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The Smart City Concept and Modern Technologies Supporting Waste Management Represent Exemplary Pro-Ecological Solutions, Both in Poland and Globally

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Abstract

The analysis, research, and conclusions presented in the article aim to investigate the correlation between the smart city concept and efficient waste management. In the context of contemporary consumer society, waste management emerges as a crucial concern, necessitating sustainable and innovative solutions.

The theoretical framework encompasses the smart city concept, delineating its utilization of ICT technologies to enhance citizens' quality of life, with specific emphasis on the role of modern technologies in bolstering waste management.

The article is grounded in an analysis of scientific literature, reports, and statistical data. It delineates contemporary trends and solutions in ICT applications while also illustrating best practices from both Poland and internationally, thus elucidating the efficacy of technological implementation in waste management.

The article discusses initiatives and projects encompassing intelligent waste management systems, as well as the utilization of Internet of Things technology for process monitoring and optimization. Moreover, the article discusses digital platforms that facilitate resident interaction with local authorities.

This article aims to illuminate the challenges confronting society and showcase best practices conducive to effective waste management and sustainable development.

Keywords: smart city, effective waste management, ICT technologies