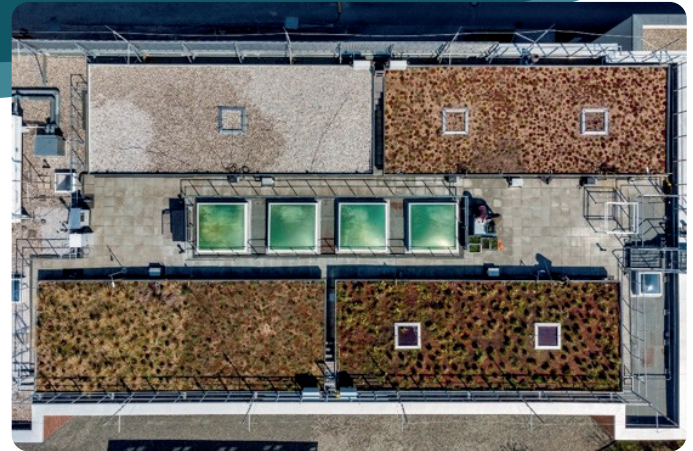


# Germany – UFZ – Research green roof platform



Jaurrieta et al. (2024) CORA | Bernhard (2023) UFZ



## DESCRIPTION

The UFZ Research Green Roof platform is tackling key urban challenges related to climate adaptation. The platform encompasses different blue-green infrastructures located at the UFZ campus Leipzig and in the city of Leipzig. The infrastructure platform includes different green roofs as well as tree swales. These systems contribute to **stormwater management**, mitigate urban heat through evapotranspiration, serve as sinks for CO<sub>2</sub> and airborne pollutants, and **enhance urban biodiversity** by providing habitats for plants and animals. The UFZ Research Green Roof platform aims at providing long-term monitoring and performance metrics for blue-green infrastructure modeling & planning. As part of the performance metrics novel monitoring and modeling approaches are developed. Further the platform allows to operate the infrastructure under different functionalities and to investigate multifunctionality.



## DESIGN AND TECHNICAL DETAILS

### Type of influent

- Rainfall

### Design criteria

- Stormwater retention | biodiversity.
- Different vegetation mixes and soil depths.
- Different retention layer depths.
- Different management strategies (stormwater/ drought | irrigation | biodiversity).

### Climatic conditions

Temperate climate with seasonal variations in rainfall.

### Operational constraints

- Manpower
- Skills
- Working in heights & potential constraints due to roof load



## TAKE-HOME MESSAGES

- **Main functionalities** focus on stormwater mitigation & enhanced biodiversity
- **Multiple co-benefits** regarding ecosystem services, building management & maintenance, water resources management, climate adaptation & mitigation, air quality & pollutant reduction, as well as health & social impacts were specifically addressed in over 15 studies at the UFZ platform.
- **Development of novel modeling and monitoring** approaches for blue-green infrastructures