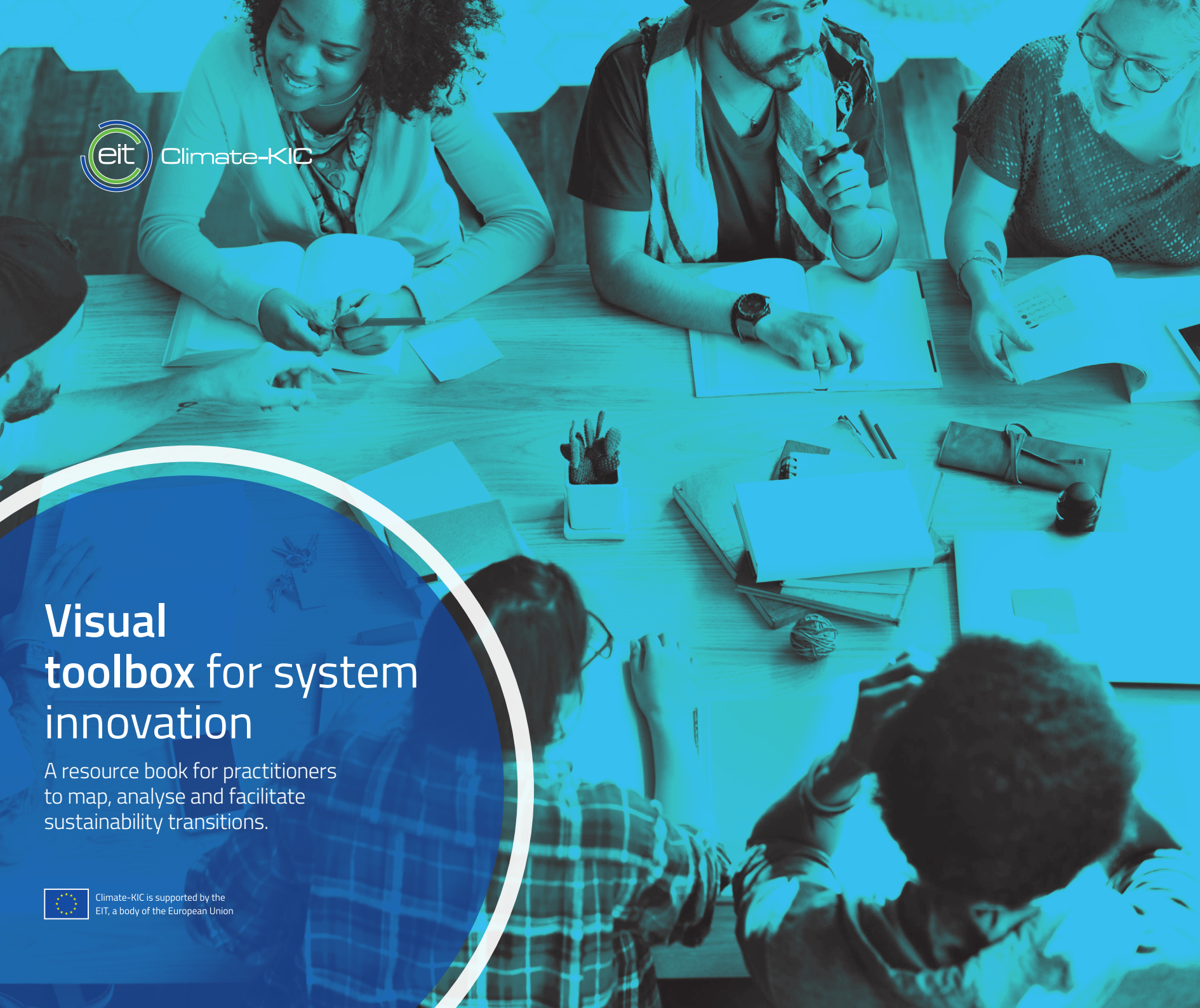
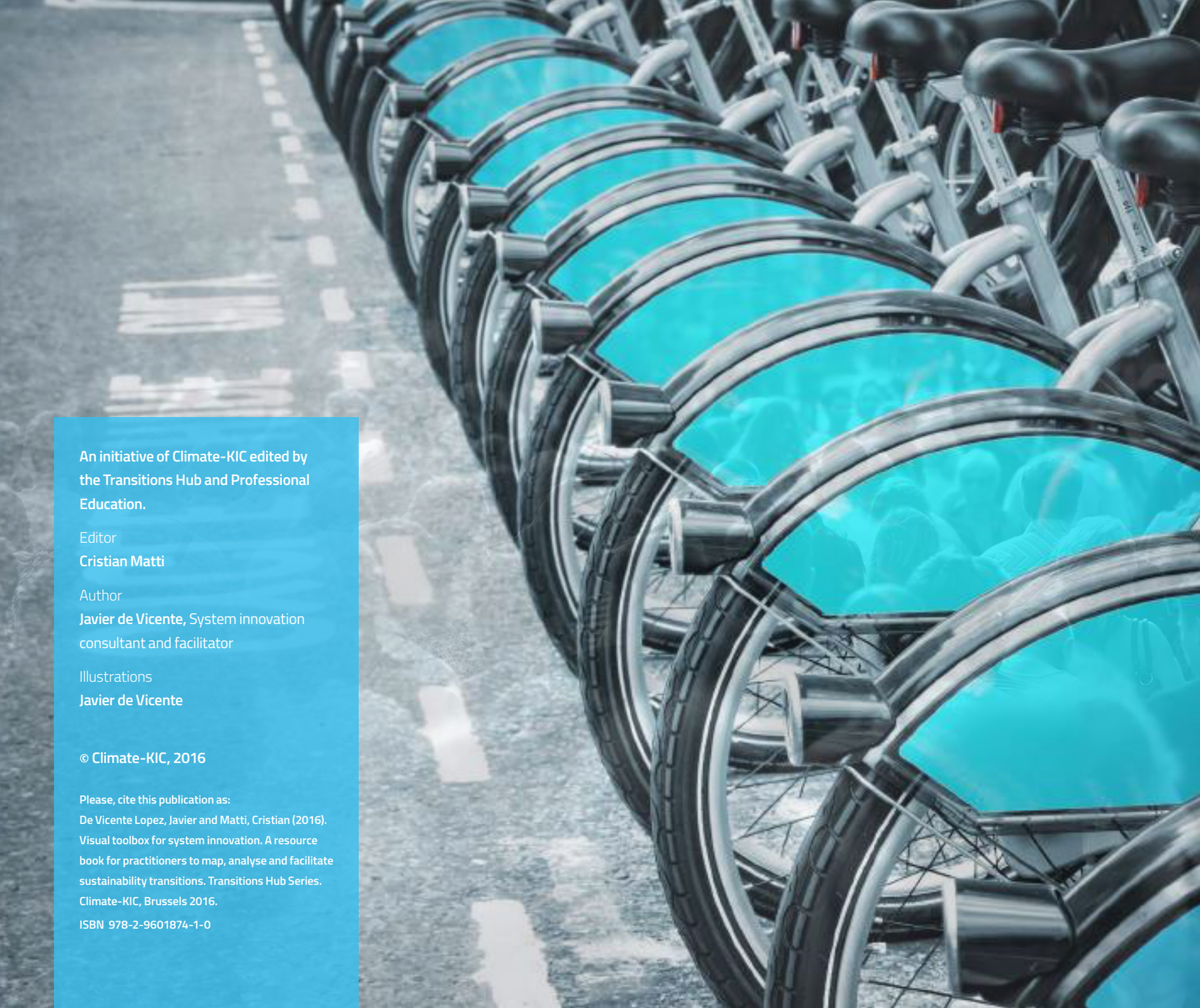


Climate-KIC

Visual toolbox for system innovation

A resource book for practitioners to map, analyse and facilitate sustainability transitions.

Climate-KIC is supported by the EIT, a body of the European Union



An initiative of Climate-KIC edited by the Transitions Hub and Professional Education.

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Why this book?

The idea of system innovation has been widely diffused in academia and business to refer to major transformation in national and regional economies through technological breakthroughs, reorganizations of industries and the implications of a globalised economy. In the field of climate change, this concept has been deeply applied through the study of socio-technical transition by a number of expert organisations such as the Knowledge Network for System Innovations and Transitions (KSI), the Dutch Research Institute for Transitions (Drift) and the STEPS Centre of the University of Sussex - (Social, Technological and Environmental Pathways to Sustainability). The more practical application of sociotechnical transition, known as transition management, has also been developed by practitioner-based organisations such as Smart CSOs and Forum for the Future.

The Climate-KIC has widely applied elements of system innovation and transition management by combining other general project and innovation management elements. Pioneers into Practice, the Innovator Catalyst and summer schools are some of the key education programmes that have adopted this approach for years. That experience has revealed the difficulties of applying the theories and perspectives to day-to-day practice in certain projects. Practitioners demand adaptable and flexible tools and methods that are easy to transfer to their challenges and problems.

At the same time, throughout these years of intense training, the use of co-operative learning methods, peer-to-peer activities and modular formats have arisen to be as highly valued by skilled participants who are demanding new learning methods in which experts and mentors are liberated to work more horizontally with practitioners and problem owners. All these experiences have been the inspiration for this book which aims to play a key part in improving the development, the skills and the application of support system innovation in the field of climate change at both, individual professional level and organizational level.

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Content

1- What is this book about?

The book is a collection of ready-to-implement tools to structure and manage the challenges and exploit opportunities of sustainability innovations and transitions. The goal is twofold: improving the understanding of a challenge by going deeper, broader and by improving the quality of the discussions and conversations around the problem among participants. It means to put the focus not only on the problem solving process but also on the learning process while designing and implementing solutions. The tools are presented in a simple and visual approach with the purpose of supporting practitioners' every-day work on climate change, transition and system innovation.

The toolbox is rooted in a modular structure, built upon four modules that account for the main steps in the system innovation process before getting into the prototyping phase. That is: stakeholder management, multi-level perspective, visioning and backcasting and niche management. This structure is meant to facilitate the problem-solving process by setting out a pathway in the always blurred, uncertain and fuzzy process for system innovation. In addition to these modules, a standalone tool has been added to help users define the real problem they are facing.

The four modules holding the tools feed into a multidisciplinary setting, including transitions management but also practical elements from innovation management, systemic thinking, design thinking and project management. Based on this structure, the learning approach is based on the assertion "learning by doing through the application of tools on the users' cases".

In this regard, the toolbox is designed to help pick out those tools that best adapt to the practitioners' needs and background. The design of the tools has been sculpted around four features to maximise the learning experience under this approach:

Flexible. The book is designed for you to pick out the tools that best fit your challenge and then you can adapt those you chose to your own context. To make it easy to find the most proper tool, a variety of alternatives with different levels of complexity have been designed.

Standalone. The tools have been conceived to work individually and as a full suite. That means, you can single out one tool and apply it to your project, whether you are going to use more tools or not. Regardless of this capacity to be applied in a standalone way, it is highly advisable to conceive a pathway to follow within your innovation project including a coherent set of tools.

Visual. Most of the tools have been designed as visual devices to spark creativity, systemic and lateral thinking. The book is not illustrated to make it pretty. The pictures have a clear purpose and shouldn´t be skipped. It may take you time to feel comfortable with the visual metaphors proposed, but these techniques will help your non-linear and creative thinking (you just might need to practise a bit).

Systemic. The toolbox aims for a systemic understanding of problems and challenges. Therefore, you can expect this type of conceptualisation underlying every tool instead of a linear process of reasoning. This is why all the tools have been designed to be used in multidisciplinary and even multicultural frameworks, and to factor-in data and inputs from the context surrounding the project.

This book was developed simultaneously with eLearning material based on the main elements of flipped and seamless learning. In that sense, the tools are presented to facilitate a learning process where different types of activities, at different times and with multiple resources can be applied. The tools are also designed to support project management, organisational change and capacity building process for organisations or multi-stakeholder project set ups. Thus, group work, project development and peer-to-peer interactions are included as key elements for this flexible and tailored approach for practitioners.

2- How to use this book?

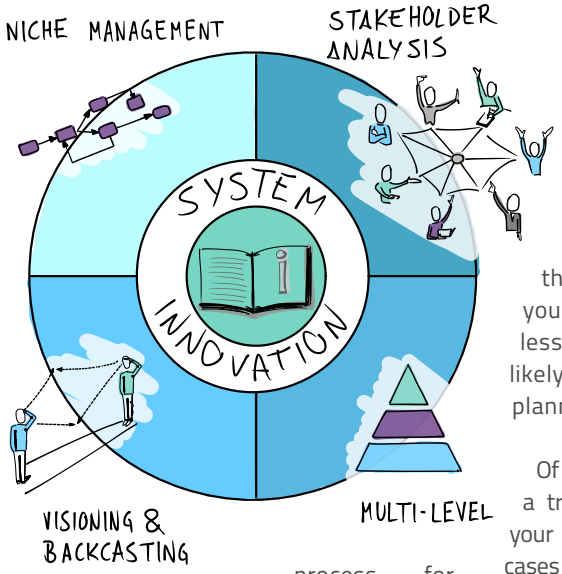
There are two important perspectives about how to use this book. First, is the use of the set of tools as a coherent sequence to support a system project management process or a training event. The second refers to the use of each single tool in whatever context you may need them.

As explained in the previous section, the book is built upon four modules accounting for a suggested pathway for system innovation (not including the prototyping phase): stakeholder management, visioning and backcasting, multi-level perspective and niche management. A kick-off tool has also been added to better define the system challenge (find out more in the box).

With this structure in mind there are two main ways of using this book. The first and simplest way is just to go for one specific tool you need in a certain moment of your project. Since the tools are designed as standalone devices, you may want to use one of them to work out a specific problem you are dealing with. For instance, you might only need to map out your stakeholders or to run a backcasting workshop. If that were the case, you would-n´t need to go through any sequence of tools but simply use the most relevant one.

The second way of using the toolbox is to be applied when you have a system project or a training workshop ahead of you. In those cases, you may opt for designing a comprehensive innovation route, starting with the problem definition and then going through the four modules. According to the challenge you face, the background and experience of the team and the context you are in; just pick out some of the tools from each module and build your own pathway for innovation.

You might think the toolbox suggests a kind of lineal



process for system innovation, but it doesn't. First of all, you don't need to cover all of the four modules if you think you don't need to at this stage of you project. Secondly, and more importantly, this is a systemic process to deal with systemic problems, even though you may design an initial process made up of five tools going through the suggested pathway. In this regard, most of the tools are to be applied once in a while during the project lifetime and many times there will be more than one tool in use at the same time. These feedback loops and parallel pathways characterise the real application of the toolbox to your project. Throughout these non-linear steps you will obtain invaluable lessons that will more than likely modify the previously planned pathway.

Of course, if you embark on a training workshop where your time, resources and real cases are very fixed, you might want go for a more linear process, just to get participants acquainted with the use of the tools.

1. Stating the Problem.

It is often noticeable that the main issue for a project team is to nail down and define the real problem and challenge. This is especially relevant in system contexts in which wicked problems are difficult to pin down and when we run the risk of finding the right solution for the wrong problem. Therefore, this tool is aimed to reframe the problem by helping practitioners to better spot what the right problem is and to nail it down at the same time as keeping a systemic perspective.

2. Stakeholder analysis.

Working with stakeholders is probably one of the commonalities in systemic projects and one of the first conditions. In this regard the toolbox covers three steps of this work with stakeholders: identifying, characterising and depicting relationships. Depending on time availability it can be useful to work with one tool from each category. Bear in mind that the stakeholder engagement phase is left out. For that reason, you may consider including a role game or similar activity to somehow engage your stakeholders with the conversation. The World Café, open spaces, roundtables or Fishbowl techniques can be applied for such a task.

3. Multilevel Perspective.

With the support of the stakeholders it comes to deeply understanding the system in which your project is embedded, how it works and how it has evolved. In this regard, two types of tools have been included so far: one devoted to describe the dynamics (from past time to present time) of the system and another to describe a static picture of the current system or status quo. Whereas the static vision provides a comprehensive picture of the way the mainstream system works, the dynamic approach can help to understand how the system got to the current stage. You may start with the static perspective and then move onto the dynamic tool or the other way around. This is the type of flexibility to keep in mind when applying tools.

4. Visioning and Backcasting.

Foresight is at the very core of any disruptive and system innovation. By envisioning the future, your team will be able to step backwards, identify what changes would be necessary and then go forward again; setting an agenda of actions. This backcasting process is easily understandable but hard to put into practice, due to the counter-intuitiveness of starting in the future and

moving backwards. You can find tools with different levels of complexity so that you can select the tool you feel most comfortable working with.

5. Niche Management.

Under the label of niche management, the last module included in the toolbox addresses the issue of how to get lessons out of the project management process and how to apply those lessons to enhance the process. The goal is to include a new dimension in the project management process, emphasizing how an on-going learning and reflection process can move the innovation idea forward.

As to the use of each tool, as mentioned before, the focus of these tools is on the problem solving and on the learning process. The tools are not designed to be perfectly filled out and to represent a nice drawing but to think differently of new ways in tackling the problem, based on a systemic perspective and to learn from that process. Bearing that in mind, don't forget that:

You may feel like adapting the tool to your specific needs and context (background, culture...). If so, please, feel free to remove, modify or add new elements to the canvas. The only element to keep at the forefront of your mind is; keep the systemic perspective.

It is essential that you spend time in the debrief step after applying each tool. This debrief is to help you better understand the outcomes you got and how to apply them on your challenge, but also to give you some specific time and space to reflect on the lessons about the process, and your performance as a team. Therefore, don't skip or underestimate the value of a good debrief. Instead always try to break it up into two blocks: one devoted to the outcomes and the other to the process, its lessons and the consequences for the team.

Now you are ready for making the most of the toolbox. Decide what to start with and give it a try. Enjoy the experience and let your creativity out.

Niche management

In the absence of any blueprints for guiding socio-technical transitions it is necessary to rely on a management strategy to ensure the quality and alignment of the process of leveraging the project from the experimentation level to the dominant system.

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Niche **management**

What is Niche management?

Socio-technical innovations change society and your project innovation could too. However, when your project is embedded in a system and is intended to trigger or to contribute to a transformative change in society, the classical project management tools are not enough to steer the project process. While an innovation project may be considered to be a successful standalone project, the project may not necessarily bring about changes in an entire system. For example, an energy efficient car component project may be innovative and successful, but it does not bring about a sustainable transport system.

This system transformation is not linear but rather characterised by a complex interplay between your project and the plethora of factors such as stakeholders, other projects, technologies, infrastructures, regulations, etc. Therefore we need new tools to make sure that the project goes forward in the right direction and takes advantage of the new knowledge acquired as a consequence of the process itself. Niche Management brings a combination of essential elements from traditional project management and more innovative approaches from Strategic niche management to help project managers to keep a project on track with societal change processes and embrace the actions needed to trigger transformational change.

Why is it useful?

Niche Management tools help you to position and develop your project in a strategic way, to contribute to the transition process for a wider goal. That is, Niche management can give you the right direction to take and the strategy to keep the project on track. At the same time some of the tools lead you to identify actions that can take your innovations from a project level to a core part of the larger system. Therefore, Niche management gives you strategies and suggested action lines.

How to apply it to your project?

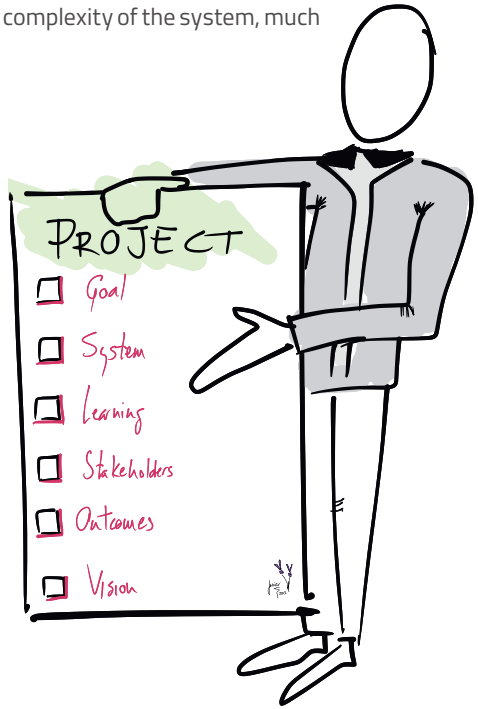
The 6-3-6 Model.

To be effective, societal change projects need a broad, long-term perspective. Otherwise the influences of the current environment can make the project become business-as-usual and conform to the environment. The project team needs to analyse the elements beyond the project itself in the wider system, and create a strategy to bring about societal change. The 6-3-6 Model is aimed/designed to bring essential elements of the Niche Management approach to a practice-oriented application.

The 6-3-6 Model explores the wider system via three topics: the project, the context in which it is embedded and the strategies to steer the process. In return, each component is broken down into different elements to be analysed: (1) Six elements for the project, (2) Three perspectives for the context and (3) Six strategies for the process.

6 Elements from the project

When it comes to systemic change, the project elements to consider differ from traditional project management. In this way, for instance, due to the long-term perspective and the complexity of the system, much



more effort on reflecting and learning has to be made. Consider the following questions as a hint of the project elements you should pay heed to. What's the wider goal for society? What system(s) is the project part of? What and how are you learning and sharing? How are you involving your stakeholders? Do all your outcomes relate to the overall goal? What's the project's overall vision? Based on that, the 6-3-6 Model uses these 6 elements for project analysis: (1) Goal, (2) Vision, (3) System, (4) Stakeholders, (5) Learning and (6) Outcomes.

Goal

In transition/system projects the goal is strongly linked to a societal challenge which goes beyond the project itself. In this regard, projects are often embedded in a wider programme whose goal might not be precisely defined at the beginning but clarified throughout the programme lifetime. It is essential to have in mind both elements; the societal challenge and the possibly fuzzy goal of the broader programme.

Vision

There is a shared and inspiring vision that transcends the project itself, affecting the entire sociotechnical system. This vision should have been co-created by a broad network of stakeholders and pervade the project approach.

System

In transition processes, the project looks around to understand itself as a node in a wider system. Project managers have to pay attention to the relations that the project has with other innovative experiences, and with the players in the dominant system to actually understand the process and evolution of their own projects.

Stakeholders and project consortium

In system projects, stakeholders and the relations amongst them are seen more as partners, with valuable knowledge and insights, that might improve the process and the outcomes. That means the work is somehow done from the outside to the inside, that is, the project is developed with active involvement of societal stakeholders. At the same time, participants in the project consortium should have some training, or indeed a designated person, to be able to infuse the transition perspective into planning activities and projects to make sure that the ideas do not get bogged down in business-as-usual.

Learning

Learning is of paramount importance in system and transition projects. Within transformative change processes you learn while you're doing, and do while you are learning. Managers are aware of knowledge gaps and consciously plan a strategy to keep an ongoing learning process, including a strategy to share and communicate new insights.

Outcomes

In transition projects, outcomes have to be linked to the societal challenge; they are shared and communicated to the network of stakeholders inside and outside the project.

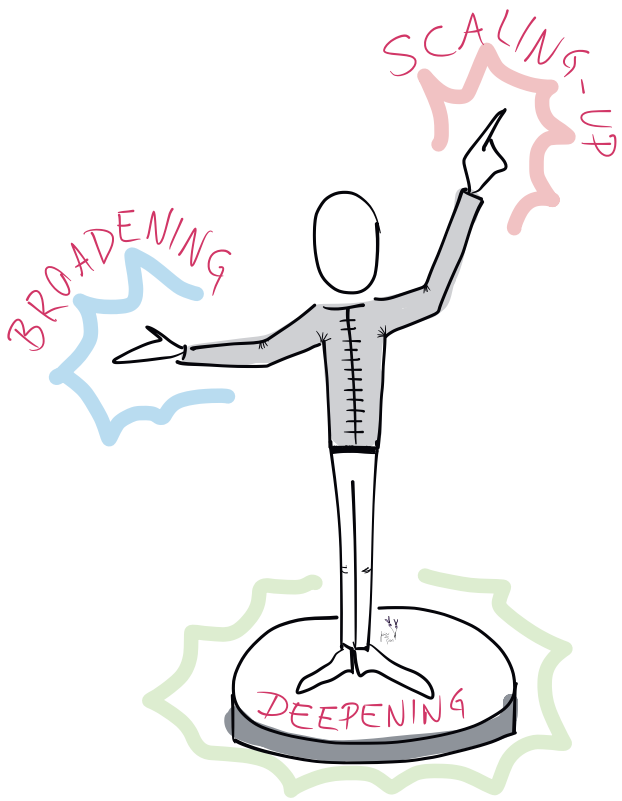
3 Perspectives from the context

As explained before, in a system project you need to analyse and learn from the relations between your project and the different components of the system in order to leverage your project from being an innovation experiment to becoming mainstream. Adopting this system perspective entails paying attention to the context around your project.

> Niche management can give you the right direction to take and the strategy to keep the project on track.

First, you have to go deeper into the new innovation you are developing. Then you have to see what is going on around you. That is, other innovative experiments bubbling up at the

micro-level. They might be replicated or connected with yours to gain influence and impact. Eventually, those radically new ideas set out by your project may get embedded into the dominant system, triggering the change you were looking for. Therefore, there are three perspectives to adopt so as to understand the context around your project: (1) Deepening, accounting for yourself, (2) Broadening, accounting for the other innovations and (3) Scaling-up, accounting for the way of getting the project embedded in the dominant system.



Deepening

Learning as much as possible from your project and innovation in the specific context. What is the radically new way of thinking, doing and/or organising that your project develops? What can be learned from the specific local context? How does the local context make the project distinctive?

Broadening

Replicating your project in other contexts and/or connecting it to other functions and/or with other innovation initiatives. What possible connections does the project have with other innovation projects or transition initiatives? In what other niches or domains could your project be repeated? What can be generalised about this project?

Scaling-up

Embedding the project in the dominant system. How can your activities be embedded in society and the dominant ways of doing things? What changes are necessary in the wider system to move your project into the mainstream?

6 Strategies for the process

The Process aspect of the 6-3-6 Model encourages you to reflect on your analysis of the project and context areas. Consider what actions you can take to make sure your project creates changes in the system and becomes mainstream, instead of being trapped by the business-as-usual approach. The answer to this question gives six different strategies managers can adopt to move the project forward in the system change direction.

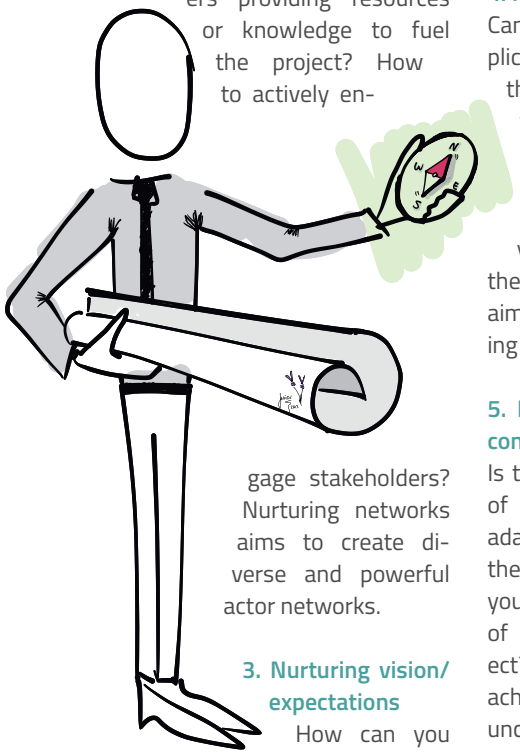
1. Shielding

Does your project need a tax exemption? A specific subsidy policy? Could it be necessary to move to another region in which the project is welcome? Shielding accounts for those strategies aimed at creation of a "protected space" to prevent projects from mainstream selection pressures and prema-

ture failure. Ways of shielding: financially, geographically, institutionally, socio-cognitively, politically, culturally, etc..

2. Nurturing networks

How can you reinforce and enrich your networks of stakeholders? Is it necessary to look for critical partners/stakeholders providing resources or knowledge to fuel the project? How to actively engage stakeholders? Nurturing networks aims to create diverse and powerful actor networks.



3. Nurturing vision/ expectations

How can you improve the quality of the vision? How to engage people with such a vision? How to leverage the vision to different networks? How to factor in others' expectations? Nurturing expectations; strategise how to articulate and negotiate expectations.

4. Nurturing learning

Can you improve or make explicit the learning process? Are there windows of opportunity to learn from other contexts or technologies? Is there, in the mainstream system, new trends from which you can draw lessons for the project? Nurturing learning aims to keep an on-going learning process.

5. Empowering by fitting and conforming

Is there any feature or process of your project that makes it adaptable and competitive in the current mainstream? Can you plan or foresee a window of opportunity for your project? This strategy helps you to achieve competitiveness within unchanged environments.

6. Empowering by stretching and transforming

Do you have opportunities to compete and transform the current system? Can you change the social system in certain extent and scale? Can you reach out to big players or lobbies? The stretching and transforming strategy aims at leveraging institutional reforms which change the system in favour of the niche innovation.

Niche management

Tool 15
Transition waves

Tool 16
Six systemic strenghts

Tool 15

Transition waves

Niche Management

Transition waves uses the 6 elements from the project and the 3 perspectives from the context to yield an image of the weaknesses and strengths of the current process management.

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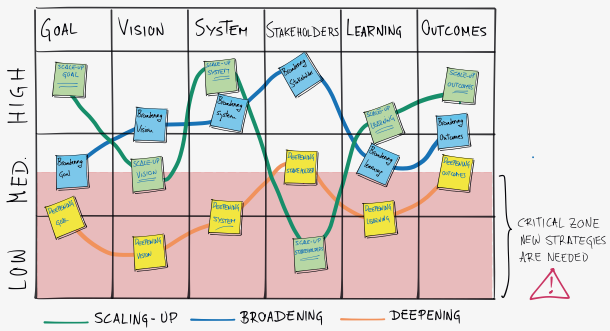
Transition **waves**



HOW MANY	From 1 person to groups of 6 people.
HOW LONG	60-120 min.
DIFFICULTY	Medium-High.
WHAT YOU GET	A straightforward and comprehensive graph of the main system perspectives in which your project elements are shown to be competitive enough or should be enhanced.
WHAT YOU NEED	A project document (either a proper document or a draft or a general idea) in which the six elements included in the tool are laid out, as well as a description of the system (micro, meso and macro-level) in which the project is built.
WHAT IS NEXT	With the graph in your hands, you are ready to go for strategy design. To do that you can opt for any tool at your disposal, and then adapt it to the six main niche management strategies. Alternatively you can go for the Six systemic strengths tool, especially designed for that.

What it is

Transition waves is a visual tool that helps you to check the strengths and weaknesses of your project with regard to the system approach. It sets each element of the project against the three perspectives of the context which emphasizes the weak points in which you can adopt different strategies.

When to use

Use Transition waves when you want to make sure your project keeps on the track of system innovation, preventing it from business-as-usual approaches. It can be applied to assess an ongoing project, both in terms of process and content, to reflect on the projects characteristics from a transition perspective, or to define actions that increase the potential of the project to contribute to a transition.

Why it is useful

Even though the Transitions waves method is surprisingly simple to use, it prompts deep thought on how your project is performing against the project and context elements from the 6-3-6 Model. It allows you to spot windows of opportunity for improvement in different areas or elements.

By combining the three curves in one graph you can also identify patterns in the weaknesses or strengths which may lead you to take advantage of synergies when it comes to strategising.

Steps

STEP 1. The canvas and the dynamics

The canvas

The canvas is a simple matrix in which the columns accounts for each one of the six project elements analysed: (1) Goal, (2) Vision, (3) System, (4) Stakeholders, (5) Learning process and (6) Outcomes. The three rows represent the level of performance of each of those areas when you compare them against the three perspectives of the context. These levels are consciously fuzzy and accounts for low, medium and high performance. In the depicted canvas we have emphasised the area taken up by the low level and the lower half side of the mid-level as the critical zone. This zone is highlighted to make managers to reflect on the areas falling in there. Depending on your projects and your specific levels of warning, you can opt to make this critical zone larger or smaller.

The dynamics

To apply the tool, you will start by singling out one of the three context perspectives: scaling-up, broadening, deepening. With that perspective in mind you will go through a questionnaire that will help you assess how the project elements fit within a system perspective. Your answers will be the base to assess that level of performance (or how well each project element fits within the system approach). Once you have gone through the questions and sketched out the graph, you will repeat the process for another perspective and questionnaire. Bear in mind that this is not an exhaustive list of questions designed to conduct a quantitative assessment. Instead, they are meant to spark and guide your reflection.

Eventually with the three graphs completed, you are ready for a deep reflection and strategy designing.

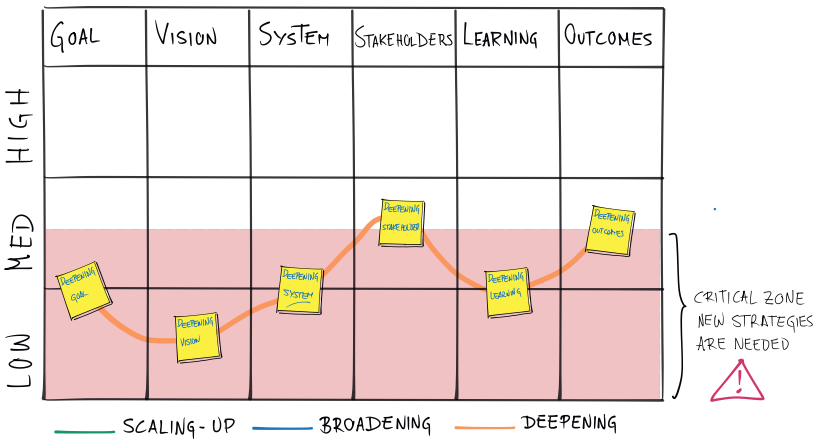
Even though the Transitions Waves method is surprisingly simple to use, it prompts deep thought on how your project is performing.

THE DYNAMICS

1.- QUESTIONING DEEPENING vs. GOALS
Are the project goals linked to societal challenges that are made explicit?

2.- SKETCHING OUT
Based on your answers assign a low/medium/high level of performance of your project goals.

3.- KEEP ON GOING
Move to the following set of questions.



Train the Trainers event. Training coaches for the Pioneers into Practice programme. Utrecht, 2015 (The Netherlands)

Boosting sustainable economy in rural areas. Innovator Catalyst series. The Climate- KIC. Budapest, 2015 (Hungary). http://goo.gl/iufdY4

STEP 2. The deepening perspective checklist

Go through the questions, project element by project element, and sketch out the level of performance of your project in relation to the deepening perspective, according to your answers from the exercise. First, go through the goal questions and try to individually respond to them in silence. After a couple of minutes start an open discussion and decide if your project goals are highly, middle or poorly aligned with the deepening perspective. Then mark that level of alignment or performance on the canvas. It is a good idea to use a post-it to write down the main reasons that led you to decide such a level and then put it on the mark. In this way, when it comes to reflecting you will have a safe anchor to guide future decisions.

check-list

GOALS

Are the project goals linked to societal challenges that are made explicit? Does the project's process design allow for reflection? Did you foresee a process to adapt the vision and the learning goals if necessary?

VISION

Do participants in the project share a long-term sustainability vision? Is such a vision relevant, compelling and specific enough? Is the project explicitly dealing with the stakeholders' expectations?

SYSTEM

Have project participants shared their perception about the dominant system in the sector? Do you know if it is necessary to protect the project so that it can move forward? Have you identified geographical, financial, regulatory exceptions or any other conditions that are actually protecting the project from competitors? Did you identify the main barriers in the system against your innovation (remember that those barriers can come from technology, infrastructures, organizations regulations, user habits, etc.)? If so, have you drawn up a contingency plan or similar?

STAKEHOLDER AND PROJECT CONSORTIUM

Did the project perform an actor analysis to produce a list of the key stakeholders? Did you map out their stances and relations? Do you count on an engagement strategy for different stakeholders? Do you plan to review such an analysis every now and then? Did you include external participants with visions and perspectives different than yours in the consortium? Do you have any governance system for both stakeholders and partners?

LEARNING

Does the project design include a broad and reflexive learning process? Did you identify the main gaps in knowledge and incorporated possible consequences? Are explicit learning goals defined with regard to the desired changes?

OUTCOMES

Is the connection between project results and the social challenge clear? Is a distinction made between generic and context specific results? Is there any correlation between project outcomes and how they contribute to the transformative change?

STEP 3. The broadening perspective checklist

Go through the questions project element by project element and sketch out the level of performance of your project according to your answers.

check-list

GOALS

Is the system innovation project tuned to relevant related innovative projects? And are those projects, in turns, somehow linked to each other by a (common) societal challenge that is made explicit?

Have you identified similar and related innovative projects and potential new partners? Have you spotted other application domains and functions for your project? Have you identified other initiatives and technologies that could feed your project? Do you have any strategy to replicate your project in other regions? Is there enough room planned for joint reflection with potential partners?

STAKEHOLDERS AND PROJECT CONSORTIUM

Has the project broadened the network of stakeholders? Did you look for partners out of your own network? Are the consortium participants open to others' experience? Are they willing to explore and take on board other perspectives and technologies?

LEARNING

Has it been explored if the system innovation project could be done in another context? Is there any plan to systematically check any other location or context for the project? Does the learning process include the identification of other related and relevant projects? Do you foresee exploring other domains and technologies to learn from their processes? Are you looking for synergies? Are you sharing insights and experiences with participants in other projects so as to learn about methods, problems and solutions?

OUTCOMES

Has it been envisaged to share project results with participants of similar projects? Do you have a strategy to share the learning outcomes within the project consortium and beyond? Do you take part in conferences, workshops and summits to explain and share your partial outcomes?

STEP 4. The scaling-up perspective checklist

Go through the questions project element by project element and sketch out the level of performance of your project according to your answers.

questions list

GOALS

Is the project adapted to societal trends and other new developments? Do you have any plans to take advantage of any window of opportunity provided by societal trends and other new developments? Are your goals in conflict with the mainstream trends?

VISION

Is the overarching vision brought to the attention of the big and key players in the dominant system? Is the vision promoted and explained among stakeholders in any way? Can you link the vision with any pressure or event from the macro-level? Is your vision geographically restricted?

SYSTEM

Did you gather Information about general social trends and events that could confirm or contradict your innovation (either the importance, the need or the urgency of it)? Did you identify the main barriers and bottlenecks in the dominant system? Have you identified system players that could lobby for the project? And those who can fight against the project? Do you already have a specific strategy to deal with them? Have you planned how to build bridges with the big players in the system? Or have you decided not to build them?

STAKEHOLDERS AND PROJECT CONSORTIUM

Does the network include actors from the mainstream system, even those not in favour of the project? Does the network include actors from other sectors that are not innovation and technology? Has the project identified key people with the power and willingness to influence the dominant regime? Do you have any strategies to draw key mainstream stakeholders to your project?

LEARNING

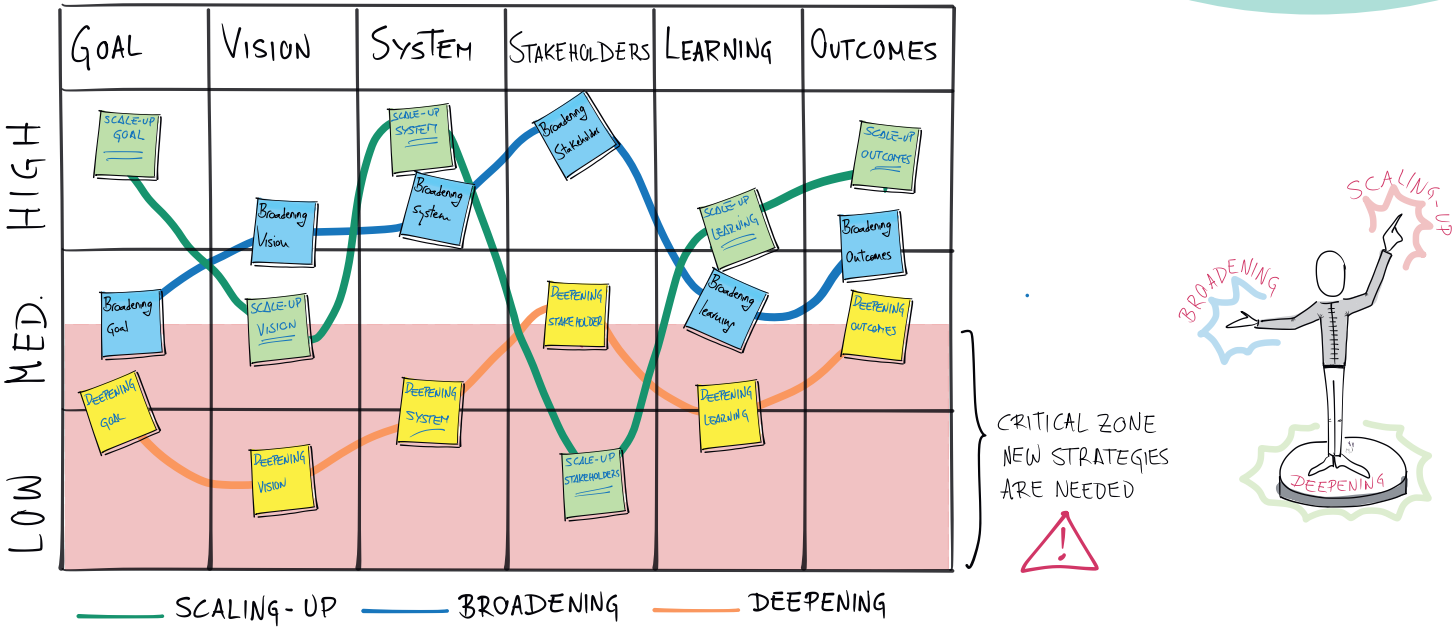
Does the learning also focus on how experiences could be anchored into the dominant system? Do you have an on-going plan to learn from the barriers in ways of thinking in the meso-level? And what about the ways of doing or organising? Are infrastructures and regulations in the learning goals? Have you analysed if your project can fit within society current values or user habits?

OUTCOMES

Do you count on a plan to communicate your results? If so, does it include resources and budget? Are you going to share the outcomes from the learning process, as well? Do you plan to communicate to a mass audience in the meso-level?

questions list

Green skills for boosting transition in water management Innovator Catalyst series. The Climate-KIC. Valencia, 2014 (Spain). https://goo.gl/llq0oS



STEP 5. Debrief

After completing the Transition waves canvas, spend time to reflect on the outcome as well as the process.

Generally speaking, would you say that your project fits within a system approach? Have you found any patterns in the weaknesses and/or the strengths? Is there any repeated weakness in the system area or a steady strength in the broadening wave? Or in any others? Do you think you have a better and a deeper understanding of your project? Did you manage to spot the main risks for your project to keep the system approach? Where do you think you have more opportunities to improve your project?

After applying the tool, has your perception about the importance of the learning process changed? Do you think a formal learning and reflecting plan is needed? If you want, you can brainstorm ideas about how to design such a process: who to involve, what activities to do...

Tips

- The Transition Waves method provides a guide, not quantitative assessments, so don't spend too long working out the most accurate level for each item.

- You're mostly looking for elements in the critical zone.

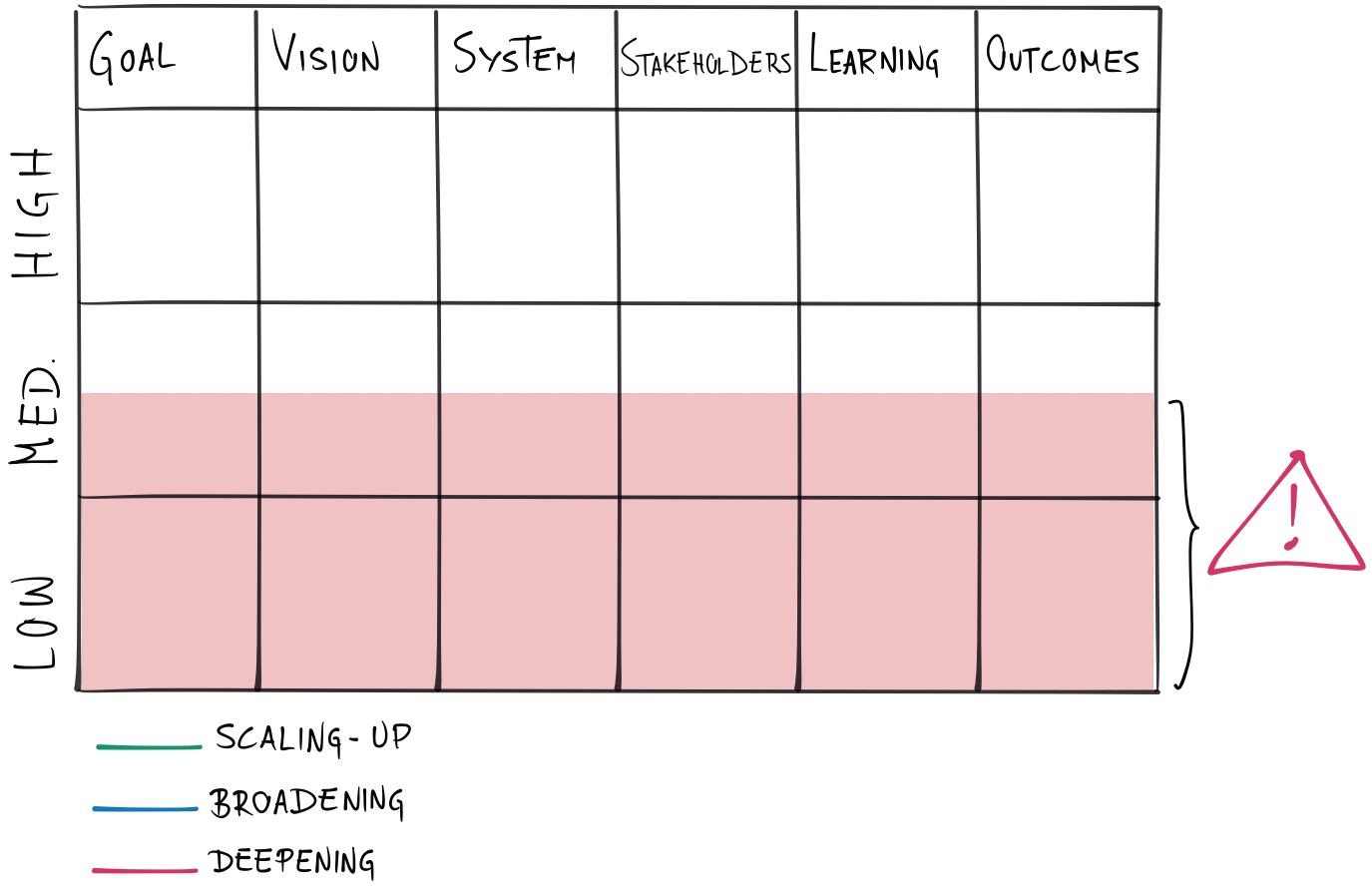
- In the early stages of a project, it is common to find low performance relating to scaling up or broadening. This is natural. Teams haven't had the time yet to place their project in a broader context.

- The tool can be very time and effort demanding. Therefore you might want to apply it only for one of the three context perspectives: deepening, broadening or scaling-up. If that is the case, try to apply to areas that you feel it are weaker.

Find out more

http://www.climate-kic.org/transitions-hub

The Canvas



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Tool 16
Six systemic strengths

Niche Management
Conceiving a tailored action plan to reinforce systemic project management.

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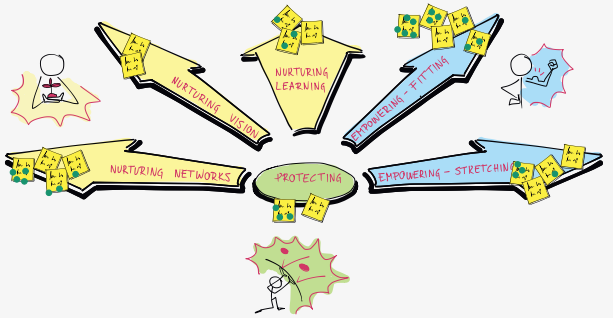
Six systemic **strengths**



HOW MANY	From 1 person to groups of 10 people.
HOW LONG	60-90 min.
DIFFICULTY	Medium.
WHAT YOU GET	A comprehensive identification of actions to improve the way your project performs within the system.
WHAT YOU NEED	You should start with a clear vision of your challenge and the Transition waves graph. Transition waves gives you a strategic vision of the weaknesses and strengths of your project in the three context perspectives. Alternatively you might start with a description of your project, the system (multi-level) and the barriers for innovation you are dealing with.
WHAT IS NEXT	If you got here, you probably went through many of the tools of this booklet. Now it is time to 'do'. You may opt for developing a long-term strategy comprising the main actions conceived or get into the operative pan right after the tool.

What it is

Conceiving a tailored action plan to reinforce systemic project management.

When to use

Generally speaking you should apply this tool after developing the initial document for your project and before getting into operative plans.

When you are working on the project management plan you should also develop your system management plan, this helps steer the project process and to navigate through the different levels of the system.

Why it is useful

Two common reasons why innovation projects don't create societal change are that the projects get stuck in 'business as usual' or it is not able to mature enough because of external conditions or lack of connections.

Six systemic strengths helps you identify actions to avoid this and allows you to develop system management strategies to keep the project on the track to the dominant system.

The Transition waves provides you with a collection of weaknesses and strengths; Six systemic strengths allows you to build a strategy or action plan on the Transition waves outcomes.

Steps

STEP 1. Understanding the canvas

The canvas is made up of three different areas, accounting for each of the three context perspectives described in Niche Management. The central part is a circle which represents the protection against current competitors and conditions that your project has or should have.

Starting from the circle, there are three expanding arrows on the left hand side. These arrows represent the actions you have already taken or could take to improve the way your project relates to other innovative initiatives in the micro-level.

On the left hand side, two more arrows point outwards. These tools will hold the actions related to the way you plan to scale-up and break into the dominant system.

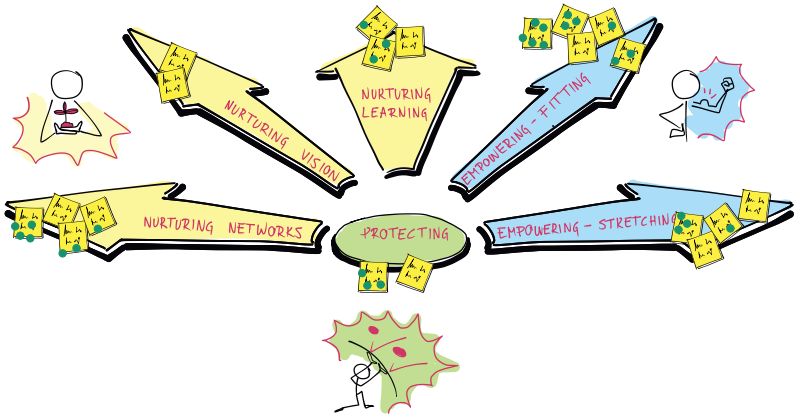
STEP 2. Protecting/ shielding actions

Spend five to ten minutes to work individually, think up as many actions as possible about how to protect your project against the current competitors or just the current market rules that keeps it from growing. Actions can range from tax protection, regulations, etc. For instance, since flying drones and many drugs have restrictive regulations, research activities involving those devices might have some exemptions (a university may be granted a license to fly a drone in an urban area. The general public are NOT allowed to do this) to develop new products or services in the future. You must think of both actions to be taken and actions that you have already taken, and are necessary to keep.

Write down one idea per post it, making an effort to be succinct, specific and descriptive. Then start an open discussion explaining each card and putting them on the canvas. During this step it is essential to avoid judgements on the ideas or to criticise them, it is time to unleash creativity not to analyse proposals. As participants are explaining their ideas, new ones can arise because they trigger new links with other ideas. Let those ideas in and include them on the canvas. As you stick cards on the canvas, some overlaps of clusters can appear. If so, draw those clusters and remove repeated cards if necessary.

STEP 3. Nurturing actions

Repeat the same process, but this time thinking about actions to nurture and improve the vision, the learning process and your relations with stakeholders. As there are three areas, you may want to spend more than ten minutes for individual ideation, before starting brainstorming. Sometimes the same or similar idea can be linked to different categories. For instance, you can organise workshops with potential stakeholders for both broadening your network and learning from others' experiences. If so, use two cards with the same idea repeated. It is also normal to collect more ideas about one category than another, in terms of project stage and characteristics.



STEP 4. Empowering actions

Now it is time for actions that lead your project to step into the dominant system. Think of two different approaches to scale up to that dominant market. On the one hand, think of those actions to compete against the current solutions, infrastructures, regulations... How can you take advantage of your innovation and the windows of opportunity? What is your system competitive advantage?

Then think of potential ways of adapting your solution to the current conditions. Can you build it on some existing solutions? Can you take advantage of any current processes and build your solution in it?

Proceed in the same way as in the previous steps.

STEP 5. Prioritisation

Now take a step backwards and have a look at the big picture with all the action. It is time for analysis, relationships and prioritization. With this big picture in mind, start analysing actions proposed in each category, looking for connections among ideas or clusters of ideas, in different categories. Identify those relations in terms of actions subordinated to others, or those you should do at the same time, etc. Eventually rank the ideas in each category to come up with the most important two or three actions per category (strategy). As the discussion is playing out, new ideas can emerge, maybe as a merger of previous ideas or maybe as something new. It is important to write them down and place them on the canvas. For prioritising proposals in each category, sticky dots can be used as a simple method (three dots each participants...).

STEP 6. Debrief

Once you have completed the canvas and the prioritisation, spend some time to reflect on the outcome and the process. Remember that the goal of the tools is not the outcome as such, but mainly the deep discussion that can be triggered as a consequence. And, also remember that the following questions are not a checklist to fulfil but rather a spark of inspiration for a fruitful discussion.

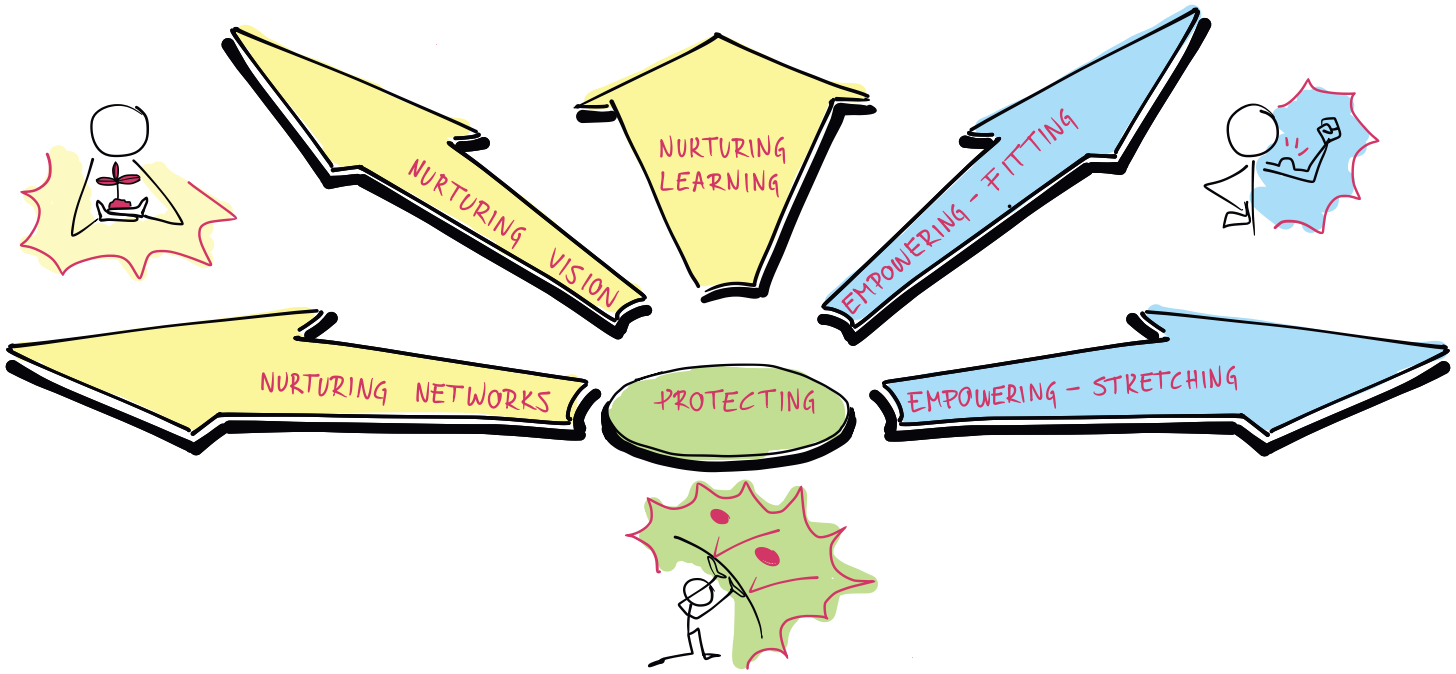
Did you find it easy to think up actions related to each strategy? Did you see the straight relation between the Transition Waves tool and the Six Systemic Strenghts tool? Was there any additional information you would have liked to have had? Is there one dominant strategy (category) in terms of number of ideas or importance? Is there any strategy with no actions or very few? Why? Did you find it easy to reach a consensus on the prioritisation of actions? Is there one action considered as having paramount importance and standing out from the rest? In which area should you make more efforts to keep your project from stalling? What is the weakest project position, the relations with other innovation projects or the capacity to break into the market? Do you think it is possible to draw up an action plan from the outcome?

> When you are working on the project management plan you should also develop your system management plan, this helps steer the project process and to navigate through the different levels of the system.

Find out more

http://www.climate-kic.org/transitions-hub

The Canvas



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Visual **toolbox** for system innovation

A resource book for practitioners to map, analyse and facilitate sustainability transitions.

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