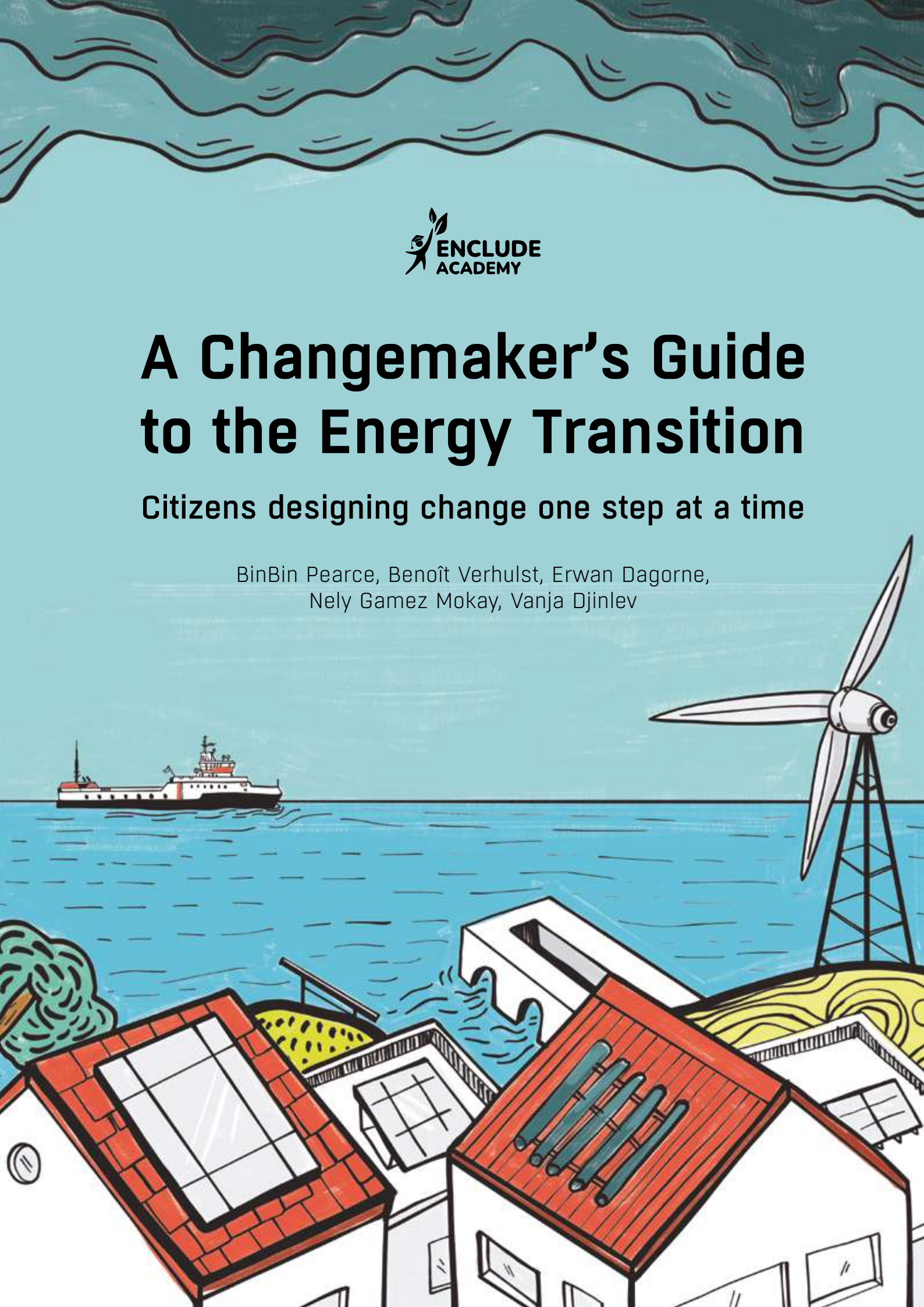
ENCLUDE ACADEMY

A Changemaker's Guide to the Energy Transition

Citizens designing change one step at a time

BinBin Pearce, Benoît Verhulst, Erwan Dagorne,
Nely Gamez Mokay, Vanja Djinlev

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ENCLUDE Academy Playbook

Introduction

This playbook aims to **take you step by step** to design, implement and reflect on an initiative of your own related to the energy transition.

Where does this playbook come from?

This playbook is the outcome of helping citizens develop their own community energy initiatives. The approaches used in the playbook are based on an online programme, called the ENCLUDE Academy, developed as a part of the research project called **ENCLUDE**, as well as methods that have been used with more than 1,500 Bachelor and Masters students in Europe. More information in the annex.

Why should we talk about energy?

Energy should not and cannot be limited to a technical or an environmental concern. It is one of the learnings we get from the ENCLUDE project: **energy issues are another manifestation of the social situation people face and/or intend to improve**. In the Academy, we heard people using ownership of energy as **a means to balance the gender gap, to live more in autonomy** (and not depend on the state will) **or to provide energy, as a way to pollute less and not harm their environment**.

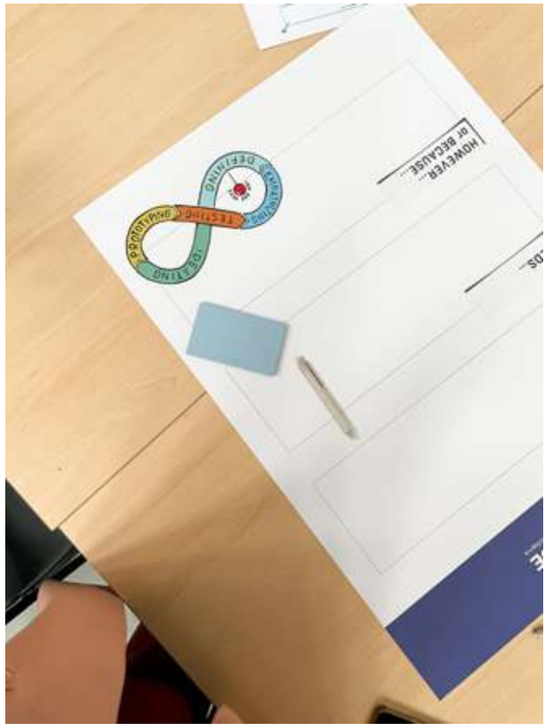
> "I have seen a lot of damage caused by climate change in my village, this inspired me to apply for the ENCLUDE Academy.
> [...] Energy citizenship gave me a sense of belonging and responsibility for energy consumption, even though I'm not currently paying for electricity".
>
> Academy Alumnus

Who is the playbook for?

This playbook is for anyone looking to contribute to or already engaged in the energy transition. It is tailored for those interested in launching or already working on community projects related to energy and decarbonization. However, you will find that the methods and tools introduced in this book are relevant to any type of challenge you would like to address in your community, be it waste, social inclusion, water or other complex topics. **You also do not need to start with any specific expertise.** All you need is a curiosity to understand others around you and a willingness to do something in your community or surroundings. This playbook may also be useful for civic organizations and local authorities who want to empower citizens to work together towards change.

What will I get from the playbook?

It will **provide you with a way of observing and making sense of the world** that will help you, with the help of others in your community, not only to **accurately identify and express what the problems are, but to question why they exist, and then to discern what might be the best role you can play in confronting those problems.** The playbook will also suggest **methods for how best to develop solutions** based on this sensemaking with effective implementation in mind. One alumnus mentioned that working with a design thinking methodology was great because most parts of the process were new to them. They said, "It was quite different way of working compared to deadline driven creative projects that I've had for most of the last 20 years."



Pictures from ENCLUDE event in March 2024. ©Agata Smok

Getting started

You are reading this playbook, meaning **something triggers you in the issues addressed here**. But you may still wonder if this guide is for you. Here are a few assumptions that may be preventing you from acting.

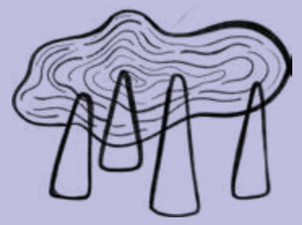
“Why spend so much time designing, we should better act quickly”

You may have a great solution in mind, but if it doesn’t answer the right problems it may be useless. Design thinking will require to dedicate time to define the issues you need to face. But in the end it is time saved. It will help you be sure what you do is efficient.

In other words be sure to understand what is the real problem before you try to find the answer to the wrong problem.

“It is too complicated, experts should do it”

The energy system is indeed very complex. To operate such a system, you do indeed need technical knowlege. However, we are asking you to start from your unique perspective as a person who has specific needs, ideas and desires in relation to the energy system. This is not a voice or perspective that any amount of technical expertise can replace.



“It is hard to gather people around this topic, it is not their priority”

Indeed, it is hard to motivate people to join you if they are not already motivated themselves. The idea is that you find just a few like-minded people like yourself to start. It doesn't have to be the entire community. Maybe these are people who are just curious to learn. Perhaps you can learn about what they care about and merge your interests to move forward together.

“I don’t know where to start, it looks like a big thing”

Follow this book one step at a time, at your speed! The playbook will help you organise your work.

“I don’t understand everything, I need more information”

Don't worry, all along this guide you will find resources and testimonies from people who have been through the same issues.

Have patience with the process and have fun. We do not create change in one giant leap all at once, but step-by-step, hand-in-hand.

What energy initiative can you take?

It is **not necessarily a technical solution** that the design process will lead you to. Going through the process will help you to confront issues you intend to face, the context (people constraints, local stakeholders...) and identify the resources you can rely on. A few examples:

Context input:	Different solutions:
Residents from a community depend on electricity to heat their house. A large part of the community is very humble and has difficulties covering the energy costs.	A solution based on thermal insulation of the house. This solution implies a consequent logistic action;
	A questionnaire to discuss with the residents – it intends to interrogate every aspect of consumption and identify improvements in daily life to reduce costs and energy consumption.
The power system is unstable and sometimes fails. It can be subject to vandalism. The cost and time of repair is quite high, and in the meantime we don't have any energy.	Better coordination with energy suppliers to get quick repairs;
	Have basic knowledge of the energy system and how to fix the simple things.
Energy is poorly distributed in our community and only a few people benefit from the recent adjustments we have made.	Have a deliberative dialogue about how best to allocate energy power;
	Have a technical system that serves the common needs of the community first.

Disclaimer: Your Time

Through our research in the ENCLUDE project, we recognize that not everyone has the time, energy and financial resources to carry out a community initiative or project. **We simply ask you to do what you can and use these ideas as they fit your circumstances**. You might also use these methods and exercises in this playbook as a means for your personal development or to help you in getting through any kind of complex problem that you care about. We hope that this book is simply a little inspiration on how to appreciate your capacity to be and make change, whenever the time is right.

How to use this book?

The playbook is based on the mindset and steps of **human-centered design thinking** to initiate a project for your community. Design is the process used to get us from where we are to where we want to be. It is particularly useful when we are confronted with a problem that may be complex or not so well-defined, or when we know that the solution we will need is one that will need to evolve or adapt to a changing situation. The guide will lead you through five stages of design thinking:

1) Empathizing,
2) Defining,
3) Ideating,
4) Prototyping and
5) Testing.

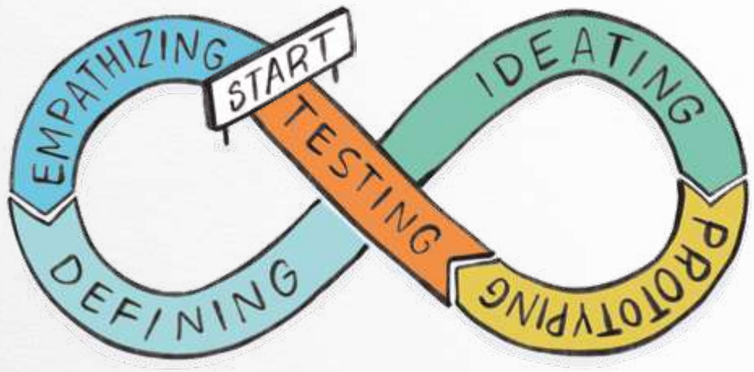
Having a design mindset

There are four attitudes which are helpful to take on before you jump into the design process. Together, this is what we call the design mindset. These attitudes are assumptions that will help you to not only see through the design thinking process successfully, but it will also allow you to get the most out of following such a process, as well as to enjoy yourself while doing it.

These are:

- A willingness to "fail forward", learning from our mistakes rather than being discouraged by them,
- Having curiosity about yourself, others and the world,
- Having faith that there is a workable solution for any problem and that you can play an important part,
- Willingness to take feedback and keep pushing ahead.

The design thinking process



As one of participant of the ENCLUDE Academy shared with us:

> "Design thinking [...] really needs you to internalize and understand [a situation] from the primary stages. You don't have to rush. You need to understand each and every step before you reach to the end, because if you moved drastically you may end up crashing and all that and you may not end up getting there, so it's a slow process.
> You have to be very critical when you're analysing the things. This gradual process will help you achieve what you want."

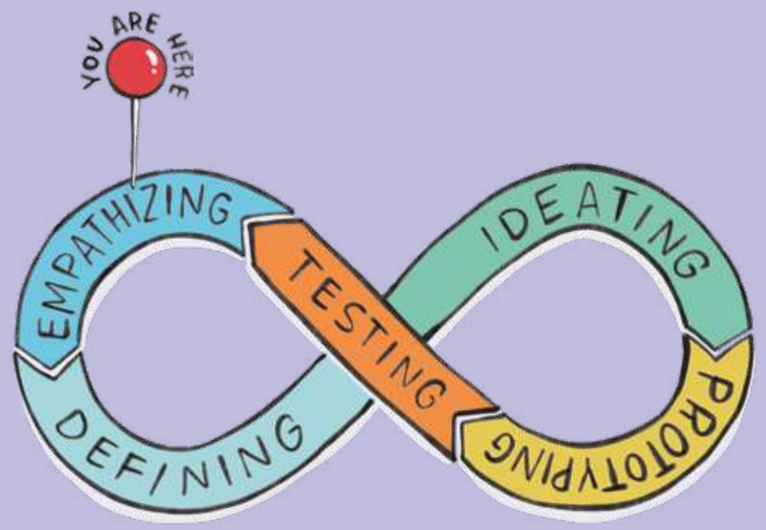
This playbook is now your book: use it as it best fits your situation and your challenges.

It is a guide, a journey of how you may conduct your approach towards new energy systems, following several steps from how to get started until how to finalize your project. Depending on where you are in your own project, you may not start at the beginning of this playbook.

Furthermore, some steps described above may request few weeks or months for you, while it will be very quick for others. The point is to get started and to move at your own pace.

Step 1

EMPATHISE AND FIND INSIGHTS



The first stage of design thinking involves finding insights. At the heart of finding insights is to **experience empathy** with people who are affected by the problem at hand, including giving voice to your own experiences.

So, you start with noting down your own observations and how you relate to the problem. Then, you can start talking to others and gather additional observations to gain deep insights into others' needs, desires, and behaviours.

You build from these observations (we will call them "bugs") to **develop an insight**, which is bringing together the "who", "what", "why" and "how" of your "bugs".
Empathy helps to understand the problem from the perspective of those who are directly affected and is the key to a human-centred approach to design.

An Academy graduate emphasized the importance of identifying the bug for his learning journey. He noted:

> "It was exhaustive. It brings the real picture of what is going on and all that, so that really changed the way of thinking I got. It was a very good experience for me. Changed my thinking completely."

1/ What “bugs” you?

A “bug” is any annoyance you have repeatedly noticed, a common disruption in your daily experience, something you feel is not right, unjust or just plain dumb. Because we are focused on the energy system, we ask you to think about this bug in relation to anything related to energy, but it could be anything. It takes awareness and a bit of curiosity to spot a “bug”. The exercise below will help you do this.

Exercise #1: Photo Safari

Take 30 minutes or longer to walk around your neighbourhood or the area in which you would like to start your initiative. Where you go is completely up to you. As you walk, notice anything in particular about energy use, energy production, energy distribution or anything else connected to the energy system (Transportation? Heating? Air quality?).

Energy can be the starting point of your concern, but it doesn’t have to be the end point. Take pictures or take notes of anything you observe that makes you curious, that’s surprising to you, or just representative of the challenges you already know you want to work on.

Try to stay open, however, to what you see. You might see something new!

Here are some guiding questions that will help you collect your thoughts after the safari:

How are people using energy around you?

What “bugs” do you notice about how this is happening? What could be improved?

What doesn’t seem to be working as well as it could be?

What are things you notice that surprises you or that you didn’t know before?

What are some observations that you can’t quite understand yet or makes you more curious to find out about?

In addition to the photo safari, here are other ways to find your “bugs”:

Suggestion: Collect images, whether self-made or found online (feel free to use the ones you captured during the photo safari!), that best depict the context in which the problem is situated. A mood board is a visual arrangement of these images to assist you in identifying what’s truly bothering you. Compile these images either digitally or by printing them to form a tangible ‘mood board.’ Experiment with arranging the images and contemplate what they have in common. Is there a common problem linking them?

- What are the main resources of documentation already existing about energy for your community? Gather them all. Gather some friends to read through them and share with each other what you found.

Go interview 5 members of your community (preferably with varying roles in the community) to understand how they feel about energy (the more diverse the interviewees are, the better). Here are some examples of questions you can ask them:

What are the ways you use energy in your life? (In your home – for heating, for cooking – for transport)?

Do you feel you can act on energy issues? How could you? Do you wish to?

What is your community good at in terms of energy?

What worries you the most about energy in your community?

How has the way you use energy changed?

How would a fully accomplished energy system change things in your life?

What questions do you ask yourself regarding the energy system?

How would you define your geographical area towards the question of energy?

2/ What insights surface?

Insights will enable you to gain an accurate and deep understanding of something or someone. It explains why or how, rather than only what, and is specific to time and context. An insight gives you an A-Ha! Moment, a moment of (a small or not so small) surprise. An insight exposes that an assumption that you had before may no longer be true, or something that you never knew suddenly becomes clear. Insights are not just pieces of facts. They connected these facts to explain something. Examples of insights:

"**You're not yourself when you're hungry.**" (and you're the last one to notice something is wrong) – Snickers advertisement campaign

"**Climate action is blocked both** by those who deny climate change is happening but also by doomsayers who say it's too late to do anything."

"What our habits are matter not only for ourselves, but because we are connected to other people, **our habits affect everyone who loves and work with us.**"

"**Courage and gratitude are my primary values** that I try to live by, because all the actions I wish I could take are directed by these values."

Note: Insights can come from your observation of what is not going right (the "bugs" we mentioned in the earlier section). But they can also come from things that have gone right – feel free to use these experiences as well.

Exercise #2: Developing insights

First, decide on which bug from exercise #1 you want to continue to explore. Just start with this bug and you should feel free to pick another one if this one stops being interesting at this point or you want to try this exercise out with several different bugs. Either is great!

Taking this bug, start to ask the following questions:

What do you observe to be not working? How is it related to the energy system or decarbonization?

Why might it not be working?

Why has it not been fixed yet? What past events have led or contributed to this issue?

Who would be able to do something about it? (Try to be as specific as you can naming the people)

Who is interested in keeping things the way they are now?

What are the **needs*** of these people in relation to energy?

What **values**** might be behind their needs?

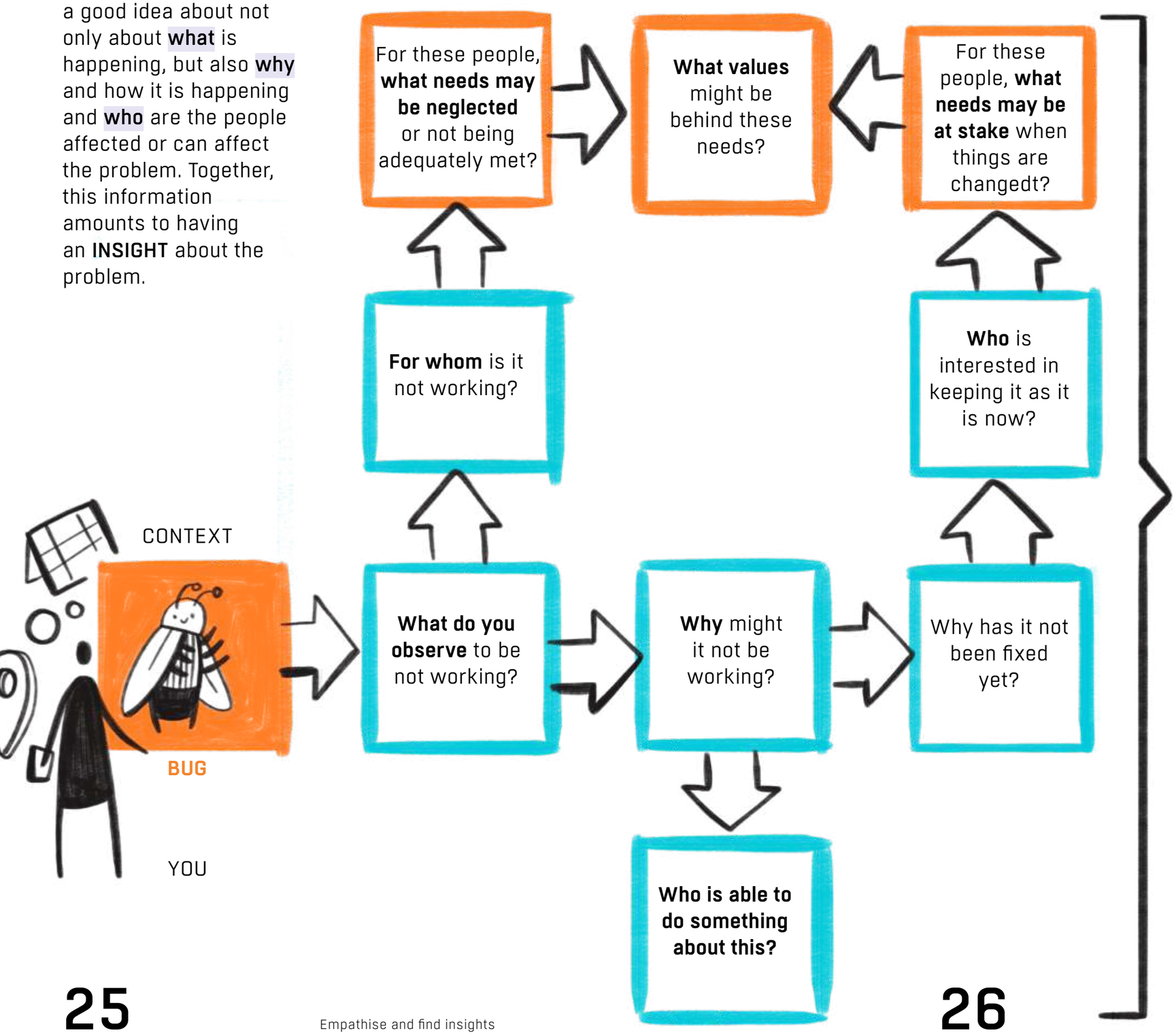
Who is impacted by this problem? Who are the group of persons most concerned/ affected? (Try to be as specific as you can naming the people)

What are the **needs*** of these people in relation to energy and decarbonisation which may be neglected or not adequately being met?

*The **need** is not a solution; it is the motivating force compelling action for its satisfaction. It includes but goes beyond material necessities.

A **value is a belief or principle that are important to the way people live and work.

At the end of this exercise, you should have developed a good idea about not only about **what** is happening, but also **why** and how it is happening and **who** are the people affected or can affect the problem. Together, this information amounts to having an **INSIGHT** about the problem.



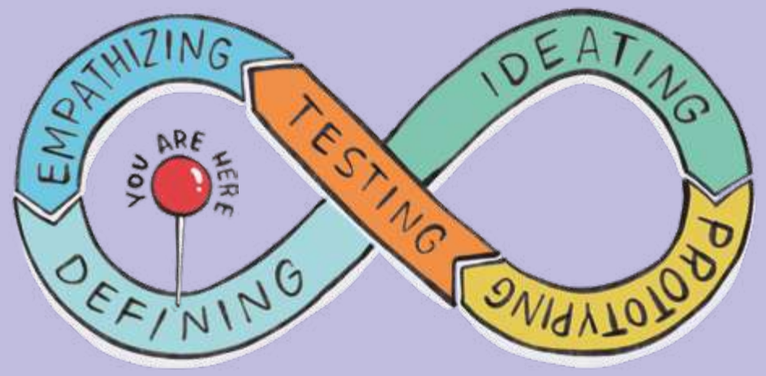
5/ An example of insights

A tip from a past participant :

> "Maybe the thing with design thinking is that you cannot do it alone. It needs a couple of minds around you to clarify or maybe share ideas because when you do it alone it can be OK but in the end, maybe the targeted group may not appreciate it."

Step 2

DEFINE THE PROBLEM



1/ What do we mean by a “problem”?

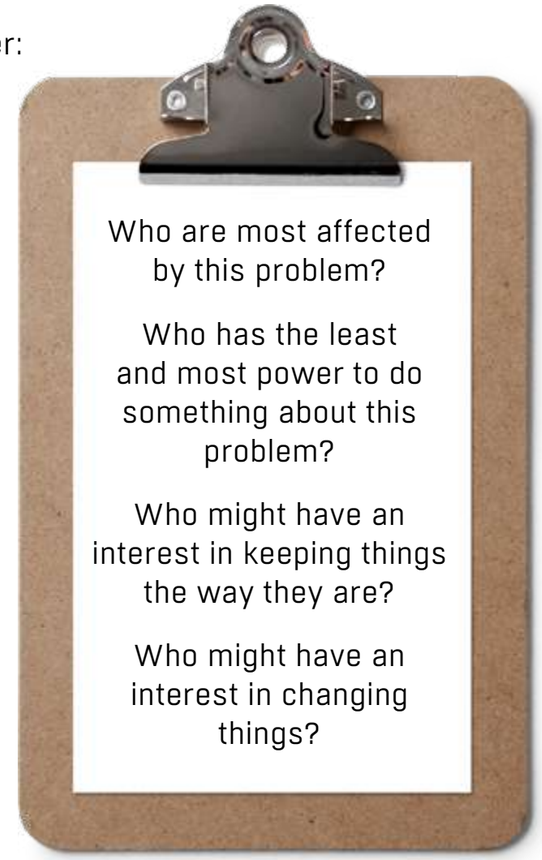
In this stage, the problem is defined based on the insights gained during the empathising phase. The problem statement is formulated to provide a clear focus and an actionable direction for the problem-solving process. It involves synthesizing the information gathered and identifying the key challenges or opportunities that need to be addressed.

Each problem statement represents a point of view. A problem statement can also be a family of problem statements representing the same situation from several different perspectives.

2/ Who are the people you are concerned with?

Referring back to the diagram in "Step 1" – who are the people related to this problem? Feel free to add more people to this list.

Consider:



Academy alumnus mentioned

> "First, I kind of was like oh my community is having to deal with a lack of power. I want to provide a stable source of power: solar and independent. And then you look at it and you realize that the person you want to provide with this are not really ready for this solar panels [because they can't afford it]. So I was like I need to look at another way."

You might want to keep a table of these actors using a table like the one below, but it is not a must. The goal is to have a way of considering who all these people or groups of people are so that you can identify who are the most important people (or groups of people) to the problem.

Name of actor (either specific groups of people or individuals)	What is this actor's attitude towards this problem? – Keep things the way they are + Change things	How personally affected is this actor by the problem (1-5)?	How much power does this actor have to change the problem (1-5)?
Mayor	– No budget + Needs votes	1	***
The residents of neighborhood ~~x~~ north of the station who do not have access to energy	+ Have the access back	5	*
...	...	...	...

Using your own reasoning or this table to organise your thoughts, name the most important actors to this problem.

My most important actors in this problem are:

...

...

My reason(s) for deciding that these are the most important actors is

...

3/ What are their needs and values?

For each of the actors you have named in the previous exercise, consider what their needs and values are in relation to the insight you have developed.

Remember, a **need** is not a solution you can provide for them already (e.g., solar panels are not a need). Rather, a need is a motivating force compelling action for its satisfaction. It includes but goes beyond material necessities. A **value** is a belief or principle that are important to the way people live and work. For example, this could relate to a “sense of security”, “feeling of belonging”, “being to provide well for one’s family”, “having power over others”, “having control over all situations”, etc.

Actor or group of actors	Needs	Values

To help you with this exercise, it might be interesting to consider what your own values and needs are in relation to the energy system. It may also help to develop a “persona canvas” for each of these actors to really develop some empathy for where these people might be coming from. Also, it is possible that you belong to one of the groups. This is also ok!

Example of a personas canvas:

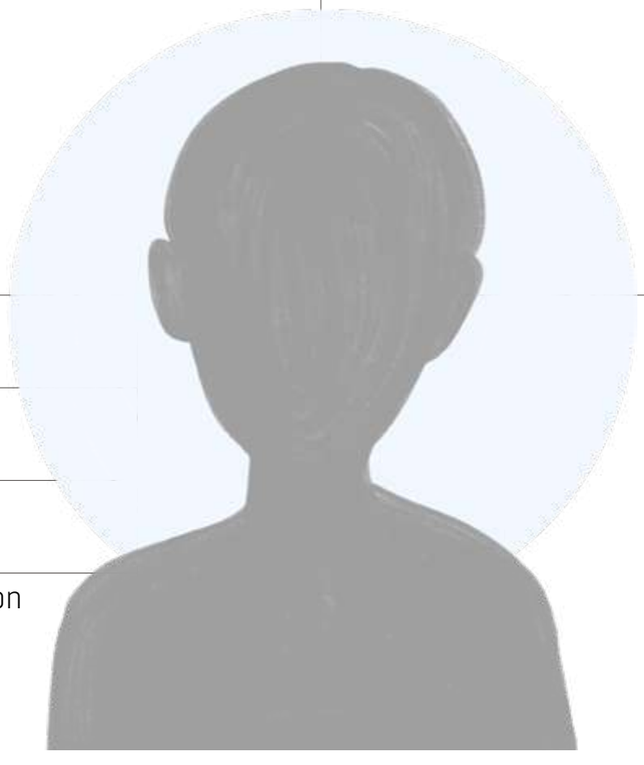
Negative trends

Positive trends

Headaches

Opportunities

Fears



Hopes

Name

Age

Occupation

Other information

Needs

4/ Write your problem statement from one point of view

For **one** of the actors you have named in 2/, take a try at creating your first problem statement.
You can use the following structure to give it a try:

SOMEONE... (a specific group of people that you named already);

NEED(S)*... (something lacking/unmet values which this group of people could use help with);

HOWEVER* OR BECAUSE*... (an insight about this group of people from Step 1/).

*Please note that you do not need to use this structure exactly. These words are here as a hint, but you can use your own.

Examples of a single perspective problem statement:

Women and girls in rural areas of Nigeria need to have a way of accessing fuel for cooking that is not detrimental to their health and which also does not take up all of their time such that they have no more time left for their education or other personal development goals.

However, currently, they have to walk long distances and spend a lot of time collecting wood fuel, which makes them vulnerable to physical violence and takes away time for education. The fuel also burns in stoves which causes a lot of indoor pollution, causing negative health impacts for these women and girls.

Write another problem statement for several actors.

SOMEONE...

NEEDS...

HOWEVER...
or BECAUSE...

Academy alumni were vocal about the importance of talking to others to clear the mind and understanding concepts that were difficult for them to grasp. One of them mentioned:

> "[defining the problem] was really hard, I think I defined it three times and I didn't get it." [...] "I went to my classmates, they explained it to me, talking to others helped."

Ask for help: It is very challenging to write these problem statements. It requires a lot of questioning and asking "why". It is also very tempting to write down what we assume to be the problem before questioning some of these assumptions. To help us with this, it might be a good time to share and discuss these statements with other people. The best would be to talk to the actors that you are writing about to see if you have correctly understood their needs and values. These are not easy conversations to have, but critical to an accurate and useful understanding of the problem.

Feedback from actors:

Use the feedback you have gotten to make any changes you might want to make to your original problem statements.

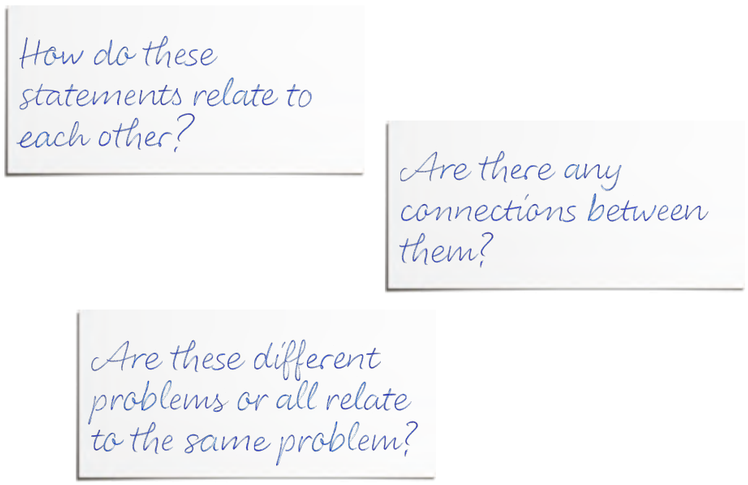
Revised problem statements:

6/ Write your problem statement from multiple points-of-view

An Academy alumnus says:

> "Maybe the thing with design thinking is that you cannot do it alone. It needs a couple of minds around you to clarify or maybe share ideas because when you do it alone it can be OK but in the end, maybe the targeted group may not appreciate it and all that. So literally, when you're doing design thinking you need to engage many people around so that they appreciate the idea from the start. And then you're going to also understand what you're really doing and all that."

Now that you have your revised the/your problem statement, try to combine these statements into a single paragraph. It is completely ok to simply put these statements together in a list. However, ask yourself these questions:



After considering these questions, look at your statements again and write down your **new multiple points-of-view statement:**

Ask for help: Don't worry if it seems like your statement is too long or messy. That's ok! The point is to write it down to help you get to the heart of the matter. When we have done this activity with participants in the ENCLUDE Academy, they had to rewrite it many times before they were satisfied with it. This is again, a good time to ask for help. Get other people to read it. Let them ask you questions about it.

Revised problem statement:

Example of a multiple perspective problem statement

Women and girls in rural areas of Nigeria need to have a way of accessing fuel for cooking that is not detrimental to their health and which also does not take up all of their time such that they have no more time left for their education or other personal development goals.

However, currently, they have to walk long distances and spend a lot of time collecting wood fuel, which makes them vulnerable to physical violence and takes away time for education. The fuel also burns in stoves which causes a lot of indoor pollution, causing negative health impacts for these women and girls. The government has limited means to aid these women and girls because they lack fuel is due to climate change and there are limited funds to provide clean cooking stoves to each household.

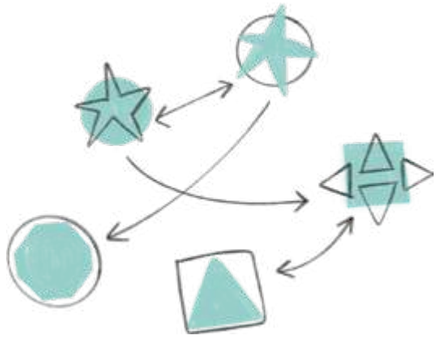
The men of the region do not see it as their responsibility to help with the challenge of fuel access because it is traditionally a woman's domain. The NGO's that have provided clean cooking stoves that use less wood and burn more efficiently do not address the issue of fuel availability.

7/ “How might we...?” exercise

Now, we are at a point where we are ready to start thinking about solutions to your problem. We use your multiple perspective problem statement as a starting point. We suggest a way to break down your complex problem statement into a series of smaller, more concrete questions. These questions we call “**How might we...?”** questions.

Let’s revisit the problem statement from the last section:

Women and girls in rural areas of Nigeria need to have a way of accessing fuel for cooking that is not detrimental to their health and which also does not take up all of their time such that they have no more time left for their education or other personal development goals. However, currently, they have to walk long



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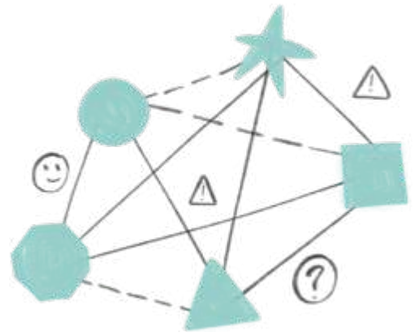


The government has limited means to aid these women and girls because they lack fuel is due to climate change and there are limited funds to provide clean cooking stoves to each household. The men of the region do not see it as their responsibility to help with the challenge of fuel access because it is traditionally a woman’s domain.

The NGO’s that have provided clean cooking stoves that use less wood and burn more efficiently do not address the issue of fuel availability.

Starting with this problem statement, the graphic below shows several ways of how you could turn the problem statement into different kinds of “How might we…?” questions.

Creating “How might we…?” questions

Turn the “bad” into the “good”

How might we reframe the responsibility that women and girls already have for collecting fuel as an opportunity for them to gain control of their future, rather than as a burden?

Question an assumption

How might households gain access to cooking fuel without collecting firewood? How might they gain access to alternative cooking fuels?

Assumption: wood is the most appropriate fuel source.

Explore the opposite

How might we improve the health of women and girls through creating more energy access?

Opposite: Improving the health of women and girls through energy, not harming their health.

Focus on adjectives

How might we make existing sources of fuel that are safe, time-efficient also affordable?

Adjectives: safe, time-efficient, affordable.

Focus directly on specific needs

How might we give women and girls more time? How might we find a way of finding compensation for women and girls for the time that they spend on collecting fuel and doing household chores?

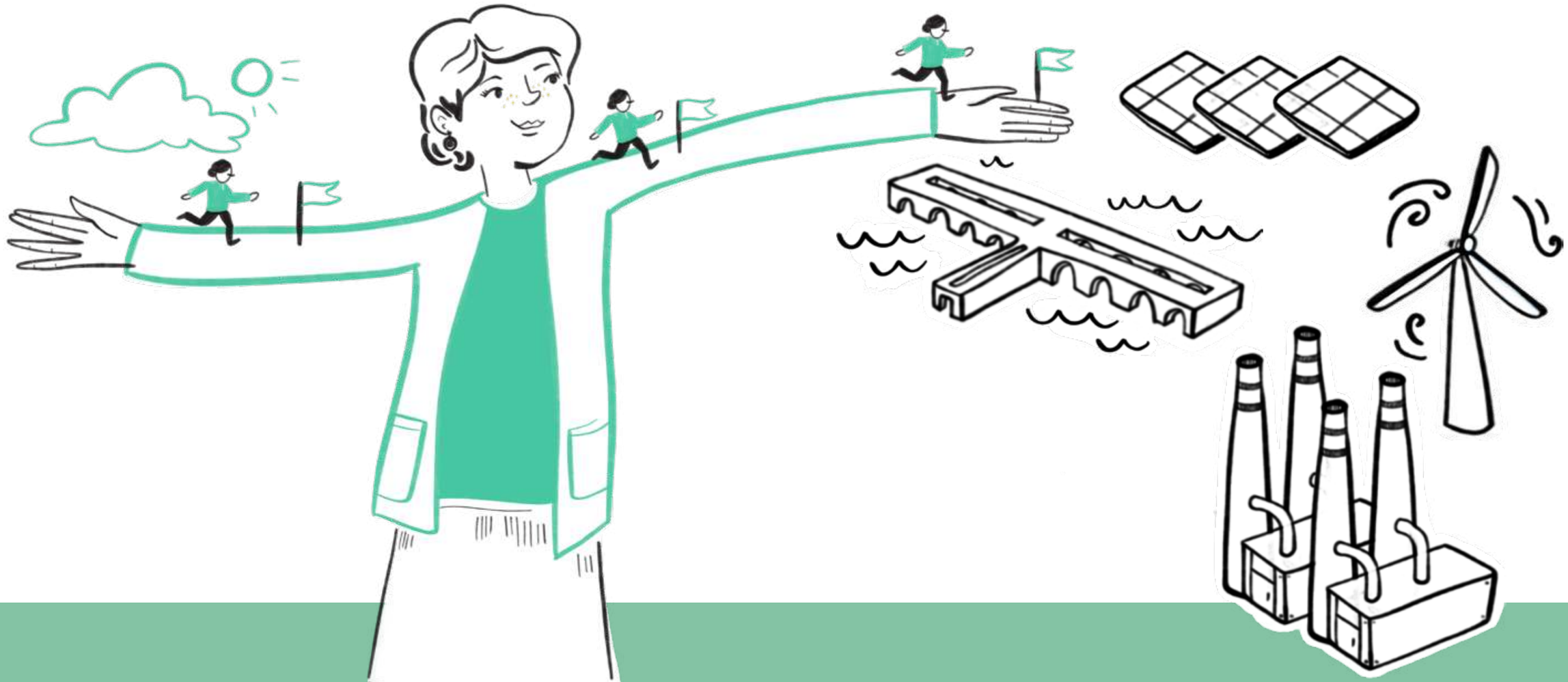
Aim for creating 3-5 “How might we...?” questions. With this list, we are ready to go to the next step – brainstorming and thinking of solutions!

Two Academy alumni were having trouble in their project when they came to the following realisation:

> “It was clear that we needed to take a step back and look broader and go hang on a minute, let’s not, you know, we shouldn’t be in here trying to like build something specific. What we need to do is get a much better understanding of the overall picture, why, you know why things haven’t taken off in the way they would”. And that’s how they decided to shift the focus of their project.

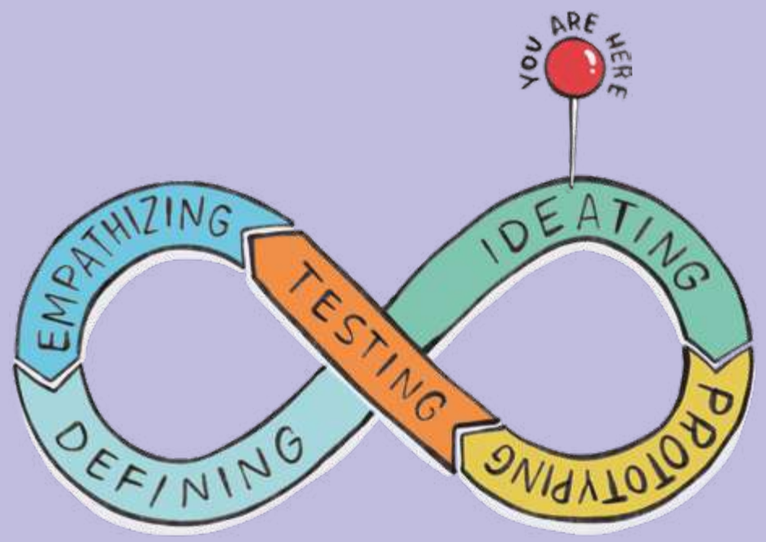
9/ Tips from previous participants

> “[...] when you’re dealing with people then you realize empathy really makes a lot of sense, [...] it is no longer only what you think it is. It’s something supposed to look at with, you know, very many different angles. (...) First, I thought because my community is having to deal with a lack of power. I should provide a stable source of power: solar and independent. And then you look at it and you realize that the person you want to provide with this are not really ready for this solar panels. [...] So I was like I need to look at another way.”



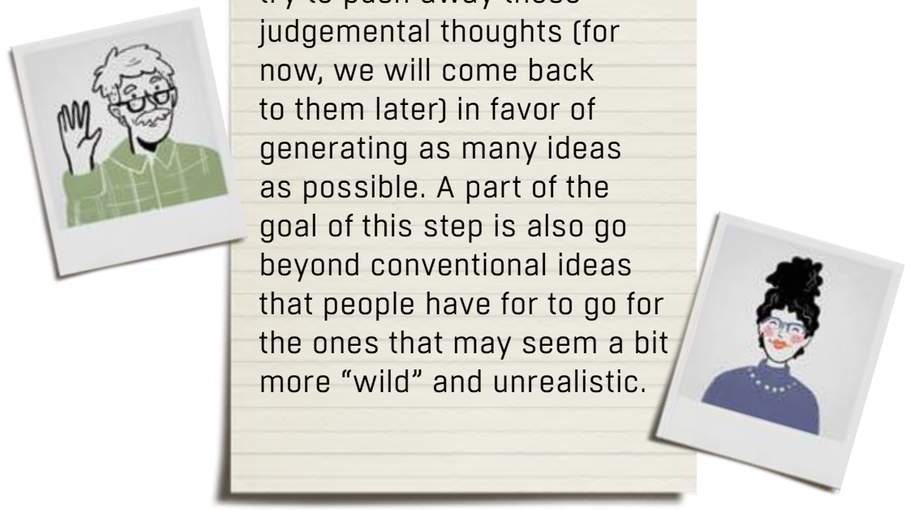
Step 3

IDEATE SOLUTIONS



Ideation is a phase of the design cycle where you create a wide range of ideas and potential solutions are generated. Participants are encouraged to think freely, without judgment, and explore various perspectives and possibilities.

This means, at this stage of your process, quantity is more important than the quality of your ideas. It is very difficult for us to suspend judgement and to already decide which ideas are “good” or “bad” before we even say them.



However, we ask that you try to push away these judgemental thoughts (for now, we will come back to them later) in favor of generating as many ideas as possible. A part of the goal of this step is also go beyond conventional ideas that people have for to go for the ones that may seem a bit more “wild” and unrealistic.

In this way, we are better able to think “outside the box” and allow ourselves to be creative with what we think can be a solution to a complex problem.

Think of this time and space as a vacation from the way we usually expect ourselves to think. Let yourself use your imagination and not care about what others might think.

1/ Brainstorming with “How might we...?” questions

This activity is best done in a group of at least 3 people, but it could also work with just 2 people. If you are by yourself and are not following this book as a group, try to bringing a friend into the process. If this is not possible, you can also try this activity on your own.

Materials needed:

- Timer
- Small pieces of paper
- Pen

Time needed: min. 2 min. per question (if you have 3 questions, the minimum amount of time you will need is 12 minutes if you brainstorm each questions in 2 rounds).

Write each of your **“How might we...?”** questions on a separate piece of paper. Then take one of these questions and put it in front of everyone (or yourself).

1

Set a timer for 2 minutes.

For these 2 minutes think of as many different types of answers to the question as possible.

2

As you think of each answer, write it down on a small piece of paper or a post-it.

If you are with other people, say this idea out loud. The idea here is that people can build on your ideas.

If you are alone, just write the ideas down.

3

When time is up, take a quick break before setting another time for 2 minutes. Come up with more answers for the same question!

It is important to answer each question in two or more rounds, because the more interesting ideas come out in later rounds after all the “usual” ideas have been said already. Some people find it useful to brainstorm while standing up or walking. You can try these different techniques to help generate more ideas. You can also play music while you brainstorm. For different rounds of brainstorming, you can also imagine how your grandmother, a 5-year old, or a superhero might answer the questions. These are just all ways to get you to think differently about the question at hand.

4

When time is up, take a quick break. You have the option of either answering the same question for a third round, or, if ideas are running dry, go on to the next question.

If you are going on to the next questions, choose the next question and put this in front of everyone (or yourself).

5

Set a timer for 2 minutes and repeat from step 2-5.

Repeat steps 1-6 until all your “How might you...?” questions have been answered.

Do this for all the questions.

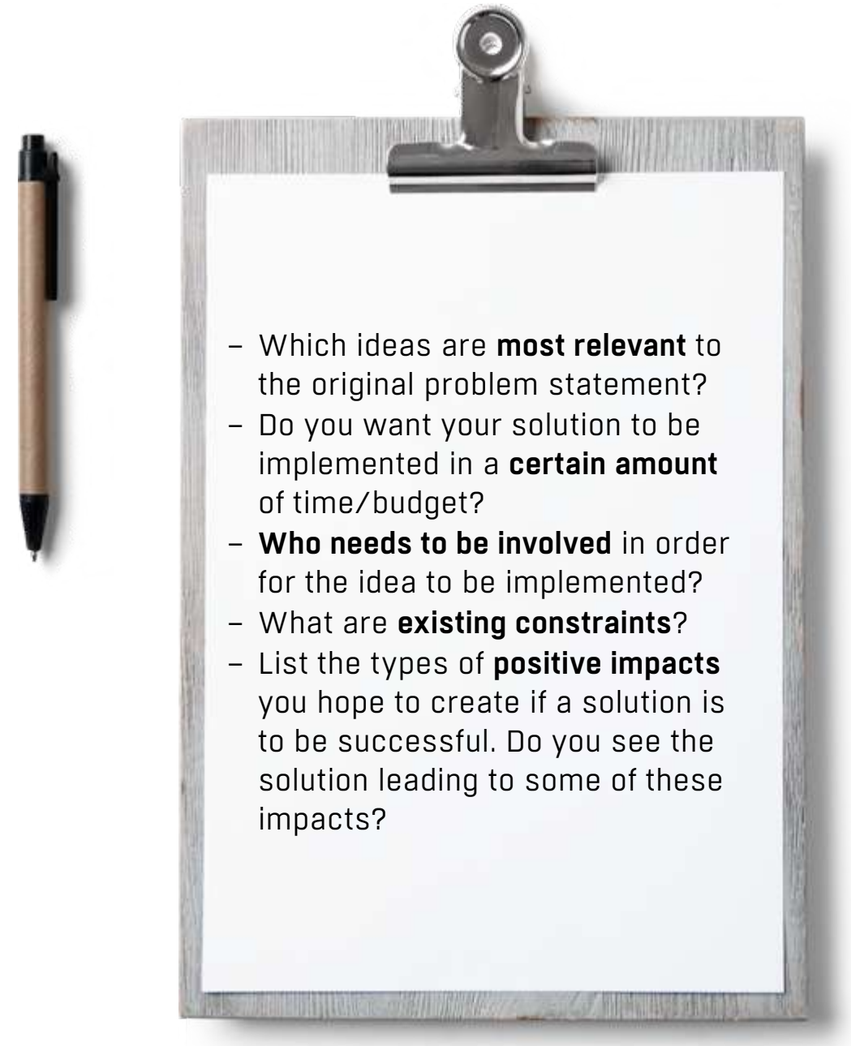
Remember, try not to comment on each other's ideas just yet. Remarks like "**it's too expensive**", "**it's technically impossible**", "**people won't be interested", "it is too sensitive**", "**how can one imagine that...**"...should be avoided.
These judgements, which will help us to choose the best option later on, are not helpful right now while we are trying to think of new ideas. This is the phase of ideation that calls on "divergent thinking"*. Judgements and criticisms are important, but then come in at a later stage of "convergent thinking."

*There are many ways of encouraging and practicing divergent thinking. Techniques include mind mapping, sketching, and concept generation. In this playbook, we choose brainstorming as a specific technique of divergent thinking, as this is the technique that works well with problem statements and **"How might we questions...?"** as a part of design thinking, but this brainstorming can also be supplemented with many other options.

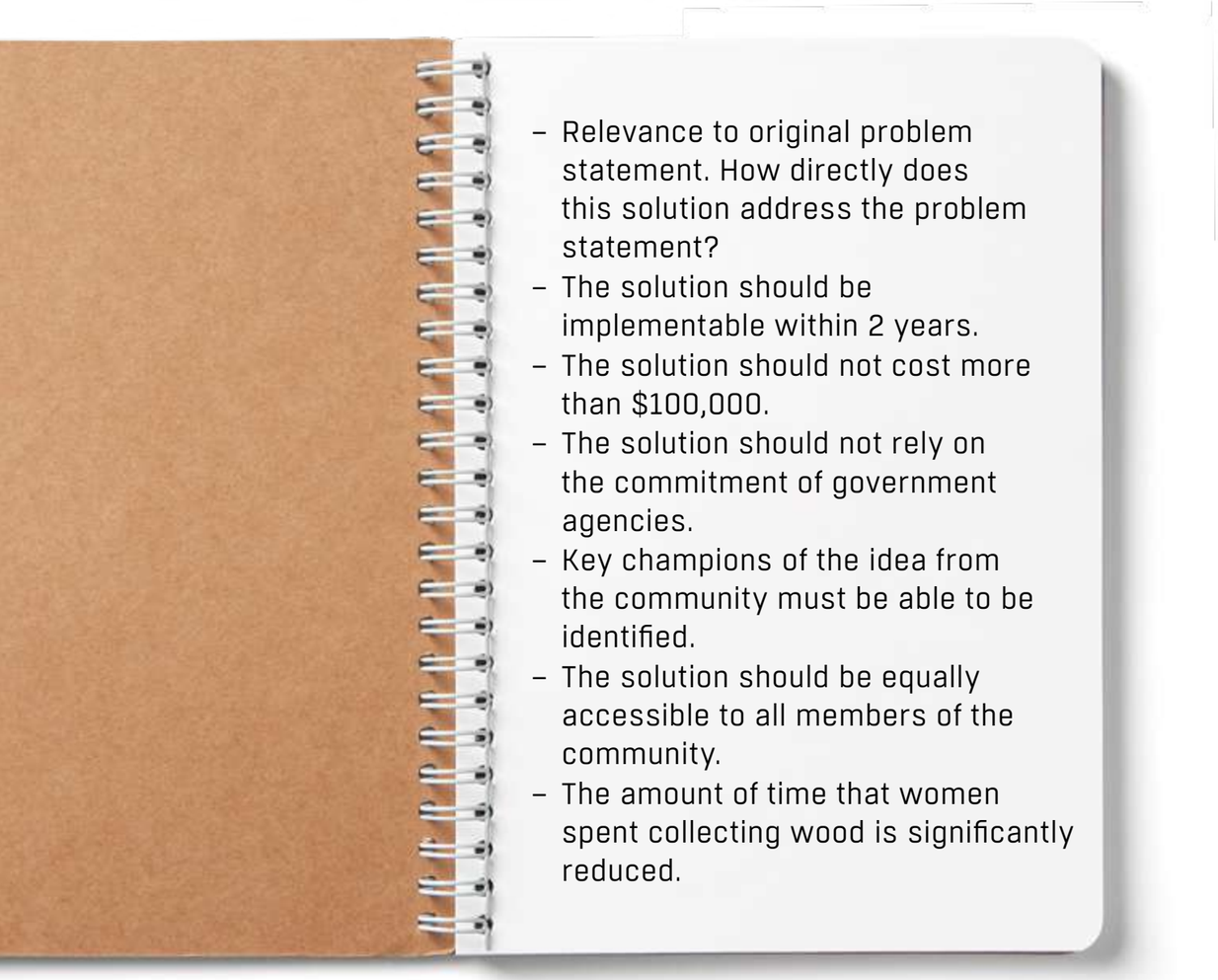
2/Create criteria for selecting your ideas

By now, you should have a pile of little pieces of papers in front of you. It is not a stretch to imagine that you could have 10's or even 100's of ideas, depending on how many questions and how many people took part in the brainstorming. How are you going to choose among these ideas?

We suggest you consider the following questions in creating some criteria that would help you choose between your solutions:



The list of criteria may look like this:



You may also have other criteria that are very specific to your project. In any case, it is helpful to write these criteria down. If you are working in a group, it is also important to agree on what the most important criteria should be.

This is where your "judgemental" side can be fully unleashed. What kind of requirements should the solution meet before you go further with developing it?

3/ Prioritize and select your ideas

Once you have the list of critieria, you can now sort through the pile of solutions that have been brainstormed. There are many ways to do this and you can do it the way that makes sense to you. One suggestion is to simply create two piles. One pile are solutions that do not meet more than half of your criteria, the other pile are solutions that you think could possibly work. You then do the same thing with the "yes" pile again. At this point, you may want to refine your criteria. When you have come down to the last 10 possible ideas or so, you may want to make a take with your final set of criteria and you can score each of ideas using a simple table (see below). You can take the top three ideas to prototype in the next step!

It could also be that your "favourite" ideas do not score well based on your criteria. It is ok to keep these to prototype and take further, but be aware that you may need to be ready to let go of ideas you personally like, but may not address the problem at hand. Here, "kill your darlings" is a good message to listen to *(Arthur Quiller-Couch)*.

Example table of criteria

	Relevance (high-low)	Cost (low-high)	Time (low-high)	Feasibility (low-high)
Stove that burns firewood cleaner	Medium – addresses only health issue, not fuel availability issue	Medium	Low – technology already available	High – Technology already available
Plant trees around villages + dig wells to water them	High	Medium	High – trees take a long time to mature	High
Solar thermal power for cooking	High	High	High – infrastructure still has to be built	Low – no available infrastructure in region
Teach men to gather firewood	High	Low	High – it takes time to change norms	Low – hard to change gender roles in a culture
Give money to villagers for firewood	Low – more money cannot by fuel because of availability reasons	High	Low	Low

In this example, you can see there is no clear “winner” in terms of a solution. You see that various solutions have both advantages and disadvantages, but it is up to you to weigh them based on your knowledge of the area and the context.

The point is that by doing this exercise, you know exactly your reasons for choosing or rejecting an idea. This makes it easier for you to rethink this process later on if you want to think of additional ideas.

After listing criteria, sort solutions into two piles based on whether they meet more than half of the criteria, and then score the remaining ideas to select the top three for prototyping. Personal favorites may not align with the criteria. © Stefan Asafti, Unsplash

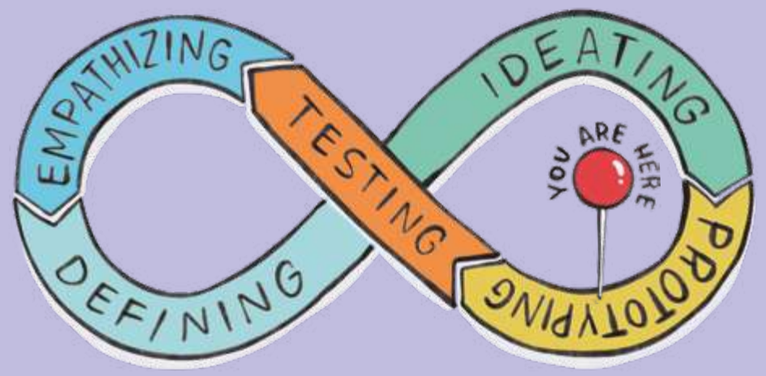
It also gives you something to compare to later on in the implementation of your project to see if the criteria you chose really mattered in the way you thought. In this way, you can more quickly gather feedback about the context you are working in and are able to share more clearly with others what this decision-making process was like.

You can make your own decision, perhaps after discussions within the group, about which of these solutions make the cut to at least be tried in a further step.

Prioritize and select your ideas exercise demonstrates the importance of evaluating various solutions, to make informed decisions. The results helps facilitating clearer communication and quicker feedback gathering. © Getty images

Step 4

PROTOTYPE SOLUTIONS



Now, you have in front of you 2 or 3 ideas that meet your criteria. You think that these ideas have some potential in being implemented. Before we can do that, we would like you to take just the next baby step forwards and make a prototype of the idea.

1/ What is prototyping?

Prototyping involves creating low-fidelity representations or mock-ups of potential solutions. It can be an object or an action.

It can take the form of:

PHYSICAL MODELS

DIGITAL PROTOTYPES

STORYBOARDS

TANGIBLE REPRESENTATIONS

Prototypes are used to test and validate ideas, gather feedback, and iteratively refine the solutions. The focus is on quickly and cost-effectively testing assumptions and learning from the feedback received.

Images from top left to bottom right: ©Sebastien Bonneval, Jason Goodman, Amelie Mourichon, New Data Services Unsplash

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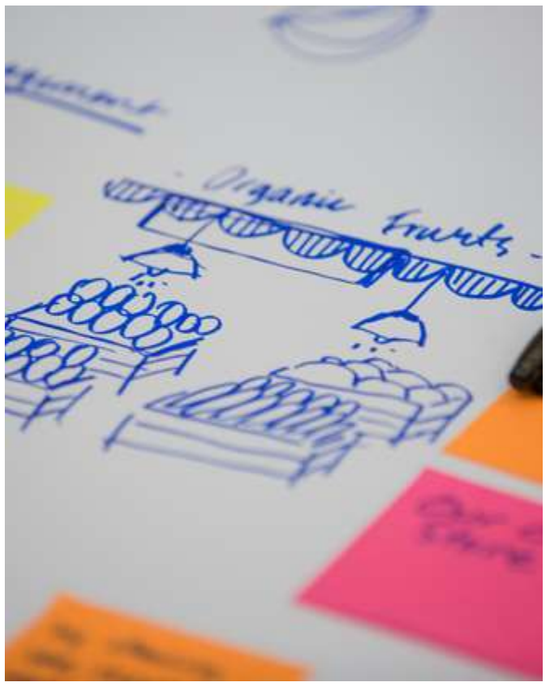


©Fortytwo,Unsplash

Learning about the capacity of household appliances in a playful way during workshops in Oud-Heverlee, Belgium. © Leen Peeters, Th!nk E

2/ Make a paper prototype

Draw your idea on a piece of paper. How does it look like? If it's a service, just draw what all the stages of the service looks like? Find ways of visualizing your idea. Making a visualization of the idea often times gets you thinking about the details of your idea.

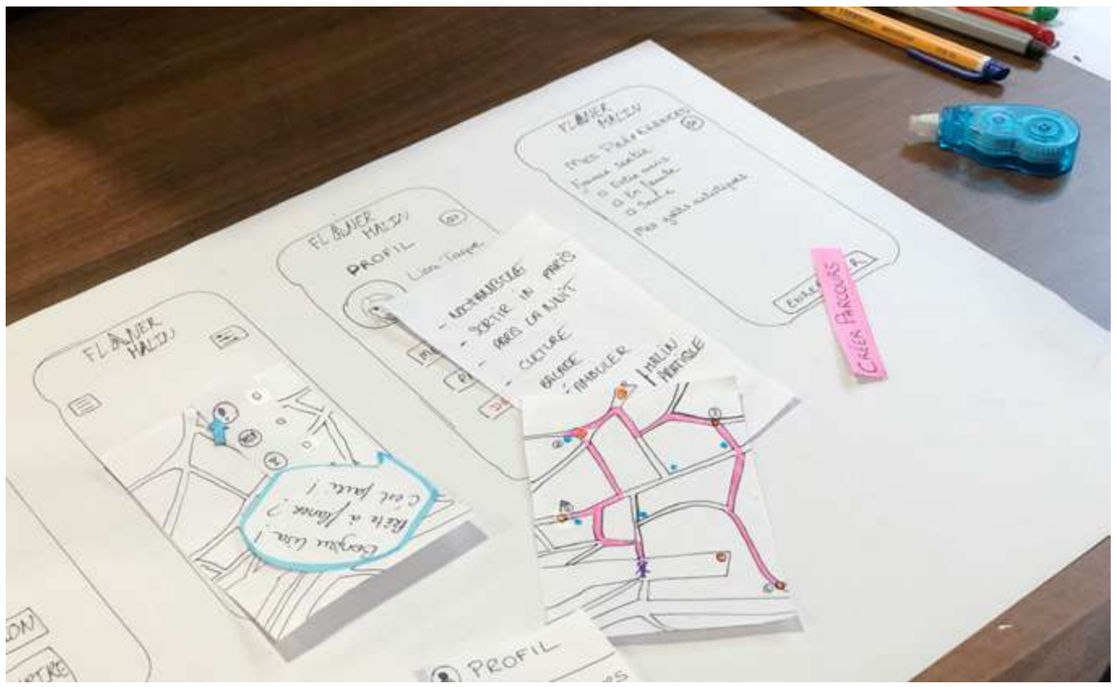
How will it really work?

What parts are needed?

Who needs to be involved?

What are the processes that would need to be carried out?

The point is not to make a pretty picture. The point is that by drawing, you think more clearly about the components of your idea and how to realize it.



©Amelie Mourichon, Unsplash

3/ Make a 3-D prototype

If it makes sense for your idea, consider making a 3-D prototype or model of your idea, using art materials or other available things lying around.

This makes the idea more real and you can also have fun doing it! A 3-D model makes the idea easier to communicate with others.

You can also create digital prototype or whatever medium you're comfortable working with. The idea is that you can use this model to explain to others what the idea is.

HERON S.A. and DECIDE The Power of Community Game workshops during which Marialena Satou organised 3-D prototyping solution for a group of children of the 14th primary school of Glyfada in Greece. ©M. Satou

Co-creation workshop in Amsterdam, the Netherlands organised in 2020 by ©Cities-4-People Consortium

4/ Create a skit based on your prototype

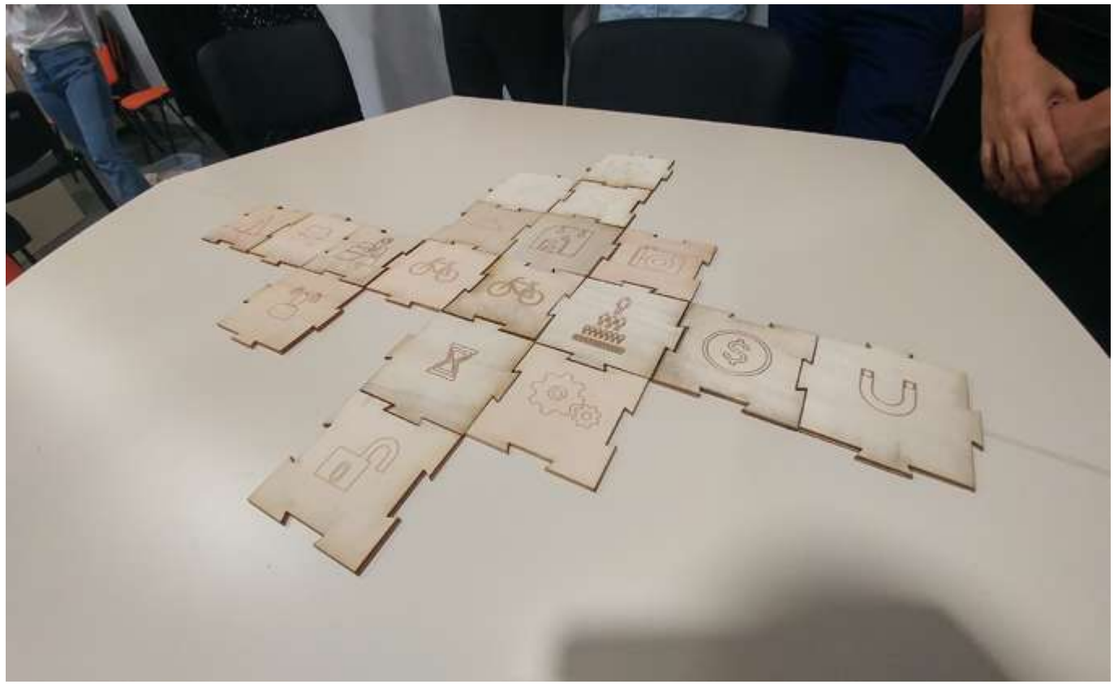
Or, it may make more sense for your idea that you create a skit or mini-play that shows how your idea works.

Perhaps your idea is intangible and is more about how to change relationships rather than things.
In this case, in your group, act out the service or intangible idea.

How does it feel?

Is anything missing?

What did you learn doing this?



Co-creation workshop organised by ©Cities-4-People Consortium, 2020

5/ Reiterate!

Based on the feedback from all your prototyping, create a second version! Repeat for all your ideas.

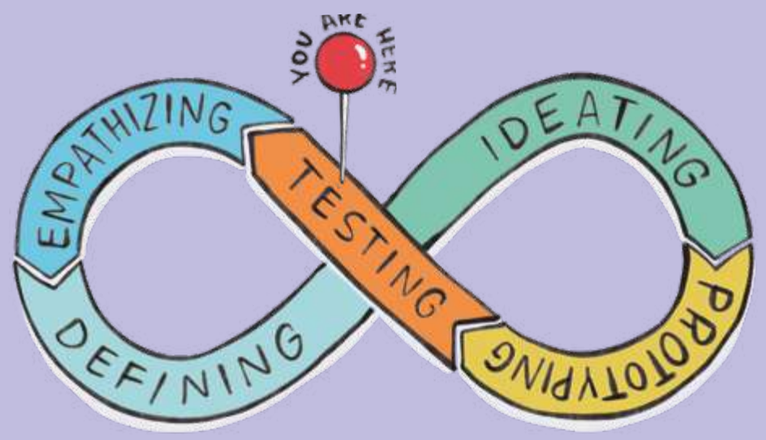
This stage of the process could take as little or as much time as you would like.

However, the goal is that by the end of prototyping, you will be ready to share your idea with someone outside of your group (or simply with another person if you are working alone).

©Sebastien Bonneval, Unsplash

Step 5

TEST PROTOTYPES



1/ What is testing?

The final stage involves testing the prototypes with the target users or stakeholders to gather feedback and evaluate their effectiveness. It is time to show your prototype(s) to someone to get their feedback!

This stage is crucial for validating assumptions, identifying strengths and weaknesses, and refining the solutions based on user insights. Iterative testing and refinement enable the development of more robust and user-centric solutions.

Before you approach someone to get feedback for your idea, consider the following questions:

- What am I most uncertain of about my idea? Can they give me more information or another perspective on what I am uncertain about?
- Am I making the right assumptions about how my prototype works?
- Do I have the right technical understanding about my prototype?
- What might the unintended consequences of my prototype be?
- Would my prototype affect everyone the way I think it will?
- How can I best commmunicate and talk about my prototype?

For considering who you might want to show your prototypes to – consider which people might be affected by your prototypes, which ones may have an influence on implementing your solution, a friend or colleague who is not familiar with the topic (to give you an idea of how you can better communicate the idea) and perhaps an expert on the topic to give you further insight on how the prototype can be further designed or implemented or perhaps show you issues you might not have thought of previously.

You are not limited to showing your prototypes to just these people, perhaps you can also revisit your personas and find an actor who might fit each of your personas so you can be guaranteed to get a diverse and complete set of perspectives on your ideas.

Collaborative city planning during the 2019 roadshow on Citizen Empowerment © Smart Cities Marketplace

One Academy participant highlighted the relevance of community feedback.

> "I noticed the excessive use of firewood leading to deforestation and long-term impacts like drought. My idea was clear: utilize available resources for clean energy to preserve our forests."

He emphasized the extensive effort, consultations, and preaching the idea for acceptance they had to do. A key part was talking to the area council, they granted the access to the community. By talking with people of the area they realised mothers were the most affected.

But here's the thing, they didn't have the financial means to fix it. Recognising that fathers typically served as the primary breadwinners, they realised the importance of garnering their support as well.

So, after lots of talking, they came up with this smaller bio gas plant that could work for families of 6 to 8 people, covering their lighting and cooking needs. And do you know what? It was all thanks to the feedback they received.

The overall point of the testing is to make sure we are addressing any possible blindspots we have. Many times, as we spend more time developing our ideas, we fall in love of them and we are no longer able to objectively evaluate their merits anymore. We are too invested and we want them to work at any cost.

To get more people to give you feedback on the idea means that you prevent too big of blindspots from forming. There is a caveat to this. It may be discouraging to show your ideas to others and they keep telling you how things are not possible or your idea is too crazy. Do not be discouraged by their comments but seek to learn from their position. Ask them to be specific about their criticisms and don't just accept their judgement out of hand. Ask for constructive feedback. That means feedback that is specific and related to what you told them. Also ask for their suggestions of how they would do it differently.

We should stay open to the possibility that certain ideas just won't work as they are, but oftentimes criticisms are merely ingredients we have to work with until we do arrive at a good solution.

An Academy alumnus reflects on designing for others and killing your darlings:

> "Look at what's around you and how you can use it in an existing format. I know at times we get excited with what it's happening in different places. One day we can probably go on YouTube and see examples of solar energy in Germany [...] you can get excited with that [...] and you're like I want to bring this to my community. But can you really be able to afford it? I do not think so. Then you realize like ok, bringing this is a bad deal [...] So for me is even if you really trying to provide the solution, it's always better for you to understand where are you. [...] You are providing for the people, you are not providing for yourself.[...] You don't design for you making yourself proud."

2/ Show your prototype(s) to someone who may be affected by the solution.

What feedback did you find helpful?

What feedback will you act on?

3/Show your prototype(s) to someone who can do something about the solution.

What feedback did you find helpful?

What feedback will you act on?

4/Show your prototype(s) to a friend/ colleague.

What feedback did you find helpful?

What feedback will you act on?

5/Show your prototype(s) to an expert.

What feedback did you find helpful?

What feedback will you act on?

6/Some tips when you are faced with obstacles

After prototyping and getting feedback, you may still have some obstacles that you are facing. Here are a few tips for how you might want to address these challenges:

The solution tested doesn't match needs

- Go back to the problem statement.
- Modify it if it needs corrections and/or start the ideation process again.

The solution is too expensive or time demanding

- Go back to the list of ideas from your brainstorming;
- Restart ideation...
  - ... and/or explore other aspects of your problem statement less cost or time demanding

The scale of the project is much too large for what I can do or test

- Go back to the list of ideas from your brainstorming;
- Restart ideation...
  - ... and/or explore other aspects of your problem statement less cost or time demanding

And that's it! You're at the end of one cycle of the design process. Now, you are able to go back to any step to refine your ideas or to rethink your assumptions. We admire you for taking on these challenges. Get in contact with us if you want more assistance!

All templates are available to download from

encludeproject.eu/resources/toolbox

Biographies

BinBin Pearce (Delft University of Technology)
is an Assistant Professor of Policy Analysis and Design, currently serving at Delft University of Technology, with a background encompassing over a decade of experience in academia and research at esteemed institutions such as ETH Zürich and Yale University, where she obtained her PhD and Master's degree respectively, specializing in urban metabolism and industrial ecology, and demonstrating expertise in interdisciplinary collaboration, curriculum development, and sustainable development through various roles including Senior Researcher, Lecturer, and Research Project Manager.

Benoît Verhulst (Missions Publiques)
is a Participatory Project Manager at Missions Publiques, where he has been driving projects focused on improving governance and decision-making processes through citizen participation for over 4 years. He holds a Master's degree in Public Law from KU Leuven and a Bachelor's degree in Law from UCLouvain Saint-Louis Bruxelles. Benoît's expertise lies in leveraging the insights of non-experts to enrich decision-making processes in both public and private sectors. He works from the very local level to the international level, with a foot in research as well, trying to break down the silos between the different actors in our society.

Erwan Dagorne (Missions Publiques)
is a seasoned professional with over 15 years of experience in citizen participation strategies and facilitation of participatory processes. As a Director of Projects at Missions Publiques, he specializes in co-constructing public policies with citizens and stakeholders. Erwan has led numerous projects, including local citizen conventions in Est Ensemble and Nantes Métropole, as well as coordinating citizen panels for the Conference on the Future of Europe. He holds a Master's degree in Integrated Urban Policies from the Ecole d'Urbanisme de Paris and a Master's degree in Information and Communication Organizational Professions from Université Rennes 2.

Nely Gamez Mokay (Delft University of Technology)
is a passionate PhD Candidate at Delft University of Technology, specializing in Energy Citizenship and Inclusive Energy Transition as part of the ENCLUDE project, with a background in industrial engineering and a Master's degree in Energy and Society from Durham University, adept at transdisciplinary research, and with experience ranging from commercial customer acquisition analysis to instructional roles in educational services, reflecting her commitment to contributing to a more inclusive energy transition.

Vanja Djinlev (ETH Zurich)
is a Researcher and Doctoral Candidate at ETH Zurich's Department of Environmental Systems Science, with expertise in energy, environment, and sustainable development, backed by experience as a data analyst, researcher, and co-founder at NAVITAS - Centre for Energy, Environment and Sustainable Development, as well as previous roles as an engineering project consultant and teacher of physics, holding Master's degrees in Energy Engineering from Politecnico di Milano and Cooperation and Development from Università di Pavia.

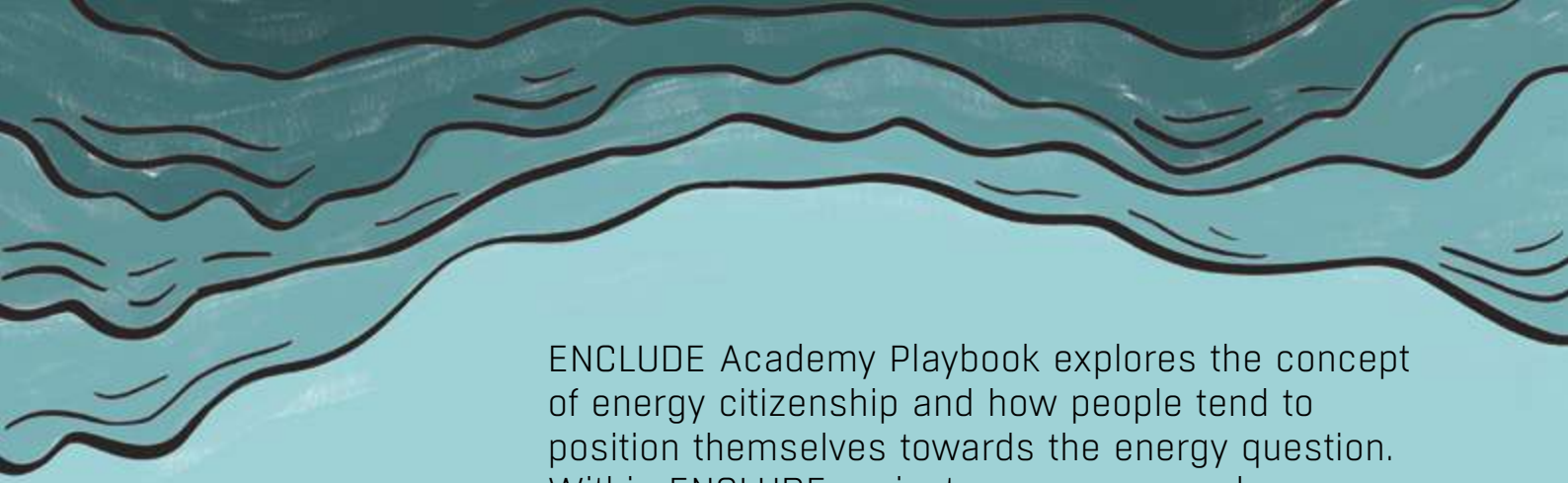
Noémie Galland-Beaune (Missions Publiques)
is a dedicated consultant and participatory project manager at Missions Publiques, specializing in citizen participation and democratic practices within EU policy, with extensive experience in designing, coordinating, and facilitating European and international panels on various topics, including the Conference on the Future of Europe and initiatives addressing issues such as food waste and fake news, complemented by her background as a fellow at the Open Diplomacy Institute and her academic achievements including a Master's degree in European and International Studies with a focus on European Politics and Franco-German Politics from Sciences Po Strasbourg.

Manifesto

ENCLUDE is based on a **participatory concept that ensures the inclusivity of different types of people, methodologies, and scales of applications** throughout the project. Additionally, ENCLUDE takes an **inter- and transdisciplinary, mixed methods and iterative approach** to reaching its goals to support decarbonization efforts in Europe.

ENCLUDE ensures the inclusive involvement of citizens, scientists, policymakers, and business leaders throughout its research cycle, particularly for decarbonization efforts. This approach, termed **transdisciplinarity**, integrates diverse stakeholders in all stages of research, from knowledge creation to output dissemination.
It values various forms of knowledge **beyond traditional science**, incorporating experiences crucial for policy-making and understanding energy citizenship. Ultimately, this emphasizes the inclusivity of individuals in the research process.

ENCLUDE employs a flexible **mixed-methods approach** driven by project objectives rather than disciplinary norms. Researchers prioritize methods that best achieve project aims, regardless of qualitative or quantitative distinctions or personal biases. Our consortium utilizes diverse qualitative approaches and quantitative modeling tools to support our **core objectives across disciplines, emphasizing inclusivity in methodological approaches.**



ENCLUDE Academy Playbook explores the concept of energy citizenship and how people tend to position themselves towards the energy question. Within ENCLUDE project, we ran an academy to support fellows willing to develop an energy community project. This playbook is developed based on the learnings we had in this project and on the lesson learned from running the academy. It is so a guide addressed to you, augmented with the real-life experiences of the academy.

Energy has become a hot topic. Because of the environmental transition, of the geopolitical troubles or the objective of being more autonomous. The reasons to talk about energy are multiple. It concerns state, companies but more and more common citizens. You may not be concerned or interested by this topic, you are still affected by it.

The ENCLUDE project has received funding from the European Union's Horizon 2020 Research and Innovation Programme under grant agreement No 101022791.