VERTICAL GREEN 2.0

Our project will re-invent and re-introduce vertical green systems (VG) as nature-based solutions which have the capacity to close cycles of energy, nutrients and water. VG re-introduces biological primary production to unproductive land while 2.0 points directly to the participation of all relevant stakeholders when it is about designs, maintenance plans and business models, no matter if profit or non-profit oriented.

VG is understood as a bio-technical solution for the single building, the street and the neighbourhood as well as for the whole city and it is tested for Ljubljana, Vienna and Berlin.

Aim/objective

- What are the needs, preferences and prejudices towards vertical green? What are the unsolved problems?
- How can we design sustainable vertical green? (Water & nutrients, acceptance & participation, profitability)
- What is the city-wide impact of vertical green under realistic distribution scenarios? How much vertical green do we want?

Approaches/methods

- Stakeholder workshops on future scenarios and preferable futures, co-creating VG 2.0 with stakeholders
- Focus on existing building stocks, retrofitting of quarters
- Modelling ecosystem services of VG 2.0 such as water uptake, biomass production and cooling potential on the building and quarter scale

Expected results and impacts

- Set of designs fitting to the city structures of Ljubljana, Vienna, Berlin and Taipei
- Set of strategies to integrate VG 2.0 into the urban cycles of energy, nutrients, and water including sustainable harvest and maintenance technology
- Set of business and participation models, planning strategies (planning 3D in 2D)

Vertical Green 2.0 – Vertical greening for liveable cities – co-create innovation for the breakthrough of an old concept
Duration: 2018–2021
Internet: jpi-urbaneurope.eu/project/vertical-green-2-0/
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Budget: 1.351.601 €
Partners: Technische Universität Berlin, University of Natural Resources and Life Sciences Vienna, Green4Cities Vienna, Urban planning institute of the Republic of Slovenia, National Taiwan University

Involved cities

- Berlin (Germany)
- Ljubljana (Slovenia)
- Taipei (Chinese Taipei)
- Vienna (Austria)

Sustainable Urbanisation Global Initiative (SUGI)/Food-Water-Energy Nexus

The Sustainable Urbanisation Global Initiative (SUGI)/Food-Water-Energy Nexus is a call jointly established by the Belmont Forum and the Joint Programming Initiative Urban Europe. The cooperation was established in order to bring together research and expertise across the globe to find innovative new solutions to the Food-Water-Energy Nexus challenge.

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