

ECN's feedback on the Biotech Act II

The European Compost Network (ECN), the European umbrella organisation representing the bio-waste recycling sector, welcomes the initiative of the Commission to extend the scope of the Biotech Act through a new Biotech Act II to include bio-based materials such as fertilisers.

Composting and anaerobic digestion are the best available techniques for recovering separately collected bio-waste from households, industries and companies, and transforming it into high-quality fertilising products. When regularly applied in or on soils, the compost and digestate produced can help improving soil health by increasing soil organic matter, soil biodiversity and soil water holding capacity, and can act as a carbon sink by storing carbon¹. Therefore, they represent a great opportunity to reduce dependencies on fossil-based fertilisers and peat mainly produced outside of Europe².

To facilitate the deployment of compost and digestate derived from bio-waste and create lead market, ECN recommends to tackle regulatory bottlenecks and eliminate inconsistencies in the Fertilising Products Regulation (EU) No 2019/1009 (EU FPR) and the Animal By-Product Regulation (EC) No 1069/2009 (ABPR), to set recycled nutrients targets for fertilising products and peat replacement targets for growing media, and to provide financial support.

Regulatory barriers and inconsistencies in the Fertilising Products Regulation and the Animal By-Product Regulation concerning the treatment and valorisation of bio-waste materials

The Biotech Act II should consider the regulatory bottlenecks that currently hinder the placing of organic fertilisers and soil improvers derived from animal by-products (ABP) on the European market, resulting in a missed opportunity for organic nutrient recovery.

The need for additional transformation parameters for composting

Food waste from households and industries is classified as ABP category 3 material. The end point in the manufacturing chain of organic fertilisers and soil improvers derived from ABP

¹ See ECN, Fact Sheet: Compost & Soil Health Improvement – Evidence from Long-Term Trials, 2026, <https://www.compostnetwork.info/download/fact-sheet-soil-health-evidence-from-long-term-trials/>.

² See ECN, Fact Sheet: Compost in Farm Operations – Agronomic and Economic Relevance, 2026, <https://www.compostnetwork.info/download/fact-sheet-compost-in-farm-operations/>.

materials can only be reached if the composting and anaerobic digestion processes fulfil standard transformation parameters (70°C, 1h, <12mm) set out in the Commission Regulation (EU) No 142/2011 implementing the ABPR. However, these standard transformation parameters are in practice impossible to meet, which prevents ABP-derived compost and (post-composted) digestate from obtaining the CE label and being placed on the European market.

To address this issue, the Commission should consider to include alternative transformation parameters in the ABPR. Indeed, in 2024, the European Food Safety Authority (EFSA) published a Scientific Opinion³ giving a positive assessment of two alternative time-temperature profiles for tunnel composting (60°C, 48h, <200mm and 55°C, 72h, <200mm). However, the delegated act amending the Commission Regulation (EU) No 142/2011 to include them is still awaited.

These two alternative transformation parameters should also be included in the EU FPR as requirements for composting (in Annex II, Part II, CMC 3 'Compost', point 3) since the sanitation evidence was approved by EFSA, which also guarantees the safety of non-ABP bio-waste input materials for composting.

Alternatively, the ECN would suggest to amend the scope of the ABPR in order to exempt food waste from the requirements of the ABPR, as this waste stream is already regulated under the EU FPR (Article 10(e), (f), (g) and (p)) and under the Waste Framework Directive. This would be a straightforward solution to remove the barriers hindering the access to the single market of compost and digestate derived from food waste.

The need for the recognition and integration of national validated alternative transformation parameters

Significant inconsistencies can be seen between the EU FPR and the ABPR concerning the possibility of placing compost and digestate on the market.

Fertilising products containing animal by-products can only be placed on the European market with the CE label if the end point in the manufacturing chain has been reached. The Delegated Regulation (EU) 2023/1605 supplementing the ABPR as regards the determination of end points in the manufacturing chain of certain organic fertilisers and soil improvers was published on 22 May 2023. Its Article 3 lays down requirements for reaching the end point in the manufacturing chain for organic fertilisers and soil improvers. These requirements refer to Annex V of the Commission Regulation (EU) 142/2011 but they exclude Chapter III, Section 2, point 1 of the same Annex V, where alternative transformation

³ EFSA, Evaluation of alternative methods of tunnel composting (submitted by the European Composting Network) II, Scientific Opinion (adopted on 14 March 2024), EFSA Journal, Volume 22, Issue 4, April 2024, <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2024.8745>.

parameters for biogas and composting plants can be validated according to a harmonised model and authorised by the competent authority. These validated and authorised alternative transformation parameters for biogas and composting plants guarantee the same level of safety than the standard transformation parameters, and allow free access to the European market for ABP-derived compost and digestate.

The inconsistency lies within the fact that (treated) ABPs within the scope of the ABPR are allowed as fertilising products on the European market in terms of safety, but they are ruled out by the EU FPR because the permitted transformation parameters are narrowed down.

Therefore, in order to support the bio-based fertilising products market, the ECN urges the Commission to simplify the current regulations by including the transformation parameters for composting that have been positively assessed by EFSA, and by recognising the alternative transformation parameters that have been validated and authorised by Member States.

Recycled nutrients targets for fertilising products and growing media

Bio-waste represents a huge potential in terms of recycling. In 2022, the ECN estimated that about 38 million tons of municipal bio-waste were separately collected and treated per year⁴. This represents 17% of the overall municipal solid waste, while to meet the target of recycling/re-using 65% of municipal waste by 2035⁵, the separately collected bio-waste should represent around 35%. This means that 40 million tons of municipal bio-waste can still be captured in Europe if separate collection, which is mandatory since 2024⁶, is fully implemented. The bio-waste separately collected can be recycled into high-quality compost (used as soil improver) and digestate (used as organic fertiliser), which are mainly used in agriculture, providing soil with both nutrients and organic matter⁷.

In 2021, we produced 21 million tons of compost from bio-waste. If this compost were applied at a rate of 10 tons per hectare per year, it would cover 2% of arable land or 16% of severely eroded arable land. Overall, ECN evaluated that the compost produced could replace 2% of total inorganic nitrogen and 5.8% of total inorganic phosphorus. In the future, if separate collection is further improved, the potential of compost production could increase up to 46 million tons, thereby replacing 4.4% of total inorganic nitrogen and 12.7% of total inorganic phosphorus.

⁴ ECN Data Report 2022, [link](#).

⁵ Directive 2008/98/EC on waste, Article 11(2)(e).

⁶ Directive 2008/98/EC on waste, Article 22.

⁷ See ECN, Fact Sheet: Compost & Soil Health Improvement – Evidence from Long-Term Trials, 2026, <https://www.compostnetwork.info/download/fact-sheet-soil-health-evidence-from-long-term-trials/>.

According to the market potential report in the frame of the evaluation of the EU FPR⁸, the market volume of organic fertilisers (PFC 1.A) from industrial by-products and waste (excluding manure) represents 9.5% of the total fertilising product market while soil improvers (PFC 3) represent 35.8%.

Therefore, fertilising products derived from bio-waste have a significant potential in terms of mineral fertiliser replacement, economic value and environmental benefits, but further measures are still needed to stimulate market demand. This is the reason why the ECN proposes to introduce recycled nutrients targets for fertilising products. These targets would require Member States to ensure that a certain percentage of the fertilisers used in their country are derived from recycled nutrients from bio-waste. This would be a way of replacing (in part) mineral fertilisers with bio-waste-derived fertilisers and soil improvers, i.e., compost and digestate. The ECN also proposes to set similar targets for replacing peat in growing media. These targets are based on our own calculations, using a conservative, yet realistic approach.

Targets for mineral fertiliser replacement with bio-waste-derived fertilisers and soil improvers in agriculture

Based on ECN's calculations regarding the availability of nitrogen, phosphorus and potassium (NPK) in compost and digestate, we propose to set the following targets for replacing mineral fertiliser with bio-waste-derived fertilisers and soil improvers in agriculture.

- By 2030, 10 % of mineral fertiliser shall be replaced by bio-waste-derived fertilisers and soil improvers;
- By 2035, 15 % of mineral fertiliser shall be replaced by bio-waste-derived fertilisers and soil improvers;
- By 2040, 20 % of mineral fertiliser shall be replaced by bio-waste-derived fertilisers and soil improvers;
- By 2050, 25 % of mineral fertiliser shall be replaced by bio-waste-derived fertilisers and soil improvers.

Targets for peat replacement with bio-based-derived components in growing media

In addition, we propose to set targets for replacing peat with bio-based-derived components such as CMC 3 'Compost' and CMC 5 'Digestate other than fresh crop digestate' in growing media. Our proposal includes different targets depending on whether the growing media is intended for hobby gardeners or for professionals.

⁸ Reference: PRODCOM-DS_056120.

For growing media used by hobby gardeners:

- By 2030, at least 30% of peat shall be replaced by bio-based derived components in growing media intended for hobby gardeners;
- By 2040, at least 50% of peat shall be replaced by bio-based derived components in growing media intended for hobby gardeners;
- By 2050, at least 75% of peat shall be replaced by bio-based derived components in growing media intended for hobby gardeners.

For growing media used by professional:

- By 2030, at least 20% of peat shall be replaced by bio-based derived components in growing media intended for professionals;
- By 2040, at least 30% of peat shall be replaced by bio-based derived components in growing media intended for professionals.

The ECN believes that setting such targets would encourage the use of recycled nutrients derived from bio-waste and help to create a level playing field with mineral fertilisers, without creating unfair competition.

Financial support for the use of compost and digestate through the Common Agricultural Policy and the Green Taxonomy

To scale-up the market for bio-waste-derived fertilising products, increased financial support will be required for the collection and recovery of bio-waste, as well as for the use of these products by end-users. As mentioned in the Fertiliser Action Plan published on 19 May 2026, the Common Agricultural Policy (CAP) should be used to encourage and support farmers for using compost and digestate derived from bio-waste on their land. Therefore, the use of high-quality compost and digestate should be integrated in national CAP Strategic Plans by creating or adapting new eco-schemes. Mandatory measures could also be introduced under the EU standards for Good Agricultural and Environmental Conditions of Land (GAECs).

In addition, the ECN welcomes that composting and anaerobic digestion of bio-waste are classified as green activities under the EU Taxonomy. However, careful consideration must be given to ensuring that the criteria defining these activities are achievable and do not act as a barrier to their funding.

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About the European Compost Network (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 61 members from 25 European countries, ECN represents more than 4,500 experts and plant operators with more than 45 million tonnes of biological waste treatment capacity.