

Bio-waste generation in the EU: Current capture levels and future potential

Report summary

*The **Bio-based Industries Consortium (BIC)** has teamed up with **Zero Waste Europe (ZWE)** to produce a first-of-its-kind report estimating the **current and future availability of bio-waste in the EU28**. This summary of the report is now available, and the full report will be made available on **6 July 2020** on BIC's and ZWE's websites.*

There are two major types of bio-waste: garden and food waste as defined in EU regulations (the revised Waste Framework Directive). This report focuses on **food waste**, although calculations also cover bio-waste as a whole.

The first chapter briefly outlines **the EU policy drivers** for the management of bio-waste, one of which will be the new Waste Framework Directive (WFD), which mandates bio-waste collection from 1 January 2024 onwards. Other drivers from environmental policies are also mentioned.

In the second chapter, the **methodology of the report** is outlined. The report builds on public information and national data from the 27 Member States + UK and Norway for bio-waste generation, making a number of assumptions on how to calculate the current capture of bio-waste in the EU27+ and the theoretical potential.

The third chapter presents the **results**. In the EU27+, current capture of food waste is **9,520,091 tonnes per year, just 16% of the theoretical potential, estimated at 59,938,718 tonnes**. It must be noted that the latter number is indeed only theoretical. Every type of collection aims at maximising capture but will never reach 100%. With that in mind, the report defines a target capture level, the 'operational potential', of around 85% of the theoretical potential, so as to calculate how much food waste, currently left in mixed waste, may actually be still recovered.

The fourth chapter provides some **best practices in bio-waste management**. This includes the case of Milan; an outstanding example of how residential food waste collection has been implemented. Catalonia's landfill tax is also described, where economic instruments aim to promote the collection of bio-waste. Another best practice is in France, where some municipalities were pioneers in promoting the separate collection of bio-waste. BBI JU funded projects are also included as examples of best practices for sustainably valorising bio-waste to provide new bio-based compounds for the chemicals, food-packaging and agricultural sectors.

Finally, the report includes **country-specific factsheets** that provide calculations for various countries, and other specific information that is relevant to bio-waste management strategies and perspectives in that specific country.

Table 10: Comparison theoretical potential / currently collected (food waste and bio-waste)

	ESTIMATE FOOD WASTE COLLECTED / POTENTIAL GENERATION	ESTIMATE BIO-WASTE COLLECTED (FOOD + GARDEN) / POTENTIAL GENERATION		ESTIMATE FOOD WASTE COLLECTED / POTENTIAL GENERATION	ESTIMATE BIO-WASTE COLLECTED (FOOD + GARDEN) / POTENTIAL GENERATION
EU 27+	16%	34%	ITALY	47%	55%
AUSTRIA	19%	17%	LATVIA	4%	10%
BELGIUM	16%	3%	LITHUANIA	6%	14%
BULGARIA	0%	16%	LUXEMBOURG	13%	29%
CROATIA	2%	19%	MALTA	4%	19%
CYPRUS	5%	83%	NETHERLANDS	15%	41%
CZECHIA	10%	8%	NORWAY	45%	30%
DENMARK	22%	34%	POLAND	5%	11%
ESTONIA	3%	54%	PORTUGAL	2%	4%
FINLAND	15%	57%	ROMANIA	3%	7%
FRANCE	21%	16%	SLOVAKIA	9%	17%
GERMANY	27%	11%	SLOVENIA	13%	28%
GREECE	4%	20%	SPAIN	3%	10%
HUNGARY	5%	55%	SWEDEN	14%	32%
IRELAND	8%	10%	UK	13%	35%

The Bio-based Industries Consortium (BIC)

- BIC (biconsortim.eu) is Europe's leading industry association, putting circularity, innovation and sustainability at the heart of the European bioeconomy and the private partner in the €3.7 billion public-private partnership with the EU - the Bio-based Industries Joint Undertaking (BBI JU).
- BIC's membership includes 200+ industry members covering the whole value chain, from primary production to the market, across multiple and diverse sectors including agriculture & agri-food, aquaculture & marine, chemicals and materials, including bio-based fibres and bioplastics, forest and forest-based sectors, market sectors, technology providers and waste management & treatment.
- BIC also has over 200 associate members representing academia, research organisations, trade associations, etc.
- BIC's mission is to build new circular bio-based value chains and to create a favorable business and policy climate to accelerate market uptake.

Zero Waste Europe (ZWE)

- Zero Waste Europe (zerowasteurope.eu) is the European network of communities, local leaders, businesses, experts, and change agents working towards the same vision: phasing out waste from our society. ZWE wants to empower communities to redesign their relationship with resources, to adopt smarter lifestyles and sustainable consumption patterns, and to think circular.