, patients have to take long bus rides/ take off time at work for their health check-ups

VALUE PROMISE:

- Solutions allows for a punctual and professional monitoring without having to visit the hospital
- solutions saves patients money and time while making sure they are monitored by a professional



Overview

Evaluating Ideas

 15 – 45 min

At a glance

The 2x2 Matrix is a decision support tool that can visualize different options. The matrix diagram is a square divided into four equal quadrants. Each axis represents a decision criterion. In this way you can examine your ideas with regard to two different criteria and evaluate the ideas on the basis of these criteria. For example, you could rate your ideas in terms of **user** relevance and feasibility, or according to originality and monetary costs. For this, you will draw a matrix with two axes, which stand for the two criteria. Then, the ideas can be sorted into the matrix. The 2x2 matrix provides clarity and helps you to select the ideas that are the most relevant for your purposes.



What it helps you do:

- Create a structured overview of collected ideas
- Rate ideas
- Create a basis for selecting ideas



What you will need:

- Idea napkins of five business ideas
- Your team

- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Evaluating Ideas

 15 – 45 min

Preparation

- Draw a 2x2 matrix on your whiteboard (see Visual Instruction page)
- Name the axes according to the criteria by which you want to rank your ideas and divide those axis into two matching categories (see the section Programme for examples).
- Write the names of the ideas of the idea napkins on sticky notes.

Process

- Now you can put the ideas in the 2x2 matrix.
- There are many variants of the 2x2 matrix. Here we will introduce you to two:

HOW-WOW-NOW Matrix

- Let's assume that you want to rate your ideas according to the criteria »user relevance« and »feasibility«. Draw two axes and subdivide them into the categories »low« and »high«. This results in four clusters. Now put your ideas into the matrix. Within the clusters you can make differentiations. The four clusters of the matrix give you an indication of how you should deal with the respective ideas.
- Nameless cluster: low feasibility, low user relevance. You can reject these ideas.

- »Now!« cluster: High feasibility, low user relevance: Take a second look at your ideas. Do they fit to your problem in a different way? Possibly. Is it still worthwhile to continue working here?
- »How!« cluster: Low feasibility, high user relevance: Great ideas, you just have to invest a lot more energy in order to implement them. These ideas are also referred to as »moonshot« ideas.
- »Wow!« cluster: High feasibility, high user relevance: These ideas are great and easy to implement. You should definitely keep working with these.
- For the HOW-WOW-NOW matrix it is important that you have:
 - a good understanding of what kinds of solutions your target users desire
 - Relevant expertise in the team to judge how difficult the different ideas are to implement



Step by step

Evaluating Ideas



15 – 45 min

Innovation Matrix

- Another option is to cluster the ideas according to their degree of innovation in the **user** group and their degree of innovation as a product/service.
- Draw two **axes** with the titles »User Group« and »Product/Service«.
- The axis can be subdivided further into the subcategories »Existing« and »New« as the visual instruction shows.
- Thus, you can filter out the true level of innovation in your ideas and see which ideas are truly disruptive.
- For the Innovation Matrix you need:
 - a clear understanding whether the solution ideas are new to your target **user** group
 - relevant expertise in the team that allows you to judge whether the solution ideas are new to the market

Deciding which Idea to pursue

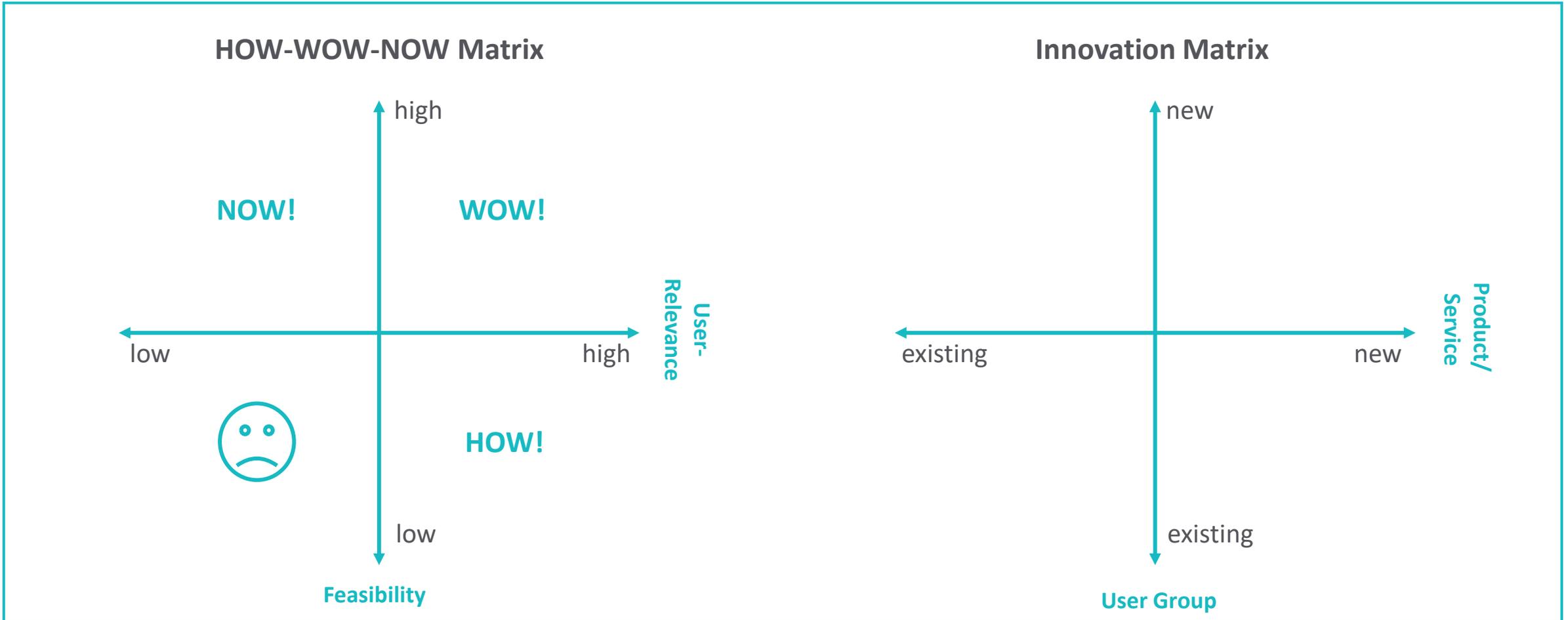
After placing the ideas in your version of the 2x2 matrix, discuss which one is the most promising one to you. Choose one idea to continue with in the Ideation Sprint. For the idea selection use dot voting as also described in structuring and selecting ideas. This time everyone gets two votes. One idea napkin must not be scored twice.



Visual Instructions

Evaluating Ideas

 15 – 45 min

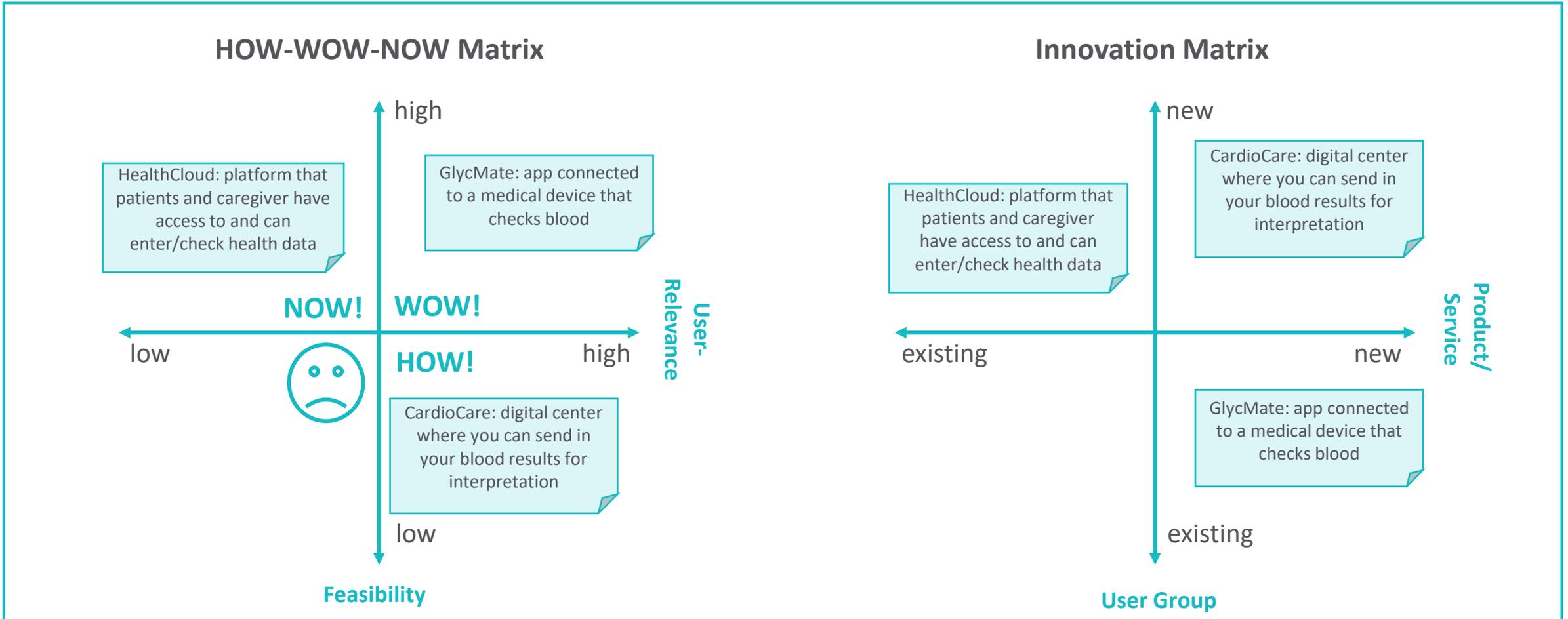




Example: Evaluating Ideas in the context of the development challenge to prevent and control NCDs in Ghana

Evaluating Ideas

🕒 15 – 45 min



**Overview**

Experiment Template for first User Tests

 10 – 30 min per experiment**At a glance**

Testing the most important parts of your idea with experiments early on helps you to build a solid understanding of its strengths and weaknesses and lets you identify ideas for improvement. The experiment template for first user tests helps you to (1) identify critical assumptions that would need to be true for your idea to become a success, (2) develop a suitable prototype (see subsequent prototyping tool) for testing your critical assumptions and (3) define a suitable test scenario with which you can test your idea with your **users** (called experiment). In addition, you define measurements and success criteria for your experiments in order to be able to classify your test results later.

You will use experiment templates again in later stages of the Ideation Sprint and the Incubation Phase to test all critical assumptions underlying your business model.

**What it helps you do:**

- Determine type of prototype
- Develop prototype and test scenario
- Prepare user tests

What you will need:

- Idea napkins of one business idea
- Your team
- Offline workshop: Test-Template or DIN A3 Papier, whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard

**Step by step**

Experiment Template for first User Tests

 10 – 30 min per experiment

Preparation

- Ask yourself what you want to achieve and find out by testing your prototype. First, write down several assumptions that are critical for the success of your business idea. As an aid in making the assumptions, ask yourselves: what would need to be true for your idea to become a success?
- First collect several assumptions, then decide which of them are most important for you to test in user tests.
- Start the formulation of an assumption with “We believe that....”. The assumptions should be precise and testable. For example: We believe that the testers will easily and quickly find the products they are looking for on our website (also see the Visual Instruction page)

Process

- Use the experiment template to prepare the verification of your assumption in user tests. Use one template per assumption and per user test. The template is divided into eight fields. Work on them in the following order:
- **1. Assumption:** Take one selected test assumption and note it down.
- **2. Experiment:** Think about how you want to test this test assumption. What kind of experiment do you want to conduct, i.e. what kind of prototype do you use and how do you stage it? For example, do you want your testers to experience your service idea in a simulation? Do you want to present a digital prototype to your testers and give them specific tasks to complete, as would be the case with a more mature idea for a software product, for example? Start by sketching out the rough concept. (See the subsequent tool prototyping for an overview of different prototypes and the tools storyboard and wireframes as in-depth prototype examples.)
- **3. Metric:** Write down how you will test your test assumption using your test procedure. Write down what you need to measure in the experiment to evaluate your assumption.
- **4. Criteria:** Develop success criteria that describe if your assumptions have been confirmed or disproved.
- **5. Duration:** Estimate how much time the experiment will take.
- **6. Title of the experiment:** Name the experiment, so everyone knows what you are talking about, when you mention the experiment.



Visual Instructions

Experiment Template for first User Tests

 10 – 30 min per experiment

| Experiment | | |
|--|--|----------|
| Assigned to | Deadline | Duration |
| 1. Hypothesis <i>We believe that ...</i> | 2. Test <i>To verify that, we will ...</i> | |
| 3. Metric <i>And measure ...</i> | 4. Criteria <i>We are right if ...</i> | |



Visual Instructions

Experiment Template for first User Tests

10 – 30 min per experiment

| Experiment | |
|--|--|
| Assigned to Kofi | Deadline |
| <p>1. Hypothesis</p> <p><i>We believe that at there are enough hospitals and pharmacies in Ghana willing to implement a digital platform for monitoring NCD patients.</i></p> | <p>2. Test</p> <p><i>To verify that, we will research data on digital tools in Ghanaian hospitals and pharmacies and contact 20 clinics directly.</i></p> |
| <p>3. Metric</p> <p><i>And measure usage of digital health platforms/ tools/ willingness to use them</i></p> | <p>4. Criteria</p> <p><i>We are right if at least 50% of hospitals and pharmacies use digital tools and at least 15 of the 20 contacted clinics would be willing to implement our platform.</i></p> |



Overview

Prototyping

 45 min and up

At a glance

A prototype is an artefact that makes your selected business idea or sub-aspects of it tangible. Prototypes can have many different faces, depending on what you want to accomplish and what material and framework possibilities are available to you. On one hand, prototypes can be used to work out the idea in the team, to develop it further and to create a common understanding of it. On the other hand, prototypes serve to communicate your idea to others - most importantly to your users, but also to decisionmakers related to the project. By testing the idea, you get feedback from those for whom you want to develop a solution. Prototyping is about understanding and evolving the idea. As a rule, the further development takes place by means of several iterations, i.e. we build a prototype, get feedback by testing the prototype, and continue to develop our prototype with inspiration from the feedback. Hence, prototyping is not about building a market-ready product, but about building an easy and tangible version of your idea napkin which can be tested and tried out by users in order to quickly be iterated for the next testing phase.

What it helps you do:

- Shape and understand your idea
- Develop your idea further
- Test your idea with users and get feedback
- Iterate your business idea
- Communicate your idea to important stakeholders



What you will need:

- Idea napkin of one business idea
- Experiment template for first user tests to prepare the prototyping
- Your team
- Offline workshop: Prototyping material, whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Prototyping

 45 min and up

Preparation

- Prepare your prototyping material.
- Think carefully about what you want to test with your prototype. Use the experiment template for first user tests.
- Within the experiment template, decide on a prototype that best supports your project. Prototypes can take many different forms: from the empathy prototype to the paper model, to a role play, to wireframes, it is important to select a suitable prototyping tool, based on what you would like to test.
- You can find an overview of different prototypes on the Visual Instruction pages. Also take a look at the additional resources to find programs and apps for digital prototyping that you can experiment with.

Tip: Digital Prototyping

- Especially if you are working on an idea for a software product, digital prototyping may support your product best: tools for digital prototyping help you to visualize and experience your idea for a software product with an interactive prototype.
- There are various tools that you can use to implement a wide range of software products with differing levels of detail and with different test objectives in a prototype. Both simple low-fidelity prototypes and more complex high-fidelity prototypes can be developed with these tools. Digital prototypes can look attractive and are therefore also suitable to present the status quo of a product your stakeholders.

Some helpful resources for digital prototyping:

- **Figma**: An interface design tool, that can help you create digital mock ups, landing pages and click dummies
- **Sketch**: Use it to create click dummies, wireframes or other graphic illustrations for your prototype
- **SAP Scenes**: Extensive icon collection that will help you with all storytelling prototypes, digital or analog
- **Noun Project**: Find icons for your digital prototypes here



Step by step

Prototyping

 45 min and up

Process

- Prototyping is very playful and free, especially in the early stages. Nevertheless, here are some tips for getting started:
- Choose exactly one assumption that you want to test with your prototype. Do not lose yourself in the details, rather focus on the core elements of your idea.
- Build the prototypes cost-effectively and quickly. Do not think too long and think with your hands. Think crazy and wild.
- Do not try to make your prototype look perfect. Prototyping is not about beauty, it's about understanding and clarity.
- Do not fall in love with your prototypes (so that you can be open to critical feedback from testers later in the testing phase).
- Test the prototype as soon as possible.
- Experiment and try different prototype variations.
- Since there are many ways to create a prototype, you can find an overview of different prototypes on the Visual Instruction pages. Furthermore, you can find a more detailed description of the prototyping tools storyboard and wireframes in the two subsequent tools of this toolkit.



Visual Instructions

Prototyping

🕒 45 min and up



Sketch

Make a sketch of your idea with pen and paper or digitally.

Suited to test your **overall concept**.



Mock Up

A mock up is a physical or digital model that shows the overall impression of an idea but does not necessarily need to work.

Suited to test your **overall concept, functions/aspects or design/aesthetics**.



Wireframes

Early conceptual design of your idea for a software product that shows functional aspects and the arrangement of elements.

Suited to test your **overall concept or user experience**.



Visual Instructions

Prototyping

⌚ 45 min and up



Paper/ Cardboard

Physical product design ideas made of cardboard or paper.

Suited to test your **overall concept** or **functions/aspects**.



Storyboards

A sequence of sketches or pictures that represent your idea. Storyboards can also serve as the basis for a video prototype.

Suited to test your **overall concept**.



Video

Video for the presentation of your idea.

Suited to test your **overall concept** or **user experience**.



Visual Instructions

Prototyping

🕒 45 min and up

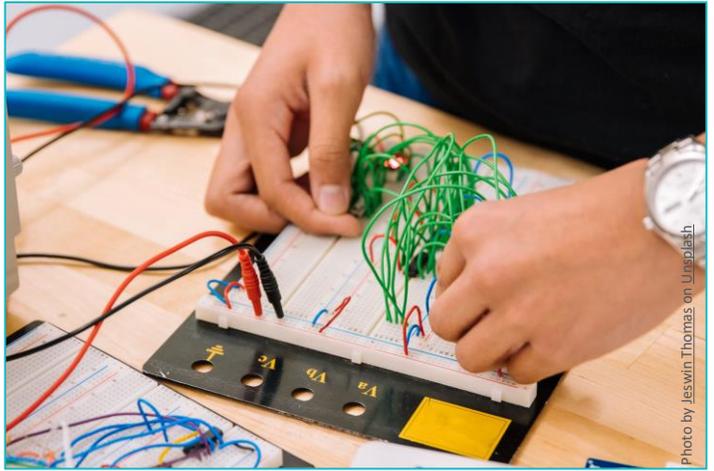


Photo by Jeswin Thomas on Unsplash

Open Hardware Platforms

Analog and digital interfaces for the combination of sensors and motors.

Suited to test your **functions/aspects**.



Photo by Tatyana Kovalenko on Unsplash

Photos

Photomontage for the simulated representation of a situation.

Suited to test your **overall concept or design/aesthetics**.



Photo by Genevieve McArthur on Unsplash

Physical Model

Model of a 2- or 3 dimensional idea. Craft materials, Lego, and also 3D printing can be used.

Suited to test your **overall concept, functions/aspects or design/aesthetics**.



Visual Instructions

Prototyping

45 min and up



Service Blueprint

Schematic representation of services that includes both the user experience and the vendor perspective.

Suited to test your **overall concept**.



Business Model

Show the introduction of your solution in the market. They are systematic representations of business-related relationships, e.g Business Model Canvas or Product Vision Canvas.

Suited to test your **overall concept or launch**.



Roleplay

Presentation of the idea in a short skit, or play.

Suited to test your **overall concept or user experience**.



Visual Instructions

Prototyping

 45 min and up



Scenario

Simulation of the idea involving testers. Similar to the role play.

Suited to test your **overall concept, functions/ aspects or user experience.**



Advertising

Create a fictional print ad, social media event, or flyer to see how potential users react/ if they are interested in your product.

Suited to test your **overall concept or launch.**



Blackbox

A dummy of a product, service, or process that seems to work, but only fakes its function.

Suited to test your **overall concept, functions/ aspects, design/aesthetics or user experience.**



Visual Instructions

Prototyping

🕒 45 min and up



Minimum Viable Product

Usable version of an idea that has only bare minimal functions to suit the needs of the users. Suited to test your **overall concept, functions/aspects, design/aesthetics** or launch.



Re-label

Make another product with your own branding and packaging.

Suited to test your **design/aesthetics**.



Critical Function Prototype

Prototype to test a key element of the idea.

Suited to test your **functions/ aspects or user experience**.



Overview

Storyboard

15 – 45 min
plus testing
& iteration

At a glance

A storyboard is one of the elaborated forms of a prototype. It is a representation of an idea, a process, or a story, depicted in images. Storyboards are useful for thinking an idea through as a team and for better understanding of your user in their context. As you develop each individual scene, you'll make your idea more concrete. You can also use storyboards to test an idea with users and get feedback from them in order to improve the idea. A storyboard is a quick and easy way to prototype an idea in a face-to-face or online workshop and is therefore described in more detail.



What it helps you do:

- Develop your idea further
- Understand your **user** and their problem in the context of your idea
- Get your team on the same page
- Make your idea tangible & get feedback
- Notice **gaps**, inconsistencies, or problems so that you can improve your idea



What you will need:

- Idea napkin and experiment templates for first user tests of one business solution
- Your team
- Offline workshop: A story board template or DIN A4 to DIN A0 paper, pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Storyboard

15 – 45 min
plus testing
& iteration

Process

- Start by telling your story from the **user's** point of view by using a Persona. You can either start with the initial need or with the **user's** first contact with the idea.
- Make this story visual. Draw scenes **like** in a comic. Use speech and thought bubbles to make the story clear and lively. In an online workshop you can create a digital storyboard. Therefore, you could use images from Google image search, icons from The Noun Project or the figures of SAP Scenes (Download Link: <https://experience.sap.com/designservices/resource/scenes#downloadscenes>) for instance.
- Try and make each scene as clear as possible. What is the **user's** current location or situation? How do they find your solution for the first time?
- As you draw, remember to keep looking at your solution through the perspective of your **user**. Depict the actual problem they're having. If you come up with new ideas while drawing, all the better.
- At the end, you'll have created a complete storyboard. You can use this to tell the complete story of how your idea works.
- The next step will be to test your storyboard with your **users**. Therefore use the tools basic **user** test and feedback grid).

Tip!

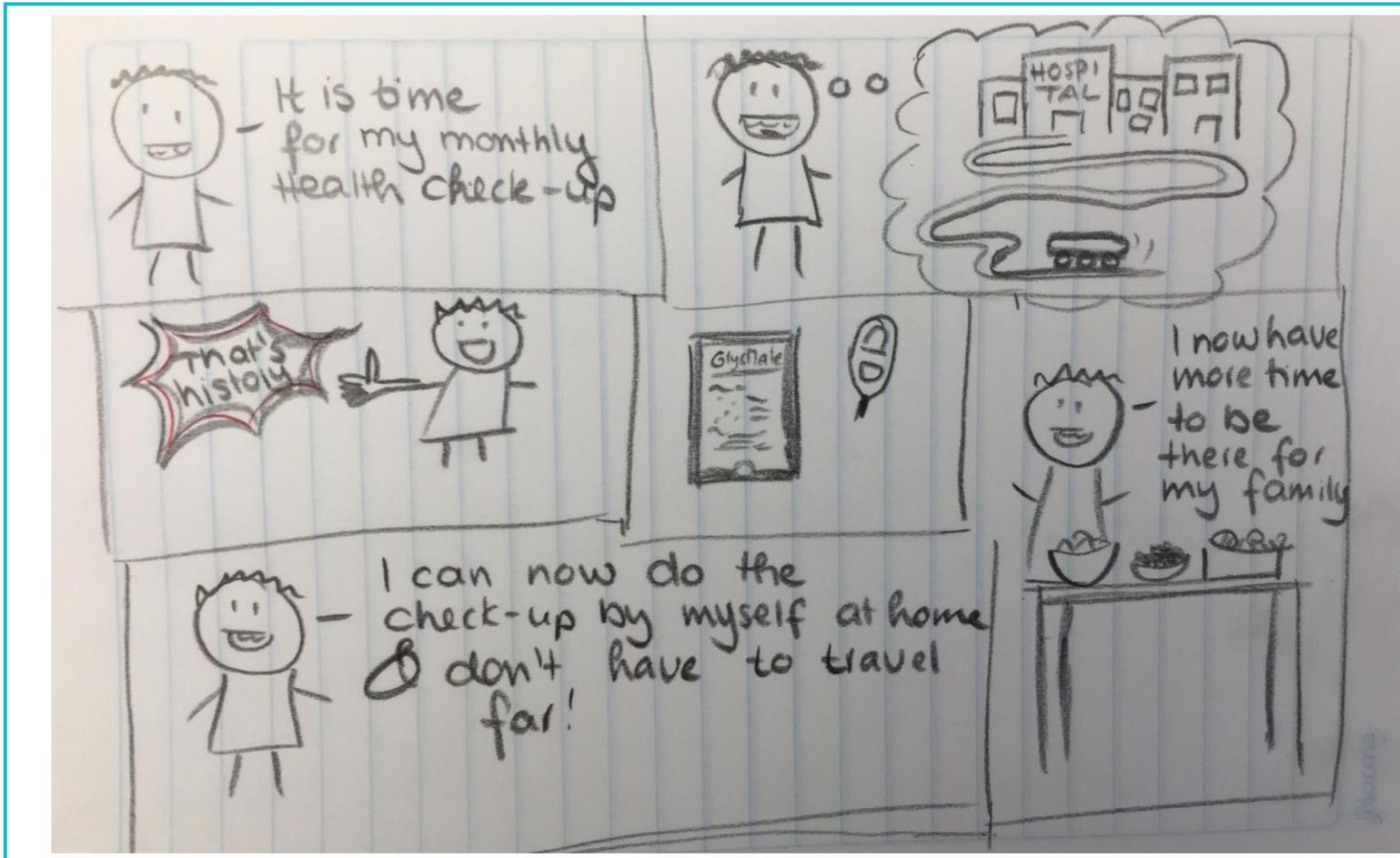
You can make storyboards with stick figures or with much more refined drawings. The only really important point is that the graphics are clear and easy to understand. This is especially crucial when you're going to test your storyboard with users. In this case, take a bit more time with your storyboard.



Example: storyboard for a development challenge to prevent and control NCDs in Ghana

Storyboard

15 – 45 min
plus testing
& iteration



Digital Storyboards

A digital sequence of sketches or pictures that represent your idea, which can also serve as the basis for a video prototype.

Suited to test your **overall concept**



Overview

Wireframes

 30 min.
minimum

At a glance

Wireframes are one form of prototype. They show the structure of the user interface of a software product (such as a website or an app). They represent the individual screens and their links and simulate how the user interface works. Wireframes can be limited to sections of the **user** experience as well as the entire digital product. They show the information, interface, and navigation design. The focus is on how the screens and their links work and not about their visual design. Detailed text content, graphics, colour design, fonts, etc. are not relevant yet. Wireframes can be hand-drawn or created digitally. In both cases, wireframes help you get an idea for building a concrete software product, test it with **users**, and collect feedback. If you make your wireframes clickable you call them clickdummy or clickable prototype. That means that you have a partly interactive prototype of your software product.



What it helps you do:

- Develop an idea for a software product and make it tangible
- Test the basic idea of the software product and obtain feedback
- Test information, interface and navigation design and get feedback
- Test specific features and gain feedback



What you will need:

- Idea Napkin or storyboard (optional)
- Experiment templates for first user tests of one business solution
- Your team
- Offline workshop: Wireframe template printed out several times or paper, laptop, smartphone camera, suitable software if applicable, whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard, suitable programme



Step by step

Wireframes

30 min.
minimum

Preparation

- Refer to your experiment template for first **user** testing. What part of the idea do you want to represent in your prototype? Which type of wireframes do you want to create (see explanation below)?

Process

1. Create an overview:

- Think about which screens you want to show in which sequence and roughly sketch the screens on sticky notes. Or if you do not have the possibility to visualize the screens in a quick and easy way, just write the content of the screens down on sticky notes.
- Ask yourself the following questions:
- How does the **user** navigate from one screen or piece of content to the next?
- Which interactive features must be available? Where? In which form?

- Towards which elements and content should the user's attention be directed?
- How is the information divided across different levels?

2. Create wireframes:

- Do you want to create hand-drawn wireframes or digital ones (using a digital whiteboard or digital prototyping tools)?
- Hand-drawn wireframes are particularly suitable in the first steps of the prototyping phase in order to generate feedback quickly and with little effort.

- If you are collaborating remotely, you can also hand-draw the wireframes, scan them afterwards and upload them. On the other hand, when you are working remotely, the advantage of creating the wireframes on a digital whiteboard is, that you can work altogether on the wireframes, using icons, text, forms and the other possibilities a digital whiteboard can offer.
- If the prototype has already been tested and is already more mature, it is worthwhile to create digital prototypes with the help of [tools for digital prototyping](#). Creating digital wireframes from sketches takes some practice and might take several hours. Therefore it might be useful not to make this part of the Ideation Sprint, but to work on it in a later stage, when the prototype is more developed.



Step by step

Wireframes

 30 min.
minimum

- Draw or create the individual screens into the wireframe forms that correspond to your device (i.e. laptop, smartphone, etc.). If you have no forms, draw the frame of the corresponding device on the edges of the paper.
- For a better overview you can put the individual screens in the correct sequence on a board and mark the links between the screens by drawing connecting arrows. For the testing of your prototype, do not show this whole overview, only show the testers the screen that they would see in that moment. The same applies when you create wireframes on a digital whiteboard..

3. Make it clickable

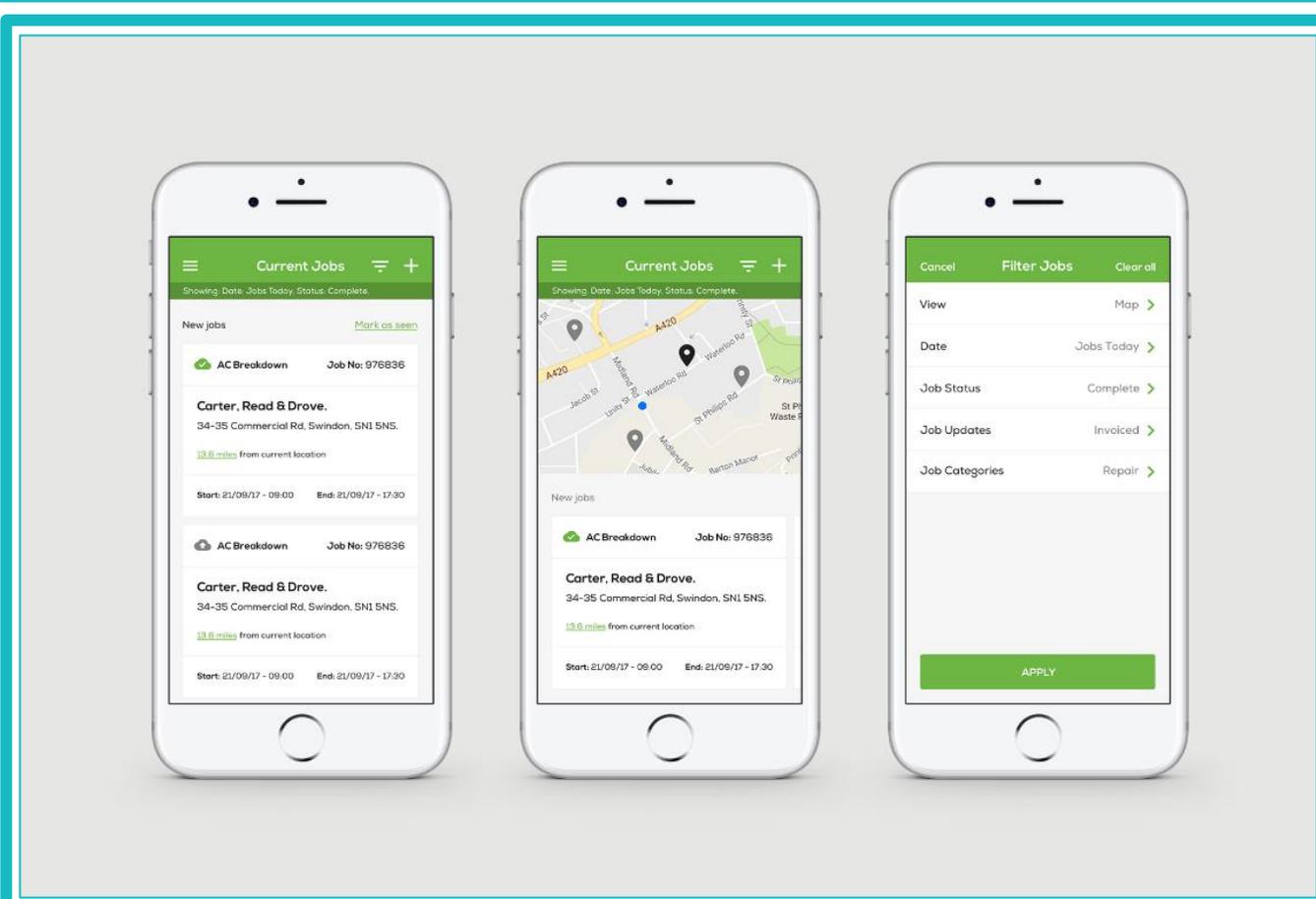
- With the Marvel App, for example, you can quickly digitize your hand-drawn wireframe and make them clickable. First, take photos of each hand-drawn screen then import them into the app. Using the app you can then mark any elements (buttons, headlines etc.) on the screens and link them to the other screens. In the end, you have a simulation of your software product. Now your testers can move through the hand-drawn software product with the respective end device.
- The same applies for wireframes, that are created on a digital whiteboard or with other digital prototyping tools. Therefore, you download the wireframes as pictures and upload them again into Marvel App.
- Using other tools for digital prototyping the option to make the wireframes clickable might be already included.



Visual Instructions

Wireframes

Depending on complexity



(Digital) Wireframes

Conceptual design of your idea for a software product that shows functional aspects and the arrangement of elements.

Suited to test your **overall concept, functions/aspects or user experience**



Overview

Basic User Test

At a glance

In **user** tests, you test your prototype and get feedback on your business idea. The feedback helps you to prove or reject your assumptions and optimize your concept. The structure of **user** tests can vary strongly depending on the goal and prototype. In the following you will learn a general procedure for the preparation and execution.



What it helps you do:

- Develop test guide
- Organize and conduct **user** testing
- Prove assumptions about business idea
- Optimize and iterate idea and prototype
- Define further actions



What you will need:

- Prototype and defined test scenario (aka experiment)
- Your team
- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Depending on the number of tests



Step by step

Basic User Test



Depending on the number of tests

Preparation

- Include your preliminary considerations from the experiment template for first **user** tests and your prototype to prepare the **user** test. In any case, it is important that you are clear about what you want to find out through testing, and that you determine a test procedure based on this. If necessary, develop tasks and questions for your testers. Collect your ideas on sticky notes first and choose at the end.
- Think about with whom you want to conduct the test. Are there already recruited testers or do you need to take them from your network? Make sure that the testers represent your user group.
- Take enough time before user testing to prepare the setting. In a face-to-face setting, prepare the room and set out all the materials you will need for the test and organize drinks and snacks.
- Decide how long you want the test to last. As a rule, you can allow 30 to 90 minutes per tester for an ordinary test run with recruited testers. Also plan some minutes for a short debrief after each test.
- Assign roles. Who leads and accompanies the testers during the execution (e.g. give introduction, ask questions), who observes and takes notes? You can use the feedback grid to record the feedback.
- Discuss the beginning: How do you want to introduce yourself and explain your project in two to three sentences? How do you want to gain the trust of the testers at the beginning of the test? If necessary, prepare a few questions to loosen them up. .
- How will you describe the test procedure and the scenario to your testers? Give as much context as you need but explain your prototype as little as possible. Do not explain which considerations are behind the prototype. The testers should be given the opportunity to experience the prototype for themselves.
- As described above, think about how you want the tester to interact with the prototype and what questions you want to ask.
- How do you end testing? Don't end the test too abruptly and ask how your testers felt about the test run



Step by step

Basic User Test



Depending on the number of tests

Process

- Conduct your **user** tests as planned.
- **Follow the test rules during your tests:**
- Do not get lost in the details, focus on proving your test assumption.
- Testing is not selling! You might fall in love with the idea and want to convince other people of its value. But this makes it hard for testers to give honest feedback. Stay neutral while testing, also accept critical feedback and do not defend your idea. Remember: the **user** is the expert, they are always right!
- Just as in an interview, it is important to follow up and get to the bottom of statements. Asking "Why?" is also very important when testing. (For example: "Why do you like this aspect of the idea?", etc.).
- Respond to questions with your own questions: If a tester asks, for example, what would happen if he pressed a button, then ask back: "What would you expect?" If he asks how much the idea costs, ask "How much would you spend on it?"
- Allow some time after each round of testing for a short debrief within your team. What worked well? What didn't? What did you learn? Should you change anything about your prototype for the next test? Should you change anything about your approach, tasks, or questions? Also, mark your key findings. This will help you to evaluate the feedback later.

Examples of test scenarios

- If you are testing a website for an online store with the help of a digital prototype, you could, for example, place one or more devices (laptop, smartphone, tablet) on a table. The tester sits down at the table with you, receives a brief introduction and is given a task (e.g., find product x and order it). The tester first navigates through your prototype on his own - thinking aloud so that you can follow their thoughts. Once the tester has completed their task, you can ask them questions about the prototype. This test scenario is also conceivable in an online workshop: For example, the tester could be sent a link to a click dummy. With the help of video call and screensharing, the testers could also show you what they are doing.
- You test the idea of a personal contact person at a customer service. You could play a short role play for your recruited testers and get feedback afterwards.



Visual Instructions

Basic User Test



Depending on the number of tests





Overview

Feedback Grid

At a glance

Through **user** tests and expert interviews you gather a lot of input. To keep a structured record of the feedback during testing, you can use the feedback grid. It consists of four fields in which you can record positive and negative feedback as well as questions and ideas for improvement. For each **user** test, use a dedicated feedback grid. Combine feedback from several test sessions in one grid to compare and evaluate them. Based on the feedback gathered, you will improve your prototype and your business idea.



What it helps you do:

- Record feedback in a structured manner
- Evaluate all feedback
- Create an iteration basis
- Optimize business idea and prototype



What you will need:

- One or more prototypes and prepared test session
- Your team
- Offline workshop: Feedback grid template or sheets of paper, whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Depending on the number of tests



Step by step

Feedback Grid



Depending on the number of tests

Preparation

- Prepare feedback grid templates according to the graphic on the previous page. Use one template per user test.
- **The feedback grid consists of four fields:**
 - **Success:** Aspects that testers liked.
 - **Improvable:** Aspects that the testers did not like.
 - **Open questions:** Questions or observations that were raised by testers that you had not previously considered.
 - **New ideas/proposals for improvement:** New ideas and suggestions for improvement for your business idea and/or your prototype.

Process

- A team member takes notes during testing and writes the key points into the corresponding fields of the feedback grid.
- If you have done several testing sessions, you can gather the feedback in one big feedback grid on a board. This way, you have an overview of all your feedback to discuss it. If you want to do so, it is best to write the feedback directly on sticky notes and use one color of sticky notes for one tester.
- After conducting your test sessions, ask yourself: How do you evaluate the feedback? Which feedback was mentioned particularly often? Which learnings do you draw from the feedback? Is your business idea generally accepted by the **users**? Could you validate your assumptions? Which aspects of your business idea do you want to change, which ones do you want to keep? Which open questions should you clarify? Consider how you would like to continue working in the next iteration of your business idea and iterate the idea as well as the prototype.



Visual Instructions

Feedback Grid

 Depending on the number of tests

 SUCCESS

 IMPROVABLE

 NEW IDEAS/ PROPOSALS FOR IMPROVEMENT

 OPEN QUESTIONS



Example: Feedback Grid for a development challenge to prevent and control NCDs in Ghana

Feedback Grid



Depending on the number of tests

SUCCESS

Solution reduces the barrier between patients and health care providers, leading to direct and immediate exchange

Solution as a time saver to NCD patients – willingness to pay for that!

IMPROVABLE

Making the device water proof

Data storage capacity of the device

NEW IDEAS/ PROPOSALS FOR IMPROVEMENT

Provision of emergency alerts in case of hypertensiveness

Make the option available to use the device without internet connection/ smart device/ access to the digital platform

OPEN QUESTIONS

How to improve knowledge on how to use the devices?

Will the device be itching/ be perceived as bothering throughout a normal day of the user?



Overview

Sustainable Business Model Canvas

 2 – 4 hrs
without iteration

At a glance

In phase 3_incubation, you (the venture teams) will design all the components of your businesses that must work together to create something desirable for customers, financially viable for stakeholders, and feasible to build and deliver.

To capture your business model and get an overview, we recommend using the Business Model Canvas by Alexander Osterwalder – a globally applied framework for developing new (or reflecting existing) business models. The Sustainable Business Model Canvas adds an environmental and social dimension to the BMC. In the Sustainable BMC, a business model is described in eleven basic building blocks which cover the five most important areas of a sustainable business: customers, offering, infrastructure, finance and sustainability.

The simple look and structure of the Sustainable BMC makes it easy to communicate and pitch your business model to others.



What it helps you do:

- Explore and define a new sustainable business model
- Find a common understanding about the structure of a business model
- Recognize interdependencies in your business model
- Visualize and communicate a simple story of your business model
- Lay a foundation to formulate critical assumptions regarding your business model
- Iterate your business model step by step



What you will need:

- A business idea
- Your team
- Offline workshop: Sustainable BMC printed template (optional), whiteboard or similar, board marker & pens, sticky notes, timer
- Digital workshop: Digital whiteboard



Step by step

Sustainable Business Model Canvas

 2 – 4 hrs
without iteration

Preparation

- Draw or create the structure of the Sustainable BMC on a board (as shown in the graphic on the Visual Instruction page). The Sustainable BMC is divided into five main areas: customers, offering, finances, infrastructure and sustainability, which in turn consist of 11 building blocks. The canvas works best if you have a large area available so that several people can work together with sticky notes or highlighters to draw something on it or discuss the business model's elements.

Process

- Take one building block after the other in the order listed below and fill it. Use the impulse questions and suggestions on the Sustainable BMC template to help you fill in the building blocks.
- Process the Sustainable BMC in the following order:
- **Customer Segments (Customers):** To build an effective business model, a company must identify the customers it tries to serve. Various sets of customers can be segmented based on their different needs and attributes.
- **Value Propositions (Offering):** The value proposition solves a customer problem or need. Each value proposition consists of a package of products and services that address the needs of a particular customer segment.
- **Revenue Streams (Finance):** The way you generate income from each customer segment with your business model.
- **Eco-Social Benefits (Sustainability):** The ecological or social benefits that are generated by your business model and the potential connections to your customers and the value proposition.
- **Channels (Customers):** A company can deliver its value proposition to its targeted customers through different channels. Effective channels will distribute a company's value proposition in ways that are fast, efficient and cost-effective.
- **Customer Relationship (Customers):** To ensure the survival and success of any business, companies must identify the type of relationship they want to create with their customer segments.
- **Key Activities (Infrastructure):** The most important activities in executing your value proposition.



Step by step

Sustainable Business Model Canvas

 2 – 4 hrs
without iteration

- **Key Resources (Infrastructure):** The resources that are necessary to create value for your customer. They are considered assets to a company that are needed to sustain and support the business.
- **Key Partners (Infrastructure):** The network of suppliers and partners who contribute to the success of the business model.
- **Cost Structure (Finances):** The cost structure describes the most important costs that arise when working according to a specific business model. The costs are related to key resources, key activities and key partnerships.
- **Eco-Social Costs (Sustainability):** The ecological or social costs that are generated by your business model.
- You may find it difficult to define and determine certain aspects of the canvas because you may be dealing with something for the first time. If you find yourself in a situation where you cannot yet make any statements, but above all have unanswered questions, consider how you can broaden your knowledge to make solid decisions. What do you need to do to fill in the Sustainable BMC more thoroughly? Often it helps to look up terms, do some research or get inspiration from other providers on the market. Take some extra time for those activities.
- When you have completed the Sustainable BMC, take a step back and check if you got everything and if the building blocks are linked to each other. Is every customer segment linked to a value proposition and a revenue stream? Did you check the relation between eco-social benefits and costs and the value proposition? How is the value proposition affected?
- Every business model is based on certain assumptions (e.g., you believe that your customers are willing to spend a certain amount of money on our product). These assumptions carry a certain risk of not being true, which you should try to reduce as much as possible before you enter the market with your business idea.
- The next step is to categorize these assumptions and identify the most critical ones by using the assumption mapping tool. In an even further step you'll test your assumptions and iterate your Sustainable BMC according to your findings.

Tip

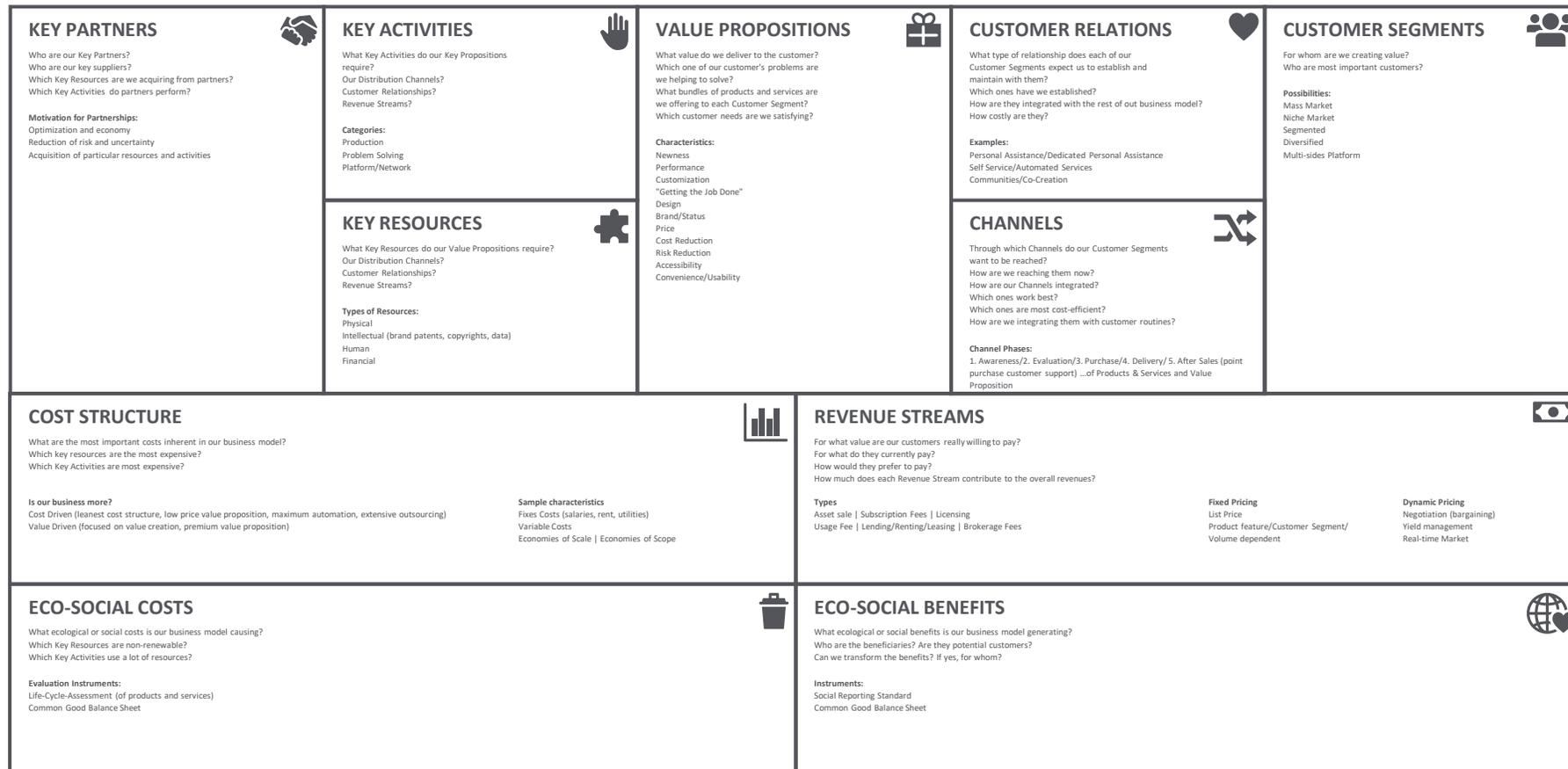
If you have multiple customer segments it is best to pick a color for each segment in the sticky notes you use. That way you easily see if there is a value proposition and a revenue stream for each segment.



Visual Instructions

Sustainable Business Model Canvas

2 – 4 hrs
without iteration





Overview

Value Propostion Canvas

 45 min or more

At a glance

The Value Proposition Canvas compares **user** needs and expectations with the value proposition of your product or service idea. It helps you explore your **user** group and their needs as well as consider how you can satisfy the most important needs and expectations with your product or service. In this way, you create an optimal offer for your **users**.



What it helps you do:

- Match **user** needs and expectations with your value propositions
- Explore the **user** group and their needs
- Develop ideas further



What you will need:

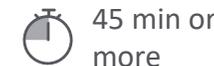
- Rough or elaborated idea
- The Value Proposition Canvas template
- Your team

- Offline workshop: Whiteboard or similar, board marker & pens, sticky notes, timer
- Online workshop: Digital whiteboard



Step by step

Value Proposition Canvas



45 min or more

Preparation

- Print the Value Proposition Canvas or draw the structure (as shown in the graphic on the subsequent page) on a whiteboard. The Value Proposition Canvas is divided into two parts:
- Customer Segment:
In the circle, you will describe the needs and expectations of the **user** group you have selected. You have no influence on the contents of this field, because the information is based solely on your research results from the observation phase.
- Value Proposition:
The square contains everything your product or service promises to address regarding the tasks, pain points and expected benefits for the **user** group. This is your time to shine - you have an influence over what you choose to include in your value proposition.

Process

- Go through each of the canvas's fields. Write your insights on sticky notes and place them onto the respective fields. Stay realistic.

(1) Customer Segment

1. Jobs

Notes in this field are what tasks, which »jobs« your product or service performs for the **user**. For example, a »job« could be a task that the **user** is trying to do, a problem he is trying to solve, or a need he is trying to satisfy (see the *Jobs to be Done* method). After you have collected all »jobs«, prioritize them from the **user's** point of view.

2. Pains

Write the negative emotions the **user** has or could expect in connection with these tasks? What could be unpleasant for your **users** before, during, or after completing the described tasks? What is annoying them, or preventing them from doing the »job«? What could be too challenging, too time-consuming or too costly for the **user**? What risks or challenges could the **user** see? Prioritize the pain points again from the point of view of the **user**.

3. Gains

What utility or benefits does the **user** expect if they want to fulfill the described tasks? Prioritize the notes from the point of view of the **user**.



Step by step

Value Proposition Canvas

45 min or
more

(2) Value Proposition

4. Products & Services

Here you enter all the products and services that you would offer in the framework of your idea in order to fulfill the tasks of the **user** in field 1.

5. Pain Relievers

Write what your products and services will do to eliminate or mitigate your **user's** »pain points« from field 2.

6. Gain Creators

Note where your products and services are helping to meet your **user's** expectations from field 3. Also, where **could they** positively surprise your user?

Source: Based on Value Proposition Design (2015) by Osterwalder, A. et al.

Tip

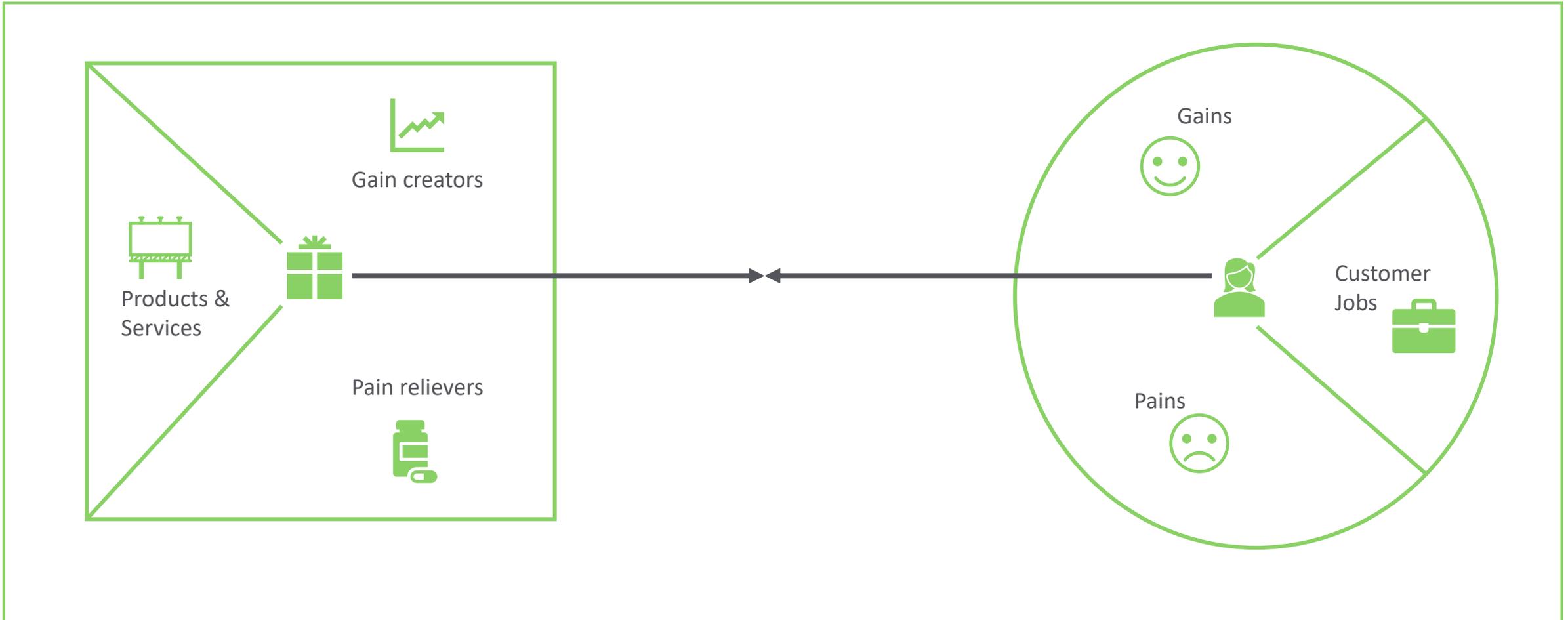
Apply Color Coding by using different colored Post-its for each field. You can more easily capture everything at a glance. Also, use the following trigger questions to map your users' jobs, pains, and gains as well as to create pain relievers and gain creators to satisfy your user.



Visual Instructions

Value Proposition Canvas

45 min or more





Overview

Assumption Mapping

 45 – 90 min**At a glance**

Assumption mapping helps you evaluate and prioritize your assumptions. You map the assumptions from your Sustainable Business Model Canvas in a simple 2x2 matrix on the criteria pairs on the two axes “not important - important” and “knowledge – assumption”. This allows you to identify the assumptions that are critical to your business model, so you can test them in the subsequent step.

**What it helps you do:**

- Evaluate and prioritize your assumptions
- Identify the most critical assumptions

**What you will need:**

- Results from Sustainable Business Model Canvas
- Your team
- Offline workshop:
Whiteboard or planning wall, board marker and pens, sticky notes, timer
- Digital workshop:
Digital whiteboard



Step by step

Assumption Mapping



45 – 90 min

Preparation

- Draw or create the structure of the assumption map on the board (as shown in the graphic on the Visual Instruction page).

Process

- Assumption mapping looks at the business model through the following lenses: desirability, viability, feasibility and sustainability (see Visual Instruction page). The desirability lens focuses on the customer and asks if the solution is wanted by them. The feasibility lens asks if you are able to do it. Is your business model expandable, manageable and do you have access to key resources? The viability lens asks if the business idea is profitable enough to sustain itself and the sustainability lens incorporates the socio-ecological dimension.
- Analyse the assumptions from the Sustainable Business Model Canvas according to these four lenses. You want to treat the individual lenses separately. That means, in a face-to-face workshop you form a 2x2 matrix for each of the lenses and in a digital workshop, you can recolor the sticky notes and give each lens a different color and arrange them in one matrix.
- Take the desirability assumptions from the Customers and Offering fields, the feasibility assumptions from the Infrastructure fields, viability assumptions from the Finance fields, and assumptions regarding sustainability.
- Collect the sticky notes with the assumptions on the left side outside the respective matrix.
- The next step is mapping your assumptions in the 2x2 matrix. The matrix consists of two axes that are at right angles to each other (see [Visual Instruction](#) page).
- The y-axis is assigned to the importance of the assumption. If one assumption is very critical for your business idea map it on the top. If it is not important, map it on the bottom part.



Step by step

Assumption Mapping



45 – 90 min

- The x-axis is about how evidence-based your assumptions is. Do you have observable evidence, qualitative or quantitative, to support your assumptions? The axis is labeled with the terms »knowledge« and »assumption«.
- The 2x2 matrix results in four quadrants.

Experiment (top right quadrant)

These are the assumptions that are critical for the success of your business model but for which you do not have sufficient evidence yet. In the next step, you need to test these assumptions with experiments (see the tool [experiment template](#)).

Discuss (top left quadrant)

In this field, you place assumptions that are important for the success of your business model and that you seem to have good knowledge about. Discuss and question your knowledge in the team. Do you really have enough evidence to support your assumptions? Keep an eye on the assumptions in this field during the further programme.

• Do not focus on (bottom quadrants)

The two fields on the bottom are less important and are not considered further.

- In the next step you'll define experiments for the assumptions of the top right quadrant with the help of the [experiment template](#).

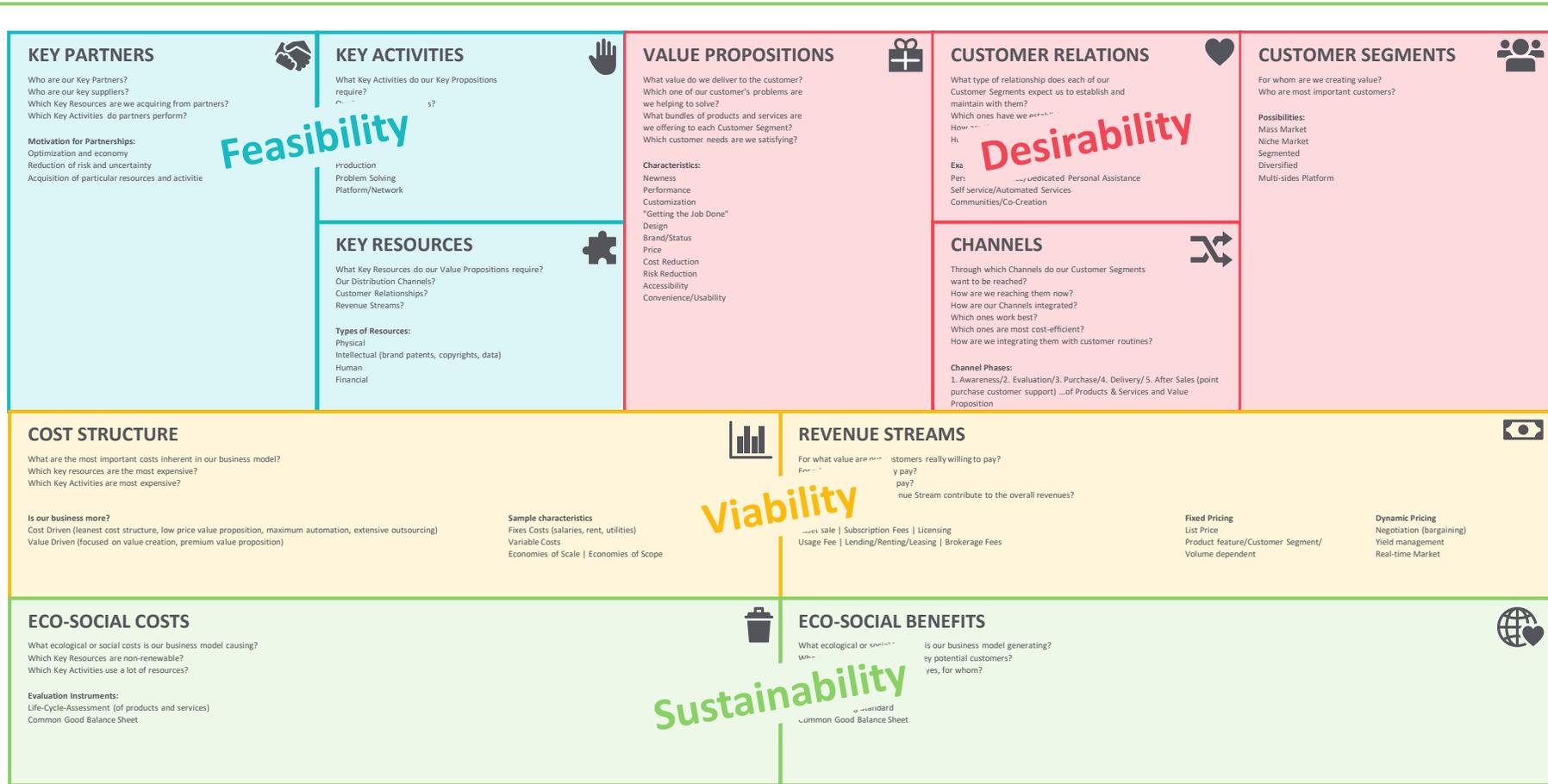
Source: Based on Testing Business Ideas (2020) by Bland, B. & Osterwalder, A.



Visual Instructions

Assumption Mapping

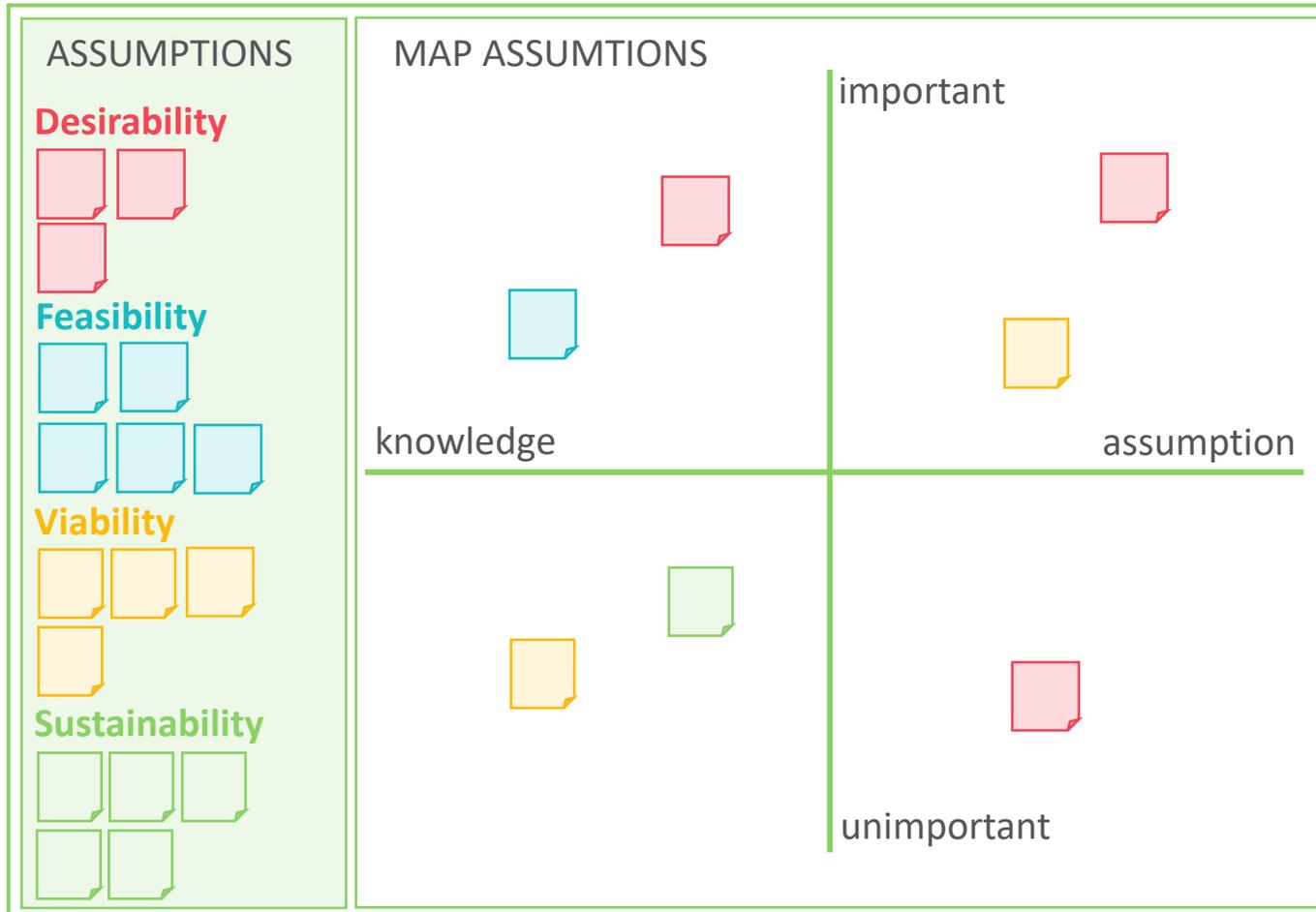
45 – 90 min





Example:

Assumption Mapping

 45 – 90 min

Assumption mapping for a digital workshop with one 2x2 matrix for all four lenses. In a face-to-face workshop you may also create four different matrices to keep the assumptions of the respective lenses separated.



Overview

Experiment Template

 10 – 30 min
per experiment

At a glance

When you've decided for the most critical assumptions you want to test, it is time to take the next step and prove them by conducting suitable experiments. Experiments create evidence that strengthens or refutes your assumptions, helping you to refine your business model. This way, experiments reduce risk and uncertainty of your business idea.

With the help of the experiment template, you describe the assumption you want to test and how you can test it with an experiment. A good experiment should be measurable, and the pass rate should be set before the results are in. That is why you also define measurement and success criteria in advance to be able to classify your test results later.



What it helps you do:

- Define experiments
- Test and validate or falsify your assumptions
- Reduce risk and uncertainty of your business idea
- Define further actions



What you will need:

- Results from assumption mapping
- Your team

- Offline workshop: Experiment template or DIN A3 paper, whiteboard or similar, board marker & pens, timer
- Digital workshop: Digital whiteboard



Step by step

Experiment Template

 10 – 30 min
per experiment

Preparation

- Take the assumptions of the top right quadrants of your assumption maps. These are the critical assumptions that you need to prove with your experiments.

Process

- Use the template to prepare your experiments. Use one template per assumption and per experiment. The template is divided into eight fields. Work on them in the following order:

1. Assumption

Take the most critical assumption – reframe it if you want.

E.g.: We believe...

- ... that our customers want to use our online tool to...
- ... that customers will pay \$5 per month for unlimited access to our service...
- ... that there's customer interest in taking part of a workshop that...

2. Experiment

Think about how you will test the assumption in order to evaluate it – describe your experiment. From customer interviews to search trend analysis to running a mini-pilot, the experiment can have many different faces, but should be cheap to implement, and not require a huge amount of effort. E.g.: To verify we will...

- ... survey X **users**...
- ... talk to X experts in...
- ... run a pilot event with X participants...
- ... run two different facebook ad campaigns that target...
- ... conduct **user** feedback sessions with sketches or low-fidelity prototypes of offers
- ... do in-market observations and/ or on-the-street interviews with **users**



Step by step

Experiment Template

 10 – 30 min
per experiment

3. Metric

Write down what you need to measure in the experiment to evaluate your assumption. We will measure...

- ... the different rates of clicks per purchases from each type of facebook ad.
- ... how many people respond to our letters.
- ... the numbers of sign-ups.

4. Criteria

Develop success criteria that describe if your assumptions have been confirmed or disproved. We are right, if...

- ... 10 out of every 100 clicks turns into a sale.
- ... 20 people register for the next event.
- ... we can produce at least 95 widgets during the trial day.

5. Duration

Estimate how much time the experiment will take.

6. Deadline

Define till when the experiment needs to be carried out.

7. Owner

Define who is responsible for carrying out the experiment.

8. Title of the experiment

Name the experiment, so everyone knows what you are talking about, when you mention the experiment.

Once you have filled in the test template and developed a rough idea, you now go into detail. What do you need to do to carry out the experiment? What are the next steps?

Source: Based on Testing Business Ideas (2020) by Bland, B. & Osterwalder, A.



Visual Instructions

Experiment Template

 10 – 30 min
per experiment

| Experiment | | |
|--|--|----------|
| Assigned to | Deadline | Duration |
| 1. Hypothesis <i>We believe that ...</i> | 2. Test <i>To verify that, we will ...</i> | |
| 3. Metric <i>And measure ...</i> | 4. Criteria <i>We are right if ...</i> | |



Visual Instructions

Experiment Template

 10 – 30 min
per experiment

Usage of feature phone vs. smartphone

Assigned to Cherifa

Deadline: 12.3.21

Duration: 2 weeks

1. Hypothesis

We believe that there is enough usage of smartphones in our target group in Ghana

2. Test

To verify that, we will research data on smartphone penetration in Ghana. Is it usable in our environment? Survey on usage of smartphone apps in target group.

3. Metric

Level of interaction with apps.

4. Criteria

We are right if 80% of the target group use WhatsApp or similar messaging services.



Overview

Empathy Map Canvas

 45 min or more

At a glance

An empathy map is a simple, easy-to-digest visual that captures knowledge about a **user's** behaviors and attitudes. It is a useful tool to help venture teams better understand their **users** and can therefore be used at multiple points during the *lot* programme. We show it here at the beginning of the incubation phase. At this point in the programme, the tool can help venture teams refocus on the **user** and keep them in mind while proceeding to validate their business model.

Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps venture teams consider things from the **user's** perspective along with his or her goals and challenges.

This tool is based on the [Empathy Map Canvas by Dave Gray](#).



What it helps you do:

- Map out the most important aspect of your **user**
- Develop a deeper understanding for your user, which will influence your business solution
- Empathize with your **user**



What you will need:

- **User** insights from interviews (either one's you conducted on your own, or the one's from the insights report)
- Your team
- Offline workshop:
Whiteboard or planning wall, board marker and pens, sticky notes, timer
- Digital workshop:
Digital whiteboard



Step by step

Empathy Map Canvas



45 min or more

Preparation

- Draw or create the structure of the empathy map canvas on the board (as shown in the graphic on the Visual Instruction page).

Process

- Empathy maps vary in formats, but they have a common core element - the **user** at the center. Around the **user**, the sheet is divided into sections. Each section is labeled with a category that explores the user's external world and internal mindset: what the user is doing, seeing, hearing, thinking, and feeling (including pains and gains).

• Step 1: Establish Focus and Goals

- WHO is your user for the map?
This is the user who you want to understand and empathize with. Summarize their situation and role. If you have multiple personas, each one will need their own map.
- What do they need to DO?
This is what you hope the user will do within the context of your challenge. For example, what do they need to do differently or decide?

• Step 2: Capture the Outside World

- What do they SEE?
What are they encountering in their daily experiences? These could be people, their activities, or things. What are they watching, reading, and exposed to in their environment or the marketplace that could influence them?
- What do they DO and SAY?
What are their behaviors and how do they conduct themselves? What is their attitude and what do they say? This may change depending on where they are or who they are with.
- What do they HEAR?
What are they hearing and how is it influencing them? Consider personal connections with family, friends, and coworkers along with what is being said in the media by bloggers, social media influencers, and experts in fields.



Step by step

Empathy Map Canvas

45 min or
more

• Step 3: Explore Inside the Mind

• What do they THINK and FEEL?

What matters to the user that they are thinking about it? Consider positive and negative sides of thoughts.

What makes them feel good or bad? What do they worry about or what keeps them up at night? Their mind is exploring paths and possibilities as they consider doing or trying something. How do they feel?

Frightened? Excited? Anxious?

• Next, explore the specifics of their PAINS and GAINS.

What does success and failure look like? Capture frustrations and challenges, the obstacles that stand in their way. What goals and dreams do they have?

• Step 4: Summarize and Share

- When all the sections are complete, take a moment to reflect. Have all team members shared their thoughts on the experience?

- Highlight all the new and relevant insights that this exercise brought and keep them somewhere where they are always in sight. Let the experience from that exercise influence the proceeding decisions about the business model.



Visual Instructions

Empathy Map Canvas

🕒 45 min or more

