



International Symposium

# Beyond re-naturing cities: Integrating social justice and health equity in urban greening

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## Report

Event of the “**Nature & Health**” seminar series and official side event of the **11th International Forum on Urbanism Congress 2018** “Reframing urban resilience implementation: Aligning sustainability and resilience”

Thursday 13 December 2018 | 9.00h – 15.00h | Palau Macaya (Sala d’Actes)  
Passeig de Sant Joan 108 | 08037 Barcelona

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## SUMMARY

The projects [ENABLE](#), [NATURVATION](#) and [Greenlulus](#) organised this international symposium as an official side event of the [11th International Forum on Urbanism](#) in Barcelona on 13 December 2018 with the aim of sharing research insights and showcase city experience towards a more just and equitable urban green and blue spaces and more resilient cities. In addition, the event included an afternoon workshop on “How do we guarantee an equal access to nature in Catalonia”.

122 participants attended the event coming from the City of Barcelona, the local university, citizens / activists, academia as well as non-governmental organisations active in the field of nature based solutions, health and urban green infrastructure planning and implementation. This way, the Symposium helped to lay the grounds for a dialogue process between the academia, local government and local stakeholders. It also enabled to better understand Barcelona city’s greening activities, policies and challenges as well as needs amongst different actors.

The event was organised and implemented by the Institute of Environmental Science and Technology (ICTA-UAB) and the Barcelona Lab for Urban Environmental Justice and Sustainability (BCNUEJ), with the support of the European Secretariat of ICLEI – Local Governments for Sustainability (ICLEI) as well as the International Union for Conservation of Nature (IUCN). Likewise, the symposium was co-organised by [Universitat Autònoma de Barcelona](#), [SomNatura](#), [XCT](#), [ICLEI – Local Governments for Sustainability](#), ENT Environment and Management and IUCN.

More information on the projects can be found at:

- <http://projectenable.eu/>
- <https://naturvation.eu/>
- <http://www.bcnuej.org/projects/greenlulus/>

## 1. Overview of Agenda

Urban green and blue spaces have gained recognition over the past few years in helping to create multi-functional public spaces, improve their ecological connectivity, and provide many benefits for urban communities. As such, cities are confronted with emerging questions often related to the social dimension of urban green and blue spaces when promoting greener cities (e.g. who actually has access to these spaces? What are the main benefits for people and communities, such as better health? Who are the real beneficiaries of those urban green and blue spaces? And what do cities need to keep in mind when planning, creating, and maintaining such spaces?). The International Symposium served to address some of these questions and offered opportunities to receive more locally specific insights into green and blue infrastructure (GBI), to foster social inclusion and make use of GBI's potential of making a city more resilient.

The half-day event started with the introduction to the event by Alice Reil, from the ICLEI European Secretariat and the president of XCT, Marc Vilahur, welcoming the participants and setting the scene for the morning.

Margarita Parés, from Barcelona City Council, continued with her opening talk on the approaches and challenges towards a greener, healthier and more inclusive Barcelona. The first part of the event outlined different considerations for greening cities inclusively to enhance human well-being, which involved city-research insights from Timon McPhearson, Professor of Urban Ecology at New York New School. A panel discussion with experts followed this first session chaired by Chantal Van Ham, European project manager on nature-based solutions at IUCN, together with Erik Andersson, Professor at Stockholm University and Coordinator of the ENABLE project as well as researchers from ICTA-UAB.

The second part of the event dealt with the challenges of making green cities healthier with the research insights of Isabelle Anguelovski, Professor at ICTA-UAB and Coordinator the GREENLULUs project. The session ended with another interactive roundtable, which delved deeper into understanding the challenges of the aforementioned topic. This panel discussion gathered representatives from the Humboldt University Berlin, researchers from IS Global and ICTA-UAB and it was chaired by James Connolly, Researcher at ICTA-UAB and Associate Director of BCNUEJ.

The detailed agenda of the event can be found in Annex 1.

## 2. Participants

A total of 122 participants took part in this half-day event. Amongst them, there were representatives from different departments of the municipality, local non-governmental organisations, researchers as well as all project partners.



*Photographer: Francesc Baró (ICTA-UAB)*

### 3. Opening talk: Approaches and challenges towards a greener, healthier and more inclusive Barcelona

Margarita Parés, Officer for the Biodiversity Program, from the Barcelona City Council shared the city's experience, summarised as follows:

- Barcelona is implementing policies for a greener, healthier and inclusive city: improving knowledge and transforming the green planning methodologies to apply the concept of green infrastructure.
- Barcelona City Council is also creating green with more participation and co-responsibility to be more ecological and more naturalised, e.g.:
  - Biodiversity commitments (greening plan 2013-2020)
  - Programme to develop green and diversity (*Pla clima* 2018-2030)
  - Master plan and policies on green spaces like parks (*Pla del verd I de la biodiversitat de Barcelona* 2020)
- They analysed and ranked green spaces, squares, blocked spaces per habitant, neighbourhoods, services and by diversity together with the proportion of parks and gardens and their contribution:
  - Walking tours on social and environmental services
  - Services grouped by green and leisure
  - Participation opportunities to have an impact on the design of the green areas
  - Running projects on blocks to make the areas greener
- This analysis provides useful information for the management of the parks.
- Ongoing policy: the green infrastructure programme was launched in 2017 bringing together:
  - Increase and improvement of green infrastructure
  - Equity: promoting the most deprived areas with methods of share management
  - Promotion of green areas that we need to work (plants, rooftops...), co-responsibility (*Mans al Verd*) and ecologic agriculture
  - Realising the different family incomes (north, south), age of the parks...
- Process of reflection: new green model for the city following the criteria of equity, climate change, environmental services, trees, arts, nature protection through public services.

### Q & A

- How does Barcelona City Council coordinate with other cities, local activities and projects?
  - Barcelona works together with other partners on topics related to climate change, mobility, environment or urban planning (e.g. assessing the green areas and services experienced in the city: parks, squares).
- Does the City Council deal with the housing problem to tackle the access issue in green spaces?
  - Although it focuses on Barcelona, the City Council has a powerful cooperation with the urban development plan at the metropolitan scale (greening the city, at the –naturing- strategic and execution level) and some stakeholders.

### 4. Part 1. Considerations for greening cities inclusively to enhance human wellbeing

ENABLE and NATURVATION research partners reflected on their research findings.

## 4.1 City-research insights: Remedies for an unfair distribution of environmental risks and benefits: The case of New York City

*Timon McPhearson, Professor of Urban Ecology at New York New School*

- The spatial distribution of climate risks and benefits: urban nature-based solutions (NBS) can be a critical source of resilience to climate change impacts in cities, but there are significant mismatches between where NBS are supplied and where they are most needed.
- Natural disasters are on the rise globally: New York City (NYC) suffers from impactful events such as urban flooding (inlands and coastal) and extreme heat challenges (multi-hazard risks), this latter being the main hazard cause of deaths. Many sectors tend to focus on many aspects but human impact.
- Systems perspectives are needed and identifying hotspots of such mismatches can help to prioritise where to invest in NBS for improving livelihoods of those historically disenfranchised (age, gender, ethnicity, social class/income...).
- System labs may help to project where these risks are by predicting urban risk spatially and the reasons behind them. With all these risks and its consequences, the role of urban nature becomes a solution for climate change adaptation and risk reduction (see more at [ICLEI World Congress 2018](#)).
- Who benefits from who?
  - Environmental and social challenges: “cities can be understood as social ecological-technological systems with embedded social structures, institutions, and drivers and dynamic feedbacks between their social, ecological, and infrastructural components”. This way, social, ecological and technological factors can moderate the value of urban nature.
  - The supply of ecosystem services like in NYC (indicators of population density to feature where the NBS is most needed and analysed to ask the spatial mismatch between supply and demand to the NBS) – the planning is based on spatial basis and where the supplies are most needed. The local temperature regulation helps to distribute the NBS spatially and know where to prioritise air pollution or heat / heatwaves. Coordination with city agencies is vital.
- What explains the mismatches and what can be done to mitigate them?
  - Hotspots: high demand of NBS but low supply leads to need of NBS.
  - Spatial prioritising: investing on NBS in the right places and involving most needed/vulnerable population.
  - Need vs demand – minorities most needed for new investments on NBS (data visualisation): there are social inequities in who benefits from urban NBS, mainly in minority and low income neighbourhoods.
  - Sharing different methods with other cities like Barcelona: nature-based solutions are one of the most promising ways to link resilience and sustainability goals.
  - Analysis can help prioritize planning and policy for maximizing impact of NBS where they are most needed.

### Q & A

- The coastal area is not being enough analysed with developers or decision makers due to its development power – if we were able to scale up NBS we can decrease the heat, even though we cannot solve climate change. NBS may lower the impact but we do not know how much.
- Democratising the availability would help to overcome the mismatching issues (green roofs to low the heat risks), however, the commitment is not there.
- Climate shelters services are related to emergency response depending on the challenge, the cooling centre is not a formal centre.
- Working with the city is very important to identify the flooding and take the right preventive actions.

## 4.2 Roundtable with experts

Chair: Chantal Van Ham, European Program Manager Nature Based Solutions at IUCN

### On Justice and Sustainability

Erik Andersson, Professor at Stockholm University & coordinator ENABLE project

- What do we want from NBS? Is nature enough?
- Considering different well-being benefits rather than green and blue infrastructure (GBI) itself is both more challenging and more relevant to understand urban liveability. Three barriers:
  - Availability: the lay of the land
  - Accessibility: Institutions (who can do, access or influence this?)
  - Personal perspective or appreciation:
    - Commercial interest and programming space (e.g., new values, positive externalities, commodification)
    - Perception and taking action (to whom is this information available? Attractiveness, legibility, knowledge of how to use green spaces / needs...)
- The burden of our wishes: we want to do more with less - how far can we go? Where is the pressure for cities to further increase NBS investments? We need to address change and see different needs, people, and priorities.

### What does it need to plan just green cities? Considering people's needs and preferences

Johannes Langemeyer, Researcher at ICTA-UAB

- The shape of future cities and their sustainability are already defined and this includes both new urban areas, as well as (especially in the Western countries) the transformation of existing urban areas.
- The assessment of urban ecosystem services is gaining importance in informing green transitions: greening is an important paradigm in urban planning but it may take place without taking into consideration aspects like equity and social justice (see *Park Collserola* case study).
- How do we enhance green spaces?
  - Peri-urban parks (e.g. needs and preferences analysis based on gender, ethnicity, age)
  - Urban gardens (e.g. women are more aware of multiple benefits urban gardens provide, but less likely to engage)
- Green space benefits do not apply the same way to everybody since depending on different backgrounds, certain groups may find obstacles to benefit from them. Thus, preferences for green space benefits differ with regard to different groups of the society; a just green space planning requires an explicit consideration of the particular preferences and needs of female green space users.

### Does street trees favour an equitable access to urban green infrastructure benefits?

Francesc Baró, Researcher at ICTA-UAB

- Street trees can reduce urban ecosystem service inequalities in compact cities such as Barcelona, but we need to consider its structural and functional diversity.
- Trees and green spaces can benefit us in many aspects: mitigating the effect of heat island, providing habitat for biodiversity, improving the urban environment and capturing air pollution, amongst others.
- Who benefits from the trees?
  - The structural and physiological diversity of trees conditions the provision of many of the ecosystem services they provide

- Barcelona case study showed the importance of socio-economic barriers: Neighbourhoods with more mature trees have more services
- Social vulnerability (e.g. income, immigrants)
- Road trees are key element of the green infrastructure of Barcelona in order to promote equitable access to the benefits of urban greenness related to the city's environmental regulation and benefits for citizens.

### Plans for making Lodz greener

*Karolina Koprowska, Researcher at University of Lodz*

- Local land use plan Polesie: the municipality plan policy implemented large greening in one of the 5 biggest districts in Lodz to make Lodz greener:
  - Pocked parks (paved): it brought challenges for neglected green areas (old trees were cut down to reinvent the space).
  - Woonerfs: it is being presented as highly visible, hands-on community led planning process paying attention to local needs and willingness.
  - Lodka Valley green belt: local use plan for flooding.
- Lodz in 2024 expo on “Nature of the City”: there have been controversies to host this because the initial plan was to sacrifice old plants to build new buildings, cafes or spaces. It addressed mainly well-off dwellers or residents living nearby.
- Therefore, implementation of a new greening strategy in the dawn of urban revival projects should consider needs of all residents, especially the ones living in the most deprived neighbourhoods.

### Q & A

- NBS accessibility / security issue: there is no real issue in Barcelona in this aspect as the main factor to inequalities embeds institutional, physical, cultural factors.
- Citizen’s perception to the greening spaces and the signs in trees to indicate the benefits they offer: there are different levels of awareness in gardens by different collectives. The experiences are understood in different contexts or settings.
- The added value from learning from each other: Researchers need to understand each cities commonalities and particularities, methods and how we could combine to make sense or the actual problems. Flexibility is crucial to match to local needs and to provide best expertise.
- Lodz stage of implementation is in process: There are opportunities to implement new ideas in the non-developed grounds, yet strategies and policies need to be reflected before.
- The city of Barcelona is challenging as for the data availability when analysing the various social-economic neighbourhoods.
- Maps: who defines what the problem is? How do we envision the solution? How deep do we go? What indicators? Nature, by who and for who?
- We need a larger scale assessment to identify different groups and build from there to come to different solutions. Institutional commitment is necessary. Scaling up may be challenging.
- Participatory process in Barcelona is exemplary to have a broader consultations and exchange among technical experts, citizens and to provide with a variety of solutions and point of views.

## 5. Part 2. The challenges of making green cities healthier for all

GreenLulus research partners reflected on their research findings.



## 5.1 Research insights: From urban environmental justice to (green) gentrification: Moving towards a just and healthy city agenda

*Isabelle Anguelovski, Professor at ICTA-UAB & coordinator GREENLULUs project*

- For whom are green and healthy cities? Greening is a public good that can be privately captured by some investors or some citizens that will later on not distribute its benefits with everyone.
- Traditionally poor and minority residents have been more exposed to pollution / contaminated infrastructure and have poor access to green spaces. Urban green amenities can create conditions for the socio-spatial exclusion and invisibilisation of the most socially and racially vulnerable residents, their livelihoods, and practices.
- Parks, greenways, or climate-proofing infrastructure can become green Locally Unwanted Land Uses in racially mixed and low-income neighbourhoods and re-create new forms of health inequities because of dynamics of green gentrification.
  - High residential exposure to green spaces is associated with an 8% lower risk of all-cause mortality (e.g. 116 deaths per year could be prevented if Barcelona complied with the suggested recommendation of access to green spaces bigger or equal to 0.5ha at 300m linear distance from home).
  - Access to nature in cities: contact with natural outdoor environments, is tied to better mental health, with reduced stress as mediator (Triguero-Mas et al. 2017).
- Crosscutting health initiatives in cities risk becoming justifications for new rounds of high-end development and gentrification, but not for intervention on behalf of those who are on the margins of growth cycles (from community-driven environmental equity to green city politics).
  - Health can be a convenient and apolitical outcome, which is often used to justify the creation and restoration of parks and open spaces in cities, usually in combination with other benefits such as greater aesthetic value, environmental sustainability, and sometimes the increase of property values around parks (e.g. City of Raleigh).
  - Investors usually have driven the economics of the city-green amenities to creating or transforming unwanted land use for those who can afford, causing forced displacements. Urban environmental transformations and improvements are intertwined with inequality (re)formation and gentrification.
  - Though it is not certain how community mobilization and municipal policies have helped prevent or mitigate inequities (displacement, loss of affordability, and loss of voice/belonging) from the creation of green amenities.
- Urban greening vs gentrification: case studies
  - New York City: there is a statistically significant positive correlation between greening and gentrification during the period between 1990 and 2014.
  - Barcelona (ongoing pilot study): overall green gentrification indicator scores for parks within the study area.
  - Washington DC: majority of the parks identified as leading to green gentrification were community gardens and non-Hispanic Blacks were the most significant predictor of green gentrification.
  - Philadelphia: gentrification tends to predict where green resilience interventions have been most recently sited. Black residents were increasingly settling in less protected areas.
- Could the process of green gentrification cause worse health outcomes for some and better health outcomes for others?
  - Forced displacements from public and green spaces – mental and physical health
  - Housing precariousness - mental health
  - Air/noise pollution and overcrowding – mental and physical health

- Increased insecurity and crime – wellbeing and security
- Incomplete and inequitable health care – mental and physical health
- Children’s development – children’s development and wellbeing
- Derived health threats – mental and physical health
- Green spaces are vital to ecological and human health but achieving equity in urban health and reducing health inequalities requires a more complex approach:
  - Integrating the concerns and local uses of social groups that might be less vocal or visible is core to the process of designing equitably beneficial public/green spaces.
  - Directing public action in ways that places the well-being and health of existing residents at the center of public policy and planning, and controlling real estate development, housing rights, and mass tourism.
  - Building cooperation between public entities and institutions at different territorial levels and considering how supra-local constraints and politics undermine sustainability planning and decisions in order to build lasting wider socio-ecological political coalitions.

## 5.2 Roundtable with experts

*Chair: James Connolly Researcher at ICTA-UAB and Associate Director of BCNUEJ*

### **Green spaces and health: differences for different groups of population?**

*Margarita Triguero-Mas, Researcher at ISGlobal and ICTA-UAB*

- The relationship between green spaces and health has been widely studied (in children, adults, prisoners, hospitalized people):
  - Urban green spaces have been linked to a broad range of health effects
  - The health outcomes that have been more reported are: better self-perceived general health, better mental health, better mood, healthier blood pressure levels, changes in the autonomous nervous system, or lower cardiovascular mortality rates
- Health benefits from green spaces differ by population subgroup (by gender, age, socioeconomic status, socio-cultural and ethnical background, urbanisation degree, etc. and by interactions of these characteristics).
- Scientific evidence on how the relationship between green spaces and health is different for different subgroups of population (but not enough).
- In order to understand the differences, it is necessary to use intersectionality – whether (a) there was an association between exposure to active green space and general self-rated health, (b) the association was modified by neighborhood gentrification status, and within each type of neighborhood (wealthy, non-gentrifying, or gentrifying) or (c) individual-level sociodemographic characteristics --, understand different perceptions and socio-political-cultural factors; as well as evaluate the different mechanisms to access green spaces and health.

### **Why does gentrification matter when considering who benefits from green spaces in cities?**

*Helen Cole, Researcher at ICTA-UAB*

- To determine our health, there are different factors to bear in mind: we must think about the various causes of good or poor health, and consider that they have a variety of causes. We can think of them in an embedded manner, such as the impact of having access to green space for urban residents and its exposure, which is affected also by the political and social environments of cities.
- Health equity: why do some people have better access than others?
  - People with different advantages in life, also have different advantages in achieving good health outcomes.

- Thinking from a health equity perspective, in which we consider issues of social justice and equity, and place value in considering ones social position.
- Green gentrification and health equity: health inequity occurs between and within populations, and this is not an accident. Can gentrification shift this pattern?
- Processes of social change such as gentrification contribute to understanding who benefits from green spaces, and who may be excluded. Case study: NYC
  - Among all residents, those living in a neighborhood with a higher percentage of active green space were less likely to report fair or poor health, but this was only true for people living in gentrifying neighborhoods, which were the most privileged groups. This modified the relationship between health and green spaces.
- Green spaces are healthy but they don't affect the same way to all: the protective effects of living in areas with lots of active green space may not be equitably distributed across the population. Gentrification has modified this shift by making this difference clearer and hence, determining which groups benefit and which do not.

### **Benefits of creative & nature spaces for children**

*Carmen Pérez del Pulgar, Researcher at ICTA-UAB*

- Benefits of green spaces for children: it offers co-creative opportunities by attaching people and the place / nature and it provides nature-driven spaces.
- Social structure in the community depends on the environmental context: time routines, habits, frequency related to limitations of the families, sense of community... Likewise, it may vary on the context of the city (e.g. social housing allocation by losing or gaining spaces):
  - Case studies of *Parc Central de Poble Nou* and *Nou Barris* in Barcelona: exploration of their differences in amenities, accessibility, interaction or contact with nature, shared care, and their consequent personal, environmental and social benefits.
- The social structure and uses of public space made by residents of a neighbourhood affects the potential benefits of green play spaces for children more than the creative and nature-driven design. At the same time, the planning process of the green spaces affects the social and material composition of the neighbourhood (balance of power and allocated roles or competences to public or private institutions, partnerships, initiatives...).

### **Q & A**

- Coexistence between different human beings: we shouldn't forget minorities like elderly, children, families, animals, collectives displaced due to aggressive politics...
- Health in all policies / represented in all sectors: important to know how policies are made and what is their process (benefiting developers, investors, white people...).
- Space related indicators could also analyse the behaviour of socio-cultural and economic aspects.
- We should transfer all this knowledge through mediators between the academia, citizens/society and the practitioners (interdisciplinary).
- Social and spatial mobility and their influence / analytical reflections: where does this land? Maps don't tell us everything.

### **6. Next steps**

The event was a highlight in the projects' engagements with and in the City of Barcelona. It helped share the city's activities with local actors on the ground as well as researchers from the projects. At the same time, the

municipality was presented with research findings and reflections, which may support them in progressing further to provide this very dense city with suitable, multi-functional green spaces for all citizens.

The projects will continue their collaboration with the actors in the city in the coming months (including quarterly meetings with a smaller group to discuss developments in Barcelona and in the research work, e.g. through NATURVATION's and ENABLE's efforts).

For more information and updates from the events, please visit the project's websites and contact the UAB-ICTA and ENT teams (contact: [naturvation@ent.cat](mailto:naturvation@ent.cat)).

# Annex 1 – Agenda of the International Symposium

## Beyond re-naturing cities: Integrating social justice and health equity in urban greening.

Event of the “Nature & Health” seminar series (Selected project of the Call “Reflection projects of Palau Macaya”).  
Official side event of the 11th International Forum on Urbanism (IFOU) Congress 2018: Reframing urban resilience implementation: Aligning sustainability and resilience

Thursday 13 December 2018 | 9.00h – 15.00h | Palau Macaya (Sala d’Actes) Passeig de Sant Joan 108 | 08037 Barcelona

Working languages: English, Catalan (simultaneous translation service available)

### PROGRAM:

| 8.30 - 9.00 Reception and registration

| 9.00 - 9.15 Opening

[Marc Vilahur](#) *President of XCT*

[Alice Reil](#) *Coordinator for Green Infrastructure and Biodiversity, ICLEI*

| 9.15-9.45 Opening talk: Approaches and challenges towards a greener, healthier and more inclusive Barcelona

[Margarita Parés](#) *Officer for the Biodiversity Program, Barcelona City Council*

### *Part 1. Considerations for greening cities inclusively to enhance human wellbeing*

| 9.45 – 10.15 City-research insights: Remedies for an unfair distribution of environmental risks and benefits: The case of New York City

[Timon McPhearson](#) *Professor of Urban Ecology at New York New School*

| 10.15 – 11.15 Roundtable with experts

[Erik Andersson](#) *Professor at Stockholm University & coordinator ENABLE project*

[Johannes Langemeyer](#) *Researcher at ICTA-UAB*

[Francesc Baró](#) *Researcher at ICTA-UAB*

[Karolina Koprowska](#) *Researcher at University of Lodz*

**Chair:** [Chantal Van Ham](#) *European Program Manager Nature Based Solutions at IUCN*

| 11.15 - 11.45 Coffee break

*Part 2. The challenges of making green cities healthier for all*

| 11.45 – 12.15 Research insights: From urban environmental justice to (green) gentrification: Moving towards a just and healthy city agenda

**Isabelle Anquelo** *Professor at ICTA-UAB & coordinator GREENLULUs project*

| 12.15 – 13.15 Roundtable with experts

**Dagmar Haase** *Professor at University Humboldt Berlin (via video-conference)*

**Margarita Triguero-Mas** *Researcher at ISGlobal and ICTA-UAB*

**Helen Cole** *Researcher at ICTA-UAB*

**Carmen Pérez del Pulgar** *Researcher at ICTA-UAB*

**Chair: James Connolly** *Researcher at ICTA-UAB and Associate Director of BCNUEJ*

| 13.15 - 13.30 Closing

**James Connolly** *Researcher at ICTA-UAB and Associate Director of BCNUEJ*

| 13.30 – 15.00 Lunch and networking (Room 2)

**Free registration via the [website of Palau Macaya](#)**

Organized by:



Under the framework of:

**ENABLE** aims to advance knowledge of how to design and implement Green and Blue Infrastructure (GBI) in a way that maximizes its potential to deliver numerous social and environmental benefits, such as social inclusion, health and human wellbeing, **stormwater** retention and habitat functions. The **ENABLE** project uses a transdisciplinary approach to investigate the role of Green and Blue Infrastructure (GBI) in tackling a range of social-ecological challenges facing cities.

**NATURAVATION** aims to develop our understanding of what nature-based solutions can achieve in cities, examine how innovation can be fostered in this domain, and contribute to **realising** the potential of nature-based solutions for responding to urban sustainability challenges by working with communities and stakeholders.

**GREENLULUS** (Green Locally Unwanted Land Uses) analyzes the conditions under which urban greening projects in distressed neighborhoods redistribute access of environmental amenities to historically marginalized groups. The study will take place in 40 cities in Europe, the United States, and Canada.

With the support of:



