

# Mainstreaming the co-production of Nature-based Solutions in European cities

Co-production processes enable urban planners and policymakers to unlock the potential of Nature-based Solutions (NBS) to address multiple urban challenges simultaneously. The Connecting Nature EU-funded project has worked with ten cities in Europe to foster the large-scale development of NBS while highlighting the benefits that NBS co-production can deliver. Based on the observation of these cities, this policy brief identifies six design principles for designing and evaluating co-production processes, and presents a set of recommendations to foster an enabling environment and support the mainstreaming of co-production into urban planning.

## Introduction

Nature-based solutions (NBS) – urban interventions inspired and supported by nature – provide multiple environmental, social and economic benefits and help build resilience at local, national and international levels. Embedding co-production processes into the planning and delivery of NBS enables policymakers and urban planners to tap into the potential of nature to address multiple urban challenges and deliver on policy and community agendas simultaneously (Laforteza et al. 2018; Connop et al. 2016; Eggermont et al. 2015).

In and through co-production, practitioners, civil servants, entrepreneurs, scientists, social innovators and citizens, amongst others, collectively identify problems and priorities, produce and combine knowledge and turn that knowledge into action (Brandsen et al. 2018; Puerari et al. 2018; Sorrentino et al.

2018). Thus, co-production can leverage the creativity needed for NBS and ultimately embed them into urban life – for example by generating new visions, partnerships, nature-based entrepreneurship and by activating and empowering actors (Frantzeskaki 2019; Kabisch et al. 2016; Nel et al. 2015; Wamsler et al. 2014; van der Jagt et al. 2019).

For national and EU policy makers, explicitly making space for co-production processes in NBS policies and funding streams will establish an enabling culture for delivering on global societal goals such as the UN SDGs. It will also help realise many of the key beneficial impacts highlighted by the EU Nature-Based Solutions Task Force "Integrated Assessment Framework" (EU NBS Task Force 2), which developed an evaluation framework to capture the impact of NBS across a range of societal challenges.

## Co-producing NBS in Connecting Nature

Connecting Nature has supported and observed ten European cities while experimenting with NBS co-production: Glasgow (UK), Genk (BE), Poznan (PL), A Coruna (ES) Burgas (BG), Ioannina (GR), Malaga (ES), Nicosia (CY), Sarajevo (BiH) and Pavlos Melas (GR). A community of researchers, industry players and other partners was built to foster peer-to-peer learning and capacity building to implement large-scale NBS.



Photo: Jonathan Kemper/Unsplash

Through the Connecting Nature co-production process, our cities used creative ways to engage and empower local residents, overcome the barriers of silo working and develop innovative and context-specific nature-based solutions.

In experimenting with co-production, the cities showed that it can take place in multiple formats, from operational processes, such as the design of a specific NBS, to strategic ones, such as the development of overarching policies and planning agendas.

### Genk – co-production in the masterplanning process

Genk (Belgium, population of 65.000 inhabitants) is developing a ‘Stiemer Programme’ to implement a multifunctional blue-green urban valley: the Stiemerbeek Valley. The co-production process for the development of the Stiemervalley started with development of a spatial masterplan with the aim to create a spatial vision of the valley and link it to other city strategies.

The various co-production activities involved other city departments, experts, citizens and regional governmental institutions. They were invited to think about the Stiemervalley in various ways, for example, by joining bike tours, workshops, neighbourhood dialogues and a Stiemer quiz. Four neighbourhood dialogues were held in different parts of the valley to introduce the masterplanning process, harvest local knowledge and collect input for the plan.

A workshop on ecosystem services sought to unite and connect different interests and visions, define win-wins and trade-offs, and gather multidisciplinary input on functions and services of the valley. The Infoquiz increased support and raised awareness for, as well as collected feedback on the spatial masterplan.

Several pilot projects have been selected for implementation – e.g. redeveloping a former mill as an arts and information centre and gateway to the Stiemer, and rain gardens and other sustainable urban drainage system (SUDS) features to capture rainwater across the Stiemer catchment – which will be further developed through operational co-production. Co-production thinking was also mainstreamed into the Stiemer programme's governance structure, including Stiemer deals.

A Stiemer deal is an agreement between the city and another party in which it is agreed how they will work together towards a common goal related to the Stiemer valley, taking into account not only the needs of the municipality, but also of citizens and relevant associations or entrepreneurs.

Photo: City of Genk



## How co-production contributes to urban governance

Co-production has become a highly valued collaborative governance method in the Connecting Nature cities, because it:

- ... is a process where **different types of knowledge** and expertise are involved on an equal basis.
- ... boosts **innovation** by allowing the exchange of ideas on needs and solution options in an open rather than predefined way.
- ... can be used both **internally** (to enhance collaboration among departments) and **externally** (to involve relevant stakeholders outside an organization).
- ... contributes to the **democratization** of decision-making.
- ... spurs new **relationships and partnerships** between actors that otherwise are not in contact with each another.
- ... **empowers** actors to co-define their roles in contributing to addressing urban challenges and implementing solutions.
- ... can be used on **strategic, tactical** as well as an **operational levels** (e.g. co-producing long-term strategic agendas, setting up programmes and selecting the right projects, or designing and building a local park or garden in collaboration with different stakeholders).

## Six design principles for co-production

We found that the incorporation of six key principles is crucial to the success of co-production processes:

### 1. Inclusivity: Bringing together multiple types of knowledge by...

- a. Identifying various stakeholders and going beyond the 'usual suspects'
- b. Approaching local actors with multiple engagement and communication formats

### 2. Openness: Being open to new ideas and to share knowledge throughout, by...

- a. Clearly communicating what will be done with the results of the process
- b. Remaining reflexive and flexible to adapt the process and its aims

### 3. Legitimacy: The process is fair and trustworthy because...

- a. An equal voice is given to diverse actors and types of knowledge
- b. Being aware of political, cultural and social tensions and mediating conflicts

### 4. Actionable knowledge: relevance to policy and planning, by..

- a. Linking and translating outputs to existing strategies, goals and processes
- b. Ensuring political support and building political momentum

### 5. Empowerment of participants: shared ownership and action, due to..

- a. Open and constructive process to co-define roles and responsibilities
- b. Allowing new skill development and activating actors to take ownership

### 6. Breaking down silos and connecting agendas, through...

- a. The creation of new partnerships and networks
- b. The alignment of strategic goals and agendas across different policy and societal priorities

## Recommendations to policymakers

How can policy makers create an enabling environment that supports the mainstreaming of co-production? This is vital to delivering nature-based solutions that are inclusive, responsive to local needs and achieve multiple local, national and global goals.

- Raising awareness about co-production, including benefits and best practices, and investing in skill development
- EU and national funding streams for nature-based solutions should require meaningful co-production processes as part of every program that include:
  - Clearly defined goals for co-production
  - Defined roles for a wide range of actors with participative and inclusive engagement techniques
  - Explicit funding for resources, skills, time, and support to partners who can deliver meaningful and effective co-production processes within projects and programs
- EU and national policymakers to include the principles and language of co-production when communicating with networks and developing policies and strategies for nature-based solutions
- Local policymakers to embed co-production processes when developing their local strategic visions to ensure synergies between objectives and goals and create opportunities for delivery of multiple environmental, social, economic and health benefits in an inclusive way
- Local government officers and elected officials should lobby for support and backing of co-production at higher levels within their institutions

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References: Brandsen, T., Steen, T., Verschuere, B. (eds.) (2018) Co-production and co-creation. Engaging citizens in public services. Routledge Critical Studies in Public Management, New York and London.

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>

Eggermont, H., Balian, E., Azevedo, J.M.N. et al. (2015) Nature-based Solutions: New Influence for Environmental Management and Research in Europe. *GAIA* 24(4): 243-248. <http://dx.doi.org/10.14512/gaia.24.4.9>

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>

Kabisch, N., Strohbach, M., Haase, D., & Kronenberg, J. (2016). Urban green space availability in European cities. *Ecological Indicators*, 70, 586-596.

Lafortezza, R., Chen, J., van den Bosch, C. K., & Randrup, T. B. (2018). Nature-based solutions for resilient landscapes and cities. *Environmental Research*, 165(December 2017), 431–441.

Nel et al. 2015 > needs to be adopted to Nel et al. 2016: Nel, J. L., Roux, D. J., Driver, A., Hill, L., Maherry, A. C., Snaddon, K., ... & Reyers, B. (2016). Knowledge co-production and boundary work to promote implementation of conservation plans. *Conservation Biology*, 30(1), 176-188.

Puerari, E., de Koning, J.I.J.C., von Wirth, T., Karré, P.M., Mulder, I.J., Loorbach, D.A. (2018) Co-creation dynamics in urban living labs. *Sustainability* 10: 1893. doi:10.3390/su10061893

Sorrentino, M. Sicilia, M., Howlett, M. (2018) Understanding co-production as a new public governance tool, *Policy and Society*, 37:3, 277-293, DOI: 10.1080/14494035.2018.1521676

van der Jagt, A.P.N., Smith, M., Ambrose-Oji, B. et al. (2019) Co-creating urban green infrastructure connecting people and nature: a guiding framework and approach. *Journal of Environmental Management* 233: 757-767. <https://doi.org/10.1016/j.jenvman.2018.09.083>