

# BlueGreenStreets 2.0 – multifunctional streetscapedesign in urban districts

## The funding measure Resource-efficient urban districts for the future (RES:Z)

The BlueGreenStreets 2.0 project implements, evaluates, and consolidates research results on climate change adaptation in urban spaces. In addition to the establishment of municipal and research-oriented networks and the direct exchange of expertise with associations, planning and engineering offices, and municipalities, stormwater tree pits are being further developed as a BGS (BlueGreenStreets) measure. The BGS toolbox, which is already actively in use, is being tested in practice and then supplemented with new knowledge so that the implementation of blue-green spaces can be realised by a large number of municipalities.

The German Federal Ministry of Education and Research (BMBF) is funding the project as part of the “Resource-efficient Urban Districts for the Future (RES:Z)” funding measure. The funding measure focuses on the resource-efficient use of water, land, material flows, energy and urban greenery in urban areas. The goal is integrative planning and sustainability-oriented management of urban districts with the participation and coordination of all relevant stakeholders.

### Prospective urban planning: the water-sensitive design of cities

Green spaces and open water areas within cities are not only of great importance for quality of life, but also for the microclimate within districts. In growing cities, because of soil sealing, there is an increasing risk of losing green spaces and simultaneously an increase in the risk of urban flooding. The task of future urban development is therefore not only to develop different land uses side by side, but also to combine them. Urban greenery and urban flood protection need to be integrated into multifunctional streetscapes.

### Multicoded strategies for climate change adaptation in urban spaces

In the first funding phase, the group’s research concentrated on multicoded strategies for climate change adaptation in urban areas. Various BGS measures were analysed using an innovative evaluation system. The results of the first phase of the BlueGreenStreets project were compiled in a comprehensive planning aid for municipalities and planning offices, which promotes the transfer of knowledge and the practical implementation of blue-green infrastructure in the street space. Within the framework of design workshops, exemplary plans with BGS elements could be worked out in various street areas of the pilot cities.



Installation of sensors for soil water balance measurement in a pilot tree pit.

### Optimisation and application of the BGS toolbox in practice

After the successful planning of climate-adaptive rebuilding and development of existing urban spaces in the first phase of the project, the developed tools will be applied and optimised in practice in the consolidation phase during BGS 2.0. The pilot cities Lübeck and Potsdam will incorporate the learnings from the BGS toolbox into their current urban development projects to test its practicability. A further focus of the second phase of BGS are stormwater tree pits, for which the aspects of pollutant accumulation, tree vitality and the allocation of tasks and financing during operation and maintenance will be of interest.

To promote resource efficiency in growing districts, planning tools acquired during the first project phase will be further developed and their prevalence in urban development projects increased. The BGS toolbox is updated and the network of practitioners expanded.



Completed pilot tree pit on Wöllmerstraße in Hamburg-Harburg.

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Resource-efficient urban districts for the future (RES:Z)

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BlueGreenStreets 2.0 – Implement, evaluate, consolidate

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