

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

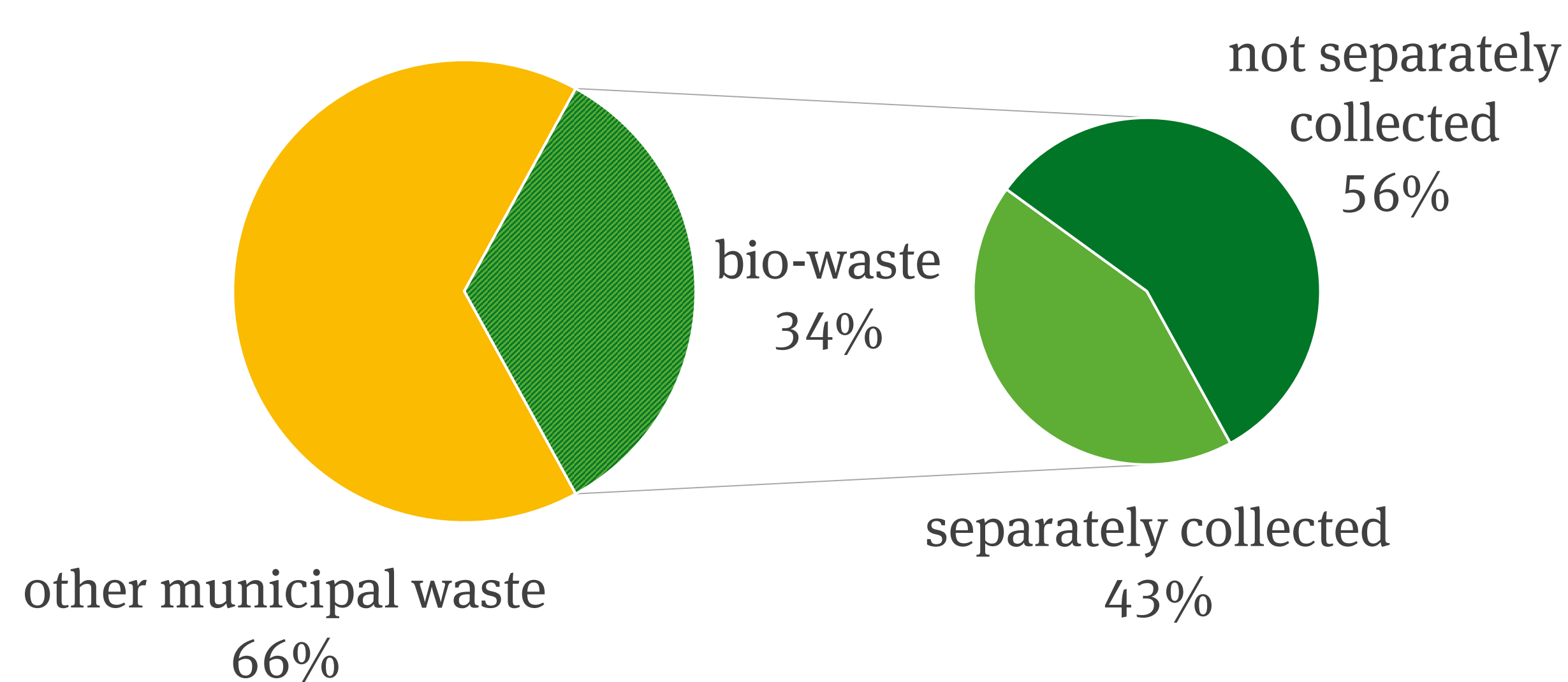
## Why is bio-waste so important?

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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