SmartFood: Engaging citizens in food diversity in cities

D1.6. Manuscript concerning possibilities of implementing solutions for sharing rainwater into existing buildings

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Executive Summary

It should be borne in mind that in the near future there may be water shortages in settlement units. At the same time, food security should be ensured to cities, consisting in constant access to food for residents, which in such unforeseen situations as the coronavirus pandemic may also prove to be a challenge. For these reasons, the article analyzes selected factors determining the use of rainwater in existing buildings for the needs of hydroponic cultivation. Both internal and external factors - independent of buildings - were taken into account. The scope of the analysis included such determinants as e.g. material and surface of the roof, availability of space in the building, permissible loads or acceptance of the local community. The purpose of the analysis was to establish a list of basic questions that should be answered when selecting or prequalifying a building for the introduction of a water management system for its joint use for hydroponics. Such a list will allow a quick assessment of the suitability of existing buildings to introduce semi-automated farming into multi-family buildings in terms of water supply, and will also allow an assessment of the number of buildings potentially suitable for this purpose.