SmartFood: Engaging citizens in food diversity in cities

D6.2. Report on the full-scale demonstration – Urban Living Lab 2

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Executive Summary

This deliverable presents the comprehensive outcomes of Task 6.2 of SmartFood Work Package 6 (WP6), focusing on the full-scale demonstration of SmartFood solutions conducted in twenty households. The primary objective of Task 6.2 was to evaluate the effectiveness of the SmartFood socio-technological framework in promoting sustainable food production and consumption within an urban setting.

A comprehensive engagement strategy was employed to ensure active participation and feedback from the households, including:

- Regular communication through phone, email, and notices at the building entrance.
- Monthly computer-assisted surveys and grocery bill collections to monitor food purchasing habits and gather feedback.
- Workshops and individual training sessions on urban agriculture in SmartFood Cabins.
- Workshop on edible insect farming in SmartFood Insectarium.
- Use of the SmartFood App for enhanced user experience and engagement (especially through nudging).
- Ongoing maintenance and repair operations for technical support.
- Exit interviews with participants.

In the full-scale demonstration of the SmartFood Urban Living Lab, households participated in various activities designed to promote sustainable food production and consumption.

- 20 households participating in the Treatment Group used SmartFood Cabins for hydroponic cultivation, growing vegetables, herbs, and fruits. The average water consumption per cabin stabilized at around 15 liters per week, and participants harvested crops such as basil, lettuce, parsley, mint, and dill. This highlighted the potential of urban hydroponic systems for significant food production.
- Analysis of grocery bills to monitor consumption and spending on green food products was performed to assess the effectiveness of the SmartFood interventions in promoting healthier food choices.
- Monthly surveys gathered data on food consumption behaviours and attitudes towards green food. These surveys also emphasized the importance of continuous engagement and timely interventions.
- The project fostered stronger community ties, with participants sharing a significant portion of their home-grown produce with neighbours, friends, and family. Personalized engagement strategies, including face-to-face check-ups, workshops, and training sessions, enhanced the sense of community and supported effective management of hydroponic systems.

The full-scale demonstration of the SmartFood Urban Living Lab successfully showcased the potential of integrating sustainable food production within urban settings. The findings indicate that the SmartFood socio-technological framework effectively promotes healthier dietary habits, enhances community engagement, and contributes to reducing the environmental footprint of food production. The data collected will inform further refinements and scaling-up of the SmartFood innovations for broader adoption in urban environments.

By building on the insights gained from the pilot phase, Task 6.2 has laid a solid foundation for the future development and implementation of sustainable urban agriculture practices, contributing to the vision of smart, self-sufficient cities of the future.