

ECN's position on draft implementing regulation listing products, components and waste streams having a critical raw materials potential

The European Compost Network (ECN), the European umbrella organisation representing the biowaste recycling sector, welcomes that 'digestate or compost from separately collected biowaste' are considered by the Commission as having a relevant critical raw materials recovery potential within the meaning of the Critical Raw Materials Act (Regulation 2024/1252). It is a major step forward for the scaling-up of the biowaste recycling sector.

Indeed, compost and digestate produced from recycled biowaste contain valuable organic matter and nutrients¹ which can substitute fossil-based fertilisers and replace peat in growing media, thereby reducing the EU's dependencies on critical raw materials imports. Compost and digestate products are an important source of macro- and micro-nutrients, which are provided to the soil in a sustainable manner. Besides organic matter (21%) and liming materials (4%), one tonne of compost contains 12 kg nitrogen, 4 kg phosphate, and 6 kg potash². By applying compost in a crop rotation, the basic fertilisation for phosphorus as well as for potassium can be fully covered. The available nitrogen and the mineralisation potential of the organic nitrogen fraction in compost are also relevant for plant needs. Overall, ECN calculated that the 21 million tonnes of compost produced each year in Europe can replace 2% of mineral nitrogen and 5.8% of mineral phosphorus³. In addition, compost and digestate not only provide nutrients but can also help improving soil health by increasing soil organic matter (humus), soil biodiversity and soil water holding capacity when regularly applied in or on soils⁴. In this way, using compost and digestate contributes to saving resources while keeping our soils healthy and fertile.

¹ ECN Data Report, 2022, [link](#).

² ECN Fact sheet 2, Soil Fertility & Productivity, 2020, [link](#).

³ ECN Data Report, 2022, [link](#).

⁴ ECN Fact sheet 1, Soil Structure & Carbon Storage, 2020, [link](#).

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Resource potential of compost

Nutrient and organic matter potential of compost	
Total potential of biowaste collected	125-130 million tonnes per year
Potential of biowaste collected from municipal solid waste	90 million tonnes per year
Compost produced (40% fresh matter)	36 million tonnes per year
Compost produced (65% dry matter)	23.4 million tonnes
<ul style="list-style-type: none"> • Organic matter (dry matter) 	8-10 million tonnes
<ul style="list-style-type: none"> • Nitrogen (dry matter) 	350,000 tonnes
<ul style="list-style-type: none"> • Potassium (dry matter) 	340,000 tonnes
<ul style="list-style-type: none"> • Phosphorus (dry matter) 	81,600 tonnes

ECN believes that recognising compost and digestate from separately collected biowaste as having a relevant critical raw materials recovery potential will foster the further implementation of separate collection of biowaste and increase recycling. This is precisely what Article 26(1)(c) of the Critical Raw Materials Act aims to achieve as it requires Member States to adopt and implement national measures on circularity designed to *“increase the collection, sorting and processing of waste with relevant critical raw materials recovery potential, including metal scraps, and ensure their introduction into the appropriate recycling system, with a view to maximising the availability and quality of recyclable material as an input to critical raw material recycling facilities”*.

The Waste Framework Directive has introduced in 2024 an obligation to separately collect municipal biowaste⁵, which is the most important waste stream for which action is needed, as it constitutes the largest fraction of total municipal waste⁶. Efficient separate collection and recycling of biowaste is therefore essential to divert this significant waste stream from landfills and incineration, to ensure the quality of the input material, and to recover from it valuable nutrients that will be returned to the soil.

By increasing the capture rate of biowaste through implementing and optimising the separate collection of biowaste from household in the EU, the amount of compost could be doubled and the recovering potential of mineral nitrogen could be increased to 4 % and that of phosphorus to more than 10 %.

ECN now calls the Commission to swiftly adopt the list of products, components and waste streams considered as having a relevant critical raw materials recovery potential, including compost and digestate from separately collected biowaste. However, ECN stresses that this list should not only serve as a reference but should be binding, so that Member States have

⁵ Directive 2008/98/EC on waste, Article 22(1).

⁶ Early Warning Report 2023, COM(2023) 304 final, [link](#).

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the obligation to adopt and implement it as part of their national measures on circularity. Indeed, these measures are absolutely necessary and must be mandatory if we are to improve biowaste collection and recycling, increase circularity, and reduce dependency on critical raw materials imports.

About the ECN

The ECN is the leading European membership organisation promoting sustainable recycling practices by composting and anaerobic digestion of organic resources and guarding over the quality and safe use of the recovered organic fertilisers and soil improvers. With 67 members from 27 European countries, ECN represents more than 4,500 experts and plant operators with more than 45 million tonnes of biological waste treatment capacity.