



УНИВЕРЗИТЕТ У НОВОМ САДУ
UNIVERSITY OF NOVI SAD

TOP ACHIEVEMENTS 2022

FACULTY OF SCIENCES

SmartWaterTwin - Thinking and Rethinking Wastewater Management in Circular Economy Frame

H2020

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This project is a kind of first step, in the Republic of Serbia, in observing the treatment of waste water within the framework of the circular economy. The water sector of the Western Balkans is currently facing various challenges, further exacerbated by climate change and pollution. The circular economy is here to help. Wastewater can serve as an innovative solution that contributes to the connection (nexus) of water, energy and material recovery. The SmartWaterTwin project, funded by the EU, aims to advance knowledge and research excellence in the field of sustainable wastewater treatment and management by increasing scientific and technical capacities in the Republic of Serbia. The Green Agenda for the Western Balkans, through its pillars, deals with initiatives to support the region in the development of the circular economy (CE) strategy and the fight against air, water and soil pollution. Driven by increased demands for water, energy and food, while also needing to reduce environmental impact, the water treatment sector is looking for innovative solutions. The key goal of the project is to establish a methodological framework for the potential application of circular economy principles in the wastewater sector in the Republic of Serbia. Joint action on aligning the economic, environmental and social goals of the RS with those of the EU will also be very useful in promoting the widespread acceptance of the concept of circular economy in wastewater sector. Furthermore, the end objective is to develop a unique platform for circular economy-wastewater treatment nexus to envelop most recent scientific reach in the field, expertise, data exchange and to prompt the joint research collaboration. In this way, SmartWaterTwin will have a long-lasting impact in promoting the widespread acceptance of the concept of circular economy in this sector and shifting the paradigm from the linear (traditional) to the circular (future) model in wastewater sector on a national level. In addition, it will serve as an "instrument" to influence knowledge levels, cooperation and policy making. An analysis of the potential benefits of the



circular economy for the Republic of Serbia, which can be extrapolated for the Western Balkans region, will be performed. SmartWaterTwin will change the perception of wastewater - not thinking of it as waste but as a resource. The specific objectives of the project include: Bridging the scientific knowledge gap and moving towards innovative technology in circular economy context; Establishing a methodological framework for applying circular-economy principles into wastewater sector in Serbia; Twinning for coherent international approach to the circular economy; Enforcing and expanding ECR competencies in advanced wastewater treatment field. The main results of this project include the Plan for stepping up and stimulating scientific excellence and innovation capacity in water management; Roadmap for improving services of the UNSPMF research administration, SmartWater toolkit and factsheets, SmartWaterTwin comparative analysis and Case-study for industry as well as SmartWater HUB.