Decision supporting tool to implement water reuse technologies

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Thematic Area:

Abstract

The dynamic development of the information technology (IT) industry is creating new opportunities to support the transformation towards a circular economy (CE). IT technologies enable the creation of innovative solutions for resource management, waste minimization, and the implementation of CE models. Paper presents one example of this approach that is used in the international ReNutriWater project, which is developing the "WaterSafe" IT tool. This tool aims to support municipal wastewater treatment plant (WWTP) operators in selecting water recovery technologies, in accordance with European Commission Regulation (EC) No. 741/2020 on water reuse in agriculture. "WaterSafe" offers three main functions: a technology selection calculator, a compendium of knowledge on water management and EU regulations, and recommendations for specific cases. This tool provides decision-making support for entities planning to implement water recovery, aligning with the EU's sustainable development goals. This IT tool is used to support the decision-making process of selecting a specific wastewater treatment method. It can be used not only by WWTP operators but also by all interested stakeholders and target groups considering implementing water recovery methods in their enterprises. As part of the project, the tool's functionality was tested on participants of a pilot "Safe Water" mentoring program, which is an integral part of the project. Further work on improving the IT tool will continue until the end of 2025.

Keywords: IT tools, water recovery, water sector, circular economy

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