

Ireland & Northern Ireland

2018 Guide to Composting and Anaerobic Digestion



cré

**Composting & Anaerobic Digestion
Association *of* Ireland**

Cré is a non profit association of public and private organisations, dedicated to growing the biological treatment sector. Cré supports the production of high quality outputs, assists the delivery of Government waste diversion and bioenergy targets, and promotes the creation of sustainable indigenous jobs.



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Who Produces the Diary?

The 2018 diary is produced and edited by the Cré – Composting and Anaerobic Digestion Association of Ireland.

What Does the Diary Cover?

The Diary lists information and contact details of organisations from the Ireland and Northern Ireland supplying services, goods and members of Cré. These include local authorities, consultants, compost facility operators, anaerobic digestion operators, waste management companies, trade and education institutions.

The Cré Team

Board of Directors

- ▶ Dearbháil Ni Chualain (Bord na Mona Horticulture)
- ▶ David McDonnell (Green Gas AD Plant)
- ▶ Morgan Burke (Stream Bioenergy)
- ▶ Martin Eves (Envirogrid)
- ▶ Munoo Prasad (Compost Research & Advisory)
- ▶ Patrick O'Toole (O'Toole Composting)
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- ▶ Maurice Cremin (Cremin Farm Compost)
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- ▶ Alan Reynolds (GreenField Ventures)
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Chair of the Anaerobic Digestion Committee - David McDonnell

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2018 Foreword from our Chairman

Dear Cré Members,

Welcome to the 2018 edition of the new Cré Guide - we trust that you will find it a useful addition to your desk. We would like to say a very special thank you to those who made this publication possible by placing support advertisements. I trust you will in turn support them in their business.

We are continuing to promote the benefits of Composting and Anaerobic Digestion, making certain that all stakeholders, industry partners and key decision makers are up to date with the status of our sector.

Our key priorities for the Association in 2018 remain unchanged:

- ▶ Increase of brown bin material collected, and
- ▶ New supports for Biomethane and Electricity from Anaerobic Digestion

The latest announcements that Ireland are not meeting Greenhouse Gases targets mean Anaerobic Digestion is well positioned to assist in reducing emissions in the Agricultural Sector. There was also the timely announcement of new supports for Heat from Anaerobic Digestion.

The welcome addition this year of Mary Coughlan as a new Cré Team Member brings a new dynamic and direction to our core activities.

On your behalf, I would like to thank the many people (Executive, Directors, Committee Chairs, Delegates, etc) who contribute to the organisation.

Above all, I want to take this opportunity to thank you our Members for your support and to wish you all a very successful 2018.

Is mise le meas

Martin Eves

Chairman of Cré

2017 Association Report

We would like to take this opportunity to update you on the work which has been carried out in 2017.

FOOD WASTE AND WASTE POLICY

- ▶ Mary Coughlan joined the Cré team to help policy matters.
- ▶ Cré has had several meetings with the Department of Communications, Climate Action and the Environment (DCCAE) to discuss waste-policy matters in addition to attending the National Waste Forum.
- ▶ Cré met with a Special Advisor to the Minister of DCCAE to discuss brown-bin policy
- ▶ Cré had meetings with the following politicians:
 - ▶ Minister Denis Naughten, (DCCAE)
 - ▶ Minister Sean Kyne (DCCAE) and Michael Heydon (Chair of the Fine Gael Parliamentary Committee)
 - ▶ Timmy Dooley, Fianna Fáil Environmental Spokesperson
 - ▶ Eamonn Ryan, Leader of the Green Party
- ▶ Lobbied MEPs in Ireland to support EU Circular Economy Package
- ▶ Visit to O'Toole Composting Plant by Timmy Dooley
- ▶ Brought regional prevention officers to a compost site to understand brown bin collections and contamination
- ▶ Joint meeting with all the Waste Enforcement Regional Lead Authorities to discuss brown bin enforcement
- ▶ Report on the Sligo Brown Bin Education Trial (in press)

Cré gave a presentation on the sector to the following groups:

- ▶ Connaught –Ulster Local Authority Waste Enforcement Staff
- ▶ Connaught –Ulster Local Authority Senior Engineers
- ▶ Connaught –Ulster Local Authority Director of Services

ANIMAL BY PRODUCT REGULATIONS

- ▶ ABP Forum meetings hosted by the Department of Agriculture, Food and Marine (DAFM) were attended twice.
- ▶ Cré attended a meeting with DG SANCO on ABP on behalf of European Compost Network (ECN)

ANAEROBIC DIGESTION

- ▶ Billy Costello of Green Generation kindly allowed Cré to show a working biogas plant to some key stakeholders in the Department of Communication, Climate Action and Environment, Department of Transport, including Minister Naughten's special advisor.
- ▶ Cré is a Steering Committee member of the EPA Funded Research Project *The role of incentivisation in the development of biomethane production, using anaerobic digestion.*
- ▶ Cré successfully secured research funding from the Sustainable Energy Authority of Ireland for a project entitled *Guidelines for an Anaerobic Digestion Plant.*

BIOECONOMY

- ▶ Cré attended a workshop on the bioeconomy in the Taoiseach's Department

- ▶ Cré attended an EU Bioeconomy Stakeholder Event in Brussels
- ▶ Cré met with Department of An Taoiseach on the National Bio-economy Strategy

OTHER WORK

- ▶ Cré has played an active role in the ECN strategy on lobbying the Circular Economy discussion
- ▶ The Cré Board of Directors met in February, May, and November
- ▶ The AD committee met up to prepare the draft submission on renewable electricity consultation
- ▶ Cré gave a presentation on the status of the industry at the German Chamber of Commerce AD conference.
- ▶ The first GIY campaign was done in January promoting brown bins to householders.

The following meetings were attended:

- ▶ Agrivalor course and visit to the Teagasc AD plant;
- ▶ Bioeire workshop on the Bio-economy;
- ▶ Bord Gáis meeting on grid connection policy;
- ▶ Cré attended EU funding workshops in Belfast and in UCD;
- ▶ Cré attended the EPA Environment Ireland / IWMA conferences;
- ▶ Cré met a researcher of National Economic Social Council on a compost site;
- ▶ Cré met Irish DAFM representative on the EU Fertiliser regulation on a compost site;
- ▶ EPA Food Waste Summit;
- ▶ Meeting DAFM National Contact Point for EU Bio-economy Funding;
- ▶ Percy Foster attended a European Compost Network board meeting in Brussels;
- ▶ Percy Foster attended the SFA's affiliates meeting.

EVENTS

- ▶ Cré Annual General Meeting held on 9 May
- ▶ Christmas Dinner to be held with members on 4 December
- ▶ Italian Bio-economy Study Tour

PUBLICATIONS

- ▶ 2017 Cré Diary
- ▶ Cré Newsletters

SUBMISSIONS

- ▶ A Discussion Document for the *Preparation of a National Policy Statement on the Bioeconomy*
- ▶ Clean Air Strategy
- ▶ Commission for Regulation of Utilities Consultation on Connection Policy of Biomethane to Gas Grid
- ▶ Draft EU Fertiliser Regulations
- ▶ National Mitigation Plan
- ▶ Nitrate Regulations
- ▶ Renewable Energy Support Scheme
- ▶ Renewable Heat Incentive
- ▶ Siting Guidance
- ▶ Submission on *Ireland 2040 Our Plan – National Planning Framework*
- ▶ Summary of Cré's Key Submission Points on *Brown Bin Rollout and Supports for Anaerobic Digestion under a Future Renewable Heat Incentive Scheme*
- ▶ Technical Committee provided comments back to the ECN Growing Media QAS Waste Brief

MEMBERSHIP

Cré is a member of the Small Firms' Association, the European Biogas Association, the European Compost Network and is represented on the Board of Directors of the European Compost Network.



Potential of the Bio Based Bioeconomy Sector in Ireland

The European bio-economy employs some 21.5 million people and presents an annual market worth over €2 trillion, with significant potential for further growth, as EU member states supplement food production with sustainable technologies for production of biofuels, bio-fertilisers, bio-chemicals and bio-plastics.

A recent study of the potential of biorefining in Scotland alone found it could be a 1 billion turnover sector by 2025. If Ireland had a vision to set up a similar biorefining sector, we could have similar results.

Ireland has a long and strong history of bio-based production and processing. There is great scope beyond the current production and processing scenarios in place in the bio-processing industries to increase production, add value, and generate additional employment.

Benefits for Ireland

- ▶ Develop the potential of organic waste;
- ▶ Diversify and grow farmers' incomes;
- ▶ Replace at least 30% of oil-based chemicals and materials with bio-based ones by 2030.
- ▶ Create a competitive bio-based infrastructure in Ireland, boosting job creation, 80% of which will be in rural and underdeveloped areas.
- ▶ Deliver bio-based products that are comparable and/or superior to fossil-based products in terms of price, performance, availability and environmental benefits.
- ▶ The new bio-based products will on average reduce CO2 emissions by at least 50% compared to their fossil alternatives.

The Irish bioeconomy strategy needs to enable a swift transition from fossil to bio-based resources.

Cré is primarily focused on the development of the bio-based industries within the bioeconomy. The terms bioeconomy and bio-based economy are often used interchangeably, but for the purposes of clarity our view is the use of 'bio-based' is reserved for products derived wholly or in part from biological resources. Long term, Cré believes that our sector needs to reposition the sector as key components of bioeconomy sector in Ireland.

Cré would see itself as a key trade body for companies producing bio-based products.

Cré aims to:

- ▶ promote and develop the production and use of bio-based products in Ireland;
- ▶ to unite people working in these industries and to develop partnerships with those who shared synergies;
- ▶ Have the bioeconomy agenda at the centre of political debate on sustainability and economic growth in Ireland.

The bio-based products sector needs is for policies which help create markets, and history shows that these can function well in drawing inward investment.

Action

But get the sector to be active actors in the bioeconomy as envisaged above, the Government needs to:

- ▶ Ensure security of feedstock supply of food waste to existing reprocessing infrastructure
- ▶ Provide supports to develop the anaerobic digestion sector

Once this is stabilised these organisations can invest in research and development in the bioeconomy area.

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Services Provided

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Consultants in Engineering & Environmental Sciences

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For more information contact Julian Beatty:

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One of our references in Northern Ireland is the very efficient plant of Gilfresh Produce. Vegetable wastes from the sorting, washing and packaging are topped with cattle slurry and grass silage and small tonnages of whole crop rye and maize to produce power and heat for their production processes.



For more information contact
Kevin Monson or Mike Webber:

Phone +44 1926 217994
k.monson@weltec.uk.com
www.weltec-biopower.co.uk



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Waddock Composting Facility Ltd

Overview: Operating since 2005, **Waddock Composting Facility, Ltd.** is a permitted and ABP approved composting facility utilising in-vessel batch tunnel technology to produce high-quality compost for agricultural, horticultural and gardening markets. In 2010, the facility was upgraded to increase capacity and improve environmental management systems, especially in relation to odour control. The facility utilises a state-of-the-art process control system that allows the operators to fully manage the composting process and track batches through the facility for traceability purposes. We accept all types of Non-hazardous organic waste originating from all sectors of the industry which include canteens, restaurants, food production companies and hotels.

Capacity: up to 25,000 tonnes per year

Permits & Approvals:

- Local Authority Waste Permit
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- Facility can provide Certificate of Recovery if required

Contact Information:

Address: Killamaster, Carlow

Phone: 059 916 3596

Fax: 059 916 3597

E-mail: info@waddockcomposting.ie

Website: www.waddockcomposting.ie



FLI has completed the build out of a range of Biogas renewable energy plants in the UK, with its large AD plants exporting both electricity and bio-methane to grid. FLI intends to develop similar AD projects in Ireland



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✓ **Microbiological**

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✓ **Respiration Activity**

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✓ **Physical Tests**

% Dry Matter, % Foreign Matter, % Organic Matter Loss of Ignition, % Ash

*subcontracted



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Agricultural – Animal Health – Farm Solutions-Environmental

Anaerobic Digestion Plant at Gilfresh Produce (NI)



Gilfresh Produce runs a very efficient Weltec AD plant since autumn 2015. Vegetable wastes from the sorting, washing and packaging will be topped up to 500kW_{el} with cattle slurry and small tonnages of whole crop rye, maize and grass silage.

The Weltec MULTIMix ensures the optimal maceration of vegetables and fibrous silage, and will enhance digestion and reduce wear and tear as well as energy use within the digester.



For more information contact
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Phone +44 1926 217994
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www.weltec-biopower.co.uk

Foster

ENVIRONMENTAL

Established in 2006, Foster Environmental is a consultancy providing services to the waste, recycling, composting and anaerobic digestion sector in Ireland, Europe and United Arab Emirates.

Our area of expertise includes regulatory compliance, training, policy and research.

Recent projects we have been involved with include:

- Management of two trade associations;
- Management of a 'compliance scheme' for the recycling sector;
- Implementation of waste licence;
- Export of contaminated soil; and
- Animal by product validation of compost & biogas plants.

For further information contact us below

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Irish Composting and Anaerobic Digestion Conference 2018

15 March | Killashee House Hotel, Kildare

HEAR FROM OUR KEY SPEAKERS:

- Micheál Martin, Leader of Fianna Fail
- George Burke, Principal Officer, Department of An Taoiseach
- Kevin Brady, Principal Officer (Heat & Transport Energy Policy), Department of Communications, Climate Action and the Environment
- Kevin O'Donoghue, Principal Officer (Waste Policy), Department of Communications, Climate Action and the Environment
- Dr. Dominic Hogg, Chairman, Eunomia
- David McDonnell, Chair of Cré Anaerobic Digestion Committee
- Ellen van Voorthuizen, Royal Haskoning DHV

QUERIES: Email: sinead@cre.ie Tel: 00353 (0)861747941



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Food Waste – “Brown Bin it”

NWP has been working with local councils and commercial partners across Ireland to encourage greater use of the Brown Bin for the disposal of food waste. In the Brown Bin, food waste can be fully recycled rather than lost to landfill and, crucially, the cost of disposal for ratepayers and householders is significantly less than when this material is disposed of via the Black General Waste Bin.



New Leaf is used at Royal Portrush Golf Course

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INSTITUTIONAL

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Building Services Division, Unit 2, Airways Industrial Estate, Dublin 17

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e. ptdunne2@irishprisons.ie

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The mission of the Irish Prison Service is to provide safe, secure and humane custody for people who are sent to prison. The Service is committed to managing custodial sentences in a way which encourages and supports prisoners in their endeavour to live law-abiding and purposeful lives as valued members of society.

BIM Ireland's Seafood Development Agency

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BIM, Ireland's Seafood Development Agency helps to develop the Irish Seafood Industry by providing technical expertise, business support, funding, training and promoting responsible environmental practice. Over the past decade, BIM has undertaken a considerable amount of work to drive sustainability in Ireland's Seafood Sector and the agency continues to work closely with this diverse industry and our coastal communities to ensure environmental sustainability is central to the future growth of this valuable sector.

Institute of Technology Sligo

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The Department of Environmental Science offers a number of courses at Higher Certificate, Bachelors Degree (Ordinary and Honours), Postgraduate Diploma and Masters in the area of Environmental Science/Management and Occupational Safety and Health on a part-time and full-time basis and Applied Archaeology.

IT Sligo provides accreditation for the "Certificate in Compost Facility Operation" (Special Purpose Award, Level 6, 10 credits) which is run in association with Cré and FAS. The course provides training for operators, managers and regulators with the practical knowledge on how to compost properly, how to produce a high quality compost product and how to be compliant with legal requirements. The Department is also engaged in research at MSc and PhD level. Specialised accredited courses can be developed to suit a client's needs and delivered on a full-time, part-time or a distance-learning basis.

CONSULTANT I

Compost/AD Research and Advisory (IE/CY)

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Dr Munoo Prasad was Chief Scientist in Bord na Móna up to 2006 and Group leader, New Zealand Ministry of Agriculture till 1991. Dr Prasad has carried out a life time of research on composting on a wide range of organic waste and product development from compost. He is also a specialist in soils, peat as growing medium and plant nutrition. His research led to the facilities for composting of 100,000 m³ of organic waste primarily as a peat diluent and 60,000 m³ of bark compost as a growing medium. He has been involved in five EPA funded research projects and two Rx3 (Department of Environment) AD project. He is associated with a number of national and international organisations such as the NSAI, CEN, Orbit, Teagasc (2000-2003, 2008 to present), IRCSET (2001-2006) Inst. of Technology, Carlow and Cyprus Research Agricultural Research Inst, Nicosia. He is

from 2016 a Faculty Member (Special Scientist) at the Cyprus University of Technology, Limassol. He is a Reviewer of a number of leading scientific journals of waste management and horticulture. He is now available for research and consultancy in his field of expertise.

Duncan Laurence Environmental Ltd

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Duncan Laurence Environmental Ltd specialises in Irish and EU environmental and planning legislation, waste policy and regulatory compliance issues. Established in 2000, it is centred on Dr Duncan Laurence's 30+ years of experience in waste management, which includes working as a regulator in the UK and also for the Environmental Protection Agency in Ireland.

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M.F. Dineen & Co. Ltd. (MFD) was founded in 2006 by Michael Dineen and is a chartered engineering consultancy. MFD is based in Killarney; however, the company's client base extends throughout the country. MFD provides services including: planning & environmental consents, pre-contract and contract project management, cost planning, procurement & tender management, geotechnical analysis, value engineering, environmental impact assessment including full EIS, waste management advice, and a broad scope of other specialist technical advice & reporting. MFD projects include a bio-energy facility at Galmoy Mines incorporating AD with subsequent composting of digestate. Further details are available on www.mfdineen.com

CONSULTANT II

Eversheds

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Eversheds O'Donnell Sweeney is a full service commercial law firm with a business-like approach. Based in the heart of Dublin's commercial district, our practice focuses on supporting the business growth and expansion of our clients. We advise indigenous owner-managed companies as well as international and multinational companies, banks, financial institutions and public organisations.

We work with some of Ireland's largest, most successful and progressive companies as well as many exciting and innovative smaller companies. What is really important to us is that every client receives personal attention, dedicated service and the most appropriate integrated advice. As service providers to the business community and to the public sector, we believe we can add greatest value where our advice is grounded in a business view. Our association with Eversheds International means we can provide a seamless service right across Europe, Asia, Africa and the Middle East. At local or international level, we aim to help all our clients in achieving their commercial objectives.

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t: (091) 73 56 11 **f:** (091) 77 12 79

e: info@mccarthykos.ie **w:** www.mccarthykos.ie

McCarthy Keville O'Sullivan Ltd. is a professional consultancy offering an extensive range of Planning, Environmental and Project Management services. Our large multi-disciplinary team of experienced professionals have the necessary skills and expertise to successfully manage the most complex of projects. We respond promptly to their ever-changing needs by delivering a cost-effective, dynamic and quality-driven service, on time and within budget. We provide a wide range of services to both public and private sector clients. Our public sector experience spans projects completed on behalf of Government Departments, Local Authorities and State Agencies. Our services to private sector clients cross a wide range of industries, including: energy, construction,

transport, tourism, commercial and residential development, education, healthcare, waste management and leisure.

Odour Monitoring Ireland

Unit 32 De Granville Court, Dublin Road, Trim, Co. Meath

Contact: Dr Brian Sheridan

t. 046 943 7922/086 855 0401

e. info@odourireland.com

w. www.odourireland.com

Odour Monitoring Ireland Ltd provides fully compliant EPA monitoring in accordance with EPA requirements. Our INAB accredited stack testing affiliated company can provide a full range of accredited stack testing in accordance with EPA requirements. In addition to these requirements, we can provide a full range of services in compost / AD system odour control design and troubleshooting to include chemical scrubbing, biotrickling filtration, biofilter, carbon filtration, RTO odour control system. We are fully versed in all aspects of process design of such systems and have been involved in many projects throughout Ireland and UK. Our services include initial process and concept design, process specifications, tendering, value added engineering and contract implementation. As we have a full understanding of the measurement of odours, dispersion of odours and abatement of odours, we can provide with confidences a full turnkey package for the client.

CONSULTANT III

Fehily Timoney & Co

Unit 16, J5 Plaza, North Park Business Park, North Park, Dublin 11

Core House, Pouladuff Road, Cork , Co. Cork

Contact: Bernadette Guinan/James O'Neill

t. Dublin 01 658 3500 f. 01 658 3501

t. Cork 021 496 4133 f. 021 4964464

e. bernie.guinan@ftco.ie e. james.oneill@ftco.ie

w. www.fehilytimoney.ie

Fehily Timoney & Company (FTC) is a multidisciplinary consultancy specialising in the delivery of complex projects for clients, both in Ireland

and internationally. We offer a total project management solution, acting as consultants from initial project planning and feasibility through to detailed design, construction supervision, commissioning and handover as well as all regulatory aspects such as planning, EIS and facility permitting & licencing.

FTC's knowledge of biowaste management and treatment derives from the experience gained as one of Ireland's leading solid municipal waste consultants. FTC has considerable capabilities in the management and utilisation of material of biodegradable origin. Biowaste, biosolids and biomass are materials that display great potential as an energy source or beneficial land additive. FTC can assist you in the most effective means of gaining the maximum resource potential from materials of this nature. We employ scientists and engineers who are experts in an array of engineering and environmental disciplines. This breadth of expertise enables us to offer our clients a complete service for the development of composting, anaerobic digestion (AD) and mechanical biological treatment (MBT) facilities, as well as conventional and advanced thermal treatment technologies and in non-biowaste applications, including energy crops.

SLR Consulting

7 Dundrum Business Park, Windy Arbour, Dublin 14

Contact: Derek Luby / Conor Walsh

t. 01 2964667

f. 01 296 4676

e. dluby@slrconsulting.com

e. cwalsh@slrconsulting.com

w. www.slrconsulting.com

SLR is a leading international environmental consultancy with offices in Ireland, the UK, the US, Canada and Australia. SLR has over 30 professional staff based in Ireland at its Dublin and Hillsborough offices. The company specialises in waste management strategy and technologies and provides consultancy services to all the major waste management firms in Ireland and the UK as well as to many local authorities and government bodies. SLR is currently assisting a number of Irish companies with development of composting, AD and MBT facilities.

LOCAL AUTHORITIES

Carlow County Council

County Buildings, Athy Road, Carlow, Co. Carlow
Contact: Pat Connolly
t. 059 9172478 f. 059 9138098
e. pconnoll@carlowcoco.ie w. www.carlow.ie

Carlow County Council is responsible for the administrative area of County Carlow, excluding Carlow town. The Council is responsible for the planning, design and construction of many important infrastructures. These include roads, water supply, drainage facilities and certain social and quasi-social services, such as housing, fire stations, libraries, and burial grounds. It is the custodian of the environment and through its planning and environment policies seeks to enhance the county while protecting its unique character and atmosphere. It plays an active role in the development of the county's industrial, business, social, arts, heritage and cultural affairs.

Cavan County Council

Courthouse, Cavan, Co. Cavan
Contact: Conor Craven
t. 049 437 8410 Ext. 8416
e. ccraven@cavancoco.ie
w. www.cavancoco.ie

Dublin City Council

Engineering Department, Waste Management Services, Civic Offices, Wood Quay, Dublin 8
Contact: Sandra Smith
e. sandra.smith@dublincity.ie
t. 01 222 4562 f. 01 454 4830
w. www.dublincity.ie and www.dublinwaste.ie

In September 2006, Dublin City Council introduced a pilot kerbside collection of organic waste to 8,000 households. This was the first phase of the implementation of the National Biodegradable Waste Strategy in the city and helps to achieve targets set out in the Waste Management Plan 2005-2010. The next phase of the rollout began in February 2008 and to date 105,000 householders across the City have been provided with a brown bin and kitchen caddy for the collection of household organic waste and garden

waste. Prior to the commencement of the collection service, each householder received a notification letter stating that they shall be receiving a new brown bin within the forthcoming days, the collection days and the charging system. Each household was also provided with an information leaflet detailing the types of waste accepted in the Brown Bin (please see attached) Furthermore, in 2008 8,287 tonne and in 2009 16,129 tonne of organic material was diverted from landfill as a result of householders using their brown bin.

Dún Laoghaire- Rathdown County Council

County Hall, Dun Laoghaire, Co. Dublin
Contact: Michael Whelan/Margaret Coles
t. 01 205 4700 f. 01 205 4736
e. mwhelan@dlrcoco.ie e. mcoles@dlrcoco.ie
w. www.dlrcoco.ie

Donegal County Council

Donegal County Council, County House, Lifford, Co. Donegal
Contact: Suzanne Bogan
t. 074 915 3900 f. 074 91 61304
e. suzannebogan@donegalcoco.ie
w. www.donegalcoco.ie

Fingal County Council

P.O. Box 174, County Hall, Swords, Fingal, Co. Dublin
Contact: Alain Kerveillant
t. 01 890 5000 w. www.fingal.ie

Meath County Council

Environment Section, County Hall, Railway Street, Navan, County Meath
Contact: Declan Grimes/Caroline Corrigan
t. 046 909 7000 f. 046 909 7001
e. dgrimes@meathcoco.ie
e. ccorrigan@meathcoco.ie
w. www.meath.ie

Tipperary County Council

Emmet Street, Clonmel, County Tipperary.
Contact: Anne Peters
t. 076 1065000
e. anne.peters@tipperarycoco.ie
w. www.southtippcoco.ie

Westmeath County Council

Environment Section, Aras an Chontae,
Mullingar, County Westmeath N91 FH4N
Contact: Greg Duggan
t. 044 933 2042 f. 044 938 4239
e. gduggan@westmeath.ie
w. www.westmeathcoco.ie

All households in County Westmeath, which have a regular kerbside refuse collection service, are served by a two-bin system as a minimum, with many in the larger towns and villages served by a three-bin system with separate collections of organic material, recyclable materials and residual waste. The move to pay-by-weight from July 2016 will result in a significant increase in the number of households served by a three-bin system, in line with the objectives of the Eastern-Midlands Region Waste Management Plan 2015-2021.

The Eastern-Midlands Region Waste Management Plan provides a framework for the prevention and management of waste in a sustainable manner in the Region. The three key objectives of the Plan are: Prevent waste: a reduction of 1% per annum in the amount of household waste generated over the period of the Plan. More recycling: increase the recycle rate of domestic and commercial waste from 40% to 50% by 2020. Further reduce landfill: eliminate all unprocessed waste going to landfill from 2016.

Central to the above will be the increase in collection of organic waste from households in particular.

Wexford County Council

Environment Section, County Hall, Wexford,
Y35 WY93
Contact: Rory O'Mahony
t. 053 9196334 f. 053 9196045
e. rory.omahony@wexfordcoco.ie
w. www.wexfordcoco.ie

Private operators are providing a segregated household waste collection to more than 10,000 householders (2013) in County Wexford. An education awareness campaign will take place in Wexford and Enniscorthy Towns in 2014 as the Household Food Waste regulations impose obligations on householders and waste collectors in these towns and we will work closely with both to ensure compliance.

Wexford County Council actively promotes home composting and has trained 40 volunteers in composting and food waste prevention through the Master Composter training programme. 8 villages now compost their green waste and promote food waste prevention through their Tidy Towns Committees. Wexford County Council's enforcement staff is actively enforcing the commercial food waste regulations.

PROCESSOR I

Athchúrsáil Árann Teoranta

Eochail, Inis Mór, Oileáin Árann, Cuan na Gaillimhe.
Contact: Gerry Mullin
e. athchursailarann@hotmail.com
w. www.aranisland.com
t. 099 61949 / 087 2663419 f. 099 61900

Athchúrsáil Árann Teoranta is a small recycling company set up by Comharchumann Forbartha Árann and Galway County Council. Athchúrsáil Árann Teoranta provides waste management to the three Aran Islands, and have received approval to operate a composting facility on Inis Mor to comply with the Animal by Product regulations (COMP 19).

Clare County Council

Physical Development Directorate
Áras Contae an Chláir, New Road, Ennis, Co.Clare
Contact: Máire Rutledge
t. 065 6846561
e. mrutledge@clarecoco.ie w. www.clarecoco.ie

Environment & Emergency Services Directorate incorporates green waste composting at the Central Waste Management Facility, Ballyduff, Beg Inagh, County Clare. Site telephone number 065 6836960. Fax: 065 6836959

Cremin's Farm Compost

Coolaleen, Broadford, Charleville, Co. Limerick
Contact: Maurice Cremin
t. 063 84292 / 087 130 7621
e. mgcremin@eircom.net

Green King Composting

Coolbeg, Co. Wicklow
Contact: Paddy King/Ian Browne
t. 0404 62422 f. 0404 68846
e. paddy@greenking.ie e. ian@greenking.ie
w. www.greenking.ie

Green King Composting operates a composting facility at Coolbeg, County Wicklow. The green waste received comprises of wood wastes generated by the King Tree Service tree surgery business, garden; park waste produced during improvement, and maintenance works by landscape gardeners; grass and shrub trimmings produced by individual householders, and timber and wood waste recovered during construction and demolition works. The composting operation involves pre-treatment to shred and mix the green waste, composting in open windrows, maturation and post-treatment to remove impurities. The finished product is suitable for horticultural and agricultural use.

Limerick County Council

County Hall, Dooradoyle, Limerick
Contact: Diarmuid Sheehy
t. 061 496 402 f. 061 496 008
e. dsheehy@limerickcoco.ie

Limerick City and County Council operates an open windrow facility for the production of compost material at Mungret, Co. Limerick. This is located adjacent to the recycling centre. The equipment located at this facility includes a Pezzolato SM10000 mulcher and a Menart Trommel Screen. Composting operations commenced at this facility

in 2006 and at present we would be processing 800 tonnes of green waste per annum. The main supply of green waste to this facility is through our three recycling centres at Mungret, Kilmallock and Newcastle West. The processed material is also mainly distributed to the general public through these three centres.

Marine Harvest Ireland

Kindrum, Letterkenny, Co. Donegal
Contact: Catherine McManus
t. 074 91 92 101
e. catherine.mcmanus@marineharvest.com
w. www.marineharvest.com

Marine Harvest Ireland is a fully integrated salmon farming, processing and sales company which produces Premium and Organic Atlantic salmon under the brand names *Donegal Silver* and *The Organic Salmon Company*. The company employs 290 staff in its breeding, hatching, on-growing, processing and sales facilities.

Paul Mooney

Kealstown, Maynooth, Co. Kildare.
Contact: Paul Mooney
e. Paulmooney1218@gmail.com t. 087 2350425

Paul and Bronwyn Mooney operate a composting and recycling facility near Maynooth, Co. Kildare.

Sligo County Council

Environment Section, County Hall, Riverside, Sligo
Contact: Pete Murtagh
t. 071 911 1460 f. 071 911 1924
e. pmurtagh@sligococo.ie
w. www.sligococo.ie

Sligo County Council, in a partnership with Ballisodare Community Development Association, operates a green waste composting facility at Young's Quarry, Ballisodare, Co. Sligo.

Terralift Ireland Ltd

18 The Grove Market Deeping, Peterborough, PE6 8AW, United Kingdom
Contact: W. Rex Kimberley
t. 00 44 1778 380 005 Office

f. 00 44 1778 348 835 Mob
e. rex.kimberley@terralift.eu

Terralift specialises in organically built fertilisers for the sports turf market with production facilities in Ireland, Australia and China. In sourcing raw-material

needs our Irish facility engages in the composting of Food residue. The company holds the rights to a closed vessel thermophilic digestion technology [ATD], now installed at our Castleblayney, Co. Monaghan facility. The technologies incorporated in the new plant will clear incoming waste of contaminants and bio-convert the organic content to mature compost in 76 hours.

The ATD technology presents:

- a) An alternate to 'static pile' composting
- b) An efficiency leap for Anaerobic Digestion plants
- c) The ideal addition to under capacity effluent plants

PROCESSOR II

Barna Recycling

Carrowbrowne, Headford Road, Galway

Contact: Pádraig Sullivan

f. 087 6959318 f. 091 771 735

e. psullivan@barnarecycling.com

w. www.barnarecycling.com

Barna waste is a Galway based company servicing all five counties in Connacht and Athlone. Our Headquarters is strategically located approximately 4 miles outside of Galway City. The site is EPA licenced and ISO14001 accredited. It includes a composting facility licenced to process up to 20,000 tonnes annually to a European Standard. We also have Transfer Stations located in Ballaghaderreen (Roscommon), Athlone (Westmeath) and Drumshambo (Leitrim). Barna Recycling accepts domestic and commercial food waste, catering waste and green waste. Barna Recycling has a full range of commercial / domestic waste and recycling

services, domestic / commercial / construction skip hire, sludge and sewerage services.

CTO Environmental Solutions Ltd

Rostellan, Midleton, Co. Cork

Contact: Aidan Stafford

f. 021 4652139/087 997 7022

e. ctoenv@eircom.net

- Compost site operators accepting greenwaste and a selection of source segregated waste in Rostellan
- Compost sales
- Consultancy service
- Shredding contracting
- Screening contracting: compost and soil
- Timber and greenwaste shredding
- Waste timber accepted at Midleton Skip Hire Facility in Midleton Cork

Custom Compost

Ballyminaun Hill, Gorey, Co. Wexford

Contact: Mark Walsh

f. 053 942 1777

f. 053 942 1059

e. info@walshmushrooms.ie

w. www.walshmushrooms.com

Custom Compost is the mushroom composting operation of the Walsh Mushroom Group and has been in business since 1979.

Please visit www.walshmushrooms.com

Envirogrind Ltd

Donegal Road, Pettigo, Co. Donegal

Contact: Martin Eves/Kevin Eves

f. 07198 61772

e. info@envirogrindltd.com

w. www.envirogrindltd.com

Established in 1997, Enviro Grind reprocesses Wood & Gypsum waste and operates an ABP approved Category 2 & 3 In-Vessel Composting Facility. Acceptable composting feedstock includes Garden & Park Waste, Kitchen/Canteen Catering Waste and

Fish/Shell Fish Waste originating with Local Authorities, Landscapers, Waste Contractors, Hospitality/Catering Industries, Food Processing Factories and Fish Factories. Our product range includes Bark Mulches, Soils & Compost, Surface Covering & Coloured Wood Chip and Agricultural & Equestrian Wood Chip. Purchase and collection is available from our Pettigo site. Enviro Grind also operates a Haulage & Delivery service specialising in delivery of our horticultural products and haulage of waste and non-waste materials. Suppliers of EGRS Gypsum Recycling Systems.

GreenGas AD Plant

Dunmoylan, Shanagolden, Co. Limerick
Contact: David McDonnell/Senan Meade
t: 069 60404 **f:** 069 60405
e: david@greengas.ie **e:** senan@greengas.ie
w: www.greengas.ie

GreenGas AD Plant is a farm based anaerobic digestion facility. Located outside Shanagolden in Co. Limerick adjacent to the family farm, GreenGas AD Plant processes dairy and poultry manure and imported feedstock such as food waste and dairy sludge. The biogas produced in the anaerobic digestion process is used as fuel in a CHP Unit. The resultant electricity produced is exported to the national grid providing households and businesses with clean renewable energy. The heat generated is recycled for heating use in both Plant and the nearby poultry enterprise. The processed digestate is used on local farmland as a high quality eco fertiliser.

Ormonde Organics Ltd

Killowen, Portlaw, Co. Waterford.
Contact: Nicholas Downey
t: +353 (0) 51 567 024
e: info@ormondeorganics.ie
w: www.ormondeorganics.ie

Ormonde Organics is an Irish company that is powering a greener world by turning organic waste into energy. Every day, all over the country, our trucks collect from companies and municipal authorities. At

our facilities in Waterford we use natural aerobic and anaerobic processes to break down that organic waste and generate green energy (biogas, electricity, heat) and nutrient-rich soil amendment products (compost). It's perfect sustainable processing in action: The energy helps to run the plant, the homes in our community and thousands of others via the national grid while also removing thousands of cubes of methane every day. It's not magic, it's science.

M&T Plant Hire Ltd

Ballyeden, Davidstown Enniscorthy, Co. Wexford
Contact: Liam O'Neill
t: 053 9244654/087 2212535
e: loneill@mtplanthire.ie
w: www.mtplanthire.ie

M&T Plant Hire Ltd based in Wexford composters of sewage sludge, grease trap waste, green waste and septic tank waste.

- Drain Cleaning
- Septic Tank Emptying
- CCTV Surveying
- Composting
- Civil Engineering

Green Generation

Gorteen Lower, Nurney, Co. Kildare
Contact: Billy Costello/Bill Corcoran
e: billy@costellogroup.eu
e: bill@greengeneration.ie
t: 087 2525231

Green Generation Ltd is a family owned company. We operate a 1 MW biogas plant in Nurney Co, Kildare. We take in all types of organic material. We have full approvals (planning permission, Dept of Agriculture approval, EPA license) and have achieved ISO standard. We operate our own collection service (waste collection permit). We can offer a full service to all producers of organic waste who require it to be treated sustainably and in a renewable way.

PROCESSOR III

Acorn Recycling

Ballybeg Composting Facility, Littleton,
Co. Tipperary

Contact: Sam Bowden

t. 0504 33721 **f.** 0504 33703

e. sam@acornrecycling.com

w. www.acornrecycling.com

w. www.aqssolutions.ie

Acorn Recycling operates an in-vessel composting facility processing brown bin, commercial and other organic wastes under EPA and DAFM licences. The current licensed capacity is 45,000 tonnes per annum.

Acorn Recycling is part of the Lanes Group plc which includes AQS Environmental Solutions in Ireland. AQS Environmental Solutions carries out specialised drainage and industrial services across all industrial sectors throughout Ireland

McGill Environmental Systems (Irl) Ltd.

Coom, Glenville, Co. Cork

Contact: Heather Loughlin

t. 021 4880945 **f.** 021 4880961

e. hloughlin@mcgillcompost.com

w. www.mcgillcompost.com

McGill operates two state-of-the-art Composting Facilities in Cork and Waterford which are licenced by the EPA to process 40,000 tonnes per year. The Cork facility, at Glenville, is permitted by the Department of Agriculture, Food and the Marine to process 'Type 8' Animal By-Products (ABP). Organic fines, which have been mechanically separated from municipal waste, are composted in order that they can then be sent to landfill without the environmental risk associated with untreated municipal waste. The Waterford facility currently specialises in the composting of non-hazardous industrial and sewage sludge's, and other non-hazardous biodegradable materials.

Miltown Composting

Miltownmore, Fethard, Co. Tipperary

Contact: Derry Murphy

t. 052 6130815/087 4125625

e. derry@miltowncomposting.ie

Miltown Composting is approved to treat Animal By-Products by DAFM and is licensed by the EPA to treat 24,500 tonnes per annum. We specialise in producing high grade compost from source, separated brown bin and industrial sludge's, which is then used by local farmers and landscapers as an organic fertilizer/soil conditioner. We also treat Organic Fines which have been mechanically separated from the household black bin, enabling it to be land filled without creating harmful landfill gases whilst helping landfills reach their biodegradable waste to landfill targets. We also offer contract timber and green waste shredding and compost turning services.

OD Agri Ltd

Ballyboe, Kilsheelan, Clonmel, Co. Tipperary

Contact: Patrick O'Donnell

t. 052 33293/087 233 3429 **f.** 052 33867

O'Toole Composting Ltd

Ballintrane, Fenagh, Co. Carlow

Contact: Patrick O'Toole

t. 086 264 7990/059 914 8984

e. patrick@otoolecomposting.ie

w. www.otoolecomposting.ie

O'Toole Composting Ltd provides a specialist composting service for all food and organic wastes for all sectors of industry which include food production companies, waste contractors, Local Authorities, hotels, restaurants and canteens. We specialise in management of bulk food and organic waste recycling using our purpose built in-vessel tunnel composting facility in Carlow. Our facility has an Animal-By-Products licence from the Department of Agriculture, Fisheries and Food. We can provide all transport and staff training necessary to maximise full capture of all biodegradable waste.

Waddock Composting Ltd

Kilmaster, Carlow.

Contact: Barry Waddock

t. 087 7489737/0599163596 f. 059 916 3597

e. barry@waddockcomposting.ie

Waddock Composting has been operating an in-vessel composting facility at Killmaster, County Carlow since 2005. We accept up to 24,900 tonnes of non-hazardous biodegradable material such as catering waste, food factory waste, brown-bin foodwaste, brewing extracts green/garden & park waste and sludge for composting in a purpose built state of the art facility. The end product is a high quality compost which is utilised by local farmers, landscapers and gardeners. This facility has an Animal-By-Products Permit from DAFF (Department of Agriculture, Fisheries and Food) and is permitted by our Local Authority.

PROCESSOR IV

Bord na Mona Drehid Compost Facility

Killinagh Upper, Carbury, Co. Kildare

Contact: Pat O'Neill

t. 045-439472 086-8151443 f. 045-439489

e. Greg.Byrne@bnm.ie

Bord na Mona Resource Recovery operates a modern state of the art tunnel composting facility at Drehid, Carbury, Co. Kildare. The facility, which has been in operation since January 2012, is licensed by the EPA and Department of Agriculture, Food & the Marine to accept 25,000 tonnes per annum of non-hazardous biodegradable materials. Our technology optimises all aspects of the composting process which results in a high quality compost end product.

Enrich Environmental Ltd

Larch Hill Stud, Kilcock, Co. Meath

Contact: Tim Duggan/Kevin McCabe

t. 01 6103672

e. Info@enrich.ie w. www.enrich.ie

Enrich is an award winning composting facility and product manufacturer. At Enrich we operate two composting processes, each managed by our experienced team. The first process is a cost-effective solution to handling green material in an open windrow system. The second is our in-vessel composting plant that employs state of the art technology to compost organic material. Enrich has been accredited with NSAI IS441 certification for the compost that it produces for landscape and gardening projects, land remediation and enhancing sports turf surfaces. In addition to our composting processes, Enrich now has a soil advisory service to assist clients with technical aspects of soil health and management. This service looks at key aspects of soil and tailors a program that can be used to restore or enhance a soils potential, for areas such as sport turf, grassland, commercial agriculture, and horticulture and land remediation are covered. See website for more information about our products and services. *"Healthy Soil – Healthy Plants – Health People"*

Thornton's Recycling Ltd

Kilmainhamwood Compost, Ballynalurgan,

Kilmainhamwood, Kells, Co. Meath

Contact: Sean Campbell

m. 086 8563431 f. 01 623 5131

e. sean@thorntons-recycling.ie

w. www.thorntons-recycling.ie

Kilmainhamwood Compost, part of the Thorntons Recycling Group, is the largest fully enclosed composting facility in Ireland. The facility has just completed at the end of 2013 a new expansion phase which will allow the facility to accept a total of 40,000 tonnes of non-hazardous biodegradable material such as catering waste, green waste, brown-bin food waste and sludge for composting. It is a key component of the Northeast Waste Management Plan helping the north-east region to reach its reduction of biodegradable waste to landfill and recycling targets. The facility is licensed by the EPA, W0195-02 and Department of Agriculture, Comp-6.

The main feedstock for the facility is household Brown Bin and commercial Brown Bin/catering waste. The incoming feedstock goes through a composting/transformation stage over a period of 8 to 9 weeks to produce quality compost which is used as an organic fertilizer/ soil conditioner in commercial farming and landscaping.

Kilmainhamwood Compost also provides a delivery and spreading service for the end-user if required. In 2013 the addition of a 450Hp self propelled spreader to the fleet was a great benefit to getting compost spread within the short spreading period. In 2007, the facility was accredited with ISO 14001, ISO 9001, and OHSAS 18001.

PROCESSOR V

Bord na Móna

Main Street, Newbridge, Co. Kildare

Contact: Dearbháil Ní Chualáin

☎ 045 439 520 ☎ 045 433 240

✉ dearbhail.nichualain@bnm.ie 🌐 www.bnm.ie

Bord na Móna's mission is to be Ireland's leading environmentally responsible integrated utility service provider encompassing electricity, heating solutions, resource recovery, water, horticulture, and related services. Our Kilberry composting facility in Kildare is central to our peat dilution strategy. The site is licensed to manage 96,000 tonnes of greenwaste, by-products from wood processing, brewing and other similar biomass. We are fully EPA compliant and generate some of the very best composted material in the industry. We will, with the assistance of our Research and Development department, continue to investigate new materials as potential additions to our current intake and to develop world-class innovative outputs.

Natural World Products Ltd

32 Glenside Road, Dunmurry, County Antrim, BT17 0LH

Contact: Colm Warren

☎ +44 2890 600 145 (RoI 048 90 600 145)

☎ +44 2890 613 547 (RoI 048 38 353 556)

✉ colm.warren@nwp-recycle.com

🌐 www.naturalworldproducts.com

Natural World Products Ltd (NWP) is an award-winning, locally-owned recycling company that has provided recycling services and solutions to Local Authorities and the Commercial Sector throughout Ireland since 1989. A market leader in dealing with organic wastes, the company operates two state-of-the-art recycling facilities in Belfast and County Armagh, as well as a number of Waste Transfer Facilities. Handling over 150,000T of organic waste every year, NWP's experienced management team and proven track record of consistent delivery is second to none.

FARMER DEVELOPING ANAEROBIC DIGESTION

Greenfield Ventures

Gillstown, Garlow Cross, Navan, Co. Meath

Contact: Alan Reynolds

✉ alanreynolds3@gmail.com ☎ 0876312095

Padraig Dunne

Lismurragha, Errill, Co Laois.

Contact: Padraig Dunne

✉ Padraigdunne82@gmail.com

☎ 0504 53912 or 086 1724752

Sandford Energy Ltd

Sandford, Causeway, Co. Kerry

Contact: Timothy Leahy/Kevin Leahy

✉ timothyjleahy@eircom.net ☎ 087 1380699

BioBag International

Housveien 8 N – 1831 Askim Norway.
Contact: Rory Hogarty / Birgitte Enghave
t. +353 8 6770 0213
e. Rory@BioBagworld.com
e. Birgitte@BioBagworld.com
w. www.BioBagworld.com

BioBag is the world's largest manufacture of certified compostable bags and liners. Our retail, waste management, industrial and HORCA ranges are the consumer brand of choice in Ireland and beyond. All BioBag products are approved for use by local councils and privet waste companies and conform to the European Standard: EN 13432, US Standard: ASTM D6400, Australian Standard: AS 4736 & Vincotte OK COMPOST. ISO 9007 & ISO 14001 Sales offices in 18 countries with manufacturing plants in four.

Celtic BioEnergy

Gearagh Road, Ballinacurra, Midleton, Co. Cork
Contact: Andrew Walsh
t: 021 462 1721 f: 021 462 1725 m: 086 3872139
e: awalsh@celticbioenergy.com
w: www.celticbioenergy.com

Celtic BioEnergy provides comprehensive engineering and consulting services to the anaerobic digestion and composting industry. The company offers dry and wet fermentation technologies in addition to in-vessel and aerated static-pile composting systems depending on the type of material to be processed and the size of the facility. CBE is the sole and exclusive representatives of Bioferm Viessmann and Krieg & Fischer in Ireland and the UK. CBE can design, design/build or design/build/operate composting or biogas sites and has the ability to finance its projects.

Clarke Energy

Unit 7, Newtown business park,
Newtownmountkennedy, Wicklow
Contact: John Curley, Toni Pedder
t. 0879804002
e. john.curley@clarke-energy.com
e. Toni.Pedder@clarke-energy.com
w. www.clarke-energy.com

Clarke Energy is the authorised distributor and service provider for GE Energy's Jenbacher gas engine in Ireland. The Island of Ireland including both the Republic and Northern Ireland is managed from Clarke Energy's dedicated Irish operation in Newtownmountkennedy, County Wicklow. Clarke Energy is committed to delivering high quality installations and to providing reliable, accountable, long term maintenance support for your generation equipment. GE Jenbacher gas engines can be applied to a variety of gases including biogas, sewage, landfill gas, syngas and natural gas. Our extensive experience includes an installed and commissioned base of over 2,750MW worldwide.

Down2Earth Materials

C/o STP, Unit 17 & 18, City Link Park, Forge Hill,
Kinsale Road, Cork, Ireland.
Contact: John Lynch/Peter Synnott
e: jlynch@down2earthmaterials.ie
e: psynnott@down2earthmaterials.ie
t: 00353 (0) 21 4311842 f: 00353 (0) 21 4311869
w: www.down2earthmaterials.ie

Down2Earth Materials have won the Repak 2014 Sustainable Packaging Award for our range of certified compostable catering disposables, We also won Cre's Outstanding Contribution to the sector Award in 2013. Our products will turn back into soil in a short period of time (typically 6-8 weeks) when they are commercially composted in the appropriate conditions. They are derived from either starch (corn, cassava or potato) or plant fibres. Low Carbon Organics Recycling means we think RESOURCE, NOT WASTE. Our environmental criteria is COMPOSTABLE. Our products are

certified to EN13432 European Standard and we continually work with Irish Composting Facilities.

Our products can be placed in with Food Waste and commercially composted here in Ireland supporting local and Irish jobs. The end result is Compost which is a valuable resource! This eco perfectionism means that our clients and consumers trust DOWN2EARTH to supply the most sustainable packaging in Ireland.

Environmental Technology Resources Ltd.

Whitethorn, Roundhills, Athy, Co. Kildare, Ireland

Contact: Mark Bergin

t. +353 (0)59 864 1471

m. +353 (0)87 254 0189

e. mark.bergin@envirotech.ie

e. markbergin@eircom.net

w. www.envirotech.ie

Environmental Technology Resources specialises in the sales of equipment for the processing of most waste streams. We represent some of the world's top technology manufacturers in Ireland for the waste, composting and biomass industries including Kompotech, Weima, Welger, Willibald, Keestrack and Christy Turner.

Our range of equipment includes universal waste shredders, wood chippers, wood shredders, green waste shredders, plastic shredders, trommel / drum screens, starscreens, briquetting presses, hammer mills, compost turners. We supply equipment throughout the island of Ireland.

EDINA Ltd

Delaire House, Unit 4 Swords Business Park

Swords, Co. Dublin

Contact: Colin McKibbin/ Cathal Longwill

/ Alan Callister

t. 01 882 4800 **f.** 01 830 7422

e. colin-mckibbin@edina.eu

e. cathal-longwill@edina.eu

e. alan-callister@edina.eu

w. www.edina.eu / www.edina.ie

Edina is a leading supplier, installer and maintenance provider for biogas and natural gas CHP (combined heat and power) plants in the Agricultural, Food Processing and Waste Water Treatment sectors. Edina is the sole distributor in Ireland and the UK for leading efficiency MWM manufactured gas engines. Edina has over 30 years' experience providing bespoke energy solutions, Edina works closely with customers to understand and meet their requirements, from initial contact to long term maintenance support.

earth 2 earth®

A registered brand of Thorn Environmental Ltd,

Unit 501 Northwest Business Park, Ballycoolin

Dublin 15

Contact: Myles Thorn/ Adam Thorn

t. 01 8615001 **f.** 01 8615002

e. myles@thorn.ie **e.** adam@thorn.ie

w. www.earth2earth.com **w.** www.thorn.ie

Ireland's leading Supplier of Compostable and Biodegradable products under its registered brand name of earth2earth® and its registered trading names of down 2 earth, down to earth and earth to earth.

Often copied but never bettered. Our EN13432 modified polyester/PLA films and food waste sacks are class leading in strength, water resistance and the ability to take hot liquids.

Our food waste sacks are the industry leader and are most suitable for commercial applications.

Other products include Paper sacks, Refuse sacks and Recycling sacks. Our ranges include Compostable, Biodegradable, Oxo-degradable, Recycled and Low Co2.

All our products are for Industrial / Commercial use and are designed to a high standard of functionality, meeting the highest international standards.

Haarslev UK Ltd

Haarslev House, Paddock Rd, Skelmersdale,
Lancashire, WN8 9PL. United Kingdom

Contact: Steve Baldwin/ Mike Nash

t. 00 44 (0)1965 455500

f. 00 44 (0)1965 455555

e. steve@haarslevuk.com

e. mike@haarslevuk.com

w. www.haarslev.com

Haarslev develops and manufactures a wide range of technologies for the processing of proteins, waste food, digestate and biomass. Our knowhow and industry expertise ensure solutions that fit into every step of your process, offering you true business partnership. Together, we master your process.

Our solutions include: Depackaging Systems, Size Reduction, Thermal Hydrolysis, Low Temperature Belt Driers, Sterilisers, Rotary Driers, Storage Silos, Conveyors, Pumps, Thermal Oxidisers and Chemical Scrubbers. For over a century, Haarslev has been helping the world turn organic by-products into valuable commodities we all depend on. For more information please visit our website www.haarslev.com

Harp Renewables Ltd

Brownstown, Kentstown, Navan, Co. Meath

Contact: Joe Cowley/ Brian Finnegan

t. 00353(0)419821333

e. info@harprenewables.com

e. joe@harprenewables.com

w. www.harprenewables.com

Harp Renewables a company based in Co Meath, delivering both Anaerobic and aerobic digestion Processes. In conjunction with Greengas Uk Harp have designed and built 3 farm based AD plants to date 125,200 & 250kw plants. Our plants are 2 & 3 stage plants providing a higher gas yield per tonne.

With our Aerobic process with design and manufacture the Bionova aerobic digester capable of breaking down organic waste in less than 24hrs.

Continuous process with a reduction in weight and volume of up to 70%. We have installed digesters in

schools, shopping malls, hotels and civic amenity sites.

IAS Laboratories

Unit 4, Bagenalstown Business Pk, Bagenalstown,
Co. Carlow

Contact: Ruth Clinton

t. 059 9721022

e. ias@iaslabs.ie

w. www.iaslabs.ie

IAS Laboratories are a soil and compost testing laboratory. They provide testing such as heavy metals, respiration activities, nutrients and much more for a range of compost facilities and ad plants. IAS Laboratories are an accredited laboratory and provide a first class testing service.

MacMachinery

Ballybegley, Newtowncunningham, Co. Donegal F93
H1W2

Contact: Gerard Mc Fadden

w. www.macmachinery.com

t. +353 87 2494908

e. gmcfadden@macmachinery.com

Mac Machinery Ltd is a supplier of all types of recycling machinery to the recycling and processing materials industry. Machines such as Ballistic Separators, Conveyors, Compost turners, Food separators, Grinders, magnets, Mixers, Screens, stump grinders, shredders, trommel screens, wind sifters and air separators.

In addition to a worldwide network for new and used equipment, MacMachinery is also providing design and installation for full turnkey systems and plants, in anaerobic digestion, composting, recycling, soil treatment and washing materials.

SPRL MENART

31 rue benoit 7370 Dour Belgium

Contact : Gilles Godissart

t. 003265610760 f: 0032656110749

e. ggodissart@menart.eu

w. www.menart.eu

Novamont

Via Fauser 8, Novara, Italy. 28100

Contact: Tony Breton/Christian Garaffa

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e. Christian.garaffa@novamont.com

w. www.novamont.com

t. +44 7876200934 f. +44 8000664525

European Inventor of the Year 2007, Novamont SpA is a world leader in the development and manufacture of bioplastics for a range of applications called Mater-Bi®. Mater-Bi® is a family of completely biodegradable and compostable materials which contain renewable resources of agricultural origin e.g. GM free starch and vegetable oils. Mater-Bi® is available in a range of grades each developed for the specific demands of a different application e.g. carrier bags, kitchen caddy liners, garden waste sacks and cutlery. All grades of Mater-Bi® are certified as biodegradable and compostable, according to the leading international standards, e.g. EN13432.

Nova Q Ltd

Unit B21, KCR Estate, Kimmage, Dublin 12, Ireland.

Contact: Julian Beatty (Managing Director)

t. 01-2542276 / 086 8207512

e. innovation@nova-Q.ie w. www.nova-q.com

Nova Q Ltd helps business owners and operators in Anaerobic Digestion, Compost, Waste Water and Agriculture get the best out of their biology and biological processes. With their International suppliers and network partners they unlock value, delivering products and solutions that reflect their focus on innovation and continuous improvement.

The range of AquaClean(TM) biological products has been widely adopted in organics recycling throughout Ireland and is continuously being improved reflecting the advancement and importance of biological additions in this area.

New for 2018, Nova Q have partnered with The

Hydrus Group, Leicester, to offer their range of advanced dewatering technologies, along with their award-winning organic flocculants, specifically designed for digestate.

Obeo Ltd

Origin8, NCAD Annex, 101-103 Thomas Street, Dublin

Contact: Kate Cronin/ Elizabeth Fingleton

t. 0879662167 / 0863096609

e. hello@WeAreObeo.com

e. kate@WeAreObeo.com

w. www.weareobeo.com

Panford Ltd (Redwood Systems)

Parkway Building, Whitestown Industrial Estate, Tallaght, Dublin 24

Contact: Monique O'Brien, Fergus O'Brien

e. monique@panford.com e. fergus@panford.com

w. www.panford.com t. 01 4596756

f. 01 4610452

Redwood Systems has over 50 years experience in air movement technology. We provide custom engineered solutions to your process operation, designed to match your exact requirements. In addition to designing and supplying individual fans, we design and supply turnkey systems covering areas such as cooling, heating, curing, drying, ventilation, pneumatic conveying, dust, fume and odour control, noise attenuation and process control systems to name a few. We design, manufacture and supply complete composting systems including trommel screeners. All customer enquiries are handled by technically qualified field engineers, who will correctly ascertain your requirements and design a system to achieve these requirements while at all times being conscious of restraints. Our control systems can be from basic manual control up to full computer monitoring and data trending, incorporating web access to monitor the system with any pc with web connection, and

sms txt service. A large part of the work undertaken would be full systems from design stage through to commissioning and we can offer a complete package for product drying, cooling or curing and have an extensive knowledge base spanning a wide range of industries.

WELTEC BIOPOWER (UK) Ltd

Stoneleigh Abbey Mews, Stoneleigh Abbey,
Stoneleigh, Warwickshire, CV8 2LF
Contact: Kevin Monsoon
e. info@weltec-biopower.de
t. +44 (0) 1926 217994
w. www.weltec-biopower.co.uk

WELTEC BIOPOWER is one of the world's leading enterprises in the field of stainless-steel biogas plant construction. The company has planned, developed and built anaerobic digestion plants in Ireland and UK since 2006. Today, the company has established more than 15 plants in these countries and another 300 energy plants in 25 countries worldwide. The range of customers includes businesses from the agriculture, food, waste and wastewater industries.

The strength of WELTEC BIOPOWER lies in custom-tailored design and technically mature solutions for projects up to 10 megawatt capacity. In this context, the high proportion of internally developed components is a key success factor. The company also owes its leading edge to the use of stainless steel. This enables the input of a diverse range of feedstocks, a fast and economic assembly and a consistently high quality standard – regardless of the location.

Williams Industrial Services Ltd

Hydepark Commercial Centre
10 Hydepark Road, Mallusk, Newtownabbey,
Co Antrim. N Ireland. BT36 4PY
Contact: John Toner / Mark Geddis
t. +44 28 9083 8999 / +44 28 9084 2211
e. john.toner@wis-ni.com
e. mark.geddis@wis-ni.com
w. www.wis-ni.com

WIS are market leaders in Ireland having designed and built more than 30 AD Plants to date. We have extensive experience in Power to Grid, Gas to Grid and Bio-Fuel projects. The by-product is a highly effective, nutrient rich fertiliser that can be used or sold as a valuable revenue stream.

Our supply chain, including (CHP) engine technology and organic material mixing and pumping equipment, offers expert knowledge across all aspects of the system. We also provide the benefits of a local design and build team with regional technical support that can include plant operation and remote monitoring.

Xergi Ltd.

823 Salisbury House, 29 Finsbury Circus, London,
EC2M 5QQ
Contact: Jorgen Fink
e. jfi@xergi.com
t: +44 (0) 1483 600098
w. www.xergi.com

Xergi Ltd is a subsidiary of the Danish company Xergi A/S, with over 20 years of experience in the Biogas Industry. As a Turnkey company Xergi offers full project support including feasibility, design, planning, construction and commissioning including compliance with country specific regulations. As a progressive business Xergi invests heavily in R&D having the world's largest test facility at the University of Animal Science at Foulum in Denmark. 'Delivering on Expectations' is the driver behind top quality design and components used extensively throughout the whole supply chain, this reduces long-term O&M costs while optimising returns on invested capital. In-house delivery of 21st century operation and control is the heart of a Xergi plant allowing for remote monitoring from anywhere in the world.

Vogelsang Ireland Ltd

Unit 3, Liosban Business Park, Tuam Rd, Galway
Contact: Mark Hughes / Nicholas Torrens
t. +353 91 394 570
e. mark@vogelsang.ie **e.** Nicholas@vogelsang.ie
w. www.vogelsang.ie

Vogelsang Ireland Ltd is an experienced partner with the biogas sector, providing specialised products for economical and efficient operation of biogas plants and an individualised service tailored to customer needs. With over 80 years experience, Vogelsang is a supplier of digester feeding systems for all types of feed stocks, positive displacement pumps, inline macerators, shredders and BioCrack cell disintegration systems. We also supply systems for applying digestate back to the land as a biofertiliser, offering our customers a complete solution package for their biogas operations. All of our products are manufactured, developed and perfected by Vogelsang, setting international standards in the biogas sector.

CORPORATE NON-PROCESSOR

Clean Ireland Recycling

Creagh, Kilrush, Co. Clare
Contact: Michael O Donoghue/Paddy Hedigan
t. 065 905 9092 **f.** 065 905 9330
e. modonoghue@cleanirl.com
e. phedigan@cleanirl.com **w.** www.cleanireland.ie

Clean Ireland Recycling is a waste management company based in Creagh, Kilrush, Co. Clare providing a full range of waste management services to both domestic and commercial customers. Clean Ireland Recycling has built up a strong reputation for the provision of legally compliant and cost-effective waste management services. With a strong focus on technology, Clean Ireland Recycling was one of the first waste

management companies in Europe to introduce the wheelie bin (Big Ben Bins) for the collection of non-hazardous waste. Clean Ireland Recycling investment in waste management technology reflects our commitment to the environment and to our staff of over 60 and our desire to provide the most compliant and professional waste management service.

FLI Group

Six Cross Roads Business Park,
Carriganard, Waterford.
Contact: Michael Flynn
t. 051 353190
e. mflynn@fli-group.com
w. www.fli-group.com

The FLI Group is a diversified group of companies providing environmental solutions, services and technologies to private and public sector customers in Ireland, UK, France, and on specialist projects throughout the world. FLI has been active in the buildout of biogas renewable energy plants in the UK, with its large AD plants exporting both electricity and bio-methane to grid. FLI plans to develop similar AD projects in Ireland.

Foyle Meats

Lisahally, Campsie BT47 6TJ
Contact: Nigel McLlwaive /Terry Acheson
t. +44 28 7186 0691 (Rol 048 7186 0691)
f. +44 28 7186 0700 (Rol 048 7186 0700)
e. nigelm@foylefoodgroup.com
e. terrya@foylefoodgroup.com
w. www.foylefoodgroup.com

The Foyle Food Group is a meat-processing group which process 180k of cattle and 400k of lambs per annum. Customers are located in the UK, Ireland and Europe and include Tesco, Birdseye and McDonalds.
Can provide contact us today on 041 98 45440.

Indaver

4th Floor, Block 1, West Pier Business Campus,
Old Dunleary Road, Dun Laoghaire, Co. Dublin,
A96 F8C0.

Contact: Catherine Joyce-O'Caollai

t. + 353 1 6972896 **f.** + 353 1 2807865

e. catherine.joyce.oacollai@indaver.ie

w. www.indaver.ie

Indaver Ireland delivers high quality, cost-effective services in the specialist hazardous and non-hazardous waste market in Ireland. Operating since 1977, Indaver is a well-established waste management company, with a proven track record. Our offices in Dublin and Cork allow us to provide an efficient responsive service to our customers. Our transfer station in Dublin Port allows for a fast and convenient service for both small and large quantities of hazardous waste. Our Waste-to-Energy (WtE) facility in Meath is operating since 2011 accepting up to 235,000 tonnes of MSW, industrial & other waste per year. Indaver also plans to develop a WtE facility in Cork. WtE facilities provide a secure, cost effective and sustainable waste solution to assist Ireland in meeting its landfill diversion, renewable energy, energy efficiency & climate change mitigation targets.

KWD Recycling

Aughacreeen, Killarney, Kerry

Contact: Séan Murphy/Brian Bruton

e. sean@kwd.ie **e.** brian@kwd.ie

t. 066632458 **w.** www.kwd.ie

Mulleady's Ltd

Cloonagh, Drumlish, Co. Longford

Contact: Anthony Mulleady

t. 043 3324145 **f.** 043 33 24731

e. am@mulleady.com

w. www.mulleadygroup.com

Mulleady's Ltd is a waste recycling and transfer station facility operating from a 9-acre fully-EPA licensed site

in Drumlish, Co. Longford licence W0169-01. The waste licence allows us to accept up to 95,000 tonnes per annum. Mulleady's Ltd employs 70 people at the facility. We are permitted waste collectors in the Midlands, Connaught, North-Eastern and Cork Regions. We are licensed to accept non-hazardous solid waste comprising domestic, commercial, industrial and construction and demolition wastes. We operate a pay-by-weight system for all our wheelie bin customers since January 2005. We also supply skips, roll-ons, compactors, separate collections for recyclables. We supply bailers for cardboard, paper and plastic wastes, and we can cater for waste and recyclables from domestic, commercial and industrial sources utilising a modern materials recovery facility.

Munster Composting

Castletownroche Co. Cork

Contact: Gavin White

t. 063 84061/ 087 6292049

e. gavinwhiteskips@hotmail.com

PandaGreen (Panda & Greenstar)

Millennium Business Park, Ballycoolin Road, Dublin 11

Contact: David Naughton

t. 1890 500 800

e. David.Naughton@greenstar.ie

PandaGreen is Ireland's leading provider of integrated waste management solutions. We are committed to identifying and delivering waste management systems to all of our customers in our endeavour to aid in minimisation of waste and increase recycling for a better environment. We comply with all relevant environmental regulations and aim to supply a safe competitive and sustainable service with specific regards to the surrounding environment. PandaGreen provide services at each level of the waste management hierarchy with our business development spanning a range of services from education, research, composting and recycling. PandaGreen are playing a significant role in the future

development and provision of Ireland's waste management infrastructure, with an expert team of staff with extensive experience in the areas of recycling and engineering, environmental impact assessment, business development and communications

Stream BioEnergy

40 Main Street, Blackrock, Co. Dublin
Contact: Morgan Burke/ Kevin Fitzduff
t. 01-685 4935 f: 01-2108873
e. morgan.burke@streambioenergy.ie
e. kevin.fitzduff@streambioenergy.ie
w. www.streambioenergy.ie

Stream BioEnergy is an independent, Irish owned, renewable energy development company with an emphasis on delivering infrastructure to process organic waste in Ireland. As part of a vision for a better, safer, more secure and sustainable clean energy future, Stream promotes the use of anaerobic digestion to generate renewable energy from organic materials in a way that safeguards our environment. Stream specialises in AD project development including planning and licensing, plant design, financing and construction. Stream is independent of all technology solutions allowing for the best process design and equipment to be selected on a case by case basis. The management team of Stream has significant experience of developing and operating renewable energy and waste infrastructure projects throughout Europe.

B9 Solutions Limited

19 Point Street, Larne, Northern Ireland, BT40 1HY
Contact: William Robinson – Lead Consultant
David McKee – Director
Trevor McAleese – Plant Manager, Granville Ecopark Ltd
e. w.robinson@b9solutions.co.uk
e. d.mckee@b9organicenergy.co.uk
e. trevor.mcaleese@granvilleecopark.co.uk

w. www.b9energy.co.uk
t. +44 28 28 268 273 f. +44 28 28 263 380

B9 Solutions was formed specifically as environmental and renewable energy consultants within the B9 family of companies to help others implement carbon reduction strategies or instigate transitioning to a low carbon, resilient future. This may involve energy management schemes on site, but also exploring if there are viable energy efficiency or renewable energy opportunities such as wind, biomass, hydro, solar or anaerobic digestion. The team have unique knowledge and experience in green energy technology, understanding the potential and constraints of bringing renewable energy solutions to industry. We understand the legislation, the science and how to best integrate the technology into your business.

B9 Solutions provides management services for Ireland's largest Anaerobic Digestion Biowaste facility, owned by Granville Ecopark Limited.

TF Sheehan Landscaping Contracting Ltd

Whitegate, Cork.
Contact: Dennis Sheehan
t. 021 438 5345 087 266 9283
f. 021 438 4117 e. tfsheehan@eircom.net

TF Sheehan Landscape Contracting has traded in top soil and bark mulch for over 30 years. The company began selling peat free compost in one tonne bags, with further plans to develop this market in the future.

MEMBERSHIP FORM

Contact Details	
Organisation Name	
Address	
Contact Name 1	
Contact Name 2	
Email of Contact 1	
Email of Contact 2	
Web Site address	
Tel Number	
Fax Number	
Category of Membership	

- Email a 50-100 word description of your organisation for the Cré Membership Directory to percy@cre.ie

MEMBERSHIP CATEGORIES

CATEGORY	Yearly €	DESCRIPTION
Institutional	300	Universities, colleges, hospitals, prisons
Student	100	Student membership
Consultant I	300	Sole trader
Consultant II	450	Single office
Consultant III	750	Multiple offices
Local Authority	400	
Not-for-profit	200	Charities and voluntary
*Processor 1	750	<5,000 tonnes feedstock pa
*Processor 2	900	>5,000 - <10,000 tonnes feedstock pa
*Processor 3	1000	>10,000 - <20,000 tonnes feedstock pa
*Processor 4	1200	>20,000 - <40,000 tonnes feedstock pa
*Processor 5	1500	>40,000 - <50,000 tonnes p.a.
*Processor 6	2750	>50,000 + feedstock p.a.
Trade I	500	Equipment manufacturers & suppliers.
Non- processor	400	Determined case by case
Corporate Companies	2000	Determined case by case
Farmer developing an AD plant	200	Introductory first year price

*the categories under 'processor' refer to the amount of waste to be composted/digested
Prices are ex vat at 23%

PAYMENT DETAILS

You can pay your annual membership subscription by cheque or we can invoice you directly.

Please invoice quoting the Purchase Order Number _____

BANK TRANSFER DETAILS

Account Name: Composting Association of Ireland Address of account holder: Po Box 135, Enfield, Co. Meath, Ireland Bank Name: AIB Address of Bank: Clanbrassil Street, Dundalk, Louth	Bank Code: 932450 Account Number: 66821039 BIC/Swift Code: AIBKIE2D IBAN: IE26 AIBK 9324 5066 8210 39 Reference: your name
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Please Complete this Application Form and Send to:

Cré- Composting and Anaerobic Digestion Association of Ireland, Po Box 135, Enfield, Co. Meath, Ireland. Tel: 00 353 (0)86 8129260 Email: info@cre Web: www.cre.ie



MATER-BI

BIODEGRADABLE AND COMPOSTABLE BIOPLASTIC

THE ORIGINAL

CONTROLLED, INNOVATIVE, GUARANTEED

QUALITY OUR TOP PRIORITY

Using the MATER-BI trademark licence means that NOVAMONT's partners agree to comply with strict quality parameters and testing of random samples from the market. These are designed to ensure that films are converted under ideal conditions and that articles produced in MATER-BI meet all essential requirements. To date over 1000 products have been tested.

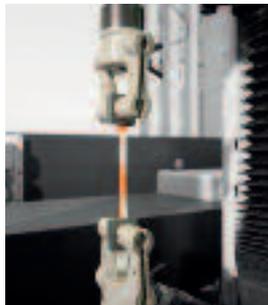
THE GUARANTEE OF AN ITALIAN BRAND

MATER-BI is part of a virtuous production system, undertaken entirely on Italian territory. It enters into a production chain that involves everyone, from the farmer to the composter; from the converter via the retailer to the consumer.

USED FOR ALL TYPES OF WASTE DISPOSAL

MATER-BI has unique, environmentally-friendly properties. It is biodegradable and compostable and contains renewable raw materials. It is the ideal solution for organic waste collection bags and is organically recycled into fertile compost.

Eco-Comunicazione.it





Clearly Superior Compostable Bags

earth2earth have further developed and improved their award winning compostable bags.

- ✓ **Superior strength and tear resistance**
- ✓ **Best for water and heat resistance.**
- ✓ **No Starch or fillers means no sticky residue.**
- ✓ **Clearer film for kitchen security / Contaminated waste**
- ✓ **Superior AD performance**
- ✓ **Large range of sizes**



EN 13432 Certified

For more information please contact:

Thorn Environmental Limited: (01) 8615001. info@thorn.ie