

Training Module 4. Waste Management in Rural Communities

4.5.2 Case Study 2. Waste Management in Reykjavik, Iceland

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Reykjavik is the capital of Iceland, an island state in the North Atlantic.

Over 140.000 people live in the northernmost capital of the world.

Waste management, recycling, and circular solutions are crucial on an isolated island in the Atlantic.

Waste separation at the source is crucial for efficient circularity, recycling and waste management.

Recycling Centres collect larger objects reuse, repair or recycling, according to the EU Circular Economy Action Plan.

Citizens can bring unused objects directly to the recycling centers.

Circular solutions include reuse of drinking bottles and containers.

There is a deposit which gets reimbursed upon return of bottles and cans.

Organic and residual waste is collected at the biomass processing center GAJA in Álfsnes.

Facility staff is educating citizens and experts on the correct waste separation and waste processing.

Educational tours are provided for interested citizens and expert groups.

Before a new law change regarding the waste separation in household waste in 2023, the collected organic waste was heavily contaminated.

Since then, the contamination in the organic waste has been visibly reduced.

Organic waste is collected in the biogas and composting plant "GAJA".

Organic waste is processed to compost, biogas, and other biofuels.

Biogas is collected and stored in the white reservoir next to the facility until the fermentation process in the two bigger tanks.

Biogas is purified to high-quality methane gas. From a life cycle perspective, the methane gas is almost climate neutral when it is burned.

The biogas-based methane can be used in conventional combustion engines or heating, providing a climate-friendly energy source.

Biomethane is sold at gas stations across Reykjavik to the general public.

This domestic energy source is cheaper, environmentally friendlier, and causes less hazardous emissions than petroleum-based fuels.