

ECN Feedback on the Evaluation of the EU Fertilising Products Regulation (EU FPR)

The ECN, which represents the circular bioeconomy in Europe and produces quality compost and digestate from over 48 million tonnes of separately collected biowaste per year in more than 4,500 composting and anaerobic digestion plants across Europe, welcomes the initiative to evaluate the EU Fertilising Products Regulation, which came into force on 16 July 2022.

The ECN has welcomed and supported the development of a harmonised regulation for fertilising products, with the aim of boosting the market for circular recycled products — in particular bio-waste materials such as compost and digestate. This Regulation established European-wide end-of-waste criteria for compost and digestate being used as fertilising products (i.e. organic fertilisers, soil improvers, growing media).

However, there are currently no significant amounts of compost- or digestate-derived CE fertilising products available on the European market. Adjustments, changes, simplification and coherence are needed!

Access to compost- and digestate-derived CE fertilising products is very limited on the European market!

What are the reasons for this?

As stakeholder and observer in the EU Expert Group on Fertilising Products the ECN has contributed with [several position papers and feedbacks](#) on the development of the EU FPR and its implementation regulations over the last eight years.

Compost and digestate have been used as organic soil improvers and fertilisers on national markets for decades. On average, 50% of produced compost and 93% of produced digestate is used in agriculture¹. The requirements for these materials derived from waste are set out in national waste regulations (e.g. biowaste and compost ordinances) and national fertiliser regulations. As these are well-established products on national markets where coherent waste/product regulations are in place and/or where external quality assurance is required, manufacturers have little incentive to obtain a CE mark. Fulfilling the EU FPR requirements, particularly with regard to the requested conformity assessment, will impose an additional burden and cost on manufacturers

The main bottlenecks, which hinder the placing of compost- and digestate-derived fertilising products on the European market are listed here.

Accreditation requirements of the conformity assessment procedure according to Module D1 for waste-derived components materials in fertilising products or for waste-derived fertilising products

The ECN appreciates that the quality assurance procedure as promoted by ECN and national Quality Assurance Organisations has been taken up as an integral part for achieving the end-of-waste status of waste-derived fertilising products by the conformity assessment procedure described in Module D1. Nevertheless, the Fertilising Products Regulation demands the intervention of a notified body accredited by a national accreditation body referring to (EC) No 765/2008 to carry out third-party tasks under this Regulation. This creates a not necessary over-regulation, as the composting and anaerobic digestion plants are still quality assured by well-established quality assurance organisations on national level and benchmarked by [ECN-QAS](#)².

The ECN has taken the initiative in 2010 to build up a European-wide standardised quality management scheme for compost and digestate. This ECN-QAS is based on ISO/IEC 17065 and the procedure is well established by national quality assurance organisations for compost and digestate (BGK, DE; CIC, IT; KVBÖ, AT; Vlaco, BE) who certify more than 25 %

¹Gilbert, J. and S. Siebert 2022: ECN Data Report 2022 – Compost and Digestate for a Circular Economy. Overview of bio-waste collection, treatment & markets across Europe.

<https://www.compostnetwork.info/download/ecn-status-report-2022/>

² Siebert, S. and W. Vanden Auweele, 2018: ECN-QAS – European Quality Assurance Scheme for Compost and Digestate. Quality Manual. <https://www.compostnetwork.info/download/ecn-qas-manual/>

of compost and digestate products in Europe¹. Besides these ECN-QAS conformity assessed quality assurance schemes, the ECN Quality Manual² provided guidance for the development of quality assurance guidelines in several member states (i.e. Estonia, Finland, France) and comparable quality assurance schemes are established in Sweden and the Netherlands.

Double control through notified bodies and established and acknowledged quality assurance scheme on national level

Quality assurance of waste-derived products guarantees that suitable input materials are treated according to good practices, ensuring that the final products can be sold for various purposes. Quality assurance for biowaste management is required by law in several member states. This is also the reason why quality assurance organisations are established at a national level. As these systems are recognised at a national level, it creates an additional burden and cost for manufacturers of compost and digestate to fulfil the requirements of the conformity assessment procedure under Module D1 in order to obtain the CE mark. Allowing sampling and on-site audits to be subcontracted to well-established quality assurance organisations could help to boost CE labelling.

Differentiation between conformity assessment procedure on product function level and component material level is needed

For simplification and to boost the market for waste-derived fertilising products simplification in the conformity assessment procedure is needed. The ECN together with the Coordination group of Notified bodies has submitted a [proposal](#) to the Commission to facilitate the conformity assessment in a practical way. The proposal³ foresees a differentiation of the conformity assessment procedure on 'Product Function Category' and 'Component Material Category' level. The practice and experience of the Notified Bodies with Module D1 have shown that it is extremely difficult to organise and carry the conformity assessment in the current state. The main reason is that in most cases the compost and digestate producers (CMC producers) are not at the site of the manufacturer of the fertilising products (PFC manufacturer of fertilisers, soil improvers, growing media etc.) and in many cases there are several suppliers of different component materials and from different countries. Therefore, the acknowledgement of ECN-QAS benchmarked national quality assurance schemes and labels for proving CMC/PFC requirements for compost and digestate-derived fertilising products could solve this problem. This would reduce costs and would make the conformity assessment procedures more practicable.

³ Coordination Group of Notified Bodies, 2024: Note of the Coordination group of Notified Bodies Proposal for the conformity assessment according to module D1 for fertilising products containing CMC3 and CMC5. Presented at the Commission expert group on fertilising products, Meeting of 15-16 April 2024, Item 4.6 on the agenda/29.03.2024

Legislative incoherence and inconsistency

Incoherence between EU Waste Framework Directive (WFD) and EU Fertilising Products Regulation

The EU Fertilising Products Regulation excludes 'industrial sludges' as input materials for the component categories 'CMC 3 Compost' and 'CMC 5 Digestate other than fresh crop digestate'. According to the EU FPR Frequently Asked Questions (FAQs) document (FAQ 8.34), sludges from the food, feed and bio-based industries are seen as 'industrial sludges' and therefore excluded as input materials for composting and anaerobic digestion. These are common waste streams used in composting and anaerobic digestion and contain valuable nutrient and organic matter contents that can be recycled in composting and anaerobic digestion plants. These liquid waste materials are collected separately in the food production plants where the waste is generated and don't come into contact with non-separated waste (water) or waste (water) from harmful sources. Composting and anaerobic digestion are considered the most effective techniques for processing liquid waste from the food and feed industries, as well as the bio-based industry, into valuable organic fertilising and soil-improving products.

No coherent interpretation of 'bio-waste and comparable waste' according to the EU Waste Framework Directive (WFD)

There is no coherent interpretation of the definition of 'bio-waste and comparable waste' according to the Waste Framework Directive in the FAQ document of the EU FPR. The legal text of the EU FPR refers to biowaste within the meaning of Directive 2008/98/EC (WFD) resulting from separate bio-waste collection at source. According to the WFD 'bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises and comparable waste from food processing plants. In the FAQ document on the implementation of the EU FPR (but not legally binding), there is ongoing discussion about excluding several biowaste streams, particularly liquid waste from food processing plants. The ECN is calling for a coherent, legally binding interpretation of the definition of bio-waste as set out in Directive 2008/98/EC (WFD). We propose adding a positive list of input materials based on material specifications and classification with European waste codes, as included in the [ECN-QAS²](#), which are necessary for the legal admissibility of such materials.

Inconsistency between EU Animal By-Products Regulation (ABPR) and EU Fertilising Product Regulation

The ECN sees an inconsistency between the possibility to place compost or digestate on the market according to the Fertilising Products Regulation (EU) 2019/1009 and the Animal by-products Regulation (EC) 1069/2009.

Fertilising products containing animal by-products (ABP) can only be placed with CE mark on the EU market, if the end point in the manufacturing chain for ABP-derived materials have

been reached. In accordance with EU FPR Article 42, point 5 the Commission has published the 'Delegated Regulation (EU) 2023/1605 supplementing Regulation (EC) No 1069/2009 of the European Parliament and of the Council as regards the determination of end points in the manufacturing chain of certain organic fertilisers and soil improvers' on 22 May 2023. In Article 3 of this delegated act the requirements for reaching the end point in the manufacturing chain for digestate- and compost-derived organic fertilisers and soil improvers are laid down. These requirements refer to Annex V of Regulation (EU) 142/2011 (implementation regulation of ABPR (EU 1069/2009) **but excluding Section 2, point 1 of Chapter III of Annex V of Regulation (EU) No 142/2011**, where alternative transformation parameters for biogas and composting plants can be validated according to the harmonised model and authorised by the competent authority. These validated and authorised alternative transformation parameters for biogas and composting plants guarantees the same level of safety than the standard transformation parameters and the trade of compost/digestate is not limited to the Member State itself.

The inconsistency lies within the fact that (treated) animal by-products within the scope of ABPR are allowed as fertilising products on the entire European market in terms of safety, but they are ruled out by the EU FPR because the possible treatment parameters are narrowed down.⁴

Additional transformation parameters for composting of ABP-derived materials and non-ABP-derived materials are needed

Food waste from households and commercial kitchens is classified as catering waste as ABP category 3 material. It must be treated according to the standard transformation parameters (70 °C/1 h/12 mm) set out in the ABPR (EU) No 142/2011. However, these parameters are unsuitable for composting due to the required particle size.

Additional alternative transformation parameters have to be included in the ABPR and as described above national validated and authorised methods should be included as well. In 2024 the EFSA Scientific Opinion⁵ on alternative transformation parameters for tunnel composting has been published and the delegated act to amend Regulation (EU) No 142/2011 with two alternative time temperature profiles for composting (60°C/48h /<200mm and 55°C/72h/<200mm) is still awaited. The ECN calls as well to add these two alternative transformation parameters in the EU FPR as requirements for composting (EU FPR Annex II Part II CMC 3: Compost Point 3) as the sanitation evidence was approved by EFSA which guarantees the safety of non-ABP biowaste input materials for composting as well.

⁴ ECN 2022: ECN feedback on draft delegated regulation on end points in the manufacturing chain of certain organic fertilisers and soil improvers. Date 21/10/2022

<https://www.compostnetwork.info/download/ecn-feedback-on-draft-delegated-regulation-on-end-points/>

⁵ EFSA 2024: Evaluation of alternative methods of tunnel composting (submitted by the European Composting Network) II, EFSA Scientific Opinion, Adopted 14 march 2024. EFSA Journal Volume 22, Issue 4, April 2024. <https://efsa.onlinelibrary.wiley.com/doi/epdf/10.2903/j.efsa.2024.8745>

Simplification is also required when recognising alternative transformation parameters, as the EFSA process is very complex and time-consuming, and delegated acts have to be developed as well.

Standardisation process M/564

Lack of harmonised CEN standards for EU Fertilising Products

The EU Fertilising Products Regulation (EU FPR) came into force in 2022, yet no harmonised standards for compost- and digestate-derived fertilising products have been developed to analyse the parameters for fertilising products and component materials set out in the EU FPR to date. CEN has been tasked with developing these standards, but final adoption is not expected before 2027. As the validation process is ongoing, it remains to be seen whether the analytical methods can be validated for all component materials. It is also questionable whether limit values for certain criteria can be set before validated, harmonized methods are available.

Adjustment of parameters which does not fit to material specific properties

Stability criteria for digestate

Requesting a 'stability criteria' for digestate, which is depending on its input material, a very inhomogeneous and active material, is questionable. Our results on the parameter 'oxygen uptake rate' have shown that it is unlikely that any digestate can fulfil this limit value. As pointed out above, it is questionable to set limit values, before any harmonised analytical method for a parameter has been approved.

Limit value for E coli / Enterococci < 1.000 CFU/g for compost and digestate products:

The microbiological requirements for PFC1(A) and PFC3(A) state that '*pathogens in an organic fertiliser or soil improver must not exceed the limits for E. coli/enterococci of 1,000 CFU/g*'. However, E. coli is not necessarily a pathogen and can be found anywhere in the environment. It is used as an indicator parameter for hygienisation processes (e.g. in the EU Animal By-Products Regulation), but not in the final products.

Non-dilution principle

The non-dilution principle, which is embedded in the Waste Framework Directive, states that potentially harmful waste cannot be intentionally mixed with other waste to lower the concentration of hazardous substances below established thresholds for the purpose of reclassifying it as non-hazardous. This principle is crucial for preventing low-quality treatment and contamination of materials, particularly within recycling processes. Because

of the fact that heavy metals are regulated within EU FPR on PFC level, the legislation allows CMC's to overshoot certain limit values as long as the mixture of CMC's (the PFC) shows conformity with the limit values.

Attention for distribution of plant pathogens, weeds and invasive species

Contrary to CMC3, CMC4 and CMC5, the material described in CMC2 (plants, plant parts or plant extracts having undergone no processing other than cutting, grinding, milling, sieving, sifting, centrifugation, pressing, drying, frost treatment, freeze-drying, extraction with water, supercritical CO₂ extraction, or fiberisation at a temperature not higher than 100 °C and without any additives except water) does not require hygienisation to be proven. However, this could pose a risk of spreading seeds, viable plant parts, or plant pathogens.

Inorganic soil improvers

The description of inorganic soil improvers is so weak that materials failing to comply with other PFCs can be classified as inorganic soil improvers, despite having no real soil-improving potential. Additional criteria should be added, such as the requirement to be in solid form.