



## URBAN GreenUP

### D1.11 - Co-creation toolkit

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### How to use this document

Involving residents, businesses and other groups in society in the development and implementation of your Renaturing Urban Plan will greatly improve its chances of success. Use this document to plan out how you will do this. This document offers a clear, easy-to-follow approach to preparing a co-creation plan to support your Renaturing Urban Plan (RUP).

To help you prepare your plan, this document offers two main resources:

1. A **Template Co-creation Plan** that you can complete to produce your co-creation plan
2. A **Co-creation Toolkit**, with advice and examples to support your co-creation plan.

To prepare an effective co-creation plan, we suggest you first review the template, then look through the toolkit, then begin filling out the template with your team. Once you've got an early draft, it's a good idea to meet with any experienced engagement practitioners or specialist engagement teams in your organisation to discuss this draft and get their ideas and inputs.



## 1 Template co-creation plan

This template takes you through a few very simple steps to make sure your engagements are undertaken for the right reasons, with the right people at the right time. Figure one summarises the six key questions you'll have to answer.

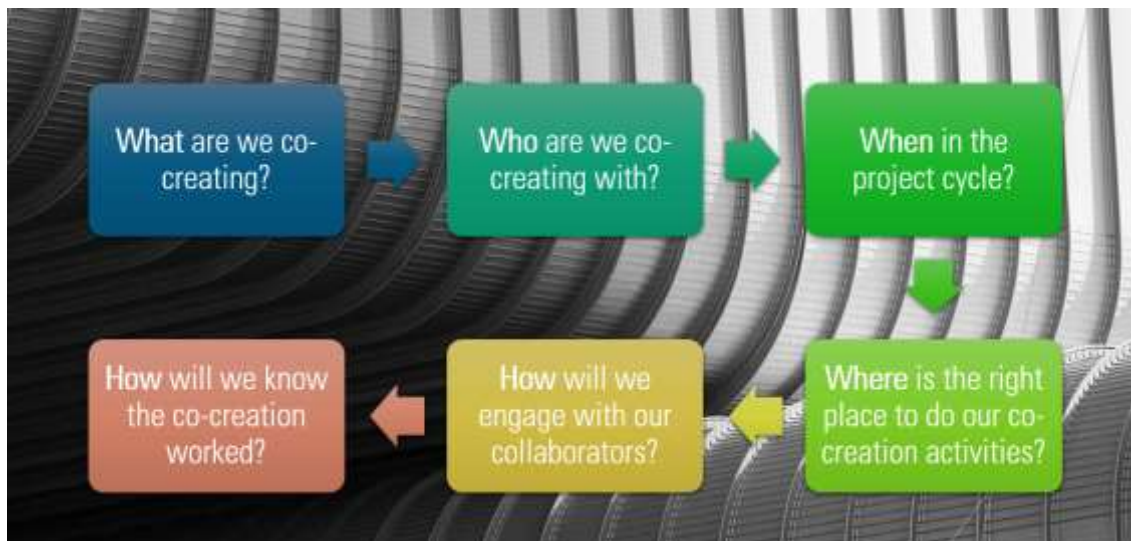


Figure 1 - Six vital questions for a good co-creation plan. The questions look simple, but answering each well is crucial for a successful co-creation experience.

If you have a clear, well-reasoned answer for each of these steps, which your organisation agrees on, you have everything you need for a co-creation plan. These questions correspond to the headings below, which are the six chapters of your co-creation plan – fill these in and you'll have the basics ready! We include guidance to help you with each part.

### 1.1 Purpose of the plan

**Defining goals and objectives and purpose first will help to get the most out of engagement.**

Clarity and transparency are key to developing positive relationships, and so it is important to define the goals and objectives of co-creation at the outset. Reflect on the distinct reasons for involving people in urban greening strategies and use these to inform the goals and objectives.

- What are the goals and proposed outcomes of the co-creation strategy?
- What are the project objectives, and the engagement objectives?
- What are your negotiable and non-negotiable elements?
- Define *exactly* what your stakeholders are helping to decide and/or co-create.

It is important to be clear with each stakeholder on what they are helping decide or do, by having well-established negotiable and non-negotiable elements. A positive example of this is found in the co-creation of Urban Forest Precinct Plans in Melbourne, Australia (City of Melbourne, 2019). Instead of being asked what specific species residents wanted (final species



is a decision for tree specialists) they were asked: 'What *kind or character* of trees do you like?'. This way, a specialist arborist could select trees that generally fit the shape, colour and size preferences of local communities (these were the negotiables) while reserving the final decision on species (this was not negotiable).

When defining the scope of your co-creation plan, it is important to choose an approach that matches your team's capacity. More intensive engagements with the public requires significant lead time and staff hours to orchestrate. This is important to support the work involved in planning and running formal activities such as workshops, and in the more intangible relationship-building that is important to ensure participants trust the project team and have a clear sense of your purpose. On top of resources, more collaborative processes will also need to offer a substantial decision-making role for your participants; if you are asking your stakeholders to give you a significant amount of time and preparation, you should be meeting their commitment with a genuinely open process.

### 1.2 Stakeholders for co-creation

Local people and experts can hold highly relevant knowledge for the management of NBS, ranging from cultural history to geomorphology. Involving a range of stakeholders can offer much needed trans-disciplinary approaches to tackle complex modern problems. Collaboration of diverse stakeholders such as governments, NGOs, scientists, interest-groups, philanthropists and charities are likely to enhance the social and environmental outcomes of NBS.

Our guidelines for successful engagement of a wide range of stakeholders, involve asking the following questions:

- Who are your stakeholders?
- Who might be impacted by, or interested in the project?
- Who are the stakeholders who may have been excluded from decision making in the past?
- Javaid and Habeeb (2018) identify four main categories of tricky participants, the 'Unsocial, Uninformed, Unheard and the Objectors'. Make a list of who these might be for you.
- How can you ensure a diverse group of stakeholders?

We recommend considering what resources you might need to encourage previously uninvolved stakeholders, such as language interpreters. Using different formats of communication will be useful in attracting a broader range of participations. Online platforms such as social media can be useful, as well as physical flyers that can be placed in local community hubs and in existing parks.

The Department of Health and Human Services in Victoria, Australia suggest outlining the following for each stakeholder:

- Interest in the project
- Power to influence decision making



- Stakeholder capacity and limitations
- Appropriate methods of engagement
- Barriers to engagement
- Additional resources /upskilling required

(DHHS, 2018).

*If it is relevant to your area:* In European contexts, local communities can have long-standing connections to place and deep ecological knowledge. In many countries, Indigenous communities exist and have unique knowledge of ecological systems and could be extremely valuable to re-naturing strategies. Incorporating the values and knowledge of communities with long-standing connections to the land into greening strategies can help ensure that strategies and outcomes are environmentally sensitive and culturally acceptable. See below [\(Section 1.5\)](#) for guidelines on the respectful establishment of an *Indigenous advisory committee*.



### 1.3 Timing of co-creation activity

Meaningful co-creation with stakeholders takes place in the early stages of strategy development when the goals, aims and values of the project can be defined collectively. Early engagement is most likely to succeed if implemented from the outset, ensuring user satisfaction (Herzele et al., 2005; Sipilä, & Tyrväinen, 2005). From this base, you should also think about the various points in your RUP development process where you will rely on your key stakeholder groups to help make decisions, and ultimately play a role in implementing the plan.

Once you have identified and engaged stakeholders, their limitations, capabilities and goals, you have the basis to develop a plan together. A few tips for working with these groups:

- Develop a set of objectives, decision making processes and, if needed, an agreed set of rules for the functioning of the group, to foster social cohesion. These can be revisited in a democratic fashion, and do not always need to be highly formal.
- Develop strategies to meet the objectives by using the different experiences and perspectives that the various stakeholders bring to the table
- Use this technique for implementation as well as RUP development.

Successfully engaging stakeholders is not as simple as inviting everyone who may be interested in a particular issue to a meeting. Instead, approach different stakeholder groups individually, to have focused discussions that speak to the concerns and needs of the different groups (DHHS, 2018).

Studies report that a valuable step is in the engagement of stakeholders and enabling a collaborative group to form and get to know one another (Frantzeskaki, 2019; Van Herzele et al 2005). Hence, sufficient time should be dedicated to supporting group dynamics and positive interactions.

If you are working within the Urban GreenUP Re-naturing urban plan (RUP) development methodology, you can explicitly align your co-creation activities with the steps of the methodology. So, for example in Figure 2, you may opt to co-develop your definition of challenges (step 3), set targets with your stakeholders (step 8) and evaluate NBS scenarios in a collaborative way (step 12).





Figure 2 - Urban GreenUP process for development of the Re-naturing urban plan (RUP). It is important to engage early, but there are a number of stages where co-creation is appropriate (these are circled as suggestions).

## 1.4 Locations for co-creation activity

There are many different formats for engagement. Using a mix of different spaces and places will contribute to valuable, innovative and creative outcomes, while also securing the involvement of a wider range of participants.

### Formal settings

Citizen juries, council meetings or workshops allow for formal representation of stakeholders and the public to gain understanding of government processes.

Tips for your formal environment:

- Try to keep these **novel!** An over-formalised structure may compromise innovation, but formal can be impactful - see 'mini-publics' below in [Section 1.5](#).
- **Avoid** Public Forums or City Hall meetings, a method described as a *sham* by influential urbanist Jane Jacobs (1992). These settings often allow only for specific groups (such as older, wealthy retirees with a clear schedule) to be heard and be the squeaky wheel who gets the oil (Einstein et al, 2019). See the facts here: [Section 2.8.2, Box 5](#).

### Informal settings

- Case study research emphasises the importance of fun activities such as park meet-ups and barbecues to foster creative ideas and teamwork (Frantzeskaki, 2019).

- Community drop-in sessions or info tents at a community fair can be a great way to engage new participants.
- Field trips or site visits can help to foster attachment to place and understanding of natural systems.

Throw a community dinner party! Just like the ‘*Young people eat together*’ event in Vejle, Denmark where city officers, deputy mayors and urban planners shared a meal together at the table with over one hundred young attendees to discuss the future of the city with nature-based solutions as a focus (Frantzeskaki, 2019).

### Online

*Access the hard-to-reach groups through online apps for efficient, cost-effective data collection.*

Platforms used frequently in the US, such as *Mindmixer* and *MySidewalk* simplify communication between city leaders and the public, offering a platform where time-poor participants can submit ideas, answers instant polls or surveys, and offer solutions which are voted on by their peers. Find more examples of online examples here: [Section 2.2.3 \(Box 3\)](#).



## 1.5 Co-creation activities

After identifying stakeholder groups and their aspirations, the different techniques for engaging these groups need to be considered. The choice of each method or technique should come from an examination of approaches that are likely to be beneficial for the stakeholders as well as supporting the desired decision or co-creation outcome.

We suggest that this section of the template should include an activity summary similar to the sample table below (Table 1). Consider the example, then fill your own:

**Table 1 - Example of a co-creation activity summary**

Project stage	Stakeholder group(s)	Desired outcome	Activity	Dates	Location	How will this be promoted?
RUP Scoping	<ul style="list-style-type: none"> <li>Residents</li> <li>Businesses</li> </ul>	Identify priority issues  Identify panel reps	Website where users can put a dot on a map and discuss their issue	xx April-xx July 2019 (inclusive)	Online	<ul style="list-style-type: none"> <li>Rates notices</li> <li>Online ad</li> <li>Media release</li> </ul>
	<ul style="list-style-type: none"> <li>Older locals</li> <li>Migrants</li> <li>Children</li> </ul>	Ensure these groups have input  Identify panel reps	Offline workshops (x3)	xx April xx May xx June	Local schools  Libraries	<ul style="list-style-type: none"> <li>Ads in libraries</li> <li>Outreach to resident groups</li> </ul>
RUP site selection	<ul style="list-style-type: none"> <li>Panel reps</li> </ul>	Help choose from shortlisted sites	Workshop with planners	xx September	Town hall	Email via mailing list
	<ul style="list-style-type: none"> <li>Locals to key neighbourhoods</li> </ul>	Notify of plans and process	Info stalls	x August-x Sep (inclusive)	Local markets	Posters onsite  Ad in local paper
etc	etc					

With respect to co-creation activities, there are many options to choose from; the key is to choose the right activities for the right times, stakeholder groups and decisions. Different approaches can deliver different outcomes. We include a few options below, but also be sure to refer to the Co-creation Toolkit.

### Workshop session styles:

#### Creative workshops:

-visual collage or 3D model activities can allow people with different backgrounds and experience to participate (Frantzeskaki, 2019).



### *Group work*

- *'choose your own adventure'* - in groups, citizens identify and work on specific actions. In Burgas, Bulgaria, the chosen actions included 'green spots for playing' and elements such as rain gardens or bioswales (Frantzeskaki, 2019).

### **Formal processes**

With a mix of internal and external stakeholders, the development of a *'Practitioners steering committee'* is often helpful. The committee can involve key stakeholders and community leaders and offer advantages such as

- Providing a method of communicating with all parties at the same time and in the same way
- Serving as an effective platform for key stakeholders to share views
- Offering a space to overcome barriers together

### ***Try consulting a 'Mini-public'***

Traditional processes such as a citizen jury or panel now fall under the extensive umbrella of 'Mini-publics', a range of tools allowing members of the public to learn about and deliberate on complex modern problems. Decisions made on climate-related crises in Poland by a citizens' assembly, are formally accepted by the local mayor if the consensus of the mini-public is above 80% (Gerwin, 2018). Cities in Poland have implemented both flood resilience and air pollution mitigation strategies through the advice of the mini-publics (Gerwin, 2018). See [Section 2.8.5](#) for the details of this case study.

### ***Consider a citizen science program***

Citizen science is a growing practice of public participation and collaboration in scientific research to increase scientific knowledge, where members of the public are engaged to contribute in research of their surroundings (National Geographic Encyclopedia, n.d.). Factors likely to improve success include recruitment of community members to act as program monitors, engaging school groups or existing community interest groups, and having an effective communication strategy to share data, such as an app (iNaturalist, n.d.)

Engagement incentives can take the form of healthy competition: The City Nature Challenge in April 2019 involved a global contest between metro areas on the most observations of nature in their cities and the competition resulted in a total of 920,384 observations of various species worldwide over just three days. The observations were uploaded to iNaturalist, an app which allows users to upload their observations, discuss with other users to confirm identification of the species, before the data is added to scientific data repositories for scientists to use. Online platforms such as iNaturalist can be useful in citizen science 'BioBlitz' style events for effective research and sharing of data collection (iNaturalist, n.d.). Find more examples of citizen science in [Section 2.8.3](#).

**Holding a design contest for a nature-based solution can attract interest from all sections of the community.** Around the world, such competitions are having great success, for example in Berlin, co-creation involving a design competition was run for a new proposed recreational park (Am Gleisdreieck Park). The competing concepts were exhibited at a 'planning weekend' open to the public, after receiving more than 500 park concept proposals from the public



(Burgess, 2014). The concepts were grouped into themes and used to create the final design – read more in [Section 2.8.4](#).

### Explore the UnaLAB ‘Tools for Co-creation’

The UnaLAB (Urban Nature Labs) project includes an extensive library of co-creation tools. You can find specific activity suggestions for every project stage, catering to a range of timeframes, formats and group sizes (see Figure 3).

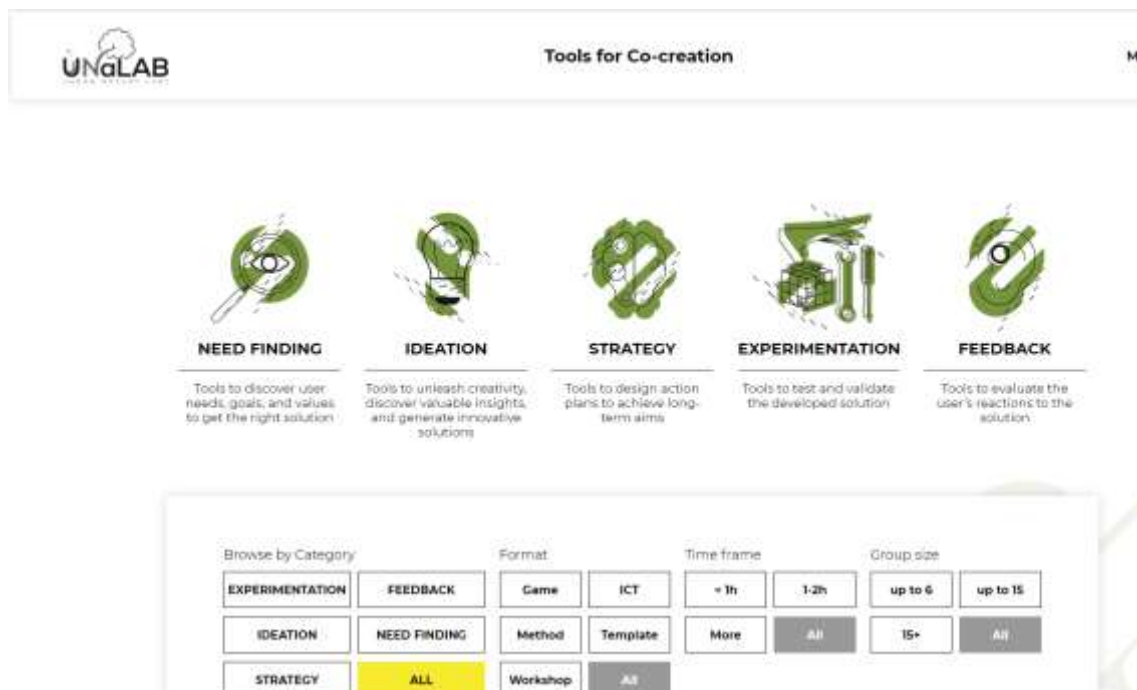


Figure 3 - Search interface for UnaLAB's extensive library of co-creation tools.

### Engage in the great outdoors:

A great way to test out a design or site is through a *tactical urbanist pop-up park*. Temporary structures can be used to engage locals in rethinking urban space, involve moveable plants and objectives for a transformative space, or perhaps invite an activity among the natural elements such as a game or a splash in a waterhole.

*A walking tour designed by children* is an effective way of increasing adult understanding of children’s use and experience of the natural and urban environment. At the “Children, Nature and the Urban Environment’ conference in Washington, child-led tours of favourite nature-based playing spots informed community leaders on design aspects that suited the young inhabitants of the city (Hart, 1997).

Meet people where they are, with *outdoor surveys*. This method, the ‘point-of-contact’ interview involves short surveys in the park in the park. These can be quick, easy, enjoyable and are useful for when targeting underrepresented groups, in which case interpreters may be beneficial. This technique has been successful in Oregon, as part of the State Comprehensive Outdoor Recreation Plan (Waller, 2009) find more on this case study in [Section 2.8.2](#).



### **Conflict resolution**

Engaging a diverse group of stakeholders can result in conflict, such as differing perspectives from various experts or interest groups. Participatory theatre, a conflict resolution technique developed in Congo has been adopted around the world as it is a light-hearted, entertaining way of putting oneself in another's shoes and fostering mutual understanding and compromise (SFCG, n.d.). This process can transform conflict and can reveal a situation in a new and different light, from which new possibilities can emerge (SFCG, n.d.). The extensive training manual developed by the Search for Common Ground (SFCG) in the Democratic Republic of Congo can be found here: <http://www.dmeformpeace.org/sites/default/files/Participatory-Theatre-Manual-EN.pdf>.

### **Indigenous advisory committee (IAC)**

In situations where Indigenous peoples are underrepresented in decision-making, your co-creation plan should consider the formation of an Indigenous advisory committee (IAC). Employing a committee where a majority of members are Indigenous to offer strategic advice and direction on issues relating to Indigenous communities. In many European contexts, this may still offer value, though it should be approached from the perspective of 'local communities' to leverage established place knowledge and ecological understanding.

Meaningful co-creation may involve the offering of relevant resources and empowering Indigenous community members to become leaders. The implementation of an IAC should involve implementation of the principles of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP <https://www.humanrights.gov.au/our-work/un-declaration-rights-indigenous-peoples-1>).



## 1.6 Evaluation

To increase efficiency and support positive outcomes of co-creative processes and NBS in future endeavours, evaluation is imperative. If well-designed, learnings from early stages of evaluation can be used to adaptively plan future engagement strategies.

### Technique 1: Use an evaluation framework

Table 2. presents a framework for evaluating collaborative processes developed to examine the quality of a collaboration process in strategic planning of natural areas in Helsinki.

The framework examines a participatory process in four key areas:

- “(1) improve the knowledge and value base of planning,*
- (2) support involvement that is meaningful for residents,*
- (3) be operational in the governance system and*
- (4) help in guiding the area development in a sustainable direction”*

**Table 2 - Framework for evaluating collaborative processes in planning for natural areas: perspectives and evaluation criteria and proposed methods & quantitative performance indicators**

Evaluation perspectives	Success Criteria	Proposed methods	Quantitative performance indicators
<b>1. Knowledge interaction</b> Joint knowledge base and value of planning is improved through collaboration	<ul style="list-style-type: none"> <li>• High quality of information</li> <li>• Improvement of the knowledge and value base due to experiential knowledge eg. local, cultural and professional knowledge.</li> </ul>	Analysis of participants and their input to planning, analysis of planning materials, surveys, interviews.	<ul style="list-style-type: none"> <li>• Rate of participation</li> <li>• Diversity of participants</li> <li>• Number of findings that refer to the use of experiential information in planning materials/ solutions in the final plan,</li> <li>• Information quality scores /10</li> </ul>
<b>2. Meaningful collaboration</b> Involvement is meaningful for every stakeholder	<ul style="list-style-type: none"> <li>• Process of participation is worth the effort.</li> <li>• Information is accessible</li> <li>• Plenty of opportunities for participation,</li> <li>• Community learning outcomes.</li> </ul>	Analysis of the participatory process, final plan, and feedback collected from participants, media analysis, interviews, surveys.	<ul style="list-style-type: none"> <li>• Extent of information delivered on participation opportunities</li> <li>• Number of referring to the use of experiential information</li> <li>• Percentage of stakeholders satisfied with the plan and outcome</li> <li>• Quantitative summary of participation opportunities as well as actual participation</li> <li>• Percentage/proportion of participants who described process as educational</li> </ul>
<b>3. Functioning governance</b> Collaboration is operational in the governance system	<ul style="list-style-type: none"> <li>• Intergovernmental collaboration,</li> <li>• Collaboration is cost-effective,</li> <li>• Learning within the organisation.</li> </ul>	Analysis of planning documents, interviews, surveys, cost/benefit analysis	<ul style="list-style-type: none"> <li>• Number of productive contacts identified/used during planning</li> <li>• Proportion of costs of participation within the overall costs of planning</li> </ul>



			<ul style="list-style-type: none"> <li>• Number of conflicts in the process, categorised by type</li> <li>• Percentage of stakeholder satisfaction with the process</li> </ul>
<p><b>4. Positive outcomes and the sustainable use of the area</b></p> <p>Collaboration guides development into a sustainable direction</p>	<ul style="list-style-type: none"> <li>• Improved quality of environment</li> <li>• Enhanced collaboration and decision-making capacity</li> </ul>	<p>Analysis of plans, documents specifying the goals for planning, impact assessments, implementation procedure, interviews, surveys.</p>	<ul style="list-style-type: none"> <li>• Plan quality scores 1-10</li> <li>• Number of other plans considered in the plan from the perspective of long-term effects on the area</li> <li>• Changes in stakeholders' satisfaction with the area/site</li> <li>• Changes in use/accessibility of vulnerable groups to high-quality areas</li> </ul>

(Source: table generated from Faehnle & Tyrvaänen, 2013; Faehnle, 2014)

### Technique 2: Let community members undertake the evaluation

An example from Bologna, Italy highlights the potential to engage community members in the evaluation of co-creation. In this case, two community groups were appointed to report and examine a co-creation effort, and were invited to develop an evaluation method and appoint members to monitor the participatory process. *Read more on this case study in Section 2.4.2.*

## 1.7 Conclusion

This template has offered a six-step process to guide you in developing your plans for co-creation. Answer the six core questions of the process well, and you will have a strong plan for working with your community. You may need to tailor the questions somewhat to your context – for example, if your engagement focuses on a decision, you might pose the six questions as follows:

1. What is being decided through this co-creation process?
2. Who are we making the decision with?
3. When in the project cycle is this decision being made?
4. Where will we make the decision?
5. How will the decision be made?
6. How will we know we made the right decision?

As noted above, these are simple questions. Answering them thoroughly and compellingly, and then really delivering what you say you will, is the challenge. At each step, we encourage you to reflect carefully on the answers that your plan presents. Ask ‘why?’ and ‘how?’ wherever you can – the clearer and better prepared you are in your plan, the stronger (and more timely, efficient, and stress-free) it will be when it is time to co-create with your stakeholders.

This concludes our co-creation template. We have also produced a co-creation toolkit to support you as you decide why you’re engaging, who you should work with, and how you’ll do it. The toolkit includes substantial advice and examples from around the world to guide your planning. Good luck!



## 2 Co-creation Toolkit

This is the accompanying document for the Co-creation Template to provide further details of examples of co-creation and rationale for public participation.

### 2.1 Rationale for public participation in strategy development

Green spaces provide a remarkable array of benefits in cities including improving mental and physical wellbeing and liveability (Maller et al, 2006). The positive outcomes from contact with nature can include biological, mental, social, environmental and economic benefits (Maller et al, 2006). The world's inhabitants are increasingly choosing to live in urban environments, and the UN has projected by 2050, two thirds of the world's population will reside in urban areas (United Nations, 2018) and throughout history, humans have never had such little contact with nature (Katcher and Beck, 1987).

There has been much recent attention to how green spaces and other nature-based solutions in cities should be designed to reconnect urban residents with nature and maximise the benefits it can deliver (Van Ham & Klimmek, 2017; Frantzeskaki, 2019). Nature-based solutions (NBS) offer ecological solutions to improve the physical and psychological health and wellbeing and quality of life of urban inhabitants (Maller et al, 2006). NBS utilise or are inspired by natural systems, and are supported by nature (Frantzeskaki, 2019). The European Commission defines nature-based solutions (NBS) as living solutions based on natural systems designed to address a range of environmental challenges, "which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience" (2016, para.4) There has been much recent attention to how green spaces and other nature-based solutions in cities should be designed to maximise these benefits (van Ham & Klimmek, 2017; Frantzeskaki, 2019).

Engagement with stakeholders and including community members who stand to benefit from greenspaces in the design process has been identified as key to successful delivery of NBS (Ribot, 1996; Van Herzele et al 2005; Van Ham & Klimmek, 2017, Frantzeskaki, 2019). Stakeholder engagement delivers several key benefits including generating social licence to implement NBS (Fisher, 2004); avoiding disservices and unused spaces (Xi-Zhang, 2012); ensuring equitable delivery of benefits (Xi-Zhang, 2012; Haase et al, 2017); fostering stewardship, generating understanding and trust in government (Fisher, 2004); and generating broader environmental advocacy (Van Herzele et al., 2005).

Here we present a rationale for focusing on co-creation as a critical element of the development of NBS for cities. We outline who, how and when to engage, and identify the tools and techniques for engagement to achieve best outcomes as well as evaluation approaches. We present case studies of innovative and effective community engagement practice and draw learnings from examples that have had less success in achieving their stated aims.

#### 2.1.1 Levels of involvement

There are different levels of involvement that the public can have in any decision. The International Association for Public Participation (IAP2) outline five levels of engagement, with each stage increasing the impact the public has on the decision.





Figure 4 -The Spectrum of Public Participation (Image reproduced from Hollyday, 2014 from IAP2 Spectrum)

Following is a summary of the IAP2 Spectrum of Public Participation (IAP2 International Federation, 2014). The links provide detailed examples around the world which demonstrate each level in action.

1. **Inform:** provides the public with information on the decision ([see Section 3.8.1](#))
2. **Consult:** involves obtaining feedback from the public on decisions and alternative options ([see Section 3.8.2](#)).
3. **Involve:** working with the public throughout the entire process, ensuring the aims and ambitions of the public are considered and understood ([see Section 3.8.3](#))
4. **Collaborate:** a partnership, where the public's advice on preferred solutions is incorporated and alternatives developed together ([see Section 3.8.4](#))
5. **Empower:** Facilitate individuals, communities and organisations gaining power over their environment. The public makes the final decision ([see Section 3.8.5](#))

In this section we make a case for increased use of the more involved stages of the spectrum.

### 2.1.2 Four key reasons to actively involve stakeholders

#### 1. Foster a sense of ownership

Direct experience of nature is crucial for the development of responsible attitudes and stewardship towards the natural environment (Mabelis & Maksymiuk, 2009). This immediate experience is achieved with optimal benefit when people are involved in the co-creation of urban green spaces. Urban green spaces can enhance social cohesion in their own right (Furlong et al, 2018) among many other ecosystem benefits including positive impacts on physical and mental health (Maller et al, 2006) as well as many economic and environmental benefits (Kendal et al 2016). Co-creation of these spaces can enhance social cohesion and stewardship, particularly in cases where local residents have been personally involved in NBS

initiatives, such as planting and maintaining trees (Sommer et al, 2013). Involvement in co-design can boost social benefits of NBS by creating a sense of belonging and a place to be proud of (Brooks et al, 2016).

Failure to account for the diverse perspectives and values of stakeholders can result in limited use of green space and improper use and damage of facilities and green infrastructure, creating a financial burden for local government (Van Herzele et al 2005; Xi-Zhang, 2012). Public stewardship and support can not only bring down ongoing maintenance costs (Van Herzel et al, 2005), but is imperative to keep urban green spaces in good condition (Mabelis & Maksymiuk, 2009).

### 2. Everyone's needs can be better met

A traditional top-down or bureaucratic approach to planning urban green space has been increasingly criticized as inappropriate (Fisher, 2004; Xi-Zhang, 2012) as it may be based on professional assumptions, rather than users' needs. These assumptions often don't take into account the diverse needs of different social groups (Xi-Zhang, 2012). Stakeholders can hold a wide range of value positions and responsibilities. When these positions are acknowledged, people feel as if they are involved and valued (Van Herzel et al, 2005). Co-creation involves the inclusion and empowerment of a range of stakeholders (IAP2, 2014). Co-creation is defined as the involvement of, and cooperation between community groups, government and non-government agencies, businesses, and other stakeholders (Furlong et al, 2018).

In the western suburbs of Melbourne, Australia, a collaborative, trans-disciplinary initiative between councils ('Greening the West') is bringing 23 councils, organisations and community groups together. The establishment of this network with a shared vision has generated an environment where the organisations in the alliance have supported one another to create momentum needed to drive this agenda and make urban greening as a priority (Furlong et al, 2018). Co-designing with different players who can complement the others' skills and capacities in activities that lead to the development of a common goal (Frantzeskaki et al, 2014) can help spark community-wide culture change. For example, Greening the West' stakeholders attest the formation of the group has "successfully increased the profile and priority of urban greening within many different organisations, particularly within local governments" (Furlong et al 2018, p.23).

### 3. Learn from one another and create a mutual understanding

*According to cognitive consistency theory it is difficult to reject a process which one has been actively involved in (Sommer et al, 1994).*

Involvement of the public and various stakeholders in greening strategies can provide educational opportunities and lead to greater awareness and understanding (Herzel et al, 2005). Connecting people with local natural areas through NBS can inform citizens of the processes of natural systems and broader environmental issues (Herzel et al, 2005). Co-creation of NBS can also foster greater understanding of bureaucratic processes and help to build trust. The level of trust established will dictate the quality of the interactions as well as overall satisfaction with the end results (Fisher, 2004).

Active participation of local communities enables local planning authorities to develop policies that reflect the views of local people, and address a wide range of social, economic and



environmental problems effectively (United Nations, 1992). A successful green space will promote and reflect the identity and culture of a local community, and the best way to achieve this is by involving the community in the design and development process (Herzel et al, 2005) through co-design and co-implementation.

**Evaluation of a participatory process in urban forestry in Finland** found that residents felt that their awareness of matters concerning green areas had increased, and planning authorities in turn felt that their awareness of local conditions had improved (Sipilä, & Tyrväinen, 2005).

#### 4. Enhance the quality of decision making using local knowledge

When public policy decisions are made without involving stakeholders, the opportunity to use community knowledge is lost. The huge potential of the urban population is often underutilised, but it can hold the creative ideas, skills and people power needed to take care of green spaces and to maximize their contribution to the quality of life (Herzele et al, 2005). Involving users, residents and community groups is fundamental to the long-term success of urban forests, trees and green spaces as it maximises the benefits these spaces provide (Herzele et al., 2005).

For the appropriate ongoing management of green areas, managers need knowledge of indigenous plants and animals, ecology, hydrology, geomorphology and cultural history (Mabelis & Maksymiuk, 2009), all of which may be found among specific knowledge base of local people and experts. Different community groups, such as Indigenous communities can offer ecosystem expertise that is of value to policy makers (Jackson & Altman, 2009) in the development of greening strategies. Traditional ecological knowledge can include understanding of indigenous species, local ecological systems, poisonous plants, and species that can be used for medicinal purposes (Berkes et al, 2000). Understanding of local traditional knowledge and practice can help ensure green spaces and strategies are culturally acceptable to local communities.

##### Box 2: Traditional cultural practice as nature-based solutions

#### **Around the world, traditional knowledge informs modern greening...**

In *Japan*, traditional home gardens reflect a strong connection between biodiversity and local cultural features and make a significant contribution to the conservation of the genetic resources and cultural heritage of the area (Fukamachi et al., 2011).

In *South Africa*, Indigenous knowledge of the Batswana people is reflected in the plant diversity of the Tshimo gardens (Davoren et al., 2016).

In *China*, designs of traditional Chinese Imperial Parks are created from models of beautiful scenic landscapes and have been demonstrated to reduce stress (Yang & Volkman, 2010) while providing a natural oasis among the densely built-up urban environment.



## 2.2 Best practice for planning co-creation to support a strategy

### 2.2.1 Some preliminary advice on how to get the most out of engagement

The level of participation should be agreed and defined at the very beginning of the process. When making decisions about participation in co-creation, we recognise that higher levels of participation may require a greater initial investment in terms of cost and time. However, involving the public in the planning stage can limit costs and delays later on, by preventing complaints and objectives at the point of implementation (Sipilä, & Tyrväinen, 2005). It may also save on maintenance costs, for instance in the reduction of vandalism (Van Herzele et al 2005). One case study, presented below, where a non-profit Parks Alliance works with community members to raise funds for the park redevelopment, demonstrates minimal costs to the local government (SF Parks Alliance, 2019). Involving users, residents and community groups is fundamental to the lasting success of green spaces, and to maximise the benefits these spaces provide, improving the quality of life of users (Herzele et al., 2005).

Given the significant resources required for public participation, it is important to get it right. Devoting a great deal of time, effort and resources into public participation does not necessarily translate into optimal outcomes (EPA, 2018). Here we aim to provide examples of co-creation that have had varying levels of success, to draw learnings for the development of realistic co-creation plans that foster positive results.

### 2.2.2 What decisions are we making? Defining objectives, negotiables and non-negotiables

Clarity and transparency are key to developing positive relationships with stakeholders, and so it is important to define the goals and objectives of co-creation at the outset (Sipilä & Tyrväinen, 2005). Reflect on the distinct reasons for involving people in urban greening strategies and use these to inform the goals and objectives (Herzele et al., 2005). Transparency in the co-design process is imperative for building trust (Fisher, 2004). Define what decisions have already been made and what is up for consultation. Clarifying the rules and scope of participation can prevent misconceptions regarding the degree of influence stakeholders have on the process (Sipilä & Tyrväinen, 2005). It is important to be up front if there is only potential influence (EPA, 2018) by explaining that an organisation cannot always guarantee the exact nature of the public's final influence (EPA, 2018).

### 2.2.3 How many methods?

There is no reason to be limited to a single technique or engagement style. Using several methods at once to complement each other can help to integrate diverse interests (Sipilä, & Tyrväinen, 2005). There may be a crossover of each level of influence, with many different methods required to reach and include all relevant stakeholders (EPA, 2018). Stakeholders should be made aware of the different phases of planning and opportunities for influence (Sipilä & Tyrväinen, 2005).

Box 3: Technological tools for online engagement

**SURAT, INDIA**





Surat, the diamond capital of India has identified encouraging residential participation as a way to improve its tree cover (Saiyed, 2019) Aiming for the World Health Organisation (WHO) guidelines of 15 percent tree cover, The Surat Municipal Corporation has developed an app where residents of Surat who are interested in planting trees can register themselves and SMC will provide saplings free of cost for planting (Saiyed, 2019). The app's success has prompted the municipal corporation to work on other incentives, including developing plans to provide a reduction in property tax for those who maintain green spaces (Saiyed, 2019).

### **HAMBURG, GERMANY**

*Smarticipate* is a mobile application that emphasizes the importance of making planning proposals easier to understand and was trialled in Germany to promote tree planting (Amarticipate, nd.). Residents of the city were able to request on a map on the app where they would like a tree planted and receive an instant response on the feasibility of their proposal (Amarticipate, nd.) (<https://www.smarticipate.eu/50735-2/>).

### **MELBOURNE, AUSTRALIA**

An unexpected process of community engagement occurred when 70,000 trees in Melbourne's CBD were given email addresses for people to report issues or fallen branches (Burin, 2018). Instead, the citizens began emailing love letters to the trees (Burin, 2018). Melbourne City Council has an interactive tree map where citizens can learn the genus and life expectancy of city trees, and become a citizen forester (<http://melbourneurbanforestvisual.com.au/>).

## 2.3 Who should I engage? Types of stakeholders you can engage

This section provides more detail for [Section 2.2](#) of the Template.

It is important to carefully consider who to involve in the co-creation process, considering not only those who might be interested in influencing the decision being made but also those who are directly and indirectly affected (VAGO, 2015) Stakeholder diversity is also imperative for comprehensive and inclusive decision making (Van Ham & Klimmek, 2017). Kabisch et al (2016) identified the necessity of forging new networks to develop trans-disciplinary and inclusive approaches to governance and engagement to enhance the outcomes of NBS. The complexity of modern problems requires the collaboration of diverse stakeholders such as governments, NGOs, scientists, local communities and Indigenous groups to help to address wicked challenges (Van Ham & Klimmek, 2017). Groups including big businesses and developers have the potential to negatively impact on open space and biodiversity, but can also offer unique solutions to contemporary challenges and should be identified in key partnership opportunities (Van Ham & Klimmek, 2017).

Some groups may not seem willing to participate due to possible barriers. A critical step is to consider whether there are barriers to participant involvement, and identify ways that your organisation can empower them. Lower socio-economic communities can face obstacles such as language barriers, limited understanding of processes or where to find information (Okello et al. 2009; Waller, 2009). It is advised to reach out to previously uninvolved community groups and, in some cases, it may be useful to offer incentives for participation (Freudenberg et al, 2011). Incentives could take the form of tailored support such as technical assistance, provision of information and resources or training that enhances the ability of community participants (Freudenberg et al, 2011). The San Francisco Parks Alliance provides training and resources for community garden management on their website (see [section 3.8.5](#)). In The Hague, a city in the Netherlands, pamphlets in the park provide updates on the management



of the park and how residents can be involved (Mabelis & Maksymiuk, 2009) (Also see [Section 3.8.3](#)).

Tailored support can be provided when the mix of stakeholders is identified, their diversity celebrated, and strategies developed to reach out to include people of diverse cultures, people with disabilities, elderly and youth and those who are time poor (VAGO, 2015). Javaid and Habeeb (2018, p.4) identify four main categories of participants: the 'Unsocial, Uninformed, Objectors and Unheard'. Each group will require a different tactic to engage them in a meaningful way for co-creation of NBS. Different approaches will work for different people, so having a range of approaches will help to include different people (EPA, 2018). A mix of participation techniques can be used including online (Saiyed, 2019), community workshops (SF Planning, 2016) or out in the field (Sipilä, & Tyrväinen (2005) found community walks in green spaces with planners and participants to be very beneficial).

#### Box 4: All-ages engagement

##### **Listen to the kids!**

In the U.K. as part of the European Commission's urban development program, the 'Spacemaker's project empowered troubled youths aged 13-15 by providing the opportunity to design a new local public park (European Commission, 2007). Local governments, education centres, architects and artists came together with young people who were recruited through open evenings for families. Sixteen participants came on board for the project, which began with a three-day, crash course on urban design, ecological landscaping design, negotiation techniques and planning processes (European Commission, 2007). Visits to parks and discussion about desired features informed the selection of landscape architects. The young Spacemakers were in charge of communicating the process and outcomes to the public, creating flyers to promote the park's opening, along with local radio and TV interviews (European Commission, 2007). The park's grand opening attracted over 100 attendees (European Commission, 2007).

## 2.4 When to engage?

This section provides more detail for [Section 2.3](#) of the Template.

There is strong agreement in the literature that co-design is most effective and efficient in the early stages of the project (Appelstrand, 2002; Herzele et al., 2005; Sipilä, & Tyrväinen, 2005; Mabelis & Maksymiuk, 2009). The basic premise of public participation and co-creation is the meaningful inclusion of stakeholders in the planning process, which is most likely succeed if implemented from the beginning, to collectively define the goals, aims and values of the project (Herzele et al., 2005; Mabelis & Maksymiuk, 2009).

### 2.4.1 Three key reasons to engage the public early on

1. More options are open for discussion

Early engagement allows more decisions to be up for negotiation. If major decisions have already been made prior to public consultation stakeholders can feel like they are not able to have meaningful input (Herzele et al, 2005). The earlier the public is involved, the more



influence they can have on the decision, achieving a greater level of support for the final decision (Appelstrand, 2002).

## 2. Conflict resolution

Early engagement will allow different perspectives to be shared early on, assisting with early identification of potential sources of conflict - better to understand and resolve conflict early to reach consensus and move on (Herzele et al., 2005).

## 3. Better understanding of the process

Participation from the beginning of the process will help the public understand how much influence they can have and when. Satisfaction in co-creation of NBS can be improved when participants understand their role in the process (Sipilä, & Tyrväinen, 2005).

### 2.4.2 Continuous engagement

Ideally, this involvement is continued all the way to the end, in the provision of a plan and the implementation process (Mabelis & Maksymiuk, 2009) and even evaluation of the project (Allegrini, 2018).

An example of ongoing co-creation and co-implementation, including the development of a community evaluation group is found at the ‘Salus Space’ in Bologna, Italy, a recent urban renewal project has been undertaken to provide work, upskilling and a welcome space for the many refugees arriving in the city (Allegrini, 2018). The project involves the conversion of an abandoned aged care facility ‘Villa Salus,’ into a multi-use space for the inclusion and welcoming of migrants/ refugees and with the provision of affordable housing, and a collaborative community start-up based upon three community gardens (Allegrini, 2018). The gardens are all accessible to people with disabilities, provide food for the neighbourhood as well as the multicultural restaurant, and is a place for education and training in Urban Horticulture and Agriculture (Allegrini, 2018).

At Salus Space, community outreach was initially used to engage different parts of the community. Informal meetings led to the creation of two citizen groups; one group in charge of communication of the process to the wider public via an online blog and an evaluation group to monitor the participatory process (Allegrini, 2018). New participants frequently join the space and are briefed by community members (Allegrini, 2018).

## 2.5 Types of engagement

Table 3 - Co-creation approaches

Type of Engagement	Stakeholders who can benefit from this method
<b>Online:</b> (see Box 4 for Technological Tools in co-creation)	<ul style="list-style-type: none"> <li>• People who are time poor, such as single parents</li> <li>• youth</li> <li>• people with mobility limitations</li> </ul>



	<ul style="list-style-type: none"> <li>• People who can't come to meetings for whatever other reasons</li> <li>• Interest groups/businesses who want to be involved but can't always offer a representative</li> </ul> <p>Online tools for co-creation can be a great way to enhance and supplement other methods, from running a survey on user satisfaction between meetings, to facilitating an entire citizen science program. Online engagement can be a cost-effective tool for data collection.</p>
<b>Formal:</b> Citizen juries, surveys, planning workshops	<p>Structured approaches can work for some people, such as businesses and other groups that are familiar with systematic inclusion. These formal strategies are easy to replicate and record findings and outcomes. Conventional participation methods, such as public meetings and surveys, play an important and should not be replaced by methods using modern technology, but can be supplemented by new methods (Herzele et al, 2005) Formal environments can be one of the most effective settings for a member of the public to influence decisions (Sipilä, &amp; Tyrväinen, 2005) Group discussions offer a great interactive space, so develop group work methods that can be applied in public meetings.</p>
<b>Informal:</b> Nature walks, bike-rides, site visits, presence at street fairs & festivals	<p>Informal techniques can involve meeting people in the field, and offering information in these spaces. Walks out in nature and direct experiences of natural areas can help to stimulate interest in NBS, and are often low in cost (Frantzeskaki, 2019).</p> <p>Co-design processes should include a walk in the planning area with planners and public participants (Sipilä, &amp; Tyrväinen, 2005).</p>
<b>Creative:</b> Solutions that think out of the box, such as child-friendly engagement techniques, working with artists or participatory theatre for conflict resolution	<ul style="list-style-type: none"> <li>• Co-design with different actors and especially designers, artists, architects and theatre actors can be an effective strategy to generate appealing and socially acceptable designs for nature-based solutions.</li> <li>• Creative conflict resolution such as participatory theatre can make difficult processes easier to understand for some, and presenting issues through an alternative medium can be more inclusive for those who might have trouble understanding bureaucratic language.</li> <li>• Including engagement techniques to support participation of different age groups and cultural groups in the co-design process can have positive results, such as a school-age design competition.</li> </ul>
<b>Hands-on:</b> Citizen science, community working bees, tree planting days	<p>Involving stakeholders in co-implementation of NBS initiatives can be effective in encouraging a sense of ownership or ecological responsibility (Mabelis &amp;</p>



	Maksymiuk, 2009) with improved ongoing satisfaction and maintenance (Sommer et al, 2013).
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### 2.6 Communication for engagement

High quality communications are essential for co-creation of NBS. Quality, relevant information communicated effectively will improve the validity of the project, community capacity and the quality of decisions made (National Research Council, 2008). To ensure the desired audience is reached, information flow throughout the process is likely to be necessary (Sipilä, & Tyrväinen, 2005). Reaching everyone isn't easy, and not everyone will want to participate, but letting stakeholders know that they *can* be involved if they want to can achieve broader user satisfaction (Sipilä, & Tyrväinen, 2005).

There is no 'one size fits all' technique for communicating about NBS. Use different mediums to attract different sectors of the public. Advertise meetings and processes/invitations for involvement in:

- Public community centres, libraries, gyms
- On flyers in local parks
- Online - social media, websites, emails.
- Other media: newspapers, local papers, magazines, newsletters, on community radio.

### 2.7 Evaluation of engagement

This section provides more detail for [Section 2.6](#) of the Template.

To evaluate and measure the impact of co-creation, key performance indicators can be useful in identify which practices are worth replicating (Patton 2002), finding out what works, and for whom. To increase overall efficiency of co-creation processes in the future, evaluation is imperative and beneficial to inform future endeavours (Faehnle & Tyrväinen, 2013).

Some examples of effective evaluation include 'Salus Space' in Bologna (Section 2.4.2, p.24), where members of the public self-appointed a community evaluation group who, from the beginning of the process recorded and evaluated the co-creation efforts and reported to stakeholders throughout the process via an online blog (Allegrini, 2018). Another is the evaluation of collaborative urban forest planning via surveys of participants in Finland, which revealed participant perspectives that had not been voiced during the process (Sipilä, & Tyrväinen, 2005).

A Finnish study on evaluating collaboration processes involved an analysis of interview data and literature to develop a framework to examine the quality of a collaboration process in strategic planning of natural areas in the Helsinki metropolitan area, Finland. It is designed to evaluate the formal collaborative process with its accompanying exchanges and activities along with the project outcomes (Faehnle & Tyrväinen, 2013).

The framework examines a participatory process through four angles

- "(1) improve the knowledge and value base of planning,*
- (2) support involvement that is meaningful for residents,*



(3) be operational in the governance system and  
(4) help in guiding the area development in a sustainable direction”  
(Faehnle & Tyrväinen, 2013, p.334).

(See Table 2 for more detail on the framework).

### 2.8 Overview of engagement approaches

This section provides an overview of engagement approaches, from basic to advanced, including case studies and examples. We draw on the International Association for Public Participation (IAP2) public engagement spectrum (see Figure 1 above) (IAP2 2014).

#### 2.8.1 At the basic level, when choosing only to *inform*

*IPA2 advises to provide the public with: “balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions” (IPA2, 2014, para. 8).*

It is important that information about NBS is accessible and understandable for the general public, produced with transparency and clarity (Buchy & Hovermann, 2000). However, the existence of information, services or other forms of community engagement does not guarantee that the public is aware of it (Schellong, 2007), nor that it can be easily accessed or understood. A study of public participation in a policy review of the national Environmental Impact Assessment (EIA) regime in Kenya found that, despite the public showing a strong interest in EIA activities, information was poorly accessed, with the majority of the public unaware of how to find it (Okello et al 2009).

Without access to information, the implementation of decisions can be impacted by public objections and community resistance to contentious issues, slowing the process and undermining public confidence in governance and democratic principles (Okello et al 2009). An example of this is a participatory urban forest strategy in Finland, in which some aspects of the decision-making were not properly understood by residents, creating confusion and disillusionment with the program (Sipilä & Tyrväinen, 2005).

#### 2.8.2 Consult

*There are a variety of techniques that can be used to obtain feedback from the public at this level. Kamenova and Goodman (2015) offer example tools for this level of engagement from IAP2’s spectrum, including focus groups, surveys and public meetings.*

As part of the State Comprehensive Outdoor Recreation Plan (SCORP) in Oregon, the Oregon Parks and Recreation Department recognised the need for engagement with minority groups. They used a variety of techniques including a mail survey of random selected Hispanic and Asian households in Oregon and a series of focus groups with Asian and Hispanic community representatives (Oregon Parks and Recreation Department, 2017) and ‘point-of-contact’ surveys involving park users from underrepresented groups, where users are asked to conduct short surveys in the park with bilingual interviewers (Waller, 2009). The key findings, including trends and ideas from users were published in the SCORP (Oregon Parks and Recreation Department, 2017, p.81). The plan guides the development of recreational programs and new



facilities (Waller, 2009), however it is difficult to measure the actual level of impact from this particular series of engagement strategies.

### Box 5: Why to avoid Town Hall meetings

#### **Jane Jacobs says so!**

Jane Jacobs, an influential urbanist, described city hall forums as a *sham* to use community feedback in ways that pursued powerful government and development interests (Jacobs, 1992).

#### **Participatory inequalities lead to biased discussions**

Research from Boston University's Initiative on Cities reveals those who attend and speak up in City Hall forums are generally white and wealthy homeowners. A compilation of data from 97 areas within the Boston metro demonstrated that participation was skewed toward older, more affluent groups (Einstein et al, 2019).

### 2.8.3 Involve

*This level of engagement involves working with the public throughout the entire process, ensuring the aims and ambitions of the public are considered and understood (IAP2, 2014).*

An example of this level of involvement is co-implementation, an example of which took place in Beijing in the Miyun Watershed, which is a river catchment which 17 million people rely on for their drinking water (Li and Emerton, 2012). To compensate for loss of forest due to logging contributing to diminishing water levels, various attempts in reforestation had been attempted, but new trees failed to retain long term health (Li & Emerton, 2012) and lack of active management was identified as the key issue (Van Ham & Klimmek, 2017). A sustainable use and active management plan where the local community demonstrated their ability to manage the forests was recognised in a formal agreement that brought together the knowledge and interests of locals with technical information held by government foresters (Li & Emerton, 2012). This integrated approach brought about successful regeneration of natural forest where the forest structure, quality and overall function improved (Li & Emerton 2012).

In the Miyun Watershed, *citizen science* was one of the key contributions of the local people in their ecological restoration achievements. Citizen science is a method to engage citizens of all ages in collecting and analysing scientific data. In Melbourne, Australia, citizens map existing habitat trees and recording pollinator activity. In the Hague, in the Netherlands, citizen science is informal and ongoing. The phone number for maintenance officers and park rangers along with information about vulnerable species and what to report are offered up on flyers in parks to encourage people to inform officials about their observations. This data allows the local government body to have an ongoing understanding of the local biodiversity in the area, informed by obligation-free citizen science.

*Citizen science is a key tool highlighted in the engagement template, find it in [Section 2.5](#).*

### 2.8.4 Collaborate

*This level of engagement involves a process of participatory decision-making, where the public's advice on preferred solutions is incorporated and alternatives developed together (IAP2, 2014).*



An example of collaboration and co-creation is found in the 'Park of Two Speeds' in Berlin. Am Gleisdreieck Park was proposed by the City of Berlin for recreational use in 2006, and it was at this point the public engagement process began (Burgess, 2014). The city ran a design competition and exhibited the competing concepts at a 'planning weekend' open to the public, after receiving no less than 500 park concept proposals from the public (Burgess, 2014). Thirty-two working groups were created to develop the project, and found that two major interest groups appeared from the conceptual offerings. The first, a quiet park with natural areas, a place to relax and enjoy the open space, and the second, a highly active recreational space with lots of opportunity for sports and activities (Burgess, 2014). Thus, came the 'Park of Two Speeds', fulfilling both visions of the diverse community groups.

### 2.8.5 Empower

*IPA2 (2014) describes the empowerment approach as the facilitation of individuals, communities and organisations gaining power over their environment and making the final decision.*

Empowerment is the fundamental and most equitable platform for citizen involvement in co-creation, where participants are upskilled to increase community capacity, and gain the power to implement outcomes (IAP2, 2014). Decision-making with integrity will encompass equity, democracy and inclusion (Fainstein, 2010). This can be achieved in workshops on skills and technical assistance, or the creation of opportunities for skill exchange among participants and organisations (Freudenberg et al, 2011). Genuine empowerment will involve reaching out to uninvolved community groups and provide a space for their input in key decisions (Freudenberg et al, 2011).

The Public Works Department of San Francisco City have a partnership with San Francisco Parks Alliance and are together renewing unused lots owned by the Department for community-managed open spaces (SF Parks Alliance, 2019). The Alliance and Public Works joined together to gain approval of the site for community activation, provided there is demonstrated community interest (SF Planning, 2016). The Alliance supports the community to develop an action plan including proposals, budget and planting lists, and runs seminars to support ongoing stewardship (SF Planning, 2016). As well as providing funding or assistance with fundraising to bring the parks to life, project leaders have worked with neighbourhood stakeholders on volunteer work days to implement their action plan to transform unused Public Works property into over 120 community parks in San Francisco (SF Parks Alliance, 2019).

Another form of empowerment experiencing global attention is the citizens' jury, or citizens' assembly. Each are defined as 'mini-publics' where a randomly selected body of citizens is selected to reason together for a predetermined amount of time to deliberate on a particular issue and provide a set of recommendations or come to a collective decision (Smith & Setälä, 2018). This kind of deliberative democracy technique is an ideal form of community engagement as it "yields input from a group that is both informed and representative of the public" (McBride & Korczak, 2007, para.13).

Citizen juries demonstrate that if informed and provided with time to deliberate and a space to be heard, members of the public can make an informed decision on issues that they may have been previously unaware of (Coote, 1992). In the U.K., this technique has been successfully





used by the Institute for Public Policy Research (IPPR) to help with decision-making on policy around various health issues (Ireland et al, 2006). A successful example was a youth jury deliberating on embryo selection, where each juror found the process so rewarding that every single juror stated they would have participated regardless of financial compensation (Ireland et al, 2006). In other cases, however, this compensation is important to incentivise those who have not yet shown interest in city matters (Gerwin, 2018).

The assurance of impact is an important element of the 'mini-publics' technique. Often the decision or recommendations by a citizens' assembly or jury is taken into account (Ireland et al, 2006) but not enacted (Kamenova & Goodman, 2015). For the process to be taken seriously, and to increase the interest and involvement of participants, these 'mini-public' must be afforded a more decisive role (Smith & Setälä, 2018). Decisions made on climate-related crises in Gdańsk, Poland by a citizens' assembly, were determined at the beginning of the process to result in mandatory ratification (Gerwin, 2018). The mayor of Gdańsk agreed the assembly's decision would be binding upon him if the consensus of the members of the citizens' assembly was at least eighty percent (Gerwin, 2018). As a result, the city is now more resilient to heavy rainfall after the first assembly made recommendations on flood management (Rushton, 2018). The citizens' assembly model has been used again in Gdańsk, and now Lublin, on other environmental issues. The World Health Organisation estimated that annually, 50,000 people die in Poland from air pollution related illnesses (WHO, 2014). Assemblies in Gdańsk and Lublin were coordinated to decide on actions around air quality, and both made specific recommendations that all coal burning home furnaces be phased out in five years, which is now underway (Rushton, 2018).



## 3 References

### Reference List:

Allegrini, G (2018) Urban agriculture and social innovation. The case of the “Salus W Space” project in the city of Bologna, in *Metropolitan Agriculture and Nature-Based Solutions* eds. Cavallo, M and Spillare, S, Madre Project, Milano. Retrieved from: <https://connectingnature.eu/sites/default/files/images/inline/Metropolitan%20Agriculture%20and%20Nature-Based%20Solutions.pdf>

Appelstrand, M (2002) Participation and societal values: the challenge for lawmakers and policy practitioners, *Forest Policy and Economics*, vol. 4 pp. 281-290.

Brooks R, Kelley W, Amiri S (2016) Social Equity of street trees in the pedestrian realm. *Papers in Applied Geography*. Vol 2, no. 2, pp. 216 -235.

Hollyday, V (2014) Graphic based on the IAP2 Spectrum of Public Participation, Image, Axiom News, September 25, Retrieved from: <http://axiomnews.com/our-rutland-raising-bar-public-engagement>

Burgess, M (2014) Community Participation in Parks Development: Two Examples from Berlin, The Nature of Cities Summit, blog post, Retrieved from: <https://www.thenatureofcities.com/2014/12/10/community-participation-in-parks-development-two-examples-from-berlin/>

Burin, M (2018) People from all over the world are sending emails to Melbourne’s trees’ ABC News, 12 December, Retrieved from: <https://www.abc.net.au/news/2018-12-12/people-are-emailing-trees/10468964>

City of Melbourne (2019) Urban Forest Precinct Plans <https://www.melbourne.vic.gov.au/community/greening-the-city/urban-forest/Pages/urban-forest-precinct-plans.aspx>

Coote A, Lenaghan J (1997) Citizens' Juries: theory into practice *Institute for Public Policy Research*, London, UK: Institute for Public Policy Research.

Department of Health and Human Services (2018) Stakeholder engagement and participation framework and toolkit, Department of Health and Human Services <https://dhhs.vic.gov.au/publications/stakeholder-engagement-and-public-participation-framework-and-toolkit>

Einstein, K. L., Palmer, M. and Glick, D. M. (2019) Who Participates in Local Government? Evidence from Meeting Minutes, *Perspectives on Politics*. Cambridge University Press, vol.17, no.1, pp. 28–46.

European Commission (2005) Spacemaker’s Project, European Commission U.K. ([https://ec.europa.eu/regional\\_policy/en/projects/united-kingdom/youth-involvement-and-action-the-spacemakers-project](https://ec.europa.eu/regional_policy/en/projects/united-kingdom/youth-involvement-and-action-the-spacemakers-project))



European Commission (2016) Policy Topics: Nature-Based Solutions, European Commission, accessed 16 October 2019, <<https://ec.europa.eu/research/environment/index.cfm?Pg=nbs?>>

Environmental Protection Authority (2018) Public Participation Guide, Environmental Protection Authority (EPA), accessed 7 October 2019 <<https://www.epa.gov/international-cooperation/public-participation-guide-selecting-right-level-public-participation>>

Faehnle, M (2014) Collaborative planning of urban green infrastructure – need, quality, evaluation, and design. University of Helsinki, Department of Geosciences and Geography, Helsinki.  
[https://helda.helsinki.fi/bitstream/handle/10138/44687/Faehnle\\_Maija\\_PhD\\_web.pdf?sequence=1&isAllowed=y](https://helda.helsinki.fi/bitstream/handle/10138/44687/Faehnle_Maija_PhD_web.pdf?sequence=1&isAllowed=y)

Faehnle, M., Tyrväinen, L (2013) A framework for evaluating and designing collaborative planning. *Land Use Policy*, no.34, pp. 332–341.

Furlong, Phelan & Dodson (2018,) The Role of Water Utilities in Urban Greening: A Case Study of Melbourne, Australia, *Utilities Policy*, no. 53 pp.25-31.

Frantzeskaki N, Wittmayer J, Loorbach D (2014) The role of partnerships in ‘realizing’ urban sustainability in Rotterdam’s City Ports Area, the Netherlands. *J Clean Prod* 65:406–417

Frantzeskaki, N (2019) ‘Seven lessons for planning nature-based solutions in cities’, *Environmental Science and Policy*, vol.93, p.101-111.

Gerwin, M (2018) ‘Citizens’ Assemblies: Guide to democracy that works, *Open Plan Foundation*, Krakow. Accessed 22 September 2019 <[https://citizensassemblies.org/wp-content/uploads/2018/10/Citizens-Assemblies\\_EN\\_web.pdf](https://citizensassemblies.org/wp-content/uploads/2018/10/Citizens-Assemblies_EN_web.pdf)>

Hart R (1997) ‘Children’s Participation: The Theory and Practice of Involving Young Citizens in Community Development and Environmental Care’ UK, Earthscan Publications Limited.

Ireland R, Longley M, Thomas C, Shaw A (2006) What choices should we be able to make about designer babies? A citizens' jury of young people in South Wales. *Health Expect.* vol.9 no.3, pp. 207-217

iNaturalist, n.d. ‘City Nature Challenge’ Project, iNaturalist, <<https://www.inaturalist.org/projects>>

Jacobs, J (1992) *The death and life of great American cities*, New York: Vintage Books.

Jackson S & Altman J (2009) Indigenous Rights and Water Policy, Perspectives from Tropical Northern Australia, *Australian Indigenous Law Review*, vol.13, no.1.

Javaid, S & Habeeb, R (2018) Participatory Planning in Urban Green Spaces: A Step towards Environmental and Social Equity. Conference Paper: 6th National Seminar on Architecture for Masses on the theme of "Environmental Remediation & Rejuvenation", At Jamia Milia, New Delhi, India.

Kendal et al (2016) Benefits of Urban Green Space in the Australian Context, *Clean Air and Urban Landscapes Hub*, Melbourne.



Kamenova, & Goodman, (2015) Public Engagement with Internet Voting in Edmonton: Design, Outcomes, and Challenges to Deliberative Models, *Journal of Public Deliberation*, Vol. 11, no.2. Accessed 2 October 2019 <<https://www.publicdeliberation.net/jpd/vol11/iss2/art4>>

Li J, & Emerton L, (2012) 'Moving closer to nature: lessons for landscapes and livelihoods from the Miyun landscape,' China. *IUCN*, Gland, Switzerland.

Mabelis, A & Maksymiuk G (2009) 'Public Participation in green urban policy: Two strategies compared', *International Journal of Biodiversity Science & Management*, vol.5, no.2, pp.63-75.

Maller, C Townsend, M, Pryor, A, Brown, P, & St Leger, L (2006) 'Healthy nature healthy people: contact with nature as an upstream health promotion intervention for populations' *Health Promotion International*, Volume 21, no. 1, pp. 45–54.

Monash Sustainability Institute & The City of Melbourne (2016) 'Caring for Country: An Urban Application', *National Environmental Science Program*, Retrieved from: <[https://nespurban.edu.au/wp-content/uploads/2018/11/CaringforCountryReport\\_Apr2016.pdf](https://nespurban.edu.au/wp-content/uploads/2018/11/CaringforCountryReport_Apr2016.pdf)>

McBride, T & Korscak, V (2007) 'Community consultation and engagement in health care reform', *Australian Health Review*, vol. 31, pp. 13-5.

Okello ,N Beevers , L, Douven W & Leentvaar, J (2009) The doing and un-doing of public participation during environmental impact assessments in Kenya, *Impact Assessment and Project Appraisal*, vol.27, no.3, pp.217-226.

Oregon Parks and Recreation Department (2018) *Statewide Comprehensive Outdoor Recreation Plan*, Oregon Parks and Recreation Department, Retrieved from: <[https://www.oregon.gov/oprd/PLANS/docs/scorp/2013-2018\\_SCORP/2013-2017\\_Oregon\\_SCORP.pdf](https://www.oregon.gov/oprd/PLANS/docs/scorp/2013-2018_SCORP/2013-2017_Oregon_SCORP.pdf)>

United Nations (1992) Sustainable development: Agenda 21, *United Nations Conference on Environment & Development*, Rio de Janeiro, Brazil, June 3–14.

Ribot, J (1996) Participation without representation, *Cultural Survival Quarterly*, vol.20, no.3, pp.40–44.

Rushton, S (2018) 'In Poland, local movements are challenging the nation's addiction to coal' *Equal Times*, blog post, accessed 22 September 2019, <<https://www.equaltimes.org/in-poland-local-movements-are#.XYcWEpMzZmB>>

San Francisco Parks Alliance, (2019) Street Parks Program' San Francisco Parks Alliance, retrieved from: <<https://www.sfparksalliance.org/our-work/programs/street-parks>>

San Francisco Planning, The Street Plans Collaborative, and MJM Management Group (2016) 'Public Space Stewardship Guide', retrieved from:<[https://issuu.com/streetplanscollaborative/docs/task2\\_mgmt-guide\\_final\\_web](https://issuu.com/streetplanscollaborative/docs/task2_mgmt-guide_final_web)>



Schellong, A (2009) Citizen Relationship Management in MiamiDade County in: Rizvi, Gowher/ de Jong, Jorrit (Ed.) "The State of Access", Brookings, pp.191-206.

Shan X 2012, Attitude and willingness toward participation in decision-making of urban green spaces in China, *Urban Forestry & Urban Greening*, Volume 11, issue 2, p. 211-217

Sommer, R, Learey, F, Summit, J, Tirrel, M (1994) Social Benefits of Resident Involvement in Tree Planting: Comparison with Developer Planted Trees, *Journal of Arboriculture*, vol.20, no.6.

Smith, G., & Setälä, M (2018) 'Mini-Publics and Deliberative Democracy' In The Oxford Handbook of Deliberative Democracy, Oxford University Press.

Fisher, F (2004) 'Building Bridges Through Participatory Planning', United Nations Centre for Human Settlements UNCHS (Habitat).

van Ham C., Klimmek H (2017) 'Partnerships for Nature-Based Solutions in Urban Areas – Showcasing Successful Examples' In: Kabisch N., Korn H., Stadler J., Bonn A. (eds) Nature-Based Solutions to Climate Change Adaptation in Urban Areas. *Theory and Practice of Urban Sustainability Transitions*.

Van Herzele A, Collins K, Tyrväinen L, (2005) Involving People in Urban Forestry — A Discussion of Participatory Practices throughout Europe, In: Konijnendijk C., Nilsson K., Randrup T., Schipperijn J. (eds) *Urban Forests and Trees*. Springer, Berlin, Heidelberg.

Waller, S (2009) Engaging Citizens in State Recreation Planning, Public Manager, retrieved from:  
<[https://www.recpro.org/assets/Library/Planning\\_Guidance/engaging\\_citizens\\_in\\_state\\_recreation\\_planning\\_2010.pdf](https://www.recpro.org/assets/Library/Planning_Guidance/engaging_citizens_in_state_recreation_planning_2010.pdf)>

World Health Organisation, (2014) 7 million premature deaths annually linked to air pollution, accessed 8 September 2019, <<https://www.who.int/mediacentre/news/releases/2014/air-pollution/en/>>

Yang, J, & Volkman, N (2010) From Traditional to Contemporary: Revelations in Chinese Garden and Public Space Design *Urban Design International*, vol.15, no.4 pp. 208-20.

