

Source separation scheme for solid waste in the Historic Centre of Rethymno

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Introduction

The Municipality of Rethymno has implemented an integrated source separation scheme for the management of solid waste produced by Food and Beverage establishments in the Historic Centre, ("Old Town"), aiming to enhance environmental sustainability, complying with national and European directives on waste reduction and landfill diversion.

The scheme was launched on **31 March 2025** and currently serves **100 F&B establishments**, a major contributor to local economic activity.

System Design

The scheme is based on **mandatory source separation into four waste streams**:

- **Recyclable materials** (paper, plastic, metals, aluminum)
- **Organic waste**
- **Glass**
- **Mixed waste** (non-recyclable fraction)

Objectives of the Scheme

The scheme aims:

- To maintain the cleanliness and functionality of the Historic Centre,
- To increase the quantity and the quality of recyclable materials and bio-waste collected,
- To reduce the volume of mixed waste sent to landfill.



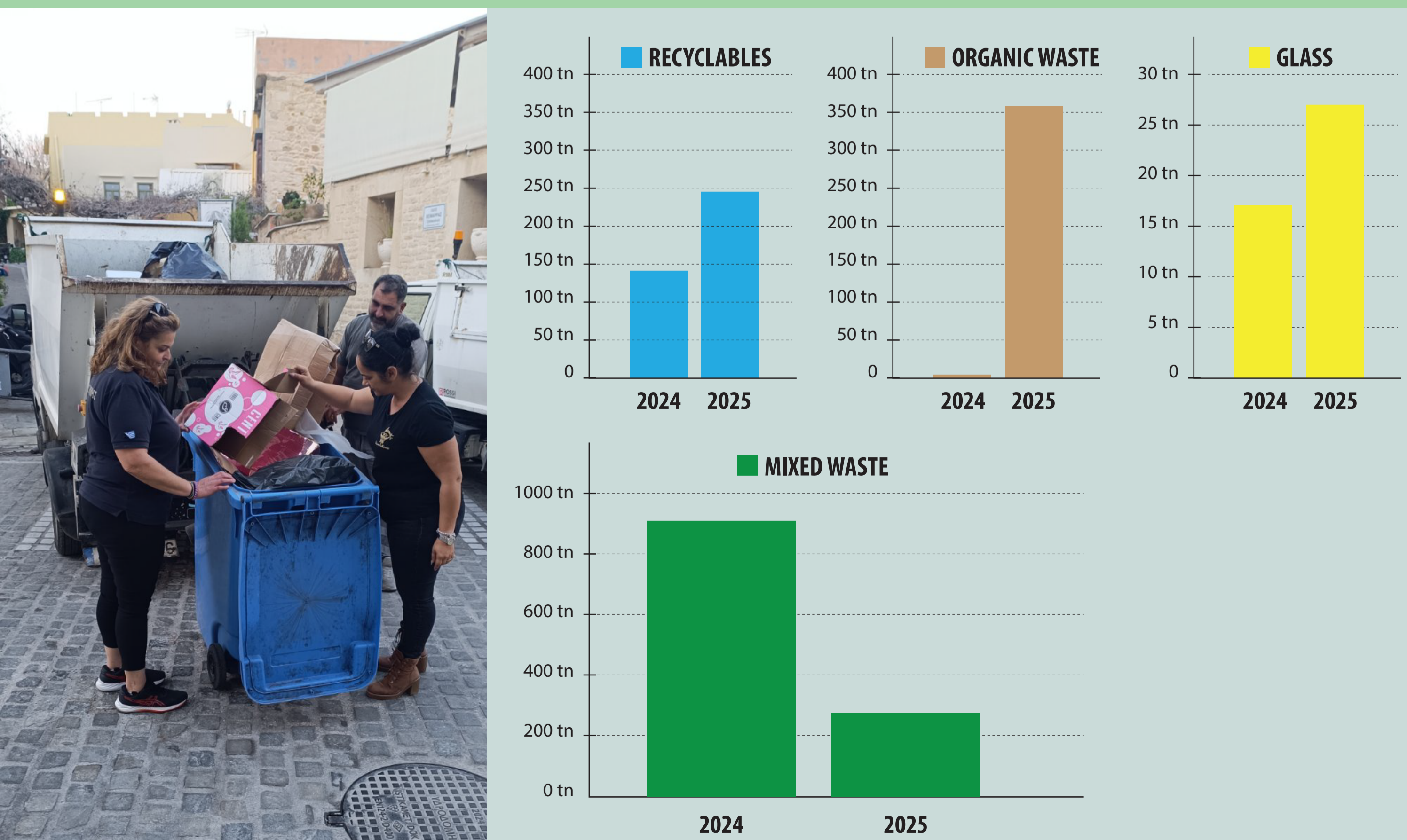
Operational Framework

The key operational feature is **collection by appointment**, carried out by dedicated municipal vehicles, at predefined locations and time windows across two operational periods, preventing uncontrolled disposal, structured as follows:

- **Two operational periods:**
 - Winter period: November – March
 - Summer period: April – October
 - **Five central collection points** within the Historic Centre
 - **Three daily collection time windows:**
 - Morning (07:30–09:30): Glass
 - Afternoon (15:30–17:35): Organics & recyclables
 - Night: Organics & mixed waste
- Winter period: (22:45–00:55)
- Summer period: (23:45–02:55)

Results

Annual weighing data (in tonnes), indicates significant improvements in the waste streams:



Waste Streams	Change (%)	2024	2025
Recyclables:	+70%	146,00 tn	248,00 tn
Organic waste:	+100%	-	360,00 tn
Glass:	+60%	17,00 tn	27,00 tn
Mixed waste:	-70%	907,00 tn	272,00 tn

Conclusion

These trends demonstrate the effectiveness of source separation in reducing landfill waste while simultaneously increasing recycling rates. Combined with the improved cleanliness levels in the Historic Centre, the new scheme strengthens environmentally responsible practices.