NET ZERO CITIES

SOCIAL INNOVATION TOOLKIT

A guideline and a set of tools to support and boost social innovation initiatives



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All tools and templates can be used by directly printing the PDF template or inserting them into a Mirò board for a virtual workshop.

The toolkit is directed to individuals, municipalities and cities developing new solutions and supporting social innovation along a process of transformation towards climate neutrality.

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What is this toolkit for?

This toolkit was designed by NetZeroCities to help cities integrate social innovation in their path towards Climate Neutrality in the following ways:

1. Provide tools that allow for a human-centered approach to transition projects:

By focusing on social needs and putting people at the center of solutions, cities can improve the efficacy of climate mitigation strategies.

- **2.** Offer a process to engage diverse actors in the mission: Through an iterative, design-based learning and development process, equipped with participatory and service design tools, cities can explore local ecosystems, get to the core of the challenge, envision new alternatives, prototype for validity and impact, evaluate for effectiveness and scale meaningful solutions for broader transformation.
- **3.** Cue cities to the value of activating enabling ecosystems for transformative change:

Cities will be prompted to reflect and act in an iterative cycle of divergent and convergent phases, affording them opportunities to engage with different actors and find value creating opportunities for systemic change that align bottom-up initiatives with larger objectives or vice versa.

Who is it for?

We created this toolkit for cities committed to accomplishing the daunting task of achieving climate neutrality by 2030, or latest by 2050, for all.

At its core, cities are a collection of people: individuals, groups, collectives and organizations. Each acting in their own, or collective, life-world. In simple terms, a life-world is how we experience the world in our day-to-day. It is subjective and includes all the social and cultural experiences, activities, perceptions and contacts that make up everyday life. This experience can run in contrast with the objective world as analyzed by the sciences.

Getting everyone on board for the mission and making sure that everyone is included in the transition to net zero emissions means enabling everyone's life-world to be in line with the dire need of our planet to act. This is where Social Innovation comes in. The Social Innovation toolkit is made to help cities design solutions that are inclusive of: (1) everyone's needs, both current and future; (2) the lived experience of each system actor; and (3) voices from the margins as an essential means towards designing for all. This is also accomplished by designing for the constraints, by: (1) recognizing the difficulties of changing ingrained social practices; (2) reaching the hard-to-reach; and (3) accounting for system barriers.





How can I use it?

The toolkit is a paper-based, beta version of an online, interactive service that will be made available on the NetZeroCities platform.

The toolkit is designed to be used by a city's transition team or any team looking to design social innovation programs, policies or projects in support of net zero emission goals. We have provided a process for cities to follow that guides them through the different phases of development, from analyzing the context, reframing the challenge, envisioning alternatives, prototyping and experimenting solutions, and evaluating and scaling them.

While the process is visually linear, it is a cyclical and iterative process. Cities and project leaders can enter in at any point of the cycle. To facilitate this, we have included broad questions to serve as entry points, as well as, other questions that could be addressed and supported by the selection of tools in each phase.

The toolkit is meant to provide a starting point upon which to carefully craft context-based, social innovation experimentation. We suggest using it to start reflection and to find a team lead with the knowledge base to dive deeper.





Analyse the Context

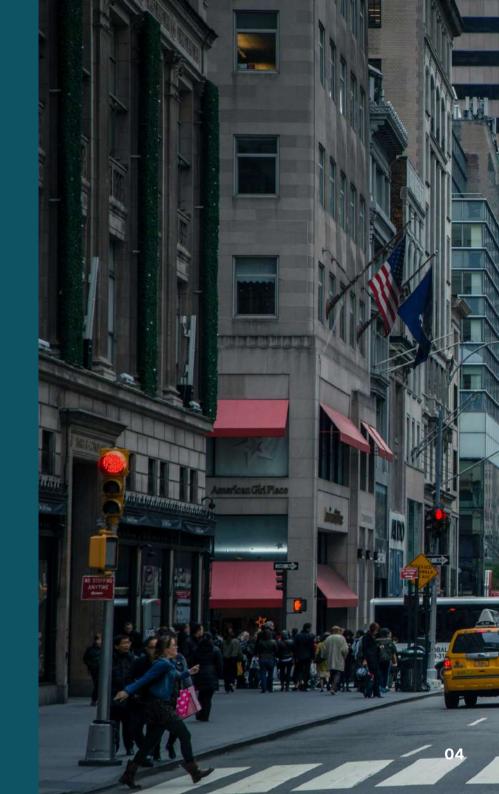
What elements inform the challenge space?

In order to design truly meaningful and impactful portfolios of solutions that engage all system actors in the mission, it is fundamental to understand the context, both in 'hard' terms – the infrastructure of people, organizations, companies, spaces, norms and regulations, etc. – and 'soft' terms – i.e. the practices, routines and beliefs that inform everyday life and the choices we make. This phase explores these contextual factors, their inter-relationship and how they influence the challenge space.

Other questions that can be answered in this phase:

- What is my city already doing in Social Innovation for Climate Neutrality (e.g. policies, funding programs, training centers, etc.)?
- What are the specific needs of citizens and other actors, particularly the marginalized, in the transition to climate neutrality?
- What resources are available?
- Which actors could be engaged in my climate goals?







Analyse the Context

Tools for context analysis

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Customer Journey 50

Related methods on NetZeroCities' Knowledge Repository

Observation of context

To the NZC Knowledge Repository





The Context Map is a framework used to help understand the context. The template can map out the trends and different perspectives. This brings out drivers outside the organisation and the forces that could shape the project now and in the future.

The context map is primarily for an internal understanding amongst the project teams and might not necessarily involve the stakeholders.

After the canvas is filled, the entire team then deliberates on the data gathered and builds on it, also identifying blind spots. Key drivers that need to be focussed upon can be chosen in the end, things that, positively or negatively, have the biggest potential to impact the project in the near future. This map can be left available so that team members may keep adding onto it for further synthesis.

How to conduct

Duration:

45-60 min

Material:

Pens, post-its

Participants per team:

2-5

- 1. The best way to use this Context Canvas is to break the team up into smaller sub-teams, and to assign each team a couple of sections of the canvas.
- 2. Each sub-team has a deep meaningful discussion about what is going on in the world regarding the assigned section(s).
- 3. Once all sub-teams are finished discussing and capturing drivers for their sections, they may add it to the common canvas

Demographic Trends What are the main characteristics of your municipality/region in terms of demographic, education and employment?	Economy & Environment What are the current economic trends in your region and are having an impact on the municaplity?	d country that		eanges ongoing in the regional & national ow are they going to influence your
Technology Trends What are the main technological changes and developments ongoing that will impact you in the future?	Citizen Needs What are emerging citizen needs? How do you think these will develop in the near future?	What are other	Examples municipalities in your stries doing better than nent?	Uncertainties What are the uncertainties that you see in your context/environment? Factors that might be really important, but you don't know how or when?



Ethnographic fieldnotes are a tool to organize different observations, types of analysis, emerging questions and reflections, as well as ideas for future action.

Ethnographic fieldnotes are a useful tool to make sense of complex interactions and processes taking place in response to challenges such as climate change. They are structured, written observations done in physical and social proximity to a community or to the daily lives of a particular city. They can reflect not only the context in which a problem is being addressed and observed but also the links to citizens views. They can be a critical means to understand one's positionality, as well as the routines, challenges and conditions in which communities face ecological and governance challenges.

How to conduct

Duration: 60-120 min, repeat various times if necessary

Material: Pen, eventually camera

Participants per team: Individually

- 1. Immerse yourself in a specific social context in order to understand it.
- 2. Fill the template with your observations based on your own reflections and positionality, emerging questions, and ideas for the future. The template is just meant to guide the personal impressions and reflections and can be used flexibly according to the specific situation.
- 3. The collected data can then be analysed further during group discussions and further activities like problem definitions to extract and prioritize issues to be tackled.



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Ethnographic interviews are a method used to understand deeply the actions and motivations of people behind a theme or topic of research. This process relies on a close connection between the researcher and the community they are working in. In creating connections the researcher is able to get a more rich understanding of how the community functions and what their motivations towards climate actions are for example, which is reflected in interviews with stakeholders.

While it is not likely to help on technical challenges, it will be crucial for community issues and 'why' questions.

How to conduct

Duration: 30 - 90min / interview, the overall process from creating the interview guide to scheduling and conducting is usually 2-4 weeks

Resources:

• There should be a basic knowledge on the topic in order

Material: Pens

Participants per team: 1-3 for creation of the interview guide, 2 for the interview sessions (1 interviewer + 1 note-taker)

- 1. Create an interview guide with key questions (things that have to be covered in the interview) and some probes that are optional, but could be interesting to go in depth depending on where the conversation goes
- 2. Select stakeholders to participate in interviews, depending on what the aim of the project is, e.g. understanding a particular community's needs to reach climate neutrality. Participate in and get to know the community
- 3. Conduct interviews as open-ended and exploratory conversations with members of the community to understand the issues they perceive related to the topic. Through openended questioning, new topics that were not considered by the stakeholder may be opened. Always have a second person joining the interview as a note-taker documenting the key points mentioned by the interviewee



Note Taking Template	Interviewee
	Note-Taker



The People & Connections Map is a visualization tool used to identify stakeholders you are trying to reach and how. It is a tool for mapping actors that surround you that could potentially become your partner, user or supporter. These might include people, communities, funders, networks etc. All of them can represent a resource to your innovation and link to your group goal or your innovation.

The tool helps to focus attention on all actors in the product-service (eco)system. In doing so, it sheds light on actors and their possible role in the solution's design and implementation. It also provides insight on those affected by the challenge, ensuring that marginalized voices are included. By mapping actors, services can be (re-)designed based on value creating relationships and improved based on user (actor) research. The tool is a first step towards a stakeholder map which defines these roles in greater strategic detail. As a first step, it also starts shedding light on the replicability of other SI ideas in the local context (from a reverse engineering perspective).

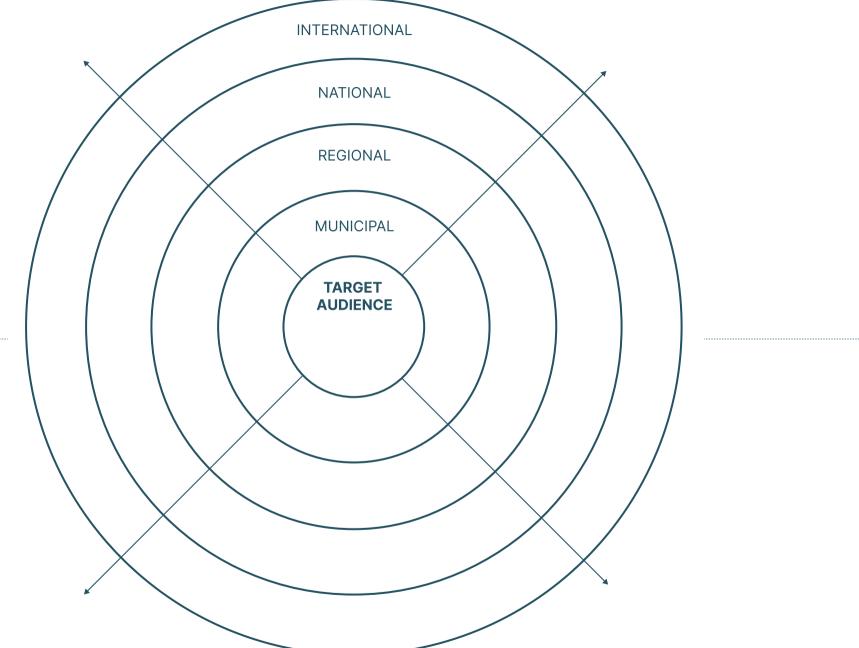
How to conduct

Duration: 45 - 90 min

Material: Pens & Post-its

Participants per team: 3 - 8

- 1. Start from the center point of the tool by listing your target audience (beneficiaries, users, customers) who can benefit from your idea.
- 2. You can use the four segments to divide the stakeholders by specific areas or themes (e.g. healthcare, finance, etc)
- 3. Then work towards the outer layers and list stakeholders that surround you or are somehow related to the work you do. The closer they are positioned to the center point the stronger their influence or value is.
- 4. Once you fill in the worksheet, revise the input, one by one, and reconsider possible repositions together with your team.
- 5. By reviewing the stakeholders you will encourage team discussion and gain better understanding of relationships and connections you are trying to build. When finished, you will get a clear, visual stakeholder graphic to help you highlight and communicate the main focus of your work.





challenge area.

A PESTEL analysis is a strategic tool coming from marketing used to identify external forces in the environment that faces an organization. By completing the tool, the team analyses the Political, Economic, Social, Technological, Environmental and Legal forces that make up the external environment. The exercise provides a situational analysis that allows organizations to anticipate threats and opportunities, gain contextual awareness and process external trends. In order to be an active and strategic operative tool, internal assessment needs to be done to translate the insights into actionable strategies for the organization's future opportunities and operation. The insights coming from this analysis are useful towards a SWOT analysis as well as in activities regarding future scenarios and strategic direction. The tool aims to help teams get aligned on the context of innovation in order to better design solutions that can be effective.

The original PESTEL Analisys has been adapted to Social Innovation and climate neutrality goals by leveraging the environmental component and considering cultural values an additional factor.

feasible and long-term. It helps to visualize and bring to the surface

also the tacit knowledge that each member has of the specific

How to conduct

Duration: 45 - 100 min

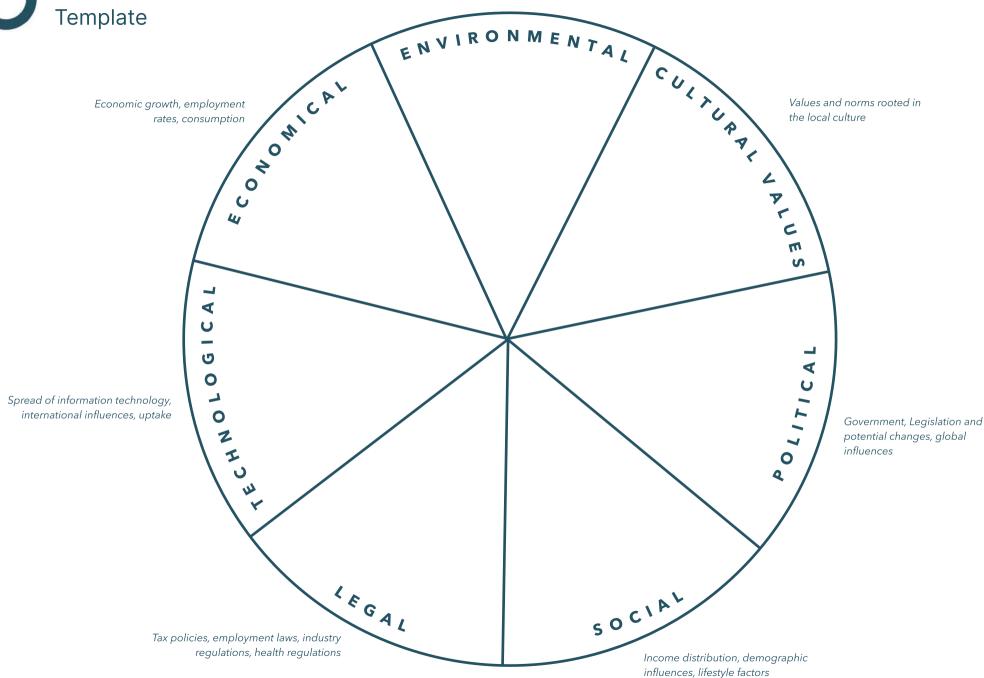
Resources:

• Possible to use other previously conducted context analysis as a base e.g. stakeholder maps, system maps, interviews or others

Material: Pens, post-its

Participants per team: up to 15

- 1. The first step is to gather together a working group of key actors across the organization to brainstorm ideas and conduct the research.
- 2. The team should work together to map out the trends in each area of the matrix (political, economic, social, technological, environment/ values, legal), starting a reflection and discussion on how these trends frame their current activity and open up possibilities of different future horizons of development.
- 3. Based on the initial mapping, ethnographic, field and/or action research strategies (e.g. interviews, focus groups, immersive observation, etc.) should be used to gain further insight of each focus area from the perspective of key stakeholders.
- 4. Next, the group should collect evidence for each insight to then evaluate and score based on 'likelihood' and 'impact': how likely it is to happen and what kind of impact it could have on the organization (similar to impact and feasibility analysis tool, substituting feasibility for likelihood). In the final stage, the group should refine insights and make strategic recommendations on a path forward.





System maps (also referred to as stakeholder maps) are schematic representations of the main actors of a given (service) system, from the point of view of the main service-providing organization. The actors are made up of those surrounding and those internal to the organization, including users, staff, departments, and external providers. Typically, the maps make use of pictograms or other visual representations, and lines and arrows connect the different actors representing the different relationships and flows among the various actors.

Stakeholder map and system maps are useful for identifying the boundaries of service systems, core service performances, and the different kinds of flows, both existing and aspirational.

Systems maps come in many shapes and forms; what you will be using it for, and the questions you want to answer with it will determine which type of systems map to use. It's important to strike a balance between mapping the detailed complexity and making it simple enough to be useful, at the right time to use it. Remember, it's a living map (not a static one) and will change over time.

The activity is best done with stakeholders who have a close proximity or lived experience relative to part of the system. Each stakeholder can inform the system mapping process to enable the system map to more accurately reflect the dynamics, interactions, and relations with other actors.

How to conduct

Duration: Sessions of 45 - 90 min.

The time commitment of System Mapping depends on the degree to which it is planned to be participatory and/or iterative. If it is planned to be both, it can take approximately a 1-2 months to plan, invite, coordinate, execute, and iteratively repeat the process.

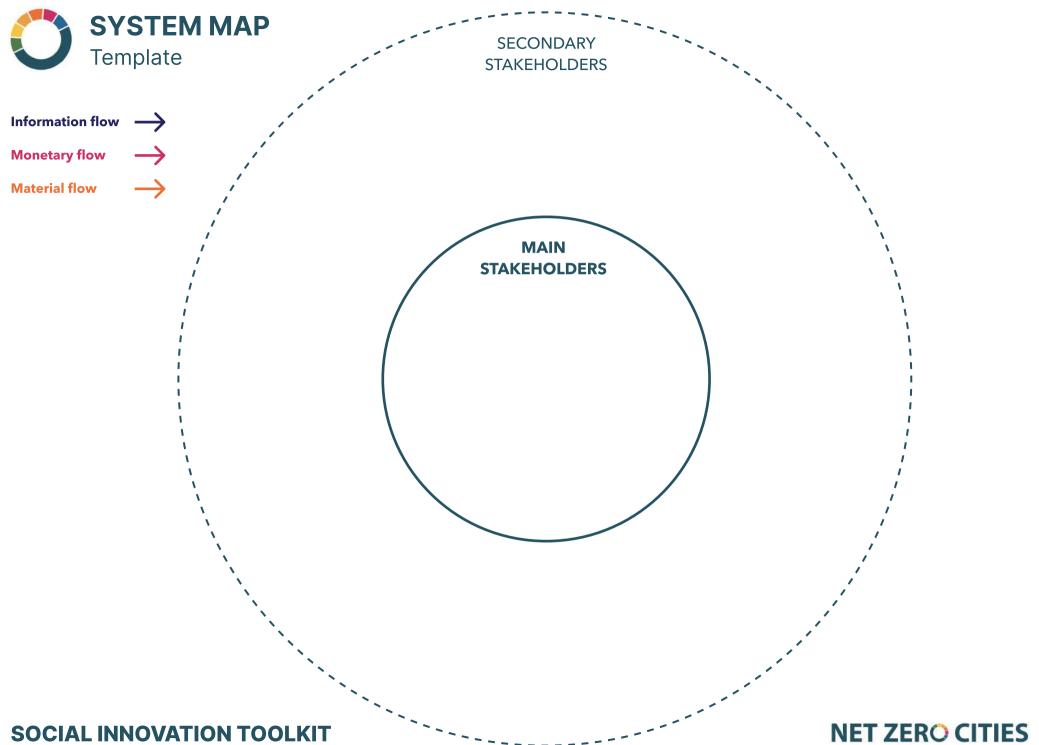
Resources:

• Statement of a challenge or a restricted context or environment of intervention

Material: Pens, post-its

Participants per team: 3-10

- 1. Write down the challenge statement for your complex problem in the centre of a worksheet/flipchart. Try to be concise, but not too narrow in your description (defining the right problem scope is important in not going too broad or too narrow).
- 2. You can refer to the 'Challenge Statements' section to assist you with this process.
- 3. Identify key issues Brainstorm and describe the key issues that affect/contribute to that challenge. Make it concise.
- 4. Identify potential drivers Discuss what the drivers are behind each key issue. Write each driver down on the map.
- 5. Team discussion Discuss the relationships between key issues and drivers with your team, by drawing lines and linkages between them. Drivers can be linked to multiple issues. Identify any possible subissues that contribute to your problem but are not on the map yet. Write them down on the map and connect them with key issues and/or drivers. Try to be clear on how certain you are about the relationships and linkages, how strong (and resistant to change) they are.





Reframe Problems

Does the challenge respond to real needs?

Complex problems, such as mission challenges, are often experienced and understood in different ways by actors. Translating larger mandates into local contexts and needs requires pooling together different actors to reframe the challenge. The process not only deepens understanding of the challenge, but also provides insight on the current system and how it can be improved, generating several insights for innovation on different time horizons. Sometimes it is helpful to look at the present from the perspective of the future to ensure that what we are doing now will fit into the future we want. These future scenarios and visions also work to include the voice of future generations into the solution-building process.

Other questions that can be answered in this phase:

- How does my city plan to achieve net zero emissions in a systemic, inclusive and anticipatory manner?
- What is the societal challenge being addressed?
- How can my city respond to the specific needs while achieving climate goals?
- How can SI contribute to co-benefits of net zero emissions
- Are my climate goals future-fit?
- How can existing social innovations be useful towards the city's climate goals?







Reframe Problems

Tools for defining and reformulating problems

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Other tools that can be applied in this phase

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Related methods on NetZeroCities' Knowledge Repository

- Scenario-building with backcasting
- 5 W Technique
- Defining the Challenge with Challenge Map
- Scenario Building with Futures Table

To the NZC Knowledge Repository



The Frameboard tool is a canvas/template developed by Guido Stompff in 2018 with the aim of enabling both the visualisation and communication resulting from the exploration of a frame. A frame is intended in this case as a certain temporary perspective on a problem or challenge being explored.

Since the Frameboard focuses on a frame – formulated as a temporary perspective on a determined issue – it is particularly useful to quickly explore the situation and iteratively envision alternatives or ideas to address the problem(s).

The Frameboard is applicable in diverse fields and offers the opportunity to visualise and understand a given problem by building an (iterative) overview of different frames. These frames are alternative ways of examining the situation, with different problems, ideas, and solutions. The frames are explained in slightly different ways to grasp the nuances for envisioning a comprehensive course of action.

How to conduct

Duration: 120 - 180min

Resources:

• Starting issue or initial problem to be defined and discussed

Material: Pens, post-its

Participants per team: 3-10

- 1. The template is divided into seven slots
 - a. description
 - b. value proposition
 - c. target users
 - d. key problem(s)
 - e. solution approach
 - f. alternative ideas, and
 - g. name and tagline that can be drawn or sketched into).
- 2. It is recommended that a minimum of six to ten distinct frames are explored to visualise and comprehend the issue in object at the early stages of a project. This will help to reach the best result possible.
- 3. The frameboards will then allow for discussing different frames, with different views and types of solutions for the problems individuated.



TITLE & SKETCH			DESCRIPTION
			VALUE PROPOSITION
TARGET USERS	KEY PROBLEM(S)	SOLUTION APPROACH	ALTERNATIVE IDEAS

The first stage in developing an effective and efficient response is defining the problem, as what may initially seem to be the problem may be a symptom of an underlying, and potentially larger, issue. The Problem Definition tool enables groups to comprehend what these potential underlying causes are and contextualise the problem to reframe it in a more focused and direct way. The Problem Definition can be used when in need for describing and elaborating on the underlying cause(s) of a targeted issue. To that extent, tool can be adapted to diverse kinds of interventions. With the help of the Problem Definition tool, it is possible to zoom in on a core issue that can be acted or improved upon after first gaining a comprehensive picture of the numerous complex and interconnected issues that influence it.

How to conduct

Duration: 30-45 min

Resources:

• Initial analysis and exploration of the context and its problems

Material: Pens, post-its

Participants per team: 3-15

- 1. The Problem Definition tool is a worksheet that should be filled from left to right, and it presents five consecutive columns, each one with a leading question, namely:
 - a) What is the issue?
 - b) Who is it a problem for?
 - c) What social/cultural factors shape this problem?
 - d) What evidence do you have that this is a significant problem?
 - e) Can you think of this problem in a different way? Can you reframe it?
- 2. Examine the Problem Definition template for a specific individual or organisation in small groups, taking notes on a large sheet of paper. You can repeat the process multiple times to expose new viewpoints. Compare your versions and then discuss whether you are making the same assumptions and presenting the same information. Attempt to reframe the problem then.

ISSUE What is the issue?	AFFECTED GROUPS Who is it a problem for?	ENVIRONMENT What social/cultural factors shape this problem?	EVIDENCE What evidence do you have that this is a significant problem?	REFRAMING Can you think of the problem in a different way? Can you reframe it?

An empathy map is a collaborative visualization used to articulate what is known about a particular type of user. It externalizes knowledge about users in order to create a shared understanding of user needs, and aid in decision making. It helps synthesize observations and draw out unexpected insights. Empathy maps provide a glance into who a user is as a whole through a study of what they speak, think, do and feel about an activity.

How to conduct

Duration: 30 - 45 min

Resources:

• Persona(s) to be further analyzed

Material: Pens, Post-its

Participants per team: 3 - 5 people

Instructions:

- 1. After user groups have been identified, interviewed and target personas have been established, the journeys and experience need to be reflected upon. What they said, thought, felt and did during the interactions need to be mapped out in order to create a canvas. This can further be analysed to bring out gaps in the project.
- 2. Each persona can be placed in the center of an empathy map to be further analyzed in terms of what the persona says, thinks, feels and does
- 3. Reflecting on the different aspects of the persona, groups will emerge into the mental model of the user group and develop empathy

to be completed



SAY

THINK

FEEL

DO



Envision Alternatives

Can the challenge be solved or approached in novel ways?

Solving a challenge can involve generating new ideas, but it can also mean creating new combinations or formations of existing offers. Equipped with a deep understanding of the context and the challenge, the phase is dedicated to generating new ideas based on previous reflection, dialogue and insights of the challenge.

Other questions that can be answered in this phase:

- What new solutions are needed to bring my city on an inclusive and effective path towards net zero emissions?
- How can the city ideate new ways to align interests around decarbonization goals?
- How can the city design policy frameworks for climate targets that include the specific needs of its citizens and the city's other actors?







Envision Alternatives

Tools for ideating solutions

Designing the Challenge	28
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Value Proposition Canvas	48
Other tools that can be applied in this pha	se
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Frameboards	20
Empathy Map	24

Related methods on NetZeroCities' Knowledge Repository

- Call for Ideas
- Idea Rating / Selection

To the NZC Knowledge Repository



Designing a challenge is a first step in putting together an innovation competition. In order for the innovation competition to be successful and attract enough audience, a team of organizers should define the main challenge of the competition, how to select winners, judges, what is the selection process along with other details. Intentionally designing the challenge can enable you to systematically design open innovation events and reveal innovative ideas worth developing.

Designing the challenge allows you to set the ambitions and constraints of a challenge for an innovation competition. By doing so, you can help ensure the responses to the innovation competition will be fit-for-purpose to take on the challenge at hand. Additionally, these kind of constraints can help innovation competition applicants think creatively within the bounds of what would be helpful.

How to conduct

Duration:

Ideally divided in two workshops of about 3h each

Material:

Pens, post-its

Resources:

• Stakeholders of the innovation competition to be

Participants per team:

3-15

- 1. Designing the challenge could take up to a month and can be efficiently accomplished using two workshops.
- 2. In the first session gather as group to discuss challenge design. Set challenge objectives and try to define each step in the working sheet. Also, see if there are any gaps or team disagreements on specific topics.
- 3. When you define gaps do your research and gather on the second session to finalize the challenge and get mutual group consensus on your challenge objectives, selection processes and other important challenge features.



1.	2.		3.
Recruitment Why is it interesting to our audience?	What is the recruitm	nent plan?	How will we incentivize people to take part
Selection of winners What are the selection criteria for the winner	s?	Who is going to jud	dge the ideas?
Process What is the process of the challenge going to			

The Idea Card tool helps to organize and detail an idea in only one page.

It requests detailing the needs and challenges addressed, how the solution works and who is involved.

It can help elaborating initial ideas more in detail to then present it to others to receive preliminary feedback.

In a group the Idea Card may spark discussions on how initial ideas can be implemented pointing out key factors, barriers and opportunities while further developing a concept.

How to conduct

Duration: 45 - 60 min

Resources:

- Ideas from brainstorming
- Other selected ideas (from ideation sessions)

Material: Pens, post-its

Participants per team: individually or in teams of 2 - 6

- 1. Introduce the template to the participants and the goal of the exercise. Previously define the ideas to be elaborated either in a voting session after the brainstorming or by finding another way of selecting single ideas or clusters to be further elaborated
- 2. The tool can be completed individually or in groups. Start the activity by defining the challenge and the specific ideas that you are working on
- 3. Ask participants to fill the idea card field by field to further detail the concepts.
- 4. Organize a final sharing session for feedback



CHALLENGE What challenge are you addressing?	IDEA
NEEDS What needs does the city have related to the challenge?	OBJECTIVE What does the solution achieve? What is the ultimate objective?
HOW? How is the new solution working?	WHO? Who is involved in the building and delivery of the solution?



'How Might We', or short HMW, questions are used by designers to transform problem statements or challenges into opportunities throughout the initial phases of the process of solutions finding.

It is meant to rephrase previously stated problems and challenges as opportunities as an ideal starting point to then solve the initial challenges.

Take care that questions are neither too broad nor to narrow to ideate solutions later on like this:

"How might we design a product that makes our users feel confident and secure during their online financial transactions?"

A too narrow HMW question is this one:

"How might we design a product that helps users deposit their paycheques in three easy steps by using a guided workflow?"

A too broad HMW question could be "How might we design the world's most innovative banking app?"

How guides team members to believe the answer is out there. **Might** lets everyone know that there's the possibility (and opportunity) of failure

We reminds that solution finding and service design is teamwork

How to conduct

Duration: 30min

Resources:

- Previously defined challenges
- Other research data (if available) like slides, graphs and insights (paper-based or digital)

Material: Pens, post-its

Participants per team: 3-10

- 1. Introduce the template to the participants and the goal of the exercise. Define the focus of what is the reasoning behind moving from challenges to 'How might we's...?'
- 2. Divide particpants in groups, if necessary
- 3. Ask the teams to fill up to 5 HMW statements for each challenge. Ensure that it is clear that at this point the team is starting to look for solutions instead of challenges.
- 4. A quick discussion or voting session can finally help to identify the final HMW question to be used for the generation of ideas



TEMPLATE			
Transform the previously challenges into opportule them as 'How might we.	nities by rephrasing		
HOW MIGHT WE		HOW MIGH	T WE
	CHALLENG	GE	
HOW MIGHT WE		HOW MIGHT WE	
	HOW MIGHT WE		

HOW MIGHT WE...



It is key to understand the motivation of single actors and actor groups to engage them in a solution.

Negative aspects are as important as positive ones to find solutions to overcome barriers and obstacles early in the ideation process.

The Influencing Factors Matrix can help to identify these influencing factors on the motivation. The basic concept for this was shared by Jim Taylor, Ph.D., in a Psychology Today article breaking down motivation and its factors into two basic axes: positive vs. negative and internal vs. external.

In this way, it can be investigated how solutions can provide the highest levels of satisfaction and validation to actors and make change successful and fulfilling. This is ideal because it increases the probability of the change coming along with new solutions being accepted, supported and sustained over time.

How to conduct

Duration: 45min

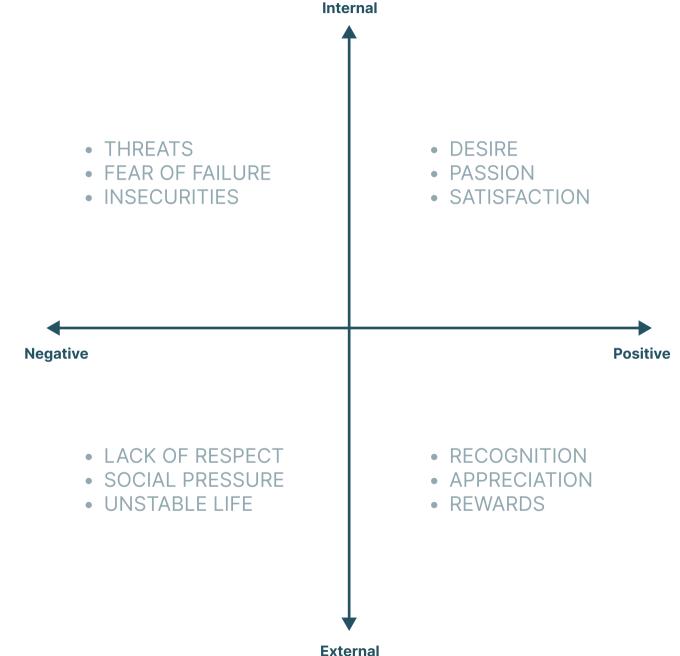
Resources:

- Challenges
- Solution Ideas (Idea Cards, Value Propositions,..)

Material: Pens, Post-its

Participants per team: 3-10

- 1. Introduce the template to the participants and the goal of the exercise. Define the focus of what is the reasoning behind moving from challenges to potential solutions and which factors are infleuncing the deployment of these solutions
- 2. Divide particpants in groups, if necessary
- 3. Each team takes 45min to reflect on the influencing factors on various actors/actor groups according to the matrix
- 4. If there are multiple groups, the key points of the matrix can be shared to the entire group and discussed all together.



The impact-feasiblity matrix helps teams prioritize and ultimately decide which ideas/projects are worth moving forward, on what timeline and with what effort. By mapping ideas according to how much they are in line with and can achieve set goals (impact) and whether current organizational resources can support them (feasibility), teams can sort ideas between: quick wins, major projects, busy work and resource drains. In short, the matrix can help teams prioritize projects/tasks, maximize efficiency and impact and align goals by visualizing how specific tasks or projects advance the set goals.

Impact regards measuring the degree to which a suggestion makes attaining a specific goal possible. Feasibility involves measuring the degree to which an action is possible based on an assessment of resources

How to conduct

Duration: 60 min

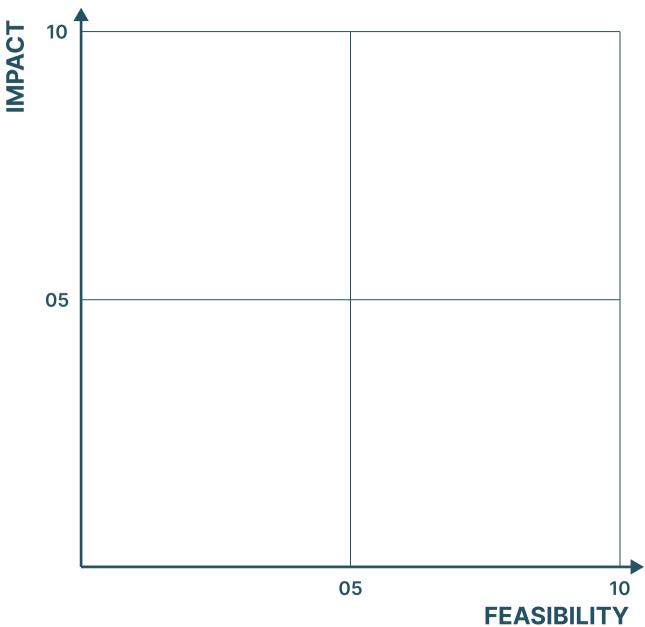
Resources:

· Potential solutions and ideas to be evaluated

Material: Pens, post-its

Participants: 3-15

- 1. If no ideas were developed previously and are brought into the exercise, brainstorm ideas/projects or share tasks that advance your previously agreed upon goals (often based on criteria set in previous brainstorming sessions or by project agreements etc.). Write each idea on a separate post-it note.
- 2. Plot these ideas/projects/tasks on one of the 4 quadrants of the matrix. The higher the estimated impact the closer to the ends of the y-axis it should be plotted. The higher the estimated feasibility the closer to the ends of the x-axis it should be plotted.
- 3. Analyze the results. Ideas with high impact and high feasibility are "quick wins" or so-called "low hanging fruit". Ideas with high feasibility but low impact can be considered "busy work". Ideas that are high impact but with low feasibility are often "major projects" meaning they need substantial new investment (coming at a cost) but could yield big results toward goal attainment. Ideas that are low impact and low feasibility should be avoided and are considered a "resource drain".
- 4. Having plotted the ideas, the team can now prioritize them and create an action plan based on the results. The activity helps the team determine which actions should be given the most time and resources in the future.



How to conduct



Duration: 60 - 180 min

Resources:

Challenge to be tackled

Material: Pens, post-its

Participants per team: 4 - 10

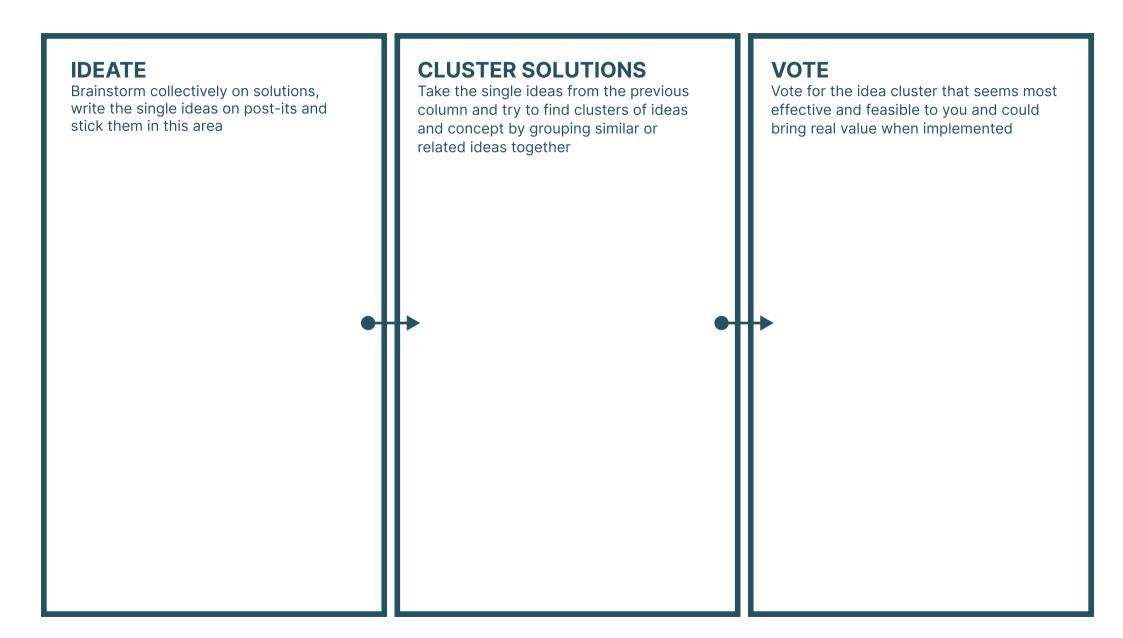
Instructions:

- 1. Set up a team of participants and introduce the challenge and the challenge question.
- 2. Ask each participant to share knowledge on the problem from: lived experience, observation and field notes, interviews, best practices, etc. (also the PESTEL tool can be used for this). Then all team members should brainstorm on ideas for solutions for the problem. Only one insight should be written per post-it. The post-its should be placed in the left column of the template / a common board.
- 3. Clustering: Study the post-its looking for similarities and patterns to create clusters. This process should be led by "feelings" and intuition. Some ideas may not be part of any distinct cluster and be "lone wolves". They should not be discarded as they might fit into larger family of clusters to for a team of teams. Once the clusters are complete, the team should give a title to each one to help make sense of the data and give order to the research. When appropriate, clusters should be grouped into families to create a higher order team of teams. Sense-making: The family of clusters should be visually arranged in a way that gives order to the data and that tells its story: indicating patterns, trends, cause and effect relationships, order of occurrence, interdepencies, connections or contradictions. The visualization should be explained, verbally and possibly in a written form, in an effective and simple manner that presents the emerging insights in a logical and precise way, reducing complexity to give form to potentially new interpretations of the problem space.
- 4. Voting: Participants should vote on the concepts or ideas that are the most feasible and effective (the Impact and Feasibility Matrix Tool can be helpful for this) and move these forward to the next phase of development.

Description

KJ Ideation is a brainstorming technique, or 'idea-generating' method developed by Japanese anthropologist Jiro Kawakita (from which its name derives) to collect, sort and find meaning in qualitative data. As such, it facilitates abductive reasoning that provides rigor to the process of sorting out chaotic ideas and insights to form a hypothesis to confirm or reject. While mostly used in Western countries as an ideation tool, it has been used in Japanese companies as a method for collective decision-making. By creating an open and collaborative method for collective brainstorming, the tool helps challenge owners bring in different perspectives and knowledge of the issue in order to push past the symptoms and get to the root of the problem. This is done not only through collaboration but is also accompanied by ethnographic research and observation during the inspiration and discovery phase. The process thereby facilitates collective decision-making and will formation, while addressing specific challenges (whether external to the organization or internal).

The activity is best done in a small group composed of main representatives of the different stakeholders and value creation areas. It can also be done by a small group or project leader who consults with different actor groups through interviews and ethnographic observation. The activity has the potential to create new relationships and connections (of mental models) between actors while working





A motivation matrix is an exercise that helps facilitators and designers measure what motivates people. The assumption around the motivation matrix is that people perform actions because they are triggered by motivations. The matrix is composed of six core motivation factors: incentive, achievement, social acceptance, fear, power, and growth. After using the motivation matrix, facilitators of the exercise should have a better idea of the motivation behind each individual. This exercise helps make informed decisions. The six core types are: incentive, achievement, social acceptance, fear, power, and growth.

- **Incentive**: any type of reward-oriented motivating factor; can be monetary or not monetary
- Achievement: the kind of motivation that's propelled by the drive for competency
- **Social Acceptance**: essentially the need to belong to a group and not feel ostracized
- **Fear**: motivation that is based off of wanting to avoid certain outcomes or consequences
- Power: motivation that is derived from the need to be autonomous or to gain and maintain control over others
- **Growth**: intrinsic motivation that encapsulates wanting to become a better version of oneself

Based on the <u>Motivation Matrix</u> by Design Ethically

How to conduct

Duration:

45-60 min

Resources:

- List of relevant stakeholders and users, ideally already detailed as personas
- Specific service/product environment that the motivation is specific for

Material:

Pens, post-its

Participants per team:

3-8

- 1. Divide the participants in groups, if required
- 2. Provide an introduction to the environment that you want to work on e.g. a new service or a specific thematic area that people are being in touch with
- 3. Depending on the quantity of stakeholders and users to be analysed, you can ask all groups to work on the same personas or user groups or split them among the groups
- 4. Give enough time to each group to discuss and detail all the different motivational aspects for the user groups
- 5. Have a final discussion with all participants together where the groups present their results and reasoning to each other to then exchange and discuss their work

Motivation → ↓ Persona	Incentive	Achievement	දිපි Social Acceptance	₹ Fear	⊕ Power	ா <u>ரி</u> Growth
2						
&						
&						
2						

Personas represent typical users and their goals. Personas can be defined by dimensions that characterize and distinguish customer segments from one another. Persona dimensions are selected to inform the product or service experience under exploration. To this end, they may include demographic information, attitudinal information (key drivers, triggers, or motivations), behavioral information (habits and practices, barriers, experiences sought, needs and desires), and information about desired outcomes or associated trends.

Analyse the types of potential users and organise them according to sets of shared attributes to define personas. It can be helpful to think of a persona as a personality type. A limited number of such personas should be created and considered as representing the target users for the project. This range of selected personas frames the opportunity space so that innovation teams can focus on them for building concepts. Concepts are built to address the needs of these personas and to fit with their context. In order to accurately create personas, without merely wishful thinking, it is important to rely on in-depth qualitative (and quantitative) research.

How to conduct

Duration: 45 - 60 min

Resources:

- Initial context analysis
- Understanding of actors and user groups

Material: Pens, post-its

Participants per team: 3-8

- Generate a list of potential users.
 This should be based on your insights, design principles, Value
 Hypothesis, findings from ethnographic research, or results from other
 methods like Semantic Profile and User Groups Definition.
- 2. Generate a list of user attributes.

 These attributes may be demographic (age, gender, employment, or home ownership), psychographic (values, attitudes, interests, or lifestyles), or behavioral (motivations, intelligence, or emotions).
- 3. Define a finite number (three to ten) of user types.
 Cluster users based on the common attributes they have. If you don't already have a sense of what attributes are shared by different types of users you could use an Asymmetric Clustering Matrix to find groupings. Label these clusters; they represent user types. Aim at having a manageable number of user types (three to ten) to build focus and more effective communication.
- 4. Create personas around user types. For each user type, create a specific persona, a specific character. Create this persona as a combination of attributes defined earlier. Personas should be true to the findings of research and easy to empathize, give them descriptive and memorable titles. For example: Jane, the city gardener, 28 years old, lawyer, art enthusiast, and so on. Complement the persona profiles with quotes and anecdotes when possible.
- 5. Share the different personas created by the teams to drive concept exploration.



PICTURE	NAME	AGE	BEHAVIOUR
	JOB TITLE		
	NEEDS		DIFFICULTIES & FRUSTRATIONS
CITATION			
CITATION			
"			
		KEYWORDS	



Pugh chart can support comparing a variety of options directly and weighing their different characteristics against each other.

By giving weight and importance to the variables, the Pugh Chart considers the specific needs and values of an initiative and can help to make the best decision in a specific situation. Ranking the criteria keep the team's focus and reveals the best opportunities at an early stage.

It can be used to evaluate different product- or service directions as well as a series of funding opportunities or similar.

How to conduct

Duration: 60 min

Resources:

• Initial analysis and exploration of the context and its problems

Material: Pens, post-its

Participants: 3-15

- 1. The group creates a list of minimum 3 and maximum 5 relevant criteria based on the goals, needs and limitations of the project. They put them on the left side of the matrix
- 2. A weight is attributed to each criterion according to its importance to the team. E.g. having 5 chosen criteria they are attributed the weight 1-5 according to their importance with 5 being the most important and the weight is written in the circles of the second column.
- 3. Now each option is evaluated for each criterion rating it from one to the number of options that were given (maximum 5) with the highest number being the best score.
- 4. The final score of each option is calculated by multiplying the score for each criterion with its weight and then calculating the sum of all scores for each option.



	WEIGHT Score to be multiplied by X	OPTION 1:	OPTION 2:	OPTION 3:	OPTION 4:	OPTION 5:
CRITERION 1:	X					
CRITERION 2:	X					
CRITERION 3:	x					
CRITERION 4:	x					
CRITERION 5:	X					
TOTAL SCORE						



The Value Proposition Canvas is a fairly simple tool that allows you to establish a logical starting point for building and testing a product or service. It is done to create products and services that meet the needs of people. In order to do that it is important to keep track of the target market's pains, gains, and to-do's – which are all opportunities for providing value to them.

A value proposition can be made for any products, service or even project. More than just being a description of the project or service – it's the specific solution it provides and the promise of value the end-user can expect from it. Value propositions are one of the most important conversion factors, to convince the market audience to believe in your project.

Just envisioning a project or service is not sufficient for it be able to fully benefit the intended end-user. The Value Proposition Canvas helps intersect the service with the end user's wishes and expectations. When done right, it illustrates the match between what is being offered and what is being actively received.

How to conduct

Duration:

30-45 min

Resources:

• Service or product idea already defined and detailed

Material:

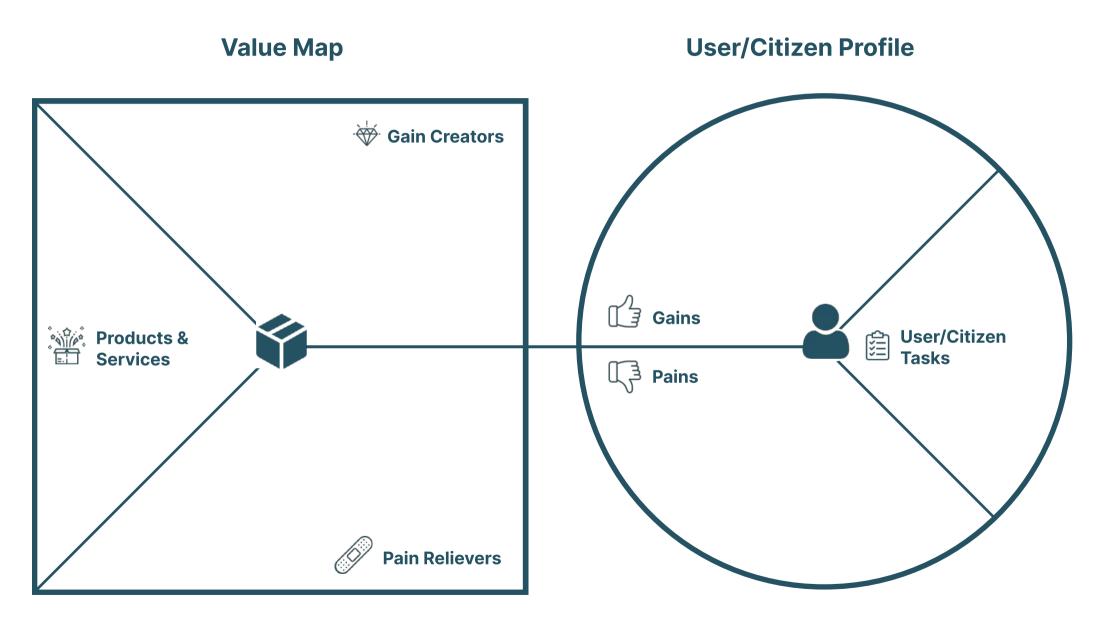
Pens, post-its

Participants per team:

3-5

- 1. After the details of the project/service are discussed and understood thoroughly, the team would need to look at the perspective of the enduser and the stakeholder.
- 2. At first they would need to list down what needs exist that necessitated the project.
- 3. This is followed by the major issues faced by individuals and how they will gain from the project.
- 4. The next step is to focus on the left side of the canvas and outline the services itself.
- 5. After having listed the problems in the user profile part, the team now can prioritise jobs, gains, and pains according to their importance from the most severe to least significant.







Prototype & Experiment

How can new solutions be tested for validity and effectiveness?

Mission challenges are hard to solve because of the highly interconnected and systemic nature of the problems. Testing solutions to complex challenges can often mean creating system-level prototypes that require high investments of time and capital. The tools in this phase are meant to help prototype specific interactions happening at different 'touchpoints' or features of the solution, helping to ensure that the solutions are purposefully built around life experience and concrete needs to provide real value. Prototyping also helps reduce risk around innovations by not only attempting to work out problems pre-emptively, but also by creating through doing the knowledge needed to implement the innovation. After prototyping, agile piloting and experimentation can take the solutions a step further.

Other questions that can be answered in this phase:

- How can the city test social innovations before scaling and making large infrastructural changes?
- How can specific features be more effective and people-centered
- Does the service/product really satisfy the needs of the target user
- How can the city experiment with social innovation ideas?







Prototype & Experiment

Tools for prototyping and experimenting

Customer Journey	50
Experiment Canvas	52
Service Blueprint	54
Social Business Model Canvas	56
Other tools that can be applied in th	is phase
Ethnographic field notes	08
Ethnographic interview	10
System Map	16
Frameboards	20
Motivation Matrix	40
Pugh Chart	44
Value Proposition Canvas	46
Funnel of Experience Sharing	50

Related methods on NetZeroCities' Knowledge Repository

- Agile Piloting
- Desktop Walkthrough
- Experience Prototype
- Impact Metrics

To the NZC Knowledge Repository



The customer journey map is a representation describing each step of the interaction that a user or customer has with a service, product, organization or system taking the perspective of the user. It is stated what the actions, the touchpoints with the service, product or system and the emotional state of the user for each of the steps.

It can functions as a planning- and strategic tool to keep the focus on the final users for the final development and the prototyping of a new solution.

It can be also used to map existing systems to highlight pain points and opportunities for improvement

The tool has both the potential to develop new, user-centred solutions as well as improving existing services and systems by highlighting pain points and issues.

The Customer Journey is applicable in varied fields and serves the purpose to create an overview of the interaction of users with a product, service or system mapping their emotional state, touchpoints and needs across the journey. It helps to better understand critical points or opportunities, get in the users' shoes and understand the effective use of touchpoints throughout the journey to deliver functioning and effective systems and services.

How to conduct

Duration:

60-90 min

Material:

Pens, post-its

Resources:

• Extensive knowledge of the system through field research or involving experienced actors

Participants per team:

3-8

- 1. Individualize the user you will be designing for and map out the main phases of their journey throughout the service in terms of main steps and activities of the user
- 2. Then draw sketches of the phases in the boxes or take pictures and use photo to sketch technology to convert them into sketches. In alternative, the steps can be described with text.
- 3. Identify the need that the user has at each moment of the journey and the channels or touchpoints through which the user is in contact with the service or system.
- 4. At the end of the activity, detect what the possible pain points are, or rather where the beneficiary, customer or donor may have problems or difficulties using the service. Remember that pain points can also occur before or after the service in terms of their decision to use or re-use the service.

User Actions What does the user do at each stage? Draw and/or describe the actions briefly					
User Needs What are the main needs of the user at that particular point?	•	•	•	•	•
User Emotions What is the mood of the user in that step?					
Touchpoints What are the points of contact between the user and the service/product provider?					

'An experiment canvas allows for a team or individual to create an experiment for the current time and test out their ideas about a certain issue/topic. This is done through hypothesising the current riskiest assumption there is about an experiment, then a falsifying hypothesis. It is clear and easy way to create an experiment.

How to conduct

Duration: 45min preparation + testing + 30min wrap up

Resources:

• The working team should already have transformed an issue into a risky assumption to be tested and then actually experiment it

Material: Pens, post-its

Participants per team: 3-10

- 1. Define the riskiest assumption that you would like to test?
- 2. Construct a hypothesis based on this assumption that could be confirmed or confuted by the testing results
- 3. Develop a setup for the testing:
 - a. What kind of environment will you conduct the tsting in?
 - b. Who is going to be participating?
 - c. How do you want to measure success?
 - d. How many times should you repeat the experiment to achieve significant results?
- 4. Report and detail the results of the testing, both quantitative and qualitative outcomes
- 5. Draw a conclusion has your hypothesis been validated?
- 6. What are the next steps



Riskiest Assumption	Results
	Quantitative
Hypothesis	Qualitative
We believe that	
will drive	
within	Validation of hypothesis
	☐ Validated☐ Invalidated
Experiment Setup	Partly validated:
	Next Steps





The Service Blueprint is an operational tool that provides a holistic viewpoint of an organization's operational processes, e.g. key activities, products, services and points of interaction with the intended audience, stakeholders and beneficiaries. As such, it is a strategic tool useful for planning or improving a service as it demonstrates what is happening along the service line and who is doing what through what means. The Service Blueprint can be used to understand cross-functional relationships and align front-stage and back-stage processes. It is a diagram that displays the entire process of service delivery, by listing all the activities that happen at each stage, performed by the different roles involved. The resulting matrix illustrates the flow of actions that each role needs to perform along the process, highlighting the actions that the user can see (above the line of visibility) and the ones that happen in the backoffice (below the line of visibility). Roles can be performed by human beings or other types of entities (organizations, departments, artificial intelligences, machines, etc.).

How to conduct

Duration: 60-90 min / session

Material: Pens, post-its

Participants per team: 3-8

Instructions:

The Service Blueprint should involve a representative from each area of the service.

- 1. The first step is to identify which user you're planning for: customer or beneficiary if you have more than one. Then plot out the different steps that are taken before, during and after using the service [See Customer Journey Map]. Some prompting questions could include: How do you engage the users and notify them of your service? What happens when they decide to use it? How do you stimulate re-use of the service or properly end the use of the service? These are all questions that must be considered when constructing the blueprint of the service.
- 2. After mapping out the steps of the user, the rest of the worksheet can be filled out line by line according to the steps individuated. At the end of the activity, a line of interaction is created between what happens out front (customer) and what needs to happen in the back (organization). This allows for successful planning or improvement if necessary.

-			
User Actions			
What does the user do at each stage?			
Line of interaction			
Frontstage			
What happens in direct interaction with the user?			
Line of visibility		 	
Backstage What happens in the background hidden from the users' eyes?			
Support Processes What internal & external processes support the backstage actions?			

Visualizing the business model of your idea in a canvas is an effective step towards advancing the concept. It provides the big picture on the processes that ensure that value is created, delivered and captured. The tool is a precursor to drawing up a complete business plan and is useful for formulating in a more rapid and cost-efficient manner the business model behind the idea for the initial phases.

The tool addresses in a single canvas the different parts of feasibility plan. It is a great way to explore how value will/can be created, by whom, for whom and through which channels. In doing so, different issues of how to implement the solution are addressed and resolved, including: how to finance the solution, how to maintain relevancy and support, how to maintain collaboration between actors, and how to scale impact (scaling up or out).

The tool aims to catalyse thought on the different aspects involved in implementing a solution and organizes processes in a visual way that shows linkages and flows. The visualization not only helps as planning tool but also as a communication tool to garner support and feedback. The activity is best done in a small group composed of main representatives of the different stakeholders and value creation areas. It can also be done by project leaders and with other actors and stakeholders in consultation. In subsequent iterations, different actor groups can be informed, consulted or engaged in refining specific parts. The activity has the potential to create new relationships and connections (of mental models) between actors while working on the model.

How to conduct



Duration: 90-180 min

Resources:

• Concept for a social innovation initiative to detail the business model

Material: Pens, post-its

Participants per team: 3-15

- 1. The social innovation business model canvas is made up of 15 blocks. Unlike similar business model canvases, this one has been modified to better suit social innovations, including among others, the following changes: a specific social value proposition, a separation between beneficiaries and financing supporters and boxes dedicated to surplus designation and social impact measurement. The canvas can be completed in any order; the following is merely a suggested path.
- 2. Social Problem/Social Need and Existing Alternatives: identify and analyze the social problem at hand and benchmark existing solutions to find out what is and what is not working.
- 3. Beneficiaries and Financing Supporters: identify, segment and understand your beneficiaries, customers and financing supporters (donors, investors and funders).
- 4. Solution/Governance: ideate or describe the solution to the social problem/need and the governance model.
- 5. Social/Commercial Value Proposition: formulate the social (i.e. the value created for beneficiaries) and commercial value proposition (i.e. the value created for paying customers/investors).
- 6. Relationship and Channels: describe how you reach your target beneficiaries, customers and/or investors.
- 7. Social Impact Measures: what indicators can be used to measure the impact of the solution.
- 8. Key Activities/Key Resources: define what key activities and resources are needed to support the innovation.
- 9. In-kind Supporters and Key Partners: list key partners who provide support, resources and services that foster the growth of the solution.
- 10. Cost Structure & Revenue Streams: list what costs are created and how revenues will be generated (i.e. memberships fees, freemium/premium, product sales, etc.).
- 11. Surplus: indicate where surplus will be invested if generated.

IN-KIND SUPPORTERS AND KEY PARTNERS What key resources are supporters providing to your SI?	KEY ACTIVITIES What are the key activities for the development & operation of your SI?	SOCIAL PROBLEM/ NEED What social needs are you addressing?	SOLUTION Describe your solution GOVERNANCE Describe your governance structure	SOCIAL VALUE PROPOSITION What value are you delivering to your stakeholders & users?	RELATIONSHIPS What kind of relationship do you have with the different stakeholder groups?	BENEFICIARIES Who benefits from your initiative?
	KEY RESOURCES What are your key resources?	EXISTING ALTERNATIVES Are there any similar solutions already existing? How is your solution different?	SOCIAL IMPACT MEASURES (DERIVATIVE ASSET) How are you measuring your social impact?	COMMERCIAL VALUE PROPOSITION What value are creating for your financing supporters?	CHANNELS How do you reach your beneficiaries / supporters?	FINANCING SUPPORTERS Who are your financial supporters?
COST STRUCTURE What costs do you have and how are they covered (e.g. by key supporters, partners, volunteers,)?		SURPLUS Where do you invest any eventual surplus?	REVENUES Where do your revenues come from?			



Evaluate and Scale

How are you implementing, sustaining and scaling social innovations?

While evaluation is often thought of as a post-implementation activity, it is useful to know how to evaluate solutions from the beginning to design truly impactful solutions. Measuring impact becomes a strategic asset for understanding effectiveness and knowing what, when and how to adapt the solution for a better fit or to scale the solution for wider impact.

Other questions that can be answered in this phase:

- How can the city evaluate current social innovation initiatives as prototypes to be scaled?
- How can social innovations be scaled up?
- How can social innovation be evaluated?
- Does the SI fit all the user criteria?
- What solutions already exist that could be scaled or empowered through policy?







Evaluate & Scale

Tools for scaling solutions

Funnel of Experience Sharing	60
Other tools that can be applied in th	nis phase
Ethnographic Interview	10
Influencing Factors Matrix	34
Impact-Feasibility Matrix	36
Pugh Chart	4
Experiment Canvas	52
Service Blueprint	54
Social Business Model	56

Other NetZeroCities Resources

- Cultural Probe
- Field Experiment
- Most Significant Change
- Outcome Harvesting
- WHO Scaling up Framework

Access the other resources on the NZC Online Portal



The template for experience sharing helps reflecting on experimentation for analytically identifying issues that should be addressed and strengths of the project.

The method has the purpose of providing a structure for learning from project experiences, by providing discussion categories and a template to collect input (knowledge sharing and documenting).

How to conduct

Duration: 30 - 40min

Resources:

 This template should be used after a project or testing/ prototyping experience to evaluate and reflect on the results, outcomes and learnings

Material: Pens, post-its

Participants per team: 3-12

- 1. The visual template can be utilized to facilitate meetings with the goal of extracting learning from experiences. The template helps participants structure experiences according to 2 dimensions:
 - a. phases of the project (plan, execution and end), and (2) b. activities (actions, outcomes and learnings).
- 2. A facilitator should write down each of the participants' contributions on the template. If the meeting takes place in person, the template can be printed poster-size. If the meeting is held online, the template can be used in a collaborative software (such as Miro) and each participant can write down his/her experiences and reflections.
- 3. The resulting structure is a template with 9 cells, in which the underlying metaphor of the funnel suggests the idea that learnings (that metaphorically come out of the funnel) are distilled from all the input collected in the top part of the funnel (corresponding to actions and outcomes).

	PLANNING	EXECUTION	CLOSING
ACTIONS			
OUTCOMES			
LEARNINGS			