

GREEN LIVING ROOM LUDWIGSBURG



Addressed SDGs:



> OBJECTIVES

The Green Living Room is a nature-based solution that can be applied to various urban situations whilst offering manifold benefits for the urban environment in terms of climate change adaptation, public realm improvement and nature awareness. In Ludwigsburg it was applied as a multifunctional structure that contributes to addressing urban environmental and societal challenges. It helps regulate the urban heat island effect by evapotranspiration of leaves and shading, promotes urban biodiversity net-gain, reduces storm water run-off, fosters the reuse of rainwater by building on a sustainable irrigation system, and enables air purification. City residents also get the chance to directly interact with nature, which contributes to raising awareness towards the integrated delivery of ecosystem services.

> DESCRIPTION

In 2013, a competition was launched amongst German cities for the installation of a Green Living Room within urban boundaries. The city of Ludwigsburg in Germany has quickly reacted, flagging their interest. As Ludwigsburg has a baroque city centre, local authorities were inclined to engage on a quest for greening its urban areas. Therefore, the installation of a multifunctional device in a central area seemed quite attractive for decision makers as an innovative way to raise the citizens' contact with greening structures in the city.

With the academic support of a local university and the work of the nature-based enterprise Helix Pflanzen, the local government launched a local process to identify potential locations for the Urban Living Room by using a geographic information system (GIS) software, and

also by considering climate adaptation demands and the city's unique architectural situation. Finally, a decision was made to place the Green Living Room in an inner city central market square, located close to the city hall. The Green Living Room is formed by green wire-cube modules forming a set of living walls with a variety of plants.

Today, years after its completion in 2014, the Urban Living Room can definitely be considered a successful nature-based solution due to its assertive architectural design, high quality of implementation and realistic maintenance mechanism. The success of the multifunctional structure is also reflected by the fact that until these days there were hardly any vandalism incidents. This Green Living Room regularly receives many visitors. City residents and tourists are attracted by the lush experience to access plants at eye level and feel the scent of the flowers, which provides a quite a sensorial experience. The Urban Living Room has a flowering duration from spring to fall (March to October), which adds to a colourful picture and raises the attractiveness for insects and pollinators during most times of the year. Green coverage is safeguarded all year long by the use of evergreens such as ivy. To keep the Urban Living Room fresh and green, maintenance works are carried out by Helix Pflanzen, who were the designers of the device.

Back in 2014, a local planning company accompanied the construction process of the wire-cube modulated structure covered by plants, whose duration was approximately 6 weeks with the engagement of 6 to 8 employees. In 2019, the structure got an addition in area of 25%, following a request by the City of Ludwigsburg, who also provided chairs for people to sit close to the structure and cherish the

pleasant microclimate. The green walls of the Green Living Room could also act as a noise barrier, considering that its substrate is wide enough. However, because the loud street is located far away from this central plaza, the area has no noise issues. In any case, if applied to a different urban setting with a demand for noise absorption, the Green Living Room can also effectively perform as a noise barrier.

The Green Living Room can also be designed as a “Mobile Green Living Room” equipped with an onboard water tank, which can be easily transported via truck and installed in different urban environments.

> CHALLENGES

Usually procurement processes hardly consider nature-based solutions. Therefore, there is a need for political buy-in so that such a structure can be developed and implemented. It is often a matter of how much risk local government staff are ready to take to engage in innovative greening solutions. Therefore, individual support from within the administration is essential. Another point that can become a limiting factor for the installation of the structure is a high level of care associated with the choice of vegetation, related pruning works and monitoring of the irrigation system. By designing the Urban Living Room with a seasonal character, less maintenance is required. In central locations, the demand for pruning is usually higher.

> OPPORTUNITIES

A major supporting factor for the implementation of the Urban Living Room was an open attitude within the Municipality towards experimenting with the design of the structure and vegetation set-ups. The Municipality has a climate adaptation plan which was in line with the delivery of such a structure for microclimate regulation. Therefore, early political buy-in made things happen, while this was corroborated by the positive response of city residents, who make good use of the structure. Finally, water savings were a supporting factor, as the Urban Living Room has an irrigation system that operates with rain water. Finally, the structure may additionally offer opportunities for educational classes.

> LESSONS LEARNED

Foreseen guided tours and school kid excursions to the Urban Living Room did not really take place so far. So a lesson learned is to engage with the city’s education department to promote school trips to the structure so that children can learn about the multiple benefits that arise from providing nature-based solutions within city centres. Another lesson learned is that it would have been advantageous to engage nature conservation groups from the beginning of the planning process to ensure their

buy-in and related dissemination of biodiversity net-gain opportunities and co-benefits. Finally, it would have been interesting to systematically monitor the cooling effect of the structure, and compare it to other urban green structures in terms of microclimatic performance, making a report of how the Urban Living Room performs during the different seasons.

> INSPIRATION FOR OTHERS

The Urban Living Room is a modular system, whose upscaling is absolutely feasible. Considering its high multifunctionality and the fact that it doesn’t require a large space for installation, it can be applied to an enormous variety of public (and private) spaces in cities within Europe and beyond. If local authorities are still not sure about committing to the implementation of such a structure in their public spaces, an alternative would be to adopt a “mobile” living room to test its effectivity, civic performance and contribution to raise residents’ well-being for a certain period of time before deciding to install an Urban Living Room.

FURTHER INFORMATION

All fact sheets were produced from questionnaires and interviews conducted by the ICLEI team. Contact ICLEI Europe for more information or access Oppla: <https://oppla.eu/casestudy/17555>

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