



Submission to the

Department of Environment, Climate and Communications

On

Bioeconomy Action Plan Consultation

From:

**Cré – Composting and Anaerobic Digestion
Association of Ireland CLG**

January 27th 2023

Introduction

Cré welcomes the opportunity to respond to the Department of the Environment, Climate and Communications' consultation Bioeconomy Action Plan Consultation and Discussion Document 2022.

As a member of the Bioeconomy Forum, Cré greatly appreciates the transparency and openness of the different stakeholders and personnel involved in the ongoing development of the necessary frameworks and policies to drive a thriving bioeconomy in Ireland. During 2022 and through extensive stakeholder engagement, Cré developed a Blueprint for Biowaste in Ireland. The Blueprint envisages a future where biomass, in the form of biowaste is, through the cascading principle, is optimally valorised. Given all of the land based bioeconomy is dependent on soil; soil health, soil fertility and soil quality, in our view it is imperative that all outputs of the bioeconomy deliver at some point in their life cycle, benefits to soils. The same fundamental basis is applied in our Blueprint which we are pleased to attach to this submission and we welcome the opportunities which arise as a result of the final Bioeconomy Action Plan to help deliver our Blueprint.

1. Are you satisfied the outlined Pillars represent the structure of the Irish bioeconomy?

Generally, yes. Whilst we welcome the references to end-of-waste, resource efficiency, consumption and renewable energy, at some stage in their life-cycle, the products of the land based bioeconomy will end up as biological waste. We hope therefore that as these pillars develop, this issue is further advanced. One disappointment, however, is the almost complete omission of soil and soil health. Without healthy and fertile soils, the land based bioeconomy will fail.

2. Are there specific key performance indicators and/or targets the bioeconomy should be setting out to achieve to measure its implementation?

Cré is primarily involved in biowaste and soil health therefore our targets relate to these aspects of the bioeconomy:

- Establishment of a single Government Department reference point for all biowaste related policies
- Amount of biowaste and appropriate packaging collected and recycled in ROI
- Inclusion of biobased and compostable packaging within Repak system
- Appropriate reconsideration of national planning policies to help facilitate the rapid deployment of bioeconomy infrastructure, in particular that related to biowaste.

3. What other key issues should the Governance Pillar deal with?

This pillar should have a strong outward and inward government policy on driving the bioeconomy. In particular, “circularity” has become obsessed with the technosphere and “recycling”. It is clear from the most recent outputs of the European Commission that the voice of the bioeconomy is meek, locally and regionally. The governance pillar must therefore seek to drive the need to restore the biosphere whilst delivering a thriving bioeconomy to all aspects of policy making, including in Europe and globally.

This pillar should also deal with areas of perceived policy conflict when in fact synergies will exist e.g. food waste minimisation vs food waste recycling, packaging ‘recycling’ vs locally suitable compostable packaging.

It is noticeable that the draft refers to avoidance of ‘unintended consequences.’ This has become the go-to policy position for not moving from the fossil-based techno economy. Good or better than the incumbent policy propositions have often been discarded in preference for the perfect. This pillar

should seek to remove such barriers to innovation, investments and industrial developments where the balance is in favour of the bioeconomy.

4. What key issues should the Research, Development & Innovation Pillar deal with?

A priority should be carbon accounting with regards to soil and the sequestration, even if semi-temporary i.e. not 100 years, for carbon from high quality composts and digestates when applied to soil. A further issue should be to consider how the biogenic waste outputs of the bioeconomy should best be applied to land and in what form. Including but not limited to biowaste, manures and other agricultural wastes, and sewage sludge.

5. How could the RD&I bioeconomy approach be best structured to support the enhancement, application and scaling-up of biological knowledge and bioeconomy solutions?

6. What key issues should the Nature, Climate & Circular Pillar deal with?

- Integration of biowaste supply and recycling industries within local bioeconomy plans/strategies. Local authorities should be required to consider the bioeconomy and organic recycling of their biowastes and bioresources with a view to maximise value higher up the cascading chain whilst benefitting local soils.
- Ensuring flexibility in the approach to project development at planning and permitting stages. For example, if a plant is seeking to develop an anaerobic digestion facility within an existing permitted footprint but certain technologies which would upscale outputs e.g. H₂ or CO₂ capture/purification are currently unviable, the system needs to encourage future upgrading not hinder it.
- The introduction of persistent plastics and microplastics to soil.

7. What key issues concerning consumption patterns need to be examined to close the gap between sustainable supply of biological resources and demand?

The development of local (bio) waste infrastructure needs to be aligned to the local generation of wastes. It is essential that policies relating to biowaste, in particular food waste are realistic and balanced to ensure the necessary level of organic recycling facilities. It is clear from other territories, that an imbalance and mistiming of policy has led to market distortions which are unlikely to be restored.

8. What key issues should the Agriculture, Food & the Marine Pillar deal with?

Market development for high quality organic soil improvement, peat-free alternatives and fertilisers, linked to local production from biowaste and in combination with soil health and carbon measures.

9. What key issues should the Communities Pillar deal with?

Planning and communications.

10. Are local and regional policies ensuring the consideration of bioeconomy opportunities are in scope, and are coordinated approaches on such services in place at regional assembly and local authority level?

11. What key issues should the Industry & Enterprise Pillar deal with?

Market development for locally produced bio-based products whilst ensuring policy developments enable both local and export markets.

12. What lead market initiatives could support entrepreneurship, development, innovation and the commercialisation of bio-based products, processes, information, and services?

Without being specific, it is essential that the supply chain which starts with investments, often from the government, into specific product R&D are then supported to commercialisation not then blocked by regulatory or political whims.

13. Due to the requirement for capital and operational investment what innovations aimed at financing infrastructures and technical and economic evaluation of innovation are necessary to scale up the bioeconomy?**14. What key issues should the Knowledge & Skills Pillar deal with?**

Training and skills, engineering, soil scientists.

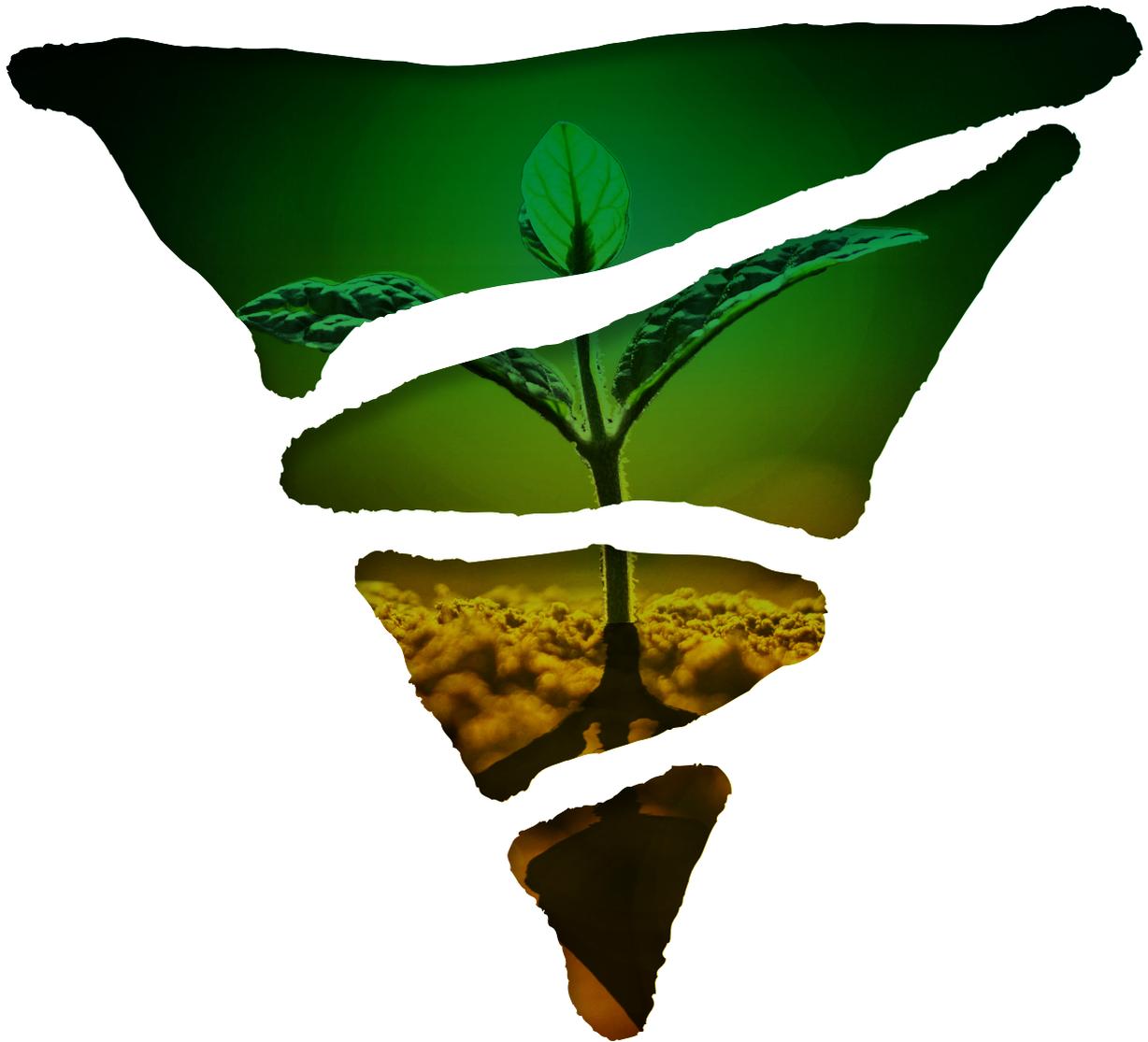
15. Can the regional skills and regional enterprise approaches better support bioeconomy development?

Yes.

16. An important part of developing the bioeconomy is to determine the most appropriate practices, treatments, technologies, logistics and business models to valorise ecosystem services, primary and secondary biomass resources. What role do advisory systems play in addressing this challenge?**17. Are there any further Pillars/Issues which this Action Plan should address?****18. Indicate what the top five priorities for action in the bioeconomy over the next three years should be?**

- Implementation of the Renewable Heat Obligation for biowaste
- Biowaste collection optimised for quality and quantity
- End of Waste / standards for compost and digestate, bioCO₂, H₂ produced from biogas
- Educating the public and businesses on biowaste/ food waste recycling
- Carbon trading scheme for compost and digestate

Blueprint for Biowaste in Ireland by 2030



Vision for Ireland

Through industrial organic recycling, by 2030 we will deliver 10% (0.5 TWh) of the Government commitment for biomethane and up to 1/3 of the EU municipal waste recycling target for Ireland.

These deliverables will be met by the recycling of at least 500,000 t of biowaste and recovery of 250,000 t other organics. In addition, the recycling of organics will deliver 200,000 t of high quality organic soil improvers, organic fertilisers and peat alternatives, and up to and 20,000,000 m³ of bioCO₂.

By increasing the performance of the organic recycling system, by 2040, we will deliver 300,000 t of high quality organic soil improvers, organic fertilisers and peat alternatives, 0.6 TWh of biomethane, and 30,000,000 m³ bioCO₂ by recycling 650,000 t of biowaste and recovering biogas from all residual organic wastes.

There is further potential for the production of biomethane from industrial organic wastes.

Key policy asks

- All separately collected food related biowastes encouraged to undergo wet or dry anaerobic digestion
- Ambitious support mechanisms for delivering high quality organic soil improvers, organic fertilisers, peat replacements and biomethane with minimal environmental impact into the domestic Irish market
- Policy and regulatory reform to enable the rapid deployment and future-proofing organic recycling infrastructure in Ireland

INTRODUCTION

Cré is the Irish word for soil. This blueprint is based on the soils in Ireland and is that starting basis for our long-term vision for Ireland. We need to protect and enhance health and fertility of our soils whilst providing alternatives for the peat industry. By manufacturing the highest quality outputs from Ireland's food and garden wastes, Cré members will deliver the products needed by the Irish agricultural and horticultural industries whilst reducing the nation's carbon and ammonia emissions.

DERIVING ECONOMIC AND ENVIRONMENTAL VALUE FROM COMPOST & DIGESTATE

- End of Waste for compost and digestate
 - Update IS441 quality standard for compost
 - Introduce a NSAI quality standard for digestate
 - Introduce a Quality Assurance Scheme for compost and digestate
 - Market orientated specifications e.g. hobby horticulture, agriculture, landscaping
- Investigate synergies with Bord Bia on promotion of QAS
- Government policy on public procurement of compost and digestate
- Government financial support on the initial development and start up of a QAS scheme

DERIVING ECONOMIC AND ENVIRONMENTAL VALUE FROM BIOGAS

- Quality standard for bio CO₂
- Quality standard for H₂ produced from biogas
- Access to markets for biogas e.g. grid connections, removal of other policy barriers e.g. food grade bio CO₂

PROCESSING INFRASTRUCTURE

- Existing facilities need upgrading to deliver wider systemic benefits
 - In-vessel composting to dry anaerobic digestion
 - Shift to higher value product manufacturing
- Dedicated unit and increased resources within EPA for biowaste licensing
- Speeding up of planning process
- Work with the Health and Safety Authority to develop guidance for health and safety at AD plants
- Installation of solar panels on roof of buildings
- Explore opportunities to valorise hydrogen



INCREASING FEEDSTOCK QUANTITY

- Food waste collected from apartments
- Biowaste collections for all homes in compliance with Waste Framework Directive
- Recycling targets in waste collection permits
- Pay by weight charging introduced for commercial premises
- Planning exemption for garden waste collection on business premises
- Garden waste to be collected at all civic amenity sites with no charge for domestic users
- Measures to address compostable packaging and products see below
- Zero untreated organics to landfill and incineration
- Target for maximum amount of organics in residual waste (e.g. France)

FEEDSTOCK CONTAMINATION CONTROLS

- Condition in Waste Facility Permits/ EPA waste licences/IED on % contamination compost & biogas plants are allowed to accept
- Condition in Waste Collectors Permit on amount (%) contamination allowed to be transferred
- Regulatory specifications on % contamination acceptable in household and businesses organic waste collections
- Transparency on waste flow
- Enforcement:
 - Control of contamination by waste collectors
 - Fines on producers like in Italy at apartments
 - Businesses

EDUCATION / COMMUNICATION

- Government to fund long-term public education campaign on food waste recycling via mywaste.ie
- Waste collectors legislated to do promotion
- Peat free product labelling scheme
- Compostables labelling scheme

BIO-BASED and COMPOSTABLE PRODUCTS

- NSAI standard for compatibility of compostable products and packaging in Irish organic recycling facilities
- Government to put NSAI standard for compatibility of compostable products in the household and commercial food waste regulations and waste collection permits
- NSAI standard to be incorporated into IS 441 / End-of-waste requirements
- Government to legislate to ban the use of term biodegradable and only use compostable if certified to new NSAI standard for consumer articles and packaging
- Government to designate problem plastic items that cause contamination in compost and digestate – e.g. fruit stickers, tea bags, bags used to collect organic waste as compostable in Irish facilities
- Government to seek measures to drive bio-based content in certain applications

ECONOMIC SUPPORT MEASURES

- Tiered supports for biogas: non-waste, waste, end of waste
- Wet & Dry AD under the Renewable Heat Obligation to promote local processing
- Introduction of a similar system to the US-based California Air Resources Board (CARB) system for renewable fuels
- Producer Responsibility Initiative for compostables (e.g. Italian scheme)
- Infrastructure funding
- Carbon trading scheme from compost and digestate



ORGANIC RECYCLING AND THE BIOECONOMY

The bioeconomy covers all sectors and systems that rely on biological resources (animals, plants, micro-organisms and derived biomass, including organic waste), their functions and principles. Where land is utilised to produce biomass in the production of food, feed, forestry and more advanced bio-based products it is essential for such land to have healthy and fertile soils in order to support growth and biodiversity. The organic recycling of biodegradable wastes into valuable organic soil improvers and organic fertilisers plays a fundamental role in providing the support soils need. In addition, healthy soils help maintain and increase soil carbon stocks. Organic recycling to soil is the final stage in the cascading approach to biomass utilisation. Prior to organic recycling waste biomass can be processed and transformed into a huge range of bio-based products from feed to chemicals and as such provide a huge economic and environmental opportunity for Ireland.

When planning for an expansion of such processes, the role and needs of the ultimate fate of biomass must be considered. This blueprint for biowaste will act to stabilise and develop the organic recycling sector providing the platform for future biorefineries created by greater investment in research and development into developing high value-added bio-based by products in the future. Plants will be encouraged to avail of EU funding to develop new by products and to investigate upstream cascading opportunities such as nutrient extraction.

We will work with Government Departments to enable a system to deliver the maximum valorisation of biowastes within the context of soil health and peat replacement.