

SNAPSHOT - BARCELONA: PG. DE SANT JOAN GREEN CORRIDOR



KEY POINTS

- Prioritising more integrated nature-based solution (NBS) thinking in institutional structures is key
- This thinking should be paired with higher levels of socio-environmental awareness
- There is recognition of direct and experienced ecosystem service benefits of NBS
- These ecosystem services can still be in conflict with ecological and sustainability priorities
- Early civil participation is key for future civil engagement in NBS implementation

ABOUT THE PROJECT

NATure-based URban innovATION is a 4-year project involving 14 institutions across Europe in the fields of urban development, geography, innovation studies and economics. We are creating a step-change in how we understand and use nature-based solutions for sustainable urbanisation.





Sustainability challenges and opportunities

Heavy car traffic in a compact and densely urbanised environment with limited green space presents Barcelona with challenges related to air quality, noise, and heat island effects. Its urban expansion, economic growth, and industrialisation have also posed challenges to biodiversity conservation.

Despite the challenge of being extremely compact and highly populated, the city has placed greening policies at the centre of its sustainability agenda, introducing the “(re)naturalisation” concept in 2012 (Barcelona City Council, 2012). Plans also include enhancing the built environment with elements that introduce, restore, or reinforce green space, recognising the latter as an integral and necessary part of urban sustainability. The current municipal government has committed to an increase of 1m² of green space per inhabitant by the year 2030, emphasising that **“ecology must lead urbanism and mobility policies.”**¹ The policy of promoting green corridors is one of the foreseen measures, among which urban gardens in unused plots, green roofs, and reclaimed green inner-block courtyards are examples. The potential of NBS tackling sustainability challenges, such as air pollution, noise, heat island effects, and biodiversity conservation, is widely recognised. However, ecological and sustainability aspects are often not prioritised by experts, officers, and the public when outside the disciplinary niche of environmentalism and ecology.

Solution story and key actors

‘Passeig de Sant Joan’ was redeveloped into one of the first green corridors in Barcelona and aimed at increasing ecological and social connectivity within the city. The corridor was promoted and implemented by the city council’s ‘Ecology, Urban Planning and Mobility Area’ in collaboration with district offices.

The Green Corridors plan was conceptualised by the environmental agency BCNecologia in 2006 and in 2009 the city council examined in detail the potential of connecting through a green corridor the Collserola Mountain with the Ciutadella Park. The renovation of the Pg. de Sant Joan (a total of about 1.2 km) had multiple objectives: improve public space functionality and use, increase access to green space for the district (Eixample), and rejuvenate the local economy. The project was completed in 2015 and its main characteristics are the enlarged sidewalks with a rich variety of vegetation, and semi-permeable pavement, banks, and children’s areas. In general, the Pg. de Sant Joan green corridor is seen to be delivering most of the expected benefits, such as pacification, provision of shade, abatement of traffic noise, reduction of heat in its micro-environment, and increased biodiversity. Although implementation involved negotiations among stakeholders, adjustments, and shortcomings in delivering all of its promises, it has been described as a successful project: **“The activity generated with the sidewalks and playgrounds is not as green as the part above (non-renovated), but it creates more synergy with the [economic] activity around it.”**²



Governance strategies

The commitment of city council experts and the availability of funds for ecology and sustainability enabled the realisation of the project and allowed for innovation and creativity in its implementation.

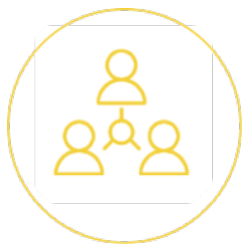
The success of the Pg. de Sant Joan corridor depended largely on an overall shifting of urban design priorities to greener directions within the municipal administration. A process of inter and intra-institutional communication and education proved necessary for key sustainability aspects to be incorporated in the project (e.g. vegetation with structural complexity, species that preserve and enhance biodiversity, etc.). Its innovativeness in terms of plant composition (different species and stratified positioning), and the technical aspects of placing the permeable green pavement, introduced new elements of planning, execution, and maintenance. This resulted in “cutbacks” during the second phase of the project: ***“At the first part of the corridor, the plantations aimed at a variety of species. In the second part, the project was simplified a lot. This was for reasons of maintenance; an organizational issue more than anything else.”***³ While the city council supported the project financially, the Eixample district authorities led the process of civil participation and decision-making, resulting in a project design that prioritised private economic activity over a more consolidated green space with greater potential for social interaction.



Business models

An environmentally conscious local government which promotes and enables the creation of nature-based solutions across the city creates a “critical mass” demand for new businesses to flourish.

Nature-based solutions such as the green corridor of Passeig de Sant Joan comprise novelty in both the conceptual and material side of the project’s creation, which in turn reflects on their management, use, and maintenance. The scale and complexity of the project required almost exclusive reliance on public funding. Innovative characteristics, such as the semi-permeable pavement or the distinct use and plantation of tree and shrub species, not only pushes for institutional change but also creates openings for new businesses to respond to new demands. Municipal policies act as the impelling force towards these directions and set municipalities as important potential customers of such services. One example is the demand for more water-resistant trees, shrubs, and herbaceous plants for use in large scale around the city, like in the Pg. de Sant Joan. Although such development is not yet noted, it has been discussed by stakeholders, that this could lead to the formation of ***“a cluster of eco-gardening businesses.”***⁴



Citizen engagement

Despite wide agreement on beneficial aspects of the project, late and limited participation caused voices of the local society to be filtered through government decisions and left alternatives undebated and contestations unresolved.

The weak institutional methods for civil participation that were used in the planning phase of the Passeig de Sant Joan redevelopment project resulted in presenting citizens with an already advanced executive project and excluding them in the design phase. Despite some direct participatory gatherings with representatives of organised neighbours and merchant groups, the circulation of information prior to the events was poor, and many of residents' voices were not part of the discussions: ***"In the end, as always, the political vision contributes elements in the subject. A decision was made (for a boulevard design) and there was no real debate on the issue."***⁵ Whereas the project is embraced by users and policy makers as a successful urban intervention, its "boulevard" design has been criticised for being a decision that benefits the ground-floor businesses more than the citizens living in the area. Conflicting views need to be articulated and negotiated before the project's technical and functional characteristics are defined, if civil engagement is to play a central role in NBS implementation.



Innovation pathways

Changing the way vehicle-dominated urban sites (like roads) are conceptualised and experienced, as the Pg. de Sant Joan reflects, exemplifies and cultivates more sustainable ideas about nature in the city.

Two characteristics of the Pg. de Sant Joan stand out as highly innovative. The first is the selection of plant species, their distribution, and the resulting stratification that enhances biodiversity and diverges from the typical mono-species of one-line street trees. The second is the incorporation of a semi-permeable pavement in most of the rest areas, allowing flood protection functions and the growth of grass between the tiles. These characteristics are integrated in a significantly widened sidewalk that includes ***"the innovative creation of greener rest areas, in what used to be only pavement,"***⁶ this way inviting and enabling a variety of social uses. The innovation observed in the project builds on ideas of a biologically more complex, visually more diverse, and socially more experienced urban nature, that are contradicting the more benign and homogeneous image that urban parks and gardens tend to project. The advantages of such innovativeness in terms of ecosystem services have travelled well in municipal policy networks and are recognised by the local users and citizen community.

¹ Head of Biodiversity in the Barcelona City Council, 2017; ^{2,3} Environmental Department, Urban Green, Barcelona City Council, 2017; ^{4,6} Research consultancy environmental expert, 2017; ⁵ Ex-representative for the Eixample district, Barcelona City Council, 2017; Photo credit: Francesc Baro