

doi: 10.2478/ACEE-2023-0002

## URBAN ENVIRONMENTAL ACUPUNCTURE FOR IMPROVING THE SUSTAINABILITY OF DENSE CITY AREAS – POLISH EXPERIENCES FROM THE SALUTE4CE PROJECT

Michał STANGEL\*

\*PhD Associate Prof.; Faculty of Architecture, Silesian University of Technology, ul. Akademicka 7,  
44-100 Gliwice, Poland, ORCID: 0000-0001-8728-2888  
E-mail address: *michal.stangel@polsl.pl*

Received: 6.10.2022; Revised: 19.12.2022; Accepted: 25.03.2023

### Abstract

The idea of urban environmental acupuncture postulates, that in areas with no space available for green spaces, sustainability and climate resistance can be improved by small green spots in key locations. The project SALUTE4CE established pilot environmental acupuncture strategies in Central-European cities. The author was responsible for elaborating an Action Plan for the functional area of Chorzów, Ruda Śląska and Świętochłowice, Poland. The project aimed at finding spots with potential outcomes in terms of sustainability, reducing urban heat islands and improving comfort and quality of spaces, with nature based solutions: from planting climate resistant vegetation and restoring biodiversity, through improving local retention, to green roofs or vertical walls. The concept assumes, that acting in many small places can bring synergic effects and contribute to urban regeneration. Four pilot spots have been constructed so far, and other interventions shall be realized in the coming years. So far the project results have been disseminated in project documents and reports. This paper aims at a summary of project experiences and perspectives in regard to participating Polish cities.

**Keywords:** Urban sustainability; Green-blue infrastructure; Nature-based solutions; Silesian Metropolitan Area; Urban functional area; Urban regeneration; Environmental acupuncture.