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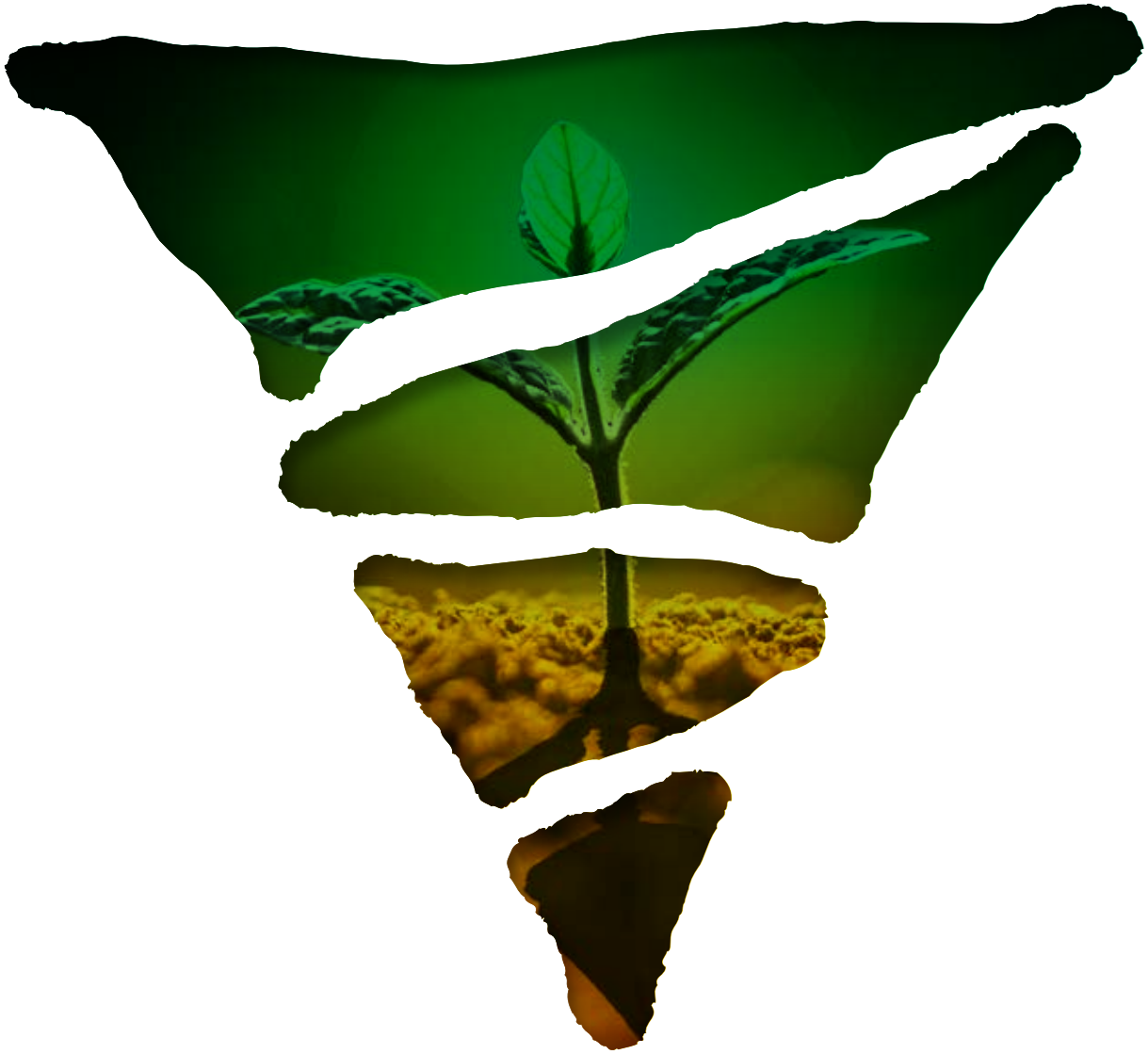
Composting & Anaerobic Digestion
Association *of* Ireland

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 m^3 of bioCO_2.

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 m^3 bioCO_2 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

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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.

DERVIVING 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

DERVIVING ECONOMIC AND ENVIRONMENTAL VALUE FROM BIOGAS

- Quality standard for bio CO_2
- Quality standard for H_2 produced from biogas
- Access to markets for biogas e.g. grid connections, removal of other policy barriers e.g. food grade bio CO_2

PROCESSING INFRASTUCTURE

- 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.

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