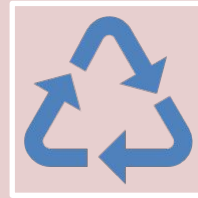


# Zurich Waste Management Case Study



High-performing municipal waste system combining pay-per-bag, recycling, and waste-to-energy (WtE).

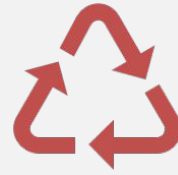


Near-zero landfill, ~52% recycling, extensive energy recovery.

**By:**  
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**REDDY**  
**22261A1209**



# Background & Governance



- Managed by ERZ (Entsorgung + Recycling Zürich).



- Strong municipal, cantonal, and federal coordination.



- Emphasis on regulation, enforcement, and public outreach.



## System Components – Pay-per-bag



- 'Züri-Sack' official bags required for residual waste.

- Direct economic incentive to reduce residuals.

- Accessible drop-off and curbside collection for recyclables.



## System Components – Recycling




- Separate collection of paper, glass, PET, metals, organics.



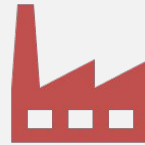


- Recycling rate ~52% at national level.



- Strong infrastructure with municipal collection points.



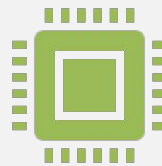
# System Components — Waste-to-Ene rgy



- Hagenholz WtE plant processes residual waste.



- Produces electricity and heat for district heating.



- Expansion projects underway for higher capacity & efficiency.



## System Components – Logistics



- Fleet modernization with electric collection vehicles.



- Reduces noise & emissions.



- Part of city's decarbonization strategy.

# Performance & Outcomes



- Near-zero municipal landfill.

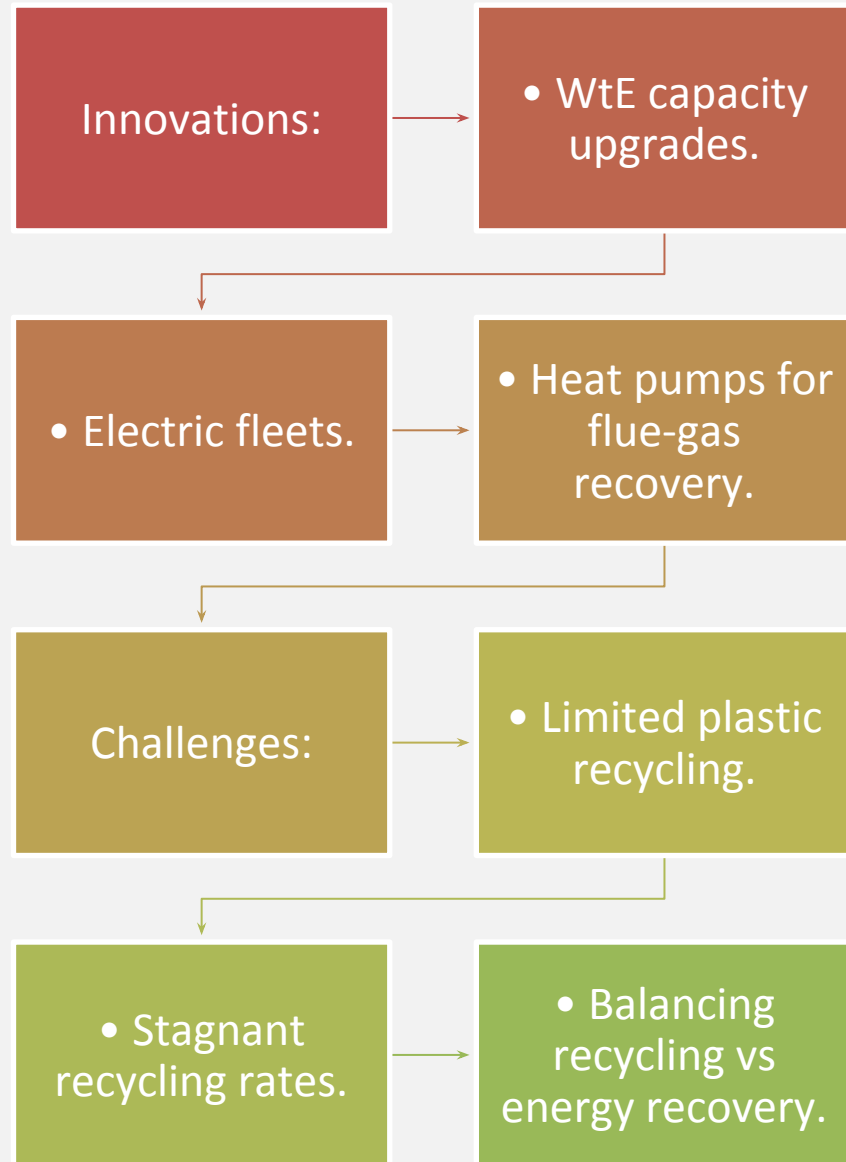


- Recycling ~52%, high recovery for glass & metals.



- WtE provides district heating & electricity to thousands of households.

# Innovations & Challenges





# Lessons Learned

- Combine economic incentives with strong infrastructure.

- Invest in WtE integrated with energy networks.

- Prioritize prevention, reuse, and recycling.

- Decarbonize collection fleets and operations.

## REFERENCE

- Ghesla, P. L., Gomes, L. P., Caetano, M. O., Miranda, L. A. S., & Dai-Prá, L. B. (2018). Municipal Solid Waste Management from the Experience of São Leopoldo/Brazil and Zurich/Switzerland. *Sustainability*, 10(10), 3716.



## Conclusion & Recommendations



- Zurich's hybrid system: incentives + infrastructure + energy recovery.

- Recommendations:

- Improve plastics recycling.

- Strengthen secondary material markets.

- Maximize WtE energy integration.

- Maintain strong public engagement.