

A group of people, mostly women, are gathered around a long wooden table in a bright, modern interior space. They are engaged in a hands-on activity, likely a workshop or community event, where they are creating greenery arrangements. The table is covered with various types of greenery, including eucalyptus, pine, and small white flowers. Several blue and white patterned cups are scattered on the table, along with scissors and other tools. The people are dressed in casual, comfortable clothing. In the background, there is a large, colorful, abstract artwork on the wall and a modern chair with a striped seat. The overall atmosphere is collaborative and creative.

A practical
guide to using
co-production
for nature-based
solutions

A practical guide to using **co-production for nature-based solutions**

Authors:

Carien van der Have, DRIFT, Erasmus University Rotterdam;
Katharina Hölscher, DRIFT, Erasmus University Rotterdam;
Marleen Lodder, DRIFT, Erasmus University Rotterdam.

Contributors:

Wouter Mulders; Shibeal McCann (DRIFT, Erasmus University Rotterdam);
Paula Vandergert (EM|Path); Isobel Fletcher (Horizon Nua); Pauline Georgiou
(EM|Path, University of East London); Dimitra Xidous (EM|Path, Trinity
College Dublin); Siobhan McQuaid (Trinity College Dublin); Mien Quartier
(Genk, Belgium); Agnieszka Dziubala (Poznań, Poland); Sean Kelly, Gillian
Dick (Glasgow, Scotland); Belma Pašić (Sarajevo, Bosnia and Herzegovina);
Antonio Prieto González (Concello da Coruña, Spain); Ivaylo Trendafilov (Burgas
Municipality); Eleni Malekkidou (Nicosia Development Agency, Cyprus).

Contributors to earlier version:

Niki Frantzeskaki, Utrecht University; Kato Allaert, DRIFT, Erasmus University
Rotterdam; Daan Sillen, DRIFT, Erasmus University Rotterdam;
Igno Notermans, DRIFT, Erasmus University Rotterdam.



Connecting Nature is funded by the
Horizon 2020 Framework Programme of the
European Union Grant Agreement No 730222

drift for transition

ISBN: 978-1-7397420-1-0



Contents

Introduction	08
Nature-based solutions have many benefits	08
But how? Classic governance doesn't work for nature-based solutions	08
...So we need co-production	10
What does this guidebook offer?	10
Beyond co-production, the Connecting Nature Framework is also here to help	12
Co-production can be used in each phase of the process: from planning to delivery and stewardship	13
 What is Co-production?	14
The challenge: How to address multiple urban challenges and interests at the same time?	14
The solution: Creating outcomes together, as equals, using different types of knowledge	14
Co-production... ..	16
What do cities take away from co-production?	17

Six design principles for good co-production	18
The challenge: How do you know you are doing a good job?	18
The solution: Six design principles for good co-production	18
Inclusivity	20
Openness	22
Legitimacy	24
Actionable knowledge	26
Empowering for participants	28
Aligning ideas and agenda's	30
 Designing co-production processes	 33
The challenge: How to work on nature-based solutions in a co-productive way?	33
The solution: Design your approach in four steps	33
Consider the principles as quality check	35

STEP 1: Set your goals	37
The challenge: Where to begin?	37
The solution: Define your goals	37
The right tool(s): find your focus	38
A. Define the system's boundaries	39
B. Consider strategic, tactical, and operational activities	44
C. Using the business model canvas for nature-based solutions	48
STEP 2: Structure your process	55
The challenge: Where to start?	55
The solution: Order the puzzle pieces	55
The right tool(s)	55
D. Make a timeline for using co-production	56
E. Actor analysis	60
F. Engaging the unusual suspects	64
STEP 3: Design activities	69
The challenge: How to make it work?	69
The solution: Find a method that fits your needs	69
The right tool(s)	69
G. Visioning	70
H. Idea generation & brainstorming	74
I. Strategic Alignment with the SDGs	78
J. The EM Path Approach	82
K. Wildcards	93

STEP 4: Reflect	97
The challenge: How to reach your goals?	97
The solution: Reflect	97
The right tool	97
L. Reflect on the goals, the process, and the outcomes, using the design principles	99
 CASE STUDY: Reflecting on the EM Path Approach in A Coruña	101
What is the EM Path Approach?	101
Example	102
Possible outcomes of the EM Path Approach	103
An open and flexible approach	104
How did they Reflect on the EM Path Approach in A Coruña?	104
 Recap	107
 Acknowledgements	109



Ready-to-use materials

Throughout this guidebook, at the end of every chapter, a list of ready-to-use materials is supplied. These materials can be exercise templates, presentations or question lists, in PowerPoint, Word or Excel format.

You can find all these materials online by [clicking here](#) or scanning this QR code.

Introduction

Nature-based solutions have many benefits

The European Commission defines nature-based solutions to societal change as solutions that are:

“inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions.”

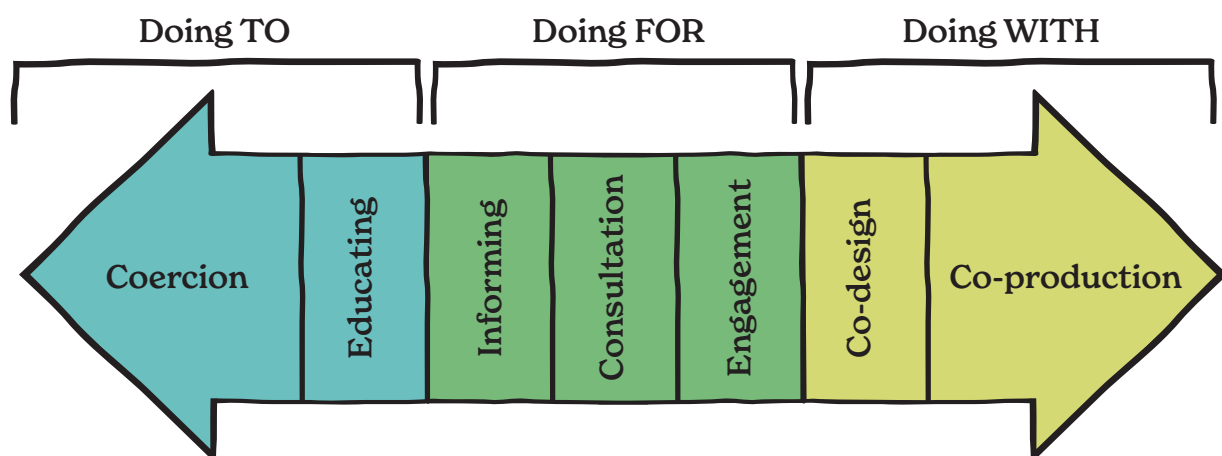
Nature-based solutions help address the complex challenges that cities face today while creating more liveable and resilient cities. Think of finding solutions for climate change, pollution, and mental health issues, in one urban innovation!

Nature-based solutions bring change: They bring innovative urban development methods to cities (e.g., new technologies and business models), new practices and new relations between people and nature. These solutions are transformative: they require novel approaches to **governance** that bring together multiple actors – think policymakers, planners, entrepreneurs, citizens, and scientists. This leaves these actors and their organisations better equipped and inspired for future challenges.

But how? Classic governance doesn't work for nature-based solutions

Nature-based solutions ask for a new form of governance, which builds on knowledge from different relevant disciplines and fits the specific context of a city or area¹. This new form of governance establishes lasting partnerships between urban actors and the local government to better embed nature in urban life².

Currently, urban governments are often dealing with a lack of collaboration across diverse policy sectors due to departmental silos³ and often fail to include a wider network of stakeholders (citizens, local entrepreneurs, schools and experts). This makes new initiatives and interventions a bit of a gamble: will it work for city governance as a whole? And what will the local community think? To successfully implement nature-based solutions, local governments need to work together with a wider group of stakeholders. Instead of just informing or consulting urban actors, an equal collaboration should be established so that local stakeholders play an integral role in both the problem definition and problem solving (*see figure below*).



Co-production focuses on doing work WITH others, as opposed to other participation strategies that focus on doing work FOR others, or doing work TO others.

-
- 1 Frantzeskaki, 2019; Nel *et al.*, 2015; Cowling *et al.*, 2008
 - 2 Nesshöver *et al.*, 2017; Connop *et al.*, 2016; Keune *et al.*, 2015
 - 3 Kabisch *et al.*, 2017; Sekulova and Anguelovski, 2017
 - 4 Based on Harris *et al.*, (2019)

...So we need co-production

Co-production as a form of governance gives different stakeholders a seat at the table when creating solutions to urban challenges such as climate change and social inequality. Co-production is an approach for developing your nature-based solution in an iterative way: it creates room to respond to challenges that become clear at each stage and stimulates the development of an integrated solution for and with a variety of stakeholders.

Not only does co-production create concrete outputs, it also mobilises and empowers various urban actors. The method helps these actors become engaged in developing and stewarding nature-based solutions, bursts open governmental silos and contributes to the long-term embeddedness of nature-based solutions in policy and planning.

What does this guidebook offer?

This guidebook offers a practical approach and toolbox for designing and implementing your own co-production processes. It presents co-production as a new governance approach for working on nature-based solutions in cities and offers a practical framework for designing your own co-production approach.

The guidebook focuses on nature-based solutions, though co-production can be employed to address any urban challenge that asks for a produced output.

Although this guidebook is set up as a practical guide, it is not like a printer manual. The methods described here are meant to *inspire* you. We want to show you how other cities have used co-production in implementing transformative nature-based solutions. For each step, different methods are suggested to make the steps practical. Choose for yourself which of these fits your situation and design your own approach for design a co-production process.

At the end of each design step, we have added guiding questions and room for you to take notes. This way, you can adapt the suggested tools to fit your needs. So, creativity goes a long way while using this document.

The guidebook is written to support urban planners and policymakers, but is also interesting for others thinking about implementing nature-based solutions in cities. For example, NGOs that are involved in the scaling of nature-based solutions can also use this manual to set up a co-production process.



© Sebastiaan ter Burg, Flickr (CC BY 2.0)

The guidebook is a product of a co-production process itself between researchers and practitioners of the cities in the Connecting Nature project (www.connectingnature.eu). So it includes many practical, boots-on-the-ground examples to illustrate the process, but also draws from state-of-the art scientific literature applied to mixed science-practice settings.

The iterative nature of co-production processes requires on-going learning processes. This guidebook is therefore accompanied by the [Reflexive Monitoring Guidebook](#) for those who want to design and engage on a learning process as well. Other guidebooks that we refer to: the [Narratives guidebook](#).

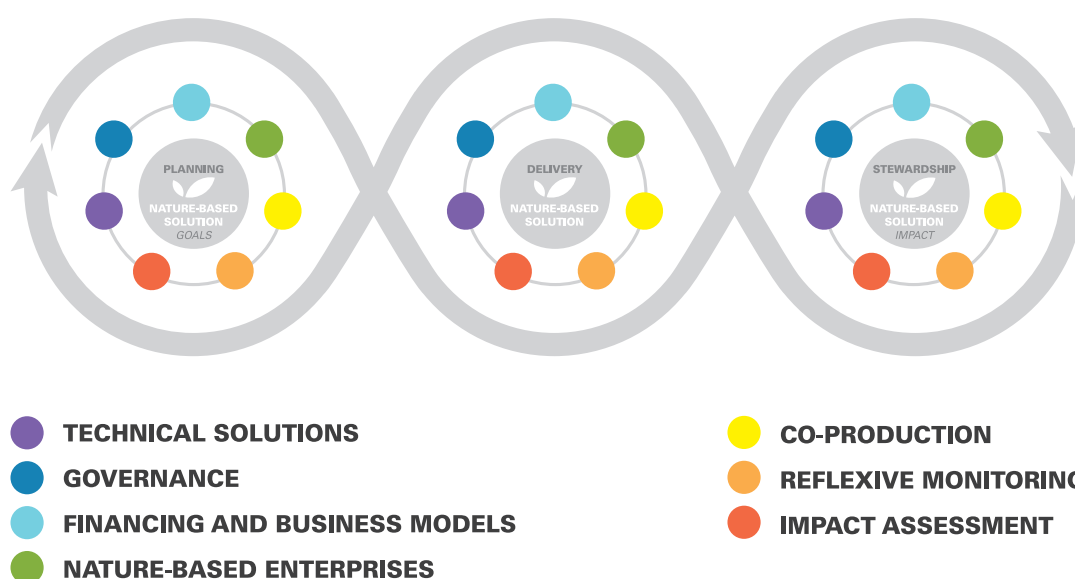
Beyond co-production, the Connecting Nature Framework is also here to help

Designing and implementing nature-based solutions on a large scale is complex, with many different issues to consider.

Many questions arise and need answers.



In response to this uncertainty, Connecting Nature has developed a tool to help cities and other organisations navigate the path towards implementation of nature-based solutions on a large scale: the Connecting Nature Framework.





The Framework identifies **three distinct phases of development** for a nature-based solution: **planning, delivery and stewardship**.

Throughout each phase there are seven separate elements that cities and other entities need to consider when shaping their individual nature-based solution: **technical solutions, governance, impact assessment, finance, entrepreneurship, co-production and reflexive monitoring**.

Cities may choose to start with any element of the Framework process and consider the others in the order that suits their context. What emerges from the Framework process is a comprehensive 360° overview of each stage of development of the nature-based solution.

To learn more about this framework, please download our guidebook: www.connectingnature.eu/guidebooks . And watch this video on why we need, co-production, as one of the framework's elements: youtu.be/bM3ds_ZdYfc .

Co-production can be used in each phase of the process: from planning to delivery and stewardship

In the **planning phase**, co-production will help you involve different types of knowledge. This can lead to new problem framings, more diverse ideas and innovative solutions, and it allows you to be more reactive and inclusive when dealing with opportunities and challenges during implementation. It will also help you get a more democratic overview of local issues and needs. Overall, co-production during planning will help you prioritise and to organise (political) support for the project and support decision-making in terms of technical design priorities.

In the **delivery phase**, the method will lead you to involve a more diverse set of actors. Co-production will help you to shape new relations that are required for implementing your solution. These can be both within the government or across the city (think local businesses, schools or hospitals). Co-production also allows you to mobilise a community that supports the solution and can help implement it.

In the **stewardship phase**, the long-term future of the nature-based solution will benefit from partnerships and relations that were established in previous phases. Also, co-production can support the set up of a flexible and adaptive approach to maintaining the nature-based solutions.

What is Co-production?

The challenge: **How to address multiple urban challenges and interests at the same time?**

Nature-based solutions address complex urban problems which have no quick fix: it's about finding integrated solutions for multiple complex challenges. They require an approach that benefits from a diverse set of actors working together, being open to new and different perspectives and always on the look-out for shared benefits for multiple (both societal and policy) goals⁵. That's how you can address the so-called 'wicked' problems of our time.

The solution: **Creating outcomes together, as equals, using different types of knowledge**

Co-production is a form of collaborative governance that involves different stakeholders in generating concrete outputs. Co-production is more than just participation, which has existed for decades. It is different because...

⁵ Vingola *et al.*, 2009, p. 694; Devolder and Block, 2015

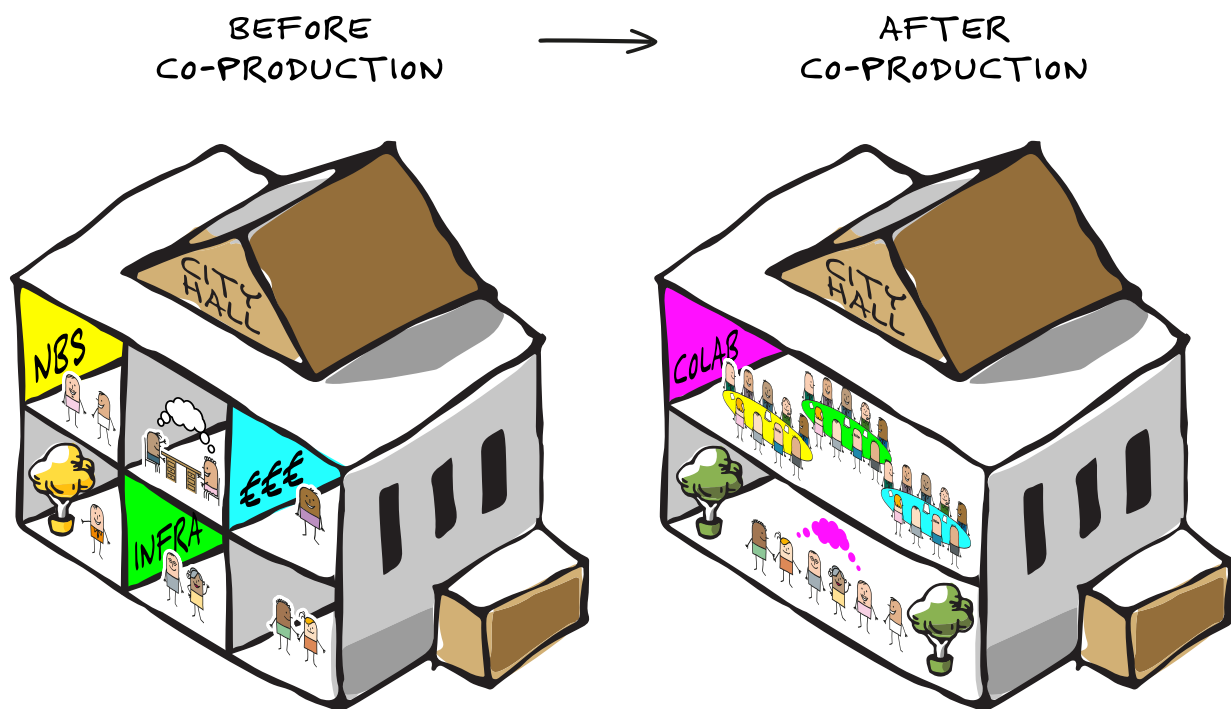
1. It is a process where **different types of knowledge** and expertise are involved **on an equal basis**.

These types of knowledge can differ per subject, are different for different roles, and can be hands-on or academic.

2. It is a process where actual **outcomes** are produced.

These can be intangible, such as new understandings of the problem, a shared vision, or a strategic agenda, but also more tangible outputs, such as a solution design, a training course, or an actual school garden.

Within the context of urban planning of nature-based solutions, co-production tries to **blur the artificial boundary** of administrative actors and political representatives on the one side and citizens, businesses and NGOs on the other (*see figure below*). Co-production has the potential to democratise urban governance and planning by inviting and engaging multiple actors based on their knowledge rather than their political position or resources.



Co-production can help to blur artificial boundaries between different groups

Co-production...

- ☛ ... boosts **innovation** – by exchanging ideas on needs and solutions in an open rather than predefined way.
- ☛ ... can be used both **internally** (for collaborating among departments) and **externally** (for involving relevant stakeholders from outside your organisation).
- ☛ ... contributes to the **democratization** of decision-making.
- ☛ ... **spurs new relationships and partnerships** between actors that otherwise would not work together.
- ☛ ... **empowers** actors to define their roles in contributing to addressing urban challenges and implementing solutions.
- ☛ ... can be used on **strategic, tactical** as well as **operational** levels⁶.
- ☛ ... produces **tangible outputs**, such as: new visions; new ways of framing problems; and innovative solutions, for example new business models.

⁶ Please see [Tool B](#) for more information on these different levels

What do cities take away from co-production?

Co-production helps you to get better results by involving relevant actors. A diverse set of actors with different roles in society (from leaders of local community initiatives to national governmental agencies) is brought together to work on the planning, delivery and stewardship of nature-based solutions.

Co-production as an approach helps you to carefully consider how to facilitate and organise this process, how to unfold the synergies between different type of knowledge and how to navigate through conflicting perspectives.

The various city teams in the Connecting Nature project recognise that co-production encouraged them to involve stakeholders from the very beginning and to think of ways to combine different ideas in one solution. They see co-production as a new governance approach that could benefit the whole society.



“ New practices show that better effects and results are achieved if we include different actors in different stages of the projects (depending on several factors such as interest, possibility of contribution, final goal etc). In this way sustainability can be ensured, but also replication is easier. ”

– Belma Pašić, Sarajevo, Bosnia and Herzegovina.

Six design principles for good co-production

The challenge: **How do you know you are doing a good job?**

Co-production is not a strictly prescribed process. Cities face very different challenges in different social, political, cultural, and economic contexts. Therefore, it is important that you adapt co-production to your local needs and conditions.

This makes it harder to know if you are doing a good job. How should you deal with conflicting demands? And how can you check you aren't missing things?

The solution: **Six design principles for good co-production**

Within the Connecting Nature project, multiple cities have worked on using co-production to govern the implementation of nature-based solutions. Based on literature⁷ and recognised in the work of these cities, we developed six design principles of good co-production. These design principles highlight key characteristics of successful co-production.

⁷ Frantzeskaki, N., & Kabisch, N. (2016)

According to the six principles, good co-production **processes** should be:



Inclusive, bringing together diverse actors and multiple types of knowledge on an equal footing;



Open to new types of knowledge and actors, and sharing new knowledge throughout;



Legitimate, to ensure that the process includes credible knowledge and is trusted by participants and wider urban actors.

And its **outcomes** should be...



Actionable for planning and policy: co-produced knowledge is immediately applicable and relevant for policymakers, can be integrated in ongoing projects and can be translated into direct action.



Empowering for participants: co-produced knowledge is relevant to and can be taken up by many actors, by being aware of social, political and cultural interest, and paying attention to diverse ideas.



Aligning by breaking down silos and connecting agendas. Co-produced knowledge connects to multiple goals, strategies and agendas within the city, and creates a shared perception of the issues at stake. This helps to align strategic goals and agendas and break down interdepartmental silos.

Read further for more insights into these principles, how to use them and examples from practice.



Inclusivity

Inclusivity means that different types of actors are involved on an equal basis. Focusing on inclusivity ensures that different perspectives are represented, which enriches the process and results in more legitimate outcomes.

How, exactly?

- 🗨️ **Move beyond including the usual suspects:** Recognise and involve what stakeholders can add new perspectives and new types of knowledge to the discussion. Inclusivity requires you to think further than actors' accessibility and availability, and to give room to not just those with the loudest voice or the most resources.
- 🗨️ **Choose:** It is not *always* necessary or possible to include all types of actors and knowledge, it is important to make a conscious choice about when and whom to involve and for what purpose.
- 🗨️ **Make the process accessible:** Activities should be designed with accessibility in mind using diverse forms of communication, learning and approachable use of language.
- 🗨️ **Just facilitation:** Respect different and divergent values of participants and make sure to involve opinions in a fair and unbiased way. As a facilitator, take responsibility to create a just process, and give equal voice in a discussion, not influenced by ranks or power dynamics.



Inclusivity in Nicosia (Cyprus)

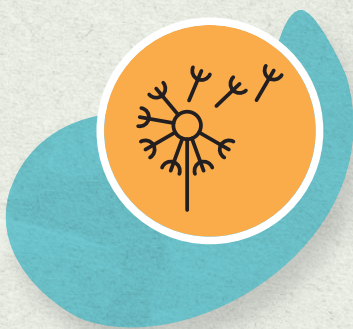
Nicosia Development agency is developing a network of green spaces throughout the city. One of the parks, included in the project is **Ayios Dimitrios Park**, which is located close to a children's hospital. By involving representatives from the hospital in the development process, a new perspective was added to the redesign process: the park could function as an escape for parents and children visiting the hospital.

This introduced new design questions: what are needs of the kids and their parents and how can the park add to their wellbeing?



Guiding questions:

- Who are the usual and unusual suspects in your process?
- What do different stakeholders need to be able to participate (physically, emotionally, and financially)?
- What barriers do you expect when trying to create an inclusive process?



Openness

A good co-production process remains open to new actors and ideas and is transparent. Generated knowledge is openly shared with wider audiences.

Openness is important because it supports engagement: it shows that everyone's opinion matters and is considered equally, and that the process and outcomes are legitimate.

How, exactly?

- 🗨 **Reflect:** Create room to improvise and respond to new insights, demands and needs. This requires time for reflection on the progress, what perspectives and expertise would add to the process and how to include these.
- 🗨 **Openly share information:** Openness needs to be actively enabled and nurtured by open sharing of data and findings, not only between the co-producers of knowledge but also to outsiders and potential newcomers.
- 🗨 **Design a process together:** Openness needs to be weighed against delivering co-production outputs. There is the risk that by continuously adapting problem framings and possible solutions, no concrete steps will be taken. It helps to develop a process for how to make decisions in a way that equally weighs everyone's opinion while also coming to concrete outputs.

Openness in Ioannina (Greece)

Ioannina is working on the renovation of **Pirsinela Park**, which is known as “the living room of Ioannina”. It is a very important green space for the citizens of Ioannina, who use it for recreation and educational activities.

An open consultation was used to enrich the design of the renovated park with ideas of stakeholders. Some stakeholders were explicitly invited (businesses, NGOs), and citizens were invited through a marketing campaign. Everyone was able to participate on an equal basis: both citizens and city council members used the consultation to contribute ideas.

In the end almost all proposed ideas could be implemented in the final design. This increased the support of the design.

Guiding questions:

- Who should be informed about the co-production process and its results, and why? Consider different types of stakeholders.
- What could be barriers for sharing knowledge and ideas openly?
- What can you do to solve these (consider the atmosphere in meetings, communication strategies and channels, facilitation skills etc.)?



Legitimacy

A legitimate co-production process is designed in such a way that it is trustworthy and based on valid and legitimate knowledge. Legitimacy refers to an unbiased process that does not push for certain interests. When you include knowledge from different sources, it is important to uphold standards and make sure the knowledge is legitimate. Legitimacy is important because it increases ownership over and trust in the process. It also ensures that outputs are effective.

How, exactly?

- 🗨️ **Check the facts:** Assess the sources of knowledge included in the process. Evaluate the reliability of the generation of knowledge, can it be traced back to two or more sources? Consider the fairness of how it is brought to the co-production process.
- 🗨️ **Navigate conflict:** Make sure to be aware of political, cultural and social tensions and anticipate on mediating conflicts.

Legitimacy in Glasgow (UK)

The legitimacy principle is important for ensuring participants' ownership over and trust in the process as well as salience, effectiveness and fitness of outputs.

In Glasgow, legitimacy has been critical from the beginning in order to create a sound knowledge base for the **Open Space Strategy** that ensures political and societal buy-in. The Open Space Strategy should serve as a strategic tool for establishing a network of existing and new nature-based solution projects in Glasgow. It aims to provide an overarching strategic vision on, and coordinate the responsibilities associated with, the open spaces to ensure a well-coordinated network of green spaces that offer multiple benefits and address multiple pressing challenges.

Guiding questions:

- What barriers do you expect in setting up a legitimate process, and what can you do to solve these?
- What political, cultural or social tensions should be considered?
- How can you make sure that an equal voice is given to everyone?



Actionable knowledge

The principle of actionable knowledge means that the knowledge-based outputs of the co-production process can immediately be translated into action. This means they are easy to understand by and relevant for different stakeholders (e.g. policymakers or local communities) that you want to collaborate with. Also, the outcomes suggest practical applications and stimulate initiative. Creating actionable outcomes is important to ensure ideas are implemented, shared, and translated into activities.

How, exactly?

- 👉 **Make it concrete:** Decide upfront what concrete outputs your process could deliver on, and what your process needs to deliver this result.
- 👉 **Consider existing processes:** By checking frequently how the outputs of your co-production process could feed into other programmes, the likelihood of others taking up the outcomes increases.
- 👉 **Build communities for knowledge sharing:** actionable outputs requires that the organisational structure and culture facilitates collaboration and knowledge sharing between different departments and organisations. Informal and formal networks between departments, businesses and local communities make it easier to share information and collaborate when you put ideas to practice.

Actionable outcomes in Sarajevo (Bosnia and Herzegovina)

In Sarajevo, SERDA has worked on the implementation of an urban garden within the 'Children's House' area or 'Centre for healthy ageing' area which are located near each other. This should be a sensory park which will provide the inhabitants of the city a place for relaxation, entertainment, learning and play, not forgetting people with special needs and children with intellectual and/or physical disabilities. The idea that the communities of both the children's house and the centre for healthy aging jointly create and maintain the garden and provide cross-generational exchange.

The main aim of this project is to create a green area within the urban part of the city, which can function as a pilot project and can be replicated in other areas as well. The team has considered this from the start and made the outcomes actionable by ensuring that the design can be applied in other areas, linking the idea to issues that are important for the city as a whole and not only the two included organisations (e.g. lack of green spaces, air pollution, traffic, deforestation etc.)

Guiding questions:

- What do policy makers and/or urban planners need to do to take a next step in implementing nature-based solutions?
How can co-production activities contribute to these needs?
- What processes are going on in policy, businesses and local communities that relate to your project? Are there activities in which you can participate?
- What would actionable outcomes look like?



Empowering for participants

Participating in co-production processes enables actors to exchange and enrich their perspectives, develop new relationships, and learn new ways of applying their knowledge. These new insights empower them to act!

How, exactly?

- 🗨️ **Make it practical:** Translate the outcomes of your process so that they are contextually relevant and relate to real-life problems and solutions. Think of ways to together introduce ideas as new practices and routines for everyone involved.
- 🗨️ **Build relations:** Having an open and constructive setting boosts social learning and invites knowledge-sharing between multiple actors. This is the start of building new relations and communities which form the basis for successful collaboration and empowerment.
- 🗨️ **Share responsibilities:** Identify new roles and share responsibilities in the project to empower participants and increase shared ownership.
- 🗨️ Choosing suitable **communication strategies** helps to share the relevance of a project to a wider audience. For example, seminars and site visits can help to disseminate the knowledge outputs and engage wider audiences.
- 🗨️ **Be aware of possible political tensions.** Do not avoid political tension but find ways to discuss issues in an open and constructive way. This will make the process insightful and empowering for all participants. Asking professional facilitators to step in can help.



Empowerment in Poznań (Poland)

In Poznań, empowerment is taken into consideration from the beginning of the project, by aiming to motivate citizens to take up active roles in the use of the open garden they are working on. Several techniques were used to empower participants, including the communication to teachers and parents to inform them about the benefits and uses of the garden, as well as the involvement of children in dreaming about the design and how they want to play in the garden. The co-production with a diversity of actors and their knowledge and expertise was important to facilitate learning from experience, about what works and what does not work in relation to wishes and needs.



Guiding questions:

- What stakeholders do you want to feel empowered to take initiative, responsibility, or ownership in the project? Why?
- Are there opportunities to build new relationships or collaborate with existing networks?
- What responsibilities can you share with the actors involved?



Aligning ideas and agenda's

Complex social problems cannot be addressed with actors only working on their own agenda in their own domain. Central questions should include: How do different problems relate to one another? And how does addressing one problem impact or reduce the effect of another? Co-production processes can lead to alignment of agendas by making answers to these questions visible.

How, exactly?

- 🗨 **Search for connections across projects and departments:** Nature-based solutions have the potential to address multiple sectors and goals at once – such as increasing biodiversity, reducing air pollution, or providing recreation. Look for opportunities to create a win-win collaboration with other initiatives and strategies.
- 🗨 **Use facilitators or intermediaries:** Involving an 'objective' facilitator to mediate between different parties, departments or organisations helps to introduce new ideas. Such a third person can help to avoid jargon, keep out politics, and challenge participants to consider each other's perspective.
- 🗨 **Find a shared vision:** Create long-term, inclusive visions to provide a shared objective for aligning priorities across departments. These visions should take the interests of multiple actors into account, regardless of their role or function. These visions should seek to align integrated goals and agendas.

Aligning goals in Genk (Belgium)

The development of nature-based solutions in the **Stiemervalley in Genk** is connected to the masterplan for the area. One pilot project within the masterplan, **gardens of Waterschei**, is closely linked to the upgrading of the brand identity of the nearby trading street, the Stalenstraat, by the economic department. Developing a joint, integrated plan could enhance the result of both projects. This plan would be developed in co-production with the stakeholders of the projects – Stalenstraat shops, service economy, Department of Environment, *Natuurpunt*, Friends of the Stiemer, neighbours, and others.

The principle of aligning ideas came to practice through various conversations on both projects (Stiemervalley and Stalenstraat) in which the Stiemervalley inspired the project of the Stalenstraat and developed their knowledge further. This led to the inclusion of colleagues from both projects in each other's workshops.

As a result, the designs of both areas include innovations (e.g. recreational areas, gateways, bridges) that connect the two areas better.

Guiding questions:

- On what level is alignment required? (e.g. within teams, within departments, between departments, between organisations, between citizens).
- What are the shared interests of these groups?
- What co-productive activities could support the process of aligning ideas and a creating a shared vision/conception?

System boundaries

Strategic, tactical,
operational

Business model
canvas

Goals

Plan elements

Actor analysis

Unusual suspects

Structure

Visioning

Brainstorming

Align with SDGs

EM | Path approach

Wildcards

Activities

On goals

On principles

Reflect





Designing co-production processes

The challenge: **How to work on
nature-based solutions
in a co-productive way?**

Implementing nature-based solutions can be complex because of conflicting priorities. Choosing to approach this in a co-productive way adds to this complexity by involving different perspectives and interests in your challenge. And to make it even harder, co-production is a non-standardised process that often changes over time.

This makes it difficult to plan, budget or anticipate on using co-production when working on nature-based solutions.

The solution: **Design your approach
in four steps**

Designing helps you consider when and where a co-productive approach will add to your project. In four steps you are able to design an approach that fits your specific situation. These steps do not need to be followed in a specific order. They can be revisited and adjusted in an iterative way. The steps are...

1. **Define the goals:** Set a specific goal for using co-production in working on nature-based solutions, to introduce focus in your process design. Goals can relate both to involving specific types of knowledge, to empowerment and involvement of local stakeholders, or to creating certain outputs.
2. **Structure your process:** If you want to reach your goals, it is necessary to have an idea of what the current state is: what has already been done? And where can co-production add value? Who are, or should be involved? Explore the context and create a structure to make sure your co-production approach becomes part of different elements in your project.
3. **Designing activities:** Based on the previous steps, select methods that fit with the goals, context and principles. These can vary from strategic discussions to creative workshops and practical design sessions.
4. **Reflect:** Continuously reflecting on the goals, design principles and plans helps you to learn and adapt the process to a changing context. Especially after carrying out a co-production process, reflection on how to follow up on the outputs and outcomes helps you to enhance the results.

Consider the principles as quality check

As described, the six design principles highlight key characteristics of successful co-production. You can use these principles in each of the four steps of designing a co-production process, to check the quality of your ideas:



1. When **setting goals**, the principles help you to think about different issues that should be addressed in your design, and to consider what kind of results you hope to deliver.



2. When **structuring your process**, the principles help you to consider who to include, and how to do that, and what type of knowledge is required to come to certain results.



3. When **designing activities**, the ideas become more concrete: the principles help you to think about the form of results (tangible and intangible), and practicalities and facilitation skills to ensure your selected methods are effective.



4. When **reflecting**, the principles give structure and help you to consider both the process and the outcomes in different ways.

System boundaries

Strategic, tactical,
operational

Business model
canvas

Goals

Plan elements

Actor analysis

Unusual suspects

Structure

Visioning

Brainstorming

Align with SDGs

EM | Path approach

Wildcards

Activities

On goals

On principles

Reflect





STEP 1

Set your goals

The challenge: **Where to begin?**

When working on nature-based solutions or transformative innovations of any kind, one of the difficulties is to stay focused on what you want and on the other hand stay flexible and open to iterations along the way.

The solution: **Define your goals**

Defining clear goals for using a co-productive approach helps you to make decisions along the way like, who should be involved? What results are we looking for? What are the priorities?

You can define your goals by identifying how co-production contributes to overcoming various challenges within your project. Goals for co-production are different from the project goals and describe what you hope to achieve with working in a co-productive way. Examples include these three often-recognised goals of co-production processes:

- 🟡 **New knowledge & tangible outputs:** When you involve different actors, perspectives, and ideas, co-production can lead to more innovative solutions, new business models, supported by local actors.

- 🟡 **New relationships and lasting partnerships:** Co-production helps you bring actors together who were not in contact with each other by involving unusual suspects. Burst open departmental silos within city governments by linking strategic agendas. Build new coalitions for implementing and (financially) supporting your project.
- 🟡 **Mobilisation and empowerment for long-term commitment:** Co-production empowers citizens, shares the ownership over nature-based solutions with local communities, creates room for strategic coalitions and can support building political support.

The right tool(s): find your focus

In general, it is a good thing to organise a moment with relevant project partners to define goals in co-production. Discuss together what your expectations are, and what actors are relevant to involve. This gives you a start for defining goals for using co-production in your project.

It can help to use the following tools to structure your search for co-production goals:

- A. **Define the system's boundaries** – make explicit what falls in and outside your scope.
- B. **Consider strategic, operational and tactical activities** – identify what (governance) processes are going on to know where co-production can add value.
- C. **Using the business model canvas** – identify the value and structure of your project.

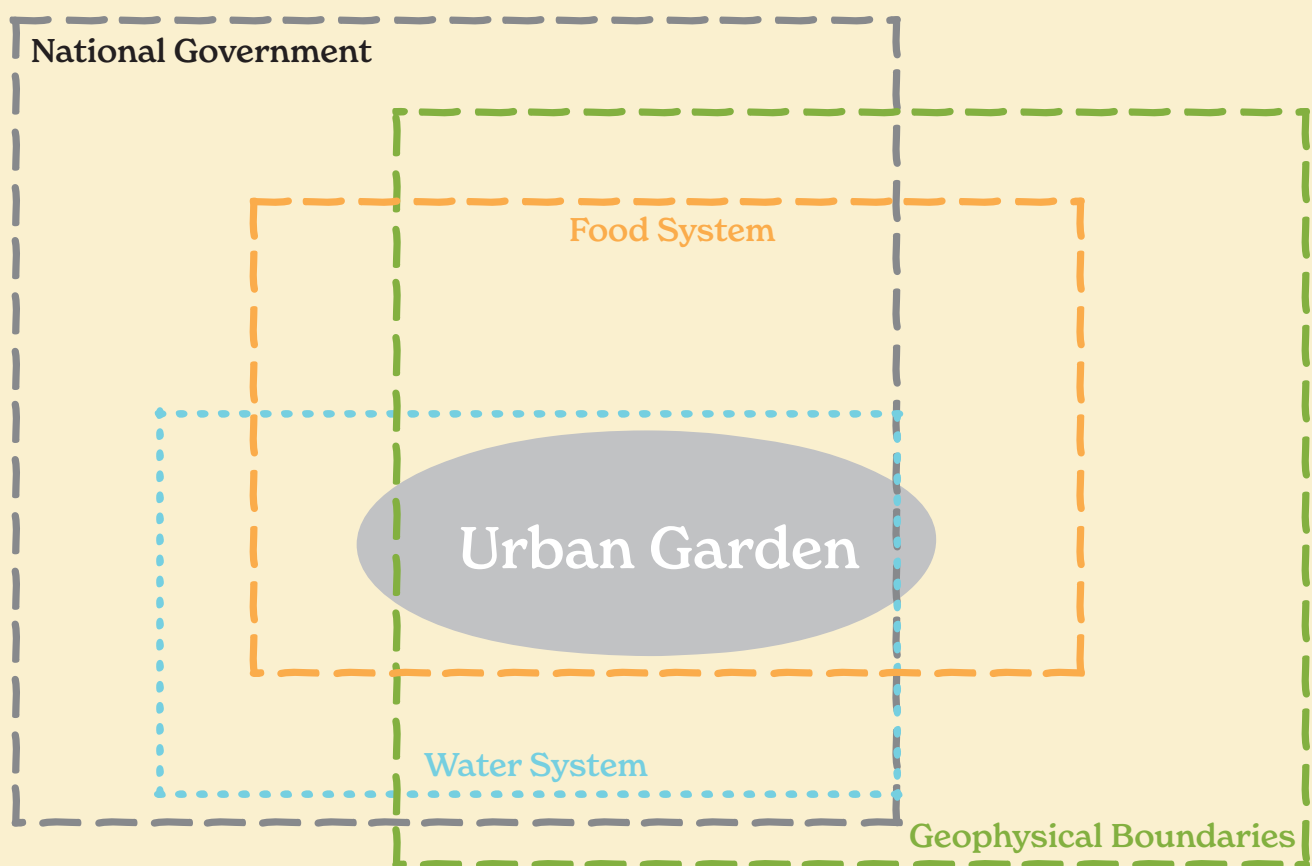
A. Define the system's boundaries

What's this then?

Identify the focus of your project by marking the boundaries of the system of interest.

How exactly?

The system's boundaries define what is considered relevant and what is not. These boundaries show you the perspective(s) wherein your project will be developed. These boundaries can mark a geographical area; it's geophysical properties; the institutional context; but also social communities and sectoral activities. These often depend on each other and together form an interrelated system.



As an example: try to consider the relevance of an urban garden project from different perspectives:

- **Geographic boundaries:** These boundaries can be marked based on specific borders (the city centre, a neighbourhood, the wider city area, the country etc.), geophysical attributes (a valley, a river stream, a natural reserve, a hill side), or communities (a business park, all users of green infrastructure in the area, local school system etc.).
- **Functional boundaries:** These boundaries are marked based on the function the garden has in other systems or supply chains. In this case this can be employers, social services, but also the local food system or the water system, because of water retention and irrigation functions the garden can provide.
- **Institutional boundaries:** These boundaries are marked based on how decisions are made in this project: What institutions have or should have a say? Are their spatial plans, or restrictions to consider? And what communities should be involved in the plans? Choosing to focus on national institutions will direct you towards considering other funding or support systems compared to when choosing for municipal planning or neighbourhood societies.

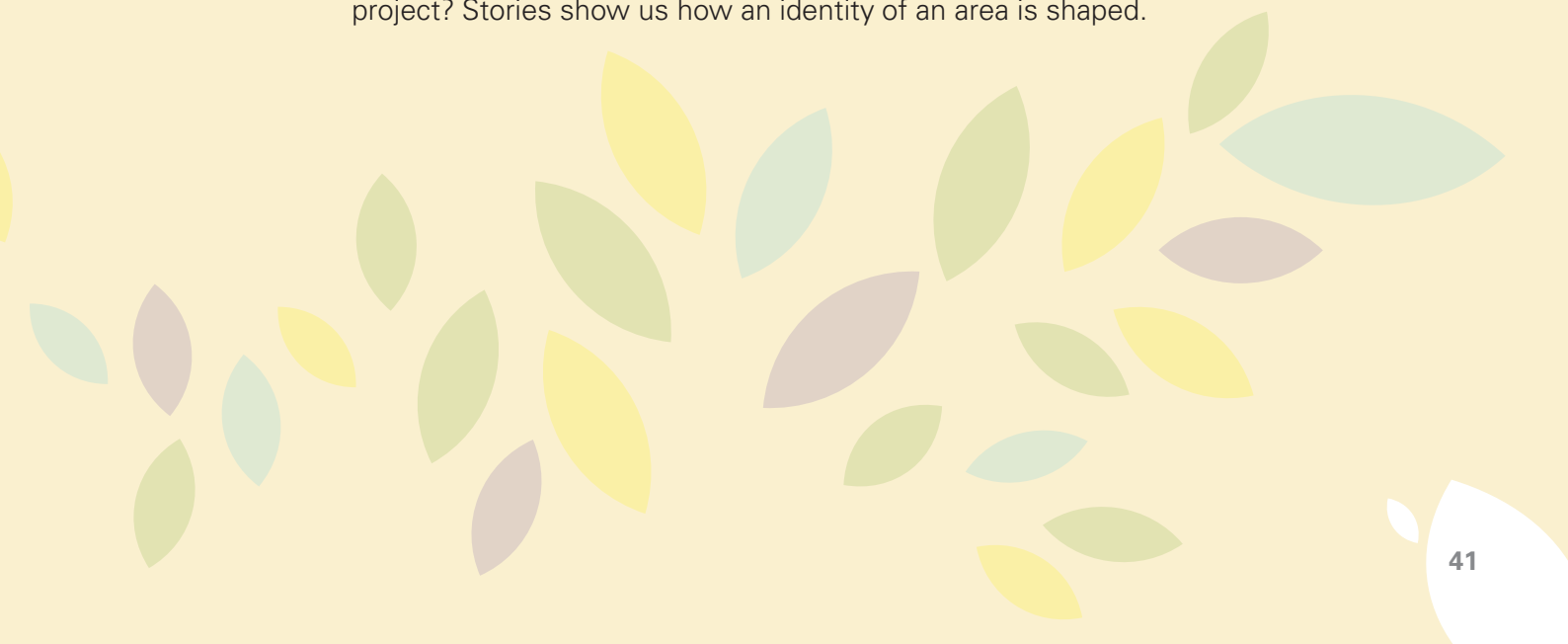
Setting boundaries asks you to make decisions which will help you defining your goals: what is important for this project? How to prioritise? And who should be involved?

Step by step:

1. Gather a group of people who are, or should be invested in the project, and introduce what is already known.
2. Ask the participants to define the boundaries of the system where the nature-based solution should intervene in. This can be done in small groups or individually. Ask specifically to define the:
 - Geographic boundaries
 - Functional boundaries
 - Institutional boundaries

- 
3. Present results to one another and look for similarities and differences. Together, come up with a system's boundary to work with. Ask questions such as:
 - a. What would happen if we changed the system's boundaries?
 - b. What system's boundaries, help us to focus on making the nature-based solution successful?
 4. Secondly, try to identify goals for co-production. Ask questions such as:
 - a. What stakeholders are important within these systems boundaries?
 - b. What or who can enable or block the success of the nature-based solution within this frame?
 - c. What support is required to make the nature-based solution work?
 5. Cluster ideas on what needs attention and finalize the discussion by translating these in goals for co-production

Tips & tricks

- Provide tangible examples of boundaries of specific systems.
 - You can ask participants to draw and use different colours to represent the different types of boundaries.
 - When relevant: ask participants about *temporal boundaries*: are there narratives, or event in history that clarify how to prioritise in this project? Stories show us how an identity of an area is shaped.
- 



EXAMPLE:

System's boundaries in Pavlos Melas, Greece

In Pavlos Melas, a former military camp is being transformed into a new metropolitan park, which will introduce a large area of green, public space.

Geographic boundaries: Because of significant shortages of green public spaces in the larger district of Thessaloniki, and Greek cities in general, the metropolitan park will be of interest for *the larger area of the Thessaloniki district*. This impacts how the city evaluates the capacity of the infrastructure, the scale of functionalities included in the design and of course who to involve in decision making processes.

Institutional boundaries: Although the project impacts a larger area, the project is led by *the municipality of Pavlos Melas*. The project team does take into account strategic planning texts of the *larger area of Thessaloniki and Athens*.

Sectoral boundaries: This project is related to many different sectors and themes (e.g. mobility, health and wellbeing, education, spatial planning, ecosystems, biodiversity). All these perspectives should be considered and combined to come to an integral nature-based solution.



B. Consider strategic, tactical, and operational activities

What's this then?

Identifying and discussing the different types of governance activities that are apparent in a specific system can help you set the goals for your nature-based solution.

How exactly?

This method helps you to reflect on what is currently happening in the selected system and to consider what is needed to move beyond “policy as usual.” The tool helps to diagnose the activities that different actors in a system (including local authorities, citizens, businesses, knowledge institutions and NGOs) engage in, in relation to your project and its impact. By discussing this in co-production with relevant actors, this tool will enable you to better understand ongoing processes and select priorities to focus on.

Three types of activities can be distinguished:

- **Strategic** activities intend to connect the nature-based solution strategies to broader city strategies and agendas and thus enable wider implementation. They focus on the long term and relate to structuring societal problems and finding shared future visions and strategic partnerships.
- **Tactical** activities focus on developing coalitions, building networks, setting up programs and specifying action agendas. They provide space to develop action programmes for implementing strategic goals, for example for selecting concrete projects to be implemented and developing a financing plan.
- **Operational** activities are activities in which concrete initiatives and projects are being designed, such as mobilising actors, designing solutions and implementing projects and experiments.

EXAMPLE:

Strategic, tactical and operational activities: How Glasgow did it

The Glasgow municipality has been working on the Open Space strategy as a strategic tool for establishing a network of existing and new nature-based solution projects in Glasgow. It aims to provide an overarching strategic vision on, and coordinate the responsibilities associated with, the open spaces to ensure a well-coordinated network of green spaces that offer multiple benefits and address multiple pressing challenges.

By reflecting on the activities that were carried out within this project, it became clear that most activities, at the start of the project were focusing on strategic goals (building partnerships, developing the Pollok local development framework, as overarching framework). Later in the project, more operational (developing different greenspaces and gardens) and tactical (collaborating with new partners) activities became part of the project.

“ These three different levels help to plan and define goals: when you do co-production on strategic level then the partners that need to be involved are different: these are not necessarily members of the public. Understanding the different layers of co-production goals helps to categorise and plan better. ”

– Gillian Dick, Glasgow City Council.



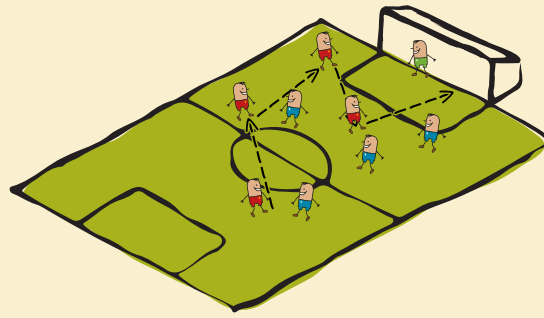
Step by step:

1. Organise a workshop with a small team. This exercise takes 1½–2 hours.
2. Explain to the participants the different types of governance activities by providing specific examples for each activity. Allow for clarifying questions.
3. Provide the participants with the workshop template introducing what strategic, tactical and operational activities are.
4. Ask the participants individually or in groups to identify the different governance activities within the system by filling in the canvas.
5. After mapping the ongoing activities, the participants share their interpretations of the analysis. This can be helped by asking questions such:
 - Which type of activity is most popular? And which is the least? Why?
 - Which actor groups are driving which kinds of activities? Is there a certain pattern? What does this tell us about the system?
 - Which of the mapped activities were most successful (and why) in reaching your goal?
 - What are obvious activities that are missing from this mapping? Why have these not been picked up?
6. Based on the understanding of existing governance activities, you can discuss which possible interventions can be employed to effectively address sustainability transitions.
7. At the end of the exercise, you can have a debrief by asking the participants what they have learnt and how they think to apply the lessons learnt into practice in their system.

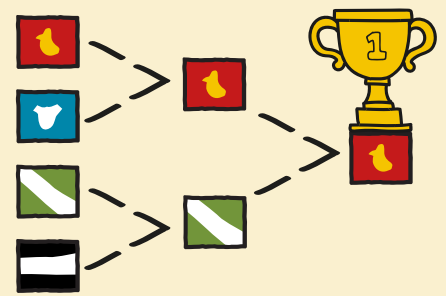
Operational



Tactical



Strategic



In terms of sports, operational relates to tactical and strategic like a pass relates to a match line-up and a tournament strategy.

Tips & tricks

- This tool is better applied in a small group setting (3–5 people), with actors from different backgrounds, who together map the identified activities directly on a canvas.

Where to find more

- STEP1 TOOL B Strategic, Tactical and Operational activities
- Loorbach, D. (2010)
- Frantzeskaki, N., Tilie, N. (2014)

C. Using the business model canvas for nature-based solutions

What's this then?

The nature-based solutions business model canvas is used as a tool to support the initial planning of the implementation of solutions in cities. It helps to tell the story of your project. A business model canvas for nature-based solutions can be used for any of the following:

- As a planning tool, following the identification of a potential nature-based solution but before project implementation.
- Between different departments of large organisations, to reach an understanding of how nature-based solutions can create value for different user groups.
- It may also be used externally with different groups of stakeholders, but it works best in this situation when a nature-based solution has been clearly identified.

EXAMPLE:

Business Model Canvas: How Burgas (Bulgaria) did it

In Burgas (Bulgaria), the municipality is redeveloping Saint Trinity Park: a large green area in the city which had been neglected for a long time. The municipal team had a business model canvas workshop facilitated by Horizon Nua, in which they managed to involve many different stakeholders:



“ For the business model canvas exercise, we have invited representatives of the different stakeholders in the city who we already identified through a previous exercise: stakeholder mapping. Doing these two days in Burgas, in fact changed a little our way of thinking: we started to think a little bit more outside the box. We started to search for new approach and ideas on how the park could be renovated and support the municipal budget. This means that through the activities in the park, financial income could be generated, which could later be used for the maintenance of the park in its further development. This was a stepping stone for our project. ”

– Ivaylo Trendafilov, Chief Expert, Burgas Municipality.

How exactly?

The nature-based solutions business model canvas ('the canvas') is adapted from the original Business Model Canvas developed by Osterwalder and Pigneur⁸ and consists of 3 major elements:

Value proposition: what does the customer or end-user want?

Value creation and delivery: who is needed to create and deliver the value proposition?

Value capture: how much will it cost to deliver the value proposition and how to pay for the product or service delivered?

It has been adapted for nature-based solutions:

- **The concept of value proposition** is expanded to consider the environmental, social and economic value propositions.
- The term **key beneficiaries** is used to broaden the consideration of possible 'customers'. Often when people think of solutions like a park or green space, they consider only the direct end-users, i.e. the citizens. This ignores the other beneficiaries such as schools and sports clubs that benefit from the facilities or the city as a whole that receives environmental benefits.
- **Key partners and key beneficiaries** have been positioned side-by-side in the canvas. This reflects the potential overlap between partners and beneficiaries involved with nature-based solutions. For example, the community is often a key beneficiary but is also usually an important partner. The same applies to local businesses.

⁸ Osterwalder, A., Y. Pigneur and C. Tucci (2005). "Clarifying Business Models: Origins, Present, and Future of the Concept." Communications of the Association for Information Systems 16(1).

- **Governance** is a new addition to the canvas. This reflects the importance of identifying early on how the solution will be managed on an operational basis. Nature-based solutions are often very complex with many different partners and beneficiaries involved. It is important to consider early on in the planning process how different stakeholders will be engaged in ongoing management and operations, and what governance structures are needed to facilitate this.
- **Cost reduction** is also a new addition to the canvas. This reflects the specific characteristics of nature-based solutions which sometimes allow for different ways to reduce direct costs like the use of volunteers, application of permaculture principles, or waste reduction.

Step-by-step

1. Prepare this exercise using the *Nature-Based Solutions Business Model Canvas Guidebook*, and consider who to involve in working on the canvas. Set up different meetings for discussing the following phases. Make sure to work through the model as one group: involving different areas of expertise will co-produce a more complete outcome.
2. **Phase I: Define the Value proposition.** The core question to be considered is: what value does this nature-based solution offer to the different groups of beneficiaries? In the case of nature-based solutions, it is important to look beyond the obvious and consider environmental, social and economic value propositions. Also make sure to consider trade-offs.
3. **Phase II: Value creation and delivery:** Discuss...
 - a. Key activities: What are the key activities required to deliver each element of the value proposition?
 - b. Key resources: What are the key resources needed to deliver each element of the value proposition?
 - c. Key partners: what actors are required to deliver resources and activities?
 - d. Key beneficiaries: who will benefit from the nature-based solution value proposition?

- e. **Governance.** How will the nature-based solution be managed and operated on an ongoing basis?

4. Phase III: Costs & value capture: In the third part of the canvas, the costs associated with the activities and delivery of the nature-based solution are considered.

- a. **Cost structure:** What are the ongoing costs of delivering/ maintaining the nature-based solution?
- b. **Cost reduction:** How can costs be reduced? This will increase viability⁹.
- c. **Capturing value:** How can the value of the solution be captured? This is about creating revenue in a broader sense – both monetary and non-monetary: For example, by capturing environmental or social value through impact assessment, might lead to identifying alternative paths for funding such as philanthropic or corporate donations.

Finally, the business model canvas for nature-based solutions can also be used as a first step in identifying the sources of financing for the capital investment costs of the nature-based solution.

Tips & tricks

- **Avoid path-dependency.** Shy away from becoming entirely dependent on similar sources of capital financing. Today, nature-based solutions are mostly financed with public funds (city, regional, national, European). The pressure to meet a variety of public funding requirements has created 'Frankenstein' projects which try to satisfy multiple funding objectives but ultimately compromise on the original solution's objectives. Avoid this by thinking about innovative ways to secure your project.
- **Bridge 'silo' gaps through visualisation:** Use the canvas to create a common language and visualisation tool, to bridge internal communication gaps between environmental planners and the finance, business, and investment community.
- **Identify new governance models:** Use the canvas to evaluate your current governance structure for involving different type of stakeholders. This helps you to define goals for co-production.

⁹ Ragoonanan, L. (2016). Learning to rethink parks, Nesta.

Nature-Based Solutions (NBS) Business Model Canvas & Financing



Business Model for Sustainability

Key Activities:	Key Resources	Value proposition	Key Partners	Key Beneficiaries
			Governance	
Cost Structure		Cost Reduction	Capturing Value	
Capital Expenditure Costs		Sources of Capital Investment:		

Financing Up-front Costs



The NBS Business Model Canvas & Guidebook by [Siobhan McQuaid, Trinity College Dublin & Horizon Nua](#) is licensed under a [Creative Commons Attribution-ShareAlike 4.0 International License](#). It is based on a work from Alex Osterwalder's Business Model Canvas designed by: Business Model Foundry AG. View the original Business Model Canvas on: <http://strategyzer.com>.



Funded by the Horizon 2020 Framework Programme of the European Union Grant Agreement No 730222

Source: Siobhan McQuaid, Trinity College Dublin & Horizon Nua, CC BY-SA 4.0
(based on Alex Osterwalder, view on: <https://strategyzer.com>)

Where to find more

- <https://connectingnature.eu/nature-based-solutions-business-model-canvas>
- STEP 1 TOOL C The NBS Business Model Canvas

System boundaries

Strategic, tactical,
operational

Business model
canvas

Goals

Plan elements

Actor analysis

Unusual suspects

Structure

Visioning

Brainstorming

Align with SDGs

EM | Path approach

Wildcards

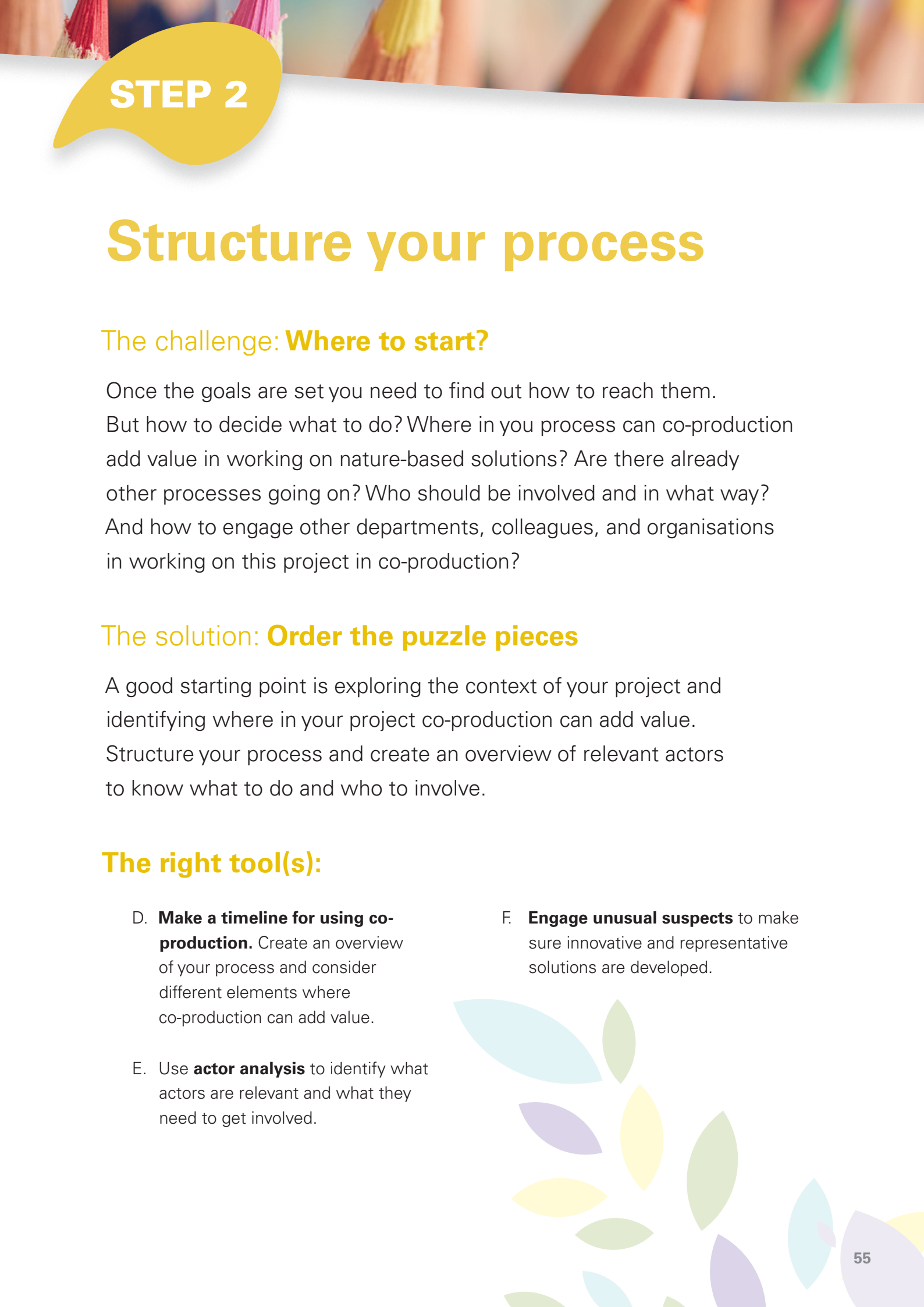
Activities

On goals

On principles

Reflect





STEP 2

Structure your process

The challenge: **Where to start?**

Once the goals are set you need to find out how to reach them. But how to decide what to do? Where in your process can co-production add value in working on nature-based solutions? Are there already other processes going on? Who should be involved and in what way? And how to engage other departments, colleagues, and organisations in working on this project in co-production?

The solution: **Order the puzzle pieces**

A good starting point is exploring the context of your project and identifying where in your project co-production can add value. Structure your process and create an overview of relevant actors to know what to do and who to involve.

The right tool(s):

- D. **Make a timeline for using co-production.** Create an overview of your process and consider different elements where co-production can add value.
- E. Use **actor analysis** to identify what actors are relevant and what they need to get involved.
- F. **Engage unusual suspects** to make sure innovative and representative solutions are developed.

D. Make a timeline for using co-production

What's this then?

Co-production is more than brainstorming ideas. The four different elements show what to expect when deciding to go for a co-productive approach; create a guiding structure; and help you to keep track of your goals.

How exactly?

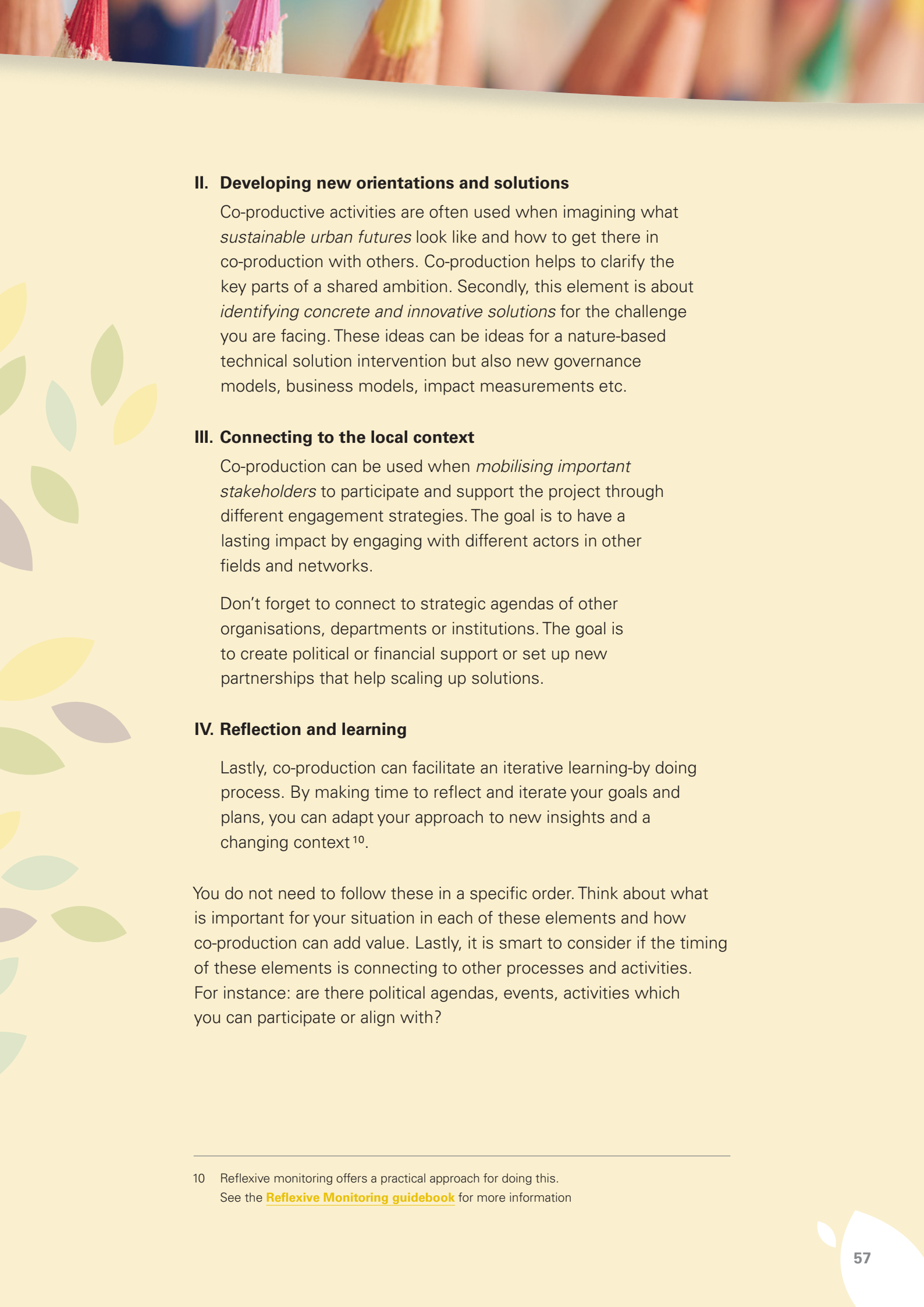
Although co-production processes are all made to fit a specific situation, many processes introduce co-production for similar elements of a project.

These are:

I. Setting the scene

Every co-production process has an element of *exploring local dynamics* where you take a step back and redefine your starting base. This can be done by checking *assumptions*, redefining the problem, and identifying values, challenges, and qualities of the local context, in co-production with others.

It is also important to *map and activate stakeholders* that are relevant for your project. Make sure to consider unusual suspects, networks, organisations, public and private stakeholders. Doing this in co-production with others activates people to participate and helps to identify their needs.



II. Developing new orientations and solutions

Co-productive activities are often used when imagining what *sustainable urban futures* look like and how to get there in co-production with others. Co-production helps to clarify the key parts of a shared ambition. Secondly, this element is about *identifying concrete and innovative solutions* for the challenge you are facing. These ideas can be ideas for a nature-based technical solution intervention but also new governance models, business models, impact measurements etc.

III. Connecting to the local context

Co-production can be used when *mobilising important stakeholders* to participate and support the project through different engagement strategies. The goal is to have a lasting impact by engaging with different actors in other fields and networks.

Don't forget to connect to strategic agendas of other organisations, departments or institutions. The goal is to create political or financial support or set up new partnerships that help scaling up solutions.

IV. Reflection and learning

Lastly, co-production can facilitate an iterative learning-by doing process. By making time to reflect and iterate your goals and plans, you can adapt your approach to new insights and a changing context ¹⁰.

You do not need to follow these in a specific order. Think about what is important for your situation in each of these elements and how co-production can add value. Lastly, it is smart to consider if the timing of these elements is connecting to other processes and activities. For instance: are there political agendas, events, activities which you can participate or align with?

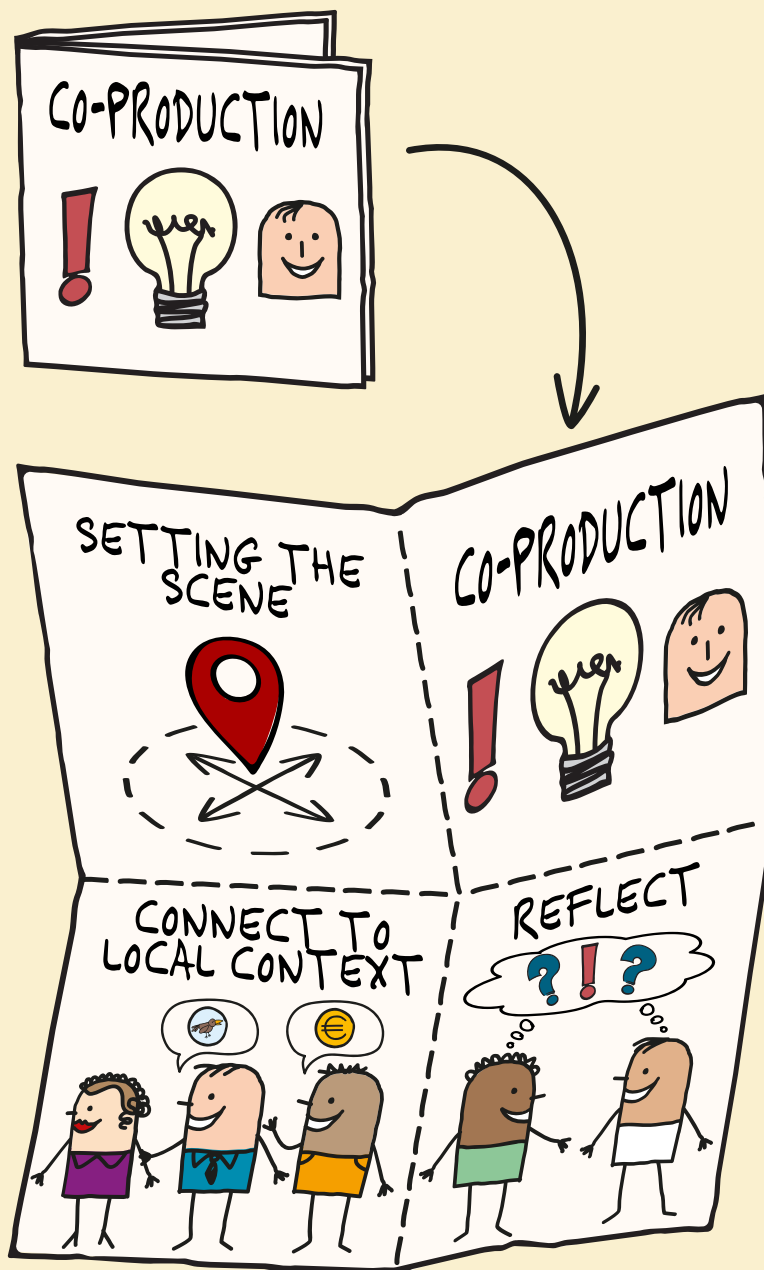
¹⁰ Reflexive monitoring offers a practical approach for doing this. See the [Reflexive Monitoring guidebook](#) for more information

Step-by-step

- 1. Consider what the current situation is** for each of the four elements. Are there already clear ideas, answers or activities set up for this element? Are there already people involved? How important is this element in your project?
- 2. Define the next step:** Consider how co-production can add value to each of the four elements. What is required to reach your goals? Consider both initiating new activities and finalizing processes that are already going on. Consult the methods from step 3 for inspiration.
- 3. Make a plan:** Are there processes that ask for a certain timing or order? Are you depending on certain activities or events? Can you align with other processes? Create a final overview: this does not need to be detailed but C should function as A.

Where to find more

- Step 2 Tool D Make a timeline for using co-production



Co-production is more than just brainstorming in a meeting. The four different elements show what to expect when deciding to go for a co-productive approach.

E. Actor analysis

What's this then?

Actor analysis is a set of methods to identify, map and prioritise the actors that are relevant for your project. This is an important step in working on nature-based solutions because it helps you to select actors to involve in designing, implementing, and maintaining your project.

A good actor analysis is crucial as the participants to a large degree determine the success of a co-production process.

How exactly?

Actor analysis gives an overview of the relevant actors (e.g. individuals, groups, organisations) in the field. Actor analysis considers a larger group than those who have a responsibility in the project. It includes actors...

- ... whose interests are affected by the issue.
- ... who have specific knowledge of the local context (both social, economical as ecological expertise).
- ... whose activities strongly affect the issue.
- ... who possess information, resources and expertise needed for strategy formulation and implementation.
- ... who control relevant implementation instruments.
- ... with new innovative ideas and activities regarding the issue.
- ... with a potential role to play.



Step-by-step

1. Defining your vision on and ambitions for actor involvement

Make sure you address *why* to involve actors; and the intended extent of their involvement: e.g. what will be their involvement in the design, implementation and stewardship phase? And how to involve their knowledge on an equal level? Use the design principles to reflect on this question

2. Creating a focus for actor involvement

Think of what indicators would make a person “relevant” for the project. This relates to the goals and system boundaries set in the first step. For example: should people live in the area and interact with the project in a certain way?

3. Creating a longlist of potentially relevant actors

Based on the first step make a longlist including the actors who are relevant for the project. Ask around: who is still missing on this list? And ask people on the list who they would want to add in relation to the project.

4. Categorisation & Mapping

Analyse the long list of actors by using various categories as well as mapping tools. The mapping helps to determine clusters of actors that have differing backgrounds, competences, interest profile, interests, relevance, or exercise different types of power regarding the issue. It also helps in differentiating between differing groups and in determining gaps in the representation.

Examples of mapping tools are:

- **Power-domain mapping¹¹:**

Map actors according to the domain they are active in and the kind of power they are exercising [See template E1].

Actor force field analysis:

Map out forces of actors to oppose or support the desired change. This is especially useful for reaching clear ambitions and well-defined experiments [see template E2].

11 Avelino, 2011

- **Social network analysis**

A social network is made up of individuals or actors which are connected by specific types of interdependencies such as friendship, common interest, financial exchange, common beliefs, knowledge, ethnicity, gender, societal domains, etc. The mapping and categorisation of these interdependencies gives a good overview on what kind of actors is included on the long list as well as the relation between them. [see template E3].

5. Selecting

Based on the focus determined in step 1, select stakeholders to involve in different elements of the process. Focus on creating a diverse group, with different types of knowledge, perspectives and background present.

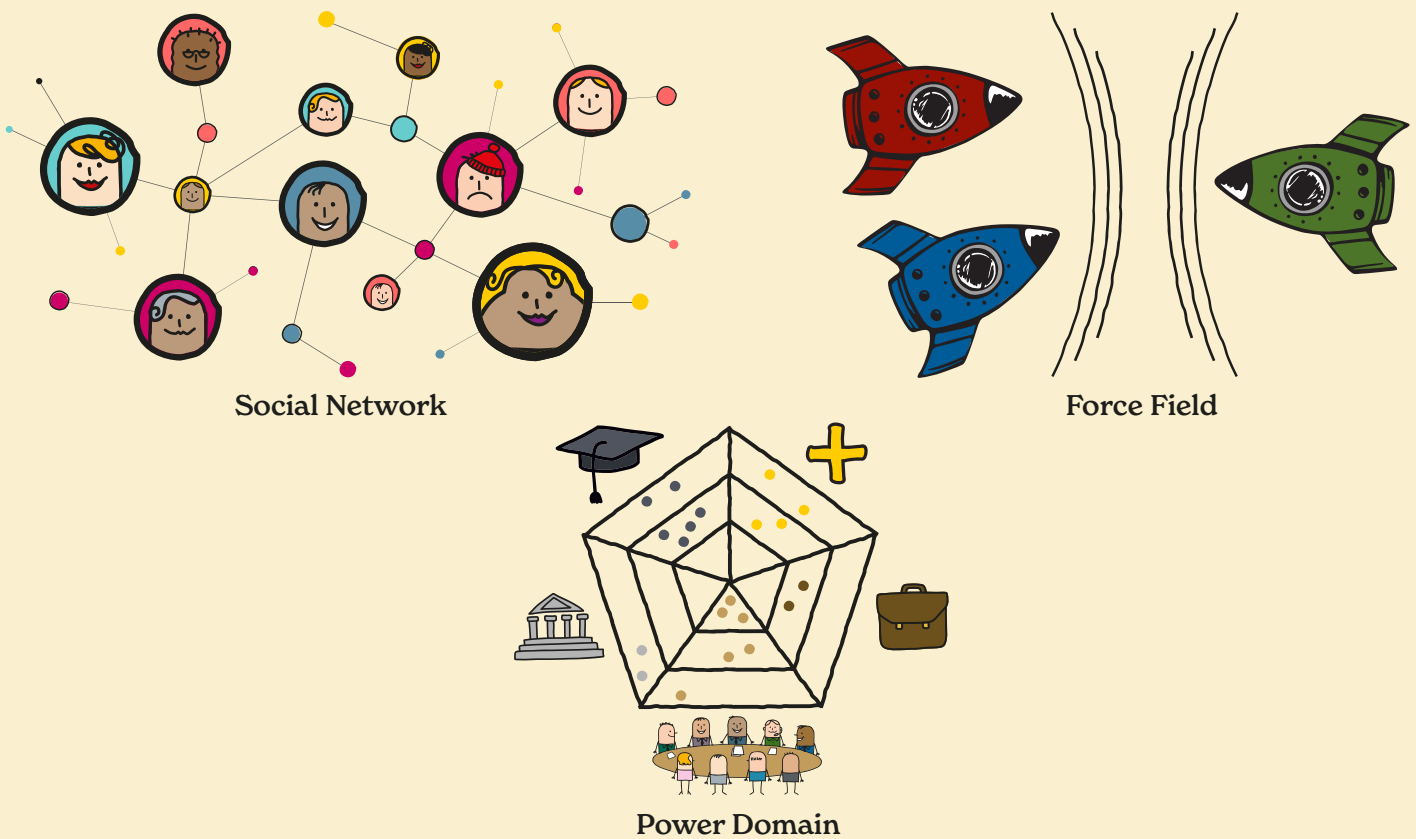
Tips & tricks

- Long listing of relevant actors often follows a snow-ball method; ensure to have multiple starting points to break free from 'in-crowd'-circles. A media analysis or searching for outliers can be useful.
- With step three and four; it is very valuable to speak to people in person/over the phone; for a good assessment but also as an opportunity for initial involvement.
- Follow a structured process, so you get to grip with making difficult decisions and can legitimize your choices regarding who is 'in' and 'out' of the process. At the same time this is no clear-cut formula with just one outcome; the resulting selection has some randomness, gut-feeling and subjectivity in it.
- Through-out a transition process, actor analysis and involvement (in different ways/extends) is a recurring activity.
- When actually inviting stakeholders to participate, make sure to consider how to compensate their efforts. What is in it for them? Consider both financial as non-financial compensation such as: learning opportunities, relevant networking opportunities, influence, time to address the audience, special stakeholders being there, etc.
- **Inclusive:** When involving stakeholders, make sure to plan for accessible meetings for everyone. This means both physically accessible as planned in a timeframe that is doable for everyone.



Where to find more

- Step 2 Tool E1: Power Domain Mapping
- Step 2 Tool E2: Actor Force field analysis
- Step 2 Tool E3: Social network analysis
- <https://drift.eur.nl/nl/publicaties/actor-roles-transition-insights-sociological-perspectives-2/>
- Wittmayer *et al.* (2011)



Mapping stakeholders can be done in many different ways: power domain mapping, to identify what kind of influence different stakeholders have, social network analysis, to identify what relations are important and central to the project, and force field analysis, to become aware of opposing and supporting forces in you stakeholder group.

F. Engaging the unusual suspects

What's this then?

A scoping tool to explore your understanding of who are the usual and unusual suspects in your project team, participant group or community.



Identifying unusual suspects helps you to set up an **inclusive** co-production process.

How exactly?

An important part of organising good co-production activities is engaging meaningfully with a diverse group of participants. Urban sustainability initiatives have sometimes been criticised for focusing on limited stakeholder groupings e.g. scientific experts or white, middle-aged, middle income citizens. To ensure you're engaging with a representative group of stakeholders this means looking for diversity in background, social economic status, ethnicity, role, gender, age etc. The unusual suspects assessment tool helps you to identify which groups are well presented and not well represented in your project team, participants group, consultation, or event. It works by mapping the people that are involved over different relevant categories, such as:

- Gender
- Cultural background
- Ethnicity
- Age group
- Socio-economical group
- Educational level
- Sexuality
- Attitude towards biodiversity
- Representatives of different subsystems of the quintuple helix model (see figure)

The completed assessment allows for reflection on why certain groups are under-represented, after which interventions can be recommended to involve more unusual suspects.



Step-by-step

1. **Decide on a scope:** Are you mapping out the project team, the wider project network? Are you involving participants of a certain meeting or your personal network?
2. **Make the template:** With a team, look at the provided template and decide what categories fit with your context. For example, how to cluster age groups depends on your context, and if diversity in religious background, or representatives of indigenous communities is important, make sure to add it.
3. **Prepare** the meeting by inviting the group that represents or knows the network that you want to map out and print out different templates.
4. **Start mapping:** Invite the participants to map out in which category they self-identify person fits using sticky-notes as a marker.
5. **Reflect:** reflect on the results together:
 - Who is missing?
 - What categories are overrepresented, and underrepresented?
 - Why is that the case?
 - Do we know stakeholders who do fall in these categories?
 - What could be done to involve unusual suspects of different categories better? Identify interventions or recommendations for each of the underrepresented categories.

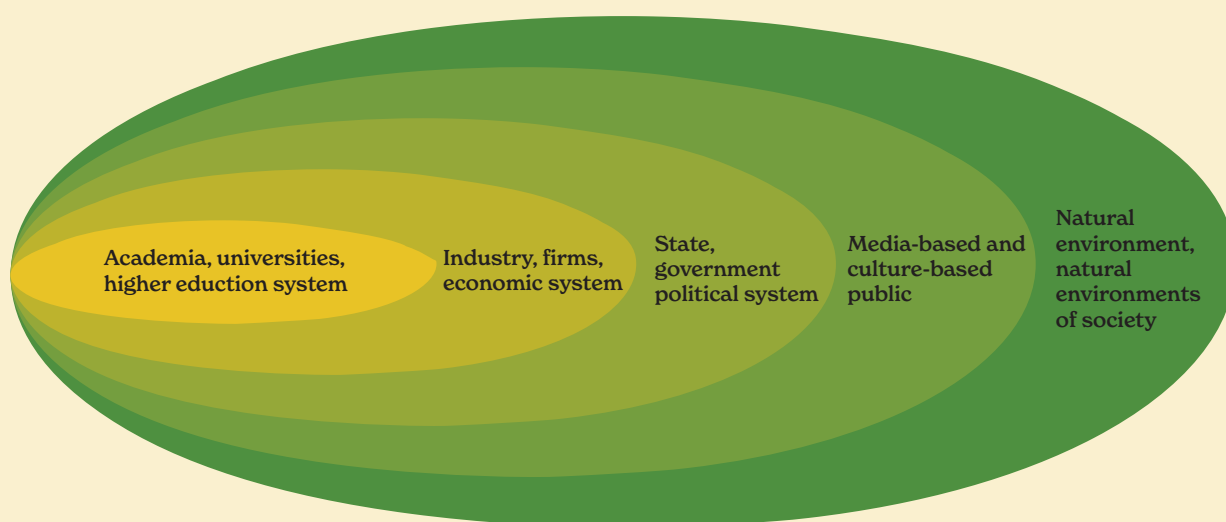
Got any tips?

The tool is designed for a live, on-site event format where participants self-identify with different categories. It may however be easily replicated in an online format through use of Whiteboard tools such as Miro

Use this tool as an ice-breaker with a new group of participants to start discussions on who's missing from the room.

Where to find more

Step 2 Tool F Unusual suspects



The quintuple helix model

EXAMPLE:

The unusual suspects tool was deployed as part of a workshop on inclusive co-production at The Nature of Cities Festival in Paris in Spring 2019. The results clearly highlight gaps in the engagement of different audiences (lack of representatives from the public sector), different demographics (lack of older people represented) and many other variables (lack of participation of people with special needs). These results were used by the event organisers for better planning of future events.



Source: www.connectingnature.eu

System boundaries

Strategic, tactical,
operational

Business model
canvas

Goals

Plan elements

Actor analysis

Unusual suspects

Structure

Visioning

Brainstorming

Align with SDGs

EM | Path approach

Wildcards

Activities

On goals

On principles

Reflect



STEP 3

Design activities

The challenge: **How to make it work?**

After setting goals, finding stakeholders to get involved, and planning, what to do when you actually meet? Not all goals can be reached through a regular office meeting. So what are your options?

The solution: **Find a method that fits your needs**

Co-production methods can help you to structure your activities. Choosing a specific method helps you to make the most out of co-production: some methods help you to think outside the box and come up with new ideas or approaches, some support team- or relationship- building, and others support decision-making processes. We have described a selection of methods for inspiration to design activities yourself.

The right tool(s):

- | | |
|--|---|
| G. Visioning –
for creating a shared future image | J. EM Path Approach –
for laying the groundwork |
| H. Brainstorming –
for generating new ideas
and solutions | K. Wildcards |
| I. Strategic alignment with the SDGs
– for embedding the project in the
institutional context | |

G. Visioning

What's this then?

Imagine what a (un-)desired future can look like as a shared starting point for identifying actions and solutions.



Visioning can help in **aligning** ideas by showing how different strategies can be part of one and the same long-term future image.

How exactly?

Visioning stimulates participants to develop a vision for a collective (un-)desired future. A good vision goes further than generally accepted truths and urges the group to reflect upon actions to take up today. It captures a shared understanding of a desired future, based on a shared understanding of persistent unsustainability. It is composed of two elements:

- Guiding principles that articulate the conditions for a desired future. These should include environmental and social principles, such as circular, nature-positive, just.
- Images that make these principles concrete for the specific context of the participants. The main point is that participants are triggered to go from general principles to concrete (imagined) reality.



Step-by-step

1. Prepare the visioning workshop by inviting different stakeholders, and deciding on system boundaries ([Tool A](#)), a timeframe for the future vision (20 years perhaps), and themes or sectors you expect to be relevant (e.g. entrepreneurship, mobility, education, social cohesion).

2. Persistent problems: Start the visioning workshop with introducing the subject, the system boundaries and discussing with the participants what issues they recognise within this system.

This is something you can also prepare in advance and validate and specify together with the group. The goal is to create a shared understanding of current unsustainability of the societal system.

3. Identifying solutions: Using the persistent problems as a starting point, brainstorm on what a desired future should look like. How can these issues be tackled in the future? What do people desire? And why? Facilitation should be focused on teasing out opinions of people, inviting responses from others, and, most importantly, asking for underlying motivations.

4. Principles: Next, the facilitator should guide the group in clustering these ideas and synthesize guiding principles for a future vision.

5. Images: Lastly, a creative approach should be selected to translate the principles in a more concrete story, such as drawing, storytelling, building, performing or crafting (e.g. LEGO®).

Got any tips?

- **Consider storytelling:** Ask participants what a person's day would look like in 2050? Describe it as a story or draw a storyboard to share with others.
- **Take an arts-based approach:** Supply arts and crafts materials and challenge participants to build or depict the future vision. Let others interpret what the visuals say, to enrich the outcomes even more.



Choosing for an arts-based approach makes workshops **open** for participants that are visual thinkers, such as children.

- **Split the party:** Divide the group in smaller subgroups, each approaching the visioning exercise from a different (thematical, sectoral, social) perspective. Share the different outcomes and discuss different and overlapping ideas.

Where to find more

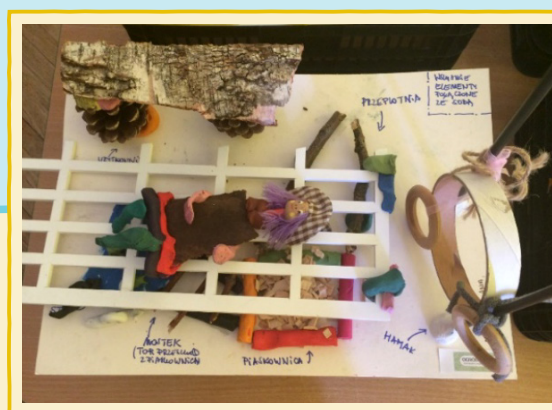
<https://transitionnetwork.org/wp-content/uploads/2016/09/Visioning-a-post-Transition-future.pdf>

EXAMPLE:

How Poznań did it:

Children envision their dream open garden in Poznań

In Poznań, children, teachers, parents and residents participated in envisioning workshops. They were asked for their opinion on the open garden and what attractions it should include. The participants exchanged ideas on what a fun open garden could look like. Participants, mostly children and parents, visualised their ideas as pictures and drawings. This method helped to identify the needs of its future users. The workshops really inspired the designer and architect who then used the presented ideas to create a conceptual design for the garden.



Source: City of Poznań

H. Idea generation & brainstorming

What's this then?

Generate creative ideas for designing a nature-based solution through creative thinking, clustering and combining ideas.

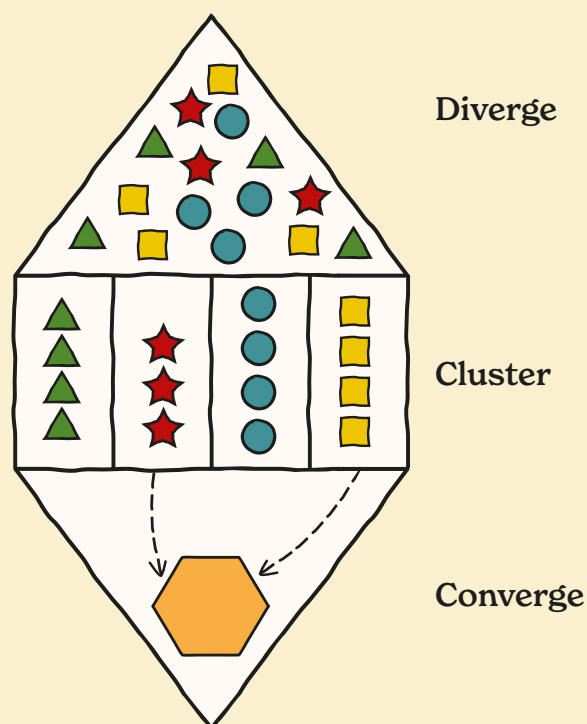
How exactly?

Brainstorming in a co-production workshop helps you to think of a large amount of creative solutions and design ideas for your nature-based solution. This is especially helpful in the design phase of your project.

Brainstorming often follows a three-step process, that are all done in co-production:

1. **Diverge** – generate a lot of ideas
2. **Cluster** – map out how ideas relate or differ
3. **Converge** – combine or select the ideas to include in the final design.

The three steps of creative idea generation processes, according to the creativity diamond by Marc Tassoul & Jan Buijs, 2005.





This process works best when four assumptions are met:

- **There's no wrong in brainstorm** – This is not the moment to criticise ideas. Discussing feasibility and practicality will come in a later stage. Create a safe space where all ideas are good enough. Like a good improv actor, don't say "yes, but..."; always say "yes, and..." This should lead to more and more innovative ideas.
- **The wilder the idea, the better!** – Innovation is easiest to find on unknown ground. So make sure to encourage off-the-beaten-path ideas or problem framings. (What if money didn't exist? What if it is on an island? What if nobody had relatives?)
- **Improve and combine** – Be sure to think along with ideas that others added to the discussion by improving them and combine them with new ideas.
- **Quantity, not quality** – Try to think of as many ideas as possible in a short time, also "bad" ideas. This will help the group to start associating and prevent people from criticising ideas.

Step-by-step

Brainstorming is often done in a workshop setting, led by a facilitator, with a small group of participants who are all writing on flip-overs and sticky notes simultaneously.

1. To prepare brainstorming session, define the problem you want to address and reformulate it to one "how to" question. For example: How to make our urban garden usable for more citizens simultaneously? Or: How to make the park more inviting for schools?
2. Select 4–8 participants and invite them to the workshop, telling them the subject and some background information. Also include the four brainstorming rules.
3. Start by introducing the set-up of the meeting, the principles of brainstorming, and lastly the central question. You can also add a creative check-in question to warm up, e.g. if you would be an animal, what would it be?

4. Put down enough sticky notes, markers and start the brainstorming session by writing the central question on a flip-over or whiteboard.
5. Ask provocative questions to the group and write down the responses on a flip chart. Let everyone add input themselves as well. Make sure to cluster ideas that are alike or make their relation explicit.
6. Once a large number of ideas has been generated, the group should make a selection of the most promising and interesting ideas. Usually, some criteria are used in the selection process, which should be established with the group.

Tips & Tricks

- **Creative space:** Choose a different location to inspire people: e.g. in a garden, library, arts centre, or other cultural location. Being in a different place helps you to think differently.
- **Start in silence:** Ask people to first write down ideas on sticky notes in silence. Share ideas by going round, respond to one another and cluster ideas directly. Starting in silence helps to make sure everyone speaks up, instead of favouring the louder voices.
- **Pass it on:** Introduce your main design question to the group. Do this in a provocative way. Everyone writes down their ideas on a piece of paper and passes it along to one another who responds to the first idea. In this way different ideas are elaborated and enriched.
- **Drawing and arts:** Ask people to not write down ideas but draw them or make design with arts and crafts supplies. This makes it possible for people to see different ideas in one visual design idea.



Make brainstorm **inclusive** by inviting people that normally would not come to these meetings.

Make outcomes **empowering** by involving the participants in how to involve the results of the brainstorm in the final design.

EXAMPLE:

How Malaga (Spain) did it:

Malaga is working on the redevelopment of the Lagunillas neighbourhood, which is part of the historic centre of the city. The focus is put on increasing green spaces, economic activities and social cohesion. One aspect is the development of the Yucas urban garden.

Four co-productive sessions have been organised where brainstorming played a role to generate ideas for actions, coordinating the process, and co-designing the space.

These sessions were hosted at the Observatory of Environment of Malaga (OMAU) and in the Yucas urban garden itself. Both these locations are inspiring and helped to set the scene for creative association and brainstorming.



Source: City of Malaga

Where to find more

[Delft design guide](#) for more information on brainstorming as well as design thinking and other idea generation exercises.

I. Strategic Alignment with the SDGs

What's this then?

Aligning nature-based solutions with wider local and global priorities is an effective way to build the case for nature-based solutions. The UN Sustainable Development Goals provide a recognizable structure for this which also helps you to enhance cross-departmental and interdisciplinary working.

How exactly?

Identifying shared goals and interests of different departments in your organisation provides a starting base for different departments to work together. The UN Sustainable Development Goals represent a globally agreed framework for achieving significant change by 2030. In parallel, the EU is developing an agreed evaluation framework for measuring the impact of nature-based solutions that adopts 12 wide-ranging priorities.

By mapping for both frameworks how different project parts relate to the different elements, an overview of shared goals and interest can be created. Both of these frameworks are often adopted at both the local, regional or national level which help you in identifying shared interest and opportunities for collaboration at other governance levels as well.



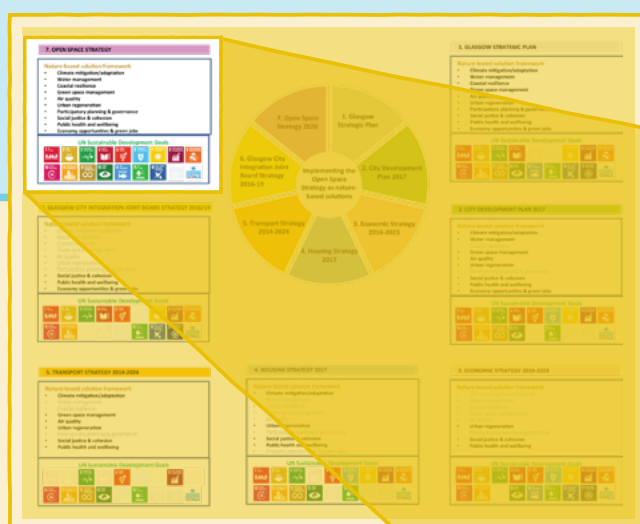
EXAMPLE:

How Glasgow did it:

Strategic Alignment with the SDGs

In Glasgow, the Connecting Nature team has used the Strategic Alignment process outlined in this guide to map the connections between their Open Space Strategy (in which nature-based solutions are developed on a city scale) and other projects and strategic priorities. This supported the process of building the collaborations needed to deliver nature-based solutions across the city.

A shared interest could be identified by marking what SDGs different strategies of the cities were working on, and showing how these were also included in the Open Space Strategy.



7. OPEN SPACE STRATEGY

Nature-based solution framework

- Climate mitigation/adaptation
- Water management
- Coastal resilience
- Green space management
- Air quality
- Urban regeneration
- Participatory planning & governance
- Social justice & cohesion
- Public health and wellbeing
- Economy opportunities & green jobs

UN Sustainable Development Goals



Step-by-step

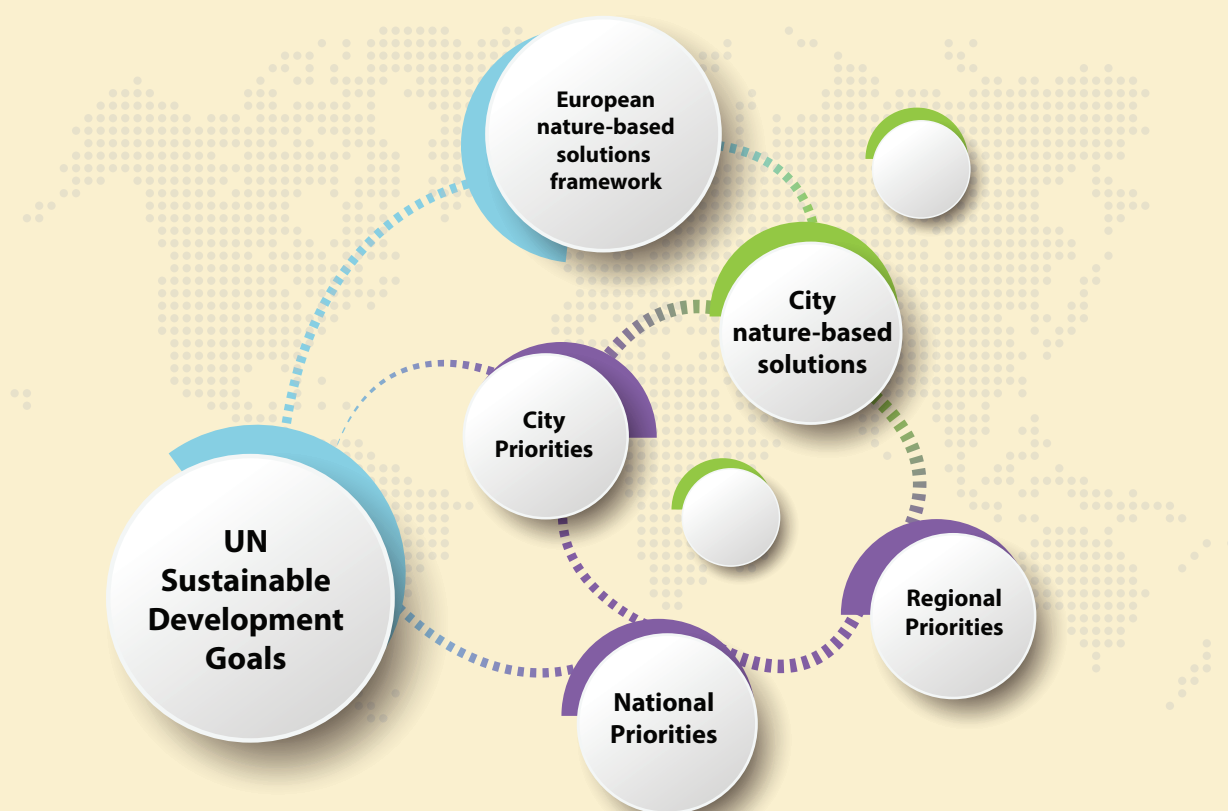
1. Identify the home of your project within the city departmental structure and which other departments are needed for successful implementation.
2. Identify the legal framework within which the project will be implemented, for example by being formally integrated into the city spatial plan or climate resilience plan.
3. Identify the city strategic goals at various scales (local/city/national/larger) that the exemplar helps to achieve (you can use the worksheet to help with this see the appendix).

Tips & Tricks

- This tool is especially helpful when working on strategic goals, building partnerships, or trying to align goals from different departments.
- Make sure to first agree upon the interpretation of the Sustainable Development Goals, before discussing the shared value they have for different projects.
- Make use of national or European networks that focus on building networks on the Sustainable Development Goals. This introduces opportunities for collaborating with unexpected partners.

Where to find more

- STEP 4 TOOL I Worksheet for strategic alignment with the SDGs
- Frantzeskaki N, Vandergert P, Connop S, Schipper K, Zwierzchowska I, Collier M, Lodder M (2020). Examining the policy needs for implementing nature-based solutions in cities: Findings from city-wide transdisciplinary experiences in Glasgow (UK), Genk (Belgium) and Poznań (Poland). Land Use Policy, 96.
<https://doi.org/10.1016/j.landusepol.2020.104688>
- United Nations. Transforming our world: the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals
<https://sdgs.un.org/goals>
- United Nations. The New Urban Agenda.
<https://habitat3.org/the-new-urban-agenda/>



Show how priorities at different levels are related. Source: Making the case for nature-based solutions by Paula Vandergert, Petrut Gherase & Gerardo González.

J. The EM|Path Approach

What's this then?

The EM|Path Approach (sometimes referred to as 'The Sarajevo Process') is a co-productive, arts-based engagement process that aims to (re-)connect people with nature in cities through reflection. It can support your project in preparing the grounds for collaboration and working on nature-based solutions.

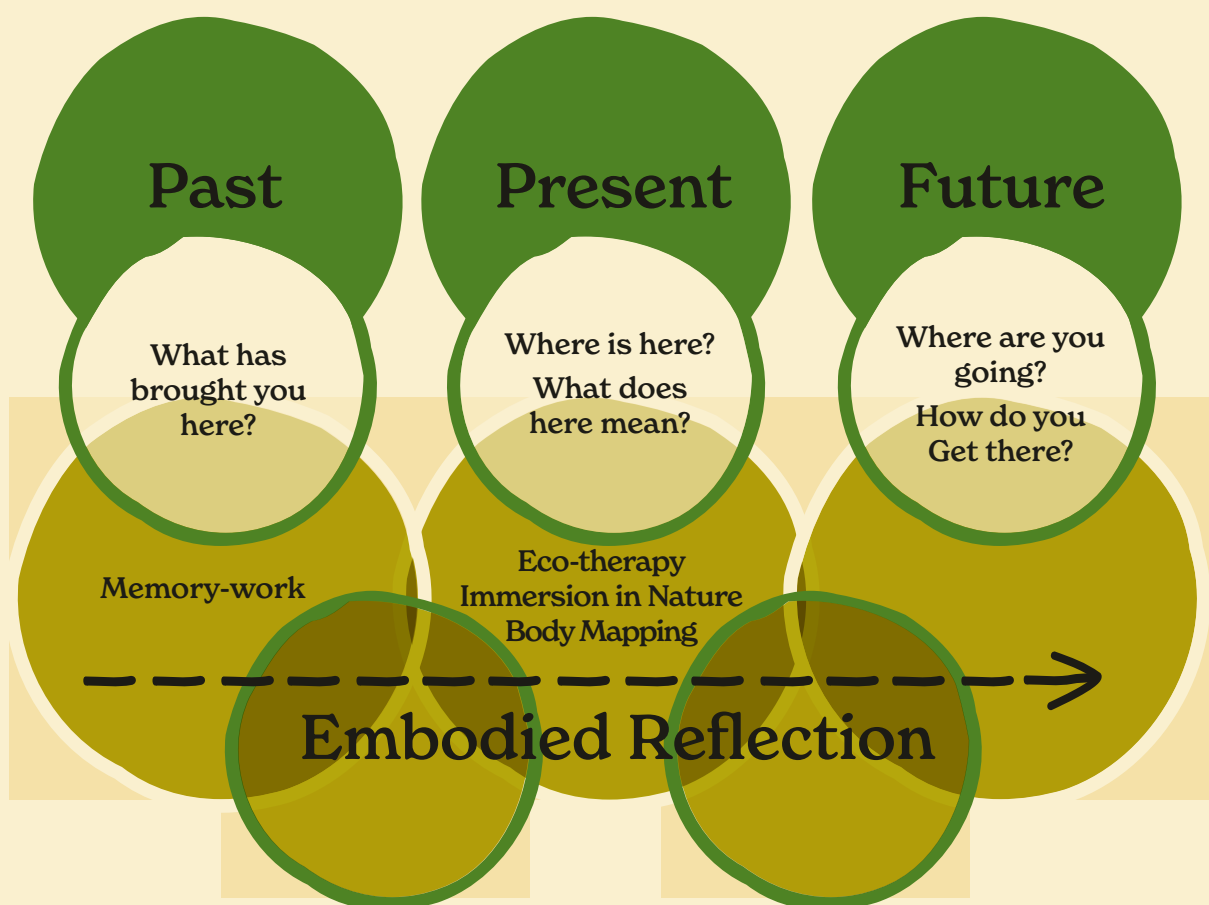
How exactly?

The EM|Path Approach consists of a collection of creative methods that let participants explore and reflect on their connection(s) with nature at different points in time: the past, present, and the future. The four central methods are: *Memory work*, *Immersion in Nature*, *Body-mapping* and *Eco-therapy practice*. Cutting across all four methods is the practice of embodied reflection.

Combined in a multiple day program, these methods can result in:

- **Identifying local values** – through sharing how nature is and has been valued in a local community (by members of that community), values can be distinguished that can help guide and be part of new nature-based solutions in the city.
- **Embedding the local narrative in a project** – through acknowledging the value of nature and nature-based solutions within the local context, a foundation is created for identifying the most meaningful nature-based solution for a specific local community.

- **Building new relationships** – the approach helps define a shared ground and build strong bonds between people. This enhances collaboration when working in interdisciplinary teams or helps to build a foundation for local community engagement.
- **Imagining and exploring new ways of living and working with nature** – through interactions with nature, participants can explore their changing relationship with and in nature over the past and present and consider the future possibilities and directions of nature-based solutions.



The Em|Path Approach consists of reflection processes that focus on the past, the present and the future, facilitated in four methods.

Step-by-step

1. **Preproduction phase:** The EM|Path Approach should be designed to fit your local context. In the preproduction phase, participants are selected, the program is set up, and locations are chosen. The EM|Path team¹² can offer help in preparing a process that fits with your goals.

Make sure to include the methods below in the final programme.

2. **Involve local artists** (such as illustrators or poets) to invite and support participants to get creative. Local artists can support the creative writing and bodymapping process, and also help in documenting the results (e.g. the values found, the local narrative) of the EM|Path process in a creative way.



Involving local artists increases the **legitimacy** of the arts-based process: they show that art is the central method of the process.

3. **Carry out the program.** This can be a multiple day programme or shorter, and works best when guided by an external facilitator.
4. **Evaluate** and share the outcomes: make sure to share the outcomes of the EM|Path process with others, especially the art created by local artists. Make sure to evaluate what the most important insights of the process where, using step 4 of this guidebook.

Tips & Tricks



- Organising the program in the local language increases the **openness** of the process.
- Read through the reflection sections for more elaborate reflections on the EM|Path approach.

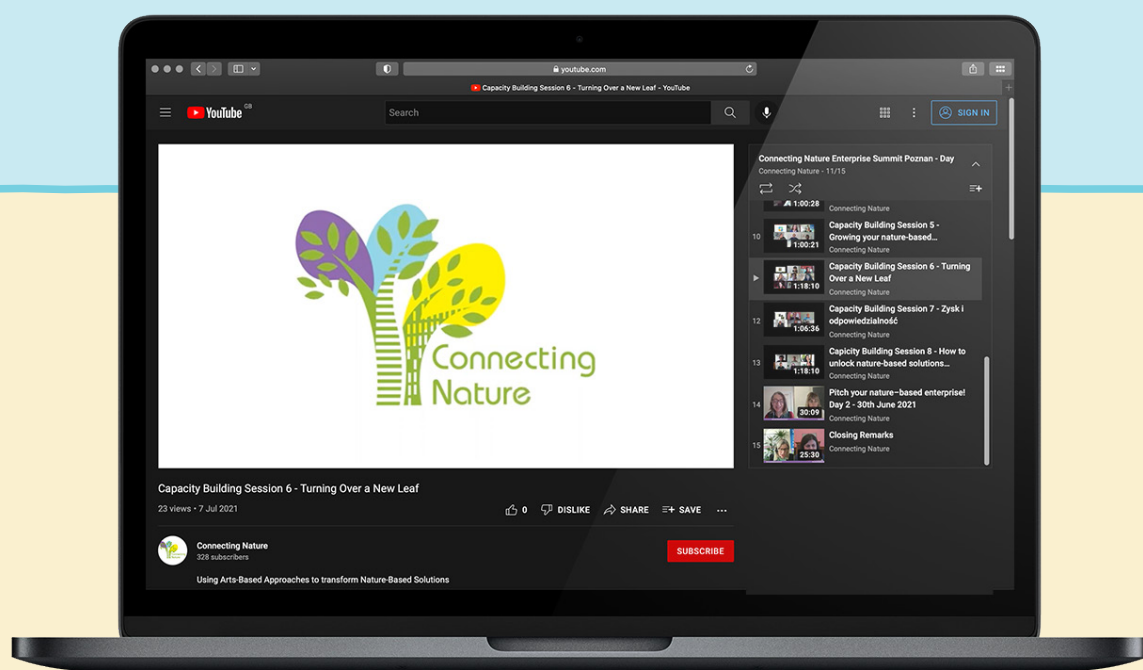
¹² www.empathway.org

EXAMPLE:

The EM|Path Approach has been implemented, under the name of “The Sarajevo Process” in Sarajevo (Bosnia and Herzegovina), Nicosia (Cyprus) and A Coruña (Spain). All cities designed a made-to-measure programme and focussed on different reflections.

Hear more about the experiences in Nicosia and A Coruña in this Video:

<https://youtu.be/ciuwuJCdWks>



Where to find more

<https://www.empathway.org/the-sarajevo-process>

Embodied reflection

Embodied reflection focuses on reflecting on experiences based on physical experiences, images, thoughts, and feelings. This is a more grounded approach of reflection and offers an alternative to more rational approaches.

In the EM|Path Approach, embodied reflection is used in all other methods to stimulate participants to stay grounded in this series of reflective exercises, and supports them to interpret the physical experiences they have during the different exercises.



Source: City of A Coruña

Source: City of Nicosia



Memory work

Memory work focusses on sharing memories with one another, that relate to a shared experience, such as “interacting with Nature”. Using creative writing and adding visuals, invites participants to break loose from the efficient and pragmatic approach and helps people to relive the memory.

Memories teach us about who we are. Through sharing and together analysing what these stories share and say, a better understanding of the individual and shared value is created.

Step by step:

1. Ask participants to bring a picture that shows a memory they have of themselves in nature to the workshop.
2. Ask people to reflect on this experience, through creative writing. This can be both storytelling and using poetry.
3. Invite participant to share if they want.
4. Reflect as a group on this experience.
5. Be sure to start and finish with embodied reflection.
6. Consider other shared themes for memory work such as “summer”, “family”, “my neighbourhood”, etc.

Immersion in Nature

Immersion in nature frames a visit of sites in nature as an opportunity to fully experience the value of nature, using all of our senses. Explicitly registering what we hear, feel, smell, see or taste can shed new light on what the value of nature is.

This is an exercise that works best with in collaboration with an experienced facilitator.

Step by step:

1. Choose one or more location(s) in nature to visit. Site selection can be based on what the site has to offer, whether it relates to the nature-based solutions you are working, whether it is important for the local community etc.
2. Invite people to stand on the site, close their eyes. Ask them to explicitly hear, feel, smell, see, and taste the environment. Make sure to take the time to focus on each of these senses separately.
3. Reflect on experiences and share what you observe.
4. Be sure to finish with **embodied reflection**.

Tips & tricks:

- The experience can be enriched by adding a short meditation.
- Be sure to invite people to stay longer, walk around look around, smell, feel and breath.

Source: City of Nicosia





Source: City of A Coruña



Source: City of Nicosia

Body mapping in eco-therapy practice

Body mapping is a visual technique that is used to collect information from participants about their bodily experiences (Coetzee *et. al*, 2019). This arts-based method invites participants to visualise an experience, as a different way of reflection and storytelling.

Eco-therapy is an eco-system service that builds upon the ability of interaction with nature to enhance healing and personal growth (Summers & Vivian, 2018). This potential is added to the exercise by using memories of being in nature, reflecting while being in nature, and collecting materials from nature. This also adds to the (re-)connection to nature.

Step by step:

1. Invite people to think of a memory of being in nature. This can be the memory used in the memory work exercise, or a different one.
2. Ask people to go outside and intuitively collect materials to work with. This can be combined with the immersion in nature exercise. The experience can be enriched by adding a short meditation.
3. Provide people with arts and crafts materials and drawing paper. It is optional to print a body shape on it. As people to visualise their bodily experience.
4. Invite people to present their images and explain what they visualised. Be sure to include **embodied reflection** (the last tool).

Tips & tricks:

- Keep the assignment as open as you like: sometimes people will need more guidance. Other times, letting people interpret assignments by themselves will enhance creativity.





K. Wildcards

What's this then?

A wildcard workshop helps to test the resilience and vulnerability of the design, planning and implementation of your nature-based solution scenarios. It can enhance participants' ability to reflect, open up their minds to new action pathways, and deepen their understanding of a future vision or problem analysis.

How exactly?

Wildcards are events with a very high impact and very low chance to occur that force people to consider different benefits and disadvantages of their solution. They describe developments on micro or macro scales such as a flooding, a local child dying from air pollution, or invasive species damaging office buildings. There are chosen because of their potentially high impact on an initiative.

Central question in such a workshop is: how do these disruptions challenge the planning and impact of your nature-based solution?

Among others, wildcards help:

- ... in the development of a resilient strategy
- ... to prepare and respond to disruptive developments.
- ... to increase the ability to reflect, especially when taken up in the planning cycles of an organisation.
- ... to keep an eye on societal and political trends (antenna).

Step-by-step

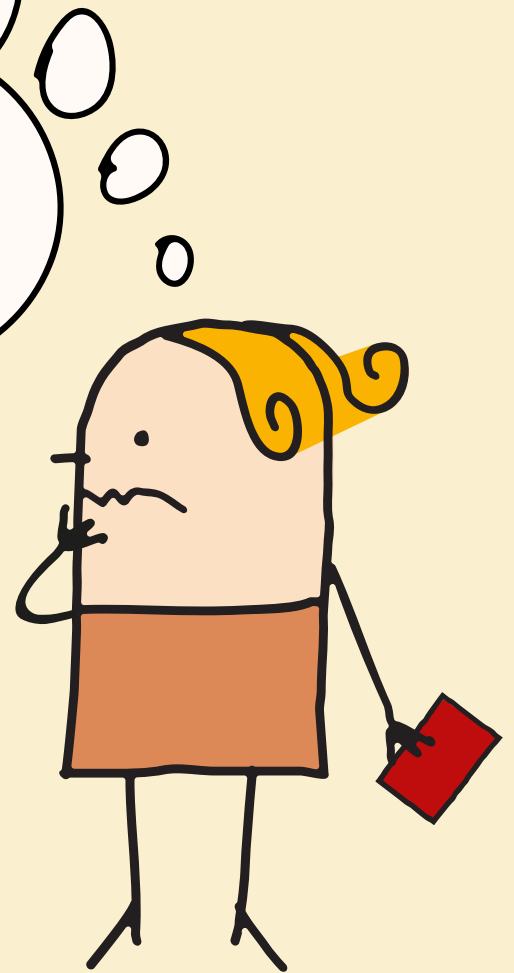
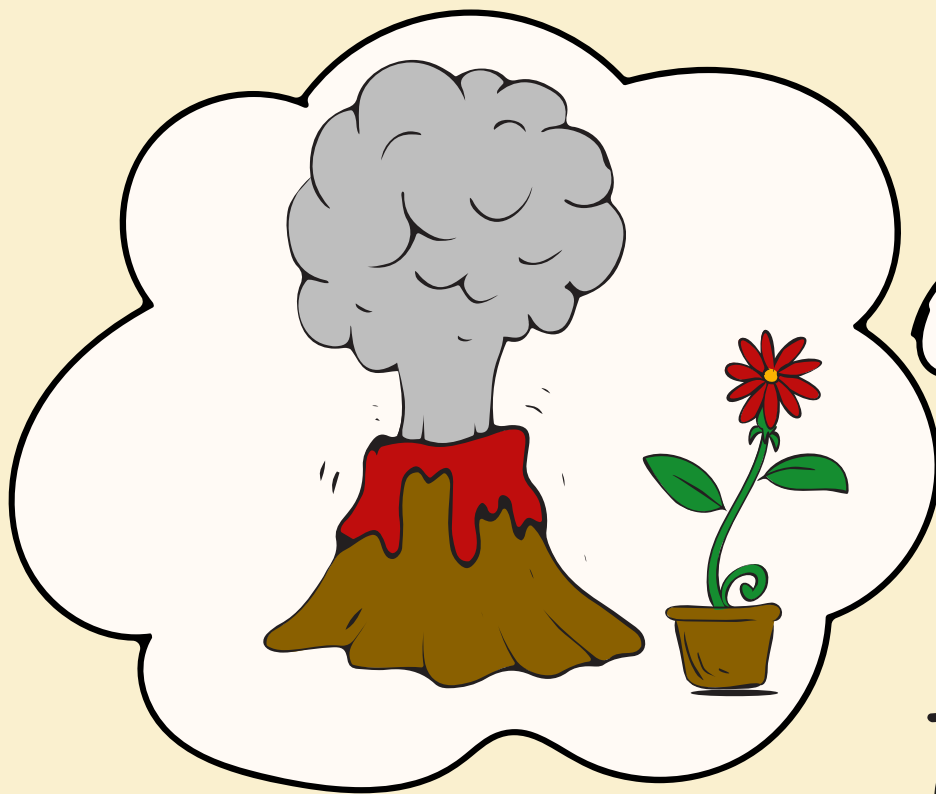
1. Prepare a list of wildcard events and print them out on separate paper cards
2. Start the wildcard workshop with introducing the nature-based solution and what the current situation and future ambitions are.
3. Shuffle your wildcard deck, draw a card, read it out loud and discuss:
 - a. How would you respond to the wildcard when it happens (today, or when the nature-based solution is implemented)?
 - b. How would this impact the nature-based solution (consider both positive and negative scenarios)?
 - c. What does this say about the resilience or vulnerability of the current design?
 - d. Propose a change in the design.
4. Be sure to conclude the discussion by reflecting on why we are working on nature-based solutions.

Tips and tricks

- Good wildcards connect to the ongoing discussion. It can help to prepare wildcards with a smaller group of stakeholders.

Where to find more

- STEP 3 TOOL K Wildcards



Wildcards help you to consider the resilience of your solutions in different circumstances, and help you to think outside the box.

System boundaries

Strategic, tactical,
operational

Business model
canvas

Goals

Plan elements

Actor analysis

Unusual suspects

Structure

Visioning

Brainstorming

Align with SDGs

EM | Path approach

Wildcards

Activities

On goals

On principles

Reflect





STEP 4

Reflect

The challenge: **How to reach your goals?**

As you know by now: co-production processes are never set in stone: they are intended to be open to new ideas, and adaptable to new challenges. But when a process is designed to be open to changes, how to make sure they deliver on relevant results?

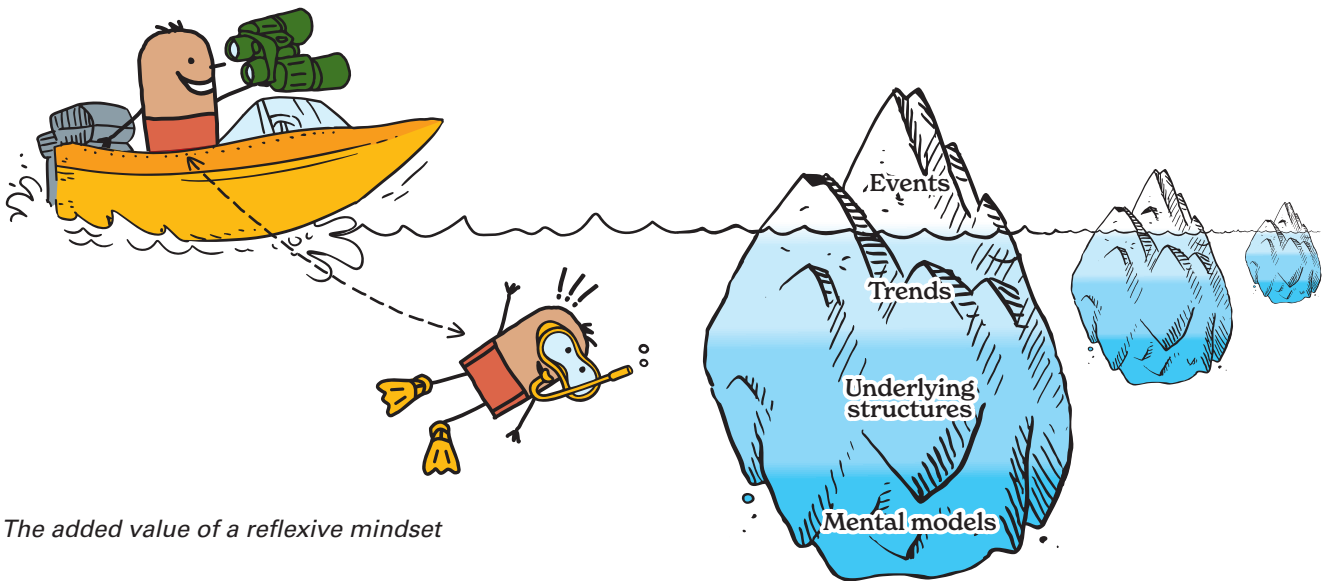
The solution: **Reflect**

The best way to keep track of the goals you are aiming for is to make time to reflect on the process and the outcomes. This helps you to reformulate goals, when necessary, keep track of lessons learned, and adapt the process to changing needs.

This should be done regularly and especially during the different steps of working on your project. Documenting lessons learned, and decisions made because of them, helps you to think about the bigger picture more often, and makes it easier to communicate insights with others. Reflection can be done individually but works best when done co-productively.

The right tool:

Reflect on the goals, the process, and the outcomes, using the design principles.



Reflection is about thinking about your experiences in order to gain a deeper understanding, and capturing learnings on a different level.



L. Reflect on the goals, the process, and the outcomes, using the design principles

What's this then?

Use the design principles for co-production to structure your reflection process.

How exactly?

The design principles for co-production, as introduced in chapter 2, highlight the characteristics of a successful co-production process and its outcomes. Asking yourself to what extent these principles can be recognised in your project so far, helps to zoom out: Instead of evaluating the number of participants, or the extent to which the planning is met, think about how you secured inclusivity, whether results are relevant for policy and planning, and what lessons learned relate to your initial goals.



Step-by-step

- 1. Make a plan:** At the beginning of your project, make a plan for when to take time for reflection, and with whom. Do you want to do this at the start, halfway and at the end, or every few months? Do you want to reflect after certain important events? Mark your calendar!
- 2. Choose an approach:** Reflection can occur without any preparation or using a more structured approach as Reflexive Monitoring¹³. A third option is to design a format yourself based on the subjects that are important for your process. See the template for guiding questions, based on the design principles as a starting base.
- 3. Set up a meeting:** Start reflecting with a fixed team. Make sure to take notes to revisit next time.

Tips and tricks

- Reflection asks for an open conversation: Start with a check in to level with your team. Reflection works better when people are not distracted by stress, personal issues, or other projects. Consult the slide deck on organisational coaching for practical ideas on managing self during stressful times. Consider investing in interpersonal communication skills.
- Invest time to train skills for listening and giving feedback, to improve the reflection sessions. Consult the slide deck on organisational coaching for practical ideas.
- Invest time in reflecting on internal collaboration and communication styles as well. Consult the slide deck on organisational coaching for practical ideas.

Where to find more

- Step 4 Tool L1 Guiding questions for reflection.
- [**The Reflexive Monitoring guidebook.**](#)

¹³ See the guidebook on Reflexive Monitoring for more information



CASE STUDY:

Reflecting on the EM|Path Approach in A Coruña

The EM|Path Approach is a co-productive, arts-based engagement process that aims to (re)connect people with nature in cities. This approach to engagement and (re)connection has been co-produced with cities in the Connecting Nature project and builds upon the principles of co-production.

Characterised by meaningful co-production centred around the lived experiences of participants, the EM|Path approach is designed to be open, reflexive, and flexible. The approach recognises and is framed by the power of creativity and creative activity and aims to establish the conditions for deeper care, understanding, and intimacy; in so doing, the EM|Path approach works to create the foundation for more meaningful co-production and engagement towards collective goals and objectives for a more sustainable future.

The EM|Path Approach consists of a collection of creative methods that have been brought together as a way for participants to explore and reflect on their connection(s) with nature at different points in time – namely, the past, present, and the future. The four central methods are: memory work, immersion in nature, body-mapping and eco-therapy practice¹⁴. Cutting across all four methods is the practice of embodied reflection.

14 See the method descriptions in [Tool J](#)

EXAMPLE:**Nostalgia for Nature –
The EM|Path Approach in A Coruña, Spain**

The EM|Path approach in A Coruña, Spain, was designed and delivered as two separate, but interconnected, activities in June 2021, with twelve local citizens involved in the municipal Urban Gardens. Across the process, the participants were supported by two artists – a poet and an illustrator – who were invited to make a creative response, adding another layer. The local artists also became central to the facilitation of the exercise, bringing their own expertise and cultural knowledge to the process. The sessions were carried out in Spanish and Galician, the local languages. The outputs from both days were then exhibited.



Possible outcomes of the EM|Path Approach

The EM|Path Approach has been used in cities working on nature-based solutions to prepare the ground for working on complex nature-based solutions (to date, the team have worked with Sarajevo, Nicosia, and A Coruña). The work with cities to date has demonstrated that application of this kind of co-production process with a group of people can deliver on:

- **Identifying local values** – through sharing how nature is, and has been valued in a local community (by members of that community), themes or values can be distinguished that can help guide and be part of new nature-based solutions in the city.
- **Building new relationships** – the approach helps define shared ground and build strong bonds between people. This enhances collaboration when working in interdisciplinary teams, or helps to build a foundation for local community engagement.
- **Embedding the local narrative in a project** – through sharing, acknowledging and connecting stories, the value of nature and nature-based solutions within the local context is explored, and becomes a foundation on which to identify the most appropriate and meaningful nature-based solution for the community.
- **Imagining and exploring new ways of living and working with nature** – through interactions with nature, participants can explore their changing relationship with and in nature over the past and present and consider the future possibilities and directions of nature-based solutions.

An open and flexible approach

The EM|Path approach can be undertaken by groups of people seeking to prepare the ground for change. It is co-designed with key stakeholders; as such, it can be applied as either an internal or an external engagement process, decided at the pre-production process stage of the approach through co-productive methods.

In addition, participants, irrespective of location, have often share lived experiences of the COVID-19 pandemic, providing an additional layer for reflecting on the role of nature in promoting and supporting health and well-being.

To date, the main examples of its use have been in terms of human/nature relationships in urban environments, but the approach is open and flexible, with a view that it can be applied to explore a wide breadth of issues that are deemed important at the community level.

How did they Reflect on the EM|Path Approach in A Coruña?

After carrying out the EM|Path approach, the core team of the A Coruña Municipality, reflected on their experience of the approach via:

- A.** Personal reflection, by filling in a reflection template¹⁵ with guiding questions;
- B.** Peer-to-peer learning, during an interactive group discussion with Connecting Nature project partners, and other cities (i.e. Nicosia and Sarajevo) who have experienced the approach; and
- C.** Coaching, in conversation with the experts on the EM|Path approach.

All three reflection elements above considered the goals, the approach itself and the outcomes. The insights from these reflecting activities can be found in the ready-to-use materials for this guidebook.

Curious to hear the reflections on the A Coruña EM|Path approach

- Reflections on EM|Path approach in A Coruña

13 See [Step 4 Tool L1 Guiding questions for reflection] for an example of such a template





Recap

Co-production seems complex at first but once you give it some time, it will intuitively become part of your way of working.

Six key things to remember about co-production:



1. **Inclusivity:** Make sure all actors are included on an equal basis. Everyone brings their own perspectives and experiences and so they should all be able to take part in meetings and activities to come to better outcomes.



2. **Openness:** Get creative in setting up meetings to make sure participants feel and invited to open up! Introducing new ideas, locations, and approaches will help participants to think out loud and share innovative ideas. Invest in communication and facilitation skills to come to a welcoming and transparent approach.



3. **Legitimacy:** Make sure the process can be trusted by testing statements and assumptions, building on credible sources, and asking experts to help. It is important to reserve time to reflect on your own assumptions as well and adapt your practice as you go.



4. **Actionable:** Think about the outcomes before your start to make sure they can be put to practice. How to make your outcomes concrete? What are you hoping to *co-produce*?



5. **Empowering:** Consider ways to empower participants by finding shared interests, sharing responsibilities, opening up decision making processes, and building towards a shared ownership of the project.



6. **Aligning:** Use co-production as an integral approach to govern the project from the start. This will help you in breaking down interdepartmental silos, building strategic support from different stakeholders and solutions that align with strategic agendas.

For more information on Connecting Nature, visit:

www.connectingnature.eu

Connecting Nature's YouTube channel:

**[https://www.youtube.com/
channel/UCI24BLyUnvxq7aehGu-XMKw/videos](https://www.youtube.com/channel/UCI24BLyUnvxq7aehGu-XMKw/videos)**



Connecting Nature is funded by the
Horizon 2020 Framework Programme of the
European Union Grant Agreement No 730222

drift for transition

ISBN: 978-1-7397420-1-0

Acknowledgements

This guidebook is the result of a co-production process between research partners and European cities within the scope of the Connecting Nature project. Connecting Nature aims to support the scaling of nature-based solutions in cities and to position Europe as a global leader in the innovation and implementation of those solutions by co-creating a toolkit for cities.

- Avelino, F. (2011) Power in transition. *Empowering discourses on sustainability transitions*. Rotterdam: Erasmus University: <https://repub.eur.nl/pub/30663>
- Coetzee B., Roomaney R., Willis N., Kagee A. (2019) Body Mapping in Research. In: Liamputtong P. (eds) *Handbook of Research Methods in Health Social Sciences*. Springer, Singapore. https://doi.org/10.1007/978-981-10-5251-4_3
- Connop, S., Vandergert, P., Eisenberg, B., Collier, M. J., Nash, C., Clough, J., & Newport, D. (2016). Renaturing cities using a regionally-focused biodiversity-led multifunctional benefits approach to urban green infrastructure. *Environmental Science & Policy*, 62, 99–111. <https://doi.org/10.1016/J.ENVSCI.2016.01.013>
- Cowling, R. M., Egoh, B., Knight, A. T., O'Farrell, P. J., Reyers, B., Rouget, M., ... & Wilhelm-Rechman, A. (2008). An operational model for mainstreaming ecosystem services for implementation. *Proceedings of the National Academy of Sciences*, 105(28), 9483-9488.
- Devolder, S., & Block, T. (2015). Transition thinking incorporated: towards a new discussion framework on sustainable urban projects. *Sustainability*, 7(3), 3269–3289.
- EM|Path, 2022, *The Sarajevo Process*, retrieved from <https://www.empathway.org/the-sarajevo-process> at 25 February 2022
- Frantzeskaki, N., & Kabisch, N. (2016). Designing a knowledge co-production operating space for urban environmental governance – Lessons from Rotterdam, Netherlands and Berlin, Germany. *Environmental Science & Policy*, 62, 90–98.
- Frantzeskaki, N., Tilie, N. (2014). The Dynamics of Urban Ecosystem Governance in Rotterdam, The Netherlands. *AMBIO* 43, 542–555 <https://doi.org/10.1007/s13280-014-0512-0>
- Frantzeskaki, N. (2019). Seven lessons for planning nature-based solutions in cities. *Environmental Science & Policy*, 93, 101–111. <https://doi.org/10.1016/J.ENVSCI.2018.12.033>
- Frantzeskaki N, Vandergert P, Connop S, Schipper K, Zwierchowska I, Collier M, Lodder M (2020). Examining the policy needs for implementing nature-based solutions in cities: Findings from city-wide transdisciplinary experiences in Glasgow (UK), Genk (Belgium) and Poznań (Poland). *Land Use Policy*, 96. <https://doi.org/10.1016/j.landusepol.2020.104688>

- Harris, J., Barnes, A., Foden, M., Kidd, E., Hewitt, C., Warner-Southwell, B., Ward, E., Weston, R. (2019). Harris Barnes Evaluating Co-production CoCreate July 2019. 10.15131/shef.data.8948957.v1
- Hölscher, K., Wittmayer, J. M., Avelino, F., Giezen, M. (2019). Opening up the transition arena: An analysis of (dis)empowerment of civil society actors in transition management in cities. *Technological Forecasting and Social Change*, 145, 76–185.
- Kabisch, N., van den Bosch, M., & Laforteza, R. (2017). The health benefits of nature-based solutions to urbanization challenges for children and the elderly – A systematic review. *Environmental research*, 159, 362–373.
- Keune, H., Dendoncker, N., Popa, F., Sander, J., Kampelmann, S., Boeraeve, F., ... & De Blust, G. (2015). Emerging ecosystem services governance issues in the Belgium ecosystem services community of practice. *Ecosystem services*, 16, 212–219.
- Loorbach, D. (2010). Transition Management for Sustainable Development: A Prescriptive, Complexity-Based Governance Framework, Governance: An International Journal of Policy, Administration, and Institutions, 23:1,161 – 183.
- Nel, J. L., Roux, D. J., Driver, A., Hill, L., Maherry, A. C., Snaddon, K., ... & Reyers, B. (2016). Knowledge coproduction and boundary work to promote implementation of conservation plans. *Conservation Biology*, 30(1), 176–188.
- Nesshöver, C., Assmuth, T., Irvine, K. N., Rusch, G. M., Waylen, K. A., Delbaere, B., ... & Krauze, K. (2017). The science, policy and practice of nature-based solutions: An interdisciplinary perspective. *Science of the Total Environment*, 579, 1215–1227.
- Roorda, C., Wittmayer, J., Henneman, P., van Steenberghe, F., Frantzeskaki, N. and Loorbach, D. (2014). *Transition Management in the Urban Context. Guidance manual*. Rotterdam: Drift, Erasmus University Rotterdam.
- Sekulova, F., & Anguelovski, I. (2017). *The Governance and Politics of Nature-Based Solutions*. Deliverable 1.3: Part VII. NATURVATION project. Retrieved from https://naturvation.eu/sites/default/files/news/files/naturvation_the_governance_and_politics_of_naturebased_solutions.pdf
- Silvestri, G., Wittmayer, J., Geus, de, T. 2020, Workbook for urban Transition makers, retrieved from: https://www.citiesoftomorrow.eu/sites/default/files/documents/TOMORROW_workbook_Web.pdf
- Summer, J.K., Vivian, D.N., 2018, *Eco-therapy – A forgotten Eco-system service: A review*, Frontiers in Psychology <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6085576/>
- Marc Tassoul and Jan Buijs (2005). Clustering, from diverging to converging in CPS process.

- 
- United Nations. *Transforming our world: the 2030 Agenda for Sustainable Development and the 17 Sustainable Development Goals*
<https://sdgs.un.org/goals>
 - United Nations. *The New Urban Agenda*.
<https://habitat3.org/the-new-urban-agenda/>
 - Vingola, R., Locatelli, B., Martinez, C., & Imbach, P. (2009). Ecosystem-based adaptation to climate change: what role for policy-makers, society and scientists?. *Mitigation and adaptation strategies for global change*, 14(8), 691. <https://doi.org/10.1007/s11027-009-9193-6>. P694
 - Wittmayer, J., Steenbergen, F., Quist, J., Loorbach, D., Hoogland, C. (2011). The Community Arena: A co-creation tool for sustainable behaviour by local communities. InContext, Deliverable 4.1 – appendix

The background of the entire page is a close-up photograph of a green leaf. A line of ants is visible on the left side of the leaf, moving upwards. On the right side, there are several stylized, colorful leaf shapes in yellow, green, blue, and purple, scattered across the background. A dark green horizontal band is positioned across the middle of the image, containing the text.

For more information on
Connecting Nature, visit:
www.connectingnature.eu



Bringing Cities to Life,
Bringing Life into Cities