



BIO DIVER CITIES ATLAS

A PARTICIPATORY
GUIDE TO BUILDING
BIODIVERSE
URBAN FUTURES

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JRC133253

Print ISBN 978-92-68-01791-3 doi:10.2760/547958 KJ-08-23-045-EN-C
PDF ISBN 978-92-68-01792-0 doi:10.2760/18849 KJ-08-23-045-EN-N

Luxembourg: Publications Office of the European Union, 2023

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How to cite this report:

Quaglia, A., Guimarães Pereira, Â., Bizjak, K. R., De Schiffart, J., Ferreira, J.M., Ferrigno, M., Godienė, G., Gómez Llabrés, M., Gueorguieva A., Isidoro, C., Junyer Puig, H., Klumpers, S., Lacarac, D., Manica, M., Marando, F., Marsh, F., Mendes, R., Misiune, I., Mota, J.C., Noguera Ferrando, M., Pinho, P., Princé, K., Simonič Korošak, T., Tennås Holmen, A. and Zulian, G., *BiodiverCities Atlas: A participatory guide to building biodiverse urban futures*, Publications Office of the European Union, Luxembourg, doi:10.2760/18849, JRC133253

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ACKNOWLEDGEMENT

by **Anna Paola Quaglia** and **Ângela Guimarães Pereira**

This Atlas and BiodiverCities are the results of many hands, minds and hearts.

Firstly, we would like to express our gratitude to the local experts for their work and commitment: Medea Ferrigno, Saskia Klumpers, Tanja Simonič Korošak, Danica Lacarac, Maria Gómez Llabrés, Milo Manica, Franca Marsh, Ieva Misiune, José Carlos Mota and Pedro Pinho. You were the true 'engines' of BiodiverCities.

Special thanks also to Catarina Isidoro, Giedre Godiene and Stefania Villa, deeply involved in the

design and implementation of the local projects in Valongo, Vilnius and Varese, respectively.

Secondly, we would like to thank the municipality representatives, namely Catarina Amengual, Biel Horrach and Miquela Noguera, (Ayuntamiento de Palma), Francesco Bivona (former Mayor, Comune di Regalbuto), Klemen Risto Bizjak (Mestna občina Maribor), Jolanda de Schiffart (Gemeente Leiden), José Ferreira, Gisela Martins and Rute Neves (Câmara Municipal de Valongo). Your involvement and dedication

was key to gaining political and institutional awareness of the results and knowledge provided by the citizen engagement processes.

Our gratitude also goes to Ann-Karin Tennås Holmen and Helena Puig Junyer who contributed reflexivity to the project, helping to make sense of conditions for embedding co-creation approaches in the ways public institutions work.

We wish to thank Ben Caspar and the Commission's Directorate General for Environment for supporting us in this project and its

successful implementation, as well as the European Parliament for funding this pilot project.

We also would like to thank the European Committee of the Regions for hosting the BiodiverCities final policy event.

Finally, we wish to express our deepest appreciation to all the citizens who participated. Needless to say, without your participation, the project wouldn't have taken place.

Thank you!

PREFACE

by **Patrick Child**, Deputy Director-General of the Directorate-General for Environment, Manager of the Mission on Climate-Neutral and Smart Cities

We are in an unprecedented time in terms of environmental policy-making and implementation for a number of reasons. The first is that awareness of the challenges we are facing is at an all-time high. The links between climate change and biodiversity loss, and the relationship to ecosystems and their health, and the health of our social and economic well-being are now more widely accepted and understood than ever before.

Europe has seen the most ambitious green policy drive ever made. With the EU Green Deal, the Commission has put forward a wide range of groundbreaking policy initiatives in support of the climate change mitigation, environmental protection and nature restoration. Many of these have direct relevance to cities, and some have specific urban aspects to them.

The biodiversity strategy also recognises the importance of addressing the quality of urban ecosystems for reaching its objectives, highlighting their importance as havens for wildlife, including pollinators and key

bird species, as well as the contribution they can make to reducing flooding risk and lowering ever increasing summer temperatures, not to mention making our cities and towns much nicer places to live and work, and their importance for our physical and mental well-being.



Europe has seen the most ambitious green policy drive ever made. With the EU Green Deal, the Commission has put forward a wide range of groundbreaking policy initiatives in support of the climate change mitigation, environmental protection and nature restoration.”

Citizens are key partners to achieve transformative change in this direction and several policy initiatives fully acknowledge such role. For example, the EU Mission on Climate-Neutral and Smart Cities puts at its heart citizens, in all their different roles, e.g. as political actors, users, producers, consumers, visitors. More than that, recalling the BiodiverCities Strategy for 2030, it acknowledges that a new governance

framework is needed to go beyond the silo working practices, towards more integrated, inclusive, cross-cutting and participatory governance. In short, to change the ways institutions work with citizens, local and regional authorities, and Member States.

Institutional change, however, requires time and capacities need to be built to achieve the transformative change promoted by these policies. There is a need to learn to work differently – particularly by connecting with local and regional authorities and communities.

BiodiverCities has been a valuable forum and platform to learn from and for moving forward with these policy developments.

The diversity of citizen engagement formats and political and institutional cultures has shed light on how to achieve such change, and how public institutions and citizens can work together to address, in a meaningful way, such pressing challenges as biodiversity decline and the liveability of our cities.

I am pleased to see the Biodivercities project delivered both in terms of actions in support of urban biodiversity, from increasing green spaces to developing visions for more sustainable futures, and in terms of piloting what inclusive and participatory governance practices mean.

I hope that this work can provide knowledge and know-how to move forwards on several policy files as EU Missions Climate-Neutral and Smart Cities, Adaptation to Climate Change and Soil.

BiodiverCities emphasises that citizens absolutely need to be involved if the Green Deal is to successfully deliver on its aims, and if we are to reach climate neutrality by 2050.

INTRODUCTION

by **Anna Paola Quaglia** and **Ângela Guimarães Pereira**

The BiodiverCities project engaged directly with citizens to co-create sustainable cities for the future and to enhance biodiversity in urban areas. The project sits within the context of the EU Biodiversity Strategy for 2030. The **Competence Centre on Participatory and Deliberative Democracy**

(CC-DEMOS) supported 10 cities in engaging citizens on the ground to co-create visions around urban nature, enhancing the quality and quantity of green spaces, monitoring urban biodiversity and finding ways to improve it. Between 2020 and 2022, more than 1 000 citizens were engaged in this process.

BiodiverCities was a pilot project funded by the European Parliament, and run by the Joint Research Centre (JRC) and the Directorate-General for Environment (DG ENV) of the European Commission. The project also contributed to the mapping of urban biodiversity and ecosystem services at the European

scale. Cities participating in the citizen engagement stream of work were selected through a **Call for an expression of interest**¹, which gathered 40 applications. The 10 selected cities received support in the form of individual coaching, capacity building and a contract to a local citizen engagement expert.

<https://oppla.eu/call-expression-interest-collaborate-biodivercities-project>

This Atlas is a **collection of stories**: stories of big, small and medium-sized cities, with many or few green spaces, with a stronger or weaker culture of public participation to engage citizens in the design of public policies.

These are stories of civic and political engagement: to do things better, at times to do things differently, but mostly **to do things together**. You will not find grandiose tales narrating transformative successes. You will find stories of civic, political and research experiments, accompanied by critical reflections. There are 10 stories, one for each of the 10 cities that took part in the BiodiverCities project: **Leiden, Lisbon, Maribor, Novi Sad, Palermo, Palma, Valongo, Varese and Vilnius**.

In these cities, 10 local experts had to design and implement a co-creation process, engaging citizens in support of urban biodiversity and green infrastructure. In other words, making greener and more bio-diverse cities with their inhabitants. Notwithstanding the differences, all the local projects engaged

with several fundamental questions: How to design, imagine, plan and make cities that protect and enhance biodiversity? How to do so with citizens? What does it mean to do it now and in a specific place? What are the institutional conditions that enable such a **collective process**? What other ecological, social and economic issues and processes does biodiversity depletion connect to? What are the politics of biodiversity?

As you will see, each city embraced this journey in unique ways, which resulted in equally unique outcomes. In some cases it is an insect hotel for pollinators or a community garden; in others, the process found its place within the revision of the local master plan or the drafting of a strategic development plan; for a few, the process itself was the outcome.

What each and every city accomplished, however, was the creation of **space where citizens and institutions could meet** to foster mutual understanding, on different grounds, and so move beyond a consultative culture

that is so deeply entrenched, both in public institutions and in societal expectations. In this case, too, there were more successful and less successful encounters. But the work has started, and this is important.

The JRC asked the experts to anchor the local engagement in the policy context by partnering with local authorities. The reason for this is simple. Decisions are taken in all cities and contexts; the question is **how, by whom, based on what knowledge and for whose benefit?** The richness and importance of **any form of public participation** – everyday, bottom-up or invited – for democratic liveliness is insufficient to ensure that these types of projects become **politically welcome**. Hence, the anchorage request (and the actions taken by the experts) was in itself an experiment and the frictions encountered show the politics of citizen engagement processes. A more detailed account of this and other rationales behind BiodiverCities are presented in the contribution that follows: [Hopeful discomforts: walking the walk of democratic politics](#).

It is necessary to bring inside institutions, knowledge, reflexivity and new practices, and at the same time to take the institutions *outside*. BiodiverCities helped, hopefully, to create this movement and exchange. In their research contributions hosted in this Atlas, [Ann-Karin Tennås Holmen](#) and [Helena Puig Junyer](#) analyse the conditions for such anchoring, from the perspectives of local municipalities and non-governmental actors – what several authors call the ‘institutionalisation’ or ‘embedding’ of participatory governance practices.

The BiodiverCities project also contributed to the mapping of urban biodiversity and ecosystem services. Beyond the stories from the 10 cities and their related reflections, the Atlas contains additional research contributions by [Grazia Zulian](#), [Federica Marando](#) and [Karine Princé](#), providing an overview of the structure, benefits and effects on urban green areas (e.g. birds) and a case study from the city of Sofia.

Enjoy the Atlas!

HOPEFUL DISCOMFORTS: WALKING THE WALK OF DEMOCRATIC POLITICS

by **Anna Paola Quaglia** and **Ângela Guimarães Pereira**

Let's start with the title: **Hopeful discomforts: walking the walk of democratic politics**. We think it is important that we explain it in relation to this Atlas and BiodiverCities at large. To start with, I recall you suggested including the word 'discomforts' in the title, to which I added 'hopeful'. Perhaps we can say a few words about this choice.

There is a poem by George Perec called On the difficulty of imagining an ideal city (1968). It goes like this:

I wouldn't like to live in America but sometimes I would

I'd love to live on the Boulevard St Germain but sometimes I wouldn't

I wouldn't like to live on a coral reef but sometimes I would

I wouldn't like to live in a dungeon but sometimes I would

I wouldn't like to live in the East but sometimes I would

I love living in France but sometimes I don't

I'd love to live in Greenland but not for too long [...]

This poem speaks about co-existence and ambivalences (or rather multiple

'valences'), ambiguities, multiple values and morals, which reflect temporal and contextual human needs and desires. It speaks to the co-production of living places (such as cities) with the physical space, and (the concealed or visible) human aspirations. We are also reminded of Italo Calvino's *Invisible Cities* (1972) and in particular this passage:

Cities, like dreams, are made of desires and fears, even if the thread of their discourse is secret, their rules are absurd, their perspectives deceitful, and everything conceals something else.

And this intriguing quote, also by Calvino (1972), that speaks about discomforts (and comforts) and other hopeful affordances one can expect from a life in a city:

You take delight not in a city's seven or seventy wonders, but in the answer it gives to a question of yours.

What about 'hopeful'? How are discomforts 'hopeful'?

We would like to go beyond the abused wording of crisis. Of course, crises and emergency(ies) exist, which are in themselves sources of distress and discomfort. But considering everything as a crisis is a strategy for offering cheap solutions. We use discomforts, because

somehow they beg the question of reflexivity. They afford a different (slow and considered) Chronos and Kairos. Discomforts make us learn and be reflexive about our present and make us dwell on how we would like to live. Troubles, discomforts, ambiguities, desires make us attentive and responsible as human beings and, ultimately, as citizens. We also live in quite gloomy and cynical times, with dramatic presents that will not go away. Can we hope for more? Can we engage in the making of public life, in different ways, provide more hopes and enable us to have more hopeful futures? We will add something else on hope later on. But now, let's go back to democracy and the project.

BiodiverCities is at the crossroads of space and democracy. At its start, in 2020, we launched an open invitation to European cities to join the project, if '[...] interested and committed to endorse **participatory planning of green infrastructures and urban green**'. We welcomed initiatives that would, among others, develop joint visions for greener cities; implement or test monitoring approaches for urban biodiversity (citizen science) and finally, propose participatory actions that could locally enhance the quantity and quality of urban green spaces. We welcomed applications from all types of cities, both in terms of size as well as representation.

This point is important. What is a city? Who represents it? Who speaks for it? Our approach was simple: **a city is of those that inhabit it. As daily makers of the city**, citizens can also speak for, so not just about their city. There is another Perec text called The town that helps us here:

Don't be too hasty in trying to define the city;

it is much too big, and there is every likelihood that you will get it wrong.

A city is many cities, depending on the viewpoint and worldview, like in the writings of Italo Calvino and Jorge Luis Borges. The point of inviting citizens to co-plan and design their futures can be bluntly put as: to make space for these different viewpoints and worldviews to, firstly, emerge and then, to politically count. We have also purposefully welcomed expressions of interest from smaller towns, one of which was selected (Regalbuto). Urban geographies are embedded in broader territorial contexts and biodiversity depletion requires collaboration across territorial scales. What were the ambitions of BiodiverCities? Did it go according to plan?

We would first like to remind ourselves that this was a *pilot* project from the European Parliament. This leaves plenty of room

to change the plan if necessary. So the answer is yes and no. The project originally envisaged a deep collaboration across different research threads; however, this did not happen with the ‘planned’ collaborators. To a great extent, the very cases allowed for degrees of transdisciplinary research to happen, especially those where citizen engagement was informing research. This wasn’t an intentional change, but one that was due to organisational issues. However, the most striking circumstance that had a serious impact on the project was the COVID-19 pandemic and its governance. At a deeper level, through fearing contagion and focusing on our families, when not just ourselves, we lost touch and found ourselves with ‘a shrinking sense of the world’ as Low noted (2020). In practice, public life was suspended, if not banned, in an intermittent way, until spring 2022.

For BiodiverCities, it had many implications for how the project was managed, implemented and also disseminated. As in every crisis, there are opportunities. And the word co-creation was not solely about the approaches of citizen engagement experimented in this project, but also about co-creation of the project planning and implementation with the experts themselves. We started off with research questions centred on whether a move to participatory reconnection-to-nature is necessary and what would be the conditions for citizen engagement to work and be delivered at a local level. However, the global pandemics changed the importance of the project and changed those questions. In many cities, access to nature was actually denied.

People were confined in their homes, with nowhere green to escape to. So the situation allowed for a more conscious realisation and reflection of human (lost in many ways) connection and reconnection to nature¹. So, the question was not whether it was necessary to engage citizens in the planning of green spaces, but much rather how to make those engagements happen so that space is planned according to the expectations, desires and ideas of the citizens that inhabit those cities. And eventually, how to institutionalise co-creation practices and what that means for citizens and institutions. What models of democracy is BiodiverCities nurturing?

BiodiverCities is a good container of **different ways and modes to engage citizens**. This variety allows us to go back to the **‘whys’ for this particular project**. Why does it matter if citizens are engaged in the making of public policies or research in support of urban biodiversity and for more liveable cities? What were the project’s rationales?

The first ‘why’ is that **‘it is necessary’**. Technical and scientific knowledge are not sufficient to frame and address so-called wicked societal issues, from climate change and health to mobility. We, thus, consider citizen participation as a way to mobilise situated knowledge held by all knowledge-holders (and this includes ordinary citizens) affected by or affecting the issue of concern, in order to take fit-for-purpose decisions. On this point, Post-Normal Science (PNS) posits that when ‘facts are uncertain, values in dispute, stakes high and decisions urgent’, new methods,

involving what Funtowicz and Ravetz called extended peer communities, have to be applied to address the issues of concern. Within this approach, largely developed at the JRC by Funtowicz and Ravetz in the late 1980s, any citizen is a peer who, together with all relevant stakeholders, produces ‘extended facts’ (Funtowicz and Ravetz, 1993). and takes an active part in the solution of the problem. In sum, acknowledgement of the limits of science and, at the same time, recognition of plural ways of knowing, lead to opening the process. It is also necessary in view of fundamental rights and democracy, in particular ‘equality’². Joan Tronto (2015) once wrote, ‘How can a democracy survive if some citizens view others as fundamentally incompetent, or as people of whom to take advantage.’ So, it is necessary because if democracy is deemed still the best governance and political regime, institutions (and citizens themselves) need to bring back to the heart of public policy, research and decision-making, the core of democracies: citizens. What is the second ‘why’?

‘It is fair’. Citizens are rights-holders and in light of their right to participate on equal footing to the making of public and social life, they should be invited to contribute to decisions on matters they are concerned and care about. This is what Nancy Fraser called **cultural recognition**, a necessary condition for members of a society to interact with one another as **peers** (she called this ‘parity of participation’). By inviting citizens, public institutions formally recognise such rights and, if you will, by enabling participation in

policy-making, they can foster social justice, including environmental justice, especially when vulnerable citizens and communities are invited to legitimately participate in the design of public policies that affect them. In the context of BiodiverCities, this ‘why’, has a clear connection with the ambition for **just sustainabilities**, which Agyeman and colleagues (2003, p. 5) describe as ‘the need to ensure a better quality of life for all, now and in the future, in a just and equitable manner, whilst living within the limits of supporting ecosystems’.

To frame citizen engagement as a matter of social justice makes us consider issues of **political inclusivity**. This leads us to one of the most challenging aspects of citizen engagement: recruitment of participants.

Yes. **Representativeness** is central to democracy. In representative democracy, representativeness is ensured by free and fair elections of elected representatives. In the same way, participatory processes, issues of representativeness matter: whose views are represented? Who is making and framing issues? How to ensure that the proposals are legitimately representative of different people? In deliberative processes, representativeness means that a representative selection has to be made, based on stratification by demographics (based on census or others) using professional statistical random sampling techniques. In some co-creation processes, this kind of representativeness is not always necessary, especially when the communities of concern are very well defined. However, seeking

1 In early summer 2021, under the umbrella of the New European Bauhaus initiative, we conducted 3 citizen panels in 3 EU countries. Reconnection to nature linked to good health was a prominent proposal from citizens.
 2 Equality is a fundamental human right – EU Charter of Human Rights.

to select, as much as possible, a representative sample of citizens affected or interested by the issue at stake is important to ensure the quality of the process. For example, the nature of the issue itself (air pollution or cancer affect each and every one of us), the scale (biodiversity in a city or at a neighbourhood level concerns primarily the communities concerned) and the community affected (any inhabitant of a city or a specific group of citizens e.g. youth)³. Hence, who needs to be invited? And what to do with those that are excluded? These are key questions to ask upfront.

Within BiodiverCities, all local engagement processes made use of purposeful or opportunistic sampling, or a combination of the two⁴. What can we learn from different sampling strategies?

In most cases, the process results are to be considered exploratory as the samples were not representative. But considerations on the quality of process depend on the of processes. And indeed, let us turn now to a third ‘why’.

‘It is useful’. In post-normal science, the most important rationale to engage the extended peer community is about quality assurance,

especially to avoid Type II errors, i.e. solving the wrong problem. And in BiodiverCities, usefulness is not just focused on the usefulness of citizen engagement processes in public policy. It is also about the usefulness of experiments in governance, through which public institutions may learn to work differently, internally and with citizens. This means working within unequal power dynamics, instrumental purposes and different types of constraints (e.g. resources, legal frameworks, etc.) with

reflection. The scholar Puig De La Bellacasa (2011) proposed a move from Latour’s matters of concern to matters of care; this is because ‘matters of concern’ do not consider enough the power dynamics that lead to certain things qualifying as concerns, hence requiring attention and care, while making other things invisible and neglected, along with (intentional and unintentional) silencing and exclusion of associated knowledge and practices. Caring is about being attentive, as Tronto (2015) argued, and it has also strong material,

i.e. those matters about which collectives and individuals are willing to do something about. Matters that require a safe dedicated space to even become visible, let alone voiced, for which there are often no clear-cut options to choose from (Funtowicz and Ravetz, 1993). We would like to emphasise care as a neglected departing point in citizen engagement practices and democracy, and as such as a fourth ‘why’ and ‘how’ (as methods and institutional disposition will need to be adjusted under this lens).

A fresh perspective to engaging citizens, thus, is not only a call to mobilise their values, knowledge, positions and expectations about issues of care, but also a way to give full dignity to different ways of living, knowing and caring.

Finally, it was Tronto (2015, p. 40) that reminded us almost a decade ago that ‘rethinking democracy as a system to support people as they try to live more humane and caring lives is the next step in our ongoing democratic revolution’.

Therefore, and in conclusion, within this framework, caring for is a pragmatic call to deliberate better.

“Within BiodiverCities, all local engagement processes made use of purposeful or opportunistic sampling, or a combination of the two.”

principles of inclusiveness, respectfulness and care.

This is discussed at length by Ann-Karin Tennås Holmen and Helena Puig Junyer in their contributions to this Atlas. Hence, through BiodiverCities we are arguing for a right to experiment! This ‘why’ is very much about ‘how’. How do we walk this walk?

We have mentioned care several times. And we would like to offer the following

and affective and bodily expressions. But as Puig De La Bellacasa (2011) argues, care and caring emphasise the interdependencies of our world and lives. Those dependencies, we would argue, cannot be better addressed but through collective engagement in the issues we care about. Hence, by allowing a diverse set of actors to contribute to framing and taming collective problems, it might be possible to direct our attention to ‘matters of care’,

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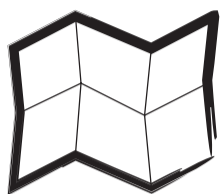
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3 **Purposeful sampling** implies identifying citizens based on certain characteristics (e.g. the place they live in or the illness that affects them, employment, formal citizenship, etc.). In pilot projects and co-design processes, **opportunistic sampling** is often used; it is a non-probabilistic sampling technique that consists of an open call to any citizen, interested or available to join the participatory process. See Glossary.
4 See Annex on Recruitment strategies.

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BIODIVERCITIES ATLAS LEGEND



AMBITION

Here the participating cities tell us what their ambitions are for the BiodiverCities project and for the biodiverse future of their cities.



CONTEXT

Here we look at the existing reality in the cities participating in the BiodiverCities project and the challenges the cities currently face in terms of urban biodiversity and beyond. This section also looks at the cities' experience of participatory governance and existing practices.



PROCESS

This section outlines the specific processes and methods used to engage citizens and make their voices heard in co-creating biodiverse urban futures.



OUTCOMES

This section looks at the outcomes that the BiodiverCities project generated for the participating cities, both in terms of immediate and long-term local impacts on biodiversity as well as on perspectives for participatory governance in the cities.



LESSONS LEARNED

This section covers what the project teams learned from the project, what in hindsight they might have done differently and what lessons that they will take forward to help create biodiverse futures for their cities, with citizens.



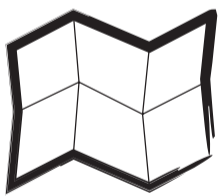
REFLECTION

Here researchers from the European Commission's Competence Centre on Participatory and Deliberative Democracy reflect on the project's implementation in each city and give advice on ways forward to ensure the project has lasting impacts.

LEIDEN



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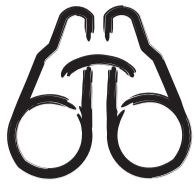
AMBITION / **AMBITIES**

“An important aim of this project is to scale it up. We want to use the experience and lessons from this project to make the whole neighbourhood (and maybe even the whole city) more biodiverse. We also want to use the lessons we learnt about how to engage this specific group of citizens in other projects.”

The Leiden Team

“Een belangrijk doel van het project is opschaling. We willen de ervaring en lessen van dit project gebruiken om de hele wijk (en misschien zelfs de hele stad) biodiverser te maken. Ook willen we onze ervaring met het betrekken van deze specifieke groep burgers gebruiken bij andere projecten.”

Team Leiden



CONTEXT / CONTEXT

For Dutch municipalities, citizen engagement is an important part of policymaking and all municipalities have a participation strategy for involving citizens. In Leiden, the municipality has involved citizens in various biodiversity projects, coming up with ideas and taking action to make parts of the city more pleasant from an environmental point of view. During the BiodiverCities project, the city focused on the Leiden Zuidwest neighbourhood, where people are generally less likely to take part in participatory processes and activities. Leiden Zuidwest is characterised by low incomes (EUR 3 000 below the city average) and a high percentage of people on state benefits for unemployment, etc.

(6% compared to 4.3% in Leiden as a whole).

The BiodiverCities project team aimed to get residents of the neighbourhood – those living in social housing complexes – involved in the project and identifying engagement strategies in support of biodiversity that would make sense in Leiden Zuidwest. The idea was to explore with residents their ideas about nature, biodiversity and their willingness to participate and work with them to create and maintain bio-diverse spaces. But how was this to be done in an area where people might not be so eager to get involved?

Bewonersparticipatie speelt een belangrijke rol bij de beleidsvorming door Nederlandse gemeenten. Veel gemeenten hebben dan ook een participatiestrategie om bewoners te betrekken. In Leiden heeft de gemeente inwoners betrokken bij diverse biodiversiteitsprojecten, door met ideeën te komen en maatregelen te treffen om delen van de stad ecologisch aantrekkelijker te maken. Tijdens het project BiodiverCities richtte de stad zich op Leiden Zuidwest, waar mensen over het algemeen minder geneigd zijn om aan participatieve processen en activiteiten deel te nemen. Leiden Zuidwest wordt gekenmerkt door lage inkomens (EUR 3.000 onder het stadsgemiddelde) en een hoog percentage mensen

met een WW- of andere uitkering (6% ten opzichte van 4,3% voor heel Leiden).

Het projectteam BiodiverCities wilde de bewoners van sociale woningbouwcomplexen in de wijk bij het project betrekken. Daarvoor moesten strategieën worden bedacht die biodiversiteit ondersteunen én passen bij Leiden Zuidwest. Het idee was samen met inwoners onderzoek te doen naar hun ideeën over natuur en biodiversiteit, maar ook naar hun bereidheid om aan het project deel te nemen en met het team samen te werken aan het realiseren en onderhouden van biodiverse ruimten. Maar hoe pak je dit aan in een gebied waar mensen mogelijk niet staan te springen om mee te doen?

LEIDEN AT A GLANCE / LEIDEN IN VOGELVLUCHT



Located in the province of South Holland, Leiden is an important university city and one of Europe's most prominent scientific centres. It also has a rich cultural heritage, being the birthplace of Rembrandt, among other famous painters.

Population: [124 096](#) (2021)

Engagement level: 6 citizens

Methods: interviews, surveys, meetings, a bike ride, workshops, a BioBlitz, nature markets.

Scale: neighbourhood

Key outcomes: a community garden, a website on setting up community gardens, 'Nature around the Corner' programme on nature and biodiversity.

Het Zuid-Hollandse Leiden is een belangrijke universiteitsstad en een van de meest vooraanstaande wetenschappelijke centra van Europa. Als geboorteplaats van Rembrandt en andere beroemde schilders beschikt de stad over een rijk cultureel erfgoed.

Bevolking: [124.096](#) (2021)

Aantal betrokken burgers: 6 burgers

Methoden: interviews, enquêtes, bijeenkomsten, een fietstocht, workshops, een BioBlitz, natuurmarkten.

Schaal: wijk

Belangrijkste resultaten: een gemeenschapstuin, een website over het opzetten van gemeenschapstuinen, het organiseren van natuurmarkten binnen het programma 'Natuur om de hoek' over natuur en biodiversiteit.



PROCESS / PROCES

The team started with an outreach approach: letting people know that the BiodiverCities project was taking place and that community engagement was needed. Work began in spring 2021 with the distribution of flyers asking people to participate in surveys and interviews. These were aimed at finding out the community's views on biodiversity and how to enhance it. In all, 34 people completed surveys, of which 13 were interviewed. The team discussed the same topics with social workers and personnel from organisations like social housing associations who knew the neighbourhood well.

Based on the findings, a meeting was organised to discuss ways of increasing urban biodiversity. A flyer was sent to 300 addresses to invite residents to the event, but the team also went door to door to invite people and discuss biodiversity with them.

The meeting was held on 9 October 2021 at a convenient place for most residents, with free coffee and cake provided. About eight people took part and contact details were exchanged in view of future events.

Participants expressed an interest in creating a community garden, so the team organised a bike trip around Leiden's existing public gardens on 20 November 2021 to get ideas. Only four people came along, together with representatives of IVN Nature Education (an organisation involved in setting up community gardens), Naturalis and the municipality.



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Then the team organised two online meetings on the design of the garden and administrative issues related to its creation: one before the bike trip, on 11 November; the other afterwards, on 18 January 2022. People were invited by e-mail and phone, but the effort proved to be very frustrating as only four took part – discomfort with the online format might have been the reason for the low attendance. When spring returned in 2022, a BioBlitz – an event in which participants try to find as many species as possible in a given area – was held. It focused mainly on bees. Twenty children and their parents counted bees and learned about the different types of bee in the neighbourhood. They said that, as a result, their awareness of and interest for biodiversity had been greatly enhanced.

Outdoor activity in the collective garden began with a gardening workshop and planting. Six people attended. The team set up a WhatsApp group to allow

Het team begon met een outreach-benadering: mensen laten weten dat het project BiodiverCities plaatsvond en dat betrokkenheid van de gemeenschap daarbij nodig was. Het werk startte in het voorjaar van 2021 met het uitdelen van flyers waarin mensen werd gevraagd deel te nemen aan enquêtes en interviews. Het doel was: achterhalen hoe de gemeenschap denkt over biodiversiteit en het bevorderen hiervan. In totaal vulden 34 mensen de enquête in en 13 van hen werden geïnterviewd. Het team besprak dezelfde onderwerpen met maatschappelijk werkers en medewerkers van organisaties die de wijk goed kennen, zoals woningcorporaties.

Op basis van de bevindingen werd een bijeenkomst georganiseerd om te bespreken hoe de biodiversiteit in de buurt kan worden vergroot. Er werd een flyer verstuurd naar 300 adressen om de bewoners voor het evenement uit

te nodigen. Daarnaast ging het team van deur tot deur om mensen uit te nodigen en met hen te praten over biodiversiteit.

De bijeenkomst werd gehouden op 9 oktober 2021, op een voor de meeste inwoners goed bereikbare plaats; er was gratis koffie en cake. Er namen ongeveer acht mensen deel en er werden contactgegevens uitgewisseld met het oog op toekomstige evenementen.

Deelnemers gaven aan dat ze belangstelling hadden voor het realiseren van een gemeenschapstuin. Daarom organiseerde het team op 20 november 2021 een fietstocht langs de bestaande openbare tuinen van Leiden om ideeën op te doen. Slechts vier bewoners fietsten mee, samen met vertegenwoordigers van IVN Natuureducatie (een organisatie die is betrokken bij het opzetten van gemeenschapstuinen), Naturalis en de gemeente.

Vervolgens organiseerde het team twee online bijeenkomsten over het ontwerp van de tuin en de administratieve zaken die komen kijken bij het realiseren ervan: één voorafgaand aan de fietstocht, op 11 november, en één erna, op 18 januari 2022. Mensen werden via e-mail en telefonisch uitgenodigd, maar die inspanningen leverden weinig op aangezien slechts vier mensen deelnamen. Het onbekend zijn met online bijeenkomsten kan de reden zijn van de lage opkomst. In het voorjaar van 2022 organiseerde men een BioBlitz – een evenement waarbij deelnemers proberen zoveel mogelijk soorten te vinden in een bepaald gebied. De focus lag vooral

everyone involved in the project to stay in touch. They also created a [Facebook page](#) to let everyone else in Leiden Zuidwest know about activities on biodiversity and other topics.

May 2022 also saw the organisation of two nature markets, with a third taking place in October. An experienced social worker, who had grown up in Leiden Zuidwest, was hired by the BiodiverCities project to go into the neighbourhood and talk to people about the project and the possibilities of getting involved. The idea for the markets arose from this person's conversations with residents and the research done in spring 2021.

Local residents and social associations active in the neighbourhood were involved in the organisation of the markets, which included stands with information and activities on biodiversity. The aim was to make biodiversity loss more tangible to everyone and to learn about the nature around the corner through a festive gathering.

op bijen. Twintig kinderen en hun ouders telden bijen en leerden over de verschillende bijensoorten in de wijk. Zij gaven na afloop aan dat hun kennis van en belangstelling voor biodiversiteit hierdoor heel erg was toegenomen.

De buitenactiviteiten in de gezamenlijke tuin begonnen met een workshop tuinieren en met het planten. Daaraan deden zes mensen mee. Het team maakte een WhatsApp-groep aan zodat alle betrokkenen contact konden houden. Ook werd een [Facebook-pagina](#) aangemaakt om de andere inwoners van Leiden Zuidwest te informeren over activiteiten met betrekking tot biodiversiteit en andere onderwerpen.

In mei 2022 zijn er twee natuurmarkten georganiseerd, en een derde vond plaats in oktober. Een ervaren maatschappelijk

werker, opgegroeid in Leiden Zuidwest, werd door het project BiodiverCities ingehuurd om de wijk in te gaan en met mensen te praten over het project en de mogelijkheden om mee te doen. Het idee van de markten ontstond naar aanleiding van deze gesprekken en het onderzoek dat in het voorjaar van 2021 is gedaan.

Buurtbewoners en maatschappelijke organisaties die actief zijn in de wijk werden bij de organisatie betrokken. Op de markten stonden kramen met informatie en activiteiten op het gebied van biodiversiteit. Het doel was via een feestelijk samenzijn biodiversiteitsverlies voor iedereen tastbaarder te maken en informatie te geven over de natuur om de hoek.



OUTCOMES / BELANGRIJKSTE RESULTATEN

The creation of the community garden itself, which is maintained by six people from Leiden Zuidwest, and a website on setting up community gardens were among the main outcomes. The team also launched a broader programme of nature and biodiversity activities, called *Nature around the Corner*.

Perhaps most importantly, the project has set a precedent. The lessons learned and the contacts made will stand the team in good stead for engaging the people of Leiden Zuidwest in future activities.



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Tot de voornaamste resultaten behoren het realiseren van de gemeenschapstuin, die door zes mensen uit Leiden Zuidwest wordt onderhouden, en het maken van een website over het opzetten van gemeenschapstuinen. Daarnaast lanceerde het team een breder programma aan activiteiten op het gebied van natuur en biodiversiteit: *Natuur om de hoek*.

Het belangrijkste is misschien wel dat het project een precedent heeft geschapen. De geleerde lessen en gelegde contacten zullen het team goed van pas komen bij het betrekken van de inwoners van Leiden Zuidwest bij toekomstige activiteiten.



LESSONS LEARNED / GELEERDE LESSEN

In the context of COVID-19 restrictions, an important lesson learned was that online meetings are not the best way to engage citizens, let alone 'unusual suspects' of participatory processes, such as ethnic minorities, elderly people and low-income classes. Moreover, getting people in Leiden Zuidwest to take part in activities was difficult in general, and made harder by the absence of community leaders and (apparently) low interaction between neighbours.

The team discovered that networking with local organisations, preferably before the start of the project, is crucial. These organisations know and are trusted by local people and can give insights into effective strategies for engaging different groups and developing specific activities that are relevant to the diverse interests within the community. It is also useful to spend time networking with other municipal departments to integrate project activities with their work.

Finding people who are already interested about a topic makes it easier to start a project and engage others; otherwise, it takes time to get people involved. As the team were unable to find anyone to play this role, they hired an experienced social worker. This person got another group of people who had started working on a community garden on board with the project. They helped come up with the idea for the nature markets and were able to engage more people than the project team.

To arouse people's interest, easily accessible street events like the nature

markets and BioBlitz should be organised first. Given the success of the BioBlitz, projects of this type should perhaps be structured largely around children, through events aimed specifically at them – which would also attract their families – and activities in schools. The location of activities is also important: staging them in public spaces makes it possible to attract more and also a broader cross-section of people. During indoor meetings, residents found it hard to describe the greenery in their neighbourhood; when the team showed them examples, they got excited about the idea of a community garden. Hence, providing visuals and going outdoor stimulates discussion.

Finally, it is important to maintain momentum and close contact with residents. To keep people engaged there should not be too many meetings, and the duration of the meeting should be kept short. Phoning residents a day before or on the day of a meeting to encourage them to attend is useful. As mentioned, it is best not to start meetings with a blank slate; a few ideas should be provided to get the conversation going.

In the coming years, the partners plan to work together on various projects in the neighbourhood aimed at improving green infrastructure and adapting to climate change. These projects should make residents proud of their area and its green spaces, as well as strengthening social cohesion.

Door de coronabeperkingen moesten online bijeenkomsten worden gehouden. Een belangrijke les is dat dit niet de beste manier is voor het betrekken van burgers, laat staan mensen voor wie participatieve processen geen dagelijkse kost zijn, zoals etnische minderheden, ouderen en lage inkomensgroepen. Bovendien was het in het algemeen lastig om mensen in Leiden Zuidwest aan activiteiten te laten deelnemen. Dit werd nog eens bemoeilijkt door het ontbreken van lokale leiders en door het (kennelijk) weinige onderlinge contact tussen burens.

Het team ontdekte dat netwerken met lokale organisaties, bij voorkeur voorafgaand aan de start van het project, cruciaal is. Deze organisaties kennen de lokale bevolking en worden door hen vertrouwd. Zij kunnen inzicht geven in effectieve strategieën voor het betrekken van verschillende groepen en het ontwikkelen van specifieke activiteiten die relevant zijn voor de uiteenlopende belangen binnen de gemeenschap. Het is ook nuttig meer tijd te besteden aan het netwerken met andere gemeentelijke afdelingen om projectactiviteiten in hun werk te integreren.

Door mensen te vinden die al in een onderwerp geïnteresseerd zijn, is het gemakkelijker om een project te starten en anderen erbij te betrekken. Anders kost het (meer) tijd om mensen te betrekken. Omdat het team niemand kon vinden die deze rol kon spelen, hebben zij een ervaren maatschappelijk werker ingehuurd. Deze persoon betrok een andere groep mensen, die al bezig waren met een gemeenschapstuin, bij het project. Zij droegen bij aan het idee voor de natuurmarkten en konden meer mensen betrekken dan het projectteam.

Om de belangstelling van mensen te wekken, moeten eerst laagdrempelige buitenactiviteiten worden georganiseerd, zoals de natuurmarkten en de BioBlitz. Gezien het succes van de BioBlitz moet dit soort projecten misschien vooral rondom kinderen worden georganiseerd, met evenementen die specifiek op hen zijn gericht – maar aantrekkelijk zijn voor het hele gezin – en activiteiten op scholen. De locatie van activiteiten is ook belangrijk: door deze in openbare ruimten te organiseren, kan een groter en breder publiek worden aangetrokken. Tijdens bijeenkomsten binnen vonden inwoners het moeilijk om het groen in hun buurt te omschrijven. Toen het team voorbeelden gaf, werden ze enthousiast over het idee van een gemeenschapstuin. Beelden aanbieden en naar buiten gaan stimuleert dus de discussie.

Tot slot is het belangrijk om momentum te houden en in nauw contact met inwoners te blijven. Om mensen betrokken te houden, moeten er niet te veel bijeenkomsten zijn. Ook mogen bijeenkomsten niet te lang duren. Het is zinvol inwoners een dag vóór de bijeenkomst, of op de dag zelf, te bellen om hen te stimuleren te komen. Zoals opgemerkt is het beter om bijeenkomsten niet volledig open te laten, maar zelf met een aantal ideeën te komen om het gesprek gaande te houden.

De komende jaren willen de partners samenwerken aan verschillende projecten in de wijk, gericht op verbetering van de groene infrastructuur en aanpassing aan klimaatverandering. Deze projecten moeten ervoor zorgen dat mensen trots worden op hun omgeving en de groene ruimten, maar ook de sociale cohesie versterken.



JRC REFLECTION / OVERWEGINGEN VANUIT HET GEMEENSCHAPPELIJK CENTRUM VOOR ONDERZOEK

This project started with a very important goal. How to overcome the challenge of engaging the most vulnerable people in the co-creation of space and infrastructure? Firstly, the framing of issues of concern needs citizen engagement. The ambition of extending or enhancing the green infrastructure in the city needs to resonate with what citizens care about. Hence, the very framing of the issues is a participatory exercise. But the number of people engaged was very low. This raises questions about the recruitment strategy. The key reflection is that participant recruitment strategies need to be effective in order to obtain a sample that mirrors the community that the project aims to engage.

In citizen engagement, leaving recruitment to 'expressions of interest' often ends up attracting people who are already civically engaged, or in the worst case to very little commitment. If the resources are insufficient for proper recruitment of participants based on demographic data or other methods (representative sampling), then the key strategy must be to foster

alliances with organisations and individuals on the ground who are known and respected by the communities (using, for example, opportunistic sampling strategies).

Other strategies may also include going where people go. This requires a study of the situation before even starting to plan the activities. Activities that make sense are intrinsically related to what makes sense for the communities. If this relationship is absent, the exercise becomes purely academic, might give misleading results, will not really take account of the expectations and ideas of the community, and will eventually produce mistrust and tensions. A badly implemented citizen engagement exercise may lead to a refusal to engage with well-planned exercises in the future.

Dit project begon met een zeer belangrijk doel. Het betrekken van de kwetsbaarste mensen bij de co-creatie van ruimte en infrastructuur is een uitdaging. Voor het formuleren van aandachtspunten is de betrokkenheid van burgers nodig. De ambitie om de groene infrastructuur in de stad uit te breiden of te verbeteren moet passen binnen dat wat burgers belangrijk vinden. Daarom is het formuleren van aandachtspunten op zich al een participatieve exercitie. Maar het aantal mensen dat uiteindelijk betrokken was, was zeer laag. Dit roept vragen op over de wervingsstrategie. De belangrijkste overweging is dat strategieën voor het werven van deelnemers effectief moeten zijn om een groep te krijgen die representatief is voor de gemeenschap waarop het project is gericht.

Bij bewonersparticipatie leidt werving op basis van 'aangeven van belangstelling' vaak tot het aantrekken van mensen die al maatschappelijk betrokken zijn, of in het ergste geval tot heel weinig betrokkenheid. Als er onvoldoende middelen

zijn om deelnemers op een deugdelijke manier te werven op basis van demografische gegevens of andere methoden (representatieve steekproef), moet worden gekozen voor het versterken van banden met organisaties en personen ter plaatse die bij de gemeenschappen bekend zijn en door hen gerespecteerd worden (bijvoorbeeld met behulp van een opportunistische steekproef).

Andere strategieën zijn bijvoorbeeld *daar zijn waar de mensen zijn*. Dit vereist dat, voorafgaand aan het plannen van de activiteiten, onderzoek naar de situatie wordt gedaan. Zinnige activiteiten houden intrinsiek verband met wat zinvol is voor de gemeenschappen. Als deze relatie ontbreekt, wordt het een louter academische exercitie, die misleidende resultaten oplevert, niet echt rekening houdt met de verwachtingen en ideeën van de gemeenschap, en uiteindelijk wantrouwen en spanning oplevert. Een slecht uitgevoerde burgerparticipatie kan ertoe leiden dat mensen in de toekomst weigeren mee te doen aan goed geplande exercities.

TEAM AND ACKNOWLEDGEMENTS

Expert: Saskia Klumpers

Team: Jolanda de Schiffart, Leendert van Velzen, Karen Jansen, Wouter Moerland

Lead partners: Naturalis Biodiversity Centre, Municipality of Leiden

RESOURCES

[Leiden Municipality Website](#)

[Leiden Southwest Green Group](#)

TEAM EN VERANTWOORDING

Expert: Saskia Klumpers

Team: Jolanda de Schiffart, Leendert van Velzen, Karen Jansen, Wouter Moerland

Hoofdpartners: Naturalis Biodiversity Center, Gemeente Leiden

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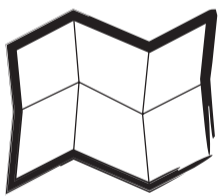
[Website gemeente Leiden](#)

[Groengroep Leiden Zuidwest](#)

LISBON / LISBOA



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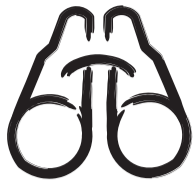
AMBITION / AMBIÇÕES

“Our main goals going forward are to increase younger generations’ contact with nature, to improve scientific and environmental literacy and the link between educational and scientific communities, and to promote biodiversity conservation and sustainability in urban green spaces.”

Lisbon Project Team

«Os nossos principais objetivos para o futuro são aumentar o contacto das gerações mais jovens com a natureza, melhorar a literacia científica e ambiental e a ligação entre as comunidades científica e educativa, e promover a conservação da biodiversidade e a sustentabilidade nos espaços verdes urbanos.»

Equipa do projeto de Lisboa



CONTEXT / CONTEXTO

Although they are highly urbanised, Portugal’s capital, Lisbon and its environs contain numerous green spaces: the 1 000-hectare Monsanto Forest Park, other parks and gardens, and the Tagus estuary, to name but a few. These spaces are home to a wide range of ecosystems.

A key challenge for the city, however, is to establish interlinked green spaces. Moreover, Lisbon is committed to protecting native biodiversity, while recognising the value of the exotic plants in its botanical gardens.

From previous interactions, the partners in Lisbon’s BiodiverCities project knew that the city’s residents are increasingly aware of the importance of urban biodiversity (in terms of numbers of species), but, for

instance, school activities are less focused on outside areas, such as green spaces.

With this in mind, the partners – the Centre for Ecology, Evolution and Environmental Changes and Lisbon Libraries – launched two activities: the first was aimed at bringing children into contact with nature while teaching them about biodiversity and sustainability; the second was intended to highlight aspects of biodiversity other than numbers of species and the role of these aspects in improving individual and collective well-being.

Embora sejam altamente urbanizados, a capital de Portugal, Lisboa, e os seus arredores contêm numerosos espaços verdes: o Parque Florestal de Monsanto de 1000 hectares, outros parques e jardins, e o Estuário do Tejo, para citar apenas alguns. Estes espaços acolhem uma vasta gama de ecossistemas.

Um desafio fundamental para a cidade, no entanto, passa por estabelecer espaços verdes interligados. Além disso, Lisboa está empenhada em proteger a biodiversidade nativa, reconhecendo ao mesmo tempo o valor das plantas exóticas nos seus jardins botânicos.

Com base em interações anteriores, os parceiros do projeto BiodiverCities de Lisboa sabiam que

os residentes da cidade estão cada vez mais conscientes da importância da biodiversidade urbana (em termos de número de espécies), mas, por exemplo, as atividades escolares estão menos concentradas em áreas exteriores, como os espaços verdes.

Nesta perspetiva, os parceiros — o Centro de Ecologia, Evolução e Alterações Ambientais e a Rede de Bibliotecas de Lisboa — lançaram duas atividades: a primeira visava pôr as crianças em contacto com a natureza enquanto as ensinava sobre biodiversidade e sustentabilidade; a segunda destinava-se a destacar outros aspetos da biodiversidade para além do número de espécies e o papel destes aspetos na melhoria do bem-estar individual e coletivo.

LISBON AT A GLANCE / LISBOA EM RESUMO



Situated on the Atlantic Ocean, Lisbon lies at the core of an urban area of some 2.5 million people. In 1755, it was destroyed by an earthquake, following which its centre was rebuilt on a modern grid plan.

Population: [544 851](#) (2021)

Engagement level: 150 participants approx.

Methods: online surveys with teachers, World Café, workshop, mapping with digital app.

Scale: municipal

Key outcomes: citizen science app, Biodiverse Schools project and website, call aimed at producing pieces for the Estrela Library.

Banhada pelo oceano Atlântico, Lisboa situa-se no centro de uma área urbana de cerca de 2,5 milhões de pessoas. Após a sua destruição, em 1755, por um terramoto, o seu centro foi reconstruído com base num plano de grelha moderno.

População: [544 851 habitantes](#) (2021)

Nível de envolvimento: cerca de 150 participantes

Métodos: inquéritos em linha aos professores, World Café, ateliê, mapeamento com aplicação digital.

Escala: municipal

Principais resultados: aplicação de ciência cidadã, projeto e sítio web Escolas Biodiversas, convocatória destinada à produção de peças para a Biblioteca Jardim da Estrela.



PROCESS / PROCESSO

One element of the first activity was an online survey aimed at environmental studies, natural science, and biology and geology teachers at Lisbon's primary and secondary schools. Based on input from a sociology researcher, it had three main goals: to get teachers' views on how biodiversity and sustainability are covered in textbooks, to learn how teachers use green spaces for biodiversity activities, and to gauge teachers' interest in taking part in biodiversity and sustainability activities.

Developed as part of a doctoral thesis, another feature of the first activity is the Biodiverse Schools project. Open to all schools and teachers, it studies how best to increase pupils' contact with nature, for which it implements activities in urban green spaces. For children aged 6-10, the activities were based on an outdoor teaching methodology called [Compass to Nature](#). For older pupils, citizen science (where citizens become researchers) and nature-based methods were used. Regular sessions began in September 2022 and a website was created to keep teachers informed about the project.

Thanks to Biodiverse Schools, young people's



Thanks to Biodiverse Schools, young people's scientific and environmental knowledge should improve, links between educational and scientific communities should be strengthened and the conservation of urban green spaces should be promoted."

"Com o projeto Escolas Biodiversas, pretende-se também melhorar os conhecimentos científicos e ambientais dos jovens, fomentar as ligações entre as comunidades científica e educativa e promover a conservação dos espaços verdes urbanos."

scientific and environmental knowledge should improve, links between educational and scientific communities should be strengthened and the conservation of urban green spaces should be promoted.

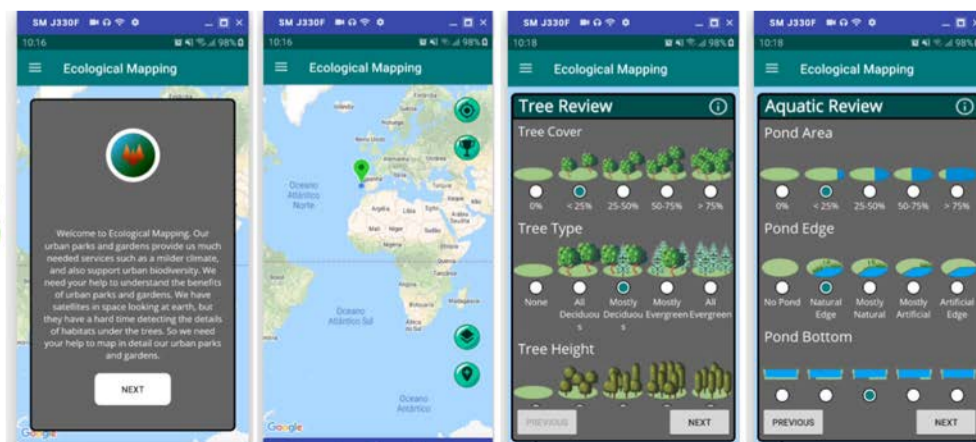
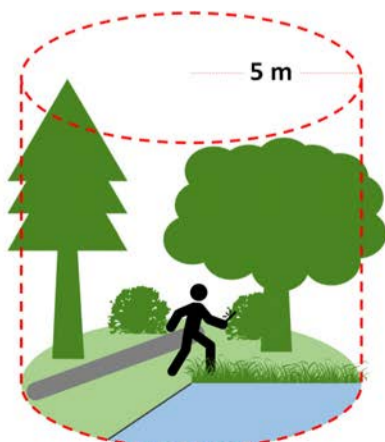
Attracting some 90 people in all, the second activity began with a World Café event for users of municipal libraries and the Estrela Garden, a green space within which the new Estrela Library is located. The aim was to get participants' views on the various facets of biodiversity. The conversation covered the importance of urban biodiversity, and how to increase it, and the role of the Estrela Garden in daily life.

Um elemento da primeira atividade foi um inquérito em linha destinado a professores de Estudo do Meio, Ciências Naturais e Biologia e Geologia nas escolas do ensino básico e secundário de Lisboa. Baseado nos contributos de um investigador em sociologia, tinha três objetivos principais: obter a opinião dos professores sobre como a biodiversidade e a sustentabilidade são abordadas nos manuais escolares, ficar a saber como os professores utilizam os espaços verdes para atividades sobre a biodiversidade, e avaliar o interesse dos professores em participar em atividades de biodiversidade e sustentabilidade.

Desenvolvido como parte de uma tese de doutoramento, outro elemento da primeira atividade é o projeto Escolas Biodiversas. Aberto a todas as escolas e professores, estuda a melhor forma de aumentar o contacto dos alunos com a natureza, implementando, para esse efeito, atividades em espaços verdes urbanos. Para as crianças dos seis aos dez anos, as atividades basearam-se numa metodologia de ensino ao ar livre chamada [«Compass to Nature»](#) (Bússola da Natureza). Para os alunos mais velhos, utilizou-se a ciência cidadã (em que os cidadãos se tornam investigadores) e métodos baseados na natureza. As sessões regulares começaram em setembro de 2022 e foi criado um sítio Web para manter os professores informados sobre o projeto.

Com o projeto Escolas Biodiversas, pretende-se também melhorar os conhecimentos científicos e ambientais dos jovens, fomentar as ligações entre as comunidades científica e educativa e promover a conservação dos espaços verdes urbanos.

Atraindo cerca de 90 pessoas no total, a segunda atividade começou com um



Inputs from the World Café were explored further in a workshop, which targeted all Lisbon residents and was attended by 74 people. The workshop included presentations on ecosystem services, sustainable local food production and actions to improve local biodiversity, as well as a discussion on sustainability policy trade-offs.

At the workshop, a citizen science app exploring what ecosystem services do for the climate, air quality and human well-being was presented. Participants installed

it on their phones and tested it in green spaces, before providing feedback during the event or via an online questionnaire.

A further action within the second activity involved collecting images, sound recordings, videos and text in which visitors to the Estrela Garden explain the importance of nature to their lives. The findings were mapped and made digitally available.

Overall project results were disseminated at a final conference that was open to everyone.

evento World Café destinado aos utilizadores das bibliotecas municipais e do Jardim da Estrela, um espaço verde onde se encontra a nova Biblioteca Jardim da Estrela. O objetivo era obter a opinião dos participantes sobre as diversas facetas da biodiversidade. A conversa incidiu sobre a importância da biodiversidade urbana, e como a aumentar, e sobre o papel do Jardim da Estrela na vida quotidiana.

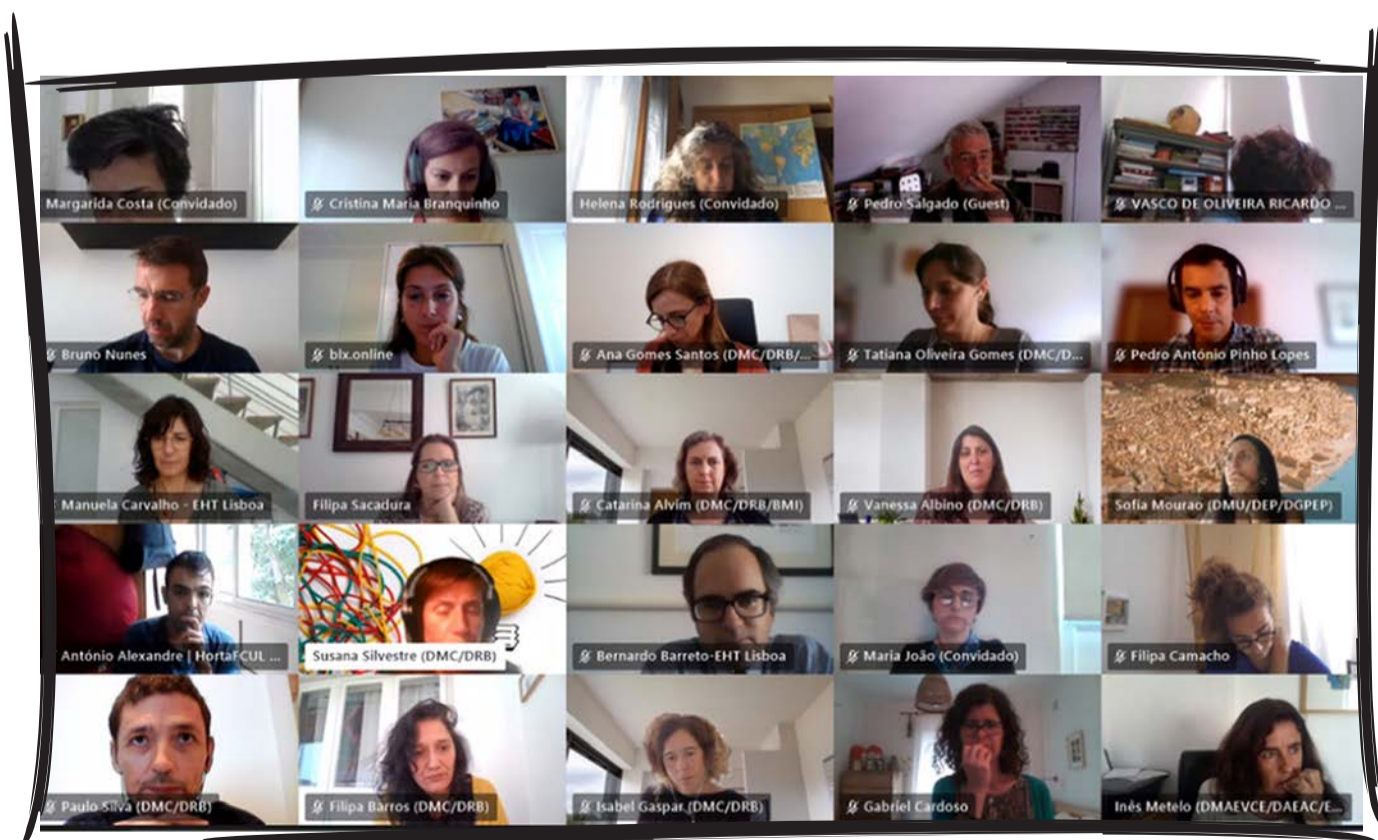
Os contributos do World Café foram aprofundados num ateliê, que visava todos os residentes de Lisboa e contou com a participação de 74 pessoas. O ateliê incluiu apresentações sobre serviços dos ecossistemas, produção alimentar local sustentável e ações para melhorar a biodiversidade local, bem como um debate sobre compromissos políticos em matéria de sustentabilidade.

No ateliê, foi apresentada uma aplicação de ciência

cidadã que explora como é que os serviços dos ecossistemas podem contribuir para a regulação do clima, para a qualidade do ar e para o bem-estar dos seres humanos. Os participantes instalaram-na nos seus telemóveis e testaram-na em espaços verdes, antes de apresentarem as suas observações durante o evento ou através de um questionário em linha.

Outra ação no âmbito da segunda atividade envolveu a recolha de imagens, gravações de som, vídeos e textos nos quais os visitantes do Jardim da Estrela explicam a importância da natureza para as suas vidas. Os resultados foram mapeados e disponibilizados em formato digital.

Os resultados globais do projeto foram divulgados numa conferência final aberta a todos.



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OUTCOMES / PRINCIPAIS RESULTADOS

First activity: the main outcome consists of the greater knowledge of how biodiversity and sustainability are approached in schools. When the online survey for teachers closed on 31 July 2022, 62 responses had been received, of which 28 were complete. Some teachers also requested more information about the project. From the completed surveys, it was found that about 65% of the teachers supplement textbook work with practical classroom activities on biodiversity, 41% rarely conduct activities in their school's green spaces, and around 65% rarely undertake activities in green spaces outside school.

The green spaces in schools where teachers mainly conduct biodiversity lessons include flowerbeds, areas with trees, vegetable



More than 75% of the teachers view students' interest in nature and their concentration, critical thinking, problem solving, research and social skills as very important for biodiversity activities."

"Mais de 75 % dos professores consideram que o interesse dos alunos pela natureza e as suas competências de concentração, pensamento crítico, resolução de problemas, investigação e competências sociais são muito importantes para as atividades de biodiversidade."

gardens and lawns. Nearly 61% of the teachers use the green areas of their schools; of those who do, 44% do so once a month.

More than 75% of the teachers view students' interest in nature and their concentration, critical

Primeira atividade: o principal resultado consiste no maior conhecimento da forma como a biodiversidade e a sustentabilidade são abordadas nas escolas. Aquando do encerramento do inquérito em linha aos professores em 31 de julho de 2022, tinham sido

recebidas 62 respostas, das quais 28 estavam completas. Alguns professores também solicitaram mais informações sobre o projeto. Com base nos inquéritos concluídos, verificou-se que cerca de 65 % dos professores complementam o trabalho dos manuais escolares com atividades práticas em sala de aula sobre a biodiversidade, 41 % raramente realizam atividades nos espaços verdes da sua escola, e cerca de 65% raramente realizam atividades em espaços verdes fora da escola.

Os espaços verdes nas escolas mais utilizados pelos professores para dar aulas sobre biodiversidade incluem canteiros, áreas com árvores, hortas e relvados. Cerca de 61% dos professores utilizam as áreas verdes das suas

CONVOCATÓRIA DE PROJETOS

Laboratório de Cidadãos Rede de Bibliotecas de Lisboa

PEÇAS DE JARDIM - Envie-nos a sua ideia entre 27 de setembro e 24 de outubro 2021.

Serão selecionados até dois projetos no âmbito da sustentabilidade para os espaços da futura Biblioteca Jardim da Estrela, para serem desenvolvidos num laboratório colaborativo Espaço Rípas - Oficina Criativa.

Os projetos deverão focar-se em pelo menos um dos seguintes âmbitos:

- Eficiência energética
- Eficiência do uso da água
- Produção sustentável
- Funcionalidade de espaços e estruturas da biblioteca
- Condições para a biodiversidade

Os projetos devem ter uma forte componente de reutilização de materiais e de promoção da inclusão na perspetiva da diversidade, integração e respeito pelo outro.

Há espaço para qualquer ideia que possa ser desenhada, construída ou desenvolvida, em primeira versão ou enquanto protótipo, que seja realizada de forma colaborativa.

Não é necessário que o projeto esteja absolutamente definido, pois trata-se de o construir com outras pessoas.

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As pessoas fazem a biblioteca

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thinking, problem solving, research and social skills as very important for biodiversity activities.

Around 52% of the teachers do not use green spaces outside their schools. The main reasons given for this include 'incompatibility with school hours', 'difficulty taking students out of school', 'not part of curricular guidelines' and 'no advantage to their use'.

Second activity: a key finding of the discussions at the World Café and during

the evaluation of the app was that people quickly realise that biodiversity is about more than just numbers of species and that habitat structure is vital.

After the World Café and the workshop, Lisbon Libraries launched a call for the production of artefacts for the Estrela Library that are inspired by or promote sustainability in the Estrela Garden. This highlighted the successful working relationship between the libraries and the other partners.

escolas; entre esses, 44 % fazem-no uma vez por mês.

Mais de 75 % dos professores consideram que o interesse dos alunos pela natureza e as suas competências de concentração, pensamento crítico, resolução de problemas, investigação e competências sociais são muito importantes para as atividades de biodiversidade.

Cerca de 52 % dos professores não utilizam espaços verdes fora das suas escolas, apresentando como principais motivos: «incompatibilidade com o horário escolar», «dificuldade em retirar os alunos da escola», «não fazer parte das diretrizes curriculares» e «nenhuma vantagem na sua utilização».

Segunda atividade: uma das principais conclusões dos debates no World Café e durante a avaliação da aplicação foi que as pessoas rapidamente se apercebem que a biodiversidade é mais do que apenas o número de espécies e que a estrutura dos habitats é vital.

Após o World Café e o ateliê, a Rede de Bibliotecas de Lisboa lançou uma convocatória para a produção de artefactos para a Biblioteca Jardim da Estrela que promovam a sustentabilidade no Jardim da Estrela ou que sejam inspirados nela. Ficou assim evidenciada a relação de trabalho bem-sucedida entre as bibliotecas e os outros parceiros.



LESSONS LEARNED / ENSINAMENTOS RETIRADOS

When the online survey was to be emailed to schools, the Portuguese Education Directorate-General said that, for state schools, the survey could only be sent to each school cluster, which would decide whether to send it to individual schools. In light of this, and given the challenges in getting responses to online surveys, a complementary strategy would have been needed.

The second activity aimed to highlight the importance of habitat structure to ecosystem services. However, groups at the World Café were more interested in issues like litter, pollution and trees. For the workshop, the focus was changed to cover these concerns under the topic of sustainability. The partners concluded that in order to engage people, it is necessary to focus initially



However, groups at the World Café were more interested in issues like litter, pollution and trees. For the workshop, the focus was changed to cover these concerns under the topic of sustainability.”

“No entanto, os grupos no World Café estavam mais interessados em questões como o lixo, a poluição e as árvores. Para o ateliê, o foco foi alterado de modo a cobrir estas preocupações no âmbito do tema da sustentabilidade.”

on a topic to which it is easy to relate. Ecosystem services and habitat structures are too complex for this purpose.

As regards the app, once it had been explained how to use it, participants had few problems in recording the features of different habitats. But when they had finished, all that they got

Na altura em que o inquérito em linha estava para ser enviado por correio eletrónico às escolas, a Direção-Geral da Educação de Portugal indicou que, para as escolas públicas, o inquérito só poderia ser enviado para cada agrupamento de escolas, que, por sua vez, decidiria se o enviaria para cada

escola do agrupamento. Desta forma e tendo em conta os desafios na obtenção de respostas aos inquéritos em linha, teria sido necessária uma estratégia complementar.

A segunda atividade visava realçar a importância da estrutura dos habitats para os serviços dos ecossistemas. No entanto, os grupos no World Café estavam mais interessados em questões como o lixo, a poluição e as árvores. Para o ateliê, o foco foi alterado de modo a cobrir estas preocupações no âmbito do tema da sustentabilidade. Os parceiros concluíram que, para envolver as pessoas, é necessário incidir, numa fase inicial, sobre um tópico com o qual as pessoas se identifiquem facilmente. Os serviços dos ecossistemas e a estrutura

was a map of the locations that they had sampled. To increase engagement, a feature is needed that demonstrates the relevance of users' findings to ecosystem services, and thus to people's lives.

As such a feature is not currently available, the app must be supported by scientists' explanations when it is used for citizen science projects, as once the link to ecosystem services was explained, participants found it easy to use.

A third lesson consists of the importance of partnership. Thanks to their connections with local communities, the partnership with Lisbon

Libraries made it possible to reach groups that are not normally covered in academic research. All partners wish to maintain this link in the future.

Last but not least, the fact that the project was led by a research centre, rather than the municipality, gave added scope for creativity but left little opportunity for influencing policy. For this, municipal departments should be directly involved. Delays to the opening of the Estrela Library caused by a change in the make-up of the council following elections show that such involvement should concern permanent staff, not council members.

dos habitats são demasiado complexos para este efeito.

No que diz respeito à aplicação, uma vez explicado como utilizá-la, os participantes tiveram poucos problemas em registar as características dos diferentes habitats. Porém, quando terminaram, o máximo que conseguiram foi um mapa dos locais onde colheram amostras. A fim de aumentar a participação, é necessário um elemento que demonstre a pertinência dos achados dos utilizadores para os serviços dos ecossistemas e, portanto, também para a vida das pessoas.

Como esse elemento não está atualmente disponível, a aplicação deve ser apoiada por explicações de cientistas quando é utilizada para projetos de ciência cidadã, visto que, depois de explicada a ligação aos serviços dos ecossistemas, os participantes acharam fácil a sua utilização.

Um terceiro ensinamento diz respeito à importância

da parceria. Graças às suas ligações com as comunidades locais, a parceria com a Rede de Bibliotecas de Lisboa tornou possível alcançar grupos que normalmente não são abrangidos pela investigação académica. Todos os parceiros desejam manter esta ligação no futuro.

Por último, mas não menos importante, o facto de o projeto ter sido liderado por um centro de investigação, em vez do município, deu mais espaço à criatividade, mas deixou poucas oportunidades para influenciar a política. Por isso, os departamentos municipais devem ser diretamente envolvidos. Os atrasos na abertura da Biblioteca Jardim da Estrela provocados por uma mudança na composição da assembleia municipal após as eleições mostram que a participação deve dizer respeito ao pessoal permanente e não aos membros da assembleia municipal.



Inputs by participants to the World Café
Contribuições dos participantes ao World Café



JRC REFLECTION / REFLEXÕES DO CENTRO COMUM DE INVESTIGAÇÃO

This project highlights the importance of partnerships for engaging citizens in cities. There are two contrasting experiences: the survey and the library. Surveys are a good means of extracting knowledge and opinions about a specific topic. It is necessary to build a partnership from the start to secure the desired collaboration and to obtain the desired results (in this case, to allow a more complete surveying process). Conversely, the partnership with the Estrela Library was exemplary. The citizen engagement process was an exercise of co-creation in which the BiodiverCities team and the library team worked in harmony to perform a deeper citizen engagement experiment.

Then there is the question of the app. A key feature of any props used to engage citizens is their tangible element: How does this information relate to my life? What answers does it provide to my questions? How does this app lead me to ask other questions?



It is necessary to build a partnership from the start to secure the desired collaboration (in this case, to allow a more complete surveying process). Conversely, the partnership with the Estrela Library was exemplary.”

“É necessário formar uma parceria desde o início para assegurar a colaboração desejada (neste caso, para permitir um processo de inquérito mais completo), para não comprometer o resultado desejado. Em contrapartida, a parceria com a Biblioteca Jardim da Estrela foi exemplar.”

The app is a means and not an end in itself.

Finally, to return to partnerships, there is nothing ‘wrong’ with the leadership of the project. For a public administration to engage in a participatory process project, it must want to do so. The pandemic situation has not facilitated dialogue, of course. But the point is, it takes two to tango and the scaffolding for more was created thanks to this project.

Este projeto destaca a importância das parcerias para envolver os cidadãos nas cidades. Há duas experiências contrastantes: o inquérito e a biblioteca. Os inquéritos são um bom meio de extrair conhecimentos e opiniões acerca de um tema específico. É necessário formar uma parceria desde o início para assegurar a colaboração desejada (neste caso, para permitir um processo de inquérito mais completo), para não comprometer o resultado desejado. Em contrapartida, a parceria com a Biblioteca Jardim da Estrela foi

exemplar. O processo de participação dos cidadãos foi um exercício de cocriação em que a equipa do BiodiverCities e a equipa da biblioteca trabalharam em harmonia para concretizar uma experiência mais profunda de participação dos cidadãos.

Depois há a questão da aplicação (App). Uma característica importante de quaisquer ferramentas utilizadas para envolver os cidadãos é o seu elemento tangível: Como é que esta informação se relaciona com a minha vida? Que respostas dá às minhas perguntas? Como é que esta aplicação me leva a fazer outras perguntas? A aplicação (App) é um meio e não um fim em si mesmo.

Por último, regressando às parcerias, não há nada de «errado» com a liderança do projeto. O envolvimento de uma administração pública num projeto de participação pública significa que esta quer mesmo fazê-lo. Obviamente, a situação da pandemia não facilitou o diálogo, mas os alicerces foram criados para mais exercícios de participação neste âmbito.

TEAM AND ACKNOWLEDGEMENTS

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Team: Raquel Mendes, Margarida Santos-Reis, Cristina Branquinho, Susana Silvestre, Vanessa Albino, Filipa Barros

Lead partners: Centre for Ecology, Evolution and Environmental Changes (at the Faculdade de Ciências da Universidade de Lisboa); Lisbon Libraries

RESOURCES

[Lisbon Municipality Website](#)

[Compass to Nature](#)

[Link to Ecological Mapping app \(android\)](#)

[Link to cE3c](#)

EQUIPA E AGRADECIMENTOS

Perito: Pedro Pinho

Equipa: Raquel Mendes, Margarida Santos-Reis, Cristina Branquinho, Susana Silvestre, Vanessa Albino, Filipa Barros

Principais parceiros: Centro de Ecologia, Evolução e Alterações Ambientais (na Faculdade de Ciências da Universidade de Lisboa); Rede de Bibliotecas de Lisboa

RECURSOS

[Sítio Web do Município de Lisboa](#)

[«Compass to Nature»](#)

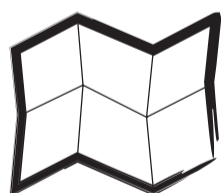
[Ligação para a aplicação Ecological Mapping \(Android\)](#)

[Ligação para o cE3c](#)

MARIBOR



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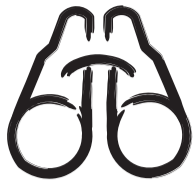
AMBITION / **AMBICIJE**

“Maribor has the potential for being a resilient city. We have to make many small changes to also introduce green elements, act comprehensively and sustainably.”

Dr Medved, Deputy Mayor of Maribor

„Maribor ima potencial, da postane odporno mesto. Izvesti moramo številne majhne spremembe, da bi uvedli tudi zelene elemente ter delovali celovito in trajnostno.“

dr. Medved, podžupan Maribora



CONTEXT / VSEBINA

Maribor is set on the Drava River amid wine-growing hills and embraced by the Pohorje forests. On the old town's main square, the Renaissance-style Town Hall dates from 1515 and on nearby Grajski Trg square, the 15th-century Maribor Castle has a frescoed Knights' Hall and houses the Regional Museum of Maribor with its extensive displays of local artefacts. To the southwest of the city is Mariborsko Pohorje, one of Slovenia's most well-known ski resorts.

During the Second World War, Maribor suffered the most extensive damage of all major towns in the former Yugoslavia. Following Slovenian independence in the early 1990s, the loss of the wider Yugoslavian market affected

its heavy industry and saw widespread unemployment in the city. The economic situation worsened with the onset of the global economic crises in the first decade of this century.

However, things have improved and today Maribor is a proud regional capital that was the European Capital of Culture in 2012 and the European Youth Capital the following year.

The overall objectives of BiodiverCities in the Maribor municipality were to build a) a new green vision around urban nature, b) to map, explore and learn about existing local knowledge of biodiversity issues and opportunities, and, therefore, c) to develop solutions to improve urban biodiversity.

Maribor leži ob reki Dravi sredi vinorodnih gričev in v objemu pohorskih gozdov. Na glavnem trgu starega mestnega jedra stoji mestna hiša v renesančnem slogu iz leta 1515, na bližnjem Grajskem trgu pa se nahaja Mariborski grad iz 15. stoletja z viteško dvorano, poslikano s freskami, v njem pa so prostori Pokrajinskega muzeja Maribor z bogato zbirko lokalnih artefaktov. Jugoahodno od mesta se nahaja Mariborsko Pohorje, eno najbolj znanih slovenskih smučišč.

Med drugo svetovno vojno je Maribor utrpel največ škoda med vsemi večjimi mesti v nekdanji Jugoslaviji. Po osamosvojitvi Slovenije v zgodnjih devetdesetih letih prejšnjega stoletja je izguba širšega jugoslovanskega trga prizadela težko

industrijo in povzročila obsežno brezposelnost v mestu. Gospodarske razmere so se poslabšale z nastopom svetovne gospodarske krize v prvem desetletju tega stoletja.

Vendar se je stanje izboljšalo in danes je Maribor ponosna regionalna prestolnica, ki je bila leta 2012 Evropska prestolnica kulture, naslednje leto pa Evropska prestolnica mladih.

Splošni cilji projekta BiodiverCities v Mestni občini Maribor so bili: a) oblikovati novo zeleno vizijo o urbani naravi, b) kartirati, raziskati in spoznati obstoječe lokalno znanje o vprašanih in priložnostih v zvezi z biotsko raznovrstnostjo ter v zvezi s tem c) razviti rešitve za izboljšanje urbane biotske raznovrstnosti.

MARIBOR AT A GLANCE / NA KRATKO O MARIBORU



Maribor is the second largest city in Slovenia and the municipality is the largest in the region of Lower Styria. Dating from at least the 12th century, the city is the economic, administrative, educational and cultural centre of eastern Slovenia.

Population: 113 778 people (2021 – Statistical Office of Slovenia)

Engagement level: 535 participants, of which over 300 replied to the survey.

Methods: Workshops, walking tours and interviews, mapping, online questionnaires.

Scale: Municipal

Key outcomes:

1. An innovative programme on addressing pollinator decline through digital technologies has been institutionalised in school curricula.
2. Public exhibition on Stražun urban forest.

Maribor je drugo največje mesto v Sloveniji in največja občina v Spodnji Štajerski. Mesto, katerega nastanek sega vsaj v 12. stoletje, je gospodarsko, upravno, izobraževalno in kulturno središče vzhodne Slovenije.

Prebivalstvo: 113 778 ljudi (2021 – Statistični urad Republike Slovenije)

Stopnja vključenosti: 535 udeležencev, od katerih jih je več kot 300 odgovorilo na anketo.

Metode: delavnice, sprehajalne ture in intervjuji, kartiranje, spletni vprašalniki.

Obseg: občina

Ključni rezultati:

1. Inovativni program za obravnavanje upada števila opraševalcev s pomočjo digitalnih tehnologij je bil institucionaliziran v šolski učni načrt.
2. Javna razstava o mestnem gozdu Stražun.



PROCESS / PROCES

The citizen engagement process was designed around four activities, with **local knowledge** being regarded as a key element to mobilise and make use of. The activities were:

Digital Biocitizen, an activity implemented by SERŠ Maribor, Maribor's secondary school specialising in computing and electronics. Students independently co-created digital solutions for learning about nature and mapping nature within the city, successfully engaging in research and problem solving in the local community, addressing challenges related to the green vision of the city and implementing innovative approaches for teaching.

The three-day workshop was prepared and co-designed by the teachers, the project expert and municipality representatives. The students learnt how to work together, collaborate and co-create. They learnt about nature and developed apps to support



Students independently co-created digital solutions for learning about nature and mapping nature within the city, successfully engaging in research and problem solving in the local community."

"Dijaki so samostojno soustvarjali digitalne rešitve za spoznavanje narave in kartiranje narave v mestu, uspešno sodelovali pri raziskovanju in reševanju problemov v lokalni skupnosti."

learning about nature and their environment, as well as mapping nature in a fun and attractive way. This co-creation exercise, inspired by design thinking and idea development, resulted in multiple outputs including mobile application prototype development, web page design, video collages and presentations. The developed apps included finding and recognising plants and animals, geo tagging, quests, quizzes, tracking paths, finding and documenting

Proces vključevanja državljanov je bil zasnovan na štirih dejavnostih, pri čemer je bilo **lokalno znanje** obravnavano kot ključni element za mobilizacijo in uporabo. Dejavnosti so bile:

Digital Biocitizen, dejavnost, ki jo je izvedel SERŠ Maribor, mariborska srednja šola, specializirana za računalništvo in elektroniko. Dijaki so samostojno soustvarjali digitalne rešitve za

spoznavanje narave in kartiranje narave v mestu, uspešno sodelovali pri raziskovanju in reševanju problemov v lokalni skupnosti, obravnavali izzive, povezane z zeleno vizijo mesta, in izvajali inovativne pristope k poučevanju.

Tridnevno delavnico so pripravili in sooblikovali učitelji, strokovna sodelavka projekta in predstavniki občine. Dijaki so se naučili delati skupaj, sodelovati in soustvarjati. Spoznavali so naravo in razvijali aplikacije za podporo pri spoznavanju narave in okolja ter kartiranju narave na zabaven in privlačen način. Ta soustvarjalna vaja, navdihnena z oblikovalskim razmišljanjem in razvijanjem zamisli, je privedla do več rezultatov, vključno z razvojem prototipa mobilne aplikacije, oblikovanjem spletne strani, video kolaži in predstavitevami. Razvite aplikacije so vključevale iskanje in prepoznavanje rastlin in živali, geografsko označevanje, naloge, kviz,



interesting everyday places and landscapes, combining nature-learning activities with physical exercise, and collecting fruit from abandoned orchards in the city area. Overall, 70 participants engaged in this activity.

Secondly, the work around **pollinators and the urban environment** included a range of actions with diverse actors. This activity took the form of **stakeholder engagement** with the general aim of creating a working group encompassing key stakeholders and decision-makers in the city to address the decline of pollinators, to influence local policies and foster coordination at the local level on the issue. The initiative started with an exchange of good practices with Ljubljana city administration within the framework of the [BeePathNet project](#). This was followed by a bee-trail mapping exercise in Maribor. Together, this enabled the identification of challenges related to urban beekeeping in the city. The activity rapidly ‘snowballed’ as contact was made with other stakeholders and actors as well as already established urban beekeepers. The city leadership took over the coordination role of the working group, which led to the first official meeting being chaired by the Deputy Mayor of the Municipality of Maribor. This working group aims to boost awareness among citizens of pollinators in urban settings. Overall, 60 participants joined the activity.

In parallel, **walking interviews** organised by the project engaged with five active citizens in urban green spaces. These interviews were structured to be open engagements but included several simple questions such as “where would we go to experience



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Experiences of the forest: what word comes to your mind when you think of Stražun urban forest? Mir (peace), narava (nature), sprehod (walk), sprostitve (relaxation), zelenje (greenery), drevesa (trees), gozd (woods), svež zrak (fresh air), mestni gozd (urban forest), otroštvo (childhood), pljuča mesta (the lungs of the city), lepota (beauty), zanemarjenost (neglect).

the best parts of nature in an urban environment and the worst?” Due to their diverse knowledge of the space, these walks were all different, lasting from 1 to 4 hours and covering between several hundred metres and several kilometres. Short notes were taken on the locations and the discussions, and the main findings were incorporated in other activities, such as the questionnaire for the Urban Forest Stražun participants and the activities related to urban beekeeping and the bee trail.

The third activity corresponded to an **Office in the Woods**, established in the [Stražun urban forest](#) to provide an opportunity for gathering local knowledge and citizens’ experiences of nature through the use of different approaches (e.g. drawing and digital questionnaires; short interviews on site). The interesting part is that prior to its ‘establishment’, several walking interviews were organised there (see above). With the potential of becoming an institutional practice, the experiment Office in the Woods reflected the idea of ‘going where people go’, in order to engage with them. Over 300 citizens answered the questionnaire.

sledenje potem, iskanje in dokumentiranje zanimivih vsakdanjih krajev in pokrajin, združevanje dejavnosti učenja o naravi s telesno vadbo ter nabiranje sadja v zapuščenih sadovnjakih na območju mesta. Skupno je bilo v to dejavnost vključenih 70 udeležencev.

Drugič, delo v zvezi z opraševalci in mestnim okoljem je vključevalo vrsto ukrepov z različnimi akterji. Ta dejavnost je potekala v **obliki vključevanja deležnikov** s splošnim ciljem oblikovanja delovne skupine, ki bi **vključevala ključne** deležnike in nosilce odločanja v mestu, da bi obravnavali upad števila opraševalcev, vplivali na lokalne politike in spodbujali usklajevanje tega vprašanja na lokalni ravni. Pobuda se je začela z izmenjavo dobrih praks z ljubljansko mestno upravo v okviru [projekta BeePathNet](#). Temu je sledila vaja kartiranja čebelarških poti v Mariboru. To je skupaj omogočilo opredelitev izzivov, povezanih z urbanim čebelarstvom v mestu. Dejavnost je hitro doživela „učinek snežne kepe“, saj so bili vzpostavljeni stiki z drugimi deležniki in akterji ter že uveljavljenimi mestnimi čebelarji. Vodstvo mesta je prevzelo koordinacijsko vlogo delovne skupine, rezultat česar je

bilo prvo uradno srečanje, ki ga je vodila podžupanja Mestne občine Maribor. Namen te delovne skupine je povečati ozaveščenost državljanov o opraševalcih v mestnih okoljih. Skupno se je dejavnosti pridružilo 60 udeležencev.

Vzporedno so bili v okviru projekta organizirani **sprehajalni intervjuji** s petimi aktivnimi prebivalci na mestnih zelenih površinah. Ti intervjuji so bili strukturirani kot odprti pogovori, vendar so vključevali več preprostih vprašanj, kot je „kam se lahko odpravimo, če želimo izkusiti najlepše dele narave v urbanem okolju, in kje lahko najdemo najslabše?“ Zaradi različnega poznavanja prostora so bili vsi sprehodi različni, trajali so od ene do štirih ur in obsegali od nekaj sto metrov do nekaj kilometrov. O lokacijah in pogovorih smo naredili kratke zapise, glavne ugotovitve pa smo vključili v druge dejavnosti, kot so vprašalniki za udeležence projekta Mestni gozd Stražun ter dejavnosti, povezane z urbanim čebelarstvom in čebelarstvo potjo.

Tretja dejavnost je ustrezala **pisarni v gozdu**, ustanovljeni v [mestnem gozdu Stražun](#) da bi z uporabo različnih pristopov (npr. risanje in digitalni vprašalniki; kratki intervjuji na kraju samem) zagotovili priložnost za zbiranje lokalnega znanja in izkušenj državljanov v zvezi z naravo. Zanimivo je, da je bilo pred njeno „ustanovitvijo“ v njej organiziranih več sprehajalnih intervjujev (glej zgoraj). Eksperiment pisarne v gozdu – s potencialom, da postane institucionalna praksa – je odražal zamisel, da „gremo tja, kamor gredo ljudje“, da bi sodelovali z njimi. Navprašalnike odgovorilo več kot 300 državljanov.



OUTCOMES / KLJUČNI REZULTATI

A variety of outcomes were obtained from the different activities:

Digital Biocitizen tested a new approach for engaging youth on the topic of biodiversity involving the co-design and co-development of potential solutions. The success of the initial workshop resulted in the innovative programme being **institutionalised and included in the school's official curriculum**.

There are possibilities for scaling up the initiative and transferring it to other schools. The initiative has been shared with other regions as a best practice for potential replication.

The work with stakeholders on the topic of **pollinators and the urban environment** has resulted in a political reference to the

need to counter the decline in pollinators in Maribor's municipal environmental protection programme 2030 and an inclusion in the draft Guidance Document for the Development of Policies and Actions for Pollinators in the City of Maribor – A flourishing city.

The citizens' input gathered at the **Office in the Woods**, through questionnaires and **walking interviews**, helped contribute to a successful application for a project on citizen participation funded under the European Commission's [LIFE programme](#) for the development of a Stražun urban forest management plan, and the inclusion of Stražun forest in the list of potential projects that could be funded under the EU cohesion policy.

Z različnimi dejavnostmi so bili pridobljeni različni rezultati:

Projekt **Digital Biocitizen** je preizkusil nov pristop za vključevanje mladih na področju teme biotske raznovrstnosti, ki vključuje sooblikovanje in sorazvijanje možnih rešitev. Uspeh začetne delavnice je privedel do **institucionalizacije** inovativnega programa **in njegove vključitve v uradni učni načrt šole**. Obstajajo možnosti, da se pobudo razširi in prenese na druge šole. Pobudo so delili z drugimi regijami kot najboljšo prakso za morebitno ponovitev.

Delo z deležniki v zvezi s temo **opraševalcev in urbanega okolja** je privedlo do političnega sklicevanja po potrebi po preprečevanju upadanja opraševalcev

v okviru mariborskega občinskega programa varstva okolja do leta 2030 in vključitve v osnutek Smernic za razvoj politik in ukrepov za opraševalce v mestu Maribor – Cvetoče mesto.

Prispevki državljanov, zbrani v **pisarni v gozdu** s pomočjo vprašalnikov in **sprehajalnih intervjujev**, so prispevali k uspešni prijavi projekta o državljanski udeležbi, financiranega v okviru programa Evropske komisije [LIFE](#) za pripravo načrta upravljanja mestnega gozda Stražun in vključitvi gozda Stražun na seznam potencialnih projektov, ki bi se lahko financirali v okviru kohezijske politike EU.



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117 people pointed out 351 locations on a map by answering the question "Which are the most problematic places in the Stražun urban forest?". The analysis and the results of the mapping exercise were presented in a travelling exhibition.

117 ljudi je z odgovorom na vprašanje "Katera so najbolj problematična mesta v mestnem gozdu Stražun?" na zemljevidu označilo 351 lokacij. Analiza in rezultati kartiranja so bili predstavljeni na potujoči razstavi.



LESSONS LEARNED / PRIDOBLEJENA SPOZNANJA

The BiodiverCities project offered the opportunity to the local municipality to experiment with new methods to reach out to citizens and mobilise their knowledge (e.g. through walking interviews).

Moreover, the project demonstrated the importance of reaching out to engage with interested and passionate individuals, including youth, to access their experiences and views, as well as to tap into **informal networks to kick-off new processes.**

For a city like Maribor, aiming to become more resilient and inclusive for all its citizens, the project also allowed the city administration to start working differently, internally, by enhancing interdepartmental cooperation. At the municipal level, there was evidence of institutional silo effects and coordination problems between departments due to information asymmetry or the absence of a nominated lead person or department.



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“Za mesto, kot je Maribor, ki želi postati bolj odporno in vključujoče za vse svoje prebivalce, je projekt tudi omogočil, da je mestna uprava s krepitvijo medoddelčnega sodelovanja začela delovati drugače, interno.”

Moreover, financial incentives to promote biodiversity were weak compared to other topics, such as infrastructure for example, meaning that political attention was relatively limited. Nevertheless, these barriers are now being addressed and a more holistic approach is being supported. This has resulted in greater endorsement by the city administration and an increased willingness to cooperate between departments.

Projekt BiodiverCities je mestni občini omogočil priložnost, da preizkusi nove metode za navezovanje stikov z občani in mobilizacijo njihovega znanja (npr. s sprehajalnimi intervjuji). Poleg tega je projekt pokazal, kako pomembno je navezati stike z zainteresiranimi in strastnimi posamezniki, vključno z mladimi, da bi pridobili njihove izkušnje in stališča ter se vključili v **neformalna omrežja za začetek novih procesov.**

Za mesto, kot je Maribor, ki želi postati bolj odporno in vključujoče za vse svoje prebivalce, je projekt tudi omogočil, da je mestna uprava s krepitvijo medoddelčnega sodelovanja začela delovati drugače, interno. Na občinski ravni so se pokazali institucionalni učinki „silosov“ in težave pri usklajevanju med oddelki zaradi asimetrije informacij ali pomanjkanja imenovane vodilne osebe ali oddelka. Poleg tega so bile finančne spodbude za spodbujanje biotske raznovrstnosti v primerjavi z drugimi temami, kot je na primer infrastruktura, šibke, kar pomeni, da je bila politična pozornost razmeroma omejena. Kljub temu se te ovire zdaj obravnavajo in podpira se bolj celosten pristop. Posledica tega je večja podpora mestne uprave in večja pripravljenost za sodelovanje med oddelki.

Po besedah podžupana Maribora je zaradi kratkih političnih ciklov



Office in the Wood



Digital Biocitizen: engaging youth in making of biodiverse futures
 Digital Biocitizen: vključevanje mladih v oblikovanje biotsko
 raznovrstne prihodnosti



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According to the Deputy Mayor of Maribor, short political cycles and poor communication, as well as lack of awareness and lack of resources, make citizen engagement in support of urban biodiversity more challenging, but also more necessary in order to increase trust among both citizens and administrators (BiodiverCities final policy event, 8 September [2022](#)).

One issue noted is the significant gap between policy initiatives at EU and

at national levels in that national implementation may lag behind. This, in turn, affects the pace and available level of support for local implementation of biodiversity initiatives, which, for projects to be successful, needs to be resourceful and flexible. In the BiodiverCities case, this approach did pay off and the citizens of Maribor, especially the youth, had much to offer, and tapping into their collective intelligence brought new innovative solutions.

in slabe komunikacije ter neozaveščenosti in pomanjkanja sredstev vključevanje občanov v podporo urbani biotski raznovrstnosti zahtevnejše, a tudi še bolj potrebno za povečanje zaupanja med državljani in upravitelji (končni politični dogodek BiodiverCities, 8. september [2022](#)).

Ena od ugotovljenih težav je precejšnja vrzel med političnimi pobudami na ravni EU in na nacionalni ravni, zaradi česar lahko

izvajanje na nacionalni ravni zaostaja. To pa vpliva na hitrost in razpoložljivo raven podpore za lokalno izvajanje pobud na področju biotske raznovrstnosti, ki mora biti za uspešnost projektov iznajdljiva in prilagodljiva. V primeru BiodiverCities se je ta pristop obrestoval in Mariborčani, zlasti mladi, so lahko veliko ponudili, izkoriščanje njihove kolektivne inteligence pa je prineslo nove inovativne rešitve.



JRC REFLECTION / RAZMIŠLJANJA SKUPNO RAZISKOVALNO SREDIŠČE

Within BiodiverCities, the City of Maribor ran different experiments, paving the way towards greater use of co-creation approaches in local policymaking. For example, the team experimented with new methods beyond surveying (e.g. walking interviews), and designed surveys with questions and inputs shared by citizens. Thanks to the project, the topic of the decline in pollinators has been put more prominently on the municipal agenda. Last but not least, the activity with the school community was well designed and implemented, leading to its replication.

If these are important and necessary steps to take, it is similarly important to remember that surveying is different from co-creation, and that stakeholder engagement is not citizen engagement. Such differences are fundamental to recognise as these different approaches define who gets to have a say in how matters are framed and, eventually, addressed. Therefore, as far as the working group on pollinators is concerned, citizens should now be invited to join the table, by contributing to the design and development of



As for surveying, designing the surveys based on citizens' input is a good practice to be continued."

"Kar zadeva anketiranje, je oblikovanje anket na podlagi prispevkov državljanov dobra praksa."

future activities. In other words, the process needs to open up if the ambition is to genuinely engage citizens.

As for surveying, designing the surveys based on citizens' input is a good practice to be continued, as surveys often ask questions that are more relevant to those that ask them than to those that are asked to answer them. Yet, what happened after surveying or what will happen?

Last but not least, the introduction of the format 'Office in the woods' is also noteworthy, but questions remain on what happens next: will it remain 'open' to citizens and what role will it have in the design and implementation of the Stražun urban forest management plan? And finally, what is the role for citizens in such a plan?

Mestna občina Maribor je v okviru projekta BiodiverCities izvedla različne eksperimente, s katerimi je utrla pot večji uporabi pristopov soustvarjanja pri oblikovanju lokalnih politik. Skupina je na primer eksperimentirala z novimi metodami poleg anketiranja (npr. sprehajalnimi intervjuji) in oblikovala ankete z vprašanji in prispevki, ki so jih delili državljanji. Po zaslugi projekta je tema upadanja števila opraševalcev zavzela vidnejše mesto na občinskem dnevnem redu. Nenazadnje je bila dejavnost s šolsko skupnostjo dobro zasnovana in izvedena, kar je omogočilo njeno ponovno izvedbo.

Če so to pomembni in nujni koraki, je prav tako pomembno, da se zavedamo, da se anketiranje razlikuje od soustvarjanja in

da vključevanje deležnikov ni enako vključevanju državljanov. Takšne razlike so temeljne določajo, kdo bo imel besedo pri oblikovanju obravnavanju zadev. Zato je treba v zvezi z delovno skupino za opraševalce državljanke zdaj povabiti, da se pridružijo in prispevajo k oblikovanju in razvoju prihodnjih dejavnosti. Z drugimi besedami, proces se mora odpreti, če želimo državljanke resnično vključiti.

Kar zadeva anketiranje, je oblikovanje anket na podlagi prispevkov državljanov dobra praksa, ki jo je treba nadaljevati, saj ankete pogosto zastavljajo vprašanja, ki so bolj pomembna za tiste, ki jih zastavljajo, kot za tiste, ki na njih odgovarjajo. Toda kaj se je oz. kaj se bo zgodilo po anketiranju?

Nenazadnje velja izpostaviti tudi uvedbo oblike „pisarne v gozdu“, vendar ostajajo vprašanja, kaj sledi zdaj: ali bo ostala „odprta“ za državljanke in kakšno vlogo bo imela pri oblikovanju in izvajanju načrta upravljanja mestnega gozda Stražun? Kakšna je vloga državljanov v takšnem načrtu?

TEAM AND ACKNOWLEDGEMENTS

Expert: Tanja Simonič Korošak

Team: Klemen Risto Bizjak

Lead partners: Municipality of Maribor, SERŠ Maribor

RESOURCES

[Digital Biocitizen](#)

[BeePathNet](#)

[Bike for Bees](#)

[Visit Maribor](#)

EKIPA IN ZAHVALE

Strokovna sodelavka: dr. Tanja Simonič Korošak

Skupina: Ir. Klemen Risto Bizjak, univ. dipl.inž.gozd.

Vodilni partnerji: Mestna občina Maribor, SERŠ Maribor

VIRI

[Digital Biocitizen](#)

[BeePathNet](#)

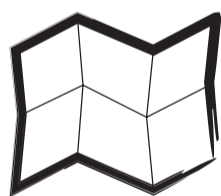
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NOVI SAD



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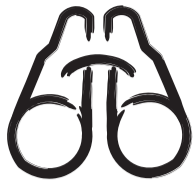
AMBITION / **AMBICIJE**

“With Novi Sad, the aim was simple. We wanted to facilitate the making of a more trusting alliance between local inhabitants and policymakers. The way we designed the process reflected this intent precisely. We believe that only through this approach, real collaboration and greater transparency can be reached, with the possibility of better outcomes for all – citizens, institutions and nature itself.”

BiodiverCities project team

„Za Novi Sad, cilj je bio jednostavan. Želeli smo da pomognemo u stvaranju pouzdanijeg saveza između lokalnog stanovništva i kreatora politike. Način na koji smo dizajnirali ovaj proces je precizno odražavao ovu nameru. Verujemo da samo kroz ovaj pristup, pravu saradnju i veću transparentnost on može biti dostignut, sa mogućnošću boljih ishoda za sve – građane, institucije i samu prirodu.“

BiodiverCities projektni tim



CONTEXT / KONTEKST

Widely regarded as the cultural hub of Serbia, Novi Sad is a city with a storied history defined by centuries of music, art and craft. With a population close to just 400 000 people, Novi Sad is by no means one of the world's great metropolises. However, in the context of Serbia, a country of 7 million inhabitants, it certainly is. Here it proudly holds the title of their second largest city, and it doesn't take one long to see why this is the case. Situated along an idyllic stretch of the River Danube, the city is quaint, colourful and teeming with life. Church bells ring behind the din of the crowd and

layers of ancient spires and domes crown the horizon. History's rich presence is felt wherever one ventures.

Ideal as this may seem, Novi Sad is not without its challenges. Many inhabitants have expressed concern over a lack of civic involvement in urban planning, particularly around green initiatives and the protection of green spaces. The recent tensions and protests about the approval of a new urban general plan are examples of this. The issue of **how** citizens can meaningfully contribute to the making of their own city is more relevant – and **political** – than ever.

Nadaleko smatran kulturnim centrom Srbije, Novi Sad je grad sa zanimljivom istorijom koja je obeležena vekovima muzike, umetnosti i zanata. Sa stanovništvom koje broji samo malo manje od 400 000 ljudi, Novi Sad svakako nije jedna od najvećih svetskih metropola. Međutim, u kontekstu Srbije, zemlje sa 7 miliona stanovnika, on to itekako jeste. Tu s ponosom nosi titulu drugog grada po veličini, a nije potrebno mnogo vremena da uvidite zbog čega je to tako. Smešten uz idilični deo Dunava, grad je neobičan, pun boja i vrvi od života. Crkvena zvona zvone iza buke koju stvara masa ljudi,

a slojevi drevnih tornjeva i kupola krunišu horizont. Bogato prisustvo istorije oseća se na svakom koraku.

Ma kako to idealno može delovati, Novi Sad ima svoje izazove. Mnogi stanovnici su izrazili zabrinutost zbog nedostatka učešća civilnog društva u urbanističkom planiranju, posebno oko zelenih inicijativa i zaštite zelenih površina. Nedavne tenzije i protesti zbog odobrenja novog generalnog urbanističkog plana su primer toga. Problem toga **kako** građani mogu smisljeno doprineti stvaranju sopstvenog grada nikad nije bilo relevantniji – i više **politički** obojen.

NOVI SAD AT A GLANCE / KRATAK PREGLED NOVOG SADA



Novi Sad is a city in northern Serbia on the banks of the River Danube. It is the second largest city in Serbia and the capital of the autonomous province of Vojvodina. The city is famed for its Petrovaradin Fortress, which dates to the 17th and 18th centuries, with an iconic clock tower and a network of far-reaching tunnels.

Population: 387 121 (2021)

Engagement level: 421 participants

Methods: panel discussions, urban mapping initiatives and futuring tour

Scale: Municipal

Key outcomes: introducing best practice on how to work collaboratively with citizens, policymakers and other stakeholders on environmental matters and beyond; gathering inputs directly from the citizens and leveraging the collected data to influence the city authority on how to increase the availability and accessibility of green spaces in their district and at the city level.

Novi Sad se nalazi na severu Srbije na obalama Dunava. To je drugi grad po veličini u Srbiji i glavni grad autonomne pokrajine Vojvodine. Grad je poznat po svojoj Petrovaradinskoj tvrđavi, koja potiče iz 17. i 18. veka, sa kulturnom sahat kulom i mrežom dugih tunela.

Stanovništvo: 387 121 (2021.)

Nivo angažovanja: 421 učesnik

Metode: panel diskusije, inicijative za urbanističko mapiranje i tematski obilasci

Obim: Opštinski

Ključni rezultati: predstavljanje najbolje prakse za saradnju sa građanima, kreatorima politike i drugim zainteresovanim stranama o pitanjima životne sredine i šire; prikupljanje informacija direktno od građana i korišćenje prikupljenih podataka radi uticaja na gradske vlasti u kontekstu povećanja dostupnosti i pristupačnosti zelenih površina u svojoj četvrti i na nivou grada.

With this background, BiodiverCities Novi Sad – ‘Novi Sad – biodiverzitetski grad’ – aimed to create dialogue between citizens and local authorities. The project’s activities, especially the urban mapping workshops, also aimed to actively involve citizens in the process of analysing the space that surrounds them, as well as considering the potential and direction of the further development of those areas.

Over the past 5 years, new civic groups have been mobilised for the protection of nature. Such community mobilisations have brought greater awareness and resulted in some positive changes, mostly at the neighbourhood level (e.g. protection of greenery between apartment blocks). However, what is common to such citizen initiatives is that local inhabitants reacted when the space was already very endangered. BiodiverCities Novi Sad



Over the past 5 years, new civic groups have been mobilised for the protection of nature.”

„Tokom proteklih 5 godina, mobilisane su nove civilne grupe za zaštitu životne sredine.“

makes a strong case for the active involvement of citizens being necessary in the planning process from the very beginning, i.e. the city planners’ first step is to consider the current needs of its inhabitants.

Before starting, we are proud to say that ‘Novi Sad – biodiverzitetski grad’ was a partnership project between The National Green Roof Association, Serbia and Novi Sad City Library, implemented in collaboration with the organisation Public Libraries 2030 based in Brussels (Belgium), Matica Srpska Gallery, Novi Sad and the University Library ‘Svetozar Marković’, Belgrade.

Imajući to u vidu, BiodiverCities Novi Sad – „Novi Sad – biodiverzitetski grad“ – ima za cilj stvaranje dijaloga između građana i lokalnih vlasti. Aktivnosti projekta, posebno radionice za urbano mapiranje, takođe za cilj imaju da aktivno uključe građane u proces analiziranja prostora koji ih okružuje, kao i razmatranje potencijala i pravca daljeg razvoja tih oblasti.

Tokom proteklih 5 godina, mobilisane su nove civilne grupe za zaštitu životne sredine. Ovakve mobilizacije zajednice donele su veću svest i rezultirale nekim pozitivnim promenama, uglavnom na nivou naselja (npr. zaštita zelenila između

stambenih blokova). Međutim, zajedničko za takve građanske inicijative jeste da je lokalno stanovništvo reagovalo kada je prostor već uveliko bio ugrožen. BiodiverCities Novi Sad daje snažan argument da je aktivno učešće građana neophodno u procesu planiranja od samog početka, tj. da je prvi korak urbanista da razmotre trenutne potrebe stanovništva.

Pre svega, sa ponosom možemo reći da je „Novi Sad – biodiverzitetski grad“ bio projekat partnerstva između Nacionalne asocijacije zelenih krovova i terasa iz Srbije i Gradske biblioteke Novog Sada, primenjena u saradnji sa organizacijom Javne biblioteke 2030 sa sedištem u Briselu (Belgija), Galerijom Matice Srpske iz Novog Sada i Univerzitetske biblioteke „Svetozar Marković“ iz Beograda.



PROCESS / PROCES

It was crucial to have a variety of activities to engage as many groups within the community as possible. Citizens are different, aren’t they? We kicked off the process by organising an intro event in June 2021 at a local art gallery located in the main park of the city, Matica Srpska Gallery. We invited citizens to join the process, which was composed of three core activities.

The first activity was a series of panel discussions to get the ball rolling, dedicated to the connection between health and the environment, and the



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Launching „Novi Sad – biodiverzitetski grad“ lansiranje „Novi Sad – biodiverzitetski grad“

decline in pollinators. Two events were held during the summer months of 2021, on 11 July and on 18 August. Experts in the field of health are, climatology, biology, architecture and urbanism, and representatives from the

Od presudne je važnosti bilo da imamo mnoštvo aktivnosti kako bismo angažovali što više grupa unutar zajednice. Građani su različiti, zar ne? Započeli smo proces organizovanjem uvodnog događaja juna

2021. godine u lokalnoj umetničkoj galeriji koja se nalazi u centru grada, u Galeriji Matice Srpske. Pozvali smo građane da se pridruže procesu, koji se sastojao od tri osnovne aktivnosti.

Da bismo zakotrljali loptu, započeli smo sa serijom panel diskusija, posvećenih vezi između zdravlja i životne sredine, kao i smanjenju broja polinatora. Dva događaja održana su tokom letnjih meseci 2021. godine, 11. jula i 18. avgusta. Na ovim plodnim letnjim sesijama, stručnjaci iz oblasti zdravlja, klimatologije, biologije, arhitekture i

City Authority collaborated with the project team in these fruitful summer sessions. Forty participants joined the event. Best of all, citizens, members of non-governmental organisations, activists and members of the media were heard loud and clear in both panel discussions, as they should be. One might argue that too often the panel discussions lacked that element of conversation between presenter and audience. The Novi Sad experience was decidedly the opposite, with collective debate, opposing views and proposed solutions shouted from every corner of the room. The two panel discussions were organised with the public library as part of another project 'Experiments of citizen engagement in public libraries'.

The second type of activity implemented was urban **mapping workshops in four districts of the city – Centre, Detelinara, Liman and Novo naselje**. This series took place in person between autumn 2021 and the end of the year, kindly hosted by public libraries. To kick off each session, participants presented a specific open and/or not built and/or green space they had selected and explained its value and potential from their point of view. For the second part, the group work, participants were divided into groups to further analyse three collectively chosen locations. Can something be done about them? Do they have potential to become green spaces? From the outset, the passion of all those involved in the process was both clear and inspiring. The aim here was to get a real-time overview of how much citizens are involved with nature. The main goal was **to gather the inputs directly from the 40 citizens participating and leverage the collected**



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Workshops: creating spaces for experts, public institutions and citizens to meet.

Radionice: stvaranje prostora za susrete stručnjaka, javnih institucija i građana.

data to influence the city authority on how to increase the availability and accessibility of green spaces in their district and at the city level.

The third and final activity was a **futuring tour**. What is a futuring tour you ask? In essence, this was a walking tour of the main park of Novi Sad where participants were asked to reflect on and imagine the future of nature in the city. Several questions were asked: how do they feel while walking? What zones of the park do they value more? What do we imagine for this and other parks in the city? The mission here was to inspire participants to get in closer contact with the space that surrounds them and help them to identify the needs of this ever-evolving city.

urbanizma, kao i predstavnici Gradskih vlasti saradivali su sa projektnim timom. Četrdeset učesnika pridružilo se događaju. Najbolje od svega, na ovim panel diskusijama jasno i glasno se čuo glas građana, članova nevladinih organizacija, aktivista i predstavnika medija, baš kao što bi i trebalo. Neko bi mogao da prigovori da je panel diskusijama često nedostajao element razgovora između izlagača i publike. Iskustvo iz Novog Sada je bilo sasvim suprotno, sa kolektivnom debatom, suprotstavljenim stavovima i predlozima rešenja koji su dobacivani iz svakog ugla prostorije. Dve panel diskusije organizovane su u javnoj biblioteci kao deo drugog projekta „Eksperimenti angažovanja građana u javnim bibliotekama“.

Drugi tip aktivnosti koji je primenjen bile su **radionice urbanističkog mapiranja u četiri četvrti grada – centar, Detelinara, Liman i Novo naselje**. Ova serija se odvijala uživo između jeseni 2021. i kraja te godine, uz ljubaznost javnih biblioteka kao domaćina. Za početak svake sesije, učesnici su predstavljali određeni otvoreni i/ili neizgrađeni i/ili zeleni prostor koji su izabrali i objasnili njihovu vrednost i potencijal sa svoje tačke gledišta. Za drugi deo, grupni rad, učesnici su bili podeljeni u grupe koje su dalje analizirale tri kolektivno izabrane lokacije. Da li nešto može da se uradi po njihovom pitanju? Da li imaju potencijal da postanu zelene površine? Od samog početka, strast svih uključenih u proces bila je i jasna i inspirativna. Cilj je bio da dobijemo pregled u realnom vremenu koliko su građani uključeni u prirodu. Glavni cilj je bio **prikupljanje informacija direktno od 40 građana koji su učestvovali i korišćenje prikupljenih podataka radi uticaja na gradske vlasti** u kontekstu povećanja dostupnosti i pristupačnosti zelenih površina u svojoj četvrti i na nivou grada.

Treća i konačna aktivnost bila je **tematski obilazak**. Pitate se, šta je to tematski obilazak? U suštini, to je bila pešačka tura glavnim parkom Novog Sada gde je od učesnika zatraženo da razmisle o budućnosti prirode u gradu i zamisle je. Postavljeno je nekoliko pitanja: kako se osećaju dok se šetaju? Koje zone parka najviše cene? Šta zamišljamo za ovaj i druge parkove u gradu? Misija je bila inspirisati učesnike da stupe u bliži kontakt sa prostorom koji ih okružuje i da im pomogne da identifikuju potrebe ovog grada koji se stalno menja.



© National Green Roof Association Serbia and Novi Sad City Library

Futuring tour
Buduća turneja



OUTCOMES / KLJUČNI REZULTATI

The citizens of Novi Sad were given a platform to voice what they are concerned and care about. The project's activities enabled them to engage with each other, as well as with experts and city authorities at a respectful, inclusive and welcoming level. Here they could express their own experiences, concerns and issues regarding the quality of everyday life. On the other hand, experts and city authorities also had a chance to talk about the main challenges they face in the process of urban development. This was a vivid, direct and highly insightful process, throughout which it was realised that citizens and representatives of the city administration had

completely different starting points when it comes to urban biodiversity and city planning at large. This is another reason why joined-up thinking is essential. When it comes to urban mapping workshops, the highest value is in the form of the process itself, which has proven to be an effective way of engaging different citizens to provide precise results.

Građanima Novog Sada data je platforma na kojoj su mogli da iskažu zbog čega su zabrinuti i do čega im je stalo. Aktivnosti projekta omogućile su im da ostvare međusobnu interakciju, kao i interakciju sa stručnjacima i gradskim vlastima na nivou punom poštovanja, inkluzije i dobrodošlice. Ovde su mogli da iskažu sopstvena iskustva, brige i probleme u vezi sa kvalitetom

svakodnevnog života. Sa druge strane, stručnjaci i gradske vlasti su takođe imali priliku da razgovaraju o glavnim izazovima sa kojima se suočavaju u procesu urbanističkog razvoja. To je bio živopisan, direktan proces koji je doneo puno uvida. Kroz njega se shvatilo da su građani i predstavnici gradskih vlasti imali potpuno različite početne tačke kada je u pitanju urbani biodiverzitet i planiranje grada uopšte. To je još jedan od razloga zašto je udruženo razmišljanje ključno. Kada su u pitanju radionice urbanističkog mapiranja, najveća vrednost je u obliku samog procesa, za koji se dokazalo da je efikasan način angažovanja različitih građana, kako bi se obezbedili precizni rezultati.



When it comes to urban mapping workshops, the highest value is in the form of the process itself."

„Kada su u pitanju radionice urbanističkog mapiranja, najveća vrednost je u obliku samog procesa.“



LESSONS LEARNED / NAUČENE LEKCIJE

So many important lessons emerged throughout this hands-on approach in Novi Sad, but perhaps the most relevant were the following:

1. Participants valued the events.
2. Engaged citizens are actively seeking out ways to expand their impact and support biodiversity in their city with relentless enthusiasm. Such engagement could only be an asset for the authorities.
3. Activities showcased that communication between the citizens and authorities needs to be refined for truly collaborative urban development.
4. This process also proved that, with a lack of communication comes a lack of trust. To build trust one needs good communication and vice versa. The project's activities throughout the city served as an initial touchpoint for many in terms of breaking down communication barriers. Without doubt, the people, flora and fauna of Novi Sad have a bright future but **only if such communication continues**. "Engaging authorities rather than citizens takes time" (Danica Laćarac, at the final policy event of BiodiverCities, 7 September 2022).

Puno važnih lekcija proizašlo je iz ovog praktičnog pristupa u Novom Sadu, ali su možda najrelevantnije sledeće:

1. Učesnici su cenili ove događaje.
2. Angažovani građani su sa velikim entuzijazmom aktivno tražili načine da prošire svoj uticaj i podrže biodiverzitet u svom gradu. Takvo angažovanje može samo predstavljati sredstvo za donosiocje odluka.
3. Aktivnosti su pokazale da je potrebno poboljšati komunikaciju između građana i vlasti za urbani razvoj sa istinskom saradnjom.

4. Ovaj proces je dokazao i da sa izostankom saradnje dolazi do izostanka poverenja. Za izgradnju poverenja, potrebna je dobra komunikacija. Aktivnosti projekta širom grada služile su kao početna dodirna tačka za mnogo toga kad je u pitanju rušenje prepreka u komunikaciji. Bez sumnje, ljudi, flora i fauna Novog Sada imaju blistavu budućnost, ali **samo ako se takva komunikacija nastavi**. „Za angažovanje vlasti umesto građana potrebno je vreme“ (Danica Laćarac, na završnom događaju o politici BiodiverCities, 7. septembra 2022. godine).



JRC REFLECTION / RAZMATRANJA ZAJEDNIČKI ISTRAŽIVAČKI CENTAR

The key words for BiodiverCities Novi Sad are 'creative' and 'ambitious'. In a city with a high density of buildings, characterised by a very low availability of green spaces, and located in a country that underwent rapid and, at times, contested urbanisation processes in the second half of the 20th century, asking citizens across several neighbourhoods in the city to re-imagine their town, sends an important civic and political message. As was the case for several other BiodiverCities stories, context matters and especially the political context. Besides the general aim to support urban biodiversity, the BiodiverCities process in Novi Sad designed several spaces of dialogue for citizens and institutional representatives to start engaging with each other differently. It also offered multiple ways for citizens to join the process. This choice reflects the understanding that there are many ways of knowing, sharing and participating, whether by voicing something (verbally) or by making (hands-on) or, even, by walking (physically).



The key words for BiodiverCities Novi Sad are 'creative' and 'ambitious'.

„Ključne reči za BiodiverCities Novi Sad jesu „kreativno“ i „ambiciozno“.“

Even if the outcomes of the participatory process have not been taken in consideration by local policymakers thus far, the partnership with the local public library proved pivotal to reach out to 'unusual suspects', one of the most difficult aspects of any citizen engagement process. This partnership is also a first important step in the direction of institutional anchoring, as the public library is formally part of the municipal structure.

For the future, you might consider:

1. partnering from the start with a civic space such as a public library;
2. attempting to include the municipality in the design phase of the process. Even if participatory processes are dependent on political endorsement, trust and understanding between different players can be built as the process unfolds.

Ključne reči za BiodiverCities Novi Sad jesu „kreativno“ i „ambiciozno“. U gradu sa velikom gustinom zgrada, kog karakteriše veoma mala dostupnost zelenih površina, i koji se nalazi u zemlji koja je prošla kroz brze i, često, sporne procese urbanizacije u drugoj polovini 20. veka, traženje od građana u nekoliko naselja u gradu da ponovo zamisle svoj grad, šalje važnu građansku i političku poruku. Kao što je bio slučaj i sa nekoliko drugih priča o BiodiverCities širom Evrope, kontekst je bitan a, još više, politički kontekst. Pored opšteg cilja podrške urbanom biodiverzitetu, BiodiverCities proces u Novom Sadu je osmislio nekoliko prostora za dijalog između građana i predstavnika institucija kako bi počeli da ostvaruju međusobnu interakciju na drugačiji način. Takođe, ponudio je mnogo načina da se građani pridruže procesu. Ovaj izbor

odražava razumevanje da postoji mnogo načina da se nešto sazna, deli i učestvuje u nečemu, bilo da se nešto izgovori (verbalno) ili da se uradi (praktično) ili, čak, kroz šetnju (fizički).

Čak i ako lokalni kreatori politike do sada nisu uzimali u obzir rezultate participativnog procesa, partnerstvo sa lokalnom javnom bibliotekom pokazalo se ključnim za dopiranje do „neobičnih sumnji“, što je jedan od najtežih aspekata bilo kog procesa angažovanja građana. Ovo partnerstvo je takođe prvi važan korak u smeru institucionalnog učvršćivanja, jer je javna biblioteka formalno deo opštinske strukture.

Za budućnost, možete razmotriti sledeće:

1. ostvarivanje partnerstva od početka sa civilnim prostorom poput javne biblioteke;
2. pokušaj uključivanja opštine u fazi dizajniranja procesa. Čak i ako procesi učešća zavise od političke podrške, poverenje i razumevanje između različitih aktera mogu se izgraditi kako se proces odvija.

TEAM AND ACKNOWLEDGEMENTS

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Lead partners: The National Green Roof Association, Serbia, Novi Sad City Library

In collaboration with: Public Libraries 2030, Matica Srpska Gallery and the University Library "Svetozar Marković"

RESOURCES

[Novi Sad – Biodiverse City, Video Publication](#)

TIM I PRIZNANJA

Stručnjak: Danica Laćarac

Tim: Bojana Grujić, Sanja Arbutina, Dragan Jovanović, Milan Maksimović, Ljubica Petković, Aleksandra Rokvić, Milica Kirćanski

Vodeći partneri: Nacionalna asocijacija zelenih krovova i terasa Srbije, Gradska biblioteka Novog Sada

U saradnji sa: Javnim bibliotekama 2030, Galerijom Matice Srpske i Univerzitetskom bibliotekom „Svetozar Marković“

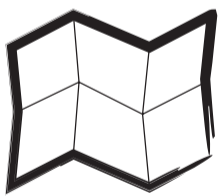
RESURSI

[Novi Sad – Biodiverse City, Video Publikacija](#)

PALERMO



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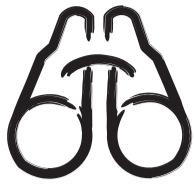
AMBITION / TRAGUARDI AMBIZIOSI

“It has been powerful and empowering to include very disadvantaged areas of the city in the project’s activities, and to be able to give voice to their point of view on the experience of nature. Participants engaged with enthusiasm in the process of mapping, demonstrating a great capacity to vision a greener and more accessible city.”

Extract from the project report

«Si è rivelato formidabile e stimolante includere le zone fortemente svantaggiate della città nelle attività del progetto e riuscire a dare voce ai loro punti di vista in merito all’esperienza della natura. Le persone partecipanti hanno dimostrato entusiasmo nel prendere parte al processo di mappatura, sfoggiando la grande capacità di immaginare una città più verde e più accessibile.»

Estratto dalla relazione del progetto



CONTEXT / CONTESTO

Palermo is surrounded by 'big nature'. Imposing mountains cradle the city, with its natural harbour and seafront, while the *Orto botanico di Palermo* (Palermo Botanical Garden), founded in 1785, is the largest in Italy. But 'neighbourhood nature' – the local parks, gardens and green spaces that enhance quality of urban life – is conspicuously absent, notably in some of the socially disadvantaged districts of the city targeted by the BiodiverCities project.

In the immediate post-war decades, an influx of migrants from rural areas led to rapid and haphazard housing development in Palermo, largely under the control of the powerful Sicilian Mafia. Little thought was given to the planning of parks, schools and public amenities, while historic buildings and green spaces were bulldozed.

Even better planned developments, like the 1960s

postmodern Zen district on the outskirts of the city, have fallen into decay with decades of municipal underinvestment and Mafia infiltration, recently compounded by the socio-economic impact of the COVID-19 pandemic. Crime and unemployment rates are among the highest in Italy.

The result for some of Palermo's disadvantaged neighbourhoods is a high level of accumulated 'structural violence' – a more poignant term than 'social injustice' to describe a structural condition of inequality and disempowerment of citizens to take part in public and social life.

Palermo has a relatively young population compared to the national average. Sicily has the highest rate of early school leavers and dropouts in Italy – nearly three times that of the northern region of Veneto (Statista

Palermo è circondata da una «natura imponente». Possenti montagne proteggono la città che, con il suo lungomare e porto naturale, si protende verso il mare e al suo interno custodisce l'Orto botanico di Palermo, fondato nel 1785, il più grande d'Italia. Tuttavia, la «natura di quartiere», ovvero i parchi, i giardini e gli spazi verdi locali, responsabili di migliorare la qualità della vita urbana, sono pressoché assenti, soprattutto in alcuni dei quartieri socialmente svantaggiati della città. Sono proprio questi ultimi che hanno attirato l'interesse del progetto BiodiverCities.

L'afflusso di migranti dalle zone rurali, che ha caratterizzato i decenni successivi al periodo post-bellico, ha innescato uno sviluppo abitativo rapido e disordinato della città di Palermo, avvenuto in gran parte sotto il controllo della potente mafia siciliana. Fu, quindi, dedicata scarsa attenzione alla pianificazione di parchi,

scuole e infrastrutture pubbliche, accompagnata, inoltre, dalla demolizione di aree verdi ed edifici storici.

Alcuni sviluppi urbanistici più recenti, frutto di una migliore pianificazione, tra cui il quartiere post-moderno Zen, sorto negli anni sessanta e situato nella periferia della città, sono "caduti in rovina" a causa dell'insufficienza degli investimenti e dell'infiltrazione mafiosa – una situazione di recente aggravata dalla pandemia da COVID-19 e dal forte impatto che ha avuto sul tessuto sociale. I tassi di criminalità e disoccupazione sono tra i più alti in Italia.

Per alcuni dei quartieri più vulnerabili di Palermo, questo si è tradotto in un alto livello di «violenza strutturale» accumulatasi nel tempo. Il termine «violenza strutturale», dal carattere più incisivo di «ingiustizia sociale», evidenzia una condizione di disuguaglianza,

PALERMO AT A GLANCE / PALERMO IN UN COLPO D'OCCHIO



Palermo is the capital of the autonomous region of Sicily, an island in southwest Italy. It was formerly the ancient Phoenician port of Ziz (meaning 'flower').

Population: 668 405 people in the central city (2018: Italian Institute of Statistics).

Engagement level: 40 participants from the local school communities, including teachers, pupils and families; over 550 citizens answered the survey.

Methods: online workshops, surveys, community mapping.

Scale: municipal; neighbourhood

Key outcomes: Publication of survey and maps by the Palma Nana cooperative.

Palermo è il capoluogo della regione autonoma della Sicilia, un'isola situata nell'Italia sud-occidentale. Anticamente era il porto fenicio di Ziz, il cui nome significa «fiore».

Popolazione: 668 405 persone nel centro urbano (2018: Istituto nazionale di statistica).

Livello di partecipazione: 40 partecipanti delle comunità scolastiche locali, tra cui insegnanti, allievi e famiglie; oltre 550 residenti hanno partecipato al sondaggio.

Metodi: workshop online, questionario, mappatura comunitaria.

Livello: municipale e di quartiere
Risultati principali: sondaggio e le mappe partecipate esposte dalla cooperativa Palma Nana.



BiodiverCITIES: un laboratorio urbano per la città di Palermo

Aiutaci a svolgere una ricerca sull'importanza delle aree verdi nella città di Palermo e sul ruolo che vogliamo che questi spazi di natura abbiano nelle nostre vite.

Questionario per i BIMBI della città (da compilare con l'aiuto di un adulto)

© Palma Nana

An example of survey designed for children

2019). The pandemic added to a wider lack of prospects for these young people. Taking some classrooms out of school and into green spaces could help keep disenchanted students in education for longer.

BiodiverCities Palermo aimed precisely at exploring **the potential role of green spaces in educational curricula as learning spaces, as well as transforming school green spaces into neighbourhood ones.** To do that, the



In Oreto there are no parks or playgrounds for children, so to let them play we have to take a car."

Quote by participants to the third activity

«A Oreto mancano parchi o aree giochi per i bambini; per farli giocare dobbiamo prendere la macchina.»

Cosa dice chi ha partecipato all'attività di mappatura

project aimed to involve the school community, from pupils to teachers, in collaboration with the local municipality, and to run a pilot project in a municipal nursery school.

accompagnata da una costante «svalorizzazione» di un certo gruppo di persone che impedisce loro di partecipare, come è loro diritto, alla vita pubblica e sociale.

Rispetto alla media nazionale, Palermo vanta una popolazione relativamente giovane. Ciononostante, la Sicilia detiene il primato italiano per il numero di abbandoni scolastici precoci e dispersioni scolastiche, una percentuale che supera quasi di tre volte quella del Veneto (Statista 2019). La pandemia ha peggiorato la situazione, lasciando ai giovani una maggiore mancanza di prospettive. Svolgere alcune lezioni al di fuori della scuola, ad esempio nelle aree verdi, potrebbe contribuire a mantenere sui banchi di scuola studenti e studentesse che hanno perso la passione per lo studio.

BiodiverCities Palermo intendeva proprio esaminare **il ruolo potenziale delle aree verdi nei programmi di insegnamento, rendendole spazi di apprendimento, e trasformando gli spazi verdi scolastici in spazi di quartiere.** Per farlo, il progetto si proponeva di coinvolgere l'intera comunità scolastica, da chi studia a chi insegna, in collaborazione con l'amministrazione comunale. L'intenzione era svolgere un progetto pilota in una scuola materna comunale.



PROCESS / PROCESSO

With a history of disempowerment, especially in the city's poorer districts, the project had to be 'hands-on' from the start if it was to have any lasting impact. It kicked off with three workshops (held online during the last weeks of pandemic restrictions) to take stock of existing green

spaces and to reflect on ways that they could be used as part of school life, metaphorically breaking down the walls and literally taking classes outside, for example. At the invitation of the School Department of the municipality and the Palma Nana cooperative, 15 teachers and educators

In virtù della storia di marginalizzazione di alcuni quartieri della città, soprattutto quelli caratterizzati da vulnerabilità socio-economiche, il progetto ha dovuto adottare un approccio «pratico e interattivo» fin dall'inizio, per avere un impatto più duraturo. Si è

quindi inaugurato con tre workshop, tenutisi online durante le ultime settimane di restrizioni dovute alla pandemia, per tracciare un bilancio delle aree verdi esistenti e riflettere su come utilizzarle nella vita scolastica, abbattendo metaforicamente i muri e, ad esempio, spostando

came on board, from municipal schools in seven disadvantaged areas of the city.

The result of these workshops was a survey questionnaire that Palma Nana posted on its website and which workshop participants distributed in their schools and neighbourhoods. Questions included: 'In your neighbourhood, what is the outdoor space you go to most with your children?'; 'What benefits do your children gain from spending time in nature?' A total of 583 citizens answered the survey, including: 99 families and citizens, 274 students aged 7-18, and 75 kids aged 3-7, helped by their parents.

The results were revealing and were taken up in a later phase that used a series of nine walks and map-making activities, led by Palma Nana and the Observatory for Early School Leaving, to visualise how the young people involved use the city's green spaces now – and how they would like to use them in the future.

The project had originally envisaged a third activity – to turn the garden of the Rallo state nursery school into a community garden. This had to be abandoned when the municipality's School Department pulled out due to lack of financial and human resources for the maintenance of the new garden. Not to be defeated, the Palma Nana cooperative and the Observatory for Early School Leaving joined forces to see the project through and keep the momentum up with all those who had taken part.



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Mothers and children using maps to reflect on how they see the city's green areas and their visions for the future.

Madri e bambini che usano le mappe per riflettere su come considerano le aree verdi della città e sulle loro visioni per il futuro.

letteralmente le lezioni all'aperto. Su invito dell'assessorato alla Pubblica Istruzione del comune e della cooperativa Palma Nana, hanno aderito 15 docenti e insegnanti provenienti da scuole comunali situate in sette zone svantaggiate della città.

Da questi tre workshop è scaturito un questionario, differenziato in base al target, e.g., se rivolto a un bambino o a un insegnante, che Palma Nana ha pubblicato sul suo sito web. I partecipanti l'hanno a loro volta distribuito nelle scuole e nei quartieri. Ecco alcune delle domande presenti: «Qual è lo spazio all'aperto nel tuo quartiere

che frequenti di più con i tuoi bambini?», «Quali benefici traggono i bambini a trascorrere tempo nel verde?» Un totale di 583 residenti ha risposto al questionario, tra cui: 99 famiglie e residenti, 274 allievi di età dai 7 ai 18

anni e 75 bambini dai 3 ai 7 anni, aiutati dai genitori.

I risultati si sono confermati significativi e sono stati impiegati in una fase successiva del progetto. Questa ha previsto nove camminate e attività collettive di creazione di mappe, condotte da Palma Nana e dall'Osservatorio sull'abbandono scolastico precoce, per visualizzare l'attuale modalità d'uso degli spazi verdi cittadini da parte dei più giovani e delle loro famiglie, e esplorare come avrebbero voluto utilizzarli in futuro.

In principio, il progetto prevedeva una terza attività, volta a trasformare il cortile dell'asilo nido comunale Rallo in un cortile condiviso dalla comunità. Purtroppo, questa attività è stata accantonata in seguito alla rinuncia dell'assessorato alla Pubblica Istruzione del comune per via della mancanza di risorse economiche e umane necessarie per la manutenzione del nuovo giardino. Tuttavia, la cooperativa Palma Nana e l'Osservatorio sull'abbandono scolastico precoce non si sono dati per vinti e hanno deciso di unire le forze per portare avanti il progetto e mantenerne lo slancio con tutte le persone che vi avevano partecipato.

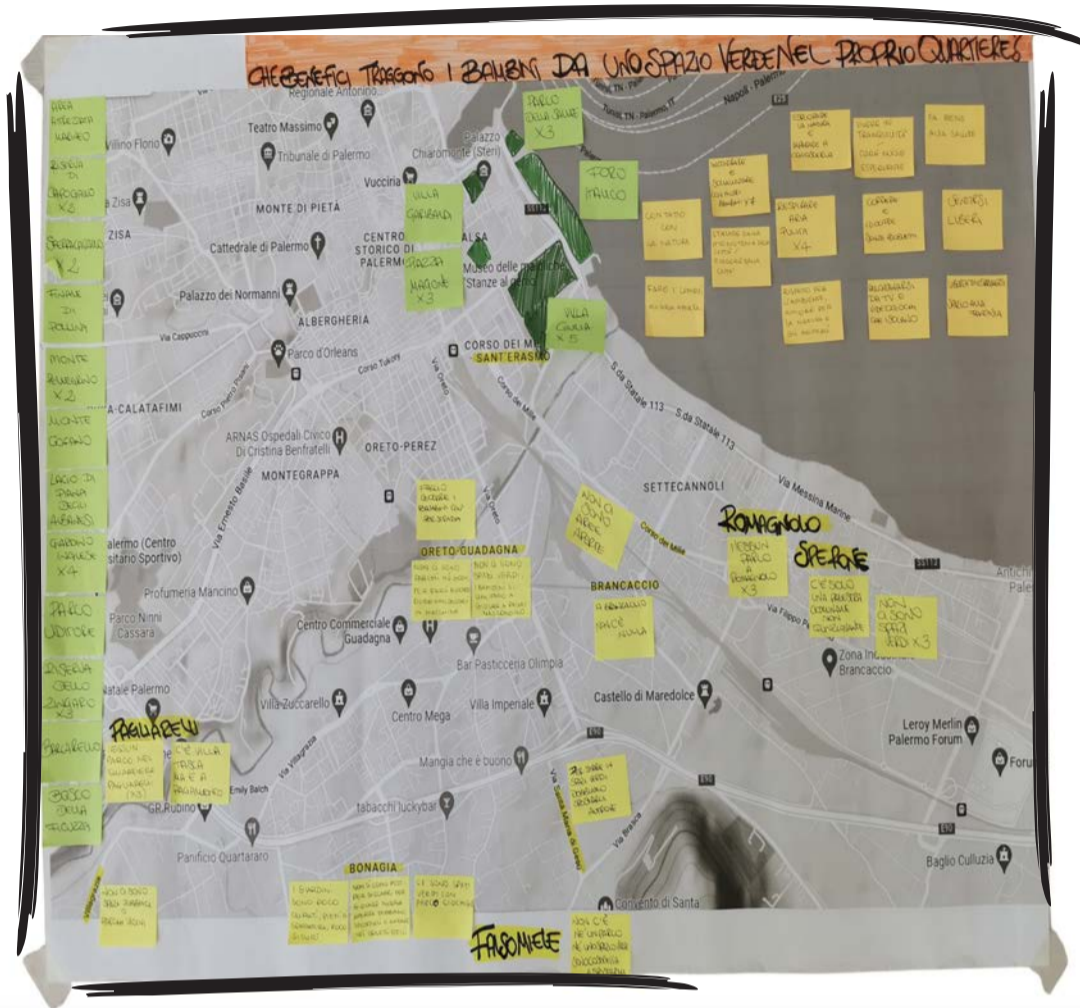


In the Sperone area there is no outdoor area. You have to go all the way to Foro Italico, which is quite far for those who don't have a car."

Quote by participants to the third activity

«Nella zona di Sperone non ci sono aree all'aperto. Bisogna arrivare fino al Foro Italico, che è piuttosto lontano da raggiungere per chi non ha la macchina.»

Cosa dice chi ha partecipato all'attività di mappatura



Pupils and parents from schools in seven disadvantaged districts of Palermo took part in the BiodiverCities project, exploring existing green spaces and imagining their future use. Map of the city's green areas, with how participants see and use them.

Genitori e alunni delle scuole in sette quartieri svantaggiati di Palermo hanno partecipato al progetto BiodiverCities, esplorando le aree verdi esistenti e immaginandone l'impiego futuro. Mappa delle aree verdi cittadine e come i partecipanti le considerano e usano.



OUTCOMES / RISULTATI PRINCIPALI

To some extent, the process itself was an outcome of the project. Young people in Palermo and their parents, especially those living in disadvantaged neighbourhoods, are not used to being asked their opinions, or given any agency over spaces they frequent.

Even before thinking about a better use of green spaces in the future, citizens' reflections on how they perceive and use local green spaces were very revealing, sometimes painting a bleak picture of neighbourhoods with few safe places to play.

That said, those who took part were well aware of the value of safe, green



If education systems made more use of green areas, schools would be much more appealing to pupils, making them less likely to leave school early."

«Se i sistemi didattici sfruttassero di più le aree verdi, le scuole attirerebbero di più gli allievi, rendendoli meno inclini a lasciare precocemente gli studi.»

spaces, seeing them as places where you could "feel free", "breathe clean air" and "get away from TV and video games", or even "do homework in the open air".

While it was disappointing that the plan to transform a nursery school garden into a community garden had to be

Per certi versi, un risultato del progetto è stato proprio il processo stesso. I giovani palermitani e i loro genitori, in particolare quelli residenti nei quartieri più vulnerabili, non sono abituati a dar voce alle proprie opinioni per informare un progetto di ricerca o una politica, o a fornire una

valutazione sugli spazi che abitano e frequentano.

Pertanto, prima di pensare a un impiego futuro delle aree verdi, si è confermato molto utile comprendere, sulla base delle riflessioni della cittadinanza, come essa percepisse e utilizzasse gli spazi verdi presenti. Talvolta, il quadro emergente dei quartieri che ne scaturiva era molto cupo ed evidenziava il numero ridotto di spazi sicuri in cui giocare.

Infine, coloro che hanno partecipato al processo erano ben consapevoli del valore degli spazi verdi sicuri, ritenendoli luoghi in cui «sentirsi liberi», «respirare aria pulita» e «staccarsi da TV

© Palma Nema

abandoned, the collaboration between the Observatory for Early School Leaving and Palma Nana unleashed an exciting synergy, adding value both to BiodiverCities and the projects carried out with the Observatory

Palma Nana has published the survey and maps in its offices, on its website and social media and is committed to maintaining contact with participant schools, teachers and parents regarding future

developments. Another important follow-up for participants, as part of the BiodiverCities project, was a policy event held in Palermo in September 2022.

e videogiochi», o persino «fare i compiti all'aria aperta».

Nonostante la delusione di dover rinunciare al piano di trasformazione del cortile dell'asilo nido in un cortile di comunità, utilizzabile dalla scuola e dal quartiere, la collaborazione tra l'Osservatorio sull'abbandono scolastico precoce e Palma Nana si è rivelata fruttuosa, aggiungendo così valore sia a BiodiverCities che ai progetti svolti dall'Osservatorio.

Palma Nana ha pubblicato il sondaggio e le mappe nella sua sede, sul suo sito web e sui social media, e si impegna a mantenere i contatti con le scuole, i docenti e i genitori che hanno partecipato per aggiornarli sugli sviluppi futuri. Un ulteriore importante approfondimento per i partecipanti, sempre nell'ambito del progetto BiodiverCities, è stato l'evento politico tenutosi a Palermo a settembre 2022.

Survey dedicated to the school personnel

1. Do you think that being in contact with nature generates positive mental and physical benefits?

133 replies

Credi che stare all'aria aperta e vivere in armonia con la natura apporti benefici psico/motori all'individuo?

133 risposte

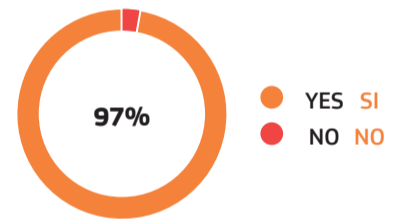


2. Would you welcome the employment of experiential approaches in teaching by the school?

133 replies

Ritieni utile che la scuola proponga attività esperienziali (osservazione, contatto sensoriale, esplorazione, elaborazione) nello svolgimento delle classiche attività didattiche?

133 risposte



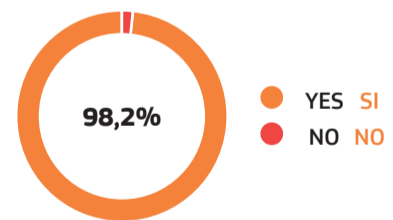
Survey dedicated to pupils

1. Do you like being in contact with nature?

274 replies

Ti piace stare in natura?

274 risposte

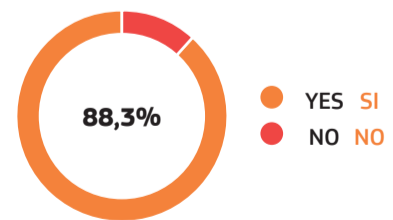


2. Do you think that outdoor learning and studying is more enjoyable?

274 replies

Pensi che studiare all'aperto sia più divertente?

274 risposte

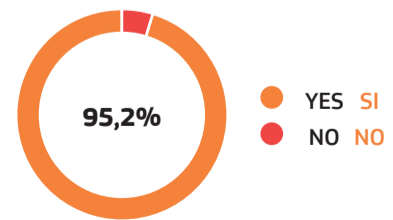


3. Would you like to have some outdoor classes?

270 replies

Ti piacerebbe se alcune lezioni venissero svolte in spazi verdi?

270 risposte





LESSONS LEARNED / LEZIONI APPRESE

The main challenge turned out to be trying to engage with inhabitants outside of the area where the lead partners – the Palma Nana cooperative – usually work. The municipality of Palermo suggested that the project focus on Don Orione, a particularly disadvantaged neighbourhood. According to the NGO “all relations had to be established from zero”. A second challenge was to collaborate with the municipality at the end of its political mandate, and to innovate new processes in what may be called a context of ‘high structural violence’, in the words of the practitioners in charge of BiodiverCities Palermo. The pandemic, aggravating the specific socio-economic conditions of Palermo, added additional challenges.

Moreover, carrying out participatory processes of different kinds in vulnerable territories requires greater care. With participants unused to being asked their opinion, let alone mapping a possible future for the city’s green spaces, it was essential to establish a common language before starting to engage with them. For an engagement process to be successful, the ground has to be prepared, gradually involving citizens and raising awareness about the topic, while encouraging open discussion.

E’ risultato assai difficile coinvolgere gli abitanti non appartenenti alla zona dove solitamente operano i partner principali di BiodiverCities, vale a dire la cooperativa Palma Nana. Il Comune di Palermo ha suggerito ai responsabili del progetto di concentrarsi su Don Orione, un quartiere particolarmente vulnerabile. Secondo l’ONG «è stato necessario instaurare i rapporti partendo da zero». Un’ulteriore sfida ha riguardato la collaborazione con il comune, in un momento in cui l’amministrazione si avvicinava a nuove elezioni, e la creazione di nuovi processi in un contesto caratterizzato da «elevata violenza strutturale», riprendendo le parole dei responsabili del progetto BiodiverCities Palermo. La pandemia, esacerbando le

già difficili condizioni socio-economiche della città, ha posto ulteriori sfide.

Inoltre, lo svolgimento di processi partecipativi di diversi tipi in territori vulnerabili richiede un’attenzione e una cura particolari. Poiché i partecipanti non erano abituati a essere interpellati dalle istituzioni, e tanto meno a delineare la mappa di un futuro possibile per gli spazi verdi cittadini, era fondamentale stabilire un linguaggio comune prima di coinvolgerli. Per raccogliere i frutti di un processo partecipativo efficace, occorre prima preparare il terreno e coinvolgere progressivamente la cittadinanza e sensibilizzarla sull’argomento, intavolando al tempo stesso un dibattito aperto.



JRC REFLECTION / RIFLESSIONI DEL CENTRO COMUNE DI RICERCA

The idea at the heart of BiodiverCities Palermo was simple but powerful: to see if existing or future green spaces in the city, and mainly in deprived neighbourhoods, could have a role as learning places by being formally embedded in educational curricula. To do that, the team wanted to pilot this idea with a local school community. Indeed, what has prevented us until now from imagining a future for education with children learning in the open air? What has prevented us from doing this when most needed, i.e. during the COVID-19 pandemic? Beyond the opening hours of the school, the project team also imagined

making these spaces available and accessible to the neighbourhood – thereby providing for the lack of parks or green spaces in areas much in need of them. This idea, which is already adopted in other places, met several challenges. Firstly, the worsening COVID-19 situation and the restrictions in place, at national and regional levels. This prevented schools from opening in the first place for a long time, and when they were open, they remained vulnerable to an ever-evolving situation that often hindered their activities. This context also ‘naturally’ affected the space for manoeuvring the local

L’idea cardine di BiodiverCities Palermo era semplice, ma potente: capire se gli spazi verdi urbani, esistenti o futuri, specialmente nei quartieri caratterizzati da vulnerabilità socio-economiche, potessero assumere il ruolo di luoghi di apprendimento, includendoli formalmente nei programmi di insegnamento. A tale proposito, il team voleva sperimentare quest’idea con la comunità scolastica locale. In effetti, cosa ha impedito finora di immaginare un futuro per l’istruzione in cui i bambini possano imparare all’aria aperta? Cosa ha impedito di farlo quando ce n’era più

bisogno, ossia durante la pandemia da COVID-19? Il team che ha guidato il progetto ha, inoltre, pensato di rendere questi spazi disponibili e accessibili al quartiere fuori dagli orari scolastici, permettendo così di fare fronte alla mancanza di parchi o aree verdi in zone che ne erano prive e ne avevano la necessità. Questa idea, già trasformata in realtà in altri luoghi del mondo, ha dovuto fare i conti con varie difficoltà. In primo luogo, il peggioramento della situazione legata alla pandemia da COVID-19 e alle restrizioni in vigore, a livello locale, regionale e nazionale, che hanno impedito, innanzitutto,

municipality. By mentioning this, we want to stress the political dimension of co-creation. Without political will, change is left to the goodwill of a few people – and this inevitably looks like a future with an expiry date. The project in Palermo was also challenged by a very simple and practical issue: who takes care of opening the school garden beyond the school hours? How are responsibilities distributed? All actors involved, for different reasons, were unable to commit, and the idea of asking citizens to take care of the garden was not considered viable

or fair, according to the cooperative. This is an old and recurrent problem in public participation: who takes care of its outcome, be it a garden or an insect hotel? There are no easy or straightforward answers to this question. However, this leads to another political condition of co-creation as well as of a potential outcome: the need for a common ground that makes it possible to go beyond diverse positions of the actors of concern.

The original idea is worth finding a way forward.

l'apertura delle scuole per un lungo periodo di tempo. Dopo la riapertura, poi, le scuole si sono scoperte vulnerabili di fronte a una situazione in costante evoluzione che spesso ne ha ostacolato le attività. Tale contesto ha quindi condizionato lo spazio di manovra con l'amministrazione comunale. Menzionando questo aspetto, desideriamo mettere in rilievo la dimensione politica della co-creazione. Senza volontà politica, il cambiamento resta appannaggio della buona volontà di poche persone, e ciò inevitabilmente delinea un futuro con una chiara data di scadenza. Il progetto di Palermo si è trovato, inoltre, a dover superare un problema molto semplice e di carattere pratico: chi si occupa di aprire i cancelli del cortile scolastico dopo la fine dell'orario delle lezioni? Come vengono distribuite le responsabilità?

Per motivi diversi, nessuno degli interlocutori coinvolti è stato in grado di poter garantire questo servizio. Inoltre, secondo la cooperativa, l'idea stessa di demandare alla cittadinanza la cura del cortile e la sua autogestione non era ritenuta né fattibile né giusta. Si tratta di un problema annoso e ricorrente della partecipazione pubblica: chi si occupa del suo risultato, sia nel caso si tratti di un cortile o di un hotel per insetti? Non esistono risposte semplici a questa domanda. Tuttavia, questo porta a sottolineare un'ulteriore caratteristica politica della co-creazione, ovvero la necessità di individuare un terreno comune che permetta ai vari interlocutori di superare le proprie istanze identitarie.

Varrebbe la pena che l'idea del progetto trovasse realizzazione in futuro, a Palermo e altrove.

TEAM AND ACKNOWLEDGEMENTS

Expert: Franca Marsh

Team: Giuseppe Burgio, Fabrizio Giacalone Valeria Marino

Lead partners: Palma Nana cooperative, Observatory for Early School Leaving, Municipality of Palermo, Rallo Kindergarten

RESOURCES

[Life under lockdown on the outskirts of Palermo](#)

[The Palma Nana cooperative](#) (in Italian)

TEAM E RINGRAZIAMENTI

Esperta: Franca Marsh

Team: Giuseppe Burgio, Fabrizio Giacalone, Valeria Marino

Partner principali: Cooperativa Palma Nana, Osservatorio sull'abbandono scolastico precoce, Comune di Palermo, asilo nido Rallo

RISORSE

[Life under lockdown on the outskirts of Palermo](#)

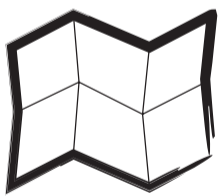
(La vita in lockdown nella periferia di Palermo)

[La cooperativa Palma Nana](#)

PALMA



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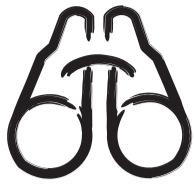
AMBITION / OBJETIVOS

“BiodiverCities in Palma has brought an opportunity to explore the complexity of participation and co-creation in the city. The three activities developed under BiodiverCities are now embedded into diverse ongoing projects involving the Municipality, working at different scales and in different territories.”

Project Technical Report

«BiodiverCities ha ofrecido en Palma la oportunidad de examinar la complejidad de la participación y la creación conjunta en la ciudad. Las tres actividades desarrolladas en el marco de BiodiverCities están integradas ya en diferentes proyectos en curso, que cuentan con la participación del Ayuntamiento y que se ejecutan a escalas diferentes y en territorios distintos».

Informe técnico del proyecto



CONTEXT / CONTEXTO

Palma is the largest city on Mallorca, an island that has been occupied since antiquity. Palma itself was founded as a Roman camp on the south coast of this large island situated off the coast of Spain in the western Mediterranean.

Over the centuries Mallorca has been influenced by a variety of different civilizations, including the Moors, who ruled the island for centuries. This has contributed to the diverse and unique architectural landscape, culture and ambience of the city.

Since the arrival of mass tourism in the latter half of the 20th century, the city's economy has been transformed from one led by agriculture and industry to one dominated by tourism, which has consequently attracted many workers to the island from mainland Spain and further afield.

Not surprisingly, some 80% of the population work in the tourism sector, which has stimulated rapid economic growth.

The tourism boom was seismic. Attracted by the island's year-round sun, sea and sand, in 1960, Mallorca received around half a million visitors. By 1997, the figure was over 6.7 million, in 2001 over 20.7 million, and in 2022 Palma de Mallorca Airport alone handled over 28.5 million passengers. In October 2021, Palma was shortlisted for the European Commission's 2022 European Capital of Smart Tourism.

From an urban planning and environmental perspective, the challenges are many: over the last 60 years intense urbanisation and expansion of infrastructure has affected the city's environmental quality. Since 2012, Palma has

Palma es la ciudad más grande de Mallorca, una isla habitada desde la Antigüedad. La ciudad fue fundada como un campamento romano en la costa sur de esta gran isla, ubicada en el Mediterráneo occidental, frente a la costa de España.

Son muchas las civilizaciones que han dejado su huella en Mallorca a lo largo de los siglos, como, por ejemplo, los árabes, que gobernaron la isla durante cientos de años. Esto ha contribuido a la diversidad y singularidad del paisaje arquitectónico, la cultura y el ambiente de la ciudad.

Desde la llegada del turismo de masas en la segunda mitad del siglo XX, la economía de la ciudad ha pasado de ser una economía liderada por la agricultura y la industria a una dominada por el turismo, lo que a su vez ha atraído a la isla a muchos trabajadores de la

España peninsular y de otros lugares. No es de extrañar entonces que cerca del 80 % de su población trabaje en el sector turístico, lo que ha favorecido un rápido crecimiento económico.

El auge del turismo fue abrupto. Atraídos por el sol durante todo el año, el mar y la arena de la isla, Mallorca recibió cerca de medio millón de turistas en 1960. En 1997, la cifra superó los 6,7 millones, en 2001 excedió los 20,7 millones y, en 2022, solo el Aeropuerto de Palma de Mallorca recibió más de 28,5 millones de pasajeros. En octubre de 2021, la Comisión Europea preseleccionó a Palma como Capital Europea del Turismo Inteligente 2022.

Desde una perspectiva ambiental y urbanística, los retos son cuantiosos: durante los últimos sesenta años, la urbanización intensa y la expansión de las infraestructuras

PALMA AT A GLANCE / PALMA DE UN VISTAZO



The city of Palma is capital of the Spanish island of Mallorca (aka Majorca) in the western Mediterranean. Palma is the largest city of the autonomous community of the Balearic Islands.

Population: 415 940 people ([National Statistics Institute 2022](#)).

Engagement level: 402 participants

Methods: discussion groups (e.g. co-creation workshops), walking tours and fieldwork, mapping, exhibitions and online surveying.

Scale: Municipal

Key outcomes: contributions to Palma's Urban Master Plan, increased biodiversity in parks, innovative tender works contract.

Palma es la capital de la isla española de Mallorca, situada en el Mediterráneo occidental, y la ciudad más grande de la comunidad autónoma de las Islas Baleares.

Población: 415 940 habitantes ([Instituto Nacional de Estadística 2022](#)).

Nivel de participación: 402 participantes.

Métodos: grupos de debate (p. ej., talleres de creación conjunta), recorridos a pie y trabajo de campo, cartografía, exposiciones y encuestas en línea.

Escala: Municipal.

Principales resultados: contribuciones al Plan general municipal de ordenación urbana, aumento de la biodiversidad en los parques y un contrato de licitación de obras innovador.

been reviewing its Urban Master Plan to redefine its urban strategy for the next 30 years. The revision looks to address environmental challenges from water pollution to accessibility of green spaces and local mobility. The city is particularly vulnerable to the effects of climate change.

The BiodiverCities programme was an ideal opportunity for the municipality to experiment with co-creation approaches in the framework of the Master Plan revision. A process of civic dialogue between public institutions and citizens was opened, providing a safe space where ideas, expectations, sensitivities and views on the future of the city could emerge.

Specifically, the BiodiverCities initiatives in Palma aimed to contribute to the development of the city's green infrastructure strategy through pilot projects at different scales and across the city. The projects



The BiodiverCities programme was an ideal opportunity for the municipality to experiment with co-creation approaches in the framework of the Master Plan revision.”

«El programa BiodiverCities constituyó una oportunidad idónea para que el municipio experimentara con planteamientos de cocreación en el marco de la revisión del Plan general.»

introduced mechanisms for institutional listening and embedded co-creation with citizens within some urban interventions such as the planning of greener public spaces. They also worked to include different perspectives, including gender and people of all ages, to enable a more inclusive planning process.

han afectado a la calidad ambiental de la ciudad. Desde 2012, Palma ha estado revisando su Plan general municipal de ordenación urbana a fin de redefinir su estrategia urbana para los próximos treinta años. Esta revisión trata de abordar los retos ambientales, desde la contaminación del agua hasta la accesibilidad de los espacios verdes y la movilidad de proximidad. La ciudad es muy vulnerable a los efectos del cambio climático.

El programa BiodiverCities constituyó una oportunidad idónea para que el municipio experimentara

con planteamientos de cocreación en el marco de la revisión del Plan general. Se inició un proceso de diálogo cívico entre las instituciones públicas y la ciudadanía, lo que proporcionó un espacio seguro del que pudieran emanar ideas, expectativas, sensibilidades y opiniones sobre el futuro de la ciudad.

En concreto, el objetivo de las iniciativas de BiodiverCities en Palma era contribuir al desarrollo de la estrategia de infraestructuras verdes de la ciudad a través de proyectos piloto a diferentes escalas y por toda la ciudad. Los proyectos permitieron introducir mecanismos para la escucha institucional y la creación conjunta integrada con los ciudadanos en el marco de algunas intervenciones urbanas como, por ejemplo, la planificación de espacios públicos más verdes. En ellos también se trabajó para incluir diferentes perspectivas, incluidos el género y las personas de todas las edades, para permitir un proceso de planificación más inclusivo.



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Maps were used throughout in the activities carried out in Cotillure and Es-Pil.lari (see above) to gather and harvest citizens' ideas and inputs.

Durante las actividades realizadas en Cotillure y Es Pil.lari, se utilizaron mapas para recoger las ideas y aportaciones de los ciudadanos.



PROCESS / PROCESO

In Palma, three initiatives were developed and implemented in parallel. The activities explored three different scales and three types of participation: a) small scale and the direct action in terms of planting the actual seeds to improve biodiversity, b) medium scale and the design of a new pedestrian street in the city, and c) large scale and the inclusion of a new green space in the urban planning official document.

The first activity engaged Palma’s youth to help counter the decline of pollinators. This was the main aim of engaging with the Children’s Council. This group of 32 boys and girls aged between 6 and 16 was chosen to represent the children of the city within the framework of UNICEF’s Child Friendly Cities programme. The hope was that these children could become ‘biodiversity ambassadors’ for the city. Working with researchers from the Mediterranean Institute for Advanced Studies (IMEDEA), who were involved with the [LIFE 4 POLLINATORS EU project](#), several activities were undertaken between March and June 2021, including an exploration of the topic and the co-design of actions. The children, with the support of researchers, civil servants, municipal workers, technicians and librarians, installed **five pollinator gardens – one in each of the five city districts.**

The second activity supports and is part of the institutional effort to create **a network of pedestrianised routes connecting the city to its rural surroundings.** On Cotlliure, one of the streets to be pedestrianised, the



The first activity engaged Palma’s youth to help counter the decline of pollinators.”

«La primera actividad involucró a los jóvenes de Palma para ayudar a contrarrestar la disminución de los polinizadores.»



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BiodiverCities activity aimed to involve local inhabitants in the process. In February 2021, a competition was launched for the co-design of Cotlliure Street with the intent to transform the street, through tactical urbanism, into a ‘re-natured’ public space using nature-based solutions including a sustainable drainage system. This was a first-of-its-kind collaborative urban planning project for the city that aimed to, among other objectives, empower and encourage greater ownership by citizens over ‘urban outcomes’. One key innovative element was the inclusion of a mandatory co-creation clause in the tender for the pedestrianisation works contract. Following the

En Palma se desarrollaron y pusieron en práctica tres iniciativas en paralelo. En las actividades se examinaron tres escalas diferentes y tres tipos de participación: a) escala pequeña y la acción directa en términos de plantar las semillas reales para mejorar la biodiversidad, b) escala media y el diseño de una nueva calle peatonal en la ciudad, y c) escala grande y la inclusión de un nuevo espacio verde en el documento oficial de planificación urbana.

La primera actividad involucró a los jóvenes de Palma para ayudar a contrarrestar la disminución de los polinizadores. Este era

el objetivo principal de colaborar con el Consejo de la Infancia. Se eligió a este grupo de treinta y dos chicos y chicas de entre seis y dieciséis años para representar a los niños de la ciudad en el marco del programa Ciudades Amigas de la Infancia de UNICEF. La esperanza era que estos niños pudieran convertirse en «embajadores de la biodiversidad» de la ciudad. En colaboración con investigadores del Instituto Mediterráneo de Estudios Avanzados (IMEDEA) que participaban en el [proyecto financiado con fondos europeos LIFE 4 POLLINATORS](#), se realizaron varias actividades entre marzo y junio de 2021, incluidos un estudio del tema y el diseño conjunto de acciones. Los niños, que recibieron ayuda de investigadores, funcionarios, trabajadores municipales, técnicos y bibliotecarios, instalaron **cinco jardines de polinizadores, uno en cada uno de los cinco distritos de la ciudad.**

La segunda actividad apoya y forma parte del esfuerzo institucional para crear **una red de itinerarios peatonales que conecten la ciudad con su entorno rural.** En Cotlliure, una de las calles que se desea peatonalizar, la actividad BiodiverCities tenía por objeto involucrar a los vecinos en el proceso. En febrero de 2021, se convocó un concurso para el diseño conjunto de la calle Cotlliure con el fin de transformar la calle, a través del urbanismo táctico, en un espacio público «renaturalizado» con el empleo de soluciones basadas en la naturaleza, incluido un sistema de drenaje sostenible. Este proyecto pionero de planificación urbana

award of the contract, the company, in collaboration with the municipality, launched a range of engagement activities in February 2022 with local inhabitants, stakeholders (organised groups in the neighbourhood), and informal or semi-organised groups (such as elderly groups and presidents of social housing communities). The activities involved the organisation of an exhibition and a mapping exercise, as well as surveying. All these means served to mobilise citizens' inputs and, overall, involved 350 individuals.

The third activity was held in Es Pil·lari, a neighbourhood located on the margin of the city and physically separated from it by a multi-lane highway. The activity was titled **'How to build bridges to the city? Listen to the neighbourhood's demands!'** Originally, the neighbourhood association reached out to the municipality to ask for a solution concerning an old, abandoned quarry within the framework of the Master Plan revision. Following more



One of the pollinator gardens in Palma
Uno de los jardines de polinizadores de Palma

than a year of preparation, a participatory workshop was held on 27 January 2022, at which the main elements of the plan that were of particular interest to the neighbourhood were presented by representatives of the municipality. Employing a World Café methodology, 21 citizens engaged in defining aspects of heritage protection in their neighbourhood, the development of a new park in the old quarry and the creation of a path to connect the neighbourhood to the sea.

colaborativa para la ciudad pretendía, entre otras cosas, empoderar a los ciudadanos y fomentar una mayor responsabilización sobre los «resultados urbanos». Un elemento innovador fundamental fue la inclusión de una cláusula obligatoria de creación conjunta en la licitación del contrato de obras de peatonalización. En febrero de 2022, tras la adjudicación del contrato, la empresa ganadora colaboró con el Municipio para poner en marcha una serie de actividades participativas con los vecinos de la calle,

las partes interesadas (grupos organizados del barrio) y grupos informales o semiorganizados (como grupos de personas mayores y presidentes de comunidades de viviendas sociales). Las actividades consistieron en la organización de una exposición y un ejercicio de cartografía colaborativa. Todos estos medios permitieron fomentar los comentarios de los ciudadanos y, en conjunto, contaron con la participación de 350 personas.

La tercera actividad se llevó a cabo en Es Pil·lari, un barrio situado al margen de la ciudad y separado físicamente de ella por una autovía de varios carriles. La actividad se denominó **«¿Cómo construir puentes hacia la ciudad? Escuchar las demandas del barrio»**. En un principio, la asociación de vecinos se dirigió al Municipio para pedir que se incluyera una solución a una antigua cantera abandonada en el marco de la revisión del Plan general. Tras más de un año de preparativos, el 27 de enero de 2022 se celebró un taller participativo en el que representantes municipales expusieron los principales elementos del plan que eran de especial interés para el barrio. Mediante el empleo de la metodología de World Café, veintiún ciudadanos se comprometieron a definir aspectos de protección del patrimonio en su barrio, el desarrollo de un nuevo parque en la antigua cantera y la creación de un camino para conectar el barrio con el mar.



In the majority of the activities carried out in Cotillure, maps were used to identify the most important places in the street. All items and proposals identified in the debates were written or drawn down on the map. Three reporting maps, as the one above, are the result of outcomes of all the proposals harvested along the process.

En la mayor parte de las actividades realizadas en Cotillure, los mapas se utilizaron para identificar los puntos más importantes en la calle. Todos los elementos y propuestas que se identificaron durante los debates se escribieron o dibujaron en un mapa.



OUTCOMES / RESULTADOS PRINCIPALES

The BiodiverCities project in Palma aimed to test the ideas of the Urban Master Plan through a co-creation approach, and to set successful citizen participation precedents to help address urban planning issues and encourage municipal experts to further make use of co-creation. It explored a portfolio of tools for future citizen engagement processes in the city. In addition to these general considerations, each of the three activities had their own specific outcomes.

The **Children's Council** produced different proposals for the parks and made the final decision on the location of the five pollinator gardens, the outcome of this activity; one in each district of the city of Palma and each with a different name. The Council members not only proposed what should be done, but also took an active part in carrying out this improvement of biodiversity in the chosen parks. As a follow-up, the municipality has committed to maintaining the gardens in good condition.

The engagement process in the **Cotlliure** Street was an encouraging first experiment of this kind. The results are currently being analysed by the contractors who are developing the future street design proposal that will include the contributions from the participation process. The results will be presented to the participants directly via email and online, but also physically at the places where the original activities were held. One of the outcomes is an increased critical capacity within the municipality

to ensure that planning and integrating citizens' participation in urban planning is meaningful.

The engagement activity in **Es Pillari** gathered a clear idea of what the inhabitants expected for the future for their neighbourhood and the pilot carried out was generally positive. Participants engaged in the World Café largely agreed on what is needed in the neighbourhood, as some are historical demands. Also, the quality of the contributions harvested exceeded the expectations

En Palma, el proyecto BiodiverCities tenía por objeto probar las ideas del Plan general municipal de ordenación urbana a través de un planteamiento de creación conjunta y establecer precedentes satisfactorios de participación ciudadana para ayudar a abordar los problemas de planificación urbana, así como para alentar a los expertos municipales a hacer un mayor uso de la creación conjunta. En él se examinó una cartera de herramientas para futuros procesos de participación ciudadana en la ciudad. Además de estas

parques elegidos. Como seguimiento, el Municipio se ha comprometido a mantener los jardines en buen estado.

El proceso participativo con respecto a la calle **Cotlliure** constituyó un experimento pionero alentador. Sus resultados están siendo analizados por los contratistas, que están desarrollando la propuesta de diseño de la futura calle que incluirá las contribuciones del proceso participativo. Los resultados se presentarán a los participantes de manera directa por correo electrónico y en línea, pero también de forma presencial en los lugares donde se celebraron las actividades originales. Uno de los resultados es una mayor capacidad crítica en el Municipio para garantizar que la organización y la integración de la participación ciudadana en la planificación urbana sean provechosas.

La actividad de participación en Es Pillari ofreció una idea clara de lo que sus habitantes esperaban para el futuro de su barrio, y el resultado de la prueba piloto realizada fue en general bueno. Los participantes del World Café coincidieron en gran parte en las necesidades del barrio, ya que algunas son demandas históricas. Asimismo, la calidad de las contribuciones recabadas superó las expectativas del equipo de urbanismo. Tras la actividad, la Oficina del Plan general ha aprendido a acercar las herramientas de diseño urbano y los parámetros de planificación urbana a la ciudadanía. Este método participativo se puede reproducir en toda la ciudad para otras iniciativas urbanas futuras.



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Follow up with children and participants engaged in the first activity. *Seguimiento con los niños y otros participantes en la primera actividad.*

of the urban planning team. Following the activity, the Office of the General Plan has learnt how to bring urban design tools and urban planning parameters closer to citizens. This participatory method can be replicated across the city for other future urban initiatives.

consideraciones generales, cada una de las tres actividades tuvo sus propios resultados específicos.

El **Consejo de la Infancia** elaboró diferentes propuestas para los parques y tomó la decisión final sobre la ubicación de los cinco jardines de polinizadores resultado de esta actividad: uno en cada distrito de la ciudad de Palma y cada uno con un nombre distinto. Los miembros del Consejo no solo propusieron lo que se debería hacer, sino que además participaron de forma activa en esta mejora de la biodiversidad en los



LESSONS LEARNED / LECCIONES APRENDIDAS

Several lessons were learnt.

In the first activity, the decision to work with an existing organisation, the Children's Council, and to partner with local libraries, proved successful and led to good results. Communication of the process was also an important step to make the initiative known to citizens, especially to promote the recognition and motivation of the actors involved. Also, children and adolescents are important actors and can contribute with their ideas and opinions to improve the city and its biodiversity. The involvement of different municipal departments in specific projects facilitated the creation of spaces for collaborative work in the medium and long term.

The Cotlliure experiment has yielded many lessons. These include the fact that it is important to invest time in writing good tenders before a new contract. Also, that the involvement of multiple municipal departments over time has to be sustained and requires effort. As municipalities are complex institutions, the value of engaging citizens in policymaking is not fully understood by all departments and this can be a challenge for projects. Also, the information provided to citizens needs to be adapted to be more accessible and inclusive to enable the participation of all sectors of society. In this context, the experience and knowledge of social services teams working in the area were key factors in ensuring inclusive representation in the participating groups and that the methodology to be used was understood by participants.

The **Es Pil·lari** initiative also found that interpreting official city planning maps is not an easy task for ordinary citizens and appreciating the 'grand ideas' for the city at the local scale is also not easily comprehensible. Neighbourhoods often come with local demands, rooted in local needs. Therefore, the municipality must make the effort to make urban planning processes, documents and tools truly accessible. The World Café in Es Pil·lari is one way to do that, with an additional important factor: the creation of a forum for institutional listening and for citizens to

Se aprendieron varias lecciones.

En la primera actividad, la decisión de trabajar con una organización ya existente, el Consejo de la Infancia, y de asociarse con bibliotecas locales demostró ser acertada y dio buenos resultados. La comunicación del proceso también fue un paso importante en pos de dar a conocer la iniciativa a los ciudadanos, sobre todo a la hora de promover el reconocimiento y la motivación de los agentes participantes. Además, los niños y los adolescentes son agentes importantes que pueden contribuir con sus

municipios son instituciones complejas, no todas sus áreas entienden del todo el valor de involucrar a los ciudadanos en la formulación de políticas, lo que puede constituir un verdadero reto para los proyectos. Además, la información facilitada a los ciudadanos debe adaptarse para que sea más accesible e inclusiva y permitir así la participación de todos los sectores de la sociedad. En este contexto, la experiencia y el conocimiento de los equipos de servicios sociales que trabajan en la zona fueron factores esenciales para asegurar una representación inclusiva en los grupos participantes y que los participantes pudieran comprender la metodología que se debe emplear.

La iniciativa en el **Es Pil·lari** también permitió averiguar que interpretar los mapas oficiales de planificación urbana no es una tarea fácil para los ciudadanos de a pie, como tampoco lo es entender las «grandes ideas» para la ciudad a escala local. Los barrios a menudo acuden con demandas locales, arraigadas en las necesidades locales. Por lo tanto, el Municipio tiene que esforzarse para lograr que los procesos, los documentos y las herramientas de planificación urbana sean accesibles de verdad. El World Café de Es Pil·lari representa una manera de conseguirlo con un factor adicional importante: la creación de un foro de escucha institucional en el que los ciudadanos también puedan debatir de forma abierta sobre sus preocupaciones e intereses. De hecho, cuando se les ofrece un espacio seguro para una interlocución provechosa, los ciudadanos realizan contribuciones importantes al desarrollo de sus barrios y ciudades.



Presenting the Palma General Plan in Es Pil·lari
Presentación del Plan general de Palma en Es Pil·lari

openly discuss their matters of concern and care. Indeed, when offered a safe space for meaningful dialogue, citizens have significant contributions to make for the development of their neighbourhoods and cities.

ideas y opiniones a mejorar la ciudad y su biodiversidad. La participación de diferentes áreas municipales en proyectos concretos facilitó la creación de espacios de colaboración a medio y largo plazo.

El experimento de Cotlliure ha ofrecido muchas lecciones como, por ejemplo, el hecho de que es importante invertir tiempo en redactar buenas ofertas antes de licitar un nuevo contrato. También que la participación de diferentes áreas municipales a lo largo del tiempo tiene que ser constante y requiere esfuerzo. Dado que los



JRC REFLECTION / REFLEXIONES DEL CENTRO COMÚN DE INVESTIGACIÓN

'Experimental' and 'innovative' are the key features of BiodiverCities in Palma. The Municipality, in collaboration with an external and trusted expert, acting within the framework of BiodiverCities, was able to introduce elements of innovation in the way the local institution works:

- Legal innovation: making citizens' participation legally binding when urban interventions are underway. In the case of the pedestrianisation of Cotillure Street, this was specified in the tender, which is important as it sends the message that public policies necessitate the public!
- Institutional listening: the workshop with local inhabitants and the Municipality representatives in Es Pil-larí addressed a historical demand advanced by the neighbourhood: the transformation of an old quarry into a new public green space (foreseen by the revision of the current master plan).

- The power of a story: one of the young citizens of the Children's Council involved in the activity on pollinators, living in Es Pil-larí, shared that it is impossible for him to reach the nearest pollinator garden by foot, as there are no pathways safely connecting his neighbourhood with the garden. This story was quite effective in making explicit a historical problem of Es Pil-larí, i.e. its separation from the rest of the city by a highway. The creation of a pathway is among the contributions collected during the workshop, to which the municipality will have to respond.

For the future, you might consider the following: a) pilot your methodologies before the actual event – citizen engagement processes must have a clear agenda and a plan. Do not leave this to chance! b) better manage expectations when communicating the intention to engage citizens; and c) plan enough time for citizens to engage. Less is more, oftentimes.

Las principales características de BiodiverCities en Palma son «experimental» e «innovador». El Municipio, en colaboración con un experto externo y de confianza, actuando en el marco de un proyecto europeo, consiguió introducir elementos de innovación en el funcionamiento de la institución local:

- Innovación jurídica: lograr que la participación ciudadana sea jurídicamente vinculante en las intervenciones urbanas en curso. Así se especificó en la licitación de la peatonalización de la calle Cotillure, lo cual es importante porque transmite el mensaje de que las políticas públicas solo son verdaderamente públicas si se hacen con los ciudadanos.
- Escucha institucional: el taller con los vecinos y los representantes del Municipio en Es Pil-larí abordó una reivindicación histórica planteada por el barrio: la transformación de una antigua cantera en un nuevo espacio verde público (previsto por la revisión del actual Plan general).

- El poder de una historia: uno de los ciudadanos jóvenes del Consejo de la Infancia que participó en la actividad sobre polinizadores y reside en Es Pil-larí comenta que le es imposible llegar andando al jardín de polinizadores más próximo, ya que no hay caminos que conecten de manera segura su barrio con el jardín. Esta historia fue muy eficaz para revelar un problema histórico de Es Pil-larí, es decir, su separación del resto de la ciudad por una carretera. La creación de un camino es una de las contribuciones recabadas durante el taller y el Municipio deberá responder a ella.

Para el futuro, podría considerar lo siguiente: a) probar sus metodologías antes del evento real: los procesos de participación ciudadana deben tener una agenda y un plan claros. No lo deje al azar; b) gestionar mejor las expectativas al comunicar la intención de involucrar a los ciudadanos; y c) planificar tiempo suficiente para que los ciudadanos participen. A veces, menos es más.

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RESOURCES

[Nou Pla General de Palma](#)

[Video: Planting a pollinators gardens](#)

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Socios principales: Municipio de Palma, Instituto Mediterráneo de Estudios Avanzados (IMEDEA), Ingenieros Emetres SL

RECURSOS

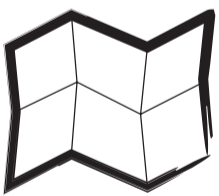
[Nou Pla General de Palma](#)

[Vídeo: Plantar jardines de polinizadores](#)

REGALBUTO



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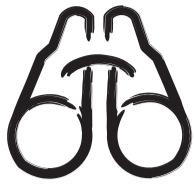
AMBITION / TRAGUARDI AMBIZIOSI

“In 10 years, Regalbuto will have gained the reputation of an exemplary case of an inland city that has managed to reverse decades of demographic and economic decline, even playing a leading role at territorial level compared to other towns in the Simeto Valley, through a strategy that combines youth empowerment with the triggering of socio-technological innovations capable of celebrating and transporting tradition into the future.”

Regalbuto Strategic Development Plan

«Nell’arco di dieci anni, Regalbuto avrà conquistato la reputazione di un caso esemplare di una città dell’entroterra che è riuscita a porre rimedio a decenni di declino demografico ed economico, svolgendo persino un ruolo di spicco a livello territoriale rispetto ad altre città della Valle del Simeto. Il tutto grazie a una strategia che unisce la partecipazione attiva dei giovani all’attivazione di innovazioni socio-tecnologiche, in grado di celebrare e proiettare la tradizione nel futuro.»

Il piano di sviluppo strategico di Regalbuto



CONTEXT / CONTESTO

As the crow flies, Regalbuto is over 60 km from the coast and the urban centre of Catania to the east, and about 60 km from the urban centre of Enna to the west. The municipality presents several of the problematic features of demographic and service decline that are sadly characteristic of isolated inland areas in Italy.

The town has witnessed the closure of small shops and businesses in its historic centre in the period since 2000. Agriculture is important for the local economy, but over 40% of Regalbuto's agricultural enterprises have ceased operations over the past 10 years. The local unemployment rate is higher than in most of Sicily and is twice the Italian average. Young people continue to leave the town to find work or to study. Currently the elderly outnumber young people by two to one. A progressive decrease in the number of resident and taxpaying citizens has also had an impact on the town's revenues.

In this context, the town's mayor, Francesco Bivona, as he neared the end of his second term in office, welcomed the proposal of council member for territorial and urban planning, Medea Ferrigno, to develop a Strategic Development Plan as a blueprint for the town's future, in line with the vision of NextGenerationEU. Implemented as part of the BiodiverCities project, the plan presented an opportunity for Regalbuto to engage its citizens for the first time in the co-production of public policies on a municipal scale.

The town is not new to innovation in policymaking. In 2015, Regalbuto signed the Simeto River Agreement, a regional sustainability plan that aimed to encourage local development through participatory approaches. However, this participatory planning process involved a larger territorial scale as 10 other municipalities in the Simeto Valley participated, while the Strategic Development Plan engaged Regalbuto's citizens directly in finding new synergies to co-design a different future for their town.

In linea d'aria, Regalbuto dista oltre 60 km dalla costa e dal centro urbano di Catania a Est, mentre a Ovest la separano circa 60 km dal centro urbano di Enna. Il comune esibisce molti dei tratti problematici purtroppo caratteristici delle aree interne situate nell'entroterra italiano, tra cui il declino demografico.

Dal 2000, il centro storico della città ha assistito alla chiusura di piccoli negozi e attività commerciali. L'agricoltura ha storicamente ricoperto un ruolo importante per l'economia locale; tuttavia, più del 40 % delle aziende agricole di Regalbuto ha cessato la propria attività nel corso degli ultimi dieci anni. Il tasso di disoccupazione locale risulta superiore alla gran parte della Sicilia ed è pari al doppio della media italiana. I giovani continuano a lasciare la città per cercare lavoro o studiare. Attualmente, le persone anziane sono il doppio rispetto ai giovani. Un calo progressivo nel numero di persone residenti e contribuenti ha, inoltre, sortito un impatto negativo sugli introiti dell'amministrazione locale.

In questa cornice, il precedente sindaco della città, Francesco Bivona, all'avvicinarsi del termine del suo secondo mandato, ha accolto con favore la proposta dell'assessora alle Pianificazione territoriale e urbanistica, Medea Ferrigno, finalizzata all'elaborazione di un piano di sviluppo strategico in veste di modello per il futuro della città, in linea con la visione e gli obiettivi del Piano Nazionale di Ripresa e Resilienza (PNRR). Esso ha rappresentato un'opportunità per Regalbuto di coinvolgere per la prima volta la sua cittadinanza nella co-progettazione di politiche pubbliche a livello municipale.

Non si tratta, della prima occasione in cui la città ha sperimentato l'innovazione nell'ambito delle politiche pubbliche. Nel 2015, Regalbuto ha, infatti, sottoscritto il patto di Fiume Simeto, un piano di sostenibilità territoriale che ha lo scopo di incentivare lo sviluppo locale tramite approcci partecipativi. Tuttavia, questo processo ha riguardato (e riguarda) un livello territoriale più vasto

REGALBUTO AT A GLANCE / REGALBUTO IN UN COLPO D'OCCHIO



Regalbuto is a municipality in the province of Enna, Sicily, southern Italy. Its name derives from the Arab term Rahal Abbud, 'Abbud's farmhouse'.

Population: 6 734 people (ISTAT, 2021)

Engagement level: 540 citizens

Methods: interviews, a community mapping initiative, collaborative workshops.

Scale: municipal

Key output: Regalbuto Strategic Development Plan

Regalbuto è un comune siciliano della provincia di Enna. Il suo nome deriva dal termine arabo Rahal Abbud, traducibile come «podere di Abbud».

Popolazione: 6 734 abitanti (ISTAT, 2021)

Livello di partecipazione: 540 cittadini

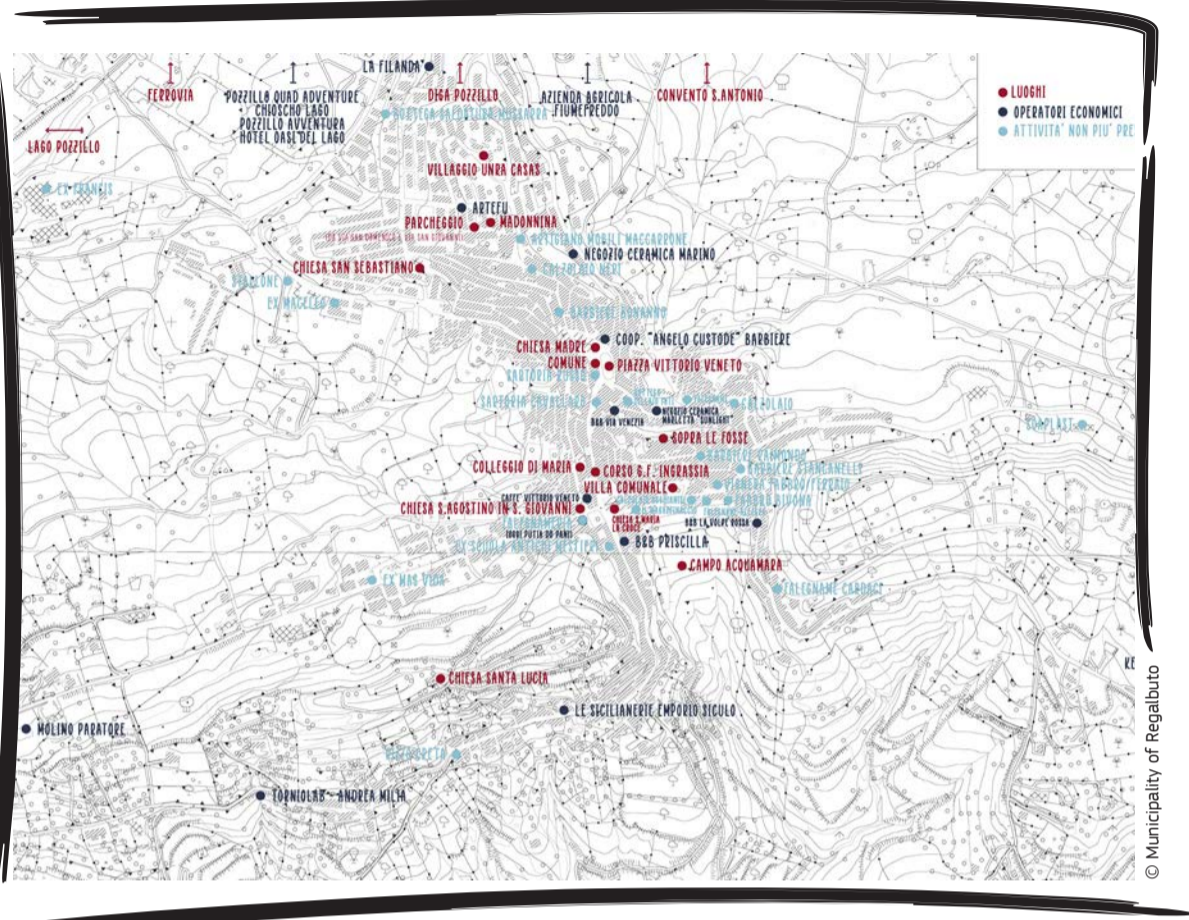
Metodi: interviste, mappatura comunitaria, workshop collaborativi.

Livello: municipale

Risultato principale: piano di sviluppo strategico di Regalbuto

The co-design of the Strategic Development Plan was an opportunity to work in two interconnected directions. Firstly, there was the possibility to reimagine the city's possible future and, secondly, to consolidate a 'new alliance' between people and nature, truly valorising its bio-richness and establishing nature as a partner, as well as an object of care and concern. The plan aimed to address the issues facing the town through integrated projects targeting **culture and tourism, social inclusion and cohesion, education, ecological transition and sustainable mobility.**

To implement the BiodiverCities project, citizens and institutions worked together to co-produce services and design integrated local policies. They identified shared short, medium and long-term goals and projects, and based on these they initiated priority actions. The process helped a more conscious relationship between people and nature to develop, both inside and outside the urban centre, and created an environment where it was possible to imagine a future in which the region developed in solidarity with nature.



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della scala municipale poiché ha visto la partecipazione di altri dieci comuni della Valle del Simeto. Al contrario, il piano di sviluppo strategico ha coinvolto direttamente i residenti di Regalbuto al fine di immaginare insieme un futuro diverso per la loro città.

La co-progettazione del piano di sviluppo strategico ha permesso di lavorare in due direzioni legate tra di loro. In primo luogo, la possibilità di ridefinire il possibile futuro della città e, in secondo luogo, di instaurare una «nuova alleanza» tra persone e natura, valorizzando concretamente la sua ricchezza biologica e considerando la natura come partner, nonché oggetto di cura e interesse. Il piano ha inteso intervenire sui problemi con cui è alle

prese la città, mediante progetti integrati mirati a diversi ambiti: cultura e turismo, inclusione e coesione sociale, istruzione, transizione ecologica e mobilità sostenibile.

Per l'attuazione del progetto BiodiverCities, cittadinanza e istituzioni hanno collaborato per co-produrre servizi e progettare politiche locali integrate. Insieme, hanno individuato obiettivi e progetti condivisi a breve, medio e lungo termine, che hanno posto le fondamenta per avviare azioni prioritarie. Il processo ha dato origine a un rapporto più consapevole tra le persone e l'ambiente, dentro e fuori il centro urbano, creando uno spazio che ha permesso di immaginare un futuro in cui lo sviluppo della città potesse avvenire in armonia con la natura.

The map shows the economic activities mapped during the first phase of the process with the interviews and during the Focus groups with the elderly. Both current and past economic activities are reported. Note how reading the map shows the diversity of the current economic sector with that of the past (40-60 years ago).

La mappa mostra le attività economiche, presenti e passate, individuate durante la prima fase del processo, attraverso interviste e focus groups con i residenti più anziani. Emerge con chiarezza come la geografia economica di Regalbuto sia cambiata nel corso degli ultimi 40-60 anni.



PROCESS / PROCESS

Co-creation processes are not solo projects – and Regalbuto’s case study is no exception. Overall, 15 people, with different expertise and representing diverse organisations, collaborated for the successful implementation of the BiodiverCities project.

How did the team approach the task of co-creating the Strategic Development Plan? To begin with, the process was organised into **four main phases**. During the first outreach phase, which started in spring 2021, the team conducted interviews with key actors representing local organisations, associations, schools, parishes, farmers and artisans. In total, 20 in-depth interviews were carried out, with a focus on the relationship between citizens and the urban and natural space.

During the second of the four phases, the team conducted door-to-door and street interviews in the town’s various neighbourhoods, with a view to broadening citizen involvement. In total, 50 interviews were conducted. These were particularly important in that they engaged people who generally do not actively participate in decision-making processes at any level.

For the third activity, the team carried out a community mapping initiative. This lasted 6 months, from August to December 2021, and received input from 280 people. To reach these citizens, the project worked with the town’s associations and schools and organised open events in Regalbuto’s

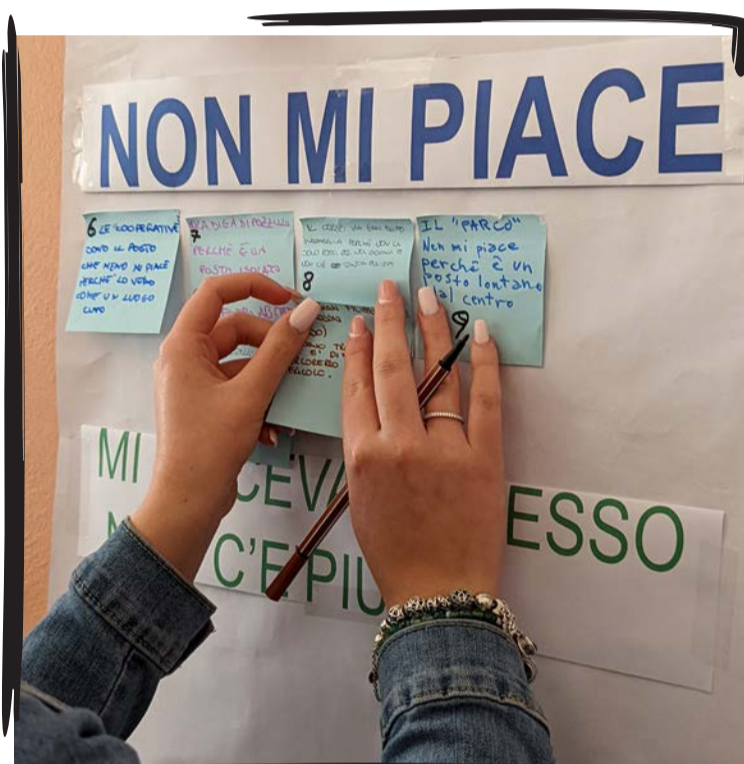
main squares. The mapping was an interactive activity in which the citizens were able to work with maps and share their views on the town’s strengths and weaknesses, along with their memories of the town and their ambitions for its future. The valuable information received during these

I processi di co-creazione non sono progetti isolati e il caso di studio di Regalbuto non fa eccezione. Nel complesso, 15 persone, con diverse competenze e rappresentanti organizzazioni eterogenee, hanno unito le forze per l’attuazione del progetto BiodiverCities.

Qual è stato l’approccio del team all’attività di co-creazione del piano di sviluppo strategico? Per iniziare, il processo è stato suddiviso in **quattro fasi principali**. Durante la prima fase di sensibilizzazione, avviata nella primavera 2021, il team ha intervistato interlocutori importanti che rappresentavano organizzazioni, associazioni, scuole, parrocchie, agricoltori e artigiani locali. In totale, sono state condotte venti interviste approfondite, ponendo l’accento in particolare sul rapporto tra i residenti e lo spazio urbano e naturale.

Nel corso della seconda delle quattro fasi, il team ha svolto interviste porta a porta e in strada, nei vari quartieri cittadini, con l’obiettivo di ampliare il coinvolgimento della cittadinanza. Sono state condotte complessivamente 50 interviste, rivelatesi particolarmente significative poiché hanno coinvolto persone che, in genere, non partecipano affatto ai processi decisionali in modo attivo.

Per la terza attività, il team ha portato avanti un’iniziativa di mappatura comunitaria, durata sei mesi, da agosto a dicembre 2021, che ha coinvolto 280 persone. Allo scopo di raggiungere il maggior numero possibile di residenti, il progetto ha lavorato con le associazioni e le scuole cittadine, organizzando eventi aperti nelle piazze principali di Regalbuto. La mappatura consisteva in un’attività interattiva che ha permesso alla cittadinanza di lavorare con mappe e di condividere i propri pareri sui punti deboli e di forza della città, condividendo i propri ricordi sul passato



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Community mapping event carried out in high school involving more than 200 students between the ages of 16 and 19.

Evento della mappatura di comunità che ha coinvolto oltre 200 studenti di scuola superiore, tra i 16 e i 19 anni.

activities formed the basis for the first draft of the Strategic Development Plan.

Finally, for the fourth participatory activity, a public event was organised in April 2022 in the city's public theatre. By organising the event in the form of a collaborative workshop, the team aimed, on the one hand, to present the work done so far and, on the other, to involve citizens in imagining new scenarios on several topics, such as culture and tourism, inclusion and social cohesion, schools and education, ecological transition and sustainable mobility. This was an opportunity to give the townspeople 'the last word' on the draft Strategic Development Plan before its final approval. Work on drafting the document was completed at the end of May 2022, after which the municipal council approved the plan and published it on the [municipal website](#).



Focus group with the elders of the town.
Focus group con gli anziani del paese.

della stessa e le aspirazioni per il futuro. Le preziose informazioni raccolte durante le attività hanno portato alla stesura della prima bozza del piano di sviluppo strategico.

Infine, per la quarta attività partecipativa, è stato organizzato un evento pubblico ad aprile 2022 nel teatro cittadino. Organizzando l'evento

sotto forma di workshop collaborativo, il team ha puntato, da un lato, a presentare il lavoro effettuato fino a quel momento e, dall'altro, a coinvolgere la cittadinanza nella definizione di nuovi scenari rispetto a questioni diverse, tra cui cultura e turismo, inclusione e coesione sociale, scuola e istruzione, transizione

ecologica e mobilità sostenibile. Questo ha permesso ai residenti di avere l'ultima parola sul piano di sviluppo strategico prima della sua approvazione finale. La redazione del documento si è conclusa a fine maggio 2022, in seguito alla quale la giunta comunale ha approvato e pubblicato il piano sul [sito web del comune](#).



A community mapping event that involved local farmers.
Un evento della mappatura di comunità che ha coinvolto gli agricoltori locali.



OUTCOMES / OUTCOMES



The long-term effects, as the term suggests, will be visible later. But citizens already stop me in the supermarket or in the streets to ask me if there are more opportunities to participate in the making of public life.”

Project Expert Medea Ferrigno

BiodiverCities provided Regalbuto with an opportunity to implement a participatory planning process on a municipal scale. As such, it had the effect of generating a widespread feeling of rebirth and empowered the local community to lead the changes needed by the town, creating new connections and friendships between the townspeople and the municipal authorities. In fact, the increased trust generated by these new relationships may be one of the most important long-lasting effects of the project.

On a more tangible level, the project's main outcome was a Strategic Development Plan for the town, which sets its direction for the next 10 years. The plan focuses on protecting biodiversity, sustainable agriculture, culture and education, and achieving increased circularity, and establishes some concrete priorities towards achieving

these goals. These include transforming the nearby Pozzillo Lake into an accessible green area; establishing a network of local farmers to support the transition to organic farming; reviving the historic centre by supporting young artisanal activities; and setting up a re-use and exchange centre to reduce municipal waste.

Thanks to the project's focus on transformation scenarios, the team and the townspeople were able to celebrate short-term results, such as the regeneration of a public square with young people and migrants, crowd mapping of micro-dumps, and the organisation of focus groups with farmers to map roads to farms, to aid future firefighting efforts. The successful implementation of these activities helped to create the necessary motivation for the process and to support the commitment needed for the next long-term, steps.

BiodiverCities ha permesso a Regalbuto di attuare un processo di pianificazione partecipata a livello municipale. Come tale, ha generato l'effetto di suscitare un senso di rinascita diffuso, che ha coinvolto la comunità locale nell'immaginare i cambiamenti necessari alla città, stringendo nuove forme di collaborazione e dialogo tra residenti e amministrazione comunale. In effetti, la fiducia generata dal processo potrebbe dimostrarsi uno dei più importanti effetti a lungo termine del progetto.

A livello più concreto, il risultato principale del progetto è stato, senz'altro, il piano di sviluppo strategico per la città, che ne traccia la rotta per i prossimi dieci anni. Il piano si concentra su vari ambiti: tutela della biodiversità, agricoltura sostenibile, cultura e istruzione e raggiungimento di una migliore circolarità. Inoltre, stabilisce alcune priorità concrete per il



conseguimento degli obiettivi. Tra questi figurano la trasformazione del vicino lago di Pozzillo in una zona verde accessibile, il consolidamento di una rete di aziende agricole locali per coadiuvare la transizione all'agricoltura biologica, la rivitalizzazione del centro storico tramite il sostegno ad attività artigiane da parte di giovani imprenditori e l'istituzione di un centro di riutilizzo e scambio per ridurre i rifiuti urbani.

Grazie all'attenzione particolare del progetto agli scenari di trasformazione, il team e i residenti sono riusciti a celebrare risultati di breve termine, tra cui la rigenerazione di una piazza pubblica grazie a giovani e migranti, la mappatura comunitaria di micro-discariche e l'organizzazione di gruppi di discussione con gli agricoltori per la mappatura delle strade che portano alle aziende agricole allo scopo di supportare future operazioni di spegnimento di incendi. L'efficace attuazione di queste attività ha contribuito a far crescere la motivazione necessaria per portare a termine il processo partecipativo e per sostenere, la sua realizzazione.



Gli effetti a lungo termine, come suggerito dall'espressione stessa, saranno evidenti più avanti. Eppure, alcuni cittadini e cittadine mi fermano al supermercato o per strada per domandarmi se ci saranno altre opportunità per partecipare alla formazione della vita pubblica.»

Medea Ferrigno, esperta del progetto



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The resulting community map.
La mappa di comunità.



LESSONS LEARNED / LESSONS LEARNED

The BiodiverCities project was an opportunity for Regalbuto to reflect on the institutional challenges encountered in urban planning, specifically the need to change the institutional approach to planning from a traditional top-down design approach to co-production, in which the townspeople play an active role. The project found that municipal administrations still have too few regulatory and procedural tools at their disposal to allow for meaningful collaboration between citizens and institutions. For engagement activities to become a routine part of the work of institutions, human and financial resources are also needed, particularly to reach more marginalised groups.

To make the process and its output, the Strategic Development Plan, politically relevant and anchored, it was crucial to make it consistent with the general framework of the Italian National Recovery and Resilience Plan (PNRR) and with the green transition vision of NextGenerationEU.

Finally, based on the Regalbuto experience, the project team recommends that towns and cities interested in taking a co-production approach to planning should be aware that change takes time and resources, and innovation has a better chance of success if a project builds on existing strengths, such as partnerships.

Il progetto BiodiverCities ha offerto l'opportunità a Regalbuto di riflettere sulle sfide istituzionali incontrate durante il processo e, in particolare, sulla necessità di cambiare l'approccio istituzionale alla pianificazione, passando dalla progettazione tradizionale "dall'alto verso il basso" alla un approccio basato sulla co-produzione, con i residenti che svolgono un ruolo attivo. Il progetto ha riscontrato come l'amministrazione comunale abbia ancora a disposizione un numero troppo esiguo di strumenti normativi e procedurali per permettere una collaborazione significativa tra cittadinanza e istituzioni. Per far sì che le attività di coinvolgimento diventino una prassi del lavoro delle istituzioni, occorrono, inoltre, risorse umane e finanziarie, soprattutto per raggiungere i gruppi più vulnerabili della società.

Al fine di rendere il processo e il suo risultato politicamente rilevante ed radicato, si è confermato determinante adeguare il piano di sviluppo strategico al quadro generale del Piano nazionale di ripresa e resilienza (PNRR) e in particolare, alla necessità di avviare una transizione ecologica.

Infine, tenendo conto dell'esperienza di Regalbuto, il team del progetto raccomanda alle città e regioni interessate all'adozione di un approccio di co-produzione alla pianificazione territoriale, di essere consapevoli che il cambiamento richiede tempo e risorse, e che l'innovazione ha una migliore possibilità di "successo" se un progetto risulta ben radicato nel suo contesto e beneficia della collaborazione di altri attori locali.



JRC REFLECTION / RIFLESSIONI DEL CENTRO COMUNE DI RICERCA

The key word for the citizen engagement process carried out in Regalbuto is 'quality'. Designed and implemented 'by the book', the four phases that composed the process answer four different yet complementary questions: What is the context? What do citizens say? What are the potentials and challenges of the town? What future do we imagine?

Indeed, context matters: greening is a political process that means different things depending on the place. This might be a banal consideration yet is often overlooked. Thus, to grasp contextual meanings and ways of understanding, it is essential to design ways forwards that are shared by many – not by few. Time is equally important: the community mapping initiative ran for 6 months, and this is a methodological choice that gives breathing space to the process. We can imagine – speculate perhaps – that this choice allowed citizens to hear about this opportunity while doing groceries or by talking to a neighbour. Word of mouth among locals is what led to such high-level participation (10% of the population). It also reflects

a basic pedagogical 'truth': that learning – and citizen engagement – is a collective learning process. It takes time and requires a maturity of both the public engaged and of the institution engaging. Last but not least, the success of Regalbuto is clearly linked to two factors: firstly, the process is a spin-off of a former participatory process – the SRA, benefiting, therefore, from existing know-how and expertise. Secondly, the expert, a few months after the kick-off of the project, became a council member for urban affairs, giving a stronger institutional hold to the project.

For the future, you might consider the following: given the small size of the town, scale the project up to a greater territorial scale.

«Qualità» è la parola chiave che riassume il processo di coinvolgimento della cittadinanza svoltosi a Regalbuto. Le quattro fasi di cui si componeva il processo, progettate e attuate «secondo le buone pratiche», rispondono a quattro domande diverse, sebbene complementari: Qual è il contesto? Cosa ne pensano i residenti? Quali sono i punti di forza e le problematiche della città? Quale futuro è immaginabile?

In effetti, il contesto è importante: rendere le città più sostenibili, da un punto di vista ambientale, è un processo politico che chiama in causa aspetti differenti a seconda del luogo. Potrebbe sembrare una considerazione banale; eppure, spesso viene trascurata. Pertanto, al fine di cogliere i significati contestuali risulta politicamente importante progettare percorsi futuri condivisi dalla maggioranza della popolazione e non solo da una minoranza. Il tempo è un altro fattore altrettanto fondamentale: l'iniziativa di mappatura comunitaria è durata sei mesi, e questo è stato il frutto di una scelta metodologica che ha permesso al processo di avere maggior respiro. È possibile immaginare e, magari speculare, che questa stessa scelta abbia permesso a diversi cittadini

di venire a conoscenza di questa opportunità, mentre erano impegnati a fare la spesa o si intrattenevano con i vicini di casa. Il passaparola tra i residenti è proprio il fattore che ha portato a una partecipazione così importante, pari al 10 % della popolazione. Il fattore "tempo" riflette, inoltre, una «verità» pedagogica basilare, ovvero che un processo partecipativo è prima di tutto un processo di apprendimento collettivo. Tale processo richiede tempo e una certa maturità, da parte sia del pubblico coinvolto che dell'istituzione che coinvolge. Ultimo aspetto, ma non meno rilevante, il successo di Regalbuto sembra legato a due fattori aggiuntivi: in primo luogo, il processo è uno spin-off di un processo partecipativo precedente, il patto di Fiume Simeto, e di conseguenza si avvale di competenze ed esperienze esistenti. In secondo luogo, l'esperta, alcuni mesi dopo l'avvio del progetto, è stata designata assessora alle Pianificazione territoriale e urbanistica Politiche urbane, conferendo a BiodiverCities una valenza istituzionale più forte.

Per il futuro, date le piccole dimensioni della città, potrebbe essere utile scalare il progetto affinché si possa agire a una scala territoriale più vasta.

TEAM AND ACKNOWLEDGEMENTS

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Lead partners: Municipality of Regalbuto, LabPEAT of the University of Catania and Participatory Presidium of the Simeto River

RESOURCES

[Regalbuto Strategic Development Plan](#)

[Remote town in Sicily pioneers new ways of democracy](#)

[Participatory Presidium of the Simeto River Agreement](#)

TEAM E RINGRAZIAMENTI

Esperta: Medea Ferrigno

Team: Carmelo Caruso, Agata Lipari Galvagno, Maddalena La Ferla, Nancy Adornetto, Michela Catania, Francesca Oanni, Mattered Patané e Dalila Rubulotta

Partner principali: comune di Regalbuto, LabPEAT dell'Università di Catania e il Presidio partecipativo del patto di Fiume Simeto

RISORSE

[Piano di sviluppo strategico di Regalbuto](#)

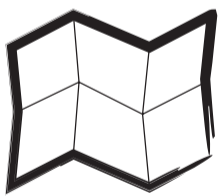
[Remote town in Sicily pioneers new ways of democracy](#)

[Presidio partecipativo del patto di Fiume Simeto](#)

VALONGO



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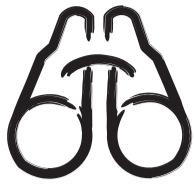
AMBITION / TRAGUARDI AMBIZIOSI

“We want to increase the role of participatory planning and to experiment with new activities around the use of green spaces, encouraging the community to preserve and take ownership of and experience Valongo’s urban biodiversity.”

Project Team Valongo

“Queremos reforçar o papel do planeamento participativo e experimentar novas atividades em torno da utilização dos espaços verdes, encorajando a comunidade a preservar e a assumir e experimentar a biodiversidade urbana de Valongo.”

Equipa do projeto de Valongo



CONTEXT / CONTEXTO

The Valongo municipal area comprises 75.12 km² and is subdivided into four parishes. Despite the presence of large green areas, mainly forestry, the city of Valongo has very few large urban green public spaces. This has led to a disconnect between the local community and nature, and a general lack of understanding about the importance of such spaces for urban biodiversity.

Valongo Municipality had been engaging with local associations and schools to develop tools and projects that recognise the importance of biodiversity, in the context of several local public policies. However, these efforts had not yet brought about a significant change in citizens' relationship with green spaces. To change this situation, the Municipality decided



Valongo Municipality had been engaging with local associations and schools to develop tools and projects that recognise the importance of biodiversity, in the context of several local public policies."

"A Câmara Municipal de Valongo tem vindo a colaborar com associações e escolas locais no sentido de desenvolver ferramentas e projetos que reconheçam a importância da biodiversidade, no contexto de várias políticas públicas locais."

to increase the role of participatory planning and to experiment with new activities around the use of green spaces, encouraging the community to preserve and take ownership of and experience Valongo's urban biodiversity.

This is where the BiodiverCities Valongo project comes in. The initiative was designed to

A área municipal de Valongo estende-se por 75,12 km² e está subdividida em quatro freguesias. Apesar de existirem grandes áreas verdes, principalmente florestais, a cidade de Valongo tem poucos espaços públicos verdes urbanos de grande dimensão, o que levou a uma desconexão entre a comunidade local e a

natureza, e a uma falta de compreensão geral sobre a importância de tais espaços para a biodiversidade urbana.

A Câmara Municipal de Valongo tem vindo a colaborar com associações e escolas locais no sentido de desenvolver ferramentas e projetos que reconheçam a importância da biodiversidade, no contexto de várias políticas públicas locais. Porém, estes esforços ainda não trouxeram uma mudança significativa na relação dos cidadãos com os espaços verdes. Para mudar a situação, a Câmara Municipal decidiu reforçar o papel do planeamento participativo e experimentar novas atividades em torno da utilização dos espaços verdes, encorajando a comunidade a preservar e a assumir e experimentar a biodiversidade urbana de Valongo.

VALONGO AT A GLANCE / VALONGO EM RESUMO



Valongo is a beautiful municipality located in the District of Porto, 10 km from Porto, in the northern region of Portugal.

Population: [93 858 people](#) (2022)

Engagement level: 100 participants, ranging from experts, local authorities and citizens

Methods: interviews, a community mapping initiative, collaborative workshops

Scale: municipal

Key outcomes: installation of two new insect hotels

Valongo é um belo município localizado no distrito do Porto, a 10 km da cidade do Porto, na região Norte de Portugal.

População: [93 858 habitantes](#) (2022)

Nível de envolvimento: 100 participantes, incluindo peritos, autoridades locais e cidadãos

Métodos: entrevistas, uma iniciativa de mapeamento comunitário, ateliês colaborativos

Escala: municipal

Principais resultados: guia para incrementar a biodiversidade no concelho. Ações piloto com incremento da biodiversidade em dois jardins públicos

promote urban biodiversity in Valongo. It was a collaboration between the Valongo Municipality and the University of Aveiro, and was divided into several stages covering diagnosis, proposals and experimental actions.

To ensure the project was a success, preparation was essential. Firstly, it was important to consult with civil society and local municipal teams to map the city's green spaces and build a set of ecological corridors. It was also necessary for the project team to gather the objectives, measures and proposals made by different citizens, along with experimental actions to test these proposals identified by the community.



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BioBlitz

É aqui que entra o projeto BiodiverCities Valongo. A iniciativa foi concebida para promover a biodiversidade urbana em Valongo, por intermédio de uma colaboração entre a Câmara Municipal de Valongo e a Universidade de Aveiro, e foi dividida em várias fases, abrangendo o diagnóstico, propostas e ações experimentais.

A preparação foi essencial para garantir o sucesso do projeto. Em primeiro lugar, era importante consultar a sociedade civil e as equipas municipais locais para mapear os espaços verdes da cidade e definir um conjunto de corredores ecológicos. Era também necessário que a equipa do projeto efetuasse um levantamento dos objetivos, das medidas e das propostas efetuadas pelos cidadãos, juntamente com ações experimentais para testar as propostas identificadas pela comunidade.



PROCESS / PROCESSO

The project itself was divided into four stages, involving various levels of activities and citizen engagement. The whole affair kicked off in February 2021 with stage 1, which involved two participatory sessions. In total, 56 participants attended these sessions and helped identify problems and resources linked to biodiversity in Valongo. These discussions built on previous municipal initiatives, and in particular the Participatory Process of the Revision of the Municipal Master Plan, which was conducted between December 2020 and February 2021. During five participatory

sessions, citizens identified what for them were the main resources and problems of the region.

The project's second stage was a BioBlitz, which took place in July 2021. What is a BioBlitz you might ask? Well, it's an activity where participants, accompanied by a specialist in biology and biodiversity, went on a walk through a green corridor in Valongo and were challenged to identify the local fauna and flora, while suggesting ideas to enhance urban biodiversity. In total, a group of 21 participants took part in this activity, which was thoroughly enjoyed

O projeto em si foi dividido em quatro fases, envolvendo vários níveis de atividades e de participação dos cidadãos. O processo teve início em fevereiro de 2021 com a fase 1, que incluiu duas sessões participativas. No total, 56 participantes assistiram a estas sessões e ajudaram a identificar problemas e recursos ligados à biodiversidade em Valongo. Estes debates tiveram por base iniciativas municipais anteriores, mais concretamente o Processo Participativo da Revisão do Plano Diretor Municipal, que teve lugar entre dezembro de 2020 e fevereiro de 2021. Durante

cinco sessões participativas, os cidadãos identificaram quais eram, para eles, os principais recursos e problemas da região.

A segunda fase do projeto foi um BioBlitz, que teve lugar em julho de 2021. Mas o que é um BioBlitz? Bem, trata-se de uma atividade em que os participantes, acompanhados por um especialista em biologia e biodiversidade, percorrem a pé um corredor verde em Valongo e são desafiados a identificar a fauna e flora locais, sugerindo, ao mesmo tempo, ideias para melhorar a biodiversidade urbana. No total, a atividade



POLLINATOR BEDS

DEBARKING ACTION

SALAMANDER FOUND DURING THE ACTION

INSECT HOTEL

INSECT HOTEL

POLLINATOR BEDS

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by all. After analysing the contributions collected through the BioBlitz, a joint decision was reached on which actions to implement and where to implement them. The choice was made to build an urban garden in a residential neighbourhood located in Valongo’s urban green corridor.

The project’s third stage implemented the decision reached after the BioBlitz, and involved the construction of the Valongo Collaborative Urban Garden, which took place in November 2021. After analysing the BioBlitz findings, the BiodiverCities Valongo team selected a garden in a residential neighbourhood located in Valongo’s urban green corridor to implement the proposed activities. These were selected based on their potential for knowledge dissemination and replication, and their experimental hands-on spirit. The objective was to encourage residents to adopt the space as a community place.

The activities included a ‘debarking action’, which is a technique to combat and remove invasive species; the creation of pollinator beds, which

are critical for pollination and seed distribution; and the construction of an insect hotel to protect and create conditions for the reproduction of pollinating insects such as butterflies, ladybirds and hover flies. More than 30 citizens took part in this action, which also involved technicians from various municipal departments.

More than 30 citizens took part in this action, which also involved technicians from various municipal departments.”

“Mais de 30 cidadãos participaram nesta ação, que envolveu também técnicos de vários departamentos municipais e da universidade.”

As if this wasn’t enough, while all this was going on, the project team also found the time to inaugurate the BIOteca, a travelling green library focusing on urban biodiversity, a relevant contribution from the Municipal Library team.

Stage 4 of the project was a walking tour in Ermesinde, another parish in the municipality of Valongo, which took place in April 2022.

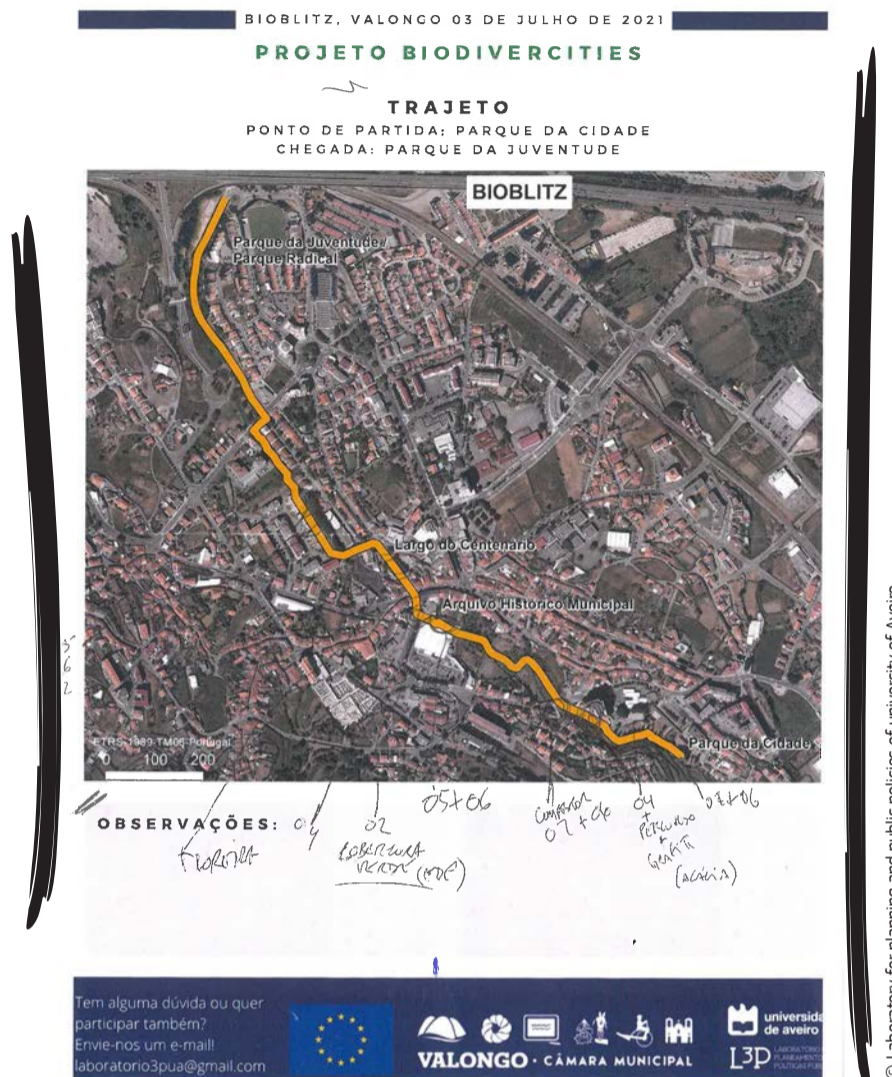
contou com 21 participantes e foi muito apreciada por todos. Após análise das contribuições recolhidas, foi tomada uma decisão conjunta sobre quais as ações a implementar e onde. Optou-se por melhorar a biodiversidade num jardim urbano de um bairro residencial localizado no corredor verde urbano de Valongo.

A terceira fase do projeto implementou a decisão tomada após o BioBlitz e envolveu a construção do Jardim Urbano Colaborativo de Valongo, que teve lugar em novembro de 2021. Depois de analisar as conclusões do BioBlitz, a equipa do BiodiverCities Valongo selecionou um jardim num bairro residencial localizado no corredor verde urbano de Valongo para implementar as atividades propostas.

Estas atividades foram selecionadas com base no seu potencial de disseminação e replicação de conhecimentos, e no seu espírito experimental prático. O objetivo era encorajar os residentes a adotar o espaço como um lugar comunitário.

As atividades incluíram uma «ação de descasque», que é uma técnica para combater e remover espécies invasoras; a criação de canteiros de polinizadores, que são críticos para a polinização e distribuição de sementes; e a construção de um hotel de insetos para proteger e criar condições para a reprodução de insetos polinizadores, como as borboletas, as joaninhas e os sirfídeos. Mais de 30 cidadãos participaram nesta ação, que envolveu também técnicos de vários departamentos municipais e da universidade.

Como se tal não bastasse, enquanto todas estas atividades decorriam, a equipa do projeto também teve - oportunidade de inaugurar a BIOteca, uma biblioteca verde itinerante com enfoque na biodiversidade urbana, que contou com a contribuição importante da equipa da Biblioteca Municipal.



Notes from the BioBlitz

The goal of the walk was to gather information to support the next experimental action. For this, a questionnaire was distributed among the 25 participants on the theme of urban biodiversity, with a view to using the information they provide to create a map based on the public's perception, and to collect information and proposals for future experimental actions. At the beginning of the tour, the participants visited a recently recovered green space – Parque de Lazer do Leça in Ermesinde – which served as an inspiration to reflect on how biodiversity can be promoted in urban areas. At the end of the walk, participant feedback was used to create the collective map. While it was not possible to implement all the proposed actions, they are all compiled

in a public report on the project website.

For each activity, Valongo Mayor José Manuel Ribeiro sent an email invitation to municipal teams, local associations and citizens participating in the Revision of the Municipal Master Plan of Valongo. The activities were also announced on the official Facebook page of the City Hall, which has over 117 000 followers and shared with local groups active on environmental issues.

A fase 4 do projeto foi um percurso orientado em Ermesinde, outra freguesia do município de Valongo, que teve lugar em abril de 2022.

O objetivo do percurso era recolher informações para apoiar a ação experimental seguinte. Para o efeito, foi distribuído um questionário entre os 25 participantes sobre o tema da biodiversidade urbana, com vista a utilizar a informação fornecida para criar um mapa baseado na perceção do público, e para recolher informação e propostas para futuras ações experimentais. No início do percurso, os participantes visitaram um espaço verde recentemente recuperado, o Parque de Lazer do Leça em Ermesinde, que serviu de inspiração para refletir sobre a forma como a biodiversidade pode ser promovida nas

áreas urbanas. No final do percurso, os contributos dos participantes foram utilizados para criar o mapa coletivo. Embora não tenha sido possível implementar todas as ações propostas, todas elas foram compiladas num relatório público no sítio Web do projeto.

Para cada atividade, o Presidente da Câmara Municipal de Valongo, José Manuel Ribeiro, enviou um convite por correio eletrónico às equipas municipais, às associações locais e aos cidadãos participantes no processo participativo da Revisão do Plano Diretor Municipal de Valongo. As atividades foram também anunciadas na página oficial da Câmara Municipal no Facebook, que tem mais de 117 000 seguidores, e partilhadas com grupos locais ativos em questões ambientais.



OUTCOMES / PRINCIPAIS RESULTADOS

The level of engagement and results of the activities implemented show that the project has been successful in mobilising the local community to engage in discussions on the importance of biodiversity. Thanks to the project, citizens have become more proactive in co-creating new proposals on how to enjoy nature and in experimenting with new practices.

On an individual level, the project delivered tangible outcomes in the form of the urban garden, the collective map created following the Ermesinde walk, the [project website](#) containing comprehensive information on all the activities and on biodiversity in the area, and so on. However, and perhaps more importantly, the project empowered the community to actively participate in co-creating solutions to safeguard their urban biodiversity, from conception to implementation. The actions carried out over the course of the project generated innovative



BiodiverCities Valongo was an action-focused and experimental project, and the team was able to celebrate tangible results that showed the project’s impact on the community.”

“O BiodiverCities Valongo foi um projeto experimental e centrado na ação, cuja equipa pôde celebrar resultados tangíveis que evidenciaram o impacto do projeto na comunidade.”

solutions to problems, showing how powerful cooperation can be. This project outcome will benefit the community in the future.

BiodiverCities Valongo was an action-focused and experimental project, and the team was able to celebrate tangible results that showed the project’s impact on the community. One such result was the installation of two new insect hotels during a children’s birthday party, following the first experimental action in the Valongo Urban Garden. This kind of action helped

O nível de envolvimento e os resultados das atividades implementadas mostram que o projeto conseguiu mobilizar a comunidade local para participar em debates sobre a importância da biodiversidade. Graças ao projeto, os cidadãos tornaram-se mais proativos na cocriação de novas propostas sobre como desfrutar da natureza e na experimentação de novas práticas.

A nível individual, o projeto produziu resultados tangíveis sob a forma do jardim urbano, do mapa coletivo

criado na sequência do percurso em Ermesinde, do [sítio Web do projeto](#) que inclui informações completas sobre todas as atividades e sobre a biodiversidade na região, entre outros. Contudo, o mais importante é que o projeto capacitou a comunidade para participar ativamente na cocriação de soluções destinadas a salvaguardar a sua biodiversidade urbana, desde a conceção até à implementação. As ações realizadas ao longo do projeto geraram soluções inovadoras para problemas, mostrando o quão poderosa pode ser a cooperação. Os resultados deste projeto beneficiarão a comunidade no futuro.

O BiodiverCities Valongo foi um projeto experimental e centrado na ação, cuja equipa pôde celebrar resultados tangíveis que evidenciaram o impacto do projeto na comunidade. Um desses resultados foi a instalação de dois novos hotéis de insetos durante uma festa de aniversário de



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to motivate the project team and sustain their efforts to improve citizens' relationship with nature.

The project team hopes to extend the results achieved in this project to future projects in other territorial and environmental planning policies. The project includes follow-up activities such as implementing two more pilot actions, and launching a DIY handbook and video about the project. Going forward, the project will also

benefit from monitoring and evaluating the results, to assess changes in community behaviours and practices, and the integration of biodiversity and participatory practices in public policies and territorial management.

crianças, na sequência da primeira ação experimental no Jardim Urbano de Valongo. Este tipo de ação ajudou a motivar a equipa do projeto e a sustentar os seus esforços para melhorar a relação dos cidadãos com a natureza.

A equipa do projeto espera alargar os resultados alcançados a futuros projetos de outras políticas de planeamento territorial e ambiental. O projeto inclui atividades de

acompanhamento, como a implementação de mais duas ações-piloto, e o lançamento de um manual DIY e de um vídeo sobre o projeto. No futuro, o projeto também beneficiará da monitorização e avaliação dos resultados, para avaliar as mudanças nos comportamentos e práticas da comunidade, bem como a integração da biodiversidade e de práticas participativas nas políticas públicas e na gestão territorial.



LESSONS LEARNED / ENSINAMENTOS RETIRADOS

While the project mobilised citizens in the discussion on biodiversity, it found that the promotion of biodiversity should also involve the creation of mechanisms for a deeper dialogue between the city and its citizens, through the co-creation of ideas and experimentation between the municipality, specialists and citizens. This in turn may contribute to the awareness, appreciation and development of biodiverse spaces and corridors in urban areas.

Major challenges that the project faced were raising awareness of the importance of biodiversity and changing the management practices of municipal green spaces. The project team also had to work hard to change the mentalities and habits of citizens, technicians and



Major challenges that the project faced were raising awareness of the importance of biodiversity and changing the management practices of municipal green spaces.”

“Os principais desafios que o projeto enfrentou foram a sensibilização para a importância da biodiversidade e a mudança das práticas de gestão dos espaços verdes municipais.”

politicians in relation to the solutions applied to environmental problems. The lessons learned through these challenges have better prepared the municipality for future projects, ensuring that the benefits are amplified even further.

Embora tenha mobilizado os cidadãos no debate sobre a biodiversidade, o projeto constatou que a promoção da biodiversidade deveria também envolver a criação de mecanismos para um diálogo mais profundo entre a cidade e os seus cidadãos, através da cocriação de ideias e da experimentação entre o município, os especialistas e os cidadãos. Este diálogo, por sua vez,

pode contribuir para a sensibilização, apreciação e desenvolvimento de espaços e corredores biodiversos em áreas urbanas.

Os principais desafios que o projeto enfrentou foram a sensibilização para a importância da biodiversidade e a mudança das práticas de gestão dos espaços verdes municipais. A equipa do projeto também teve de trabalhar arduamente para mudar as mentalidades e os hábitos dos cidadãos, dos técnicos e dos políticos em relação às soluções aplicadas aos problemas ambientais. Os ensinamentos retirados destes desafios prepararam melhor o município para projetos futuros, assegurando que os benefícios sejam ainda maiores.



JRC REFLECTION / REFLEXÕES CENTRO COMUM DE INVESTIGAÇÃO

This project represents a very rich journey on both processes to and outcomes of citizen engagement activities. It is salient that, at an institutional level (municipality), the disposition to engage citizens in local planning already existed. In that sense, the work of the expert was somehow eased as the desirable partnership between the university and the municipality happened throughout the duration of the BiodiverCities project. In other words, in Valongo, the BiodiverCities project was well anchored in the municipal urban planning. This is reflected in the quality of the project and reinforces the crucial importance of partnerships to implement projects such as BiodiverCities, and citizen engagement processes in general. The second aspect worth mentioning is an evolving narrative on the meaning of citizen engagement across the team. The project started off with a citizen engagement narrative centred on awareness raising and behavioural change. Along the way, the project and the team experimented,

and then embraced deeper meanings of citizen engagement, as processes of co-creation through which ownership and meaningful commitments unfolded. In terms of activities, the opportunity to work with a library allowed not only the chance to explore such public space as a site of citizen engagement and democratic intervention, but also as a site of creative opportunities to raise the interest of citizens about biodiversity and its maintenance in an urban context. It is remarkable that the project enabled the creation of a rather permanent citizen engagement infrastructure around biodiversity. That is rather a great achievement in terms of follow-up on citizen engagement processes.

Este projeto representa uma jornada muito rica tanto nos processos como nos resultados de atividades de participação dos cidadãos. É de salientar que, a nível institucional (município), a disposição de envolver os cidadãos no planeamento local já existia. Nesse sentido, o trabalho do perito foi de alguma forma facilitado, graças à parceria desejável entre a universidade e o município durante toda a vigência do projeto BiodiverCities. Por outras palavras, em Valongo, o projeto BiodiverCities esteve bem ancorado no planeamento urbano municipal, o que se refletiu na qualidade do projeto e reforça a importância crucial das parcerias para implementar projetos como o BiodiverCities, e os processos de participação dos cidadãos em geral. O segundo aspeto que merece destaque é a evolução da narrativa sobre o significado da participação dos cidadãos junto da equipa. O projeto começou com uma narrativa de participação dos cidadãos centrada

na sensibilização e na mudança comportamental. Ao longo do percurso, o projeto e a equipa experimentaram e, depois, acolheram significados mais profundos de participação dos cidadãos, enquanto processos de cocriação através dos quais se desenvolveu um sentido de apropriação e compromissos significativos. Em termos de atividades, a oportunidade de trabalhar com a biblioteca Municipal permitiu explorar esse espaço público não só como um local de participação dos cidadãos e de intervenção democrática, mas também como um local de oportunidades criativas para aumentar o interesse dos cidadãos sobre a biodiversidade e a sua manutenção num contexto urbano. É notável que o projeto tenha facilitado a criação de uma infraestrutura de participação dos cidadãos bastante permanente em torno da biodiversidade. Trata-se de uma grande conquista em termos de acompanhamento dos processos de participação dos cidadãos.

TEAM AND ACKNOWLEDGEMENTS

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Team: Gisela Afonso, José Manuel Ferreira, Rute Neves, Catarina Isidoro

Lead Partners: University of Aveiro

RESOURCES

[BiodiverCities Valongo Project](#)

[Valongo City Council](#)

[European Green Leaf – Valongo 2022](#)

Social media: [Câmara Municipal de Valongo](#)

EQUIPA E AGRADECIMENTOS

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Equipa: Gisela Afonso, José Manuel Ferreira, Rute Neves, Catarina Isidoro

Principais parceiros: Universidade de Aveiro

RECURSOS

[Projeto BiodiverCities Valongo](#)

[Câmara Municipal de Valongo](#)

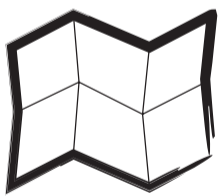
[Folha Verde Europeia – Valongo 2022](#)

Mídia social: [Câmara Municipal de Valongo](#)

VARESE



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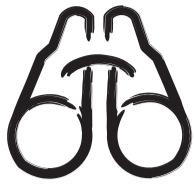
AMBITION / TRAGUARDI AMBIZIOSI

“After our project, we hope the institutions will take note of our results. We will ask them to make use of their urban planning tools (that currently do not consider biodiversity an important element) and integrate the information into policies of conservation for swifts. A possible idea is to ask to each municipality to sign a collaboration agreement with our association in order to give them the know-how in case intervention and training are needed for their technical personal.”

Project Expert Milo Manica

«Ci auguriamo che, al termine del progetto, gli enti terranno conto dei risultati ottenuti. Chiederemo loro di avvalersi degli strumenti di pianificazione urbana a loro disposizione, che attualmente non contemplano la biodiversità come un aspetto meritevole di tutela, e di integrare le informazioni nelle politiche, in materia di conservazione dei rondoni. Un’opzione è domandare a ogni comune di sottoscrivere un accordo di collaborazione con la nostra associazione al fine di fornire loro competenze in caso siano necessarie assistenza e formazione per il personale tecnico.»

Milo Manica, esperto del progetto



CONTEXT / CONTESTO

Overlooking Lake Varese atop seven hills, picturesque Varese is a city and commune in northwest Italy. Known for its abundance of castles and parks (not to mention an obsession with competitive cycling), Varese is now, thanks to the efforts of its residents, the BiodiverCities team and the support of the Joint Research Centre (JRC), coming to be recognised for something slightly different: its population of swifts.

What, one may (rightly) wonder, is so special about this relatively unpopular genus of bird? True, it does not sport fancy plumage and can't hold a candle to the lark or nightingale in singing but it is symbolic of urban biodiversity, which more than compensates for its shortcomings.

Having coexisted with humans for centuries, swifts are today largely



Varese is now, thanks to the efforts of its residents, the BiodiverCities team and the support of the Joint Research Centre (JRC), coming to be recognised for something slightly different: its population of swifts.”

«Oggi, Varese è in procinto di essere riconosciuta per un aspetto leggermente diverso, ossia la sua popolazione di rondoni. Questo è il risultato degli sforzi dei suoi abitanti, del team di BiodiverCities e del sostegno del Centro comune di ricerca (CCR).»

found in urban areas. In addition to being indicative of the environmental quality of such areas, they are also invaluable as killers of plant pests and other noxious insects that harm biodiversity.

Given their importance in the context of biodiversity, it should come as no

Affacciata sul lago di Varese e la cui superficie si estende su sette colli, la pittoresca Varese è una città e un comune dell'Italia nord-occidentale. Rinomata per la ricchezza di castelli e parchi, senza dimenticare la forte passione per il ciclismo agonistico, oggi Varese è in procinto di essere riconosciuta per un

aspetto leggermente diverso, ossia la sua popolazione di rondoni. Questo è il risultato degli sforzi dei suoi abitanti, del team di BiodiverCities e del sostegno del Centro comune di ricerca (JRC).

Ci si potrebbe (giustamente) domandare cosa ci sia di così speciale in questa specie di uccelli poco conosciuta. In effetti, non ostenta un piumaggio particolarmente estroso e le sue doti canore non reggono il confronto con quelle dell'allodola o dell'usignolo; tuttavia, è rappresentativa della biodiversità urbana, un fattore fondamentale per la qualità di un luogo.

I rondoni, che coesistono da secoli con gli esseri umani, vivono al giorno d'oggi principalmente nelle aree urbane. Oltre a fornire un'indicazione sulla qualità ambientale di tali aree, si rivelano preziosi per la lotta contro i parassiti

VARESE AT A GLANCE / VARESE IN UN COLPO D'OCCHIO



Situated at the foot of Sacro Monte di Varese (Sacred Mountain of Varese), a place of pilgrimage on UNESCO's World Heritage List, Varese boasts beautiful castles, spacious parks and a love of all things cycling.

Population: 80 182 (2023)*

Engagement level: 100 participants

Methods: citizen science

Scale: municipal

Key outcomes: Census of swifts in over 75% of their territory in the project's first year, and 100% in the second year.

* According to the World Population Review

Adagiata ai piedi del Sacro Monte di Varese, luogo di valore storico e religioso, inserito nella lista del Patrimonio mondiale UNESCO, Varese e il suo territorio ospitano meravigliosi castelli, grandi parchi e residenti con una grande passione per il ciclismo.

Popolazione: 80 182 (2023)*

Livello di partecipazione: 100 partecipanti

Metodi: citizen science

Livello: municipale

Risultati principali: censimento dei rondoni in oltre il 75 % del territorio varesotto nel corso del primo anno del progetto, giunto al 100 % nel secondo anno.

* In base alla World Population Review

surprise that, in 2022, the BiodiverCities team undertook a project to map and protect the territory of swifts in Varese with the help of citizens! Entitled 'On the Wings of the Swifts' (*Sulle ali dei rondoni*), this 'citizen science' project highlights the important role residents can play in preserving local biodiversity. After being made aware of the swifts'

significance by the team, schools, universities, local institutions and ordinary residents in the province of Varese all came together to help protect these extraordinary birds.

delle piante e altri insetti nocivi responsabili di danneggiare la biodiversità.

Alla luce della loro importanza nell'ambito della biodiversità, non deve quindi stupire che, nel 2022, il team di BiodiverCities abbia intrapreso un progetto volto alla mappatura e alla tutela del territorio dei rondoni a Varese e provincia, con l'aiuto della cittadinanza. Questo progetto di «citizen

science», denominato «Sulle ali dei rondoni», ribadisce il ruolo fondamentale che i residenti possono svolgere per preservare la biodiversità locale. In seguito all'azione di sensibilizzazione sulla rilevanza dei rondoni condotta dal team, scuole, università, enti locali e residenti della provincia di Varese hanno unito le forze per promuovere la protezione di questi uccelli straordinari.



PROCESS / PROCESSO

Before residents could begin mapping the territory of Varese's swifts and begin taking measures to protect them, several things needed to be done.

In March 2021, the team held two virtual training sessions (via Zoom) for the 90 individuals who had successfully applied to join the project. These sessions were conducted in collaboration with LIPU-

Birdlife Italy and Gruppo Insubrico di Ornitologia, the two project partners.

Following these sessions, schools across the city were called on to participate in designing the project's logo. In total, 43 classes submitted over 200 designs. After being graphically refined, the winning logo went on to adorn promotional material for the project, such as pins.

Prima che i residenti potessero iniziare a mappare il territorio dei rondoni varesotti e adottare misure per proteggerli, è stato necessario svolgere preventivamente una serie di attività.

Per questo motivo, a marzo 2021, il team ha tenuto due sessioni di formazione virtuali tramite Zoom, rivolte a 90 persone che si erano volontariamente offerte a

partecipare al progetto. Le sessioni sono state svolte in collaborazione con i due partner del progetto: LIPU-Birdlife Italia e il Gruppo Insubrico di Ornitologia.

In seguito alle sessioni, le scuole cittadine sono state invitate a partecipare alla progettazione del logo del progetto. In totale, 43 classi hanno presentato oltre 200 proposte. Dopo un lavoro di messa in





SULLE ALI DEI RONDONI

The involvement of schoolchildren in the project was an important step towards nurturing amongst them an awareness of and appreciation for the role played by swifts in biodiversity preservation (and biodiversity in general). Through the involvement of schoolchildren in the project, the team was also able to emphasise the swifts' importance to teachers and parents. Some schoolchildren even went on to help their teachers map swift nests in the city.

After these activities, the team called on those

participating to help identify buildings that could potentially house swift nests (or that were otherwise important for swifts), as well as where swift nests were throughout the city and the surrounding area. Equipped with binoculars and field sheets especially prepared for data collection purposes, residents took to the streets either on their own or in small groups. After their 'expeditions', the participants emailed the team the information recorded on their sheets. Such data gathering was at the heart of the project.

grafica, il logo vincitore ha iniziato ad apparire sul materiale promozionale del progetto, tra cui le spille.

Il coinvolgimento di alunni e alunne delle scuole nel progetto si è confermato un passo importante per aumentare la consapevolezza e l'apprezzamento del ruolo svolto dai rondoni nella preservazione della biodiversità urbana, e della biodiversità in generale. La partecipazione delle classi scolastiche al progetto ha permesso al team di mettere in rilievo l'importanza dei rondoni al cospetto di insegnanti e genitori. Un gruppo di alunni e alunne ha persino deciso di aiutare i propri insegnanti a mappare i nidi di rondone presenti in città.

Successivamente a queste attività, il team ha invitato le persone partecipanti a individuare, attraverso una scheda di campo, gli edifici in grado potenzialmente

di ospitare i nidi di rondone, o che risultavano comunque importanti per la loro esistenza. Inoltre, si è proceduto a mappare l'ubicazione dei nidi nella città e nei suoi dintorni. I residenti, muniti di binocoli e schede di campo appositamente preparate per la raccolta di dati, sono scesi in strada per conto proprio o in piccoli gruppi. Dopo le «spedizioni», è stato richiesto ai partecipanti di inviare un'e-mail al team contenente le informazioni raccolte sulle schede. La raccolta di dati, attraverso l'aiuto dei cittadini, ha costituito il cuore pulsante del progetto.

© Mito Manica

The field sheet employed



OUTCOMES / RISULTATI PRINCIPALI

A resounding success, the project resulted in a number of key outcomes.

First, 100 residents helped the team gather crucial data on swift nests throughout Varese, mapping over 75% of the territory of Varese's province. Altogether, they recorded sightings of over 520 colonies. Included amongst the observed nests were four belonging to pale swifts. This is remarkable, considering that pale swift nests were last observed in Varese more than 27 years ago. The project led to a number of changes with regard to

protecting swifts in Varese. As residents and the team stumbled upon these nests, they got workers to pause renovation work on certain buildings until the end of the mating season. Similarly, various nests are still being protected as a result of the work done on this project (e.g. thanks to indicative plaques that have been installed near nests and other important sites). Artificial nests have also been placed in churches and other safe spaces to encourage swifts to roost there.

Second, as previously mentioned, 200 designs for

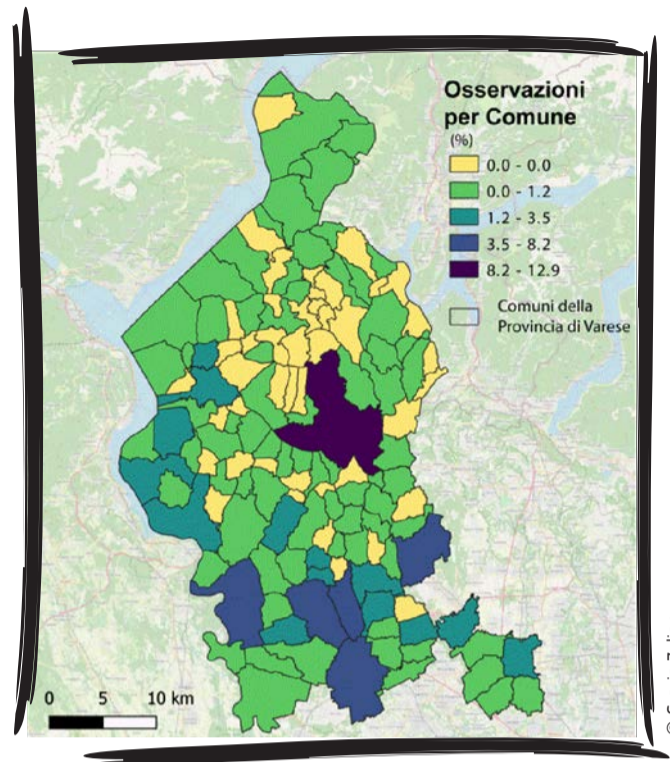
the project has achieved a great success, which is reflected in the following results.

In first place, 100 residents helped the team to collect data on key determinants of the distribution of swifts in Varese, managing to map over 75% of the provincial territory. In total, over 520 colonies were mapped. Amongst the identified ones, four belonged to the pale swift species, in addition, four belonging to the species of the pale swift. It is a notable discovery, since the last sighting of a pale swift nest in the same area dates back to

more than 27 years ago. The project has triggered a series of changes for as much as the protection of swifts in Varese. Step by step, as residents and the team discovered the nests and reported their existence to the authorities, they managed to postpone the interventions of restructuring on certain buildings until the end of the breeding season. Analogously, various nests are still under protection thanks to the work done during the project, for example, to indicative plaques installed near the nests and at other relevant sites. In addition, the installation of

the logo were submitted by schoolchildren, from 43 schools.

Finally, the results of a survey, circulated after the end of the mapping activity, indicate that those who participated in the project not only have a greater understanding of swifts and their role in the preservation of biodiversity, but also a desire to participate in similar projects in the future.



Observations of swifts by municipality

alcuni nidi artificiali in chiese e ulteriori luoghi sicuri ha lo scopo di incoraggiare i rondoni a posarvi.

In secondo luogo, come menzionato in precedenza, alunni e alunne di 43 scuole hanno presentato 200 proposte per il logo.

Infine, i risultati di un sondaggio, condotto dopo la conclusione dell'attività di mappatura, evidenziano che le persone partecipanti al progetto non solo dispongono ora di conoscenze più approfondite sui rondoni e sul loro ruolo nella preservazione della biodiversità, ma sono anche mosse dal desiderio di prendere parte in futuro a progetti simili.



LESSONS LEARNED / LEZIONI APPRESE

There are valuable lessons to be learned from this project. As evidenced by the enthusiasm of the participants and schoolchildren, as well as the results of the aforementioned survey, there is far more interest in biodiversity and its preservation than one may think. This interest should be taken advantage of as much as possible — and in the most efficient and effective ways.

It has also become clear that greater collaboration is essential in bringing about more widespread change. If a hundred residents in Varese were able to contribute so much towards the protection of swifts and their nests, one need only imagine what could be achieved if other institutions (only two local municipalities provided patronage) provided resources and volunteers. Hopefully, the project in Varese will serve as a foundation for broader

efforts in the city as well as in neighbouring ones.

Moreover, the success of the data gathering effort shows that, while technology (e.g. in the form of mobile apps) is certainly useful in recording information, traditional methods (like the field sheets that were used) still prove to be very effective. In fact, given their near non-existent barriers to use, they may even be more effective than digital ones, as nearly anyone — especially in smaller cities and villages, where residents may be less dependent on digital technology — can use them. They are also, needless to say, far less costly to implement.

Questo progetto ha permesso vari apprendimenti. Come attestato dall'entusiasmo delle persone partecipanti e di alunni e alunne delle scuole, così come dai risultati del sondaggio, si percepisce un interesse rispetto alla biodiversità e nella sua preservazione molto più forte di quanto si possa pensare. Questo interesse dovrebbe essere "sfruttato" il più possibile, nonché nel modo più efficiente ed efficace.

Inoltre, è risultato evidente che una collaborazione più vasta è un elemento cruciale per stimolare cambiamenti più capillari, nella società e nelle amministrazioni. Se un centinaio di residenti a Varese è riuscito a contribuire così tanto alla protezione dei rondoni e dei loro nidi, si può solo immaginare quello che si potrebbe conseguire se altri enti mettessero a disposizione risorse e volontari. In questo caso, infatti, il patrocinio è stato concesso solo da due amministrazioni

comunali. Si spera che il progetto di Varese servirà da fondamento per sforzi di più ampia portata a livello cittadino e nelle città vicine a Varese.

Oltre a ciò, il successo dell'attività di raccolta dei dati dimostra che, se da un lato la tecnologia, in veste di applicazioni mobili, è senza dubbio utile per la registrazione delle informazioni, dall'altro i metodi tradizionali, ovvero le schede di campo utilizzate, si rivelano ancora molto efficaci. Infatti, proprio per la loro facilità d'uso, potrebbero essere persino *più* efficaci degli strumenti digitali, poiché quasi chiunque può utilizzarli, in particolare in città e paesi di piccole dimensioni con una popolazione più anziana e meno abile nell'utilizzo di tecnologie digitali. È importante, poi, ricordare che i mezzi analogici sono di gran lunga meno costosi da impiegare.



JRC REFLECTION / RIFLESSIONI DEL CENTRO COMUNE DI RICERCA

This is a successful story of citizen science of a 'contributory' nature. Through this project, greater awareness about the endangering factors for the survival of swifts in the region of Varese was sought. It is also a good example of partnership with institutions, namely schools. Involving children in these types of processes is a good step towards a desirable type of education in which individuals learn to be civically engaged to address matters of concern. Yet, the preservation of biodiversity in a city necessitates more than just awareness and a few interventions. It needs a discussion on measures to avoid disastrous biodiversities decline of other species, not least and from an anthropocentric point of view, it is likely

that such declines reflect poor quality of human lives too. Hence, this project should be followed-up with a deeper discussion of what the citizens of Varese want in terms of green infrastructure, how do they want to organise space in order to allow swifts and all the other species find ways to co-exist and thrive with human 'habitats'. These types of processes are more of a co-creation or co-planning nature and are a known means to encourage citizens' ownership of biodiversity commitments.

Siamo dinanzi a una storia di successo di citizen science di una natura «contributiva». Tramite questo progetto, si è cercato di diffondere una maggiore consapevolezza sui fattori che mettono a repentaglio la sopravvivenza dei rondoni nella provincia e città di Varese. Si tratta, inoltre, di un ottimo esempio di partenariato con le istituzioni, vale a dire le scuole. Il coinvolgimento dei bambini in questo tipo di processi costituisce un passo positivo verso un tipo di didattica auspicabile, in cui le persone apprendono come impegnarsi civilmente per intervenire su questioni di interesse locale. Eppure, la preservazione della biodiversità in una città richiede molto di più di opere di sensibilizzazione e una serie di interventi occasionali. Occorre un

dibattito in merito alle misure da adottare per evitare declini drammatici di altre specie. Tra l'altro, assumendo un punto di vista antropogenico, è probabile che tali declini rispecchino a loro volta una scarsa qualità della vita umana. Pertanto, questo progetto dovrebbe proseguire con un dibattito più approfondito sui desideri della cittadinanza di Varese in termini di infrastruttura verde, dell'organizzazione degli spazi per permettere ai rondoni e ad altre specie di trovare modi per coesistere e prosperare in presenza di «habitat» umani. Questi tipi di processi sono maggiormente orientati alla co-creazione e alla co-pianificazione e sono noti risvegliare la titolarità della cittadinanza negli impegni a favore della biodiversità.

TEAM AND ACKNOWLEDGEMENTS

Expert: Milo Manica

Team: Manuela Bazzarelli, Costante Cavallaro, Walter Guenzani, Stefania Villa, Grazia Zulian

Lead partners: Gruppo Insubrico di Ornitologia, LIPU-Birdlife Italy

RESOURCES

[Lipu Varese – Sulle ali dei rondoni](#)

[Gruppo Insubrico di Ornitologia](#)

[News about the project in a local newspaper: Il campanile di Gallarate diventa "casa" dei rondoni](#)

TEAM E RINGRAZIAMENTI

Esperto: Milo Manica

Team: Manuela Bazzarelli, Costante Cavallaro, Walter Guenzani, Stefania Villa, Grazia Zulian

Partner principali: Gruppo Insubrico di Ornitologia, LIPU-Birdlife Italia

RISORSE

[Lipu Varese – Sulle ali dei rondoni](#)

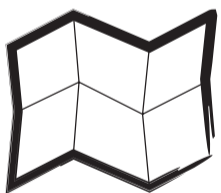
[Gruppo Insubrico di Ornitologia](#)

[Articolo sul progetto pubblicato in un giornale locale: Il campanile di Gallarate diventa "casa" dei rondoni](#)

VILNIUS



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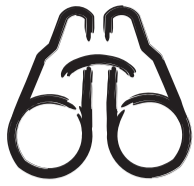
AMBITION / UŽMOJAI

“We see that, in order to implement a successful citizen engagement process, the capacity and skills of local authorities who have direct contact with citizens is an essential element. Local institutions and local communities have to trust each other and be open for citizen engagement, as all engagement processes should be built on trust, and not on power and commands. Thus, building the capacities of the local institutions should be a priority to make citizen engagement a regular practice in the future.”

Project Expert Ieva Misiūnė

„Manome, kad norint užtikrinti sėkmingą piliečių įtraukimą itin svarbūs yra vietos valdžios institucijų, kurios tiesiogiai bendrauja su gyventojais, gebėjimai ir įgūdžiai. Vietos institucijos ir vietos bendruomenės turi pasitikėti viena kita ir būti atviros piliečių dalyvavimui, nes visi dalyvavimo procesai turėtų būti grindžiami pasitikėjimu, o ne valdžia ir įsakymais. Todėl tam, kad piliečių dalyvavimas ateityje taptų įprasta praktika, prioritetą reikia teikti institucijų gebėjimų stiprinimui.“

Projekto ekspertė Ieva Misiūnė



CONTEXT / KONTEKSTAS

The capital of Lithuania and the country's largest city, Vilnius was historically regarded as a 'modern-day Babylon'. While Vilnius – and Lithuania, for that matter – is no longer as ethnically and culturally diverse as the storied Mesopotamian metropolis, the city has high hopes as regards its biodiversity.

Prior to the pandemic, the BiodiverCities team had plans to stimulate discussions on biodiversity in the city's Pilaitė neighbourhood and encourage its residents to take action to promote and preserve its biodiversity. Amongst other things, the team anticipated using the large yards in the neighbourhood's Soviet-era buildings as meeting spaces and collaborating closely with the municipal government and other local authorities to mobilise residents.

Due to the outbreak of COVID-19, however, the team was forced to abandon its initial plans. At the time, it was impossible to hold large gatherings, even outdoors. In addition, there was little support from local authorities, and an analysis of socio-demographic conditions and lifestyles in Pilaitė showed that there was an even greater need for civic engagement than initially thought, which also necessitated the change in plan.

How did the team respond to such a *force majeure*? How was it able, in spite of the COVID-19 pandemic, to get the people of Pilaitė not only thinking about the importance of biodiversity, but also being proactive on the issue? By being able to pivot, think on its 'feet' and swiftly adapt to a change in circumstances!

Vilnius – Lietuvos sostinė ir didžiausias šalies miestas – istoriškai buvo laikytas „šiuolaikiniu Babilonu“. Nors Vilnius (ir Lietuva) nebesižymi tokia etnine ir kultūros įvairove, kaip garsusis Mesopotamijos metropolis, miestas deda daug vilčių į biologinę įvairovę.

Prieš pandemiją „BiodiverCities“ komanda planavo pradėti diskusijas apie biologinę įvairovę Pilaitės mikrorajone ir paskatinti jo gyventojus imtis veiksmų biologinei įvairovei skatinti ir išsaugoti. Be kita ko, komanda numatė susitikimams panaudoti didelius sovietmečių statytų mikrorajono namų kiemus ir sutelkti gyventojus glaudžiai bendradarbiaujant su savivaldybe ir kitomis vietos valdžios institucijomis.

Vis dėlto dėl COVID-19 protrūkio komanda buvo

priversta atsisakyti pradinių planų. Tuo metu buvo neįmanoma rengti didelių susibūrimų net ir po atviru dangumi. Be to, iš vietos valdžios buvo mažai palaikymo, o Pilaitės socialinių ir demografinių sąlygų bei gyvenimo būdo analizė parodė, kad pilietinio aktyvumo poreikis yra dar didesnis, nei manyta iš pradžių, todėl reikėjo keisti planą.

Kaip komanda reagavo į force majeure? Kaip, nepaisant COVID-19 pandemijos, pavyko paskatinti Pilaitės gyventojus ne tik susimąstyti apie biologinės įvairovės svarbą, bet ir aktyviai imtis veiksmų šiuo klausimu? Komandai padėjo gebėjimas greitai priimti sprendimus, greitai veikti ir greitai prisitaikyti prie pasikeitusių aplinkybių!

VILNIUS AT A GLANCE / APIE VILNIŲ TRUMPAI



Taking its name from the Vilnia River and owing its existence – according to legend – to an auspicious dream had by Grand Duke Gediminas in the Middle Ages, Vilnius is famed for its historic Old Town (a UNESCO World Heritage Site) and the diversity it enjoyed in centuries past.

Population: 539 998 (2023)*

Engagement level: 360 participants, with 60 citizens fully engaged.

Methods: in-depth interviews; surveys; workshops; exploratory hike.

Scale: municipal

Key outcomes: 'Talka' tree and shrub planting event.

* According to the World Population Review

Vilnius, kurio pavadinimas kilęs nuo Vilnios upės ir kuris, pasak legendos, įkurtas po to, kai viduramžiais didysis kunigaikštis Gediminas susapnavo pranašišką sapną, garsėja savo istoriniu senamiesčiu (jis įtrauktas į UNESCO pasaulio paveldo sąrašą) ir įvairove, kuria jis didžiavosi praėjusiais šimtmečiais.

Gyventojų skaičius: 539 998 (2023 m.)*

Įsitraukimo lygis: 360 dalyvių, iš kurių 60 piliečių yra visapusiškai įsitraukę.

Metodai: giluminiai interviu, apklausos, praktiniai seminarai, tiriamasis žygis.

Mastelis: savivaldybės

Pagrindiniai rezultatai: Medžių ir krūmų sodinimo akcija – talka.

* Pasaulio gyventojų apžvalgos duomenimis



PROCESS / PROCESAS

With a new plan in place, the BiodiverCities team carried out its work in a three-part process that involved:

- gathering knowledge and raising awareness;
- sharing knowledge, opening a constructive dialogue and co-creating an action plan for a green initiative in a green public space;
- empowering and co-creating with residents.

1. Gathering knowledge and raising awareness

In mid to late 2020, the team began holding meetings and in-depth interviews with community representatives (from, namely, the Vilnius Municipality and Pilaitė Eldership) and other relevant stakeholders in order to learn about past biodiversity-

related efforts in Vilnius; discuss present problems and the aims of the project; and uncover important insights regarding local needs and the attitudes of Pilaitė's residents towards biodiversity preservation.

Between September 2020 and September 2021, 20 meetings (each between 1 and 3 hours long) were held with these stakeholders. Following this research, an official website for the project was established within that of Vilnius University, as well as a dedicated Facebook group (which is still active). Surveys were also sent to a select group of residents (135 ultimately responded) and 20 in-depth interviews were conducted (each between 1 and 2 hours long) in order to tailor the project to the specific needs of the community.

Parengus naująjį planą, „BiodiverCities“ komandos darba sudarė trys etapai:

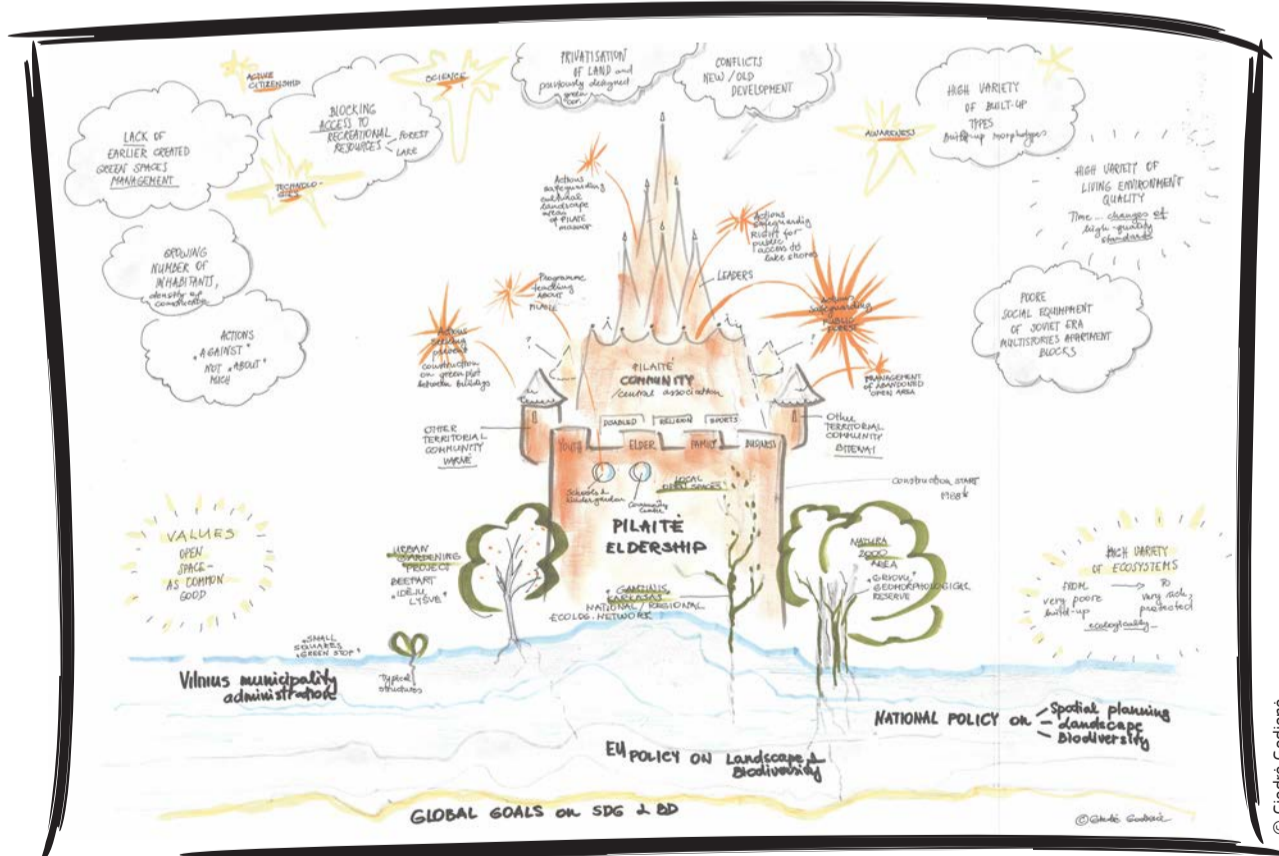
- žinių rinkimas ir informuotumo didinimas;
- dalijimasis žiniomis, konstruktyvaus dialogo užmezgimas ir bendras viešosios žaliosios erdvės veiksmų plano kūrimas;
- gyventojų įgalinimas ir bendra kūryba su jais.

1. Žinių rinkimas ir informuotumo didinimas

2020 m. viduryje–pabaigoje komanda pradėjo rengti susitikimus ir giluminius interviu su bendruomenės (Vilniaus miesto savivaldybės ir Pilaitės seniūnijos) atstovais ir kitais suinteresuotaisiais subjektais, kad sužinotų apie ankstesnes su biologine įvairove susijusias

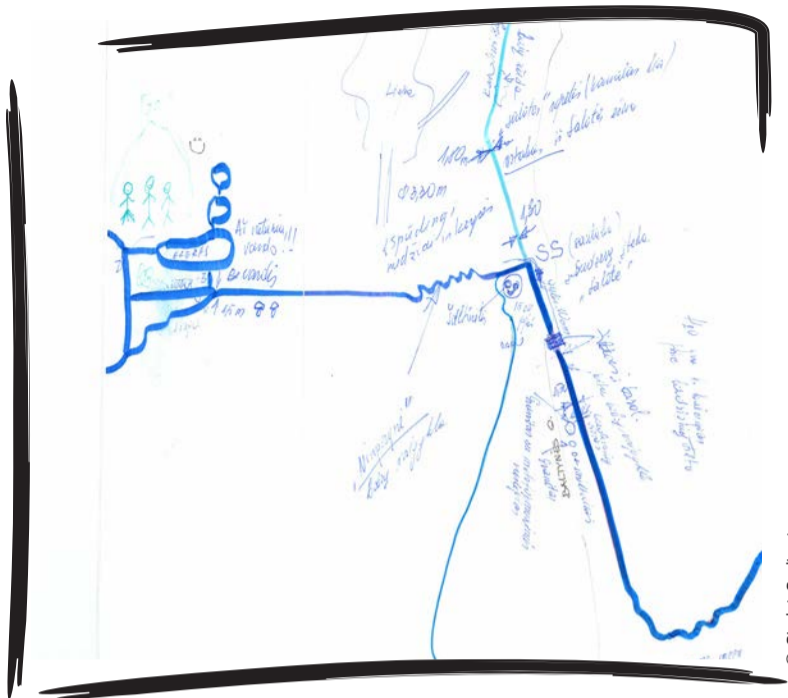
pastangas Vilniuje, aptartų dabartines problemas ir projekto tikslus bei išsiaiškintų vietos poreikius ir Pilaitės gyventojų požiūrį į biologinės įvairovės išsaugojimą.

Nuo 2020 m. rugsėjo mėn. iki 2021 m. rugsėjo mėn. su šiais suinteresuotaisiais subjektais buvo surengta 20 susitikimų (kiekvienas truko 1–3 valandas). Po šio tyrimo Vilniaus universiteto svetainėje buvo sukurta oficiali projekto svetainė ir speciali „Facebook“ grupė (ji tebėra aktyvi). Siekiant pritaikyti projektą prie konkrečių bendruomenės poreikių, atrinktai gyventojų grupei buvo išsiųsti apklausos klausimynai (į juos atsakė 135 gyventojai) ir surengta 20 giluminių interviu (kiekvienas iš jų truko 1–2 valandas).



This visualization is the outcome of 20 individual interviews carried out with the main stakeholders and local leaders of the area. The interviews allowed to find out how global, national and local discourses on biodiversity, urban green spaces and well-being of residents of Pilaitė eldership in Vilnius are interconnected and what actions, challenges, threats can be identified.

Ši vizualizacija – tai rezultatas dvidešimties individualių pokalbių su pagrindiniais suinteresuotaisiais žmonėmis ir vietos lyderiais. Interviu padėjo išsiaiškinti, kaip tarpusavyje susiję globalūs, nacionaliniai ir vietiniai diskursai apie biologinę įvairovę, miesto žaliasias erdves ir Vilniaus miesto Pilaitės seniūnijos gyventojų gerovę, bei kokius veiksmus, iššūkius, grėsmes galima identifikuoti.



Hand-drawn map of the river Suderve by Irena Petrikaitė, on the template prepared by G. Godiene. This hand-drawn map was produced during an exploratory hike (Activity 3) by one of the participants. The guide of the hike, G. Godiene, encouraged participants to register and map the objects, places, emotions, actions and problems, which seemed important or interesting to participants in order to create visual notes of guided tour.

Rankomis braižytas Sudervės upės žemėlapis. Autorė Irena Petrikaitė, pagal G. Godienės parengtą šablona. Ši ranka pieštą žemėlapij per pažintinį žygj (3 veikla) parengė žygio dalyvė. Žygio gidė G. Godienė skatino dalyves fiksuoti ir į žemėlapij įtraukti objektus, vietas, emocijas, veiksmus ir problemas, kurios dalyvėms atrodė svarbios ar įdomios, kad būtų galima sukurti vaizdinius gido užrašus.

© Giedrė Godienė

2. Sharing knowledge, opening a constructive dialogue and co-creating an action plan for a green initiative in a green public space

In March 2022, the team hosted a workshop with representatives from the Vilnius Municipality and Pilaitė Eldership, as well as members of local NGOs and the community. One of the aims of this workshop was to identify the locations where green initiatives (e.g. planting trees) are most needed due to biodiversity/landscape issues. As the participants of the workshop expressed a desire for in-person activities, a 4-hour-long exploratory hike was organised, in which Pilaitė residents examined the local environment with the assistance of a guide. During the hike, 25 participants – ranging in age from 12 to 80 – walked 6 kilometres along the Suderve River, studying the area’s flora and fauna along the way, and making note of environmental conditions and causes for concern (and, thereby, meaningfully co-creating knowledge).

3. Empowering and co-creating with residents

The project ‘anti-climaxed’ in a community-led tree and shrub-planting event called ‘Talka’ (roughly meaning ‘voluntary cooperative work’, especially in an agricultural context). This event was planned to be part of a citywide activity organised by Vilnius Municipality, where people were provided with seedlings for free to plant next to their homes. The idea behind Talka was that with now having a solid appreciation of the importance of biodiversity, Pilaitė residents would actively work together to preserve it by planting different trees and shrubs in selected small green spaces. However, the co-creation event resulted in a disappointing turnout. Organisational circumstances that were dependent on the Municipality (seedling availability, their delivery times and other related changes) did not allow the event to be communicated properly to the local community. Ultimately, only a fraction of the people initially expected participated in Talka.

2. Dalijimasis žiniomis, konstruktyvaus dialogo užmezgimas ir bendras viešosios žaliosios erdvės veiksmų plano kūrimas

2022 m. kovo mėn. komanda surengė praktinį seminarą, kuriame dalyvavo Vilniaus miesto savivaldybės ir Pilaitės seniūnijos atstovai bei vietos nevyriausybinų organizacijų ir bendruomenės nariai. Vienas iš šio seminaro tikslų buvo nustatyti vietas, kuriose dėl biologinės įvairovės ir kraštovaizdžio problemų labiausiai reikalingos žaliosios iniciatyvos (pavyzdžiui, medžių sodinimas). Seminaro dalyviai išreiškė norą dalyvauti betarpiškoje veikloje, todėl buvo suorganizuotas keturių valandų tiriamasis žygis, kurio metu Pilaitės gyventojai, padedami gido, tyrinėjo vietos aplinką. Žygio metu 25 dalyviai, kurių amžius svyravo nuo 12 iki 80 metų, nuėjo šešis kilometrus palei Sudervės upę, pakeliui tyrinėdami vietovės augaliją ir gyvūniją, atkreipdami dėmesį į aplinkos būklę ir susirūpinimą keliančius aspektus (ir taip prasmingai kurdami žinias).

3. Gyventojų įgalinimas ir bendra kūryba su jais

Projektas baigtas bendruomenės organizuotu medžių ir krūmų sodinimo renginiu, vadinamu „talka“ (talka yra savanoriškas telktinis darbas, ypač žemės ūkio srityje). Šis renginys buvo suplanuotas kaip dalis Vilniaus savivaldybės organizuojamos miesto akcijos. Jos metu žmonėms turėjo būti nemokamai dalijami sodinukai, kuriuos jie galėjo sodinti prie savo namų. Talkos idėja buvo ta, kad Pilaitės gyventojai, suvokdami biologinės įvairovės svarbą, aktyviai bendradarbiautų ją saugodami ir pasirinktose nedidelėse žaliosiose erdvėse sodindami įvairius medžius bei krūmus. Tačiau bendros kūrybos renginys sulaukė labai mažai dalyvių. Dėl organizacinių aplinkybių, kurios priklausė nuo savivaldybės (sodinukų prieinamumas, jų pristatymo laikas ir kiti su tuo susiję pokyčiai), vietos bendruomenė nebuvo tinkamai informuota apie renginį. Galiausiai talkoje dalyvavo mažiau žmonių, nei tikėtasi.



OUTCOMES / PAGRINDINIAI REZULTATAI

In addition to the Talka initiative, the project resulted in numerous other important outcomes.

First, the team managed to involve over 300 people in biodiversity-related activities and discussions, significantly raising their awareness of the importance of biodiversity and strengthening their ties to their local environment. Similarly, over 70 people were taught to collect biodiversity-related data with iNaturalist, a scientific tool.

Furthermore, the interviews and surveys conducted revealed key insights about local needs and attitudes towards biodiversity. These can be leveraged in other projects and serve as a basis for future



Similarly, over 70 people were taught to collect biodiversity-related data with iNaturalist, a scientific tool."

„Taip pat daugiau nei 70 žmonių buvo mokomi rinkti su biologine įvairove susijusius duomenis naudojant mokslinę priemonę-programėlę „iNaturalist“."

studies on biodiversity preservation in Lithuania.

The project also afforded representatives of the Vilnius Municipality and the Pilaitė Eldership a valuable opportunity to engage with residents and connect with citizens' needs and experiences. Likewise, members of the community were given the chance to collaborate with one another on a project of shared concern and vital importance.

Be talkos, projektas davė daug kitų svarbių rezultatų.

Pirmiausia komandai pavyko įtraukti daugiau nei 300 žmonių į su biologine įvairove susijusią veiklą ir diskusijas, taip gerokai padidinant jų informuotumą apie biologinės įvairovės svarbą ir sustiprinant jų ryšius su vietos aplinka. Taip pat daugiau nei 70 žmonių buvo mokomi rinkti su biologine įvairove susijusius

duomenis naudojant mokslinę priemonę-programėlę „iNaturalist“.

Be to, interviu ir apklausos suteikė svarbių įžvalgų apie vietos poreikius ir požiūrį į biologinę įvairovę. Šie duomenys gali būti panaudoti kituose projektuose ir tapti pagrindu būsimiems biologinės įvairovės išsaugojimo Lietuvoje tyrimams.

Projekto metu Vilniaus miesto savivaldybės ir Pilaitės seniūnijos atstovai taip pat turėjo vertingą galimybę pabendrauti su gyventojais, susipažinti su jų poreikiais ir patirtimi, o bendruomenės nariai galėjo drauge įgyvendinti visiems rūpimą ir gyvybiškai svarbų projektą.



© Ieva Misiune

Creating spaces of dialogue: local residents, NGOs and authorities of Pilaitė eldership, during the second activity.
Dialogo erdvių kūrimas: vietos gyventojai, NVO ir Pilaitės seniūnijos valdžia antrojo užsiėmimo metu.



LESSONS LEARNED / ĮGYTA PATIRTIS

The BiodiverCities team learned a number of valuable lessons in carrying out this project.

First, it came to better appreciate the impact of local culture and customs on the success of such projects. The residents of Pilaitė are, in general, less keen about partaking in initiatives that do not have the full support and commitment of the municipal government. Therefore, the success of any future projects in Vilnius is highly dependent on the backing and close involvement of the Vilnius Municipality. Before the engagement process begins, it is crucial to carry out research on the local context, including culture and worldviews.

Similarly, the lack of support shown by local organisations and similar initiatives indicates that expectations of collaboration need to be tempered. As other organisations have their own challenges and schedules, among other things, it is recommended that local residents be invited to collaborate instead.

Third, the change of plans brought about by the COVID-19 pandemic underscored the need for flexibility and agility. Had the team not been able to adapt the biodiversity-related project, it and the residents of Pilaitė alike would have missed out on a valuable and enriching experience.

Vykdydama šį projektą „BiodiverCities“ komanda įgijo daug vertingos patirties.

Pirma, ji geriau suprato vietos kultūros ir papročių įtaką tokių projektų sėkmei. Pilaitės gyventojai apskritai ne taip noriai dalyvauja iniciatyvose, kurios neturi savivaldybės valdžios palaikymo ir įsipareigojimo. Todėl visų būsimų projektų Vilniuje sėkmė labai priklauso nuo Vilniaus savivaldybės paramos ir aktyvaus dalyvavimo. Prieš pradėdant įtraukimo procesą labai svarbu atlikti vietos konteksto, įskaitant kultūrą ir pasaulėžiūrą, tyrimą.

Be to, nepakankama vietos organizacijų parama ir panašios iniciatyvos rodo, kad reikia mažinti

su bendradarbiavimu susijusius lūkesčius. Kitos organizacijos, be kita ko, turi savų iššūkių ir terminų, todėl rekomenduojama bendradarbiavimui visų pirma kviesti vietos gyventojus.

Trečia, dėl COVID-19 pandemijos pasikeitę planai pabrėžė lankstumo ir operatyvumo poreikį. Jei komanda nebūtų galėjusi pritaikyti su biologine įvairove susijusio projekto, tiek ji, tiek Pilaitės gyventojai būtų praradę vertingą ir turiningą patirtį.



© Giedrė Godienė

A view of 'dauba', one of the favorite spots among the residents of Pilaitė.
Dauba - viena mėgstamiausių Pilaitės gyventojų žaliųjų erdvių.



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From an ecological point of view, focusing on residual and overlooked spaces between buildings in support of urban biodiversity is a powerful idea. It reflects a humbler planning approach that valorises what is already there in an attempt to make it better rather than to make it new. From a process point of view, BiodiverCities Vilnius fully followed the good practice of understanding the context and engaging with it, before deciding with local inhabitants and other stakeholders (e.g. Pilaitė Eldership, local leaders and the municipality) as to what's next based on actual needs and possibilities. This was done by diverse means, including interviews and surveying, and by using different tools, from online platforms to visual mapping. The outreach was, indeed, extensive and necessary. Why? The project team, mainly composed of two researchers, initiated this process as outsiders to the neighbourhood. This is not unusual for participatory processes but needs to be properly managed.

The team brought into their process technical and scientific expertise and competences by making use of experiential methods (e.g. the exploratory hike) rather than only discursive ones (face-to-face presentations).

More importantly, they managed to move beyond the so-called 'deficit model', which posits that a) citizens are deficient of knowledge, b) therefore, scientists need to provide more information so that c) consequently, citizens will behave differently.

Even if the last activity turned out to be more challenging than expected, BiodiverCities Vilnius moved beyond the stage of awareness raising and created occasions for local citizens and the municipality to meet. Without this dialogue space, nothing can truly change. Therefore, this process laid the very first foundations from which it was possible to co-create a shared vision of a biologically diverse and sustainable small green space in Pilaitė.

For the future, you might consider: 1) partnering with a civic space such as a public library or a museum; 2) designing the survey with citizens, by making it a community survey with questions that echo their life experiences from the start; 3) share recommendations with the municipality

Ekologiniu požiūriu miesto biologinei įvairovei palaikyti labai svarbu atkreipti dėmesį į likusias nepastebėtas erdves tarp namų ir pastatų. Tai atspindi kuklesnį planavimo požiūrį, pagal kurį vertinama tai, kas jau yra, stengiantis tai pagerinti, o ne kurti nauja. Vertinant procesą, „BiodiverCities Vilnius“ visapusiškai vadovavosi gerąja patirtimi – suprasti kontekstą ir įsitraukti į jį, o tik po to kartu su vietos gyventojais ir kitais suinteresuotaisiais subjektais (pavyzdžiui, Pilaitės seniūnija, vietos vadovais ir savivaldybe) nuspręsti, ką daryti toliau, atsižvelgiant į realius poreikius ir galimybes. Tai buvo daroma įvairiomis priemonėmis, įskaitant interviu, apklausas, interneto platformas, vaizdinius žemėlapius ir t.t. Iš tiesų, informavimo veikla buvo plati ir būtina. Kodėl? Projekto komanda, kurią daugiausia sudarė du tyrėjai, pradėjo šį procesą kaip pašaliniai asmenys mikrorajone. Nors tokia situacija nėra neįprasta dalyvaujamuosiuose procesuose, ją būtina tinkamai valdyti.

Komanda procese pasitelkė techninę ir mokslinę patirtį bei kompetenciją, naudodama ne tik diskursyvius (tiesioginius pristatymus), bet ir patyriminius metodus

(pavyzdžiui, tiriamąjį žygį). Dar svarbiau tai, kad jai pavyko įveikti vadinamąjį „deficito modelį“, pagal kurį a) piliečiams trūksta žinių, b) todėl mokslininkai turi suteikti daugiau informacijos, kad c) piliečiai elgtųsi kitaip.

Nors pastaroji veikla pasirodė sudėtingesnė nei tikėtasi, „BiodiverCities Vilnius“ ne tik didino informuotumą, bet ir suteikė galimybę vietos gyventojams ir savivaldybei susitikti. Be šios dialogo erdvės jokie pokyčiai iš esmės negalimi. Taigi, šis procesas padėjo pamatus, kuriais remiantis buvo galima bendrai kurti biologiškai įvairios ir tvarios nedidelės Pilaitės žaliosios erdvės viziją.

Ateityje galima apsvarstyti galimybę: 1) bendradarbiauti su erdve pilietinei veiklai, pavyzdžiui, viešąja biblioteka ar muziejumi; 2) apklausą rengti kartu su piliečiais, kad nuo pat pradžių tai būtų bendruomenės apklausa su klausimais, atspindinčiais jos gyvenimo patirtį; 3) dalytis rekomendacijomis su savivaldybe.

TEAM AND ACKNOWLEDGEMENTS

Expert: Ieva Misiūnė

Team: Giedre Godienė

Lead partners: Vilnius University, Pilaitė Eldership, Vilnius Municipality

RESOURCES

[Projektas 'BiodiverCities'](#)

[Pilaitės žaliosios erdvės. BiodiverCities](#)

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IŠTEKLIAI

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CO-CREATION WITH CITIZENS: LESSONS LEARNT FROM THE BIODIVERCITIES PROJECT

by **Ann-Karin Tennås Holmen**

HIGHLIGHTS

- **Research:** this contribution presents the results of study on how municipalities, involved in the BiodiverCities project, tested new methods for engaging citizens, and were stimulated and challenged in developing sustainable co-creation processes with citizens.
- **Process:** the BiodiverCities project put co-creation with citizens on the municipalities' agendas and created an arena to prioritise activities according to their needs. Conditions for co-creation in European municipalities differ and this contribution focuses on the local adaptation of co-creation processes in five European cities
- **Results:** the BiodiverCities project offered a learning arena for a) each municipality to experiment, test, fail and acquire experience and legitimacy for co-creation, and for b) municipalities across Europe to meet and exchange lessons learnt and best practices.
- **Policy implication:** EU pilot projects can function as an important platform for exploring common challenges across Europe. However, a precondition for meaningful co-creation is the possibility for the contextual tailoring of priorities. Exploring and testing solutions requires continuity and long lasting projects with solid financial and facilitating support, as well as political and administrative anchorage.



We cannot force the citizens to participate in co-creation processes. We have to engage them! This takes time, consistency, trust building and support.”

Public servant, Municipality of Leiden

WHY?

Motivation and objectives

Co-creation is considered a prominent tool for seeking ideas to address wicked problems, and citizens are increasingly invited to play an active role in ideation, design and implementation of public policies. Despite the growing recognition of its relevance and interest in co-creation, knowledge, experience and support vary between municipalities across Europe. It is often the case that municipalities do not know how to develop a policy, establish administrative support and facilitate co-creation processes with citizens.

The BiodiverCities project provided an arena for cities and their municipalities in different European countries to initiate, test and learn. The research project explored a) how co-creation is embedded in municipalities as a value and as a new method of working, and b) how co-creation processes challenge and stimulate existing institutional patterns in municipalities.

From a methodological point of view, desk-research and semi-structured interviews with local experts and one/two representatives from the municipality were conducted. Desk-research included the analysis of reports delivered by the

local expert on the citizen engagement plan as well as a self-reflexive note on institutional challenges met in its implementation. Below follows a short report of the conditions, process, results and policy implications extracted from the study.

Main findings – conditions, process and results

Conditions for co-creation differed in 5 European municipalities regarding knowledge, experience, administrative and political anchorage of the co-

creation processes. Leiden was the most experienced and had political as well as administrative support, knowledge and a system to facilitate co-creation processes. Stavanger and Valongo had some experience and knowledge, but limited administrative anchorage. Valongo had a strong political anchorage through the mayor who was very involved. Regalbuto and Palma had limited knowledge and experience, but the mayor was a strong ambassador for citizen engagement. The administration in these two

CO-CREATION AND CITIZEN ENGAGEMENT

Co-creation can be defined as a ‘problem-focused process aiming to craft new and innovative public value outcomes’ (Ansell and Torfing 2021). In co-creation initiatives, citizens are regarded as relevant partners who have specific resources and competencies that are valuable for public service delivery and for solving complex societal issues (Voorberg, Bekkers et al. 2015, Bason 2018). In this way we can consider co-creation both as a value but also a method or tool for municipalities to use to engage citizens.

Municipalities included in the study

The study included 4 out of 10 cities participating in the BiodiverCities project, specifically those in which the municipality played an active role in the process, and Stavanger in Norway.

Municipality	Main objective
VALONGO (Portugal)	Experiment and test new participatory planning methodologies to help the community to recognise the natural value of its territory. Participatory principle: consult – identify – test
STAVANGER (Norway)	Increase citizen engagement on the topic of trees through a diversity of activities.
PALMA (Spain)	Open a process of civic ¹ dialogue, providing a safe space where ideas, expectations, sensitivities and views on the future of the city can be explored. Perform co-creative pilot activities.
LEIDEN (Netherland)	Learn how to engage ethnic minorities into participatory processes. Co-create and co-maintain biodiverse urban spaces with local inhabitants. Explore locals' ideas on nature, biodiversity and public participation.
REGALBUTO (Italy)	For the first time develop a co-creation process of public policy. Reinforce the links and interactions between people and nature through a co-design of the strategic development plan.

1 Stavanger was originally one of the participating cities to the project but the city dropped out from BiodiverCities in 2021.

municipalities, however, had limited interest and tools for pushing this kind of process.

Results from the process show how the activities initiated by 4 of the municipalities through the BiodiverCities project created new arenas with a space for citizens' participation, access and influence. Tailored to each context, the municipalities tested and experimented with citizen engagement processes through this arena. All municipalities experienced significant learning during the project period.

Municipalities with less knowledge and experiences (Regalbuto and Palma) used this project to try out co-creation in small steps and built experience and knowledge through new arenas. This also challenged established practices in the municipality. Still, they called for rules, regulations and resources to facilitate and legitimise such processes in the future.

More experienced municipalities (Stavanger, Valongo and Leiden) also made use of the project to test new methods for citizen

engagement or to approach new groups of citizens (e.g., ethnic minorities in Leiden). There are traces of new arenas where the citizens themselves take more responsibility (pollinator beds and insect hotels), but also signs of citizens becoming more familiar with co-creation processes (e.g., using the same method in different situations, as in Valongo). Still, the projects revealed challenges in the existing infrastructure for co-creation (e.g. lack of knowledge and resources), and provided input for future needs to further develop a sustainable infrastructure for co-creation with citizens.

The BiodiverCities project illustrates the mutual dependence of support. Today citizen engagement through co-creation processes depend on the involvement of a few individuals who believe in this way of working and dare to initiate and push for innovative ways to engage. These "champions" provide an integrative kind of leadership but are themselves in need of support, hence the mutual dependence. This support can include organisational structures, laws, routines and roles in power structures; but also attitudes, culture and new practices. Most importantly, they need the support of political leadership that engages, prioritises and believes that citizen engagement is a useful value creation mechanism.

The BiodiverCities project can be considered as an interaction platform between the municipalities involved. It functioned as a) an organisational design to frame and prioritise activities, b) a foundation for legitimacy when testing new methods considered radical in the municipality, and c) a pool for ideas and external support in the process.

IMPLICATIONS FOR FUTURE POLICY

Based on the findings from the study, three main policy implications emerge:

1. Testing new policies, solutions and methods for co-creation requires support at all levels. Engaging citizens in co-creation processes is not just a matter of taking the decision to do it. Enabling conditions have to mature over time. The support has to be local with political and administrative anchorage, but this support is often dependent on encouragement and prioritisation at EU level. There is a significant need for continuity and long-lasting projects to really create a platform to anchor, test, experiment, experience and evaluate engagement and co-creation processes and methods with citizens. The municipalities need time to establish institutional arenas for sustainable infrastructure for co-creation. Projects can be successful in the short term, but in order to develop knowledge, experience and infrastructure for co-creation, there is a need for continuous political, administrative and financial support.
2. Co-creation as a method for involving citizens can create value for citizens, administration and politicians in a municipality as well as, at other levels of government. Such a method can build trust, new forms of participation and possibilities for shared responsibility. However, poorly implemented co-creation processes can create mistrust and worsen conditions for engaging citizens. This calls for continuous training, development and knowledge of co-creation methods and practices at all levels of government and in different contexts.



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A Walking Tour in Ermesinde, Valongo case-study

3. EU projects like BiodiverCities offer a platform for municipalities in Europe to seek together ways to address wicked societal issues. These platforms can also be important for the Commission to seek insights and ideas for

future policy solutions. The BiodiverCities project has provided a learning arena: an arena to explore ideas, solutions and experiences without competition (because the municipalities are so different). Most importantly, the project

has helped municipalities to put policy methods like co-creation on the agenda, which is important both for countries with previous experience and countries with less or no experience. Still, a precondition for solid outcomes from such projects

are the possibilities for local adaptation and prioritising sustainable solutions, as well as the need for funding long-lasting projects. EU projects as platforms can offer a significant infrastructure and support for this purpose in the future.

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INSTITUTIONAL CHALLENGES TO CO-CREATION: A NON-GOVERNMENTAL PERSPECTIVE

by **Helena Junyer Puig**

HIGHLIGHTS

- Current centralised and hierarchical government practices are unable to respond to complex urban problems such as biodiversity loss. Hence, there is a need to facilitate societal involvement through co-creative projects to enhance urban services, including green infrastructure.
- Public administrations face difficulties in changing their focus towards more inclusive and participatory decision-making may be difficult to trigger, initiate, and maintain.
- BiodiverCities has exemplified how local relationships and structures can be reconfigured, and sets bright prospects for future local collaboration amongst the actors that the project has brought together: practitioners, citizens and policy-makers.

CO-CREATION AS A MODE OF GOVERNANCE

Currently, over half of the world's population lives in cities. This figure is projected to rise to 66 % by 2050 (Buizer et al., 2016) with significant environmental consequences, such as a decline in biodiversity (Guilland et al., 2018; Güneralp & Seto, 2013; Kowarik, 2011). It is contended that current hierarchical governance practices in urban contexts are not and will not be able to respond properly to these problems (Puerari et al., 2018; Horlings et al., 2021).

In this context, the concept of co-creation has gained importance in public institutions in recent years. Co-creation is understood as a collaborative innovation mode of governance focused on 'engaging with citizens on shared matters of concern in specific territorial contexts, implying engagement methods and tools that allow joint creation of outcomes' (Maes et al., 2021: 14). In co-creation, relevant actors share their knowledge and experiences to produce

innovative outcomes that are relevant to them (Bekkers et al., 2014). As one-off initiatives are often dependent on political will, structural changes to make participatory approaches a fundamental component of democratic architecture are considered critical to effectively promote transformation (OECD, 2021).

Within this frame of reference, the BiodiverCities project kicked-off.

WHY? MOTIVATIONS AND OBJECTIVES

BiodiverCities has shown that institutionalisation is not easily achieved, even though a shared understanding of the gains of adopting co-creation as a new mode of governance is present (Ansell and Torfing, 2021; Voorberg et al., 2015). This contribution discusses the institutional challenges that civil society actors have encountered throughout the co-creation process. A special focus on barriers faced by



Project meeting, 8 June 2022, Ispra (Italy)

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civil society is important for different reasons. Firstly, most co-creation literature identifies the hurdles faced by public administrators (e.g., Voorberg, Bekkers and Tummers, 2015). Secondly, civil society actors are essential stakeholders in the civic landscape and, at times, they take the lead role in participatory projects. For this reason, understanding their barriers is essential to achieve effectiveness and political anchoring. A final reason is more practical: this study complements another research conducted by Tennås Holmen (and presented in the Atlas), focusing on institutional challenges met by public administrations directly involved in BiodiverCities.

Therefore, for the purpose of this research, five cities where civil society actors took the responsibility to develop the project and to involve the municipality, have been considered as a case study (in the other remaining five cities, the municipality was directly involved). These cities are Novi Sad (Serbia), Palermo and Varese (Italy), Vilnius (Lithuania) and Lisbon (Portugal). The data was gathered through semi-structured interviews with municipality representatives and civil society organisation workers, and through the revision of reports delivered by local partners, on both the local engagement plan and actual process (see 'Disclaimer' for further details).

CITIES AND THEIR PROJECTS

Table 1 shows a summary of the participating cities and their main objectives.

Table 1. Cities and project objectives

Municipality	Main objective
Varese province (Jerago con Orago)	Engage citizens to obtain data about populations of swifts breeding in the province, and involve institutions to adopt protective regulations and provide an updated list of buildings housing swift colonies.
Palermo	To open spaces of reflection on the relationship between the schooling system and the green areas of Palermo.
Lisbon	To engage the citizens, through the use of specific citizen science tools, with nature while learning about biodiversity and its positive impacts on human health and urban sustainability.
Novi Sad	To create and open a two-way communication for citizens and authorities in order to reflect on issues of protection of the urban natural environment and development of sustainable cities.
Vilnius	To raise awareness regarding urban biodiversity and enable the local community to co-create a common vision of biologically diverse and sustainable small green spaces in their living environment.

MAIN FINDINGS

CULTURAL BARRIERS

One of the cultural barriers found was the **low environmental awareness**, both among citizens and institutions. In **Lisbon** and **Vilnius**, citizen awareness on climate change

or biodiversity depletion was considered quite low and to negatively affect the participatory efforts. In **Palermo** and **Varese**, on the other hand, low appreciation of environmental challenges was found among institutional representatives, rather than citizens, with,

as a consequence, limited support for urban green infrastructure projects.

Another cultural barrier identified was the greater consideration for **economic gains** over any other aspects, whether because of private investors' control of public property and its use, or the nature of post-Soviet structural transformation¹.

A third identified barrier was the **presence of a legalistic culture**, where a considerable number of laws and regulations are present, leaving a small margin for flexibility on the side of institutions and citizens. This challenge has been mainly found in both ex-Soviet countries (Lithuania and Serbia).

INSTITUTIONAL BARRIERS

One of the most cited barriers has been the presence of **short-term political view**, when new administrations that coming into office have dissimilar views to the previous ones. Political discontinuity, in general, does not allow for long-term planning, which is a considerable problem for the successful implementation of citizen engagement processes. For example, in **Varese**, the municipality representative contended that there is a need to embed these projects into the municipality structure so that they can be ensured to have a long-term continuity.

INTERORGANISATIONAL BARRIERS

Highly **bureaucratic administrations** also impeded a smooth implementation of the projects - especially when considering time.

The second interorganisational barrier

identified was the **presence of departmental silos**. The lack of internal horizontal cooperation results in departments increasingly operating in isolation, which creates difficulties with communication, settling interest disputes with other government institutions, and collaborating efficiently.

ORGANISATIONAL BARRIERS

One of the most cited barriers was the **lack of resources**. This included lack of human resources (co-creation experts as well as more generally human resources in administration) as well as financial resources. This latter might include the inability to properly exploit the available resources (e.g. use of structural funds, particularly in the case of Sicily).

Finally, the last organisational barrier identified was the **low public commitment towards experimentation**, as some administrations favour the status quo. According to practitioners from **Palermo** and **Novi Sad**, this speaks to the existing culture of public administration and the broader political context.

IDENTITY-RELATED BARRIERS

The **lack of trust and accountability amongst participants** was cited to be present in all cities. This took very different forms. In **Palermo**, the mismatched views between civil society and local government on how participatory projects ought to be developed *de facto* favours the emergence of bottom-up initiatives, as in these type of initiatives citizens can organise themselves independently and assign their own roles without government interference. In **Vilnius**, the opposite took place: people

¹ After World War II, communism was established in Lithuania, and consequently property nationalisation took place. Following the fall of communism and the dissolution of the USSR, some of the formerly nationalised properties have been subject to re-privatisation and restored to their previous owners or their heirs. This process is known as restitution.

INSTITUTIONALISM AND INSTITUTIONAL CHALLENGES

Institutionalism is a theory that examines the processes by which institutions, defined as formal and informal rules, norms and routines, come to be accepted as authoritative guidelines (Scott, 1995). Institutions not only guide the behaviour of their employees, but individuals also reproduce institutions, consequently creating institutional inertia and paving path dependencies (Healey, 2006). Ultimately, this translates into institutions resisting changes, e.g. the change of switching from a top-down approach to a horizontal engagement, preserving the status quo, e.g. where the public actor has all the decision-making power (Torfing et al., 2021).

Torfing (2016), using institutional theory, argues that the extent to which actors use collaboration as a vehicle for public innovation is conditioned by a number of context-bound barriers. He classifies them into the following categories: (a) **cultural barriers** (deep general assumptions found in society); (b) **institutional barriers** (barriers faced due to unbalanced power relationships between politics and public administration); (c) **interorganisational barriers** (barriers that different departments face due to the internal organisational characteristics of the public administration); (d) **organisational barriers** (barriers faced due to the absence of procedures for public exploration and exploitation); and (e) **identity-related barriers** (identities of key stakeholders that prevent collaborative innovation).

now do not tend to engage in activities when municipal authorities are not really involved, as they perceive their engagement “not worth their time if municipality is not taking part”, in the words of the local expert.

Fixed actor identities have also been seen as a hurdle for co-creation, meaning that municipalities were reluctant to lose their authoritative status and grant decision-making powers to citizens, as well as acknowledging that professional opinions can come from outside the public institution.

CONCLUSION AND IMPLICATIONS FOR FUTURE POLICY

Although intermediary organisations can provide services that are supplementary to local governments, or can strengthen co-creation outputs, **they cannot take the place of**

governments. This is why sound cooperation and communication among actors is vital in co-creation. However, BiodiverCities has shown that there is a need for change in the structural mechanisms of governance in cities’ administrations and in local authorities in order to institutionalise co-creation. The quality of the communication and cooperation is conditioned by a set of cultural, institutional, interorganisational, organisational and identity-related barriers.

Those cities that presented most overall barriers across the 5 different categories have been **Palermo** and **Novi Sad**. In these cities, the involvement of the municipality was reported to be more arduous to achieve than in the other three, as a strongly dichotomous view of the institutional paradigm and responsibilities was present: whereas civil society

respondents saw that the barriers they faced in their co-creative projects were due to the alienated nature of the public administration, public servants were inclined to argue that the barriers that civil society faced in co-creation are rather due to citizens’ low commitment and understanding of public affairs.

However, the different experiences examined allow to place an emphasis on the importance of dialogue for meaningful cooperation and collaboration: relationships between the actors involved must be reconciled in order to advance any sort of participatory projects. In fact, in those two cities where a sounder cooperation between civil society organisations and the municipality was achieved, and trust was subsequently built, positive impacts can already be accounted for: in **Varese** and **Lisbon** the network that BiodiverCities has helped build, involving citizens, practitioners, and policy-makers, has already been acknowledged by all interviewees, as showing great potential for future collaboration.

Nevertheless, institutional change happens if it

starts from within. Local governments should:

- appreciate that co-creation is not a linear but rather a dynamic, multi-phased and context-dependent process. Hence, there is no one-size-fits-all approach when it comes to the execution of co-creation. Moreover, flexibility and experimentation are to be encouraged as well as a full appreciation that a public service is ‘public’ if co-produced with citizens and all meaningful local actors.
- when involved in co-creation projects, take responsibility for their enabling role. Being upfront about co-creation efforts and demonstrating that local governments have taken public input seriously and incorporated it into policymaking helps enhance democracy and political legitimacy. Only in this way will trust be built, which is a necessary condition for sound co-creation.
- invest in capacity building: new policymaking practices require building new skills and capacities. This is one way to start embedding forms of citizen engagement in public institutions.



Citizens rethinking their cities in Novi Sad

Table 2. Analytical categories

Author's own elaboration based on the literature (Stier and Smit, 2021; Boros and Mahmoud, 2021; Bisschops and Beunen, 2019; Frantzeskaki, 2019; Langemeyer and Baró, 2021; Mahmoud et al., 2021; Dobers and Stier, 2018; Ansell and Torfing, 2021).

Categories	Specific barriers	Recommendations
Cultural	(I) low environmental awareness (II) greater consideration for economic gains (III) presence of a legalistic culture	(I) address differences in language (II) co-creation processes should be inclusive and open (II) legalistic reforms (integration policies)
Institutional	(I) short-term political view	(I) long-term commitment
Interorganisational	(I) bureaucratic administrations (II) presence of departmental silos	(I) administrative reforms (coordination policies) (II) communication and dissemination channels
Organizational	(I) inability to properly exploit the available resources (II) low public commitment towards experimentation	(I) allocate reasonable time, sufficient financial funds and adequate human resources; Co-creation expertise needs to be internalized in public administrations; Co-creation processes require leadership (II) make use of knowledge brokers to optimize collaboration: Provide platforms and spaces for interaction
Identity related	(I) the lack of trust and accountability amongst participants (II) fixed actor identities	(I) nurture stakeholder relationships (II) challenge one's own and each other's thinking

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- the questions in general were quite similar, specific questions were then posed depending on whether they were working for the municipality or another association (mainly NGO or university). Interviews lasted approximately 40 minutes to 1 hour and were recorded, with written consent from the interviewee. All of the interviews were transcribed and analysed. The data analysed using a thematic analysis from the interviews conducted with civil society organisations and municipality representatives was complemented with the analysis of reports, including self-reflexive notes on institutional challenges, that BiodiverCities partners were asked to produce to critically reflect upon their BiodiverCities learning experience.

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DISCLAIMER OR OTHER FINAL DETAILS

Eleven actors were interviewed, encompassing experts contracted to design and implement the co-creation processes in each city, and one representative from the local public administrations. The interviews were semi-structured and were thus, conducted following a rough interview guide. Even though

URBAN GREEN AREAS IN EUROPEAN CITIES – STRUCTURE AND BENEFITS

by **Grazia Zulian** and **Federica Marando**

HIGHLIGHTS

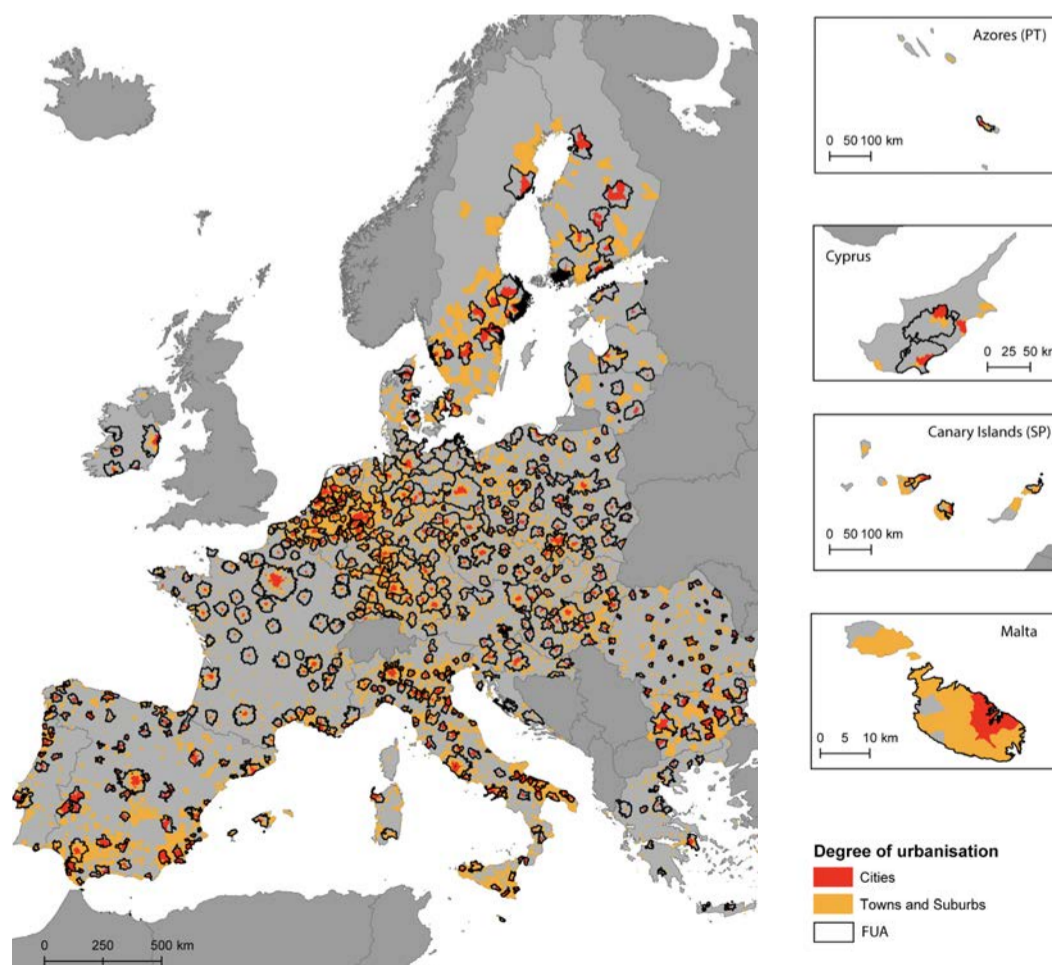
- Urban green areas cover around 30 % of the FUA territory. The average share of urban green areas among EU Member States is equal to 32 %. The tree-covered area in FUA is equal to 23 million hectares (25 %). The average tree cover among Member States is equal to 23 %.
- The occurrence of environmental and anthropogenic burdens in a large number of FUA, coupled with a low share of green spaces in such areas, entail a mismatch between supply and demand of ecosystem services.
- Most FUA present a major downward trend of UGI in time. The loss of green spaces is expected to continue unless specific policy measures are adopted.
- The upcoming EU nature restoration targets will ensure the protection of urban ecosystems. The adoption of legally binding targets is aimed to counteract the expected loss in time of urban green areas, and the enhancement of Urban Green Infrastructure (UGI) up to 2050.
- Urban green infrastructure is found to cool European cities by around 1 °C on average, and by up to 3 °C. In general, in order to achieve 1 °C reduction in air temperature, at least 16 % tree canopy cover is needed.

Urbanised areas are human settlements with a high population density and prevalence of built infrastructure. The settlements with the highest population density and built-up areas are defined as cities, towns and suburbs (EUROSTAT, 2021). They cover 22 % of the European territory, and host around 50 % of the European population (Zulian et al., 2022). Figure 1 shows the distribution of urbanised land in Europe. Red and orange colour codes show the cities, towns and suburbs; whereas the black boundaries show the main cities and their commuting zones, otherwise called functional urban areas (FUA). These two classifications are the base units used for reporting on cities at the European level.

Urbanised land exerts a significant impact on the environment. Some of the

Figure 1: Cities, towns and suburbs and FUA boundaries (EU-27)

Source: Zulian et al., 2022



Pressures refer to a human-induced process that alters the condition of ecosystems.

(Maes et al., 2013).



Air pollutant emissions are one of the sources of pressures.

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policies, also affect cities and urbanised land. Actions can move in two directions: on one side, reducing the pressures in and from urban ecosystems (actions related to the management and use of water resources, waste generation and management, noise and air pollution); on the other, cities can contribute to the improvement of ecosystem condition. The way cities

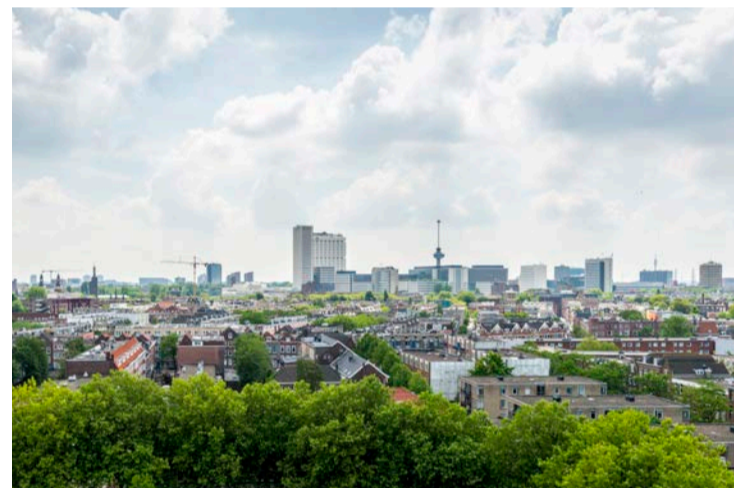
enhance the quality of ecosystems affects the cities themselves (in this perspective we talk of urban ecosystem quality) and the areas in the proximity of urbanised land. To simplify, urban ecosystem quality depends on 1) abiotic and biotic ecosystem characteristics (composition/diversity of ecological communities, structural state characteristics, functional

Ecosystem condition refers to the physical, chemical and biological condition or quality of an ecosystem in a particular moment.

(Maes et al., 2013).

most harmful environmental problems, such as global warming, poor air and water quality, waste-disposal inefficiencies, high energy consumption and biodiversity loss, are exacerbated and accelerated by an increasing urban population and urbanised land. In Europe, cities are structurally and culturally very diverse, they are characterised by different settlement types, ecosystem mosaics, degrees of naturalness and by

different extents of urban green areas. Cities also host protected areas. Out of the total area protected by Natura 2000 (18.5 %), 16.66 % is located within cities, towns and suburbs (Zulian et al., 2022). Between 2019 and 2023, the European Commission promoted a number of initiatives to protect the environment and minimise risks to climate, human health and biodiversity. Several key priorities, across different

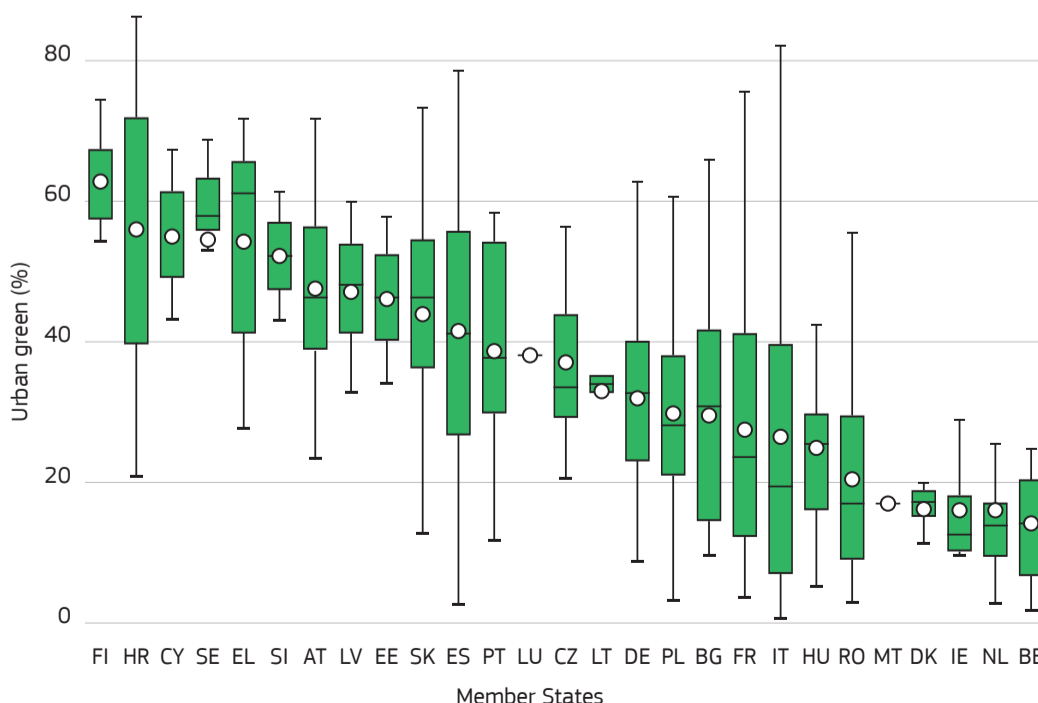


Urban vegetation is one of the elements that can improve the quality of urban ecosystems.

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Figure 2: Amount (%) of urban green areas in FUA represented per Member State

Source: Zulian et al., 2022.



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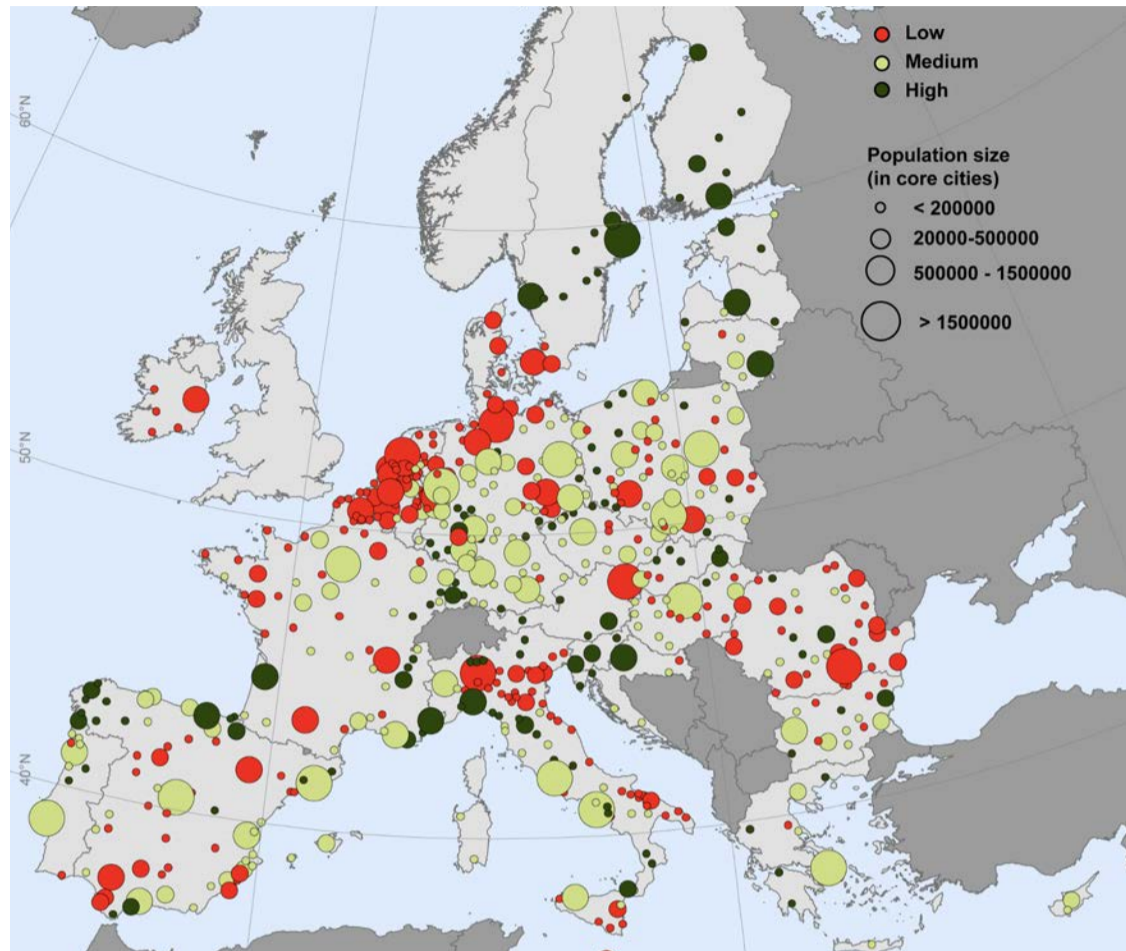
state characteristics) and 2) landscape characteristics (description of the mosaic of the ecosystem types embedded in urban ecosystems) (Vallecillo et al., 2022). From a broad perspective, both depend on the presence of urban green spaces.

Urban green areas are part of the urban ecosystems, corresponding to multiple types of spaces, which can be classified under different concepts (e.g. ecological features, ecosystem assets, nature-based solutions) and land cover/use classes depending on specific purposes. From a broad and comprehensive perspective, urban green areas are all surfaces covered by vegetation. They can be public or private and are characterised by different types of management.

Urban green areas provide several benefits, not only for sustaining ecosystem processes but also providing key ecosystem services, which are the benefits humans receive from ecosystem processes and functions. These areas contribute to the regulation of air temperature and filtration of air pollutants, to protecting against extreme flood events, while also providing opportunities for outdoor recreational activities. European cities are extremely diverse in structure, size and land configuration, and are characterised by a different share and structure of public and private green spaces. For instance, FUAs cover around 90 million hectares (21.9 %) of the EU-27's land. Inside this area, urban green spaces currently occupy 31 million hectares, a proportion of more than 30 % of the FUA surface. Figure 3 shows the functional urban areas grouped according to the share of green areas and urban tree canopy cover.

Figure 3: Functional urban areas grouped by share of UGI (tree canopy cover and urban green areas)

Source: Zulian et al., 2022.



URBAN ECOSYSTEMS

Urban ecosystems are socio-ecological systems where most people live. From this broad perspective, built-up areas are only one component of urban ecosystems, together with other ecosystem types, such as forests, agro-ecosystems, fresh water and wetlands.



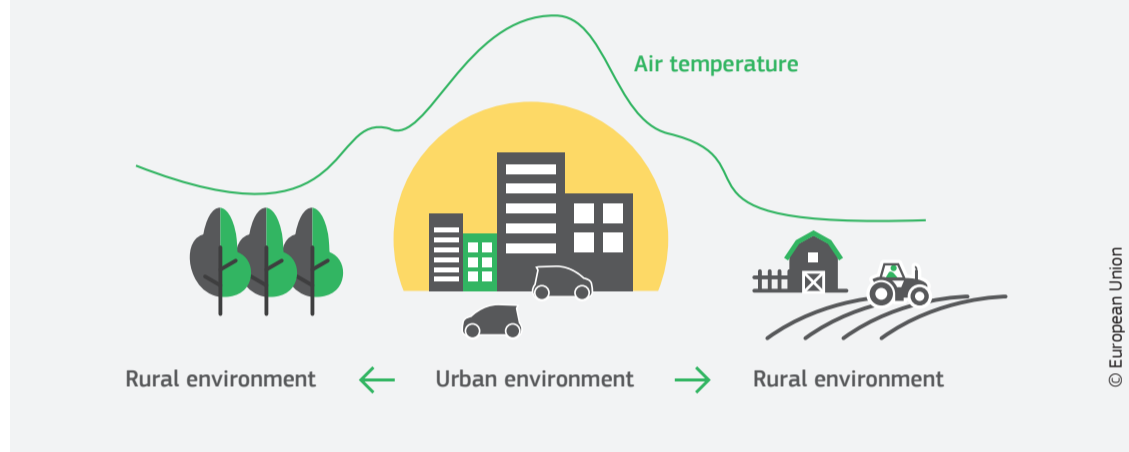
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How urban vegetation influences climate at the local level

An urban heat island (UHI), a phenomenon where higher air temperatures can be found in cities compared to the surrounding rural areas, exerts one of the most detrimental impacts on human health and quality of life in cities. Vegetation can mitigate the impacts of the urban heat island by cooling down air temperature. A study carried out in more than 600 European cities estimated the role of vegetation in reducing urban air temperature. This study is based on a model that simulates the temperature difference between a baseline and a no-vegetation scenario, extrapolating the role of UGI in mitigating UHI in different urban contexts. It has been found that urban vegetation, and trees in particular, can cool urban air temperature during the summer by 1.07 °C on average and up to 2.9 °C (Figure 4), with most of the cities (45.3 %) showing an average cooling higher

URBAN HEAT ISLAND

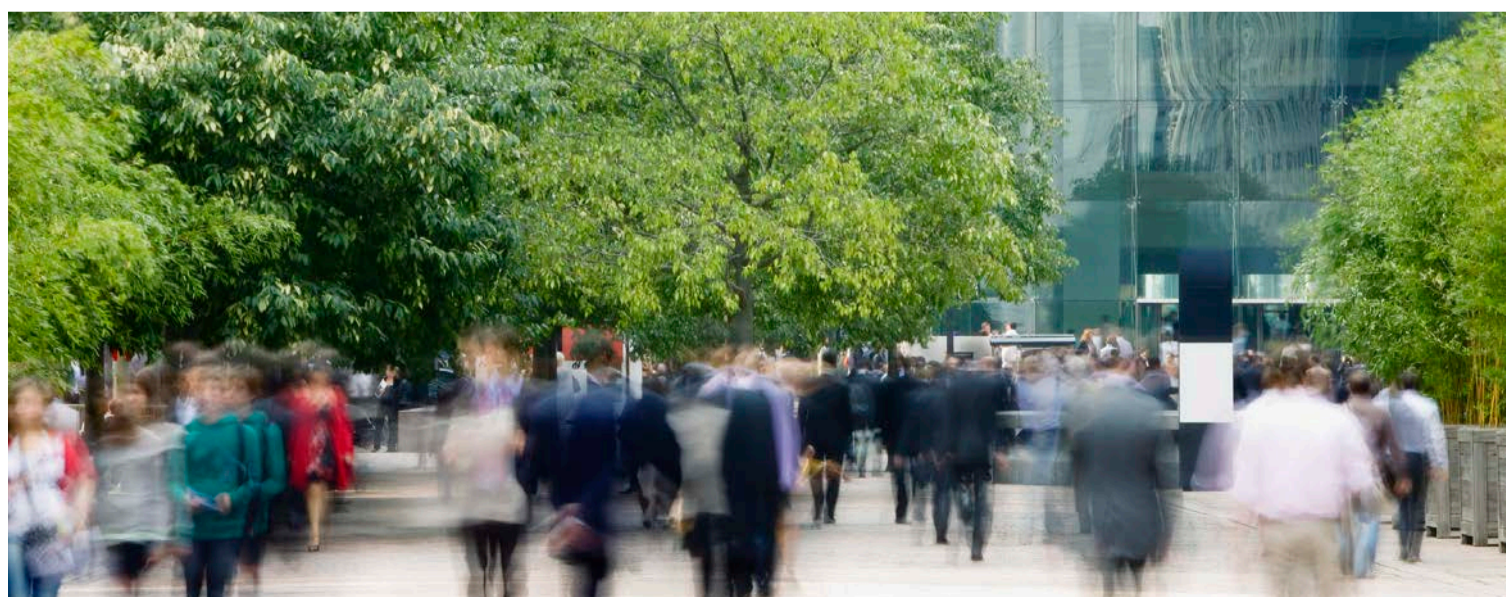
The urban heat island (UHI) effect can be described as a distinct urban climate due to the anthropic alteration of the natural environment: impervious surfaces trap more solar radiation, which coupled with household heating and transportation further increase the heat released in urban areas. UHI exerts a detrimental impact on human health and quality of life in cities, particularly during heat waves, which are expected to increase in frequency and severity in the future due to climate change.



than 0 °C and less than 1 °C, followed by 34 % of the cities with an average cooling of between 1 °C and 1.5 °C (Figure 5). It has also been found that in order to achieve a 1 °C drop in urban temperatures, a city must be covered by trees over at

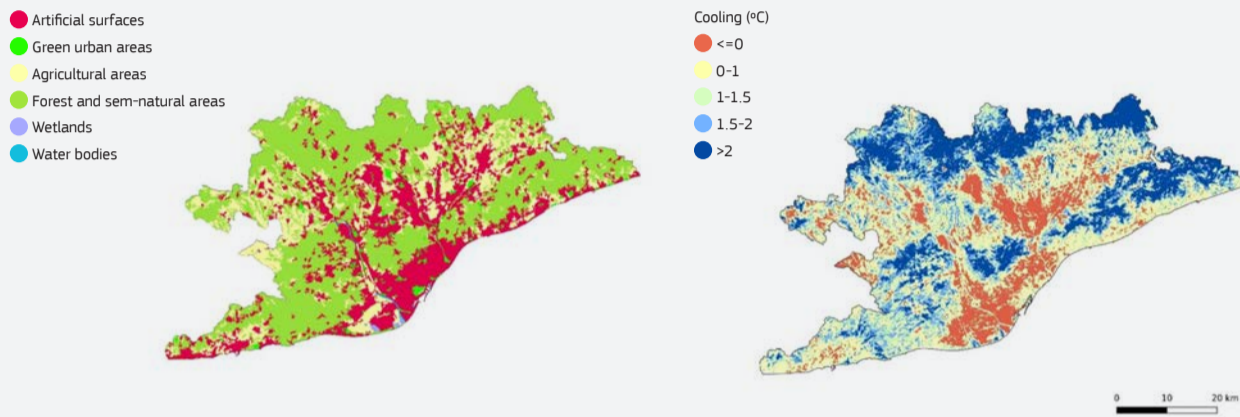
least 16 % of its surface. In fact, this ecosystem service is mostly dependent on the amount of vegetation inside a city, and by its capacity to evaporate water, by and large. Finally, it has been found that in almost one in two EU Member States, less

than half of their residing population actually benefits from this ecosystem service. Therefore, a more widespread implementation of accessible UGI is key to ensuring healthy urban living conditions for citizens (Marando et al., 2022).



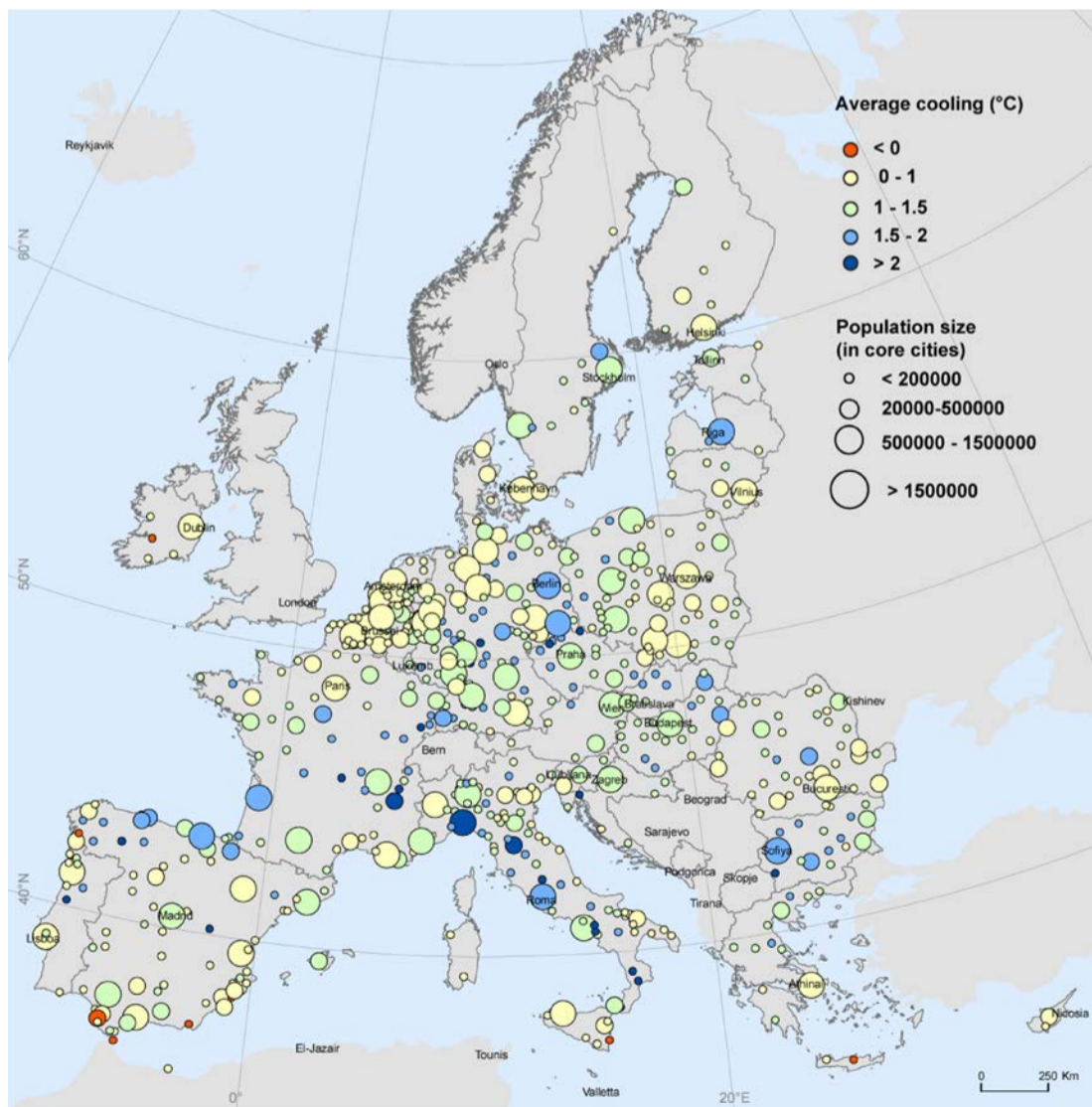
MICRO-CLIMATE REGULATION AND THE ROLE OF VEGETATION

Green infrastructure (GI) is considered to be one of the most important strategies to reduce the UHI effect. In fact urban vegetation, and trees in particular, are effective in mitigating high air temperatures through two main processes: shading (more leaves/bigger tree crowns being more effective) and evapotranspiration (water evaporated from leaves).



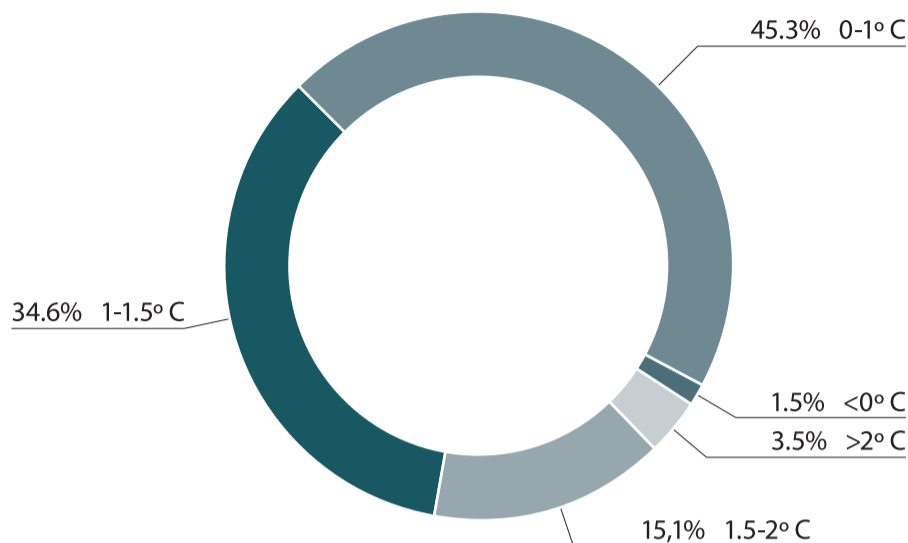
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Figure 4: Map of average cooling (°C) in EU-27, 2018



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Figure 5: Proportion of cities (%) with a different degree of cooling (°C)



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EFFECTS OF URBAN CHARACTERISTICS ON URBAN BIRDS

by **Karine Princé** and **Grazia Zulian**

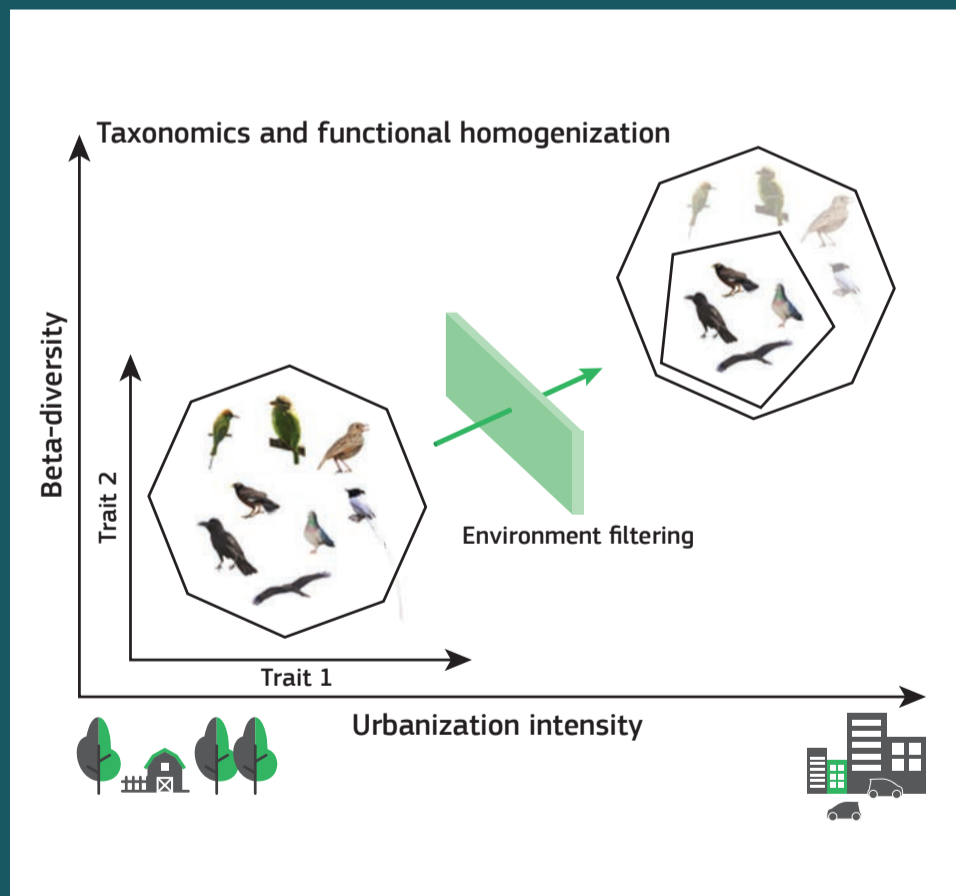
HIGHLIGHTS

- Out of the 170 species found within functional urban areas (FUA), 51 (30 %) are classified under threat in the IUCN Red List for France.
- Dense urban settlements face biotic homogenisation in bird communities.
- Urban green infrastructures have the potential to reduce biotic homogenisation by supporting richer and more diverse communities, as well as greater abundance of a majority of common bird species.
- Similarly, blue infrastructures in FUA increase bird taxonomic and functional diversity.
- Sustainable land-use practices (agriculture and forestry) can help support richer and more diverse bird communities.

BIOTIC HOMOGENISATION

BH is the process by which species invasions and extinctions increase the genetic, taxonomic or functional similarity of two or more locations over a specified time interval. From a broader perspective, BH is a process whereby some species (losers) are systematically replaced by others (winners). The BH process may be genetic, taxonomic or functional, and leads to a loss of beta diversity (the ratio between regional and local species diversity).

- **Genetic** homogenisation reduces the spatial component of genetic variability within a species or among populations of a species.
- **Taxonomic** homogenisation refers to the increase in species similarity in space and time.
- **Functional** homogenisation corresponds to the decrease in functional diversity among species in local assemblages. Functional diversity is the value, range and density of functional traits in local assemblages (Díaz et al., 2007). Modifying the functional diversity of a community might result in functional homogenisation, which involves the replacement of



ecological specialists by the same widespread generalists. Although functional homogenisation can increase the vulnerability to large-scale environmental disturbances,

it is considered as one of the most prominent forms of biotic impoverishment.

Source: Olden et al., 2016

Human activities transform ecosystems, resulting in a tendency to generate homogeneous and non-native habitats. In addition, anthropisation (the conversion of open natural spaces by human action) tends to fragment native habitat patches, resulting in qualitative and quantitative losses of habitats and ecological functions.

One of the major pervasive threats in the ongoing biodiversity crisis is biotic homogenisation (BH). This is the process by which the genetic, taxonomic or

functional similarities of regional biotas increase over time. BH translates into a loss of differences between the species present in different ecosystems, resulting, therefore, in a decrease in the distinction between regions with regard to flora and fauna over time.

In the present study, the impact of urban areas on birds' populations and communities in 34 French cities was analysed. Birds are good indicators for biodiversity because they are responsive to environmental changes, have important

ecological functions and are relatively easy to observe.

To observe and account for birds, data collected through a nationwide, standardised monitoring program, launched in France in 1989, was used. The program involves skilled volunteer ornithologists monitoring common breeding birds in randomly selected sites each spring.

To measure urban characteristics, French data was used that had been extracted from a standardised dataset

that covers all European countries. Two different sets of features were measured: one refers to 'anthropogenic descriptors', the aspects related to the built environment and the type of management of peri-urban agriculture and forests; the other refers to 'environmental descriptors', which describe the extent and quality of urban blue/green infrastructure.

Table 3: Data sources

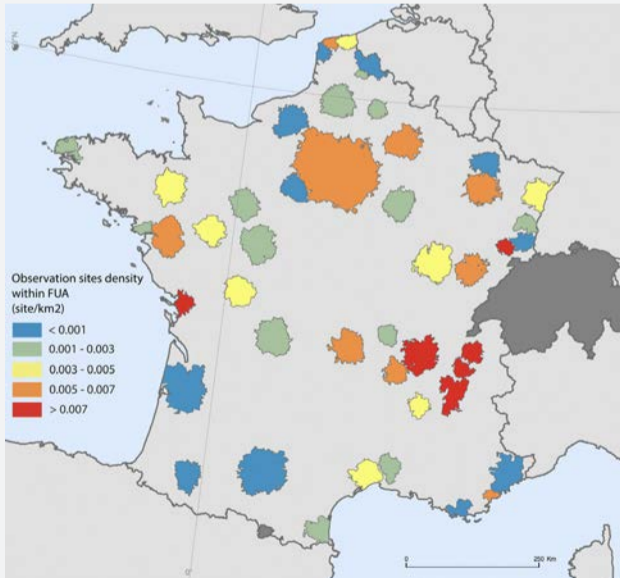




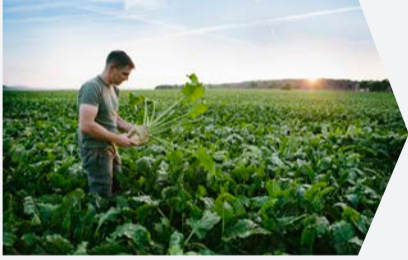







DATA USED FOR THE STUDY	
<p>European dataset on ecosystem conditions</p> <ul style="list-style-type: none"> EU-wide standardised set of indicators, developed to monitor urban ecosystem conditions <p>https://publications.jrc.ec.europa.eu/repository/handle/JRC120383</p>	<p>French Breeding Bird Survey (FBBS)</p> <ul style="list-style-type: none"> Nationwide, standardised monitoring program Launched in France in 1989 Used by skilled volunteer ornithologists Monitors common breeding birds in randomly selected sites each spring <p>https://www.vigienature.fr/fr/suivi-temporel-des-oiseaux-com-muns-stoc</p>
STUDY SITE	
<p>34 cities and peri-urban areas in France</p> <ul style="list-style-type: none"> 170 common bird species, of which: <ul style="list-style-type: none"> 1 (0.6 %) critically endangered 6 (3.5 %) endangered 19 (11.2 %) vulnerable 25 (14.7 %) near threatened 119 (70 %) least concern Bird data collected from 2015 to 2019 	 <p>Observation sites density within FUA (site/km²)</p> <ul style="list-style-type: none"> < 0.001 0.001 - 0.003 0.003 - 0.005 0.005 - 0.007 > 0.007 <p>© European Union</p>

Table 4: Examples of city descriptors

	<p>Population density</p>		<p>Blue infrastructure</p>
	<p>Settlement types</p>		<p>Green infrastructure</p>
	<p>Management of agriculture</p>		<p>Urban trees</p>

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Table 5: Examples of ecological metrics

BIRD ABUNDANCE OF	BIRD DIVERSITY
	
<p>Overall population</p>	<p>Community specialisation</p>
	
<p>Habitat specialists > urban</p>	<p>Trophic index</p>
	
<p>Habitat specialists > farmland</p>	
	
<p>Habitat specialists > forest</p>	

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Dense urban settlements face biotic homogenisation in bird communities.

Figure 1: The relationship between the community specialisation index and the density of built-up areas

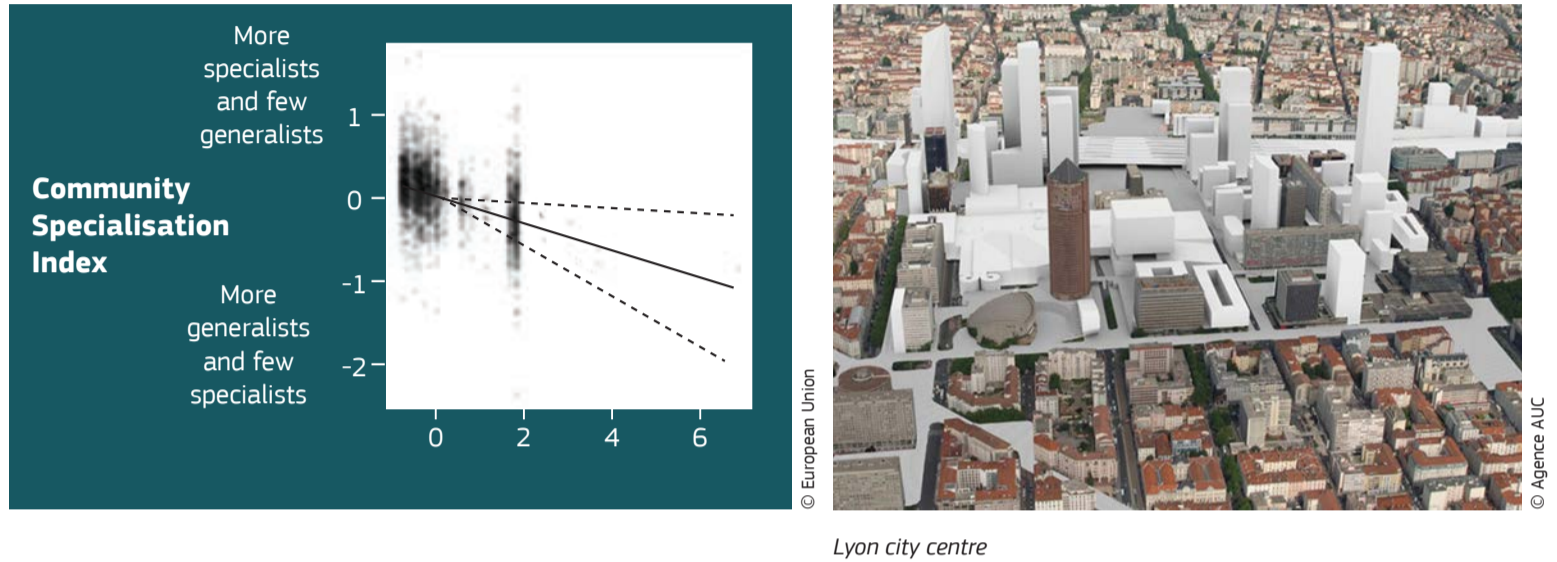


Figure 2: Examples of generalist species

In dense settlements, a higher functional homogenisation and an increased abundance of generalist species in conjunction with a decrease in farmland specialists was found. A similar effect was found in peri-urban rural areas affected by sparse urbanisation. Built-up areas in rural settlements are not homogeneous in size and use, and present a mixture of rural, residential, industrial and tertiary functions. When the rural landscape is affected by change, the phenomenon generates problems, fragmenting large patches of natural habitats that, in the area being studied, affected the species richness (taxonomic diversity), resulting in a lower number of species being found in peri-urban agricultural areas with intensive management.



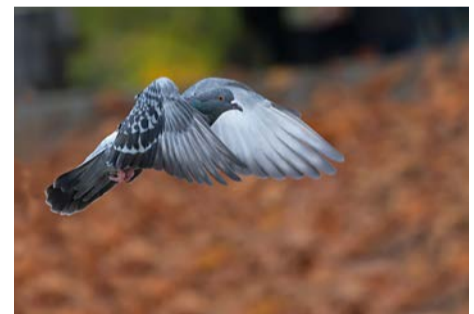
Eurasian blackbird
(*Turdus merula*)



Great tit
(*Parus major*)



Carrion crow
(*Corvus corone*)



Common woodpigeon
(*Columba palumbus*)

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Figure 3: Examples of farmland specialists

This study confirms that cities and peri-urban areas induce an increased similarity among areas with regard to flora and fauna.

Nevertheless, urban green/blue infrastructures have the potential to reduce biotic homogenisation by supporting richer and more diverse communities, as well as greater abundance of a majority of common bird species.



Common kestrel
(*Falco tinnunculus*)



Eurasian skylark
(*Alauda arvensis*)



Yellowhammer
(*Emberiza citrinella*)



Meadow pipit
(*Anthus pratensis*)

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Figure 4 shows the effect of urban vegetation on bird abundance (the number of individuals) and community diversity. With the increase of vegetation within urban green areas, an increase in the number of species was measured, together with the number of individuals per

species and diversity among the species. This affects different types of birds, specifically urban, forest and farmland specialists. Specialist species are adapted to a narrow habitat, whereas generalists can adapt to a wider variety of ecosystems and conditions.



The city of Bordeaux

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Figure 4: The relationship between species richness, community trophic level, and overall abundance and presence of vegetation inside green areas

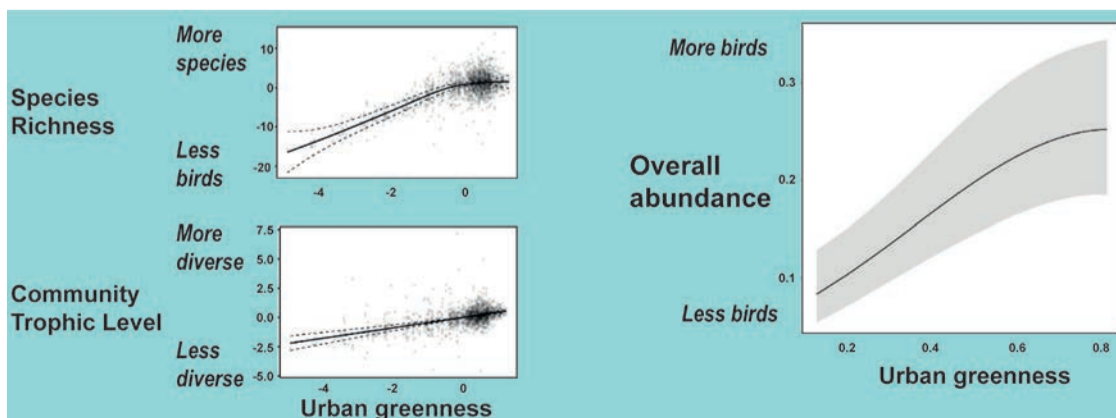


Figure 5: Examples of urban specialists



Common swift
(*Apus apus*)



Black redstart
(*Phoenicurus ochruros*)



European goldfinch
(*Carduelis carduelis*)

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RESOURCES

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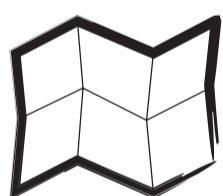
A residential district

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CASE STUDY

SOFIA / СОФИЯ

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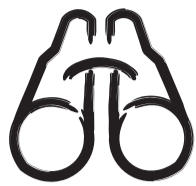
**AMBITION**

The BiodiverCities project in Sofia employed a consultation method i.e., surveying, to assess public opinion on the value of the city's green spaces and to determine how these spaces are used by its citizens. Unlike from co-creation approaches, consultation does not allow for the production of joint outcomes but it is limited to explore citizens' views.

JRC reflection

В проекта BiodiverCities в София беше използван консултативен метод (анкета), за да се оцени общественото възприятие на стойността на зелените пространства в града и да се определи как те се използват от неговите граждани. За разлика от подходите за съвместно създаване, консултациите не дават възможност за постигане на споделени резултати, а се ограничават до проучване мнението на гражданите.

Резултати на Съвместния изследователски център



CONTEXT / КОНТЕКСТ

Sofia is the capital of Bulgaria and an important economic and cultural centre, nestled in a valley surrounded on three sides by mountains, including the Balkan range to the north and the Vitosha massif to the south.

A national hub for creative industries and information technology, the city is increasingly attracting international start-ups, appreciating the low cost of living and its modern, relaxed lifestyle.

Bulgaria joined the EU in 2007, having introduced structural reforms that brought it out of a gloomy economic crisis in the late 1990s, and is now seen as a well performing, middle-income country.

Unlike many capitals, Sofia does not straddle a major river, but does boast over

40 thermal and mineral springs. The Iskar River runs from south to north on the outskirts of the city.

Sofia has the lowest rate of poverty in the country (about 3%) ([World Bank](#))¹, but still has pockets of hardship. Although Sofia has the highest population density in the country, space and an open sky are never far away.

As early as 1884 Sofia had plans to make the city greener, with the creation of Borisova Gradina Park (named after the first mayor) to the southeast. Covering a vast area (302 hectares) it boasts thousands of mature trees, many of them planted by the first gardener, Daniel Neff. In the early years the park served as a tree nursery supplying not just its own needs, but saplings for the city's streets and residents' gardens.

София е столицата на България и е важен икономически и културен център. Разположен в долина, градът е заобиколен от три страни от планини, сред които Стара планина на север и Витоша на юг.

Като национален притегателен център за творческите индустрии и информационните технологии, градът привлича все повече международни стартиращи предприятия, които оценяват модерния, спокоен начин на живот, съчетан с ниски разходи.

България се присъедини към ЕС през 2007 г., след като проведе структурни реформи, които я изведоха от мрачната икономическа криза в края на 90-те години на миналия век, и сега се счита за добре развиваща се страна със средно ниво на доходи.

За разлика от много други столици, през София не минава голяма река, но градът може да се похвали с над 40 термални и минерални извора. В покрайнините му, от юг на север преминава река Искър.

София е градът с най-ниското равнище на бедност в страната (около 3 %) ([Световна банка](#))¹, но въпреки това в столицата има райони в неравностойно положение. Макар да е градът с най-голяма гъстота на населението в страната, София не страда от липса на зелени пространства и паркове.

Още през 1884 г. вече има планове София да бъде озеленена, като в югоизточната част на града е създаден парк „Борисова градина“ (наречен на името на първия кмет). Той е с

1. Gotcheva, B. The Poverty Mapping Exercise in Bulgaria, in Bedi, T., Coudouel, A. and Simler, K. (Eds) (2007). More than a pretty picture: using poverty maps to design better policies and interventions. World Bank; Washington, DC. Chapter 5 (90-124).

1. Gotcheva, B. The Poverty Mapping Exercise in Bulgaria, in Bedi, T., Coudouel, A. and Simler, K. (Eds) (2007). More than a pretty picture: using poverty maps to design better policies and interventions (Гочева, Б. „Картографиране на бедността в България“, редактори Bedi, T., Coudouel, A. и Simler, K., 2007 г. „Нещо повече от красива картина: използване на карти на бедността за разработване на по-добри политики и мерки“.) Световна банка; Вашингтон, окръг Колумбия. Глава 5 (90—124).

SOFIA AT A GLANCE / СОФИЯ НАКРАТКО



Sofia is the capital of Bulgaria and an important economic and cultural centre at the heart of the Balkans.

Population 1 288 000 people (2021) (United Nations).

Engagement level: consultation of citizens at municipal level.

Methods: online survey

Scale: municipal

Key output: information on use of urban public parks.

Key outcome: the results informed the Sofia Integrated Development Plan 2021–2027.

София е столицата на България и важен икономически и културен център в сърцето на Балканите.

Население 1 288 000 души (2021 г.) (ООН).

Ниво на ангажираност: консултация с гражданите на общинско ниво.

Методи: онлайн проучване

Мащаб: общински

Основен продукт: информация за използването на градските обществени паркове.

Основен резултат: резултатите са в основата на Плана за интегрирано развитие на София за периода 2021—2027 г.

Smaller than Borisova, the city's other large parks have more functional names – South, North and West, for example. Some of the parks on the edge of the city segue into peri-urban forest.

Despite these efforts, urbanisation has partially caused the loss of Sofia's precious inner city green spaces, as four decades of satellite imagery analyses reveal in a [report by Sofia University](#) (Sarafova, 2021). Part of South Park, for example, has recently been sealed to provide space for residential settlements.

In an effort to plan for sustainable development, in line with climate change targets, the municipal planning enterprise, Sofiaplan, has contributed to the BiodiverCities



PROCESS / ПРОЦЕС

A total of 742 citizens responded to a survey posted online by Sofiaplan, the municipal enterprise responsible for the spatial and strategic planning of Sofia Municipality. The survey, promoted through Sofiaplan's Facebook page and its own website, aimed to see how citizens viewed the ecosystem services provided by Sofia's green spaces, asking them which spaces they used, why, how often, and with whom (family, friends, alone, etc.).

After an initial survey of 742 respondents, selected on a representative quota basis, a further 600 residents took part.

The survey gathered information on how far residents would travel to reach a green space and

initiative by carrying out an online citizen survey on Sofia's green infrastructure, including questions about frequency and purpose of park use. The results have fed into the [Sofiaplan Integrated Development Plan for 2021-27](#).

огромна площ (302 хектара), с хиляди пораснали дървета, много от които са засадени от първия градинар Даниел Неф. В първите години паркът служи и като разсадник за дървета не само за своите нужди, но и за фиданки за улиците на града и градинките между сградите.

Другите големи паркове в града, макар и по-малки от Борисовата градина, имат по-функционални имена — например Южен, Северен и Западен парк. Някои паркове от покрайнините на града преливат в крайградски гори.

Въпреки тези усилия урбанизацията е довела до частична загуба на ценните зелени пространства в София, както показват анализите, включени в [доклад на Софийския университет](#), на сателитни

снимки от последните четири десетилетия, (Сараfova, 2021 г.). Например, наскоро част от Южния парк беше отделена за жилищно строителство.

Следвайки стремежа си да изготвя планове за устойчиво развитие и взимайки предвид целите, свързани с изменението на климата, общинското предприятие за пространствено планиране „Софияплан“ допринесе към инициативата BiodiverCities чрез онлайн проучване сред гражданите на София относно зелената инфраструктура на града. Проучването включваше въпроси за честотата и целта на ползване на парковете, а резултатите са взети предвид в [Плана за интегрирано развитие на София за периода 2021–2027 г.](#)



742 Sofia residents took part in an online survey on their use of the city's green spaces, promoted on Sofiaplan's Facebook page and website. A second follow-up survey polled a further 600 residents.”

„742 жители на София участваха в онлайн проучване относно използването на зелените пространства в града, популяризирано на страницата на „Софияплан“ и във Facebook. При второ последващо проучване бяха анкетирани още 600 жители.“

how long they'd stay once they were there. Sofiaplan analysed the data and the results informed the next decision-making process up to 2027.

Общо 742 граждани (представителна извадка сред жителите на града) отговориха на анкета, публикувана в интернет от „Софияплан“, общинското предприятие, отговарящо за пространственото и стратегическо планиране на Столична

община. Проучването, популяризирано чрез страницата на „Софияплан“ във Facebook и собствения му уебсайт, имаше за цел да се установи как гражданите възприемат ползите от екосистемите на зелените пространства на София, задавайки въпроси за това кои пространства използват гражданите, защо, колко често и с кого (семејство, приятели, сами и т.н.). Още 600 жители бяха анкетирани след това.

При проучването беше събрана информация за това какво разстояние биха изминали жителите, за да стигнат до зелено пространство, и колко време биха прекарвали там. „Софияплан“ анализира данните и резултатите послужиха при изготвянето на решения до 2027 г.



OUTCOMES / ОСНОВНИ РЕЗУЛТАТИ

Not surprisingly, Sofia's citizens are aware of how fortunate they are in having so much green space within easy reach. The city ranks 14th out of 38 European cities according to a [2023 European Environment Agency analysis](#), with 46% of its area covered with green infrastructure, green spaces and trees. According to the Sofiaplan survey, two-thirds of the Municipality's population aged over 15 visit a green area every day or almost every day (65%). As in many other urban areas, the COVID-19 pandemic boosted people's interest in being outdoors in nature.

Just under a quarter (22%) go to a park or garden once a week and 14% once or twice a month.

Most (3 out of 4) Sofia residents can walk to a park, garden or other green space easily, with nearly half (44%) living just 5 minutes from a green space. Just over 80%



The city ranks 14th out of 38 European cities according to a 2023 European Environment Agency analysis, with 46% of its area covered with green infrastructure, green spaces and trees."

„Градът се нарежда на 14-о място сред 38 европейски града според анализ на Европейската агенция за околна среда от 2023 г., като 46 % от площта му е заета от зелена инфраструктура, зелени пространства и дървета.“

can walk to a park in 15 minutes. Once in the green space, most tend to spend between 1 and 2 hours there.

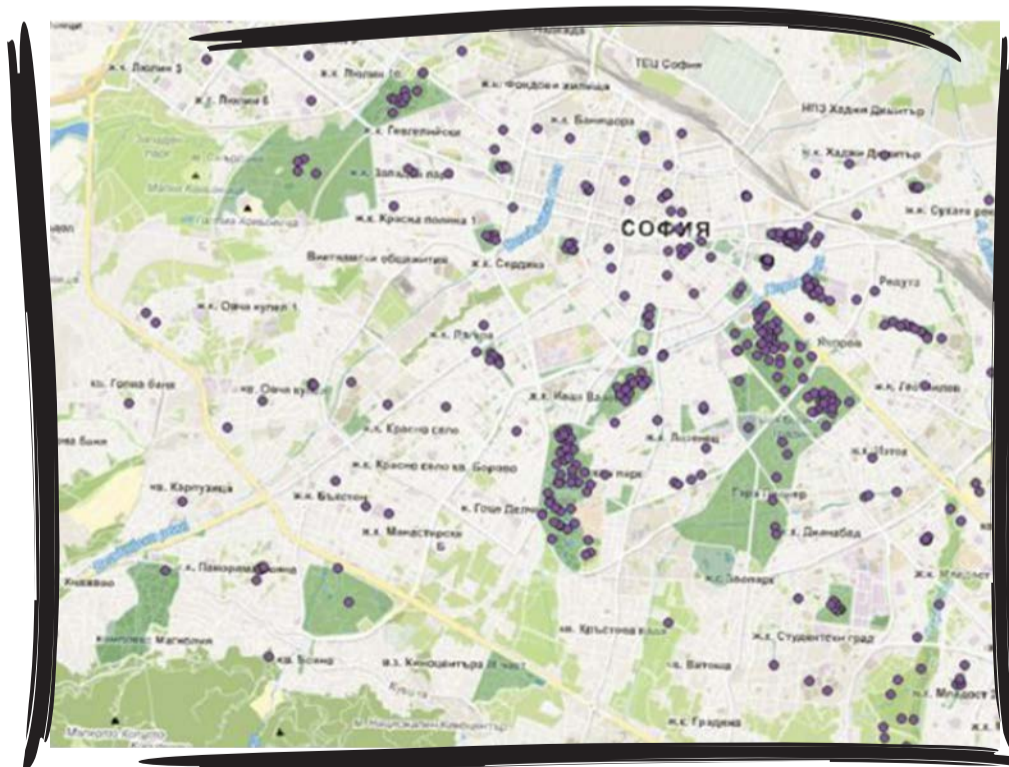
Residents of the Kremikovtzi district visit green spaces most often. Paradoxically, this is Sofia's industrial district, to the northeast, with a steel works that was a major source of pollution. The plant has a much-reduced activity today, and the district is surrounded to the north by open

Не е изненадващо, че жителите на София осъзнават какъв късмет имат, че разполагат с толкова много лесно достъпни зелени пространства. Градът се нарежда на 14-о място сред 38 европейски града според анализ на [Европейската агенция за околна среда](#) от 2023 г., като 46 % от площта му е заета от зелена инфраструктура, зелени пространства и дървета. Според проучването

на „Софияплан“ две трети от населението на общината на възраст над 15 години посещават зелени пространства всеки или почти всеки ден (65 %). Както и в много други градски райони, пандемията от COVID-19 засили интереса на хората да прекарват време на открито сред природата.

Малко под една четвърт (22 %) посещават парк или градина веднъж седмично, а 14 % — веднъж или два пъти месечно.

Повечето (3 от 4) жители на София могат лесно да отидат пеша до парк, градина или друго зелено пространство, като почти половината (44 %) живеят само на 5 минути от зелено пространство. Малко над 80 % могат да отидат пеша до парк за 15 минути. Когато посещават зелено пространство, повечето от тях прекарват там между 1 и 2 часа.



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Green spaces most visited by Sofia residents (from online Sofiaplan survey). Зелени пространства, най-посещавани от жителите на София (от онлайн проучването на „Софияплан“)



© Municipality of Sofia

Tree-lined avenue In Borisova Garden
Алея с дървета в Борисовата градина



Sofia residents go to parks: to relieve stress get fresh air admire nature get healthier overall.”

„Жителите на София посещават парковете: за да се освобождават от стрес, за да дишат чист въздух за да се любуват на природата.“

countryside. Residents of the Bankya district, to the west of the city, and Novi Iskar to the north, are least likely to visit a park, but both are suburban communities with unenclosed nature all around, so the low turnout could be misleading – perhaps they don't visit a park because they live surrounded by other opportunities for nature-based recreation?

Of Sofia city's parks, the favourite is Borisova Garden, with over one-third (36%) of respondents to the survey going there most often. Next are South Park (13%), and West Park (6%). While these parks have landscaped facilities for games and play, as well as places to eat, some of them, like

Borisova and West Park, have vast areas of tree cover, making them more like woodland in places.

The survey revealed that the parks are most often used by people under the age of 55 – either parents and their children, or young people out together to have fun, or enjoy leisure facilities.

Most often those aged between 35 and 54 go with their children. Only 6% go to a park or green space to walk their dog. Seniors (over 55) are the least likely to go to a park, and when they do, over half go alone, just to enjoy nature.

Най-често зелени пространства посещават жителите на квартал Кремиковци . Парадоксално е, че това е индустриален квартал на София, разположен в североизточната част. В квартала са намира стар металургичен завод, който е бил основен източник на замърсяване. Днес дейността на завода е много по-слаба, а на север от квартала природни забележителности. Жителите на квартал Банкя, който е разположен на запад от града, и на Нови Искър, който е на север, са най-малко склонни да посещават парк, но и двата квартала са крайградски райони, заобиколени от природа, така че ниската степен на посещаемост може да е подвеждаща — може би те не посещават парк, защото живеят на места, предлагащи други възможности за отдих сред природата?

От софийските паркове най-предпочитана е Борисовата градина, като там най-често ходят над една трета (36 %) от

участниците в проучването. Следват Южният парк (13 %) и Западният парк (6 %). Въпреки че тези паркове разполагат с благоустроени съоръжения за игри и забавления, както и с места за хранене, някои от тях, като Борисовата градина и Западният парк, имат обширни площи с дървесна растителност и на места те наподобяват по-скоро гори.

Проучването показва, че парковете най-често се използват от хора на възраст под 55 години — родители и техните деца или млади хора, които излизат заедно, за да се забавляват или да се възползват от съоръженията за отдих.

Най-често хората на възраст между 35 и 54 години отиват с децата си. Само 6 % посещават парк или зелено пространство, за да разходят кучето си. Възрастните хора (над 55 години) са най-малко склонни да посещават паркове, а когато го правят, повече от половината отиват сами, просто за да се насладят на природата.



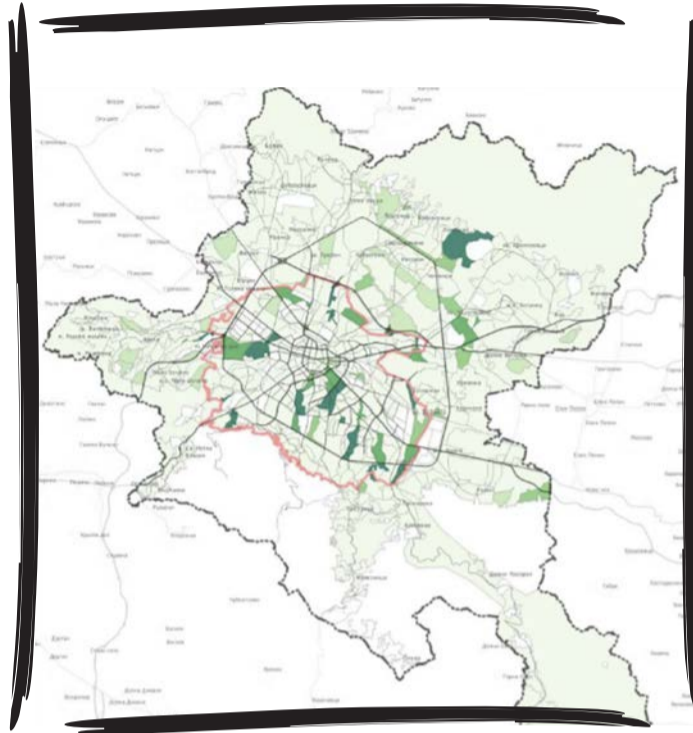
LESSONS LEARNED / ИЗВОДИ

The residents of Sofia appreciate the greenery, tranquillity and trees in their nearby parks, but don't like to see the municipality carrying out the routine work of maintenance and cleaning.

If people could change something, they would add more resting places (benches, gazebos), more trees and areas of water. They would also like to see more sports venues and playgrounds.

Above all, though, what people least liked were other people! One in eight respondents said there were already too many people in the parks and gardens they go to, especially on weekends. These complaints most often came from parents of young children.

The survey reinforced the municipality's commitment to its green spaces and feeds into parallel studies that are guiding its Integrated Development Plan up to the end of the decade.



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Share of land planned under the Master Plan for green sites for public use per % of publicly owned land.

Дял на земята, предвидена съгласно Общия устройствен план за зелени площи за обществено ползване, като % земя публична собственост.

Жителите на София ценят зеленината, спокойствието и дърветата в близките до тях паркове, но биха искали да виждат и как общинските служители извършват рутинната работа по поддръжката и почистването им.

Ако хората можеха да променят нещо, биха добавили повече места за почивка (пейки, беседки), повече дървета и водни площи. Те биха искали също така да има повече места за спорт и площадки за игра.

Но преди всичко това, което най-не им допада, са оживените места! Един на всеки осем анкетирани твърди, че в парковете и градините, които посещава, вече има твърде много посетители, особено през почивните дни. Тези оплаквания най-често идват от родители на малки деца.

Проучването затвърди ангажимента на общината към нейните зелени площи и е в основата на паралелни проучвания, които дават насока за Плана за интегрирано развитие до края на десетилетието.

TEAM AND ACKNOWLEDGEMENTS

Expert: Aglika Gueorguieva

Team: Full team on the [Sofiaplan website](#)

Lead partners: Sofiaplan and partner organizations

RESOURCES

[How green the urban development units in Sofia are](#)

[Sofiaplan Program for Sofia 2021-27](#)

[Green Sophia Facebook page](#)

ЕКИП И БЛАГОДАРНОСТИ

Експерт: Аглика Георгиева

Екип: Пълният състав на екипа е посочен на [уебсайта на „Софияплан“](#)

Водещи партньори: „Софияплан“ и партньорски организации

РЕСУРСИ

[How green the urban development units in Sofia are \(Колко зелени са градските пространства в София\). – този линк не работи](#)

[Програма за София 2021–2027 г. на „Софияплан“](#)

[Страница на проект „Зелена София“ във Facebook](#)

CONCLUSIONS

by **Marta Mansanet Canovas**, Policy Officer, Commission for the Environment, Climate Change and Energy (ENVE), European Committee of the Regions.

Local and regional authorities can play a major role in ensuring that the EU is the first climate neutral continent by 2050, where economic growth is decoupled from resource use, and where no person and no place are left behind, as called for in the European Green Deal. In order to transform the EU towards this direction, **cities and regions must be taken on board, and their local communities and citizens closely involved with the development of each and every European Green Deal policy.**

BiodiverCities demonstrated, and this Atlas highlights once more, **how this can be done**. Different participatory formats were used to engage with citizens and other stakeholders to, firstly, understand their needs and priorities, and secondly, to design and at times implement the initiatives. This engagement took many forms, from consultative approaches to more empowering ones, based on genuine partnerships with citizens. What all the cases did share was an ambition to build stronger connections between citizens and their urban environments, exploring how to really create more sustainable and liveable cities.

BiodiverCities also showed that collaboration across all levels of governance and the participation of all political actors, including citizens, in the policy-making process is crucial to make policies both more successful and more democratic. When local municipalities were involved, this proved to make a political and environmental difference.

As the EU's assembly of regional and local representatives, the European Committee of the Regions (CoR) has historically had a central role in promoting exchanges and support across different actors, stakeholders and levels of governance in the EU.

The CoR also advocates for participatory democracy and encourages local and regional authorities to engage citizens in the decision-making process. By involving citizens, local and regional authorities can benefit from their knowledge, expertise and ideas, and ensure that **policies are tailored to local needs and priorities**¹. The commitment of citizens is particularly important in the context of green policies, which can have a significant impact on their daily lives. Additionally, citizen participation also

increases the legitimacy and democratic accountability of policy decisions.

However, to meet quality standards and to be mainstreamed as a new way of working for public institutions, citizen engagement demands political support as well as resources: funding, capacity-building tools, and a dynamic and flexible institutional culture that adapts to the needs and requests of the citizens are needed.

It is an investment worth doing. By ensuring the success of participatory approaches at local level and well-functioning multilevel governance, **the achievement of global goals is more likely**. The decision adopted in Montreal during the 15th Conference of the Parties of the Convention on Biological Diversity reflects this perfectly.

Its major outcome was the [Kunming-Montreal Global Biodiversity Framework](#), an internationally agreed strategy for managing nature through to 2030 and beyond. To support the implementation of the framework, a specific [decision](#) and a Plan of Action were adopted, recognising **the crucial importance of subnational governments, cities and local**

authorities in protecting the environment and bending the curve of biodiversity loss. Given its role as the EU's assembly of local and regional authorities, the CoR is also explicitly mentioned as one of the key partners to facilitate the implementation of the Plan of Action.

Throughout the final text of the framework, there are several references to the need to engage and involve subnational governments (e.g. target 14) and citizens (target 22) in the definition, development, implementation and monitoring of measures to protect, conserve and restore nature.

By actively involving citizens in strategies such as plans for greening cities, local and regional authorities can help, for example to foster a sense of ownership and responsibility among the population, which can in turn contribute to the success of global efforts to address environmental challenges.

In a sense, the cities involved in BiodiverCities are ahead of time: by experimenting, they have already learnt valuable lessons on how to work differently, contributing to the making of truly participatory and multi-level governance in Europe.

GLOSSARY

BIODIVERSITY

“Biological diversity - or biodiversity - is the term given to the variety of life on earth and the natural patterns it forms”, from [Sustaining life on earth, Convention on Biological Diversity](#)

You might want to check:

- EU Biodiversity Strategy for 2030, https://environment.ec.europa.eu/strategy/biodiversity-strategy-2030_en
- The Kunming-Montreal Global Biodiversity Framework, https://environment.ec.europa.eu/topics/nature-and-biodiversity/eu-cop15-global-biodiversity-conference_en
- The Nature Restoration Law proposal, https://environment.ec.europa.eu/topics/nature-and-biodiversity/nature-restoration-law_en

CITIZEN ENGAGEMENT

is not just about exploring opinions and interests, or eliciting knowledge and values, but also about openly discussing matters of concern or controversial issues with ordinary citizens through purposefully organised activities.

You might want to read:

- Guimarães Pereira, Â. and Völker, T. (2020). Engaging with Citizens. In Šucha, V. and Sienkiewicz, M. (eds.) *Science for Policy Handbook* (pp. 78-95). Elsevier.

CITIZEN SCIENCE

may be defined as the involvement of volunteers in the scientific process - most commonly in data collection, but also in other phases, such as quality assurance, data analysis and interpretation,

problem definition and the dissemination of results. As the concept rapidly evolves, other definitions exist and are under constant debate. To reflect the ongoing debate, here is a list of recommended readings:

- Haklay M et al. (2021), *Contours of Citizen Science: a Vignette Study*. *R. Soc. Open Sci.*8:202108. <https://doi.org/10.1098/rsos.202108>
- Shanley, L.A., Parker, A., Schade, S. and Bonn, A. (2019). Policy Perspectives on Citizen Science and Crowdsourcing. *Citizen Science: Theory and Practice*, 4(1), p.30. DOI: <http://doi.org/10.5334/cstp.293>

CO-CREATION

is about actively involving citizens in a respectful and equal way on a specific issue of concern, which recognises that citizens are resourceful competent partners and knowledge-holders. Co-creation has its roots and tradition in the design world, and often we speak about co-design, but it also originates from the world of participatory urban and land use planning. Co-creation aims at improving the inclusiveness and effectiveness of public policies and services. It makes it possible to bring what citizens need, are concerned with and care for into decision-making. As a process, co-creation involves the joint creation of outcomes and/or the making of shared decisions.

You might want to read:

- Ansell, C., and Torfing, J. (2021). *Public Governance as Co-creation: A Strategy for Revitalizing the Public Sector and Rejuvenating Democracy*. (1 ed.) Cambridge University

Press. Cambridge Studies in Comparative Public Policy <https://doi.org/10.1017/9781108765381>

- Sanders, E.B., Stappers, P.J. *Convivial Toolbox*. (2012). Generative Research for the Front End of Design. Amsterdam: BIS Publishers.
- Quaglia, A. and Tokarski, M., *BiodiverCities: Digest #1: Sept. 2020- Dec. 2020. Looking Back, Thinking Ahead*, Guimarães Pereira, A. editor(s), European Commission, 2020, [JRC129048](https://doi.org/10.1017/9781108765381).

CITIZEN ASSEMBLY

is a model for implementing deliberative democracy processes that brings together a randomly selected group of citizens (typically between 50 and 250 individuals) to be representative of the wider population. This group discusses and makes recommendations on a particular issue or set of issues, typically over a period of several days, weeks or months.

You might want to check:

- OECD Database on Representative Deliberative Processes, <https://airtable.com/shrRYPpTSs9NskHbv/tblfOHuQuKuOpPnHh>
- Boswell, J., (2021) “Seeing Like a Citizen: How Being a Participant in a Citizens’ Assembly Changed Everything I Thought I Knew about Deliberative Minipublics”, *Journal of Deliberative Democracy* 17(2). DOI: <https://doi.org/10.16997/jdd.975>

COMMUNITY OR PARTICIPATORY MAPPING

involves residents in identifying the assets of their area. It incorporates multiple voices and synthesises contributions from various

resident groups to create a community map that is accessible and easy to relate to, generating opportunities for further dialogue.

You might want to read:

- Saija, L., & Pappalardo, G. (2022). An Argument for Action Research-Inspired Participatory Mapping. *Journal of Planning Education and Research*, 42(3), 375–385. <https://doi.org/10.1177/0739456X18817090>
- Junyer Puig, H., Quaglia, A. and Tokarski, M., *BiodiverCities Digest #3: APR 2021 - DEC 2021. Maps and Mapping*, European Commission, 2021, JRC129020. <https://cop-demos.jrc.ec.europa.eu/resources/biodivercities>

DELIBERATIVE DEMOCRACY

means a form of democracy that emphasises the importance of public deliberation and discussion among citizens as a means of making collective decisions in which citizens specifically engage in a process of learning, reflection and reasoned discussion before forming a collective judgement.

You might want to read:

- OECD (2020), *Innovative Citizen Participation and New Democratic Institutions: Catching the Deliberative Wave*, OECD Publishing, Paris, <https://doi.org/10.1787/339306da-en>
- Courant, D. (2018). *Deliberative Democracy, Legitimacy, and Institutionalisation. The Irish Citizens’ Assemblies*, Les Cahiers de l’IEPHI, n°72.

EMBEDMENT

refers to models for the institutionalisation

of participatory and deliberative practices.

You might want to read:

- Bussu, S., Bua, A., Dean, R. & Smith, G. (2022) Introduction: Embedding Participatory Governance, *Critical Policy Studies*, 16:2, 133-145, <https://doi.org/10.1080/19460171.2022.2053179>

FACILITATION

involves techniques that enable dialogue or other types of interaction within a group, ensuring that all participants are respected, included and empowered to take an active part in the conversation. Facilitation skills are key in a citizen engagement process.

You might also want to read:

- Quaglia, A., Tokarski, M. and Guimarães Pereira, A., *BiodiverCities Digest #2: JAN 2021 - MAR 2021. Making Sense of the 'Digital'*, European Commission, 2021, [JRC130564](https://artofhosting.org/resources-2/articles/JRC130564)
- <https://artofhosting.org/resources-2/articles/>

FOCUS GROUP

is a form of group interview that allows a topic to be explored collectively. Focus groups are useful for exploring how people work out their thoughts and feelings about certain matters in social contexts, i.e., with others and/or in certain places. This methodology creates room for contradictory views, values, expectations, resistance and problematics to emerge and provides room for co-creating more inclusive narratives and solutions.

For more on this topic:

- Crang, M. and Cook, I., *Doing Ethnographies*, Sage Publications, London, 2007.

FUTURING TOUR

is a type of guided tour that aims to provide participants

with a glimpse into the future, by exploring the possibilities and implications of emerging trends and technologies. Futuring tours are typically led by experts in various fields, such as technology, sustainability, or social sciences, who share their knowledge and insights with participants to prompt the conversation. They also are a form of material and embodied engagement, leaving space for imagination and the creation of alternative visions for the future.

You might want to read:

- Davies, S., Selin, C., Gano, G., Guimarães Pereira, Â. (2012), *Citizen Engagement and Urban Change: Three Case Studies of Material Deliberation*, *Cities*, 29 (6), pp. 351-357. <https://doi.org/10.1016/j.cities.2011.11.012>
- Guimarães Pereira, A., Ghezzi, A., L'Astorina, A. and Tomasoni, I., *Dialoghi sul cibo: Food Futurings Tours at the #expo2015 / Dialogues on Food: Food Futurings Tours at the #expo2015*, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-71764-2, [JRC103583](https://doi.org/10.1016/j.cities.2011.11.012).

GREEN INFRASTRUCTURE

is defined in the EU green infrastructure strategy as 'a strategically planned network of natural and semi-natural areas with other environmental features designed and managed to deliver a wide range of ecosystem services. It incorporates green spaces (or blue if aquatic ecosystems are concerned) and other physical features in terrestrial (including coastal) and marine areas. On land, green infrastructure is present in rural and urban settings' (EC 2013). Urban Green Infrastructure (UGI) refers to the strategically managed network of

urban green spaces and natural and semi-natural ecosystems situated within the boundary of an urban ecosystem. In a highly urbanised landscape, it represents a key element for the deployment of an integrated and resilient GI.

You might want to read:

- EC (2013) *Green Infrastructure (GI) — Enhancing Europe's Natural Capital*, COM(2013) 249 final, p 13. <https://doi.org/10.1017/CB09781107415324.004>
- Zulian et al. (2021) *Urban Green Infrastructure: Opportunities and Challenges at the European Scale*; in A. Arcidiacono, S. Ronchi (eds.), *Ecosystem Services and Green Infrastructure, Cities and Nature*, https://doi.org/10.1007/978-3-030-54345-7_2

INSTITUTIONALISATION

is, both, formally embedding participatory and deliberative practices in the ways public institutions operate, and how they design and implement public policies and services. Institutionalisation of participatory processes implies, and is sustained by, approaches that recognise the value of systemically engaging a different set of actors in policymaking, hence creating new informal and formal commitments, e.g., social norms and practices.

You could also read:

- Escobar, Oliver (2022) *Between Radical Aspirations and Pragmatic Challenges: Institutionalizing Participatory Governance in Scotland*, *Critical Policy Studies*, 16:2, 146-161, <https://doi.org/10.1080/19460171.2021.1993290>
- OECD (2021), "Eight Ways to Institutionalise Deliberative Democracy", *OECD Public Governance Policy Papers*, No.

12, OECD Publishing, Paris, <https://doi.org/10.1787/4fcf1da5-en>.

- Junyer Puig, H., *BiodiverCities Digest #4: DEC. 2021-FEB. 2022. Institutional challenges*, Quaglia, A. editor(s), European Commission, 2022, [JRC130566](https://doi.org/10.1787/4fcf1da5-en).

INTERVIEWING

is a social research method by means of which an interviewer asks one or more interviewee(s) questions. The interview helps the researcher to understand in-depth meanings, experiences and contexts. The format of the interview can vary. It can be highly structured, with a pre-defined set of questions in a certain order (just like a questionnaire); semi-structured, with some questions being pre-defined and others being crafted during the interview, or unstructured, with no pre-determined questions to be asked.

You may want to read:

- Quaglia, A. and Guimarães Pereira, Â., *Engaging with Food, People and Places*, Publications Office of the European Union, Luxembourg, 2021, ISBN 978-92-76-19997-7, <https://doi.org/10.2760/33273>, JRC121910, pp. 140-141.
- Ward, Kevin (ed), *Researching the City. A Guide for Students*, Sage, London, 2013.

MATERIAL DELIBERATION AND MATERIAL CO-CREATION

is shorthand for processes of deliberation and citizen engagement that incorporate an awareness, openness or sensitivity to non-traditional modes of deliberative interaction. This includes, but is not confined to: the sonorous (music, singing, laughter, shrieks, noise); the discursive (gossip, storytelling, anecdote,

polemic, drama); the material (objects, bodies, sites, places); the affective (hate, love, fear, attachment, nostalgia, intuition, pleasure).

You may want to read:

- Davies, S., Selin, C., Gano, G., Guimarães Pereira, Â. (2012), Citizen Engagement and Urban Change: Three Case Studies of Material Deliberation, *Cities*, 29 (6), pp. 351-357. <https://doi.org/10.1016/j.cities.2011.11.012>
- Davies, S., Selin, C., Gano, G., Guimarães Pereira, Â. (2013), Finding Futures: A Spatio-Visual Experiment in Participatory Engagement. *Leonardo* (2013) 46 (1): 76-77. DOI: https://doi.org/10.1162/LEON_a_00489

NATURE-BASED SOLUTIONS

refer to a set of actions that involve the protection, management, and restoration of natural and modified ecosystems to address societal challenges, while simultaneously benefiting both people and nature.

You might want to read:

- Sekulova F., and Anguelovski, I. (2017), The Governance and Politics of Nature-based Solutions, *Naturvation – Cities, Nature and Innovation* project, https://naturvation.eu/sites/default/files/news/files/naturvation_the_governance_and_politics_of_nature-based_solutions.pdf

OPPORTUNISTIC SAMPLING

is a non-probabilistic sampling technique, largely used in pilot projects, that consists of an open call to any citizen interested in or available to join the participatory process.

You might want to read:

- Mulvale, Gillian & Robert, Glenn (2021) Special

Issue- Engaging Vulnerable Populations in the Co-Production of Public Services, *International Journal of Public Administration*, 44:9, 711-714, DOI: [10.1080/01900692.2021.1921941](https://doi.org/10.1080/01900692.2021.1921941)

- Finney, Nissa & Rishbeth, Clare (2006) Engaging with Marginalised Groups in Public Open Space Research: The Potential of Collaboration and Combined Methods, *Planning Theory & Practice*, 7:1, 27-46, DOI: [10.1080/14649350500497406](https://doi.org/10.1080/14649350500497406)

PARTICIPATORY PROCESSES

are processes whereby citizens are engaged in making significant contributions to research or policy design, implementation or evaluation.

You might want to read:

- Arnstein, S. R., ‘A Ladder of Citizen Participation’, *Journal of American Institute of Planners*, Vol. 35, No. 4, 1969, pp. 216-224, <https://doi.org/10.1080/01944366908977225>.

PURPOSIVE SAMPLING

implies identifying citizens based on certain characteristics (e.g. the place they live in or the illness that affects them, employment, formal citizenship, etc.).

You might want to read:

- Valerio, M.A., Rodriguez, N., Winkler, P. et al. Comparing Two Sampling Methods to Engage Hard-To-Reach Communities in Research Priority Setting. *BMC Med Res Methodol* 16, 146 (2016). <https://doi.org/10.1186/s12874-016-0242-z>
- Campbell S, Greenwood M, Prior S, et al. Purposive Sampling: Complex or Simple? Research Case Examples. *Journal of Research in Nursing*.

2020;25(8):652-661. DOI: [10.1177/1744987120927206](https://doi.org/10.1177/1744987120927206)

SURVEY METHODS

involve respondents answering a set of questions about a topic and this activity being repeated with several other respondents in order to generalise about a given group or population. There are different ways of constructing surveys and reasons to conduct them. In the case of co-creation processes, surveying is useful to explore the context and the issue. To be considered a participatory method, citizens need to be involved in designing the questions to ensure they resonate with the community, context and issue at stake. Survey methods can be used to evaluate participatory and deliberative processes.

You might want to read:

- Torre, M. E., & Fine, M. (2011). A Wrinkle in Time: Tracing a Legacy of Public Science through Community Self-surveys and Participatory Action Research. *Journal of Social Issues*, 67(1), 106-121. <https://doi.org/10.1111/j.1540-4560.2010.01686.x>
- Gastil, John, ‘Survey Methods’, in Selen, A. Ercan and others (eds), *Research Methods in Deliberative Democracy* (Oxford, 2022; online edn, Oxford Academic, 17 Nov. 2022), <https://doi.org/10.1093/oso/9780192848925.003.0014>, accessed 15 Mar. 2023.

SORTITION

means a method of randomly selecting individuals, typically from a pool of all eligible citizens, having equal chance to be selected to participate in a deliberative process. The resulting sample is a subset of the wider population that is inclusive of different subgroups

and representative in terms of demographic characteristics such as age, gender, socioeconomic status, education, and other relevant factors.

- Gaşiorowska, A., (2023) “Sortition and its Principles: Evaluation of the Selection Processes of Citizens’ Assemblies”, *Journal of Deliberative Democracy* 19(1). DOI: <https://doi.org/10.16997/jdd.1310>

TACTICAL URBANISM

Tactical urbanism involves creating a temporary improvement to the urban environment, often with the aim of encouraging long-term change. The term includes a typology of different practices from Do-it-Yourself urbanism to experimental actions endorsed by municipal agencies or other public authorities.

You might want to read:

- Silva, P. (2016). Tactical Urbanism: Towards an Evolutionary Cities’ approach? *Environment and Planning B: Planning and Design*, 43(6), 1040-1051. <https://doi.org/10.1177/0265813516657340>
- Vallance, Suzanne & Edwards, Sarah (2021) Charting New Ground: Between Tactical Urbanism and Strategic Spatial Planning, *Planning Theory & Practice*, 22:5, 707-724, DOI: [10.1080/14649357.2021.1966081](https://doi.org/10.1080/14649357.2021.1966081)

BIBLIOGRAPHY

A detailed bibliography on citizen engagement, compiled by the Competence Centre team, is available at <https://cop-demos.jrc.ec.europa.eu/resources/bibliography-citizen-engagement>

ANNEX – RECRUITMENT STRATEGIES

City	Recruitment strategies
LEIDEN , the Netherlands	<p>Purposeful/opportunistic sampling:</p> <ul style="list-style-type: none"> • Citizens were recruited by handing out flyers, both in spaces where people go, such as the supermarket, and in their physical mailboxes (around 300 invitations were sent); • Strategies were defined in collaboration with local community organisations; • To enhance participation in the long term, the municipality hired a dedicated person for community building and engagement.
LISBON , Portugal	<p>Purposeful sampling, the first activity:</p> <ul style="list-style-type: none"> • Teachers from primary and secondary schools were approached by email (223 teachers were targeted); • The Portuguese education directorate (Direção-Geral de Educação) supported the dissemination of the survey. <p>Opportunistic/purposeful sampling, the second activity:</p> <ul style="list-style-type: none"> • A partnership with Lisbon's public libraries network allowed us to reach out to the library community.
MARIBOR , Slovenia	<p>Opportunistic/purposeful sampling for the first activity, targeting the school community:</p> <ul style="list-style-type: none"> • Using informal networks, the municipality and the expert approached an interested teacher; • The first interested contact helped to connect with the principal and other teachers of the school. <p>Opportunistic sampling (snowballing), the second activity:</p> <ul style="list-style-type: none"> • Local stakeholders operating in the field of pollinator protection were involved. <p>Opportunistic sampling, the third activity:</p> <ul style="list-style-type: none"> • Any visitor to the Stražun urban forest could fill in the survey.
NOVI SAD , Serbia	<p>Opportunistic sampling:</p> <ul style="list-style-type: none"> • The local public library helped throughout the whole process; • The launch of a survey through the public library network enabled 281 citizens to be reached, of which 100 showed interest in taking an active role in the process; • Activities were carried out in neighbouring public libraries; • Collaboration with local stakeholders, from an art gallery to a beekeeping association.

City	Recruitment strategies
<p>PALERMO, Italy</p>	<p>Purposeful sampling, the first activity:</p> <ul style="list-style-type: none"> • 15 teachers and educators received a direct invitation to join sent by the cooperative, in agreement with the educational department of the local municipality. <p>Opportunistic sampling, the second activity:</p> <ul style="list-style-type: none"> • There was an open call placed on social media and on the municipality's website to answer the survey if you were a) a teacher or part of the school personnel, b) a parent, c) primary, secondary or high-school student (7-18 years old) or d) a kindergarten pupil (3-7 years old). <p>Purposeful sampling, the third activity:</p> <ul style="list-style-type: none"> • Collaboration with the Observatory for early school leaving; • 150 families, from 7 schools and living in 7 neighbourhoods in the city, were pre-selected by the Observatory to engage in the mapping activity.
<p>PALMA, Spain</p>	<p>Purposeful sampling, the first activity:</p> <ul style="list-style-type: none"> • Partnership with an existing structure, the Children's Council, and the direct engagement of 32 children; • An invitation to selected schools to join the activities; • Collaboration with other organisations, e.g. the local library or the university. <p>Opportunistic/purposeful sampling, the second activity:</p> <ul style="list-style-type: none"> • An open invitation to local inhabitants to join the activity in Cotlliure, which was disseminated through different media (digital and press) and places (e.g. library); • A targeted invitation to the neighbourhood's school by the education department of the municipality; • Targeted invitations sent through the social service department of the municipality (e.g. local business associations or semi-formal elderly groups). <p>Opportunistic/purposeful sampling, the third activity:</p> <ul style="list-style-type: none"> • An open invitation to local inhabitants to join the workshop disseminated through different media (email to local stakeholders by the local Oficina de Districte Platja de Palma i Pla de Sant Jordi) and places (e.g. local shops); • Collaboration with the neighbourhood association in Es Pil.larí.
<p>REGALBUTO, Italy</p>	<p>Purposeful sampling, the first activity:</p> <ul style="list-style-type: none"> • A targeted invitation to 70 local stakeholders (e.g. associations, parishes, businesses). Each actor was approached individually; • Random door-to-door interviewing. <p>Purposeful sampling, the second activity:</p> <ul style="list-style-type: none"> • Stakeholders involved in the first outreach activity took ownership and responsibility by organising 'mapping events' with their communities. <p>Purposeful/opportunistic sampling, the third activity:</p> <ul style="list-style-type: none"> • A letter was sent by the Mayor and the local expert to already-engaged participants; • An open invitation to join the collaborative workshop was disseminated through different media outlets (e.g. press, social media, flyers).

City	Recruitment strategies
VALONGO , Portugal	<p>Opportunistic/purposeful sampling:</p> <ul style="list-style-type: none"> • Via email, the Mayor invited municipal departments, local associations and citizens already participating in the reviewing process of the master plan to join this project; • A new e-invitation was sent by the Mayor for each activity; • An open invitation to join the activities was also disseminated through the official social media accounts of the municipality and on the municipality's website; • For the third activity 'Experimental action – urban garden', 300 flyers were distributed door-to-door in the surrounding of the selected location.
VARESE , Italy	<p>Opportunistic/purposeful sampling:</p> <ul style="list-style-type: none"> • As two local environmental organisations were carrying out the project, an open invitation was sent to their current members and via official social media accounts; • An open invitation was also disseminated through a local newspaper; • Schools located in Varese's province were directly invited to participate in a contest for the creation of the project's logo; 43 participated.
VILNIUS , Lithuania	<p>Opportunistic/purposeful sampling:</p> <ul style="list-style-type: none"> • Collaboration with Pilaitė eldership; • An open invitation to join the project was disseminated through social media and the university's social networks, as well as those of the Lithuanian geographical society and Pilaitė eldership; • For all three activities, targeted invitations were sent by phone or email to local stakeholders, e.g. the local school, the scouts organisation, local inhabitants including activists or local community leaders; • The local school and library put up posters of the project/ individual activities.

RESOURCES



Main BiodiverCities webpage:

<https://cop-demos.jrc.ec.europa.eu/citizen-engagement-projects/biodivercities>



BiodiverCities: A roadmap to enhance the biodiversity and green infrastructure of European cities by 2030: the mid-term report. Available at:

<https://publications.jrc.ec.europa.eu/repository/handle/JRC125047>



Session at the 2021 European Week of Regions and Cities, 13 October 2021: What does it take to mainstream citizen engagement and deliberative democracy in public institutions?

Report and recording available at:

<https://europa.eu/regions-and-cities/programme/2021/sessions/1845>



Final policy event, 8 September 2022: How to design greener cities with citizens. Insights from BiodiverCities.

Report and recording available at:

<https://cop-demos.jrc.ec.europa.eu/events/policy-event-biodivercities-project>



Seminar, 16 February 2023: Institutionalising co-creation? A research perspective.

Recorded presentations available at:

<https://cop-demos.jrc.ec.europa.eu/blog/institutionalising-co-creation-challenges-and-opportunities>



Community of Practice of the Competence Centre on Participatory and Deliberative Democracy webpage

<https://cop-demos.jrc.ec.europa.eu/>

The Atlas represents the main public output of the BiodiverCities project. This publication is edited by Anna Paola Quaglia and Ângela Guimarães Pereira, who represent the **Competence Centre on Participatory and Deliberative Democracy** of the European Commission.

The **Competence Centre** aims to support the development of socially robust policies through citizen engagement in the Commission and beyond. Our objectives are to:

- enrich the EU knowledge base on participatory and deliberative practices;
- provide guidance for researchers and policymakers;
- build capacity in citizen engagement and participatory governance;
- implement diverse perspectives in policy-making from practitioners in the field, civil society organisations and citizens;
- develop and experiment with new public spaces for citizen engagement;
- foster our Community of Practice (CoP) on Participatory and Deliberative Democracy in continuing to share knowledge on best practices in the field, and build on these insights for more participatory governance models in the EU and beyond.

You can find more information about the **Competence Centre** at https://knowledge4policy.ec.europa.eu/participatory-democracy/about_en

You can join the [Community of Practice](#), contributing to its making, and subscribe to [our newsletter](#).

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Competitiveness and Public Policies (GOVCOPP). He was the Director of the MSc in Urban and Regional Planning from 2016 to 2020 and a member of the UA Cycling Technological Platform (2014-2018). He has been involved in several national and international research projects on participatory planning. Presently, he coordinates several collaborative processes in Portugal related to urban development and sustainability, especially in the Metropolitan Area of Oporto (Maia, Valongo and Gaia) and is involved in the European BiodiverCities project, promoted by the JRC.

- **José Manuel Ferreira**, an architect and urban planner, has worked at the Urban Planning Department at the Municipality of Valongo, Portugal, since 1997. Between 2015 and 2018, José Manuel worked at the Porto Metropolitan Area, AMP, on mobility and planning. He has participated in various regional and European projects, both while working at Municipality of Valongo and at the AMP.

- **Karine Princé** is a conservation scientist and quantitative ecologist. As a freelance researcher, she provides expertise to the JRC to assist the Commission with the design, implementation and evaluation of EU programmes. She is also an associate researcher at the Centre of Ecology and Conservation Sciences, at the National Museum of Natural History (Paris, FR). Her research focuses on studying the ecological responses of biodiversity to global changes and local anthropogenic disturbances, as well as to the implementation of conservation measures.

- **Klemen Risto Bizjak** studied at the Biotechnical Faculty of the University of Ljubljana (forestry) and continued his postgraduate studies at Wageningen University, in the Netherlands. Klemen is currently an expert at the InTeRCeR institute, working on biodiversity and circular economy-related programmes. As former Senior Advisor to the City of Maribor, he was working on strategic policies and managing EU projects related to climate change, biodiversity, and sustainability. Klemen is very active in the fields of environmental protection, sustainable development and social innovation. Among others, he is a European Climate Pact Ambassador.

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- **Medea Ferrigno**, currently a PhD candidate at the IUAV University of Venice, is an engineer and local development expert. She studied local development at the University of Catania and participatory planning at the IUAV University of Venice. She is engaged as an activist and member of the Presidio Partecipativo del Patto del Fiume Simeto, a community organisation working with the local community for

sustainable development. From 2020 to June 2022, during the implementation of BiodiverCities, she was urban planning and local development council member for the Municipality of Regalbuto.

- **Milo Manica** is a freelance naturalist and collaborates with Lombardy Environmental Foundation (FLA), Lombard Park of the Ticino Valley as well as other organisations dedicated to environmental management as part of projects within the Life programme, at regional and provincial levels. He is president of an ornithological association (GIO) and a schoolteacher.

- **Miquela Noguera Ferrando** is an environmentalist, who has worked as a technician at the Urban Planning Department of the Municipality of Palma, Mallorca, Spain, since 2019. She has a background related to natural protected areas, environmental and formal education and marine conservation, with a strong interest in the transition to a greener and healthier city. She is involved in some environmental and educational associations, such as the first forest kindergarten on the island – Ses Milanés.

- **Pedro Pinho** is Assistant Researcher at cE3c – Centre for Ecology, Evolution and Environmental Changes at the Faculdade de Ciências da Universidade de Lisboa. Pedro's work is driven by the effects on cities of ongoing global changes, including land-use, pollution, and climate change. He researches urban biodiversity through statistical and modelling methods, which he combines with an interest in engaging cities'

stakeholders in biodiversity and ecosystem services.

- **Raquel Mendes** is a conservation biologist and environmental educator. Currently she is a PhD student at the Faculty of Sciences at the University of Lisbon, studying the social-ecological factors that promote the connection of children and youth with nature, using biodiversity and sustainability concepts, in green areas inside and outside of Lisbon's schools. Previously, since 2013, she has developed research in other urban ecology fields, such as road ecology, ecosystem restoration and soil ecology.

- **Saskia Klumpers** is a Postdoctoral Fellow at Naturalis Biodiversity Centre, the Dutch national research institute for biodiversity. She is an ecologist working on plant-pollinator interactions and biodiversity restoration. Her current research projects have a strong focus on (the restoration of) urban and rural biodiversity, working closely with different stakeholders, including public entities, farmers, nature organisations, other local organisations and civil society.

- **Tanja Simonič Korošak**, Ph.D. is a licensed landscape architect and registered conservator of cultural heritage, practicing in her own design office in Maribor, Slovenia. Tanja publishes papers, produces artworks in graphic design and freehand drawing, and she lectures freehand sketching for landscape architects at the Institute of Landscape Architecture at the University of Life Sciences and Natural Resources in Vienna, Austria. She is a member of Yes Team in the EIT Climate Kic project 'Future Cities of South East Europe'.

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