

## PROPOSAL FOR A FERTILISING PRODUCT REGULATION

### ECN position and suggestions for amendments on the Proposal for a Fertilising Product Regulation

The European Compost Network ECN welcomes the proposal of the ‘Fertilising Products Regulation’ as part of the Circular Economy Package, released by the EU Commission on 17 March 2016, by including source separated bio-waste and other secondary raw materials in the scope of the Regulation and laying down rules for making them available as CE fertilising products on the harmonised EU market. ECN generally agrees with the goals and scope set out in the proposal for a Fertilising Products Regulation.

Harmonised measures and rules will boost recycling of nutrients and organic matter with the beneficial effect on the replacement of primary raw materials and peat used in agriculture, horticulture or landscaping.

Additionally, the conversion of organic waste materials into valued fertilising CE products contributes to a better implementation of the waste hierarchy within the meaning of the Directive 2008/98/EC.

ECN supports the “Optional Harmonisation”, which may allow Member States to keep existing national fertilisers regulations in place. In this way, unnecessary market disruptions are avoided, and other fertilising products without CE marking can remain available on national and local markets.

In particular, we welcome that many process and product requirements set in the JRC Report ‘End-of-waste criteria for biodegradable waste subjected to biological treatment (compost & digestates): technical proposal’ (2014), were picked up.

Regrettably, some important aspects are missing or with a view to compost and digestate market and use haven’t been considered in an appropriate way, in so far further improvements are necessary:

More clarification is needed with regards to input materials used for producing compost/digestate materials falling within the scope of the end-of-waste criteria as well as the CE marked fertilising products.

It is appreciated that the quality assurance procedure (quality management) as promoted by ECN and national Quality Assurance Organisations has been taken up as an integral part of the end-of-waste criteria by the conformity assessment procedure (Module D1) for compost and digestate for most of the technical part. Nevertheless, the Fertilising Products Regulation demands the intervention of a notifying authority or a national accreditation

body referring to (EC) No 765/2008 to carry out third-party tasks under this Regulation. This is a crucial and would create a not necessary over-regulation.

ECN repeatedly calls for uniform requirements on heavy metal limits for all “Product Function Categories”. Despite we see a differentiation between organic fertiliser, organic soil improver and growing media, apparently due to possible higher concentrations of Cd in native, unprocessed bark materials.

About the criteria “minimum nutrient content” for classification of product function categories, only the values expressed on dry matter basis are relevant in order, to classify products of different properties in a comparable manner. In addition, e.g. for compost and digestate consistent data exist traditional on dry matter basis only. Hence, the nutrient thresholds setting the demarcation between an organic fertiliser and a soil improver should be expressed on dry matter basis. Labelling could be still done on fresh matter basis as for practice oriented information of the users. Furthermore, ECN proposes that the criterion ‘Organic Carbon’ should be replaced by ‘Organic Matter’, as it is derived as such in the recognised analysis methods. Also, the minimum content of organic matter has to be harmonised between organic fertiliser and organic soil improver, for both a threshold of > 15% on dry matter basis. Organic matter should be set (as it is proposed by the JRC report (2014) ‘End-of-waste criteria for biodegradable waste subjected to biological treatment (compost & digestates): technical proposal’). The tolerance rules for labelling PFC 3 (organic soil improver) have to be questioned critically.

The criteria “*Escherichia coli* / *Enterococcaceae*” should be deleted as limit value for the product function categories “Organic fertiliser”, “Organic soil improver” and “Growing media”, since those two criteria were originally established as test parameters for assessing the hygienisation/sanitisation function of a hygienisation unit, to be measured directly after withdrawal of the hygienisation unit. Those parameters have not been set for the final product control

A main issue concerns the reference to the (EC) No 1069/2009: fertilising products should be allowed to reach the endpoint in the manufacturing chain beyond which they are no longer subject to the requirements of the ABPR. If ABPR treatment parameters (bio-waste 1h/70°C/12mm) are predominant over the proposed time/temperature profiles proposed in the new Fertilising Products Regulation, compost and digestate products produced from treated source separated bio-waste from households, which are to date regulated by national exemption from ABP, would never reach a fertilising product status in the future regulation!

## Suggestions for amendments on the Proposal for a Fertilising Product Regulation COM (2016) 157 final

In addition to the general points outlined above, we suggest the following amendments with regard to the Commission’s text proposal for a Fertilising Product Regulation and its annexes I-V:

<p><b>Suggested Amendment 1</b>  <b>Proposal for a Directive</b>  <b>Recital (13)</b></p>	
<p>Text proposed by the Commission          (13) For certain recovered wastes within the meaning of Directive 2008/98/EC of the European Parliament and of the Council<sup>20</sup>, a market demand for their use as fertilising products has been identified. Furthermore, certain requirements are necessary for the waste used as input in the recovery operation and for the treatment processes and techniques, as well as for fertilising products resulting from the recovery operation, in order to ensure that the use of those products does not lead to overall adverse environmental or human health impacts. For CE marked fertilising products, those requirements should be laid down in this Regulation. Therefore, as of the moment of compliance with all the requirements of this Regulation, such products should cease to be regarded as waste within the meaning of Directive 2008/98/EC.</p>	<p>Suggested amendment:          (13) For certain recovered wastes within the meaning of Directive 2008/98/EC of the European Parliament and of the Council<sup>20</sup>, a market demand for their use as fertilising products has been identified. Furthermore, certain requirements are necessary for the waste used as input in the recovery operation and for the treatment processes and techniques, as well as for fertilising products resulting from the recovery operation, in order to ensure that the use of those products does not lead to overall adverse environmental or human health impacts. For CE marked fertilising products, those requirements should be laid down in this Regulation. Therefore, as of the moment of compliance with all the requirements of this Regulation, such products should cease to be regarded as waste within the meaning of Directive 2008/98/EC.  <i>Compost and digestate produced from biowaste, which do not fulfil all requirements of the annexes of the EU Fertilising Product Regulation and do not reach the CE mark, can be declared and marked as national fertilising product based on national end-of-waste criteria and status furthermore.</i></p>
<p><b>ECN remark</b>  <i>Here clarification is needed, to ensure that non-harmonised compost and digestate materials can be used as organic soil improvers or organic fertilisers as national products under national regulation.</i></p>	
<p><b>Suggested Amendment 2</b>  <b>Proposal for a Directive</b>  <b>Explanatory memorandum point 1. Intend 19</b></p>	
<p>Text proposed by the Commission</p>	<p>Suggested amendment</p>

<p>19. The initiative is related to the following policy initiatives:</p> <ul style="list-style-type: none"> <li>The Circular Economy Package: The Fertilisers Regulation revision aims at establishing a regulatory framework enabling production of fertilisers from recycled bio-wastes and other secondary raw materials, in line with the Bioeconomy strategy<sup>6</sup>, which encompasses the production of renewable biological resources and the conversion of these resources and waste streams into value added products. This would boost domestic sourcing of plant nutrients which are essential for a sustainable European agriculture, including the critical raw material phosphorus. It would also contribute to a better implementation of the waste hierarchy, by minimising landfilling or energy recovery of bio-wastes, and hence to solving related waste management problems.</li> </ul>	<p>19. The initiative is related to the following policy initiatives:</p> <ul style="list-style-type: none"> <li>The Circular Economy Package: The Fertilisers Regulation revision aims at establishing a regulatory framework enabling production of fertilisers from recycled bio-wastes and other secondary raw materials, in line with the Bioeconomy strategy<sup>6</sup>, which encompasses the production of renewable biological resources and the conversion of these resources and waste streams into value added products. This would boost domestic sourcing of plant nutrients which are essential for a sustainable European agriculture, including the critical raw material phosphorus. It would also contribute to a better implementation of the waste hierarchy, <del>by minimising landfilling or energy recovery of bio-wastes</del>, and hence to solving related waste management problems.</li> </ul>
<p><b>Justification:</b>  <i>The intention of the EU Fertilising Product Regulation (EU FR) is not to solve “waste related management problems”, but to boost a resource efficient use of organic and other <b>recycled</b> materials as high quality fertilising products. Important is the fact that with the new EU FR specific criteria for fertilising products from defined, clean and separate collected waste streams – like biowaste from households- are set, were a new level playing field is build up and the waste regime for such products ends.</i></p>	
<p><b>Suggested Amendment 3</b>  <b>Proposal for a Directive</b>  <b>Article 2 paragraph 1 – point 1</b></p>	
<p>Text proposed by the Commission</p> <p>(1) ‘fertilising product’ means a substance, mixture, micro-organism or any other material, applied or intended to be applied, either on its own or mixed with another material, on plants or their rhizosphere for the purpose of providing plants with nutrient or improving their nutrition efficiency;</p>	<p>Suggested amendment</p> <p>Add: “...by adding products to soil for the purpose of maintaining, improving or protecting the physical, chemical properties, the structure and the biological activity of soils,”</p> <p>The definition then reads as follows:</p> <p>(1) “fertilising products” means a substance, mixture, microorganism or any other material, applied or intended to be applied, either on its own or mixed with another material, on plants or their rhizosphere for the purpose of providing plants with nutrient or improving their nutrition efficiency <b>and by adding products to soil for the purpose of maintaining, improving or</b></p>

	<b>protecting the physical, chemical properties, the structure and the biological activity of soils.</b>
<p><b>Justification:</b>  <i>It is necessary to involve the purpose of organic soil improver regarding to maintenance or enhance soil fertility within the definition of fertilising products. Referring to recital (2), too.</i>  <i>The definition in Annex 1 for soil improver (PFC 3):</i>  <i>‘Soil improver shall be a CE marked fertilising product’ aimed at being added to soil for the purpose of maintaining, improving or protecting the physical or chemical properties, the structure or biological activity of the soil.’</i></p>	
<p><b>Suggested Amendment 4</b>  <b>Proposal for a Directive</b>  <b>Article 4 paragraph 2</b></p>	
<p>Text proposed by the Commission  2. For any aspects not covered by Annex I or II, CE marked fertilising products shall meet the requirement that their use, as specified in the use instructions, does not lead to food or feed of plant origin becoming unsafe within the meaning of Articles 14 and 15 of Regulation (EC) No 178/2002, respectively.</p>	Suggested amendment
<p><b>ECN remark and question</b>  <i>How can the compost/digestate producers fulfil these requirements of safety of food and feed within the (EC) No 178/2002? What measures are necessary and how can the producers cover these additional responsibilities and burden of proof?</i></p>	
<p><b>Suggested Amendment 5</b>  <b>Proposal for a Directive</b>  <b>Article 18 End-of-waste status</b></p>	
<p>Text proposed by the Commission  A CE marked fertilising product that has undergone a recovery operation and complies with the requirements laid down in this Regulation shall be considered to comply with the conditions laid down in Article 6(1) of Directive 2008/98/EC and shall, therefore, be considered as having ceased to be waste. For any aspects not covered by Annex I or II, CE marked fertilising products shall meet the requirement that their use, as specified in the use instructions, does not lead to food or feed of plant origin becoming unsafe within the meaning of Articles 14 and 15 of Regulation (EC) No 178/2002, respectively.</p>	<p>Suggested amendment  A CE marked fertilising product <b>which exists of or contains compost (CMC 3) or digestates other than energy crops (CMC 5) ceases to be waste and obtains a product status according to</b> conditions laid down in Article 6(1) of Directive 2008/98/EC <b>at the same time, if the compost and digestates:</b></p> <ul style="list-style-type: none"> <li>• <b>have undergone a recycling operation of aerobic composting or anaerobic digestion with approved input material according to this Regulation and with defined treatment process and</b></li> <li>• <b>comply with all requirements and specific criteria for the component categories (CMC 3 and CMC 5), addressed product function categories and related conformity assessment procedures laid down in this Regulation and its annexes.</b></li> </ul>

	<p><i>At the moment of compliance with all requirements of this Regulation these compost (CMC 3) and digestate (CMC 5) products are no longer waste and are outside of the scope of the Directive 2008/98/EC.</i></p> <p><i>In case other input materials, other treatment and other essential and specific requirements than those referred to in this Regulation are used, the resulting compost and digestate products cannot be marketed as CE marked fertilising products. Amendments of the criteria set in the Annexes of this regulation referring to compost (CMC 3) and digestate (CMC 5) can only be adopted in accordance with the regulatory procedure with scrutiny referred to in Article 39 a of Directive 2008/98/EC.</i></p>
<p><b>Justification:</b></p> <p><i>More clarification is needed due to the interface with the waste regulation and existing national product status of fertilising products from the same bio-waste input materials. Referring to Article 6 (d) in the Waste Framework Directive only in the case where no criteria have been set on EU level based on paragraph 1 and 2 of article 6, Member States can decide whether certain waste has ceased to be waste. As consequences compost and digestate produced from bio-waste, which doesn't fulfil all requirements of the annexes of the EU Fertilising Products Regulation and doesn't reach the CE mark, can still be declared as a "national product" based on "national end of waste"-status.</i></p> <p><b>ECN question:</b></p> <p><i>Should it be possible-in spite of the Article 6 (d) requirements in the WFD-, to set or continue national end-of-waste / national product-status for compost and digestates produced from the same input materials which are listed and approved in the EU Fertilising Products Regulation?</i></p>	
<p><b>Suggested Amendment 6</b>  <b>Proposal for a Directive</b>  <b>Chapter 4 Notification of Conformity Assessment Bodies</b>  <b>Article 24</b></p>	
<p>Text proposed by the Commission</p> <p><b>Presumption of conformity of notified bodies</b></p> <p>Where a conformity assessment body demonstrates its conformity with the criteria laid down in the relevant harmonised standards or parts thereof the references of which have been published in the Official Journal of the European Union it shall be presumed to comply with the requirements set out in Article 23 in so far as the applicable harmonised standards cover those requirements.</p>	<p>Suggested amendment</p>
<p><b>Remark:</b></p>	

<p>Clarification is needed to which relevant harmonised standard the Commission refers here. To ISO/EC 17065 'Conformity assessment - Requirements for bodies certifying products, processes and services'?</p>	
<p><b>Suggested Amendment 7</b>  <b>Proposal for a Directive</b>  <b>Chapter 4 Notification of Conformity Assessment Bodies</b>  <b>Article 20-28</b></p>	
<p>Text proposed by the Commission</p>	
<p><b>Remark:</b>  <i>ECN supports a quality assurance system – based on the European Quality Assurance Scheme of ECN for compost and digestates (ECN-QAS), which is referred to in the JRC-report for end-of-waste of biodegradable waste (2014), as an equivalent for the proposed pathway for conformity assessment. This structure should be kept if legally procurable within the requested CE- QA procedure. If an accreditation system would be set compulsory for existing national QA-schemes, the organisations with less organisational and personnel level as well as those with less members would encounter difficulties to comply with these huge requirements.</i></p>	
<p><b>Suggested Amendment 8</b>  <b>Proposal for a Directive</b>  <b>Article 45</b></p>	
<p>Text proposed by the Commission  (1) In paragraph 2, the first subparagraph is replaced by the following:  "For derived products referred to in Articles 32, 35 and 36 which no longer pose any significant risk to public or animal health, an end point in the manufacturing chain may be determined, beyond which they are no longer subject to the requirements of this Regulation."</p>	<p>Suggested amendment  (1) In paragraph 2, the first subparagraph is replaced by the following:  "For derived products referred to in Articles 32, 35 and 36 which no longer pose any significant risk to public or animal health, an end point in the manufacturing chain <del>may</del><b>shall</b> be determined, beyond which they are no longer subject to the requirements of this Regulation."</p>
<p><b>Justification:</b>  <i>Due to the relevance of these requirements it is necessary to add a more specific legal phrasing to these issues. If no end point in the production chain is determined, compost materials have to fulfil the requirements of pasteurisation (12mm particle size, 70°C, 1 h), what is not feasible for the composting process. Currently for some member states exceptions from ABP Regulation exists for treating bio-waste from households, which coincide to the temperature/time profiles in the Fertilising Products Regulation, largely.</i></p>	
<p><b>Annex I</b></p>	
<p><b>Suggested Amendment 9</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A) - paragraph 1</b></p>	
<p>Text proposed by the Commission  1. An organic fertiliser shall contain</p> <ul style="list-style-type: none"> <li>• carbon (C) and</li> <li>• nutrients</li> </ul> <p>of solely biological origin, excluding material which is fossilized or embedded in geological formations.</p>	<p>Suggested amendment  replace the wording 'solely' by 'predominantly' and add <i>...including peat, leonardite and lignite, but...</i>  It reads then:  An organic fertiliser shall contain</p> <ul style="list-style-type: none"> <li>• carbon (C) and</li> <li>• nutrients</li> </ul>

	of <b>predominantly</b> biological origin, <b>including peat, leonardite and lignite, but</b> excluding material which is fossilized or embedded in geological formations.
<p><b>Justification:</b>  <i>The wording “of solely biological origin” is in contradiction to CMC3, CMC4, and CMC5 where 5 % of additives are allowed. Those can be of mineral origin (such as lime stone, stone dust, bentonite, clay soil) in order, to enhance clay-humus complexation!</i></p>	
<p><b>Suggested Amendment 10</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A) - paragraph 2</b></p>	
<p>Text proposed by the Commission</p> <p>2. Contaminants must not be present in the CE marked fertilising product by more than the following quantities:</p> <ul style="list-style-type: none"> <li>- Cadmium (Cd) 1,5 mg/kg dry matter,</li> <li>- Hexavalent chromium (Cr VI) 2 mg/kg dry matter</li> <li>- Mercury (Hg) 1 mg/kg dry matter,</li> <li>- Nickel (Ni) 50 mg/kg dry matter,</li> <li>- Lead (Pb) 120 mg/kg dry matter, and</li> <li>- Biuret (C<sub>2</sub>H<sub>5</sub>N<sub>3</sub>O<sub>2</sub>) 12 g/kg dry matter.</li> </ul>	<p>Suggested amendment</p> <p>replace: <del>Hexavalent chromium (Cr VI) 2 mg/kg dry matter</del> by total Chromium (Cr) 100 mg/kg dry matter</p> <p>replace (Ni) 50 mg/kg dry matter by 70 mg/kg dry matter</p> <p>delete: <del>Biuret</del></p>
<p><b>Justification:</b>  <i>In general, heavy metal limit values, should be equal to all the different product function categories. Exemptions should only be allowed, if native contaminated bark is applied as input materials (in that case, 3 mg Cd / kg can be accepted). The limit values should be based on the JRC report 2014 ‘End-of waste criteria for biodegradable waste subjected to biological treatment (compost &amp; digestate). These limit values were examined taking the overall environmental and health impacts into account. Lowering these values, will excluded bio-waste and green-waste as recycled organic materials from being placed as fertilising product on the European market.</i></p> <p><i>The parameter Cr VI is difficult to detect in organic materials as it is reduced to Cr III. Instead Chromium total with 100 mg/kg dry matter should be introduced as parameter. Neither in compost or digestate, as described under CMC3 and CMC5, CrVI occurs, therefore ECN proposes to delete it as compulsory criteria for compost and digestate in the component material categories CMC 3 and CMC 5.</i></p> <p><i>We support a higher value for Nickel (70 mg Ni/kg dry matter instead as 50 mg Ni/kg dry matter) as several regions in Europe have higher geological background values, which are related to higher Nickel contents in compost and digestate from bio-waste.</i></p> <p><i>Biuret is only in Urea containing fertilisers detectable. It does not occur in organic fertilisers on biological origin.</i></p>	
<p><b>Suggested Amendment 11</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A) - paragraph 4</b></p>	
<p>Text proposed by the Commission</p>	<p>Suggested amendment</p> <p>delete this paragraph 4:</p>



<p>4. None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</p> <p>(a) Escherichia coli, or</p> <p>(b) Enterococcaceae.</p> <p>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</p>	<p><del>None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</del></p> <p><del>(a) Escherichia coli, or</del></p> <p><del>(b) Enterococcaceae.</del></p> <p><del>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</del></p>
<p><b>Justification:</b></p> <p><i>We propose to delete the hygienic parameter “Escherichia coli or Enterococcaceae”. It makes no sense to measure and regulate such a parameter in end products of biological treatment of organic materials. These are applicable in the Animal By-Product Regulation (ABPR) mainly as a process parameter to cross-check the effectiveness of the sanitation step of the treatment but gives no information in finalised products, due to the fact, that in natural occurring circumstances, E. coli or Enterococcus is subject to regrowth, which is a natural process without influencing the product quality. For the final product assessment, the adequate parameter for hygiene aspects is Salmonella.</i></p>	
<p><b>Suggested Amendment 12</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A)(I) - paragraph 2</b></p>	
<p>Text proposed by the Commission</p> <p>2. The CE marked fertilising product shall contain at least one of the following declared nutrients in the minimum quantities stated:</p> <ul style="list-style-type: none"> <li>• 2,5% by mass of total nitrogen (N),</li> <li>• 2% by mass of total phosphorus pentoxide (P2O5), or</li> <li>• 2% by mass of total potassium oxide (K2O).</li> </ul>	<p>Suggested amendment:</p> <p>Th proposed minimum nutrient contents should be based on dry matter.</p> <p>It reads then:</p> <p>2. The CE marked fertilising product shall contain at least one of the following declared nutrients in the minimum quantities stated:</p> <ul style="list-style-type: none"> <li>• 2,5% by <b>dry</b> mass of total nitrogen (N), <b>or</b></li> <li>• 2% by <b>dry</b> mass of total phosphorus pentoxide (P2O5), or</li> <li>• 2% by <b>dry</b> mass of total potassium oxide (K2O).</li> </ul>
<p><b>Justiification:</b></p> <p><i>For reason of better comparability of requirements and better classification of fertilising products in the different product function categories, the dry matter-basis is indispensable. The declaration of the nutrients in the marked products remains in fresh matter.</i></p> <p><i>Analytical data from continiusly quality assured solid digestates produced predominantly from biowaste show significant lower average nutrient contents in fresh and in dry matter than those proposed mimium nutrient contents. The data of the German Quality Assurance Organisation (BGK) for solid digestates with 32 % dry matter content show average nutrient contents about; 2,86 % TM / <b>0,79 % FM</b> for N-total, 2,12 % P205 TM / <b>0,57 % FM</b> and 1,61 % K2O TM / <b>0,46 % FM</b>. Digestate produced from energy crops mainly apply to the proposed minimum nutrient contents to a large extend in the same trends as digestates from biowaste.</i></p>	
<p><b>Suggested Amendment 13</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A)(I) - paragraph 3</b></p>	

<p>Text proposed by the Commission</p> <p>3. Organic carbon (C) shall be present in the CE marked fertilising product by at least 15% by mass.</p>	<p>Suggested amendment:</p> <p>Replace Organic Carbon by Organic Matter; and the proposed minimum organic matter content should be based on dry matter.</p> <p>It reads then:</p> <p>Organic matter shall be present in the CE marked fertilising product by at least 15% by dry mass.</p> <p><i>Remark: If it will be expressed as organic carbon, the minimum organic carbon shall be set by at least 9 % by dry mass.</i></p>
<p><b>Justification:</b></p> <p><i>For reason of better comparability of requirements and better classification of fertilising products in the different product function categories, the dry matter-basis is indispensable.</i></p> <p><i>The Organic matter content should be ≥15% dry mass as it is set in the JRC report 2014 'End-of waste criteria for biodegradable waste subjected to biological treatment (compost &amp; digestate). In addition, it is necessary to refer to the analytical methods used in combination with the declared parameter (Example: analytic methods used for determination of organic matter by loss of ignition is done by temperatures of 550° C or 450°C).</i></p>	
<p><b>Suggested Amendment 14</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A)(II) - paragraph 2</b></p>	
<p>Text proposed by the Commission</p> <p>1. The CE marked fertilising product shall contain at least one of the following declared nutrients in the minimum quantities stated:</p> <ul style="list-style-type: none"> <li>• 2% by mass of total nitrogen (N),</li> <li>• 1% by mass of total phosphorus pentoxide (P2O5), or</li> <li>• 2% by mass of total potassium oxide (K2O).</li> </ul>	<p>Suggested amendment:</p> <p>The proposed minimum nutrient contents should be based on dry matter.</p> <p>It reads then:</p> <p>2. The CE marked fertilising product shall contain at least one of the following declared nutrients in the minimum quantities stated:</p> <ul style="list-style-type: none"> <li>• 2 % by <b>dry</b> mass of total nitrogen (N),<b>or</b></li> <li>• 1 % by <b>dry</b> mass of total phosphorus pentoxide (P2O5), or</li> <li>• 2% by <b>dry</b> mass of total potassium oxide (K2O).</li> </ul>
<p><b>Justification:</b></p> <p><i>For reason of better comparability of requirements and better classification of fertilising products in the different product function categories, the dry matter-basis is indispensable. The declaration of the nutrients in the marked products may still be done on fresh matter basis.</i></p> <p><i>Analytical data from continuously quality assured liquid digestates, produced predominantly from biowaste, show significant lower average nutrient contents in fresh than those proposed minimum nutrient contents. The German Quality Assurance Organisation (BGK) analysed in 2016 about 1000 analysis of liquid digestates and estimates average nutrient contents of about 11,48 % TM / <b>0,54% FM for N-total</b> , 3,57 % P2O5 TM / <b>0,19 % FM</b> and 5,46 % K2O TM / <b>0,29 FM</b>. The average content of dry matter in liquid digestate is 6,7 % with a wide variation range up to 14,7 % (90 percentile). Only in the case where the minimum nutrient contents were set on dry matter and only if one of the three elements have to be reached, a liquid digestate could be</i></p>	

<p><i>declared as liquid organic fertiliser (PFC 1(A)II). Digestate produced from energy crops mainly apply to the proposed minimum nutrient contents to a large extend in the same trends as digestates from biowaste.</i></p>	
<p><b>Suggested Amendment 15</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 1(A)II) - paragraph 3</b></p>	
<p>Text proposed by the Commission</p> <p>3. Organic carbon (C) shall be present in the CE marked fertilising product by at least 5 by mass.</p>	<p>Suggested amendment:</p> <p>Replace Organic Carbon by Organic Matter; and the proposed minimum organic matter content should be based on dry matter.</p> <p>It reads then:</p> <p>Organic matter shall be present in the CE marked fertilising product by at least 7,5% by dry mass.</p>
<p><b>Justification:</b></p> <p><i>For reason of better comparability of requirements and better classification of fertilising products in the different product function categories, the dry matter-basis is indispensable.</i></p>	
<p><b>Suggested Amendment 16</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 3(A) - paragraph 1</b></p>	
<p>Text proposed by the Commission</p> <p>1. An organic soil improver shall consist of solely biological origin, excluding material which is fossilized or embedded in geological formations.</p>	<p>Suggested amendment</p> <p>replace the wording 'solely' by '<i>predominantly</i>' and add <i>...including peat, leonardite and lignite, but...</i></p> <p>It reads then:</p> <p>An organic soil improver shall consist of <b><i>predominantly</i></b> biological origin, <b><i>including peat, leonardite and lignite, but</i></b> excluding material which is fossilized or embedded in geological formations.</p>
<p><b>Justification:</b></p> <p><i>The wording "of solely biological origin" is in contradiction to CMC3, CMC4, and CMC5 where 5 % of additives are allowed. Those can be of mineral origin (such as lime stone, stone dust, bentonite, clay soil) in order, to enhance clay-humus complexation!</i></p>	
<p><b>Suggested Amendment 17</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 3(A) - paragraph 2</b></p>	
<p>Text proposed by the Commission</p> <p>2. Contaminants must not be present in the CE marked fertilising product by more than the following quantities:</p> <ul style="list-style-type: none"> <li>- Cadmium (Cd) 3 mg/kg dry matter,</li> <li>- Hexavalent chromium (Cr VI) 2 mg/kg dry matter</li> <li>- Mercury (Hg) 1 mg/kg dry matter,</li> <li>- Nickel (Ni) 50 mg/kg dry matter,</li> <li>- Lead (Pb) 120 mg/kg dry matter.</li> </ul>	<p>Suggested amendment</p> <p>replace: Cd <del>3 mg/kg dry matter</del> by 1,5mg mg/kg dry matter</p> <p>replace: Hexavalent chromium (Cr VI) <del>2 mg/kg dry matter</del> by total Chromium (Cr) 100 mg/kg dry matter</p> <p>replace (Ni) <del>50 mg/kg dry matter</del> by 70 mg/kg dry matter</p>

<p><b>Justification:</b></p> <p><i>In general, heavy metal limit values, should be equal to all the different product function categories. Exemptions should only be allowed, if native contaminated bark is applied as input materials (in that case, 3 mg Cd / kg can be accepted). The limit values should be based on the JRC report 2014 'End-of waste criteria for biodegradable waste subjected to biological treatment (compost &amp; digestate)'. These limit values were examined taking the overall environmental and health impacts into account. Lowering these values, will excluded bio-waste and green-waste as recycled organic materials from being placed as fertilising product on the European market.</i></p> <p><i>The parameter Cr VI is difficult to detect in organic materials as it is reduced to Cr III. Instead Chromium total with 100 mg/kg dry matter should be introduced as parameter. Neither in compost or digestate, as described under CMC3 and CMC5, CrVI occurs, therefore ECN proposes to delete it as compulsory criteria for compost and digestate in the component material categories CMC 3 and CMC 5.</i></p> <p><i>We support a higher value for Nickel (70 mg Ni/kg dry matter instead as 50 mg Ni/kg dry matter) as several regions in Europe have higher geological background values, which are related to higher Nickel contents in compost and digestate from bio-waste</i></p>	
<p><b>Suggested Amendment 18</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 3(A) - paragraph 3 (b)</b></p>	
<p>Text proposed by the Commission</p> <p>3. (b) None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</p> <p>(a) Escherichia coli, or</p> <p>(b) Enterococcaceae.</p> <p>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</p>	<p>Suggested amendment</p> <p>delete this paragraph 3 (b):</p> <p><del>None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</del></p> <p><del>(a) Escherichia coli, or</del></p> <p><del>(b) Enterococcaceae.</del></p> <p><del>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</del></p>
<p><b>Justification:</b></p> <p><i>We propose to delete the hygienic parameter "Escherichia coli or Enterococcaceae". It makes no sense to measure and regulate such a parameter in end products of biological treatment of organic materials. These are applicable in the Animal By-Product Regulation (ABPR) mainly as a process parameter to cross-check the effectiveness of the sanitation step of the treatment but gives no information in finalised products, due to the fact, that in natural occurring circumstances, E. coli or Enterococcus is subject to regrowth, which is a natural process without influencing the product quality. For the final product assessment, the adequate parameter for hygiene aspects is Salmonella.</i></p>	
<p><b>Suggested Amendment 19</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 3(A) - paragraph 5</b></p>	
<p>Text proposed by the Commission</p> <p>5. Organic carbon (C) shall be present in the CE marked fertilising product by at least 7,5 by mass.</p>	<p>Suggested amendment:</p> <p>Replace Organic Carbon by Organic Matter; and the proposed minimum organic matter content should be based on dry matter.</p> <p>It reads then:</p>

	Organic matter shall be present in the CE marked fertilising product by at least 15 % by dry mass.
<p><b>Justification:</b>  <i>For reason of better comparability of requirements and better classification of fertilising products in the different product function categories, the dry matter-basis is indispensable.</i></p>	
<p><b>Suggested Amendment 20</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 4 - paragraph 2</b></p>	
<p>Text proposed by the Commission</p> <p>2. Contaminants must not be present in the CE marked fertilising product by more than the following quantities:</p> <ul style="list-style-type: none"> <li>- Cadmium (Cd) 3 mg/kg dry matter,</li> <li>- Hexavalent chromium (Cr VI) 2 mg/kg dry matter</li> <li>- Mercury (Hg) 1 mg/kg dry matter,</li> <li>- Nickel (Ni) 100 mg/kg dry matter,</li> <li>- Lead (Pb) 120 mg/kg dry matter.</li> </ul>	<p>Suggested amendment</p> <p>replace: Cd 3mg /kg dry matter by 1,5mg mg/kg dry matter</p> <p>replace: <del>Hexavalent chromium (Cr VI) 2 mg/kg dry matter</del> by total Chromium (Cr) 100 mg/kg dry matter</p> <p>replace (Ni) 100 mg/kg dry matter by 70 mg/kg dry matter</p>
<p><b>Justification:</b>  <i>In general, heavy metal limit values, should be equal to all the different product function categories. Exemptions should only be allowed, if native contaminated bark is applied as input materials (in that case, 3 mg Cd / kg can be accepted). The limit values should be based on the JRC report 2014 ‘End-of waste criteria for biodegradable waste subjected to biological treatment (compost &amp; digestate). These limit values were examined taking the overall environmental and health impacts into account. Lowering these values, will excluded bio-waste and green-waste as recycled organic materials from being placed as fertilising product on the European market.</i></p> <p><i>The parameter Cr VI is difficult to detect inorganic materials as it is reduced to Cr III. Instead Chromium total with 100 mg/kg dry matter should be introduced as parameter. Neither in compost or digestate, as described under CMC3 and CMC5, CrVI therefore ECN proposes to delete it as compulsory criteria for compost and digestate in the component material categories CMC 3 and CMC 5.</i></p> <p><i>We support the same limit value for Nickel (70 mg Ni/kg dry matter instead as 100 mg Ni/kg dry matter) for growing media as for soil improvers and organic fertilisers. As mentioned above the limit values should be equal to all different product function categories.</i></p>	
<p><b>Suggested Amendment 21</b>  <b>Proposal for a Directive</b>  <b>Annex I – part II – PFC 4 - paragraph 4</b></p>	
<p>Text proposed by the Commission</p> <p>4. None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</p> <ul style="list-style-type: none"> <li>(a) Escherichia coli, or</li> <li>(b) Enterococcaceae.</li> </ul>	<p>Suggested amendment</p> <p>delete this paragraph 4:</p> <p><del>None of the two following types of bacteria shall be present in the CE marked fertilising product in a concentration of more than 1000 CFU/g fresh mass:</del></p> <p><del>(a) Escherichia coli, or</del></p> <p><del>(b) Enterococcaceae.</del></p>

<p>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</p>	<p><del>This shall be demonstrated by measuring the presence of at least one of those two types of bacteria.</del></p>
<p><b>Justification:</b>  <i>We propose to delete the hygienic parameter “Escherichia coli or Enterococcaceae”. It makes no sense to measure and regulate such a parameter in end products of biological treatment of organic materials. These are applicable in the Animal By-Product Regulation (ABPR) mainly as a process parameter to cross-check the effectiveness of the sanitation step of the treatment but gives no information in finalised products, due to the fact, that in natural occurring circumstances, E. coli or Enterococcus is subject to regrowth, which is a natural process without influencing the product quality. For the final product assessment, the adequate parameter for hygiene aspects is Salmonella.</i></p>	
<p><b>Annex II</b></p>	
<p><b>Suggested Amendment 22</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 3 - paragraph 1</b>  <b>subparagraphs a-c, new (d)</b></p>	
<p>Text proposed by the Commission  1.A CE marked fertilising product may contain compost obtained through aerobic composting of exclusively one or more of the following input materials:  (a) Bio-waste within the meaning of Directive 2008/98/EC resulting from separate bio-waste collection at source;   (b) Animal by-products of categories 2 and 3 according to Regulation (EC) No 1069/2009;  (c) Living or dead organisms or parts thereof, which are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except</p> <ul style="list-style-type: none"> <li>• the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment,</li> <li>• sewage sludge, industrial sludge or dredging sludge, and</li> </ul>	<p>Suggested amendment:  1. A CE marked fertilising product may contain compost obtained through aerobic composting of exclusively one or more of the following input materials:  (a) Bio-waste within the meaning of Directive 2008/98/EC resulting from separate bio-waste collection at source; <b>with reference to a guiding document containing types and origin of source separated organic waste that is eligible as feedstock, based on Table 14 of the JRC report 2014 ‘End of Waste Criteria for Biodegradable Waste’.</b>   (b) Animal by-products of categories 2 and 3 according to Regulation (EC) No 1069/2009;  (c) Living or dead organisms or parts thereof, which are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except</p> <ul style="list-style-type: none"> <li>• the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment,</li> <li>• municipal sewage sludge, industrial <b>sewage</b> sludge or dredging sludge, and</li> </ul>

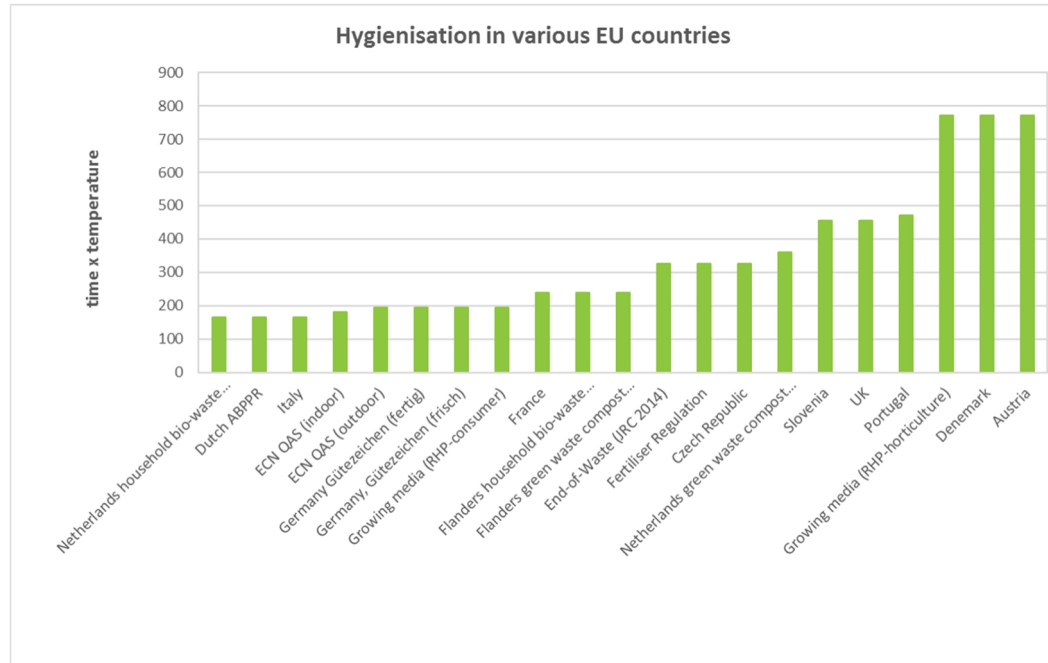
<ul style="list-style-type: none"> <li>• animal by-products of category 1 according to Regulation (EC) No 1069/2009;</li> </ul>	<ul style="list-style-type: none"> <li>• animal by-products of category 1 according to Regulation (EC) No 1069/2009; <b>new (d) food and feed washing waste, sludges from food and feed processing plants</b></li> </ul>
<p><b>Justification:</b> ECN calls for a defined, acceptable input list with detailed information for producing compost and digestates in the Fertilising Products Regulation in order to give legal certainties for CE marked products. As a guidance, waste codes should/could give an added value (although not binding). As an example, in the European Quality Assurance Scheme for compost and digestate of the European Compost Network ‘ECN-QAS’ approved input materials are provided in a definite list, together with the waste code, waste type, specification of permitted materials and remarks. A guidance document should contain more detailed clarification on the types and origin of source separated organic waste that is eligible as feedstock. This should be based on the input list provided as Table 14 in the JRC report 2014 on End of Waste Criteria for Biodegradable Waste.</p> <p>The word ‘sewage’ should be added here to not exclude sludges from feed, food and beverage retail premises and from feed, food and beverage processing plants.</p> <p>In addition, a new subparagraph (d) food waste, food washing waste, sludges from food and feed processing plants should be added.</p>	
<p><b>Suggested Amendment 23</b> <b>Proposal for a Directive</b> <b>Annex II – part II – CMC 3 - paragraph 1</b> <b>subparagraph d, second bullet point</b></p>	
<p>Text proposed by the Commission (d) Composting additives which are necessary to improve the process performance or the environmental performance of the composting process provided that</p> <ul style="list-style-type: none"> <li>• the additive is registered pursuant to Regulation (EC) No 1907/2006,9 in a dossier containing <ul style="list-style-type: none"> <li>– the information provided for by Annex VI, VII and VIII of Regulation (EC) No 1907/2006, and</li> <li>– a chemical safety report pursuant to Article 14 of Regulation (EC) No 1907/2006 covering the use as fertilising product,</li> </ul> </li> </ul> <p>unless explicitly covered by one of the registration obligation exemptions provided for by Annex IV to that Regulation or by points 6, 7, 8, or 9 of Annex V to that Regulation, and</p> <ul style="list-style-type: none"> <li>• the total concentration of all additives does not exceed 5 % of the total input material weight; or</li> </ul>	<p>Suggested amendment: (<del>d</del>e) Composting additives which are necessary to improve the process performance or the environmental performance of the composting process provided that</p> <ul style="list-style-type: none"> <li>• the additive is registered pursuant to Regulation (EC) No 1907/2006,9 in a dossier containing <ul style="list-style-type: none"> <li>– the information provided for by Annex VI, VII and VIII of Regulation (EC) No 1907/2006, and</li> <li>– a chemical safety report pursuant to Article 14 of Regulation (EC) No 1907/2006 covering the use as fertilising product,</li> </ul> </li> </ul> <p>unless explicitly covered by one of the registration obligation exemptions provided for by Annex IV to that Regulation or by points 6, 7, 8, or 9 of Annex V to that Regulation, and</p> <ul style="list-style-type: none"> <li>• <del>the total concentration of all additives does not exceed 5 % of the total input material weight; or,</del> <b>with the exception of natural soil materials, the total concentration of all additives does not exceed 5 % of the total input material weight; or</b></li> </ul> <p><b>insert new point</b></p>

	<ul style="list-style-type: none"> <li>• <i>in case of natural soil materials, the total concentration of all additives including soil material, does not exceed 15 % of the total input material weight and the soil materials shall not exceed for Cadmium (Cd) 1.5 mg/kg dry matter, Mercury (Hg) 1 mg/kg dry matter, Nickel (Ni) 70 mg/kg dry matter, and Lead (PB) 120 mg/kg dry matter.</i></li> </ul>
<p><b>Justification:</b>  <i>The limitation of typical composting additives such as clay minerals, lime or stone dust, at 5 % (m/m) is common practice and fully justified. But it is a traditional and well documented practice to add clay soils up to approximately 15% by weight into the feedstock mix in order to promote the formation of stable clay-humus complexes already at an early stage of composting process. Soil also helps to absorb odorous liquids and to reduce NH<sub>3</sub> emissions. It supports to level undesirable peak temperatures by reducing the biological reactivity of the biomass during the thermophile composting stage.</i></p>	
<p><b>Suggested Amendment 24</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 3 - paragraph 3</b></p>	
<p>Text proposed by the Commission</p> <p>3.The aerobic composting shall consist in controlled decomposition of biodegradable materials, which is predominantly aerobic and which allows the development of temperatures suitable for thermophilic bacteria as a result of biologically produced heat. All parts of each batch shall be regularly and thoroughly moved in order to ensure the correct sanitation and homogeneity of the material. During the composting process, all parts of each batch shall have one of the following temperature-time profiles:</p> <ul style="list-style-type: none"> <li>• 65°C or more for at least 5 days,</li> <li>• 60°C or more for at least 7 days, or</li> <li>• 55°C or more for at least 14 days.</li> </ul>	<p>Suggested amendment:</p> <p>3.The aerobic composting shall consist in controlled decomposition of biodegradable materials, which is predominantly aerobic and which allows the development of temperatures suitable for thermophilic bacteria as a result of biologically produced heat. All parts of each batch shall be regularly and thoroughly <del>moved</del>, <b>turned or forced aerated</b> in order to ensure the correct sanitation and homogeneity of the material. During the composting process, all parts of each batch shall have one of the following temperature-time profiles:</p> <ul style="list-style-type: none"> <li>• 65°C or more for at least <b>3 days in open systems,</b></li> <li>• 60°C or more for at least <b>3 days in closed system , or</b></li> <li>• 55°C or more for at least <b>10 days in open systems.</b></li> </ul>
<p><b>Justification:</b>  <i>Based on extended scientific examinations, numerous process validations (HBPS, BGK) and practical experience on national level those defined temperature/time profiles are implemented national regulation. The German bio-waste ordinance which entered into force in 1998, defined and implemented temperature file requirements as hygienisation requirement for composting of bio-waste. With the latest revision of the German bio-waste ordinance in 2012 the time/temperature profiles were defined for</i></p>	



composting with 55 °C for 2 weeks or 60 °C for 6 days or 65 °C for 3 days (without difference between open or closed systems).

With regard to hygienisation the temperature-time profiles are very different in EU countries, see figure below (the y-axis is the value of time x temperature).



<p><b>Suggested Amendment 25</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 3 - paragraph 4</b></p>	
<p>Text proposed by the Commission</p> <p>4.The compost shall contain</p> <p>(a) no more than 6 mg/kg dry matter of PAH16, and</p> <p>(b) no more than 5 g/kg dry matter of macroscopic impurities in the form of glass, metal and plastics above 2 mm.</p>	<p>Suggested amendment</p> <p>4.The compost shall contain</p> <p>(a) <del>no more than 6 mg/kg dry matter of PAH16,</del> and</p> <p>(b) no more than 5 g/kg dry matter of macroscopic impurities in the form of glass, metal and plastics above 2 mm <b>(dry sieving method).</b></p>
<p><b>Justification:</b></p> <p><i>In general, a limit value for PAH16 is a criterion that can be deleted because the defined input materials from separately collected sources already sufficiently minimise the risk of a possible contamination.</i></p> <p><i>With reference to the European standard EN 16202, it is necessary that the proposed limit refer to the dry sieving method described in EN 16202.</i></p>	
<p><b>Suggested Amendment 26</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 3 – paragraph 6</b></p>	
<p>Text proposed by the Commission</p> <p>6. The compost shall meet at least one of the following stability criteria:</p> <p>(a) Oxygen uptake rate:</p>	<p>Suggested amendment for new parameter:</p> <p>6. The compost shall meet at least one of the following stability criteria:</p> <p>(a) Oxygen uptake rate:</p>

<ul style="list-style-type: none"> <li>• Definition: an indicator of the extent to which biodegradable organic matter is being broken down within a specified time period. The method is not suitable for material with a content of particle sizes &gt; 10 mm exceeding 20 %,</li> <li>• Criterion: maximum 25 mmol O<sub>2</sub>/kg organic matter/h; or</li> </ul> <p>(b) Self heating factor:</p> <ul style="list-style-type: none"> <li>• Definition: the maximum temperature reached by a compost in standardised conditions as an indicator of the state of its aerobic biological activity,</li> <li>• Criterion: minimum Rottegrad III.</li> </ul>	<ul style="list-style-type: none"> <li>• Definition: an indicator of the extent to which biodegradable organic matter is being broken down within a specified time period. The method is not suitable for material with a content of particle sizes &gt; 10 mm exceeding 20 %,</li> <li>• Criterion: maximum 25 mmol O<sub>2</sub>/kg organic matter/h; or</li> </ul> <p>(b) Self heating factor:</p> <ul style="list-style-type: none"> <li>• Definition: the maximum temperature reached by a compost in standardised conditions as an indicator of the state of its aerobic biological activity,</li> <li>• Criterion: minimum Rottegrad III; or</li> </ul> <p>(c) <b>Seeds Germination:</b></p> <ul style="list-style-type: none"> <li>• <b>Definition: the minimum germination and plant growth of cress seeds (<i>Lepidium sativum</i>), allowing to estimate the presence of any phytotoxic substances whose presence is an assessment of maturity of the compost.</b></li> <li>• <b>Criterion: Germination Index (at a dilution of 30%) &gt; 60%</b></li> </ul>
<p><b>Justification:</b>  <i>The germination index has been included in the Italian Regulation on Fertilizers (D.lgs 75/2010), where it is considered a reliable indirect parameter to assess both the stability and maturity of compost.</i></p>	
<p><b>Suggested Amendment 27</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 5 - paragraph 1 (a-c), new (d) and (e)</b></p>	<p>new (g) and new (f)</p>
<p>Text proposed by the Commission</p> <p>1.A CE marked fertilising product may contain compost obtained through aerobic composting of exclusively one or more of the following input materials:</p> <p>(a) Bio-waste within the meaning of Directive 2008/98/EC resulting from separate bio-waste collection at source;</p>	<p>Suggested amendment:</p> <p>1. A CE marked fertilising product may contain compost obtained through aerobic composting of exclusively one or more of the following input materials:</p> <p>(a) Bio-waste within the meaning of Directive 2008/98/EC resulting from separate bio-waste collection at source; <b>with reference to a guiding document containing types and origin of source separated organic waste that is eligible as feedstock, based on Table 14 of the JRC report 2014 ‘End of Waste Criteria for Biodegradable Waste’.</b></p>

<p>(b) Animal by-products of categories 2 and 3 according to Regulation (EC) No 1069/2009;</p> <p>(c) Living or dead organisms or parts thereof, which are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except</p> <ul style="list-style-type: none"> <li>the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment,</li> <li>sewage sludge, industrial sludge or dredging sludge, and</li> <li>animal by-products of category 1 according to Regulation (EC) No 1069/2009;</li> </ul>	<p>(b) Animal by-products of categories 2 and 3 according to Regulation (EC) No 1069/2009;</p> <p>(c) Living or dead organisms or parts thereof, which are unprocessed or processed only by manual, mechanical or gravitational means, by dissolution in water, by flotation, by extraction with water, by steam distillation or by heating solely to remove water, or which are extracted from air by any means, except</p> <ul style="list-style-type: none"> <li>the organic fraction of mixed municipal household waste separated through mechanical, physicochemical, biological and/or manual treatment,</li> <li><b>municipal</b> sewage sludge, industrial <b>sewage</b> sludge or dredging sludge, and</li> <li>animal by-products of category 1 according to Regulation (EC) No 1069/2009;</li> </ul> <p><b><i>New (d) food and feed washing waste, sludges from food and feed processing plants</i></b></p> <p><b><i>New (e) Energy crops – plants that have not for any other purpose, including algae , according to CMC 4 Nr. 1 (a).</i></b></p>
<p><b>Justification:</b></p> <p><i>ECN calls for a defined, acceptable input list with detailed information for producing compost and digestates in the Fertilising Products Regulation in order to give legal certainties for CE marked products. As a guidance, waste codes should/could give an added value (although not binding). As an example in the European Quality Assurance scheme for compost and digestate of the European Compost Network ‘ECN-QAS’ approved input materials are provided in a definite list, together with the waste code, waste type, specification of permitted materials and remarks. A guidance document should contain more detailed clarification on the types and origin of source separated organic waste that is eligible as feedstock. This should be based on the input list provided as Table 14 in the JRC report 2014 on End of Waste Criteria for Biodegradable Waste.</i></p> <p><i>The word ‘sewage’ should be added here to not exclude sludges from feed, food and beverage retail premises and from feed, food and beverage processing plants.</i></p> <p><i>In addition, a new subparagraph (d) food waste, food washing waste, sludges from food and feed processing plants should be added.</i></p> <p><i>In practice some Co-fermentation plants are treating different organic input materials, from biowaste, manure up to energy crops with different amounts in there processes. In order to keep this flexibility within the input material management of digestion plants (CMC 5), it should be allowed using energy crop materials –according to CMC 4 Nr. 1(a)?</i></p>	
<p><b>Suggested Amendment 28</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 5 - paragraph 4</b></p>	
<p>Text proposed by the Commission</p>	<p>Suggested amendment</p>

<p>4. Neither the solid, nor the liquid part of the digestate shall contain more than 6 mg/kg dry matter of PAH16.</p>	<p><del>4. Neither the solid, nor the liquid part of the digestate shall contain more than 6 mg/kg dry matter of PAH16.</del></p>
<p><b>Justification:</b>  <i>In general, a limit value for PAH16 is a criterion that can be deleted because the defined input materials from separately collected sources already sufficiently minimise the risk of a possible contamination.</i></p>	
<p><b>Suggested Amendment 29</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 5 - paragraph 5</b></p>	
<p>Text proposed by the Commission  5. The digestate shall contain no more than 5 g/kg dry matter of macroscopic impurities in the form of glass, metal and plastics above 2 mm.</p>	<p>Suggested amendment  5. The digestate shall contain no more than 5 g/kg dry matter of macroscopic impurities in the form of glass, metal and plastics above 2 mm (<b>dry sieving method</b>).</p>
<p><b>Justification:</b>  <i>With reference to the European standard EN 16202, it is necessary that the proposed limit refer to the dry sieving method described in EN 16202.</i></p>	
<p><b>Suggested Amendment 30</b>  <b>Proposal for a Directive</b>  <b>Annex II – part II – CMC 5 – paragraph 7</b></p>	
<p>Text proposed by the Commission  7. Both the solid and the liquid part of the digestate shall meet at least one of the following stability criteria:  (a) Oxygen uptake rate:  • Definition: an indicator of the extent to which biodegradable organic matter is being broken down within a specified time period. The method is not suitable for material with a content of particle sizes &gt; 10 mm exceeding 20 %.  • Criterion: maximum 50 mmol O<sub>2</sub>/kg organic matter/h; or  (b) Residual biogas potential:  • Definition: an indicator of the gas released from a digestate in a 28 day period and measured against the volatile solids contained within the sample. The test is run in triplicate, and the average result is used to demonstrate compliance with the requirement. The volatile solids are those solids in a sample of material that are lost on ignition of the dry solids at 550°C.  • Criterion: maximum 0,45 l biogas /g volatile solids.</p>	<p>Suggested amendment for new parameter:  7. Both the solid and the liquid part of the digestate shall meet at least one of the following stability criteria:  (a) Oxygen uptake rate:  • Definition: an indicator of the extent to which biodegradable organic matter is being broken down within a specified time-period. The method is not suitable for material with a content of particle sizes &gt; 10 mm exceeding 20 %.  • Criterion: maximum 50 mmol O<sub>2</sub>/kg organic matter/h; or  (b) Residual biogas potential:  • Definition: an indicator of the gas released from a digestate in a 28 day period and measured against the volatile solids contained within the sample. The test is run in triplicate, and the average result is used to demonstrate compliance with the requirement. The volatile solids are those solids in a sample of material that are lost on ignition of the dry solids at 550°C.  • Criterion: maximum 0,3 l methane (CH<sub>4</sub>) /g volatile solids.  <b>new (c) Organic acids content</b></p>

	<ul style="list-style-type: none"> <li>• <b>Definition: an indicator of the extent to which biodegradable organic matter is being broken down within a specified time period by measuring the organic acid content.</b></li> <li>• <b>Criterion: maximum 1500 mg organic acids/l</b></li> </ul>
<p><b>Justification:</b>  <i>The methane content in biogas varies and therefore the regulation should refer to the parameter 'methane' methane. The content of carbon dioxide in biogas is not of interest. During digestion of food waste there will remain a certain amount of volatile fatty acids which will not be included in the determination of volatile solids according to the definition in the proposal. A separate determination of volatile fatty acids should therefore be carried out in order to get an accurate determination of the volatile solids content. In accordance to JRC report 2014 End-of-waste criteria of biodegradable waste the organic acid content (new c) was introduced as indicator to which extend the biodegradable organic matter is being broken down within a specified time-period.</i></p>	
<p><b>Annex III</b></p>	
<p><b>Suggested Amendment 31</b>  <b>Proposal for a Directive</b>  <b>Annex III – part 3–</b></p>	
<p>Text proposed by the Commission  This Annex sets out the labelling requirements for CE marked fertilising products. The requirements laid down in Part 2 and Part 3 of this Annex for a given Product Function Category ('PFC'), as specified in Annex I, apply to CE marked fertilising products in all subcategories of that PFC.</p>	<p>Remark and suggested amendment  <b><i>With reference to the requirements laid down in Annex I, Annex II and Annex III Part III there is need to add a new Part IV on analytical methods.</i></b></p>
<p><b>Justification:</b>  <i>Without a reference to analytical methods, it doesn't make sense to set any limit values, declaration parameter and tolerances rules.</i></p>	
<p><b>Suggested Amendment 32</b>  <b>Proposal for a Directive</b>  <b>Annex III – part 2 – PFC 1(A)</b></p>	
<p>Text proposed by the Commission  PFC 1(A): Organic fertiliser  The following information elements shall be present:  (a)the declared nutrients nitrogen (N), phosphorus (P) or potassium (K), by their chemical symbols in the order N-P-K;  (b)the declared nutrients magnesium (Mg), calcium (Ca), sulphur (S) or sodium (Na), by their chemical symbols in the order Mg-Ca-S-Na;  (c)numbers indicating the total content of the declared nutrients nitrogen (N), phosphorus (P) or</p>	<p><b><u>General remark and suggested amendments</u></b>  <b><u>General remark:</u></b>  <b><i>Clarification is needed for (a) to (d): From the current text it is not clear if the concentration of plant nutrients have to be indicated as elements (N, P, K, Mg, Ca, S, Na) or as (P2O5, K2O, SO3, Na2O) or both</i></b></p>

<p>potassium (K), followed by numbers in brackets indicating the total content of magnesium (Mg), calcium (Ca), sulphur (S) or sodium (Na),</p> <p>(d)the content of the following declared nutrients and other parameters, in the following order and as a percentage of the fertiliser by mass,</p> <ul style="list-style-type: none"> <li>•Total Nitrogen (N) <ul style="list-style-type: none"> <li>–minimum amount of organic nitrogen (N), followed by a description of the origin of the organic matter used;</li> <li>–Nitrogen (N) in the form of ammoniacal nitrogen;</li> </ul> </li> <li>•Total phosphorus pentoxide (P<sub>2</sub>O<sub>5</sub>);</li> <li>•Total potassium oxide (K<sub>2</sub>O);</li> <li>•Magnesium oxide (MgO), calcium oxide (CaO), sulphur trioxide (SO<sub>3</sub>) and sodium oxide (Na<sub>2</sub>O), expressed <ul style="list-style-type: none"> <li>– where those nutrients are totally soluble in water, only as the content soluble in water;</li> <li>– where the soluble content of those nutrients is at least a quarter of the total content of those nutrients, the total content and the content soluble in water; and</li> <li>– in other cases, as the total content;</li> </ul> </li> <li>•Total copper (Cu) and zinc (Zn), if above 200 and 600 mg/kg dry matter respectively;</li> <li>•Organic carbon (C); and</li> <li>•Dry matter.</li> </ul>	<p><b>Total copper (Cu) and zinc (Zn), if above 110 and 400 mg/kg dry matter respectively, Organic matter content</b></p>
<p><b>Justification:</b>  <i>Against common practice as well as the proposal of the JRC report 2014 End of Waste criteria for Biodegradable Waste, now no limit values for Zn and Cu are established. If this is accepted there should be at least labelling beginning with a lower concentration level in order to give the chance for precautionary assessment in a given application scenario.</i></p>	
<p><b>Suggested Amendment 33</b>  <b>Proposal for a Directive</b>  <b>Annex III – part 2 – PFC 3</b></p>	
<p>Text proposed by the Commission  PFC 3: SOIL IMPROVER  The following parameters shall be declared in the following order, and expressed as a percentage of the CE marked fertilising product by mass:</p> <ul style="list-style-type: none"> <li>– Dry matter;</li> <li>– Organic carbon (C) content;</li> <li>– Total nitrogen (N) content;</li> </ul>	<p>Suggested amendment  PFC 3: SOIL IMPROVER  The following parameters shall be declared in the following order, and expressed as a percentage of the CE marked fertilising product by mass:</p> <ul style="list-style-type: none"> <li>– Dry matter;</li> <li>– <del>Organic carbon (C) content</del> <b>Organic matter;</b></li> </ul>

<ul style="list-style-type: none"> <li>- Total phosphorus pentoxide (P2O5) content;</li> <li>- Total potassium oxide (K2O) content;</li> <li>- Total copper (Cu) and zinc (Zn) content, if above 200 and 600 mg/kg dry matter respectively; and</li> <li>- pH.</li> </ul>	<ul style="list-style-type: none"> <li>- Total nitrogen (N) content;</li> <li>- Total phosphorus pentoxide (P2O5) content;</li> <li>- Total potassium oxide (K2O) content;</li> <li>- Total copper (Cu) and zinc (Zn) content, if above <del>200</del> <b>110</b> and <del>600</del> <b>400</b> mg/kg dry matter respectively; and</li> <li>- pH.</li> </ul> <p><b>New declaration parameter:</b>  <b>Stability criteria either</b>  <b>Oxygen uptake rate (mmol/O2/kg organic matter/h) or</b>  <b>Self-heating degree (Rottegrad).</b></p>
<p><b>Justification:</b>  <i>Against common practice as well as the proposal of the JRC report 2014 End of Waste criteria for Biodegradable Waste, now no limit values for Zn and Cu are established. If this is accepted there should be at least labelling beginning with a lower concentration level in order to give the chance for precautionary assessment in a given application scenario.</i>  <i>For certain uses in horticulture, ornamental plants in green houses, tree nurseries, private gardening etc. the knowledge of the level of biological stabilisation is of utmost importance for a proper recommendation of application in the differentiated use sectors. This knowledge is important to safeguard a technically correct marketing and application advise!</i></p>	
<p><b>Suggested Amendment 34</b>  <b>Proposal for a Directive</b>  <b>Annex III – part 3– PFC 3</b></p>	
<p>Text proposed by the Commission  Table with tolerances for soil improver</p>	<p>Remark and suggested amendment  <i>For soil improver (PFC 3) and organic fertilisers (PFC 1 (A) the same tolerances for the declaration of Nitrogen (N), Potassium (K2O) and Phosphorus (P2O5) should be set.</i>  <i>Regarding to the parameter “granulometry” the +/- 10% seems too low as well as no analytical methods is referred to. A tolerance value for the parameter “C/N-ratio” have to be checked as well as for the declared quantity.</i>  <i>Additionally, it should be possible by declaring the “quantity” of soil improvers filled in bags based on “volume”, too - as it is regulated for growing media. The tolerances of 25% for the quantity during in the distribution chain has to be specified with regards to the maximum valid for a maximum time line (6 months – max. 12 months) and not “at any time” in the distribution chain.</i>  <i>We propose to replace ‘at any time in the distribution chain’ by ‘at the time of manufacture’.</i></p>

<b>Annex IV</b>	
<b>Suggested Amendment 35</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1</b>	
Text proposed by the Commission	<i>Accreditation would constitute an unnecessary administrative and unpredictable financial burden to what is already implemented as QAS for compost and digestate in European countries. The level detail of the provisions to be considered for the Quality System as well as the internal and external auditing goes far beyond what is needed for this Regulation. It would be best suited to describe the basic principles and main elements that have to be respected by internal QM and documentation as well as external audits (as part of the external QAS) carried out by the notified bodies</i>
<b>Justification:</b>	
<b>Suggested Amendment 36</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1 indent 2 (d)</b>	
Text proposed by the Commission (d) a list of the harmonised standards applied in full or in part the references of which have been published in the Official Journal of the European Union and, where those harmonised standards have not been applied, descriptions of the solutions adopted to meet the essential requirements of this Regulation, including a list of common specifications or other relevant technical specifications applied. In the event of partly applied harmonised standards, the technical documentation shall specify the parts which have been applied,	Suggested amendments (d) a list of the harmonised standards applied in full or in part the references of which have been published in the Official Journal of the European Union and, <del>where those harmonised standards have not been applied, descriptions of the solutions adopted to meet the essential requirements of this Regulation, including a list of common specifications or other relevant technical specifications applied. In the event of partly applied harmonised standards, the technical documentation shall specify the parts which have been applied,</del>
<b>Justification:</b> <i>This part is too general and vague. This part should be deleted. However, national equivalent standards should be allowed, maybe notified to the Commission?!</i>	
<b>Suggested Amendment 37</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1 indent 2 (e)</b>	
Text proposed by the Commission (e) results of design calculations made, examinations carried out, etc.,	Suggested amendments <del>(e) results of design calculations made, examinations carried out, etc.,</del>
<b>Justification:</b>	



<i>It is not clear, what should be provided in detail. This part should be deleted.</i>	
<b>Suggested Amendment 38</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1 indent 3</b>	
Text proposed by the Commission 3.The manufacturer shall keep the technical documentation at the disposal of the relevant national authorities for 10 years after the CE marked fertilising product has been placed on the market.	Suggested amendments 3.The manufacturer shall keep the technical documentation at the disposal of the relevant national authorities for <b>7</b> years after the CE marked fertilising product has been placed on the market
<b>Justification:</b> <i>It is common practice to store the documents for 7 years. E.g. for tax declaration or waste treatment facilities</i>	
<b>Suggested Amendment 39</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1 indent 5.1.1.1. and 5.1.5</b>	
Text proposed by the Commission 5.1.1.1. For compost belonging to component material category ('CMC') 3 and digestate belonging to CMC 5, as defined in Annex II, senior management of the manufacturer's organisation shall: (a) Ensure that sufficient resources (people, infrastructure, equipment) are available to create and implement the quality system;... 5.1.5 The achievement of the required product quality and the effective operation of the quality system shall be monitored.	Suggested amendments
<b>General remark:</b> <i>Regarding the wide range of organisation scale /capacity of composting / AD plants in Europe to be taken into account in the undifferentiated level of complexity that is generally proposed for the design and operation of the Quality System including internal and external audits</i> <b>Justification:</b> <i>It must be taken into account that also smaller facilities, still producing high-end products for the market consists only of the owner (manufacturer) and e.g. one co-worker / employee). Therefore, the requirements for the quality system must not be too demanding as regards the separation and specification of tasks and responsibilities within the implementation and operation of the quality system!</i> <i>This refers e.g. to 5.1.1.1 senior management and the member of the organisation's management which is combined in <b>one</b> person only; and to (c) conduct an internal audit as well as to 5.1.5.</i> <i>These requirements given here cannot be implemented in the described way in such small scale facilities run mainly by the manufacturer himself.</i> <i>Many elements are very general without any specific meaning and leave a lot room for inconsistent interpretation</i>	
<b>Suggested Amendment 40</b> <b>Proposal for a Directive</b>	

<b>Annex IV – part 2 – Module D1 indent 5.1.3.1 (e)</b>																																							
Text proposed by the Commission (e) Samples shall be taken on output materials, to verify that they comply with the component material specifications for compost and digestate laid down in CMC 3 and CMC 5 in Annex II, and that the properties of the output material does not jeopardise the CE marked fertilising product's compliance with the relevant requirements in Annex I.	Suggested amendments (e) Samples shall be taken on output materials <b>by an acknowledged sample taker</b> , to verify that they comply with the component material specifications for compost and digestate laid down in CMC 3 and CMC 5 in Annex II, and that the properties of the output material does not jeopardise the CE marked fertilising product's compliance with the relevant requirements in Annex I.																																						
<i>Justification:</i> Samples on output materials shall be taken by an acknowledged sample taker (either from the accredited laboratory or by a trained person working on the plant). With the addition to transfer the responsibility of sampling to an acknowledged sampler (a trained person working at the plant), the notified body has a more streamlined document control task on the whole quality assurance system of the manufacturer while all the sampling is done by a trained person. In addition, this system will be less costly for the plants.																																							
<b>Suggested Amendment 41</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2 – Module D1 indent 5.1.3.1 (f)</b>																																							
Text proposed by the Commission (f) The output material samples shall be taken with at least the following frequency:	Suggested amendments (f) The output material samples shall be taken with at least the following frequency:																																						
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<i>Justification:</i> The administrative burden will be too heavy in the proposed range (proposal by the Commission). For large plants, the sampling costs are less important.																																							
<b>Suggested Amendment 42</b> <b>Proposal for a Directive</b> <b>Annex IV – part 2– Module D1 indent 6.3.2</b>																																							
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<p>6.3.2 For compost belonging to component material category ('CMC') 3 and digestate belonging to CMC 5, as defined in Annex II, the notified body shall take and analyse output material samples during each audit, and the audits shall be carried out with the following frequency:</p> <p>(a) During the notified body's first year of surveillance of the plant in question: The same frequency as the sampling frequency indicated in the table included in paragraph 5.1.3.1(f); and</p> <p>(b) During the following years of surveillance: Half the sampling frequency indicated in the table included in paragraph 5.1.3.1(f).</p>	<p><b>6.3.2</b> <i>For compost belonging to component material category ('CMC') 3 and digestate belonging to CMC 5, as defined in Annex II, the notified body shall take and analyse output material samples during an audit every two years.</i></p>
<p><b>Open question:</b>  <i>There is a need to clarify that regular output control by a high frequency (number) of sampling of compost and digestate products is different from making external audits of the quality assurance scheme by the notified body.</i></p> <p><b>ECN Proposal:</b>  <i>Since a plant that produces CE marked fertilisers work according to documented procedures and all documentation is stored, the notified body does not need to audit the plant more than once every two years, which has proven to be quite enough (based on more than 20 years of quality assurance experience across Europe). With the addition to transfer the responsibility of sampling to an acknowledged sampler (a trained person working at the plant), the notified body has a more streamlined document control task while all the sampling is done by a trained person. In addition, this system will be less costly for the plants.</i></p>	