AI4 WASTE

FOSTERING AWARENESS AND INNOVATION IN ADULT EDUCATION

2023-2-PT01-KA210-ADU-000184346

TOOLKIT

Case Study #9 of application of artificial intelligence to the urban waste management sector in Europe

This publication was developed by the ERASMUS+ project consortium the Erasmus + project AI4Waste: Fostering Awareness and Innovation in Adult Education with the number 2023-2-PT01-KA210-ADU-000184346 coordinated by LIPOR – Associação de Municípios para a Gestão Sustentável de Resíduos do Grande Porto, Portugal.
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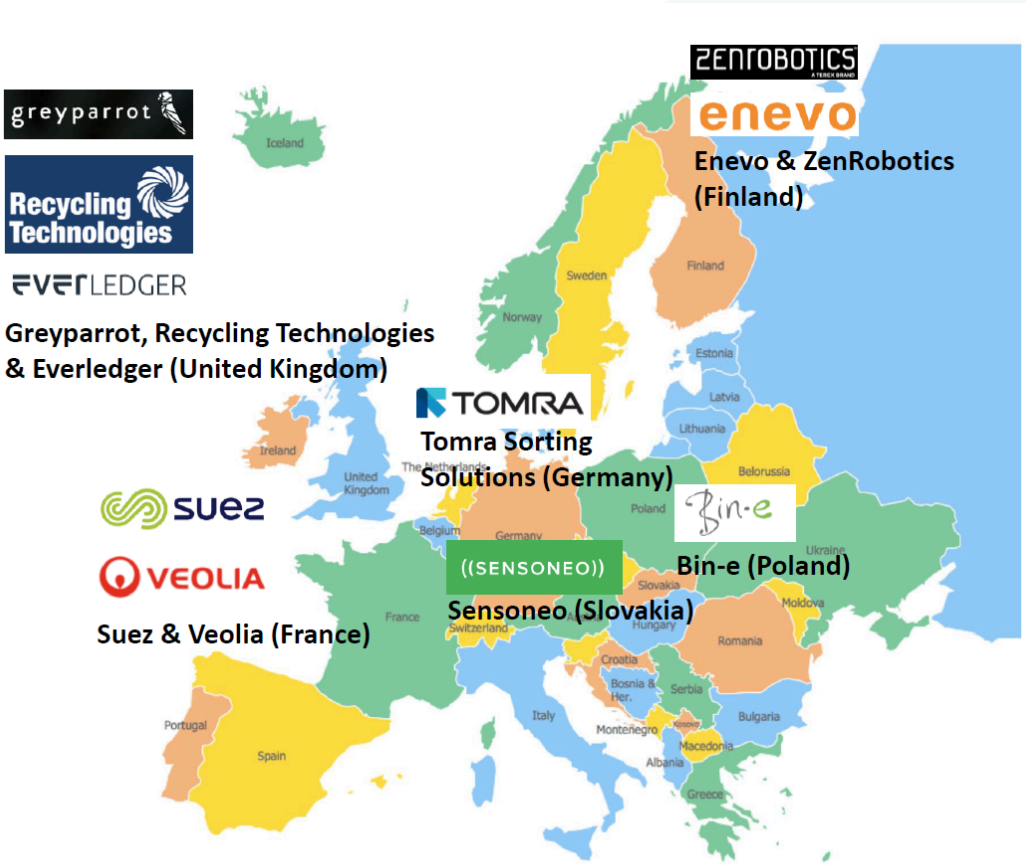
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SUMMARY

Case Study #9 of of application of artificial intelligence to the urban waste management sector in Europe – Recycling Technologies (United Kindgom).



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Recycling Technologies

Case Study: Recycling Technologies (United Kingdom) – AI in Plastic Waste Recycling

Recycling Technologies is a key player in the field of plastic waste recycling, leveraging advanced technologies such as Artificial Intelligence (AI) and chemical recycling to address one of the most pressing environmental challenges: plastic waste. Focuses on transforming traditionally hard-to-recycle plastics into valuable raw materials through its AI-powered recycling technology.

How Recycling Technologies Uses AI in Plastic Waste Management

- **RT7000 –The Core Recycling Technology**: Recycling Technologies has developed a proprietary machine known as the RT7000, which uses AI to optimize the process of converting plastic waste into valuable resources. The RT7000 is a chemical recyclingunit that uses AI to: Identify the composition of plastic waste; Optimize the conversion process; Adjust for different plastic types.
- **Plastic-to-Product Conversion via AI**: The AI-driven technology within the RT7000 allows it to convert waste plastics into new materials with high efficiency. The key outcomes include: Plaxx-a range of hydrocarbon products that can be used to manufacture new plastics or be used as feedstock in industrial applications; Closed-loop recycling, supporting circular economy.
- **Data-Driven Decision Making**: AI plays a crucial role in analyzing waste processing data, allowing operators to make informed decisions about optimizing waste streams. This data-driven approach helps improve the efficiency of the recycling process by ensuring that the machine operates at peak performance, reducing energy consumption and maximizing material recovery.

Benefits of Recycling Technologies's Solutions

- Enhanced Recycling Efficiency; Reduction in Plastic Waste; Cost and Resource Efficiency; Contribution to Circular Economy

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