AI4 WASTE

FOSTERING AWARENESS AND INNOVATION IN ADULT EDUCATION

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TOOLKIT

Case Study #5 of application of artificial intelligence to the urban waste management sector in Europe

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Index

SUMMARY 4

Case Study: Veolia (France) – AI in Waste Management 5

How Veolia Uses AI in Waste Management 5

Benefits of Veolia's Solutions 5

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SUMMARY

Case Study #5 of application of artificial intelligence to the urban waste management sector in Europe – Veolia (France).



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VEOLIA

Case Study: Veolia (France) – AI in Waste Management

Veolia, a global leader in environmental services, has been applying Artificial Intelligence (AI) to improve its waste management operations in urban settings. Through AI, Veolia is transforming waste collection, recycling, and energy recovery from waste, making the process more efficient, cost-effective, and environmentally sustainable.

How Veolia Uses AI in Waste Management

- **Smart Waste Collection**: Veolia has integrated AI with Internet of Things (IoT) technologies to optimize its waste collection operations. By installing sensors in waste bins and using real-time data, the AI platform can: Predict waste volumes; Optimize collection routes; Reduce operational costs.
- **AI to improve the Sorting and Recycling of materials**: Vision-based sorting systems use AI and machine learning algorithms to identify and classify different types of materials; This automated sorting improves recycling rates by reducing contamination and ensuring that materials are correctly separated for reuse.
- **AI in Waste-to-Energy Plants**: Veolia operates several waste-to-energy plants. AI systems help optimize the performance of these plants by: Enhancing combustion efficiency; Monitoring plant performance; Reducing Emissions.
- **Circular Economy Solutions**: Veolia is deeply committed to the circular economy, which aims to reduce waste by keeping materials in use for as long as possible AI is instrumental in this transition: Material tracking; Resource recovery optimization.

Benefits of Veolia's Solutions

- Cost Reduction and Efficiency; Environmental Sustainability; Data-Driven Decision Making

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