ZERO WASTE ALLIANCE RELAND

Towards Sustainable Resource Management



Submission to the Regional Waste Management Planning Offices on the draft Waste Management Plan for a Circular Economy

05 July 2023

Zero Waste Alliance Ireland is a member of



and



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Towards Sustainable Resource Management

An Tinteán Nua Ballymanus Castlepollard County Westmeath N91 PP76

05 July 2023

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Eastern-Midlands Region Waste Management Office, c/o Civic Offices, Wood Quay, Dublin 8.

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Copy to:

Circular Economy Division,
Department of the Environment, Climate and Communications,
Newtown Road,
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BY EMAIL TO:

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Dear Sir / Madam,

Observations on the Draft Waste Management Plan for a Circular Economy

Submission by Zero Waste Alliance Ireland to the Regional Waste Management Planning Offices

On behalf of Zero Waste Alliance Ireland (ZWAI), we are attaching our observations in response to the Public Consultation notice issued by the Regional Waste Management Planning Offices on 18 April 2023, inviting submissions on the Draft Waste Management Plan for a Circular Economy.

As stated in the public notice and in the Consultation Document, this public consultation is intended to obtain views of stakeholders and members of the public on the direction, content and implementation of the proposed strategy.

The Plan seeks to accelerate the transition to a more circular economy where materials remain in use for longer, and this is an objective which is fully supported by Zero waste Alliance Ireland. The Regional Waste Management Planning Offices may not be aware that ZWAI has made similar submissions to the Department of the Environment, Climate and Communications, to the Department of Housing, Local Government and Heritage, and to the European Commission; based on our research and carefully considered view that prevention of waste and dealing with discarded or unwanted materials and objects are activities which must be seen in a wider perspective.

Policies on waste, land use, urban and rural planning, agriculture and forestry, water resources, biodiversity loss, promotion of the bio economy, and our generally economic policies must be integrated, to avoid the piecemeal approach which has resulted (and is currently resulting in) so many critical environmental problems.

Members of Zero Waste Alliance Ireland are very pleased to have the opportunity to engage with the country's Regional Waste Management Planning Offices (and with the Department of the Environment, Climate and Communications, by copying the attached document to the DECC) by making this submission, especially as the Circular Economy is a model which ZWAI has advocated over a long period of time; and we hope that our submission will assist Ireland's current transition to a more resource efficient "Circular Economy", and to achieving the target of "Zero Waste", within the over-arching aim of this country becoming fully "climate neutral" and "carbon neutral".

Yours sincerely,

Jack O'Sullivan

Jack O'Sullivan.

On behalf of Zero Waste Alliance Ireland

ZERO WASTE ALLIANCE IRELAND

Towards Sustainable Resource Management

Submission to the Regional Waste Management Offices and to the Department of the Environment, Climate and Communications in Response to a Public Consultation on the Draft Waste Management Plan for a Circular Economy

05 July 2023

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ZERO WASTE ALLIANCE RELAND

Towards Sustainable Resource Management



OBSERVATIONS ON THE DRAFT WASTE MANAGEMENT PLAN FOR A CIRCULAR ECONOMY

SUBMITTED BY ZERO WASTE ALLIANCE IRELAND TO THE REGIONAL WASTE MANAGEMENT PLANNING OFFICES

1. Introduction

When the Regional Waste Management Planning Offices announced a public consultation to support and inform the preparation of Ireland's Waste Management Action Plan for a Circular Economy, we saw this an excellent opportunity to provide feedback on a topic in which Zero Waste Alliance Ireland has a long and continuing interest.

This Plan seeks to accelerate the transition to a more circular economy where materials remain in use for longer, and this is an objective which is fully supported by Zero Waste Alliance Ireland. However, based on our research and our carefully considered view that prevention of waste and dealing with discarded or unwanted materials and objects are activities which must be seen in a wider perspective, we are advocating that waste prevention and the achievement of the Circular Economy must be implemented as part of an overarching and comprehensive whole-of-Government environmental and climate action policy.

It has always been our policy that the wasting or discarding of substances, materials, manufactured objects and products of every description; and

Submission by Zero Waste Alliance Ireland to the Regional Waste Management Planning Offices on the draft Waste Management Plan for a Circular Economy

especially their end-of-life fate by incineration or landfilling, resulting in the continuing extraction and processing of yet more raw materials to replace them, have detrimental effects on the Earth's climate and on biodiversity. Not only must discarded materials be replaced in the continuing cycle of production, but the processes of extraction, transformation, transport, processing, manufacturing and distribution require yet further energy which could be used more beneficially or avoided completely.

Widespread failure to recover, re-use and recycle discarded substances, materials and products, is a symptom of our European-wide and Irish failure to implement the Circular Economy, with a resulting increase in greenhouse gas emissions, serious damage to ecosystems, major loss of biodiversity, changes in sea level, stronger and more frequent storm events, threats to the security of food supplies, damage to human health, and other adverse consequences of climate change. While these are necessarily considered as national issues, we see no reason why the Regional Waste Management Planning Offices should not take them into account.

For example, the most recent data from the Environmental Protection Agency has shown that in the year 2021, greenhouse gas emissions rose rather than fell; and Ireland used a quarter of its first five-year carbon emissions budget in just one year. It is therefore is imperative that we keep within the binding five-year carbon emissions budget for 2021-2025 (as adopted by the Dáil); and, even more critical, that Ireland succeeds in reducing greenhouse gas emissions by at least 50% by the year 2030. Reaching this target requires achieving a reduction in emissions by more than 8% per annum for the remainder of this decade. And we stress that waste management must play an appropriate part in achieving the necessary reduction in greenhouse gas emissions, And this can be done only by full implementation of the Circular Economy.

If we had started on this pathway a decade ago; or, better still, two or three decades ago, the rapidity of the necessary reduction in greenhouse gas emissions (the steepness of the downward slope) would not be as great, and measures could have been taken with less urgency. Unfortunately, it is now well past the time for such measures to be taken, in order to reduce waste generation and greenhouse gas emissions rapidly, and to meet the scale and the urgency of the "waste" and "climate" challenges.

If we compare the global response to the Covid-19 pandemic, we can see the problem more clearly. Following the identification of the SARS-CoV-2 virus, the global response to the emergency has been guided by international scientific and public health experts. Vaccines were developed, produced and delivered at a rate and scale not previously seen; the epidemiology of the virus was

Submission by Zero Waste Alliance Ireland to the Regional Waste Management Planning Offices on the draft Waste Management Plan for a Circular Economy

studied intensively, information was exchanged world-wide among scientists and medical experts; and, in Ireland, Government agencies provided advice about social distancing and hand hygiene, information about the virus was provided widely, public facilities and businesses were advised to close, large public gatherings were cancelled or postponed, and vaccines given freely to the population.

At the same time, funding was provided to mitigate the damaging effects that the Covid-19 pandemic and the measures to prevent its spread were having on the economy. These measures were considered to be necessary precautions, given the immediate threat of the virus; and, in most cases, the work done by Ireland's medical experts and personnel was widely praised, and (again with some exceptions) the Government was applauded for handing the crisis effectively.

In contrast, those of us who are concerned about the ever-increasing amounts of waste produced (especially packaging waste) have spent decades trying to influence the political and public discourse to recognise the impossibility of extracting more and more resources from the planet, to support a linear culture of "make and waste"; and with only very limited results.

As the dramatic effects of climate change in the form of large-scale wildfires and massive flooding in susceptible countries are becoming more widely reported, a willingness to act on the evidence-based advice of the scientific community remains largely absent. Government, local authorities and the media continue to recommend individual behavioural changes or relatively minor lifestyle changes as the correct responses to climate change; but this type of advice fails to point out that drastic and far-reaching changes in energy sources, energy demand and use, infrastructure, industry and the way we produce and use products, and our lifestyles, are urgently needed.

The effects of climate chaos are becoming "headline news", from the record heat in Europe, the drought in the Horn of Africa, and the floods in Pakistan; these are clear signals of a climate-changed and waste-dominated future, in which those who have done least to cause the problems are hit hardest. The photographs of rivers, coastlines and adjacent seas heavily contaminated with enormous amounts of floating plastic waste and litter are clear examples which everyone has seen.

The recovery of essential plant nutrients (nitrogen and phosphorus) lost through wastewater is also important when we consider the need for synthetic fertilisers currently used in agriculture, especially given that a significant proportion of these fertilisers are wasted, causing pollution of Ireland's surface waters and groundwater. Municipal wastewater treatment plants do not currently recover



and recycle phosphorus and nitrogen for re-use in agriculture; and Zero Waste Alliance Ireland has consistently advocated that these vital substances should be conserved, recovered and re-used. It is therefore our submission that this matter should fall within the remit of the Regional Waste Management Planning Offices.

2. ZERO WASTE ALLIANCE IRELAND (ZWAI)

Zero Waste Alliance Ireland is pleased to have the opportunity to make this submission in response to the public consultation on Ireland's Waste Management Plan for a Circular Economy (NWMPCE); and at this point we consider that it is appropriate to describe briefly the background to our submission, especially the history, policy, strategy and activities of ZWAI.

2.1 Origin and Early Activities of ZWAI

Zero Waste Alliance Ireland (ZWAI), established in 1999, and registered as a company limited by guarantee in 2004, is a Non-Government Environmental Organisation (eNGO) and a registered charity. During the past two decades, ZWAI has prepared and submitted to the Irish Government and to State Agencies many policy observations on waste management, on using resources sustainably, on promoting re-use, repair and recycling, and on development and implementation of the Circular Economy. In recent years, ZWAI has also responded to the European Commission's calls for submissions on a variety of topics in the areas of wastewater, solid wastes, soil health and biological materials. Our principal objectives are:

- i) sharing information, ideas and contacts,
- ii) finding and recommending environmentally sustainable and practical solutions for domestic, municipal, industrial and agricultural waste management in Ireland;
- lobbying Government and local authorities to implement environmentally sustainable waste management practices, including clean production, elimination of toxic substances, repairing, re-using, recycling, segregation of discarded materials at source, and other beneficial practices;
- iv) lobbying Government to follow the best international practice and EU recommendations by introducing fiscal and economic measures designed to penalise the manufacturers of products which cannot be repaired, reused, recycled or composted at the end of their useful lives,



and to financially support companies making products which can be reused, recycled or are made from recycled materials;

- v) raising public awareness about the long-term damaging human and animal health and economic consequences of landfilling and of the destruction of potentially recyclable or re-usable materials by incineration;
- vi) investigating, raising public awareness and lobbying Irish Government departments and agencies about our country's failure to take adequate care of vulnerable and essential natural resources, including clean water and air, biodiversity, and soil;
- vii) advocating changes in domestic and EU legislation to provide for more ecologically appropriate, environmentally sustainable and efficient uses of natural resources; and,
- viii) maintaining contact and exchanging information with similar national networks in other countries, and with international zero waste organisations.

2.2 Our Basic Principles

Human communities must behave like natural ones, living comfortably within the natural flow of energy from the sun and plants, producing no wastes which cannot be recycled back into the earth's systems, and guided by new economic values which are in harmony with personal and ecological values. In nature, the waste products of every living organism serve as raw materials to be transformed by other living creatures, or benefit the planet in other ways. Instead of organising systems that efficiently dispose of or recycle our waste, we need to design systems of production that have little or no waste to begin with. There are no technical barriers to achieving a "zero waste society", only our habits, our greed as a society, and the current economic structures and policies which have led to the present environmental, social and economic difficulties.

"Zero Waste" is a realistic whole-system approach to addressing the problem of society's unsustainable resource flows – it encompasses waste elimination at source through product design and producer responsibility, together with waste reduction strategies further down the supply chain, such as cleaner production, product repairing, dismantling, recycling, re-use and composting. ZWAI strongly believes that Ireland should have a policy of not sending to other countries our discarded materials for further treatment or recycling, particularly to developing countries where local populations are exposed to dioxins and other very toxic



POPs. Relying on other countries' infrastructure to achieve our "recycling" targets is not acceptable from an ecological or societal perspective.

2.3 What We are Doing

One of our principal objectives is to encourage Irish government agencies, Irish local authorities and other organisations to develop and implement environmentally sustainable resources and waste management policies, especially resource efficiency, waste reduction and elimination; to promote reuse, repair and recycling, to develop and implement the Circular Economy, and to recognise that climate change and biodiversity loss are existential threats.

As an environmental NGO, and a not-for-profit company with charitable status since 2005, ZWAI also campaigns for the implementation of the UN Sustainable Development Goals, including (but not limited to) Goal 12, Responsible Consumption and Production; Goal 6, Clean Water and Sanitation (having particular regard to the need to avoid wasting water); and Goal 15, to protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, to halt and reverse land degradation and halt biodiversity loss.

Zero Waste Alliance Ireland has continued to lobby the Government on the issue of sustainable resource management, and to express our concern at the failure to address Ireland's waste problems at a fundamental level. ZWAI has responded to many Irish and EU public consultations; and, in its role as an environmental NGO, has given presentations and made submissions on:

- Proposed amendments to the Irish Building Regulations (February 2016 and October 2021);
- 2. Submission to the Department of Housing, Planning and Local Government on Water Services Policy (April 2018);
- 3. How the European Union has addressed the problem of plastic waste (March 2019);
- 4. Response to public consultation on proposed new environmental levies (Nov-2019);
- 5. Submission on single-use plastic packaging by the food industry (November 2019);



- 6. Response to a public consultation by the Department of Housing, Planning and Local Government on significant water management issues in Ireland (August 2020);
- 7. Submission to Department of Environment, Climate and Communications on the proposed introduction of a deposit and return scheme (DRS) for beverage containers (November 2020), and on the legislative framework and scope of a Deposit Return Scheme in Ireland (May 2021);
- 8. Submission to the European Commission in response to a public consultation on the revision of the Urban Wastewater Treatment Directive (July 2021);
- Submission to the Joint Oireachtas Committee on Environment and Climate Action on the general scheme of the Circular Economy Bill (October 2021);
- Feedback to the European Commission in response to a public consultation on the proposed revision of the EU Regulation on Shipments of Waste (January 2022);
- Feedback to the European Commission in response to a public consultation on protecting, sustainably managing and restoring EU soils, including comments on the updating of the 2006 EU Thematic Strategy on Soil (February 2022);
- Feedback to the European Commission in response to public consultation on revision of the EU plant and forest reproductive material legislation (March 2022);
- 13. Providing feedback to the European Commission on the waste-related environmental performance of Ireland and certain other EU Member States, and the probability of their achieving the 2025 recycling targets and the 2035 landfill target (August 2022);
- 14. Providing feedback to the European Commission on the need to reduce the waste of unwanted or discarded food, at every stage of the food production process (August 2022);
- 15. Response to the European Commission's public consultation on an integrated action plan for the management of nutrients (August 2022);



- 16. Submission to the Department of the Environment, Climate and Communications to support and inform preparation of the 2023 Climate Action Plan (September 2022);
- 17. Submission to the European Commission on State Aid, in response to the Aarhus Convention Compliance Committee complaint (October 2022);
- 18. Submission responding to a public consultation on Ireland's energy security (October 2022);
- 19. Submission to the Department of Housing, Local Government and Heritage in Response to the Public Consultation on Ireland's Fourth National Biodiversity Action Plan (November 2022);
- 20. Presentation on "Water and Sustainability A Necessary Alliance", delivered at the All-Ireland Water & Wastewater Summit, November 2022;
- 21. Several presentations on transforming the construction industry so that it could become climate neutral;
- 22. Several submissions on the separation, recovery and reuse of the phosphorus and nitrogen content of wastewater (2019 to 2022); and,
- 23. Submission by Zero Waste Alliance Ireland to the Department of the Environment, Climate and Communications and the Department Agriculture, Food and the Marine in Response to the Public Consultation on Ireland's National Bioeconomy Action Plan (January 2023).

It will be clear that ZWAI is primarily concerned with the very serious issue of discarded substances, materials and goods, whether from domestic, commercial or industrial sources, how these become "waste", and how such "waste" may be prevented by re-design along ecological principles. These same ecological principles can be applied to how we abstract and use water, and to the volumes of wastewater produced and nutrients lost as a consequence of these uses.

In this submission we consider that similar principles can be applied to the National Waste Management Plan for a Circular Economy, including biological resources and ecosystem services provided by the natural living world.



ZWAI is represented on the Irish Government's Water Forum (An Fóram Uisce) by one of our Directors; ZWAI is a member of the Irish Environmental Network (IEN), and is funded by the Department of Communications, Climate Action and the Environment through the IEN. In 2019 ZWAI became a full member of the European Environment Bureau (EEB); and a member of the Waste Working Group of the EEB. Through the EEB, we contribute to the development of European Union policy on waste and the Circular Economy. In 2021, the EEB established a Task Force on the Built Environment; ZWAI is a member of this group, and we contribute to discussions on sustainability of construction materials, buildings and on the built environment.

3. OUTLINING THE INTER-LINKAGES BETWEEN DATA COLLECTION AND EDUCATION IN ACHIEVING A ROBUST WASTE MANAGEMENT PLAN

Ireland's National Waste Management Plan for a Circular Economy is an instrumental document as it will shape the country's waste management practices for the next six years. At the end of this period, the Plan's success will be determined by the amount of emissions it helped curtail and brought Ireland closer to meeting its net-zero carbon target by 2050 which the country aims to do so by realising emissions reductions across every sector of the Irish economy.

The circular economy (CE) approach is not a novel concept and Ireland will certainly not be the first nation to integrate CE practices into its future growth plans. A quick scan across Europe reveals the success of Germany's waste management practices that have minimized its waste generation, promoted recycling for decades, and achieved a high rate of waste diversion from landfills. The country's circular economy approach aims to not only reduce waste but also maximise resource efficiency. It achieves this by designing products with a focus on their entire lifecycle, from production to disposal, and promoting the reuse, recycling, and recovery of materials.

3.1 The Example of Germany's Waste Management Success

Germany is internationally recognized for its success in waste management and recycling. The country has implemented comprehensive strategies and regulations to minimize waste generation, promote recycling, and achieve high rates of waste diversion from landfills. Here are some key factors that contribute to Germany's waste management success:



3.1.1 The Circular Economy Approach

Germany follows a circular economy approach, aiming to reduce waste and maximize resource efficiency. The concept involves designing products with a focus on their entire lifecycle, from production to disposal, and promoting the reuse, recycling, and recovery of materials.

3.1.2 Waste Hierarchy

Germany prioritizes waste management in accordance with the waste hierarchy, which places prevention as the highest priority, followed by reuse, recycling, energy recovery, and finally disposal. This approach emphasizes waste reduction and encourages sustainable waste management practices.

3.1.3 Strict Waste Regulations

Germany has implemented strict waste regulations and standards that require waste generators to separate and properly dispose of their waste. There are clear guidelines for waste sorting and collection, and penalties can be imposed for non-compliance.

3.1.4 Extended Producer Responsibility (EPR)

Germany has an effective EPR system in place, which holds manufacturers responsible for the entire lifecycle of their products, including their eventual disposal. This system encourages producers to design products with recyclability in mind and ensures proper waste management throughout the product's lifecycle.

3.1.5 Comprehensive Recycling Infrastructure

Germany has invested heavily in developing an extensive recycling infrastructure. The country has a well-established network of recycling centers, collection points, and waste treatment facilities, including sorting plants, composting facilities, and waste-to-energy plants.

3.1.6 Separate Waste Collection

Germany has implemented a successful system of separate waste collection, where households and businesses are required to sort their waste into different bins for various materials such as paper, glass, plastic, organic waste, and hazardous waste. This enables efficient sorting and facilitates the recycling process.



3.1.7 High Recycling Rates

Germany consistently achieves high recycling rates for various waste streams. For example, it has one of the highest rates of packaging waste recycling in Europe. The country also excels in recycling other materials like paper, glass, and electronic waste.

3.1.8 Public Awareness and Education

Germany places great emphasis on public awareness and education regarding waste management. Citizens are encouraged to actively participate in waste separation and recycling initiatives through campaigns, education programs, and easily accessible information.

3.1.9 Collaboration and Cooperation

Germany's waste management success is also attributed to the collaborative efforts between government bodies, local municipalities, waste management companies, and citizens. There is a strong emphasis on cooperation and shared responsibility to achieve sustainable waste management goals.

It is important to note that while Germany has made significant strides in waste management, there is always room for improvement. The country continues to explore innovative technologies and strategies to further enhance waste reduction, recycling rates, and environmental sustainability.

3.2 How Can Data Alter Waste Management - An Outline Of Benefits

The success of any waste management plan can be determined most conclusively by the prowess of the data that backs it and the data that emerges upon its implementation. Data provides valuable insights and information that can drive effective decision-making, optimise resource allocation, and improve overall waste management processes. This section will highlight some of the core benefits of data collection and monitoring to build a case of its importance in awareness building and educating members of societies about waste management and good recycling practices.

3.2.1 Planning and Resource Allocation

Data collection helps in understanding the composition, quantity, and sources of waste generated in a particular area. This information enables waste management authorities to plan and allocate appropriate resources, such as



waste collection trucks, recycling facilities, and disposal sites, based on the specific needs and demands of the community.

3.2.2 Waste Reduction and Recycling

Data collection allows for the identification of waste streams that have the potential for reduction, recycling, or reuse. By analysing data on the types and quantities of waste materials generated, waste management organizations can develop targeted recycling and waste reduction programs. This can lead to more efficient use of resources, reduced landfilling, and a shift towards a circular economy.

3.2.3 Monitoring and Compliance

Data collection facilitates monitoring and compliance with waste management regulations and policies. By tracking and analysing waste-related data, authorities can ensure that waste generators, such as households, businesses, and industries, are complying with waste disposal guidelines, recycling requirements, and reporting obligations.

3.2.4 Performance Evaluation and Improvement

Data collection enables the assessment of waste management system performance over time. By collecting data on key performance indicators, such as waste diversion rates, recycling rates, and landfill capacities, waste management organizations can evaluate their effectiveness and identify areas for improvement. This data-driven approach helps in setting targets, measuring progress, and implementing strategies to achieve better waste management outcomes.

3.2.5 Decision-Making and Policy Development

Accurate and comprehensive data on waste generation, composition, and management practices is essential for making informed decisions and developing effective waste management policies. Data-driven insights can inform policymakers about the current state of waste management, identify emerging trends and challenges, and guide the development of sustainable strategies to address them.

The benefits of data collection to improve waste management practices at the local, regional, and national levels has been duly stated. What is more important is how it can also support education and awareness building. With increasingly diverse nationalities forming a country's population, educating expats and foreign diaspora about Ireland's waste management practices is essential to ensure efforts towards achieving a circular economy remain on track. For this



purpose, data collection can support educational and awareness campaigns aimed at promoting responsible waste management practices among the public. By sharing data on waste generation, recycling rates, and the environmental impact of different waste management approaches, individuals and communities can be educated about the importance of waste reduction, recycling, and proper disposal methods.

3.3 The Importance of Education and Awareness Building For Better Waste Management Practices

Education and awareness building play a crucial role in promoting better waste management practices. With regular and relevant knowledge streams, improper waste management practices can be systematically eradicated. The robustness of Ireland's new National Waste Management Plan for a Circular Economy will be measured by how local and national authorities streamline and communicate information to the public pertaining to the different types of wastes, their respective potential hazards, most appropriate disposition practices for different types of waste, and the merits of good waste management practices when integrated into daily individual, community, and organisational lives. This section of the submission focuses on some of the key benefits that education and awareness building can have in the effort to achieve a circular economy for Ireland.

3.3.1 Behaviour Change

Education and awareness campaigns can help change people's attitudes and behaviours towards waste. By raising awareness about the importance of recycling, reducing waste generation, and adopting sustainable practices, individuals can be encouraged to make conscious choices. This behavioural change can contribute to reduced waste generation, increased recycling rates, and the adoption of more sustainable waste management practices.

3.3.2 Waste Sorting and Segregation

Proper waste sorting and segregation are vital for effective waste management. Education and awareness programs can educate individuals on how to separate different types of waste, such as recyclables, organic waste, and hazardous materials. By understanding the importance of waste segregation, people are more likely to participate actively in waste separation programs, leading to improved recycling rates and reduced contamination of recyclable materials.



3.3.3 Encouraging Recycling and Reuse

Education can highlight the benefits of recycling and reusing materials. When people understand that waste materials can be transformed into valuable resources through recycling, they are more likely to participate in recycling programs. Similarly, education can promote the concept of reusing items, such as repairing and repurposing, to extend their lifespan and reduce waste generation.

3.3.4 Community Engagement

Education and awareness building foster community engagement and participation in waste management initiatives. When people understand the importance of waste management for their community's well-being, they are more likely to get involved in local recycling programs, clean-up drives, and other waste reduction activities. This collective effort strengthens the overall waste management infrastructure and promotes a sense of responsibility among community members.

3.3.5 Prevention of Environmental Pollution

Education helps individuals understand the environmental consequences of improper waste disposal, such as soil, water, and air pollution. By creating awareness about the potential harm caused by dumping waste in natural ecosystems or improper handling of hazardous materials, people can be motivated to adopt responsible waste management practices to prevent environmental pollution.

3.3.6 Policy Support and Advocacy

Education and awareness building can contribute to policy support and advocacy for better waste management. Informed and aware individuals are more likely to demand proper waste management infrastructure and regulations from their local governments. They can also participate in advocating for sustainable waste management practices at higher levels, influencing policy development and implementation.

In summary, education and awareness building are essential for promoting better waste management practices. By providing knowledge, fostering behaviour change, promoting waste sorting and recycling, encouraging community engagement, preventing pollution, and supporting policy advocacy, education plays a vital role in creating a sustainable and environmentally conscious approach to waste management.



4. REPAIR CAFÉS AND THEIR IMPORTANCE IN REDUCING WASTE AND SHIFTING SOCIETY'S MINDSET FROM THE "TAKE-MAKE-WASTE" MODEL

Repair cafés are places where informal volunteer groups can work together to repair and thus extend the life of goods. This creates the economic benefit of extending the life of products and thus saving people money. It also carries the obvious benefit of reducing waste and encouraging recycling of materials that might otherwise be sent to waste.

A common difficulty with repair cafés is often the issue around warranties on products. The EU has recently published a proposed directive on the right to repair, entitled Proposal for a Directive on common rules promoting the repair of goods.

In this proposal, companies will need to offer repair as an option within warranty unless repairing is more expensive than a new item. They also specifically mention that this need not be restricted to being only a professional repair but could also be done by community initiatives. Part of the proposal is:

"In order to encourage repair, Member States should ensure that for their territory at least one online platform exists which enables consumers to search for suitable repairers."

Included in this online platform is the stipulation that community led initiatives may also be listed:

"While national requirements, for instance, on the necessary professional qualifications, continue to apply, Member States should ensure that the online platform is open to all repairers that fulfil those requirements. Member States should also be free to decide whether and to what extent community-led repair initiatives, such as repair cafés, may register on the online platform, taking account of safety considerations where relevant."

From this it is clear that community repair initiatives such as repair cafés are very much in line with the current EU policies on waste management.

A research paper was done on six repair café's in Copenhagen by students of Aalborg University Copenhagen, entitled "Repairing the Throwaway Culture" (it can be accessed with this link:

https://p	rojekter.a	ลau.dk/proje	ekter/files/307185575/Repairing_the_throw_away_	_c
ulture	_Agger_	_Wagner	Clausen.pdf).	



In this paper they gueried the success of products in the 2 to 5 year old range and found that repairs on these were successful 63% and partly successful 5% of the time. Using this data it can be extrapolated that a significant extension of the life of a product may be achieved through the use of repair cafés and this in turn will have a significant reduction on waste generation. Products aged 3 – 5 years accounted for 32% of products brought for repair and products 6 to 10 years old accounted for another 29% of the products brought in for repair.

4.1 **Zero Waste Town Pilot Project**

Reducing waste is a vital part of the waste management plan, as such a pilot project should be undertaken for a large town or city to be piloted as a zero waste town. Currently Cobh is undertaking such a project:

(https://cobhzerowaste.com/

A project such as this would involve a number of stakeholders; local businesses could be incentivised to adopt strategies that significantly reduce their waste. People could be encouraged to use their own containers for goods and foods. Public meetings, workshops and informational campaigns could be held to advise people on how to reduce waste in their homes and businesses. Using Cobh as an example, a list of participating businesses could be published online.

Engagement with schools would also be of major benefit to such a pilot. A large town or city to undertake such a pilot could then be used as a template to be rolled out to other towns across the country if successful.

Another town where this was done was Argentona in Catalonia in Spain which has a population of over 12,000 people.

> https://zerowastecities.eu/wpcontent/uploads/2019/07/zero waste europe cs2 argentona en.pdf

Since 2003, this system has effectively reduced residual waste by more than 50% and packaging waste by 21%. By using local waste management environmental jobs can also be created, further benefiting the local economy.



5. OUR OBSERVATIONS ON A GENERAL WASTE MANAGEMENT PLAN FOR IRELAND

The research question to be addressed in this paper concerns the ways in which Ireland could adopt the examples of Germany and Slovenia in terms of introducing green jobs to their markets by implementing sustainability policies. The analysis revolves around the goals set by the Paris Agreement on climate change.

Climate protection targets, environmental regulations and changes in consumer behaviour, such as excessive buying, have intensified the passage toward a greener and less carbon-oriented economy. The consumption change could be attributed to the fast fashion industry, and the convenience of quantity shopping nowadays.

The change to a greener, less high-carbon economy leads to a growing demand for green products, services and business processes. This trend should lead to a "greening" of jobs, such as an increasing share of environmentally friendly requirements within the "greening" of occupations, yet to a rising labour need for employees in such occupations, alternatively the "greening of employment".

Additionally, a factor which may contribute positively to the proper implementation of the green jobs goal is the measurement of the relation between the greening of occupations and employment growth. The structural changes in the economy shall impact the labour market as well. Both organisations and employees would have to adapt their practices and develop a new skillset in accordance with the urgent need for environmental protection, especially under the framework of the Paris Agreement standards. Products, services, and workplace activities in line with climate and environmental goals shall be taken into account.

Great examples of green jobs are recycling workers, solar panel installers, environmental consultants, or green building designers, which are essential aspects of sustainable development. These professions may help achieve climate change goals, protect the environment and increase human potential in the transition to a low-carbon society.

However, it is worth mentioning that due to a lack of measures, there is no empirical evidence of the relationship between the greening of jobs and the potential labour market development and competition. The greening of jobs and their associations should be in balance with employment and wage growth.

https://unfccc.int/process-and-meetings/the-paris-agreement



What is more, there have been traced three research objectives which can be concluded in the development of an indicator to measure the greening of occupations as a dynamic parameter in all the countries examined, the description of the occupational, sectoral and regional distribution of the greening of jobs and finally the examination of the relationship between the greening of occupations and labour market outcomes such as employment and wages, as mentioned further above. The core question lies in whether should the line be crossed between environmental and non-environmental firms, or between environmental and non-environmental employment.

Germany and Slovenia are two good examples of countries which have boosted the generation of green occupations, yet with a long way to go toward achieving the Paris Agreement standards. Nonetheless, it should be taken into account that is it necessary to apply statical parameters to green jobs.²

Regarding Germany, the number of employees working in environmental protection stood at 311,000, up by around 6,000 compared to 2021 (a 2% increase). Two-thirds of the green jobs are within the manufacturing industry.

Germany's push toward the expansion of its renewable power capacity is expected to offer great business opportunities for the companies involved in the coming years. However, concerns about growing costs and labour shortages exist.

On the same page, it is worth mentioning that less green jobs may include construction technicians and hotel managers and greener ones include foresters and waste sorters. So, the public call takes into consideration what is described as "shades of green", among other prerequisites. To be more specific, occupations with a large share of routine tasks show a higher risk of being replaced by computer algorithms and/or robots.³ This important trend also may interact with the greening trends both in Germany and Ireland green job adoption patterns.

The global push for sustainability results in a growing demand for so called "green jobs". No common definition and measurement concept exists to regulate green jobs.

According to the International System of Environmental-Economic Accounting, the environmental goods and services sector (EGSS) "... consists of a heterogeneous set of enterprises which produce environmental goods and

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https://ideas.repec.org/a/eee/respol/v45y2016i5p1046-1060.html

³ (Acemoglu/Restrepo 2017, Blien/Ludewig 2017, Dauth et al. 2017 and Dengler/Matthes 2018)



services. Historically, the production of environmental goods and services focused on the demand for basic services, such as wastewater treatment and the collection of solid waste. However, with the drive towards cleaner and more resource-efficient processes, products and materials, the activities of the sector have expanded to also include resource management activities".⁴

In regards to the "greening" of Slovenian occupations, the country to offered €1.5 million in subsidies to employers in sustainability sectors. The funding was provided by the Ministry of the Environment and Spatial Planning.⁵ It's worth noting that the country received the title of European Green Capital for 2016. The award is for the efforts and commitment of cities in the European Union to improve the urban environment, boosting awareness of the need for environmental change at the city level.⁶

Slovenia and its economic system are currently marked by relatively low competitiveness and low added value per employee, as well as by relatively low material productivity. Moreover, Slovenia is highly dependent on imports of raw materials and energy products, which exerts additional pressure given the trend of growing energy prices.⁷

A crucial point of emphasis in developing a green labour market is the switch from a linear to a circular economy. Slovenia benefits from its geographical position, since it lies at the crossroads of two international transport corridors; the port of Koper is an important national and international freight hub. The country's most important natural features are a high level of forest coverage, rich water resources and the integrity of watercourses.

Numerous examples of best practices in Slovenia have evolved through an appropriate combination of development and innovation. Companies and organisations have shown high awareness of the social and economic benefits of sustainable development.

Ireland may use this example and invest in activities to make the best use of its geographical position and remaining natural resources.

Rural tourism in combination with traditional relationships with nature has potential for sustainable development. Such services could be developed in

⁴ https://www.oecd.org/environment/waste/OECD-G20-Towards-a-more-Resource-Efficientand-Circular-Economy.pdf

https://balkangreenenergynews.com/slovenia-offers-eur-1-5-million-in-incentives-for-greenjobs/

⁶ https://www.eea.europa.eu/highlights/ljubljana-wins-european-green-capital-2016

https://projects2014-2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_1528789481.pdf



conjunction with a national renewable energy program, with the aim of giving all citizens the opportunity to live in wind and solar-power based housing. Underpinning that framework is the essential work of increasing energy efficiency in houses by replacing roofs, doors and windows, improving insulation, installing new boilers, and/or installing solar panels. Achieving energy independence for each household will be no easy task, though will likely by essential to a functioning circular economy.

Furthermore, manufacturing plays an important role in the circular economy. Although it accounts for only 10.8 per cent of total private employment, the manufacturing industry provides 20.4 per cent of green jobs. Furthermore, the expansion of green business through civil sector projects is crucial for the labour greening goal. Multi-purpose firms occupy their employees in the production of environmental goods and services but also perform work for non-environmental goods and services. The introduction of eco-friendly materials and specific policies and instructions to refrain from waste is crucial. Energy management within firms shall follow specific activities in terms of integrated environmental protection or application of clean technologies.

A theoretical thread though can be a task-based approach to employment polarization and technological change,⁹ for example, the rising employment in the highest and lowest-paid occupations due to the shift in labour demand towards nonroutine tasks. A combination of both environmental regulation by carbon taxes and temporary research subsidies may lead to climate protection and sustainable long-run growth.¹⁰

Discussion

Besides the formation of new occupations, the share of environmentally friendly requirements within occupations is supposed to increase the 'greening of occupations'. Energy switching, meaning from coal to gas is considered to be a pioneering way to achieve the PCA goals and contribute to the "greening" of the labour market. The taxation of all fossil fuels could mean that renewables will eventually become cheaper in comparison. New policies might be adopted in working spaces and new opportunities may rise following the switch. A method has to be established in order to measure the greenness of occupations and their relations with labour demand in Ireland and the countries whose examples should be taken into consideration.

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⁸ https://www.epi.org/publication/bp349-assessing-the-green-economy/

⁹ Autor et al. 2003, Autor 2013, Autor/Dorn 2013, Goos et al 2014, Autor 2015

¹⁰ Acemoglu et al. (2012, 2016)



Many firms, though, do not produce or deliver only environmental goods and services. They often follow a multi-purpose strategy: technical facilities like pump systems that can be applied both in biogas plants and in coal-fired power plants.

The objectives of the transition to a green economy are focused on raising the competitiveness of the economy, products, and services through added value, increasing energy self-sufficiency, efficient management of natural resources, providing a high-quality living and working environment, the development and marketing of local knowledge, and new green jobs.

Each country must find its own way and contribution, despite the political framework of the EU. Such a transition will be a long process requiring a long-term change in the administration, drafting and implementation of policies and in awareness-raising, education and training both in public administration and in companies, yet in the behaviour of each individual.

References

Acemoglu, D.; Autor, D. H. (2011): Skills, tasks and technologies: Implications for employment and earnings (Chapter 12). In: Ashenfelter, A.; Card D. (Eds.) Handbook of Labor Economics, 4B, 1043-1171. Acemoglu, D.; Aghion, P.; Bursztyn, L.; Hémous, D. (2012): The environment and directed technical change. In: American Economic Review, 102, 131—166.

Acemoglu, D.; Akcigit, U.; Hanley, D.; Kerr, W. (2016): Transition to clean technology. In: Journal of Political Economy, 124(1), 52-104.

Acemoglu, D.; Restrepo, P. (2017): Robots and Jobs: Evidence from US Labor Markets. NBER Working Paper 23285. Cambridge, MA: National Bureau of Economic Research.

https://balkangreenenergynews.com/slovenia-offers-eur-1-5-million-in-incentives-for-green-jobs/

https://balkangreenenergynews.com/?s=+green+jobs+SLovenia+

https://ec.europa.eu/eurostat/documents/3859598/7789413/KS-01-15-797-EN-N.pdf/9404d9b0-5c2d-48c8-b1e9-2632800162e7?t=1484558555000

https://seea.un.org/sites/seea.un.org/files/documents/EA/seea ea white cover final.pdf

Submission by Zero Waste Alliance Ireland to the Regional Waste Management Planning Offices on the draft Waste Management Plan for a Circular Economy

https://ideas.repec.org/a/eee/respol/v45y2016i5p1046-1060.html and (Peters 2014, Vona et al. 2015, Consoli et al. 2016)

https://www.oecd.org/environment/waste/OECD-G20-Towards-a-more-Resource-Efficient-and-Circular-Economy.pdf

https://www.reuters.com/business/energy/germanys-2022-renewable-power-production-rises-still-behind-2030-target-2022-12-11/

https://www.diw.de/documents/publikationen/73/diw 01.c.494383.de/diw datad oc 2015-076.pdf

https://balkangreenenergynews.com/slovenia-offers-eur-1-5-million-in-incentives-for-green-jobs/

https://www.eea.europa.eu/highlights/ljubljana-wins-european-green-capital-2016

https://projects2014-

<u>2020.interregeurope.eu/fileadmin/user_upload/tx_tevprojects/library/file_152878</u> <u>9481.pdf</u>

https://sustainableearthreviews.biomedcentral.com/articles/10.1186/s42055-020-00029-y

https://www.epi.org/publication/bp349-assessing-the-green-economy/



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Zero Waste Alliance Ireland

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05 July 2023

ZWAI-NWMPCE-03 Final Submission, 05-July-2023





PUBLIC NOTICE

Appendix I

WASTE MANAGEMENT ACT, 1996 AND WASTE MANAGEMENT (PLANNING) REGULATIONS, 1997

NOTICE OF INTENTION TO MAKE A NATIONAL WASTE MANAGEMENT PLAN FOR A CIRCULAR ECONOMY

In accordance with Section 23 (1) of the Waste Management Act, 1996 and the Waste Management (Planning) Regulations, 1997, notice is hereby given by the Local Authorities, as per the structures set out in the table below, of their proposal to collectively make a National Waste Management Plan for a Circular Economy.

In compliance with the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. 435 of 2004 as amended by S.I. No. 200 of 2011), a Strategic Environment Assessment is also being carried out on behalf of the Local Authorities. An Environmental Report has been prepared which assesses, at a strategic level, the likely significant environmental impacts of implementing the New National Waste Management Plan for a Circular Economy ("the Draft Plan").

An Appropriate Assessment under Article 6(3) of the Habitats Directive 92/43/EEC has also been undertaken to ascertain if the Draft Plan could significantly impact on any site designated for conservation as part of the Natura 2000 network and a Natura Impact Statement has also been prepared.

A copy of the Draft Plan and the associated Environmental Report and Natura Impact Statement can be downloaded from mywaste.ie.

A copy of the Draft Plan may also be inspected at the addresses given below during normal working hours and a copy can also be purchased at the same addresses for a fee of €75.

Written submissions / observations in relation to the Draft Plan and the associated Environmental Report and the Natura Impact Statement may be made online at mywaste.ie, by email to submissions@nationalwasteplan.ie or by post to the Lead Authorities, as outlined below and shall be taken into consideration before finalising the Plan. The latest date of receipt of representations is 4 p.m. on 5/7/2023.

Region	Lead Authority	Contact Address
Connacht-Ulster: Local Authorities Cavan, Donegal, Galway City, Galway County, Leitrim, Mayo, Monaghan, Roscommon, Sligo	Mayo County Council	Regional Waste Coordinator Connacht-Ulster Region Waste Management Office, Mayo County Council Aras An Chontae, Castlebar, County Mayo 094 9064000 Email: rwmo@mayococo.ie
Eastern-Midlands: Local Authorities Dublin City, DúnLaoghaire/Rathdown, Fingal, Kildare, Laois, Longford, Louth, Meath, Offaly, South Dublin, Wicklow, Westmeath	Dublin City Council	Regional Waste Coordinator Eastern-Midlands Region Waste Management Office, c/o Civic Offices, Wood Quay, Dublin 8 01 222 2023 Email: emwr@dublincity.ie
Southern: Local Authorities Carlow, Clare, Cork City, Cork County, Kerry, Kilkenny, Limerick, Tipperary, Waterford, Wexford	Limerick City & County Council Tipperary County Council (Joint Lead Authorities)	Regional Waste Coordinator Southern Region Waste Management Office, Limerick City & County Council, Lissanalta House, Dooradoyle, County Limerick. 061 596840 Email: info@srwmo.ie





Jack O'Sullivan <jackosullivan2006@gmail.com>

RE: ZWAI Submission

Samuel Awe <Samuel.Awe@rpsgroup.com>

6 July 2023 at 16:53

To: "jackosullivan2006@gmail.com" <jackosullivan2006@gmail.com>, "circulareconomy@decc.gov.ie" <circulareconomy@decc.gov.ie>

Dear Sir/Madam

This is a formal acknowledgement of receipt of your submission on the National Waste Management Plan for a Circular Economy. We thank you for your time in reading the draft Plan and making your submission. As the consultation period has now closed, we are compiled and reviewing all submissions to inform the update of the draft into the final National Waste Management Plan for a Circular Economy which will be published later this year.

Thanking you again for your time.

Samuel Awe

On behalf of the National Waste Management Plan for a Circular Economy team.

Samuel Awe (He/Him)

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