

URBAN GREEN INFRASTRUCTURE PLANNING: STRATEGIC CHOICES FOR A BETTER QUALITY OF LIFE IN THE CITY – THE BASICS

Policy Brief
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Introduction

It is no secret that green space provides many benefits in cities, but in recent years, the potential of city green and the idea of urban green infrastructure have garnered more interest by researchers and practitioners alike. In part, this is due to increasing evidence of the cost savings and additional benefits urban green infrastructure can provide over conventional *concrete and steel* approaches.

Urban green infrastructure planning is more than about single site solutions. In GREEN SURGE, urban green infrastructure planning is understood as a *strategic planning approach* aiming at *multifunctional networks* of green and blue spaces that deliver a variety of ecosystem services – or in other words: benefits to people. These networks are designed for different spatial levels, linking up neighbourhoods, districts and cities with the peri-urban area and the wider city region.

As a strategic approach, urban green infrastructure planning can contribute to addressing a variety of challenges associated with local sustainable development while delivering significant benefits in terms of safeguarding local resources and promoting the social and economic well-being of urban residents. A few practical examples can be found overleaf.

Key ingredients of urban green infrastructure planning

To realize the full potential of urban green infrastructure planning it is essential to observe the following four *principles*:

- 1 *Green-grey integration*: Cities can produce more efficient and multifunctional infrastructure systems when urban green and “grey” infrastructure such as energy and communication systems, transport networks and water management facilities are planned and managed in an integrated way.
- 2 *Connectivity*: A physically and functionally connected green network can create more benefits than individual green spaces without interlinkages. Connectivity can provide an interwoven system for integrating goals related to social interaction (by improving accessibility and movement), biotic exchange (by facilitating the dispersal of plants and animals), or abiotic flow (by regulating water and microclimate).
- 3 *Multifunctionality*: One of the main strengths of urban green infrastructure is that it can be planned and managed to provide several ecological, socio-cultural, and economic benefits at the same time. These benefits can be measured and assessed by applying the ecosystem services approach. Explicitly considering

This is the first in a series of GREEN SURGE policy briefs that provide evidence and examples of the potentials of green infrastructure to manage some of the most pressing contemporary challenges in cities.

Their main target audience are urban planners and city officials across all departments who are curious about ways and means provided by urban green infrastructure planning to help address a wide range of policy priorities and to take more effective and efficient action on the road to sustainable cities.



these functions and trying to maximize synergies while reducing trade-offs can improve the capacity of green space to deliver benefits.

- 4 *Social inclusion*: Respecting the needs, concerns and wishes of the local community, solutions become more robust for the future. That is why urban green Infrastructure planning encourages collaborative, socially inclusive processes that are open to all relevant social groups, with special emphasis on including groups that are vulnerable and disadvantaged.

Applications of urban green infrastructure planning to achieve selected policy goals

Due to their potential to deliver a range of benefits, urban green infrastructure solutions can contribute to a broad range of policy goals. This applies especially to areas such as climate change adaptation, the green economy, social cohesion, and biodiversity.

Adapting to climate change: Urban green infrastructure provides numerous solutions for reducing vulnerability to climate change. This includes regulating the local climate, controlling riverine and stormwater flooding, and protecting coastal cities from sea-level rise.

For the City of **Malmö**, Sweden, for example, urban green infrastructure development for stormwater management has become an important topic and will be part of the “Malmö Water Plan”. The conversion of the former Western harbour into the new residential neighbourhood Bo01 and the retrofitting of the housing area of Augustenborg have become well-known models for the integration of sustainable urban drainage systems into green and grey spaces.

Promoting the green economy: Cities compete with each other for private investors and employers, residents and tourists. Urban green infrastructure helps increase cities’ attractiveness: It motivates people to visit, live and work in the city, provides new business opportunities for innovative products and services and can increase the revenue of businesses situated close to green spaces.

The Urban Landscape Strategy in **Berlin**, Germany, for example, demonstrates how green space can strengthen the city’s quality of life and promote its image. Published in 2012, the strategy includes the “Productive Landscape” concept as one of three main pillars which aims to involve private and non-profit

actors in green space development and management and support the long-standing do-it-yourself culture of the city. The “Productive Landscape” concept values the social and also economic contributions of urban green by providing opportunities for social interaction, individual fulfilment, learning, self-sufficiency and income by selling agricultural goods or services.

Fostering social cohesion: Many European cities are growing due to an influx of people from economically weaker regions or countries suffering armed conflicts, political oppression, and human rights violations. As a result, cities are becoming increasingly multi-ethnic and multicultural which is enriching the social fabric, but also increasing tensions, further fuelled by growing income disparities and demographic changes.

Urban green space provides room for joint activities by people from different origins and social contexts thus improving their relationships. In Italy, for example, the Municipality of **Milan** signed an agreement with the park authority of an afforested public nature park located in the peri-urban green belt called Boscoincittà, the ‘Forest in the City’. The park forms part of Milan’s Regional Ecological Network and provides connectivity with peri-urban areas. The programme activities and actions in Boscoincittà brought together thousands of volunteers varying in age, social backgrounds and work experience. Amongst other achievements, their engagement played a pivotal role in establishing more than 150 allotment gardens, thus promoting social cohesion, contributing to citizens’ self-fulfilment and yielding health and economic benefits.

Protecting biodiversity: Urban green infrastructure connects green areas within the city and beyond and can therefore contribute to safeguarding urban biodiversity. Actions such as constructing wetlands and installing green roofs also support the creation of new urban biotopes.

The City of **Lisbon**, Portugal, for example, issued its “Local Action Plan for Lisbon Biodiversity” in 2015. This takes a comprehensive approach which includes the creation of a municipal allotment garden network. The gardens are established in existing or new green spaces and planned with an eye on their contribution to a landscape mosaic with strong potential to foster biodiversity.

Reference:

Rieke Hansen et al., Urban Green Infrastructure Planning – A Guide for Practitioners (2017)

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GREEN SURGE

Since 2013 GREEN SURGE is working on identifying and developing ways of planning, creating and managing urban green space whilst at the same time strengthening its biodiversity, making it accessible and available to all groups of society and promoting an economy based on green infrastructure.

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