Circular Economy (CE) is a key trend in modern business, promoting sustainable resource management and responding to the goals of the UN and the European Green Deal. The water and sewage sector has a large potential for CE, especially in the recovery of water, energy and raw materials, and sewage treatment plants (WWTPs) are becoming centers of circular innovation. The practical implementation of CE in WWTPs concerns the sustainable management of primary resources (including water) and the recovery of resources - including water, energy and raw materials. In recent years, there has been a dynamic development of CE technologies in WWTPs, but little is known about the role of external factors (political, legal, environmental, social and economic) that have a key impact on the potential development of these enterprises and the accelerating transformation towards the CE model. Thus, the process of circular management in urban WWTPs is a research gap that requires further scientific considerations.

The aim of the project is to investigate and conceptualize the key factors and effects of implementing CE principles in the functioning of WWTPs in Poland. The project responds to the need to move from the traditional, linear model of resource and waste management to a circular, sustainable and resource-efficient model.

The main research objectives are:

1. Identification and analysis of key determinants of the implementation of the Circular Economy in the WWTPs,

2. Determination and prioritization of critical elements of the CE business model dedicated to the WWTPs, based on the Business Model Canvas (BMC),

3. Study of the relationship between CE practices and the results of sustainable development of enterprises (sustainable performance).

The project plans to conduct three-stage empirical research including: *i*) quantitative research of stakeholders of the water and sewage management sector (plant managers, engineers, representatives of local governments / owners of municipal companies, representatives of regulators, decision-makers, technology suppliers; sample size = 400); *ii*) qualitative research on the identification and hierarchy of key elements of business models based on the Circular Economy for sewage treatment plants (Delphi method, 25 experts related to the water and sewage management sector in Poland); *iii*) qualitative research on the identification of the relationship between CE activities and sustainable performance of the WWTP (survey conducted among WWTPs employees; sample size = 344).

The project will make an original contribution to management science by identifying factors determining the implementation of CE in WWTPs, developing key components of circular economy business models for WWTP and defining the impact of CE activities on sustainable organizational performance. The results will support scientific development in research on circular economy business models and the functioning of WWTP in the transformation process towards CE in Poland and Europe. The project also has a great potential to influence the development of CE strategies for municipal companies and disseminate research results in scientific and industry journals.