

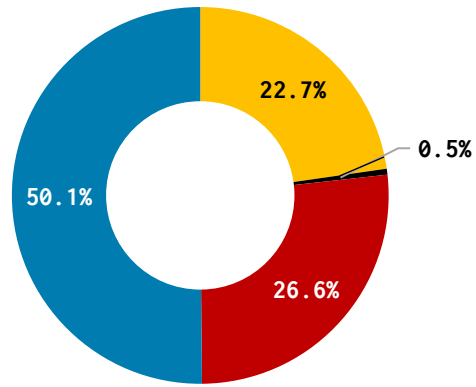


Wasting Energy: Treatment of Waste in Europe & Greece

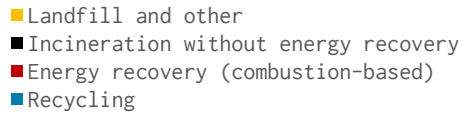
Wolfram

Vol.40 Wasting Energy: Treatment of Waste in Europe & Greece

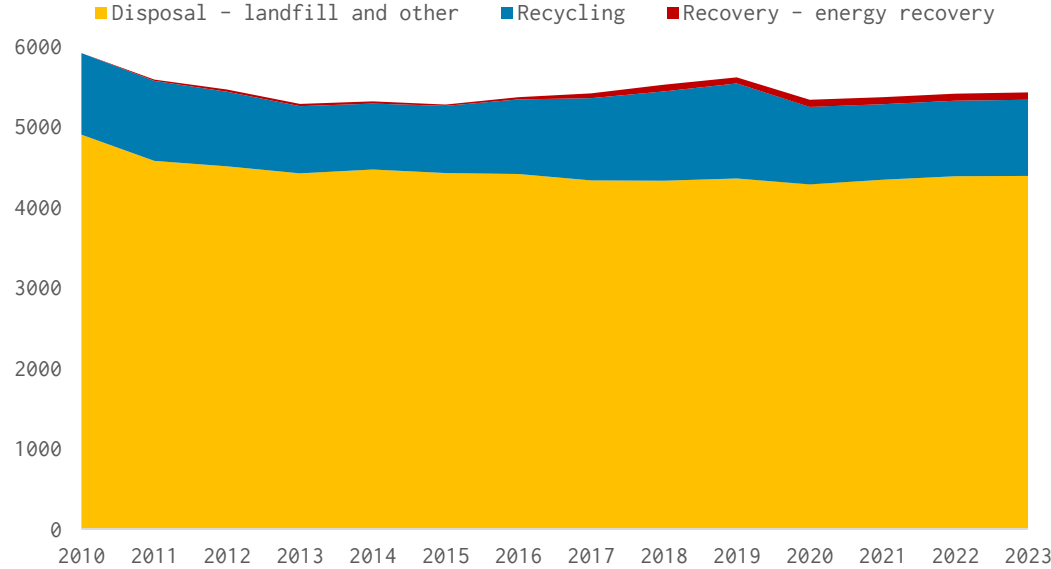
Share of municipal waste by waste management operations in Europe, [2023]



Total municipal waste:
218,136
thousand tonnes



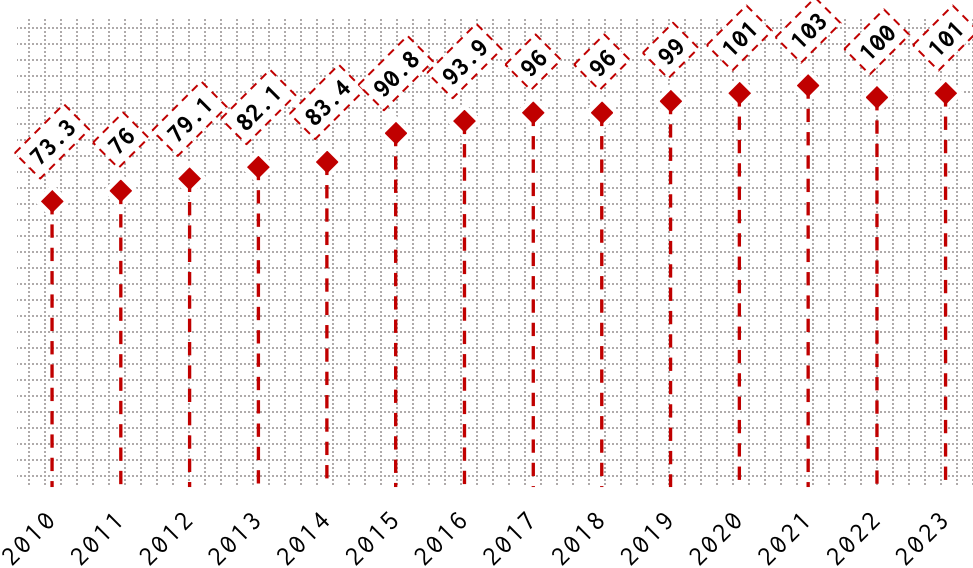
Municipal waste (thousand tonnes) by waste management operations in Greece, [2010-2023]



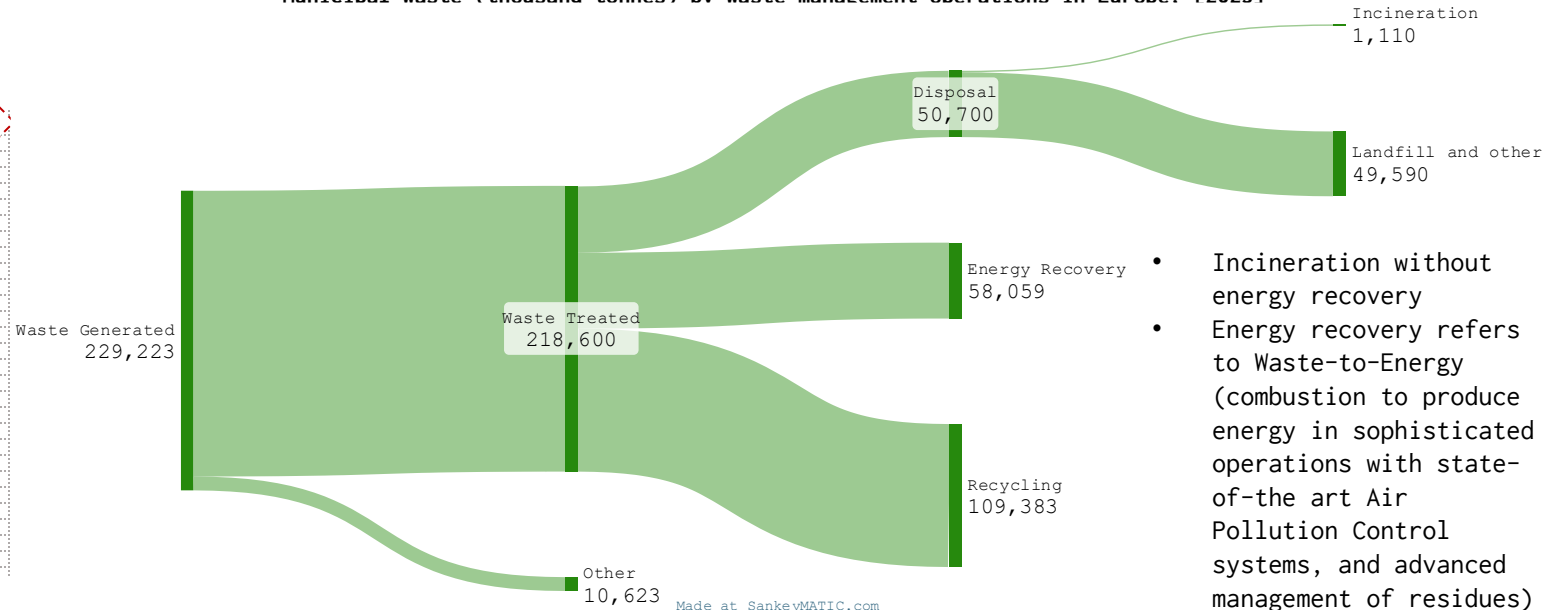
In Greece, as of 2023, the total municipal waste treated as follows:

- **2%** is used for **biogas recovery**
- **18%** is **recycled** and,
- **80%** is disposed in **landfills**
- **0%** **combustion-based energy recovery**

Residual Waste Thermally treated (mil. tonnes) in Europe, [2010-2023]



Municipal waste (thousand tonnes) by waste management operations in Europe. [2023]



- Incineration without energy recovery
- Energy recovery refers to Waste-to-Energy (combustion to produce energy in sophisticated operations with state-of-the-art Air Pollution Control systems, and advanced management of residues)

Over the past decade, Europe has steadily expanded the thermal treatment of residual waste, signaling a clear shift away from landfill disposal. The growth in Waste-to-Energy (WtE) capacity reflects a stronger emphasis on energy recovery, improving waste management efficiency while contributing to a more diversified energy mix.

Shift Toward Thermal Treatment

Greece remains heavily reliant on landfilling, with approximately 80% of municipal waste still disposed of in landfills. Limited energy recovery and low recycling rates highlight a significant gap compared to European averages, underscoring substantial untapped potential in advancing circular economy practices.

Greece's Landfill Dependence

Untapped Potential for Energy Recovery

With only around 2% of municipal waste currently used for energy recovery, Greece has substantial untapped potential. Expanding waste-to-energy infrastructure could significantly reduce reliance on landfills, enhance energy security, and support the achievement of EU waste management and decarbonisation targets.

Europe's Waste Hierarchy

Across Europe, waste management follows a more balanced hierarchy, with recycling and energy recovery as the primary treatment pathways and minimal reliance on landfill. This integrated approach supports environmental objectives, reduces emissions, and enhances resource efficiency through comprehensive and optimized waste management systems.



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