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WASTEWATER MANAGEMENT IN LATVIA: SUCCESS STORIES AND CHALLENGES

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Abstract
The wastewater sector is currently facing many challenges related to the implementation of the circular economy model, which is the European Union's political priority. The wastewater sector is an important element in a circular economy, especially thinking about the recovery of raw material, phosphorus. This study presents a brief overview of the wastewater management system in Latvia indicating success stories and challenges to determine the level of transformation towards the circular economy model in the wastewater sector. One of the main challenges is sludge management, which is strongly bound to the recovery of the valuable element, phosphorus. Currently, there is in the development stage Circular Economy Strategy for Latvia, which includes the importance of new recycling technologies, improved waste processing, and reduction, and it prioritizes the closed material cycle. However, no specific actions are determined to recover phosphorus from wastewater flow. In Latvia treated sewage sludge, which is one of the main sources of phosphorus, is mainly in temporary storage, or is used in agricultural applications, composting, greening, and recultivation of degraded areas. This kind of application is not only ineffective but also can cause environmental problems such as eutrophication in surface waters. In this study also success stories were determined, and necessary actions were identified that should be taken mainly by the government and could positively influence transformation towards the circular economy model in Latvia.

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