

Recycling Bio-Waste is an Important Step Towards a Circular Economy

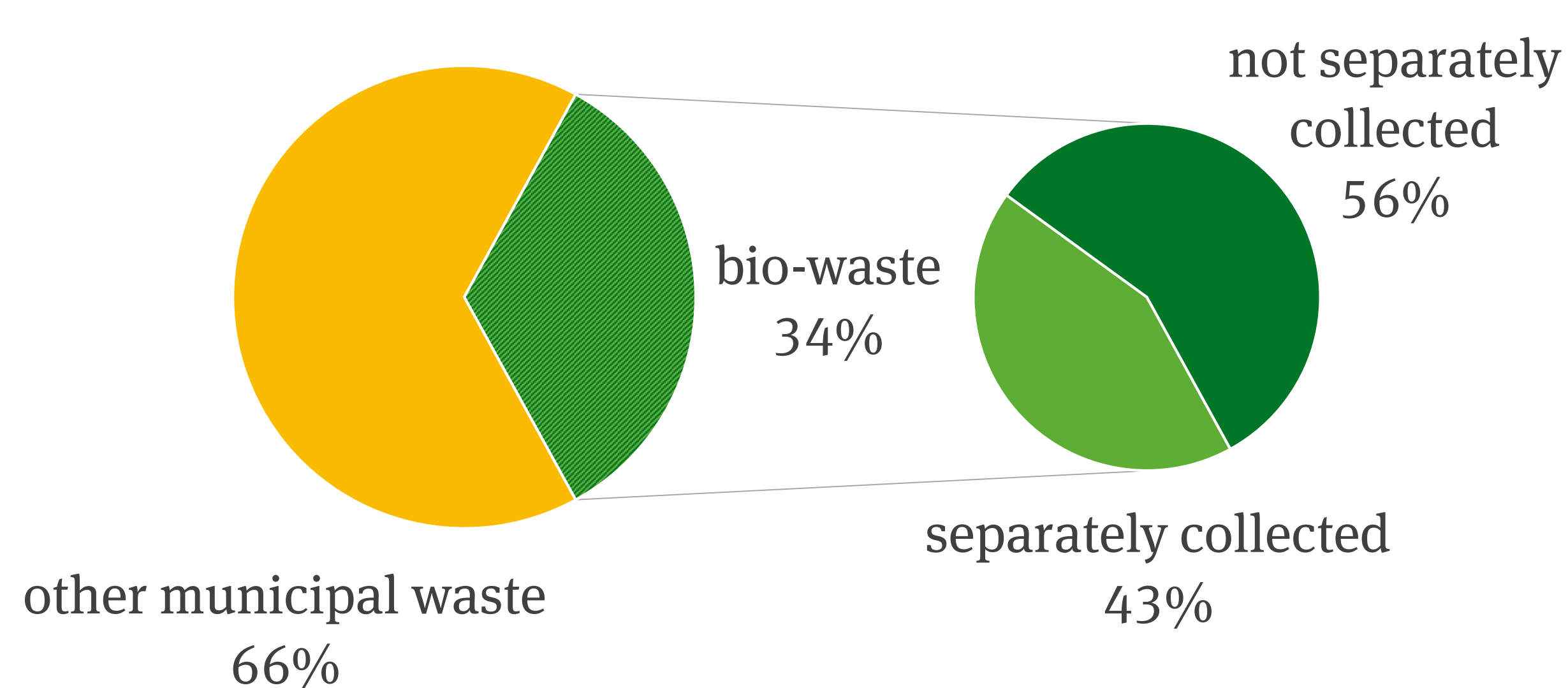
Why is bio-waste so important?

34% of whole municipal solid waste in the EU is bio-waste. That means that every citizen in the EU produces 168 kg biowaste per year. Currently less than 43% of this waste is collected separately for recycling. More than the half, nearly 100 kg bio-waste per capita ends up in the residual waste every year.

A good separate collection of bio-waste:

- enables the recycling of nutrients and organic matter (humus)
- reduces the amount of residual waste which has to be treated and disposed and
- is an important measure to reach the recycling aims for municipal solid waste.

Less than 43% of bio-waste is collected separately



What are recycling products from bio-waste?

Compost and digestate from bio-waste are excellent fertilizers for agriculture. They contain about 1.5% Nitrogen, 0.65% Phosphorus, 1.2% Potassium and about 35% organic matter (humus). Fertilizing with compost or digestate can substitute mineral fertilizers and also increases the humus content of the soil.

The results are that soil:

- has a better microbial activity
- is better protected against drought
- is easier to handle by the farmer

Compost can also substitute peat in potting soil and gardening substrate.

Clean separate collection is crucial for clean products

Farmers and also the producers of potting soil ask for quality compost with a low content of contaminants like heavy metals and nearly no impurities like plastic particles.



Different qualities of separately collected bio-waste (left: low, right: high)



Sources for impurities: fruit labels (left) or coffee capsules/pads (right)

The quality of the collected bio-waste reaching the treatment plants affects directly the quality of the produced compost or digestate. With all available treatment techniques it is not possible to remove 100 % of plastic bags or packaging which are wrong in the biowaste. Clean biowaste is necessary for a high-quality recycling.

For an efficient circular economy it is important to separate more of the generated bio-waste in a better quality.

What is UBA doing?

- In the year 2018 UBA published the brochure „Quality assurance of compost and digestate“: <https://www.umweltbundesamt.de/publikationen/quality-assurance-of-compost-digestate>
- UBA is partner of the public campaign “Aktion Biotonne Deutschland”: <https://www.aktion-biotonne-deutschland.de/>
- UBA finances the development of an analytic method for measuring micro plastics in compost.
- UBA contracted a study to evaluate the separate bio-waste collection in Germany: <https://www.umweltbundesamt.de/publikationen/verpflichtende-umsetzung-der-getrenntsammlung-von>

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