CirBioWaste | Interreg Euro-MED | Co-funded by the European Union

FACTSHEET 1

BIO-WASTE MANAGEMENT
BACKGROUND INFORMATION

A concise introduction to the bio-waste value chain, its importance and the EU policy context

September 2026



1. WHAT IS BIO-WASTE?

The starting point for sustainable bio-waste management

EU definition. Under the EU Waste Framework Directive, bio-waste means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises, and comparable waste from food-processing plants.



Figure 1: What is considered bio-waste. Source: Bin2Bean.

Terminology

"Organic waste" is often used informally as a broader term. This toolkit uses "bio-waste" in line with the Waste Framework Directive.

2. WHY SEPARATING BIO-WASTE MATTERS

Bio-waste is a major municipal waste stream and a valuable resource when managed well

30–40% of municipal waste

Bio-waste accounts for approximately 30–40% of municipal waste. Keeping it out of residual waste is therefore central to improving recycling performance and closing material and nutrient cycles.

Why separation matters. Mixing bio-waste with residual waste limits the recovery of valuable nutrients and organic matter and increases reliance on disposal and other lower-value treatment routes. **Separate collection at source enables higher-quality recycling (supporting the recovery of resources for beneficial use) and reduces residual waste.**



Figure 2: Key benefits of separate bio-waste management. Source: CirBioWaste.

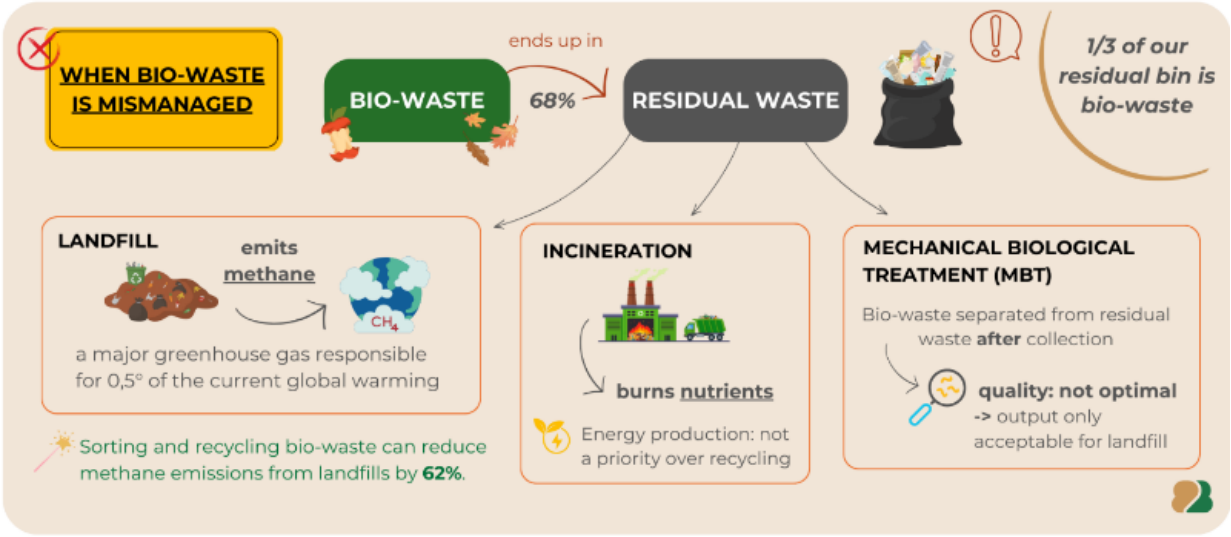


Figure 3: Impacts of mismanaged bio-waste. Source: Bin2Bean.

3. FROM PREVENTION TO RESOURCE RECOVERY

Putting the waste hierarchy into practice for bio-waste

Prevention comes first. In line with the waste hierarchy *(Figure 4)*, the priority is to avoid generating food waste and other preventable bio-waste. Where bio-waste cannot be prevented, the next step is to ensure its separate collection or recycling at source, for example through home or community composting. Keeping bio-waste separate from other waste fractions preserves its quality, reduces residual waste and enables the recovery of valuable resources, including compost, digestate and renewable energy, through appropriate biological treatment processes such as industrial composting and anaerobic digestion.

EU requirement since 1 January 2024
Member States must ensure that **bio-waste is separated and recycled at source or collected separately and not mixed with other types of waste**, in accordance with the Waste Framework Directive.



PREVENT
Prevent food waste and other avoidable bio-waste wherever possible.

SEPARATE
Keep bio-waste separate from residual waste.

RECYCLE
Recycle at source or through suitable biological treatment, such as composting and anaerobic digestion.

RETURN VALUE
Recover nutrients and organic matter through quality compost and digestate, and energy where relevant.

Figure 4: Applying the waste hierarchy to bio-waste management. Adapted from the European Commission.



Figure 5: Closing the loop: from food waste to fertile soil – the bio-waste journey. Source: CirBioWaste

There is no single bio-waste management model suitable for every territory. The most effective approach depends on local conditions, including **territorial characteristics, the quantity and composition of bio-waste, available collection and treatment infrastructure, local consumption and waste sorting habits, citizen participation and governance**. These factors determine the appropriate combination of separate collection, recycling at source, treatment and economic instruments, and are particularly relevant across the diverse Mediterranean region.

TERRITORY	BIO-WASTE	INFRASTRUCTURE	PEOPLE & GOVERNANCE
Density · settlement pattern · climate · tourism & seasonality	Quantity · composition · generators · consumption habits	Collection logistics · treatment capacity · end markets	Participation · sorting habits · communication · fees/PAYT · monitoring

Locally adapted system

Good performance depends not on one “best” model, but on matching service design, infrastructure, participation and governance to local conditions.

4. CORE EU LEGAL FRAMEWORK

Key rules governing bio-waste from prevention and separate collection to treatment and end use

EU bio-waste management is governed by a combination of waste, environmental, hygiene and product legislation. The **Waste Framework Directive provides the overarching framework**, while additional rules apply to specific waste streams, treatment installations and recovered outputs.

A. THE CORE FRAMEWORK

Focus	EU legislation	Key relevance
OVERARCHING FRAMEWORK	**Waste Framework Directive 2008/98/EC** *Consolidated: 16 Oct 2025*	Waste hierarchy · separate collection/recycling at source **Key targets:** **Municipal waste recycling:** 55% by 2025 · 60% by 2030 · 65% by 2035 **Food-waste reduction by 2030:** 10% in processing & manufacturing · 30% per capita in retail, food services & households
DISPOSAL	**Landfill Directive 1999/31/EC** *Consolidated: 4 Aug 2024*	Diversion of biodegradable municipal waste from landfill. Key target: Municipal waste landfilled: **≤10% by 2035**
CLASSIFICATION	**European List of Waste - Decision 2000/532/EC** *Consolidated: 6 Dec 2023*	Harmonised waste codes for classifying municipal and commercial bio-waste streams
FOOD-WASTE DATA	**Delegated Decision (EU) 2019/1597 + Implementing Decision (EU) 2019/2000** *Current acts*	Common methodology for measuring food waste and a harmonised format for reporting data to the EU. **Monitoring:** annual measurement and reporting supports tracking of WFD food-waste reduction targets.

Key date: 1 January 2027

Municipal bio-waste entering aerobic or anaerobic treatment may be counted as recycled only if it has been s**eparately collected or separated at source**, in accordance with the Waste Framework Directive.

B. TREATMENT AND RECOVERED OUTPUTS

Focus	EU legislation	Key relevance
HYGIENE	**Regulation (EC) No 1069/2009 + Regulation (EU) No 142/2011** *Consolidated: 14 Dec 2019 / 29 Oct 2025*	Health and hygiene rules for relevant animal by-products, including certain food and catering waste. **Key requirements:** conditions for **composting and anaerobic digestion**, including processing and hygiene requirements where applicable.
PRODUCTS	**Fertilising Products Regulation (EU) 2019/1009** *Consolidated: 1 Jul 2026*	EU framework for **CE-marked fertilising products,** including eligible compost and digestate materials. **Key requirements:** product safety, quality and conformity requirements for relevant EU fertilising products.
TREATMENT	**Industrial Emissions Directive 2010/75/EU + Waste Treatment BAT Conclusions (EU) 2018/1147** *IED consolidated: 4 Aug 2024*	Environmental requirements for biological waste-treatment installations within scope. **Key requirements:** application of **Best Available Techniques (BAT)** and associated environmental performance requirements.

***Other rules may apply depending on the activity**, including landfill acceptance criteria, waste shipment requirements and national or regional implementing legislation.*

Full framework: CirBioWaste Knowledge Hub - EU Policy Framework

5. EXPLORE THE CIRBIOWASTE TOOLKIT

Practical guidance for effective bio-waste management

This factsheet provides the common background for the **CirBioWaste Toolkit**. Continue with the topic most relevant to your needs for more detailed guidance, practical approaches and examples. The factsheets draw on existing knowledge, good practices and CirBioWaste partner expertise to support **local and regional authorities in adapting bio-waste solutions to their territorial context.**

BIO-WASTE COLLECTION	Collection models, source separation, quality, frequency and practical system design.
BIO-WASTE TREATMENT	Composting, anaerobic digestion, treatment quality and outputs.
ENABLERS FOR SEPARATE COLLECTION	PAYT, taxes/fees, incentives, communication, governance and monitoring.

Go deeper in the Knowledge Hub

The CirBioWaste Knowledge Hub provides 200+ open-access resources, including EU policy overviews, guidance documents, projects, entities, best practices and CirBioWaste project outputs.

CirBioWaste is an Interreg Euro-MED transfer project supporting more sustainable and circular bio-waste management across the Mediterranean through knowledge transfer, capacity building and adaptation of validated solutions.

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