AI4 WASTE

FOSTERING AWARENESS AND INNOVATION IN ADULT EDUCATION

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TOOLKIT

Case Study #7 of application of artificial intelligence to the urban waste management sector in Europe

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SUMMARY

Case Study #7 of application of artificial intelligence to the urban waste management sector in Europe – Sensoneo (Slovakia).



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((SENSONEO))

Case Study: Sensoneo (Slovakia) – AI-Driven Smart Waste Management

Sensoneo, based in Slovakia, is a global leader in smart waste management solutions that utilize Artificial Intelligence (AI), Internet of Things (IoT), and advanced data analytics to optimize the collection, management, and recycling of waste in urban environments. The company provides innovative, data-driven solutions for municipalities and waste management companies to reduce costs, improve efficiency, and contribute to sustainability goals.

How Sensoneo's Solutions Works

- **Smart Waste Sensors and IoT Integration**: Sensoneo's system is built around smart waste sensors that are installed in waste bins. These sensors monitor various parameters, including Fill levels, Temperature monitoring, Geolocation and movement detection. The sensors transmit data to a centralized cloud-based platform via an IoT network. This data is continuously analyzed by AI algorithms to provide actionable insights on waste collection needs
- **AI-Powered Analytics and Route Optimization:** The collected sensor data is analyzed using AI algorithms to optimize waste collection processes. The AI system: Predicts fill levels; Optimizes collection routes; Analyzes waste generation patterns.
- **Smart Waste Monitoring Platform**: Sensoneo's Waste Monitoring Platform enables users to: View real-time data on bin fill levels, collection needs, and overall system performance; Use advanced reporting and analytics features to track trends, performance metrics, and resource efficiency; Adjust collection routes dynamically based on real-time data..

Benefits of Sensoneo's Solutions

- Cost Efficiency; Environmental Sustainability; Operational Transparency; Increased Recycling Rates.

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