

## Sino-European Innovative Green and Smart Cities

December 2022

## **Urban agriculture – Challenges and Opportunities**

Final Conference of SiEUGreen Project

Final Conference, 17 November 2022 – NMBU successfully organized the hybrid Final Conference of the SiEUGreen project "Urban agriculture – Challenges and Opportunities" in Ski, Norway. Representatives of Research Institutes, Industry and Policy making, participated in person or virtually.

SiEUGreen brings together a multidisciplinary consortium of European and Chinese researchers, technology providers, Small and Medium Enterprises (SMEs), financiers, local and regional authorities and resident communities to facilitate the development and deployment of state-of-the-art urban agriculture models. Building on the zero-waste and circular economy model, SiEUGreen combines technological and societal innovation in promoting urban agriculture for food security, resource efficiency, and smart, resilient cities.

The project prepared, deployed and evaluated five ground-breaking multidisciplinary showcases in urban and peri-urban areas in Europe and China that contribute to the future development of urban agriculture. Technologies that provide circular solutions demonstrated in these 5 showcases and their results were presented briefly.

The vision of sustainable green cities is to promote human well-being, reduce water and energy consumption, eliminate or reduce emissions, and produce food in the city based on local waste resources. In this regard, SiEUGreen project can offer specific solutions including innovative agricultural cultivation techniques and waste management and wastewater systems. Sewage-based compost, reuse of blackwater, nutrient recycling are technologies tested within SiEUGreen project and produced valuable results that could play a role in urban circular economy.

Additionally, an overview on the SiEUGreen activities in China and an Impact Assessment of UA was presented by Chinese partners. Urban farming equipment, Kitchen Waste Composting Machines, aquaponic systems were developed and tested by Chinese partners within SiEUGreen project.

One of the key achievements of SiEUGreen was the knowledge transfer and sharing between Europe and China. Such example is the paper-based microgreen production technology that was developed by Beijing Green Valley Sprout (BGVS) Ltd., and then optimized to be used by European countries.

Moreover, new market entry points were identified for SiEUGreen technologies which include transparency, local food, quality, sustainability, local exotics, fair food and zero-waste. Another aspect investigated during SiEUGreen, was the social acceptance of consuming food produced by these alternative fertilizers. More and more people are becoming positive on this aspect.

Lastly, in addition to researching, optimizing and deploying urban agriculture technologies and practices, another key objective of the SiEUGreen project is to derive policy recommendations targeting local, national



and European policy makers and regulators for improving the framework conditions that will enable the flourishing and expansion of UA, through the lens of overall goals about circular and adaptive planning.

Summarizing, the use of circular urban cultivation using local resources, will play a key role in urban circular economy and make cities more climate resilient provided proper technology and management.

For more information about the activities please visit the <u>project website</u>.

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