EUROPEAN COMPOST NETWORK (ECN)

Background paper on Circular Economy

The Role of Bio-waste in the Emerging Circular Economy

Creating New Jobs from Managing Bio-waste

The European Compost Network ECN welcomes the initiative of the European Parliament Intergroup on 'Climate Change, Biodiversity and Sustainable Development' to organise a 'Policy debate' on 'the role of bio-waste in the emerging Circular Economy'.

Recycling biodegradable wastes and resource efficiency lies at the heart of environmental policy. According to the 'Communication on Future Steps in Bio-Waste Management in the European Union' (COM(2010)235) the EU produces between 118 and 138 million tonnes of bio-waste every year, of which about 88 million tonnes of bio-waste is related to municipal waste. These 88 million tonnes of bio-waste per annum (M tpa) can be used as feedstock for compost and digestate and for the biobased economy to produce biochemicals and biopolymers. Currently only 30% (26 M tpa) is effectively recycled, meaning that over 50 M tpa is still wasted every year.

Besides the substantial effect on reducing greenhouse gas emissions, the recycling of bio-waste will have a substantial effect on recovery of nutrients, like phosphorus, potassium, nitrogen, and organic matter for C-sequestration and soil improvement. Compost and digestate are mainly used as soil improvers, organic fertilisers or as constituents in growing media.

In this way bio-waste gives a maximum contribution to a sustainable, circular economy.

The European Compost Network welcomes the initiatives of the Commission to develop Europe towards a resource efficient society and to implement circular economy across Europe.

We believe that the strategies, the resource-efficient strategy and the circular economy strategy, provide a major opportunity for Europe to investigate in clean environmentally sound technologies for bio-waste recycling and the recovery of organic resources.

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Putting the right economic and regulatory framework in place these strategies will lead to create new green jobs and will finally have a positive impact on the financial situation in Europe.

Using waste as a resource to produce valuable products for the European market will be a key tool towards a more resource efficient Europe.

To achieve this, a stringent and comprehensive regulatory approach by the Commission is needed. Therefore we call for urgent key actions by the Commission:

- Setting recycling targets for(separately collected) bio-waste which are destined for biological treatment
- Supporting material recycling according to the waste hierarchy instead of promoting energy recovery from bio-waste in the first instance
- Defining End-of-Waste Criteria for compost and digestate for establishing an environmentally sound market for recycled products
- Harmonisation of all legislative approaches in respect to the use of recycled products in the relation to environment, agriculture and industries

Bio-waste in the policy debate over the last 15 years

Fourteen years have been passed since the Commission dropped its initiative in 2001 to develop a **Bio-waste Directive**, for which broad consensus among Member States had been achieved.

With the revision of the **Waste Framework Directive (WFD)** in 2008, a new Article on 'Biowaste' was introduced. Article 22 of the WFD requires member states to *"take measures, as appropriate, to encourage (a) separate collection of bio-waste with a view to the composting and digestion of bio-waste; (b) the treatment of bio-waste in a way that fulfils a high level of environmental protection; (c) the use of environmentally safe materials produced from bio-waste."* This principle is in line with the concept of the Waste hierarchy set out in Article 4 of the WFD. The Commission launched a number of studies to meet its commitment under the WFD to *"assess the management of bio-waste with a view to submitting a proposal if appropriate and to examine the opportunity of setting minimum requirements for bio-waste management and quality criteria for compost and digestate from bio-waste"*.

This assessment has resulted in the Commission's ***'Communication on future steps in bio-waste management in the European Union' (COM(2010)235)***.

According to the 'Communication on bio-waste' (COM(2010)235) improved management of bio-waste will result in the following benefits: …'

- *'Financial savings for citizens (for example, one third of food bought by UK households (approximate value of €19 billions) becomes waste. Up to 60% of this waste could theoretically be avoided.*
- *Avoiding about 10 million tonnes CO_2-equivalent emissions, i.e. a 4% contribution to the 2020 EU target of 10% reduction compared to 2005 emissions for the sectors not covered by the*

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Emission Trading Scheme. In case of ambitious prevention policies up to 44 million tonnes CO_2-equivalent could be avoided;

- *About one-third of the 2020 EU target to use renewable energy in transport could be met by using the biogas produced from bio-waste as vehicle fuel and around 2% of the overall renewable energy target could be met if all bio-waste is turned into energy.*
- *Increased market for quality compost by a factor of 2.6 to reach about 28 million tonnes;*
- *Resource savings by substituting 10% of phosphate fertilizers, 9% of potassium fertilizers and 8% of lime fertilizers with compost;*
- *Improving 3% to 7% of depleted agricultural soils in the EU with compost and addressing the problem of degrading soil quality in Europe.'*

In addition to these benefits the Commission has recommended **priority actions to optimise bio-waste management in the EU** in its 'Communication on bio-waste' (COM(2010)235): *'The Commission will continue its analysis with a view to conclude on the appropriateness of setting targets by 2014 at the latest under the WFD. It is likely that a target for biological treatment would have to go hand-in-hand with enhanced separate collection to ensure good quality of compost and digestate.'*

Further it is stressed that ***separate collection of bio-waste*** plays a key role in sustainable bio-waste management: *'Composting and anaerobic digestion offer the most promising environmental and economic results for bio-waste that cannot be prevented. An important pre-condition is a good quality of the input to these processes. This would in the majority of cases be best achieved by separate collection.'*

In 2008 the Commission launched the **End-of-Waste (EoW) Project for compost and digestate** to be prepared by the JRC-IPTS in Seville based on Article 6 in the WFD. This process covered basic studies on the methodology and the background situation on national bio-waste legislation, management, marketing and use in the EU. It was finalised by the JRC publication ***'End-of Waste criteria for biodegradable waste subjected to biological treatment (compost & digestate): Technical proposals'*** (European Union, 2014) in January 2014. Since then the Commission has postponed to open the 'comitology process' for setting up end-of-waste criteria for compost and digestate.

With the publication of the **European Commission's Circular Economy Package *'Towards a Circular Economy: A Zero Waste Programme for Europe'*** in July 2014 by former Environment Commissioner, Janez Potočnik a further cornerstone was set for improving bio-waste management in the EU. If implemented it had the potential to result in an additional 50 million tonnes of bio-waste being recycled and the creation of at least 50,000 jobs. Meanwhile, the EU Waste Legislative proposal, which has foreseen to increase the recycling/re-use of municipal waste to 70% in 2030; phase out landfilling by 2025 of recyclables, including bio-waste; and, reduce food waste generation by 30% by 2025, was withdrawn by the new elected European Commission.

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New ambitious approach for Circular Economy in Europe

The new European Commission, led by President Jean-Claude Juncker, has now announced to replace the proposed revision of the EU Waste Legislation by a *'more ambitious and effective approach'*. This approach will support *'better product design and sustainable consumption'* as well as *'facilitating the development of markets for recycled products'*, so Mr Karl Falkenberg, Director General of DG Environment, European Commission.

With this event 'The Role of Biowaste in the Emerging Circular Economy' the European Compost Network (ECN) would like to chair its long-term experiences in sustainable bio-waste management and to discuss the importance of organic waste in the circular economy and a resource-efficient society with key decision-makers, politicians and stakeholders.

ECN's statements on requirements for a sustainable management of bio-waste in Europe

With respect to bio-waste we asked the Commission to consider in its new proposal for the revision of the waste legislative proposal 'Towards a circular economy: A zero waste programme for Europe':

1. **To set an obligation for implementing separate collection of bio-waste in the member states.**
2. **To establish targets for bio-waste recycling as a fundamental driver to secure investment and to serve as the missing link between the diversion targets for biodegradable waste of the Landfill Directive, the current trend to use incineration as the main alternative and the 50% recycling targets today required by the WFD.**
3. **To develop clear and well-targeted provisions and harmonized calculation methods (such as a bio-waste recycling targets based on separate collection) in order to help member state administrations and municipalities develop integrated recycling schemes.**
4. **To finalise the end-of-waste criteria for compost and digestate.**
5. **To develop a comprehensive product – resource – waste legislation to support the use of secondary materials recycled from organic waste.**

About ECN

The European Compost Network (ECN) is the leading European membership organisation promoting sustainable recycling practices by composting and anaerobic digestion of organic resources and guarding over the quality and safe use of the recovered organic fertilisers/soil improvers.

The European Compost Network is a membership organisation with 71 members from 27 European Countries. Members include all European bio-waste organisations and their operating plants, research, policy making, consultants and authorities. ECN represents 21 bio-waste organisations (compost and digestate quality assurance organisations) from 14 European Countries and two from abroad, 23 companies producing bio-based products (organic fertilisers, soil improvers, growing media and, biodegradable plastics), 11 non-governmental organisation of environmental protection organisations, 11 academic (research) institutes in environmental, agricultural and natural sciences and 3 environmental agencies.

Via the member organisations, ECN represents more than 2000 experts and plant operators with more than 25 million tonnes of biological waste treatment capacity.

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