



**ZERO WASTE ALLIANCE IRELAND**  
*Towards Sustainable Resource Management*

---

**OBSERVATIONS ON THE PROPOSED INTRODUCTION  
OF A NEW WASTE ACTION PLAN FOR A CIRCULAR  
ECONOMY**

**Submission by Zero Waste Alliance Ireland to the  
Department of Communications, Climate Action  
and Environment in Response to the Public  
Consultation launched in December 2019**

**Túr na Gaoithe  
Philipstown HBX  
Castleblaney Road  
Dundalk  
County Louth**

**21 February 2020**

# ZERO WASTE ALLIANCE IRELAND

*Towards Sustainable Resource Management*

---

Túr na Gaoithe  
Philipstown HBX  
Castleblaney Road  
Dundalk  
County Louth

21 February 2020

Waste Action Plan Consultation,  
Waste Policy & Resource Efficiency,  
Department of Communications, Climate Action & Environment,  
Newtown Road,  
Wexford,  
Y35 AP90.

**BY EMAIL TO:**  
Wastecomments@DCCAE.gov.ie

Dear Sir / Madam,

**Observations on the Proposed Introduction of a New Waste Action Plan  
for a Circular Economy**

***Submission by Zero Waste Alliance Ireland to the Department of  
Communications, Climate Action and Environment***

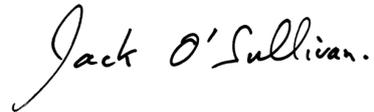
On behalf of Zero Waste Alliance Ireland (ZWAI), we attach our observations on a new Waste Action Plan for Ireland as part of the transition to a Circular Economy.

The submission provides a brief overview of our policy and objectives on a number of issues relevant to the development of a Waste Action Plan supporting the well-established strategy and policy of aiming for “Zero Waste”, supporting the “Circular Economy” while developing a more resource efficient economy.

In our observations ZWAI express hope that the new Waste Action Plan for a Circular Economy will develop economic instruments for the transition to a more circular economy, that resources will be kept in use for as long as possible, extracting the maximum value from them while in use, then recovering and regenerating products and materials at the end of each service life.

We hope that the attached submission will help the Department of Communications, Climate Action and Environment to turn and face towards a more ecological approach to circular economy.

Yours sincerely,

A handwritten signature in black ink that reads "Jack O'Sullivan." The signature is written in a cursive style with a large initial 'J' and a trailing flourish.

Jack O'Sullivan

**On behalf of Zero Waste Alliance Ireland.**

# ZERO WASTE ALLIANCE IRELAND

*Towards Sustainable Resource Management*

---

## **Submission to the Department of Communication, Climate Action and Environment on a Proposed New Waste Action Plan for a Circular Economy**

**21 February 2020**

### **1. INTRODUCTION**

On 30 December 2019, the Department of Communications, Climate Action and Environment issued a public consultation on a “*Waste Action Plan for a Circular Economy*”, with the intention of seeking views on the development of a new Waste Action Plan for Ireland as part of the transition to a Circular Economy.<sup>1</sup>

The consultation covers a wide range of waste-related issues, and is being carried out in parallel with a second public consultation on the “*Transposition of the Circular Economy Waste Legislative Package*”.<sup>2</sup>

An earlier public consultation, “*On the Proposed Introduction of New Environmental Levies*”, closed on 20 December 2019, and Zero Waste Alliance Ireland (ZWAI) responded to that consultation by providing a submission on current and proposed environmental levies.

These three public consultations reflect the Department’s and the Government’s increasing concern about Ireland’s poor record in the management and recycling of potentially valuable secondary raw materials which, instead of being re-used or recycled, are either exported or burned for heat recover in incineration plants and cement production plants.

The consultation document is correct in noting that “*The proper management of resources is crucial to securing a better, more sustainable Ireland for future generations and is central to the Climate Action Plan (CAP), as 60% of*

---

<sup>1</sup> Public Consultation -- Waste Action Plan for a Circular Economy. Department of Communications, Climate Action and Environment; November 2019.

<sup>2</sup> Public Consultation on the Transposition of the Circular Economy Waste Legislative Package. Department of Communications, Climate Action and Environment, December 2019.

*greenhouse gas emissions come from the use of materials*". ZWAI support the view (in the introduction to the public consultation document) that *"We need to radically change the way we think about waste at every level"* – except that we consider that discarded materials and objects need not become "waste" unless they are impossible to repair, re-use or recycle; or the materials are so mixed that separation becomes technically difficult or economic.

Designing materials and objects, segregation at source, defining what is "waste" and what is not "waste", and when "waste" becomes a useful secondary raw material (*end of waste*) are therefore key policy issues which must be addressed in any meaningful transition to a Circular Economy. Other basic principles which we believe are important are that discarded materials should be considered as a community resource, since they are the products of society as a whole; and that neither individual citizens nor small firms can eliminate waste and participate in the Circular Economy without a strong Government policy, containing an appropriate balance of incentives and penalties; and without radical changes being made by manufacturers, producers and distributors of materials and goods.

The European Union proposal for a Circular economy, and the more recent proposal for a Green New Deal (launched on 11 December 2019) are important steps towards the reduction and eventual elimination of "waste", but we also believe that they do not go far enough towards ensuring that society uses the Earth's raw materials sustainably and equitably, taking future generations and the Earth's finite carrying capacity into account.

**Zero Waste Alliance Ireland** is pleased to have the opportunity to respond to this public consultation, and we will comment on a significant number of the issues raised in the public consultation document on a *"Waste Action Plan for a Circular Economy"*, along with the broader issues mentioned above, in the context of the UN Sustainability Goals, the EU Circular Economy policy, and new obligations arising under the European New Green Deal.

## 2. ZERO WASTE ALLIANCE IRELAND (ZWAI)

At this point we consider that it is appropriate to mention the background to our submission, especially the policy and strategy of ZWAI.

### 2.1 Origin and Early Activities of ZWAI

Zero Waste Alliance Ireland (ZWAI) was established in May 1999 as an alliance of anti-landfill and anti-incineration groups, and subsequently developed into a national confederation of local residents' groups, supported by Ireland's principal environmental organisations, with the objectives of:

- 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;
- iii) lobbying Government and local authorities to implement environmentally sustainable waste management practices, including clean production, elimination of toxic substances from products, re-use, recycling, segregation of discarded materials at source, and other beneficial practices;
- iv) lobbying Government to follow the best international practice (for example, the policies and practices of countries, regions and cities which have adopted Zero Waste) and EU recommendations by introducing fiscal and economic measures designed to penalise the manufacturers of products which cannot be re-used, recycled or composted at the end of their useful lives, and to financially support companies making products which can be re-used, 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 materials by incineration and burning in cement manufacturing plants; and,
- vi) maintaining contact and exchanging information with similar national networks in other countries, and with international zero waste organisations.

**ZWAI** initially had nearly 50 affiliated organisations and groups throughout Ireland, including all the principal environmental NGOs (An Taisce, Voice, Friends of the Earth Ireland, Earthwatch Leitrim, Earthwatch Sligo, Friends of the Irish Environment, Cork Harbour for a Safe Environment (CHASE), Kinsale Environment Watch, the Irish Doctors Environmental Association (IDEA)), and more than 40 active local groups developing and implementing new ways to address Ireland's waste problems.

In Galway, the efforts of the **ZWAI** group “Galway for a Safe Environment” had a major impact on the waste management policy of the City Council, resulting in a pilot-scale recycling initiative which spread city-wide with significant benefits.

## 2.2 Our Basic Principles

One of the most basic principles which informs our policies and strategies is that 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*” and a truly “*Circular Economy*”, 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, and to the current climate and biodiversity crises.

“*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 being exposed to dioxins and other very toxic persistent organic pollutants (POPs). Relying on other countries’ infrastructure to achieve our “recycling” targets is not acceptable from a global ecological and societal perspective. Relying on the next generation to clean up and remove from the environment millions of tonnes of discarded materials, the production of which has contributed to global warming and the biodiversity and climate crises, is neither environmentally sustainable nor ethically acceptable.

## 2.3 What is Zero Waste Alliance Ireland Doing

Zero Waste Alliance Ireland has prepared previous policy documents on waste management, we continue to lobby Government on the issue of sustainable resource and materials management, and to express our concern at the failure to address Ireland’s “waste” problems at a fundamental level.

In recent years, as many older landfills were closed or became better managed (primarily as a consequence of the implementation of European Directives, Irish

legislation transposing these Directives, the development of a waste licensing regime by the Environmental Protection Agency, and the establishment of the Office of Environmental Enforcement in 2003), the number of affiliated groups concerned about the adverse environmental and public health effects of landfills decreased considerably in number. ZWAI therefore concentrated more on the objectives of ensuring that Ireland's government agencies, local authorities and other organisations will develop and implement environmentally sustainable resources and waste management policies, especially resource efficiency, waste reduction and elimination, the promotion of re-use, repair and recycling, and the development and implementation of the **Circular Economy**.

Zero Waste Alliance Ireland has made the following submissions in response to public consultations:

- a) in September 2011, to the Department of the Environment, Community and Local Government, on waste policy;
- b) in September 2012, to the Environmental Protection Agency, on the Agency's draft National Implementation Plan (NIP) for the Stockholm Convention;
- c) in December 2013, to Dublin City Council Regional Waste Coordinator in response to a notice of intention to commence preparation of regional waste management plans;
- d) in January and February 2014, to the Department of the Environment, Community and Local Government, on proposals for the regulation of household waste collection and for dealing with used or end-of-life tyres (unfortunately the valuable resources which could be obtained from the recycling of end-of-life tyres are being lost by burning the tyres in cement kilns and incinerators);
- e) in January 2015, to the Eastern & Midlands Regional Waste Coordinator, Dublin, on the Eastern and Midlands Draft Regional Waste Management Plan 2015 – 2021;
- f) in March 2015, to the Environmental Protection Agency in response to the Agency's public consultation on the National Inspection Plan 2015-2017 for Domestic Wastewater Treatment Systems;
- g) in April 2015, to Irish Water, on the Draft Water Services Strategic Plan;
- h) in February 2016, a submission proposing significant amendments to the Building Regulations;
- i) in March 2016, to An Bord Pleanála, observations on the planning application by Indaver Ireland Ltd for a proposed incinerator at Ringaskiddy, County Cork;
- j) during 2016, undertaking a research project on the Circular Economy;

- k) in October 2017, to An Bord Pleanála, observations in response to the planning application by Irish Cement Ltd for permission to burn or utilise a greatly increased annual tonnage of non-hazardous and hazardous wastes as alternative fuels and raw materials in the company's cement production plant at Platin, County Meath;
- l) In April 2018, to the Department of Planning, Housing and Local Government, giving our observations on the Department's draft Water Services Policy statement, in which we advocated the separation of nutrients such as N, P and K from wastewater, and proposed that wastewater treatment should have as one of its principal aims the recovery and recycling of water and nutrients;
- m) In March 2019, to the Environmental Protection Agency in response to the Agency's public consultation on the draft Code of Practice for Wastewater Treatment and Disposal Systems Serving Single Houses; and,
- n) in December 2019, to the Department of Planning, Housing and Local Government, in response to the Department's public consultation on new environmental levies.

In addition to our responses to these public consultations, members of ZWAI have given presentations on:

- i) *"How the European Union has addressed the problem of plastic waste"* (at a conference organised by the European Union Office to Hong Kong and Macao, and the Business Environment Council of Hong Kong, in March 2019);
- ii) *"Single-use plastic packaging by the food industry – drivers and solutions"* (at a conference organised by the Food Safety Authority of Ireland, Dublin, November 2019); and,
- iii) Annual presentations to the Sustainability Summit and the Construction Industry, Dublin, on waste-related issues, including the Circular Economy, the relationship between waste and climate change, and *"How the Construction Industry can Survive in a World of Zero Waste and Climate Change"*.

It will be clear that ZWAI is primarily concerned with the very serious issue of discarded 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 the many ways in which we abstract and use water as a resource, and to the equivalent volumes of wastewater produced as a consequence of these uses.

**ZWAI** is represented on the Government's Waste Forum, is a member of the Irish Environmental Network and the Environmental Pillar, and is funded by the Department of Communications, Climate Action and the Environment (and previously by the Department of the Environment, Community and Local Government) through the **Irish Environmental Network**. In 2019 ZWAI became a full member of the **European Environment Bureau** (EEB); and we intend to participate (as far as our resources will allow) in the development of European Union policy on waste and the Circular economy.

**ZWAI** continues to maintain working relationships with Zero Waste New Zealand Trust, with the Grass Roots Recycling Network in the United States, the Community Resources Network Scotland (CRNS), with the Global Anti-Incinerator Alliance (Global Alliance for Incinerator Alternatives -- GAIA), and other similar international environmental organisations.

Other ZWAI activities include an active web page (<http://zerowasteireland.com/>), a Twitter account (<https://twitter.com/zerowaster>) and a much-visited Facebook page (<https://www.facebook.com/ZeroWasteAllianceIreland/>), with the intention of raising public awareness of the Zero Waste approach, providing Zero Waste news and activities, and reaching out to supporters and members of the public.

ZWAI is involved in three pilot-scale projects: (i) conversion of discarded food items ("food waste") into a usable and safe compost for horticultural use; (ii) recycling of used metallised plastic film crisp packets (in association with Terracycle); and (iii) recovery of phosphorus from wastewater, and using it for plant growth.

### **3. ZERO WASTE AND THE CIRCULAR ECONOMY – THE CORE OF OUR SUBMISSION**

As the achievement of a truly circular economy is one of the primary goals of a Waste Action Plan for Ireland, it may appropriate to begin with discussion of both “Zero Waste” and the “Circular Economy” – what these terms mean, how they are linked, and what are the most appropriate steps towards achieving these goals.

Firstly, it is extraordinary that “Zero Waste” is not mentioned at all in the public consultation document Circular on a “*Waste Action Plan for a Circular Economy*”. The Circular Economy is the subject of some 40 or 50 references, including the relevant question of how respondents would like to see Ireland transition to a more resource efficient and circular economy by improving our waste management practices? Section 7 of the document addresses the question of what the Circular Economy means, with reference to activities and reports by the United Nations Environment Programme (UNEP), the Organisation for Economic Co-operation and Development (OECD) and the European Union (EU).

#### **3.1 What is Zero Waste**

As Zero Waste has been a primary goal of ZWAI, and is a fore-runner to the Circular Economy, we believe it is appropriate to begin by considering this approach and concept.

The goal of Zero Waste, which could also be described as environmentally sustainable materials management, requires as a basic principle, that 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. Our policies and our practices need to mirror this ecological reality.

The Zero Waste approach states that the only long-term sustainable solution is to completely eliminate the production of materials which cannot be re-used, recycled or naturally biodegraded. This will result not only in a saving of scarce resources, but will re-adjust our relationship to the earth’s material assets from a linear to a cyclical one, enhancing our ability to live comfortably while reducing environmental damage. We can go further, as suggested by Paul Hawken in *The Ecology of Commerce*, and “*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*”. That is entirely within our capacity at present; there are no technical barriers to achieving a “zero waste society”, only our habits, greed, economic structures, and narrow self-interest of the institutions to which we have given power.

This “zero waste” approach is realistic – as long ago as the year 2001, some 40% of the municipal authorities in New Zealand had adopted Zero Waste goals, and the country as a whole adopted Zero Waste as a national policy, aiming for the elimination of waste production by the year 2020. Other cities and towns which have adopted “zero waste” strategies include Canberra (Australia), Seattle (Washington State, USA), and a number of counties in the United States.

“Zero Waste” is a 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 dismantling, recycling, re-use and composting. Communities that have implemented Zero Waste strategies are aiming to switch from wasteful and damaging waste disposal methods to value-added resource recovery systems that will help build sustainable local economies.

**Zero Waste is therefore in complete opposition to landfilling and incineration, and is also contrary to the practice of exporting waste or other discarded or potentially recyclable materials to distant countries (usually in the Far East) for segregation, partial recycling and landfilling or burning under poorly managed conditions which result in detrimental impacts on workers’ health and the environment. It is our strongly held view that this practice should no longer be permitted, particularly as “waste” is frequently exported under cover of “traded recyclable materials”, and Ireland is a significant offender in this area.**

### **3.2 Some Practical Principles of Zero Waste**

- Waste is made by mixing a variety of discarded materials; therefore segregation at source is an essential pre-requisite to zero waste and sustainable waste management;
- Dealing with the wastes we produce does not require high-technology solutions;
- It is essential that waste is considered as a community resource, and not as a bulk commodity to be removed by disposal to landfill or by incineration;
- Communities should be encouraged to handle their discarded materials responsibly;
- Communities cannot resolve the waste problem alone and should not be forced to clean up after irresponsible industries;
- Communities faced with discarded materials and objects they cannot reuse, recycle or compost have to demand that industry stops producing

them; achieving a high level of repairing, re-using and recycling is not approachable without industry's help;

- Sustainable waste management or “Zero Waste” combines community practices such as reuse, repair, recycling, toxic removal and composting, with industrial practices such as eliminating toxics and re-designing packaging and products for the environmental and ecological demands of the twenty first century;
- Zero Waste or sustainable waste management brings together the need to develop sustainable communities and sustainable industry and business;
- Zero Waste or sustainable waste management combines ethical practice with a solid economic vision, both for local communities and for local and national businesses. On the one hand, it creates local jobs and small scale enterprises, which collect and process secondary materials into new products, and on the other hand, it offers major companies a way of increasing their efficiency, thereby reducing their demands on virgin materials as well as their waste disposal costs,
- Zero Waste or sustainable waste management also upholds the principles of Clean Production and Environmental Justice (the link with Clean Production comes from the fact that as long as discards are contaminated with toxic substances the tendency will be to try ‘to get rid of them’ rather than reuse them; while the link with Environmental Justice comes from the fact that as long as officials must look for places to get rid of the waste they will have to select sites for landfills or incinerators, and unfortunately all too often the sites selected for these undesirable activities are in the poorest and most disenfranchised communities).

### **3.3 Steps to Take At Local Community Level**

Our starting point is that waste is a productive resource, capable of generating new opportunities for local economic development, and that we are currently paying for the disposal to landfill of discarded materials which could be creating income and wealth through recycling, job creation, and saving on imports. This approach, we might add, was developed by and promoted by ZWAI as long ago as 2003 in our statement of waste policy, strategy and objectives – we may have been ahead of our time some 17 years ago, but it is our submission that this approach is currently a valuable and useful way of considering how we should deal with discarded materials.

Local communities (both rural and town or city based) should be encouraged to take responsibility for their own wastes, with emphasis on waste minimisation, re-use, repair, recycling, home and local composting; with financial and other supports and incentives from central Government, channelled through local authorities. Similar examples of community-based approaches in Ireland include

Group Water Schemes – autonomous and decentralised approaches to managing local needs. Significant funding will be required to develop similar operations for waste management, but this expenditure can be offset against savings from reduced future costs. A competent and professional approach, supported by adequate funding, will be essential to ensure the long term viability of these community schemes.

Traveller families have long been associated with certain forms of waste collection and recycling, but the number of persons engaged in this activity is unknown, and has almost completely disappeared in Ireland. In other countries, especially in Central and Southern Europe, it is generally agreed that this informal economic sector is marked by resourcefulness and imagination, and by a low level of awareness of the dangers associated with handling wastes. For these reasons we do not advocate this type of activity.

Locally based recycling and repairing enterprises will generate employment and economic benefits, but the location of these facilities should be carefully chosen to comply with planning and development guidelines. In our experience, a number of small independent businesses which are taking discarded materials for collection and sorting are poorly located and irresponsibly managed, causing local nuisance and resistance to further necessary facilities. A minority of such businesses have gone even further along the line of irresponsibility, and have been involved in the illegal dumping of wastes, as shown in a recent RTÉ Investigates documentary.<sup>3</sup> As long as “waste management” is seen as an activity with the potential to generate a significant cash income, it will be an attractive business for certain types of operator, not all of whom are ethically motivated. It would be preferable if locally based re-use, repair and recycling initiatives were undertaken by communities, perhaps as not-for-profit companies, and linked to a wider network of recycling organisations.

The implementation of local community and neighbourhood schemes for the management and utilisation of discarded materials demands an approach quite different from the privately operated “business” of waste collection and disposal – the current model prevalent in Ireland.

**Managing our discarded materials and goods must not be viewed as a problem, or as a means of private gain or profit, but as a comprehensive and integrated method for more effectively using valued community resources of skills and materials, encouraging people to assimilate and modify technologies to suit their own needs, improving rural health and quality of life, keeping wealth within the community, increasing productivity by re-using and recycling objects and materials, and saving energy.**

---

<sup>3</sup> We therefore welcome the information in section 16.3, page 55, of the public consultation document that in 2020, the EPA will prepare a report on crime in the waste sector in Ireland.

The principal criticisms levelled at community-based materials management networks are that they are unviable in the face of globalisation; their small-scale activities are no match for the power of mechanisation, economies of scale and international operations of global corporations; and that a sufficient degree of long-term commitment cannot be found in local communities to maintain such schemes.

These criticisms miss the point that local recycling and other forms of community waste management operate more effectively and at a lower cost than larger enterprises in the small-scale and diverse environment of individual households, neighbourhoods and small commercial firms. Large companies operating in the “waste management” field are at an advantage only when waste is not considered as a community resource, but as a bulk commodity to be removed by disposal to landfill or by incineration.

In order to create such a system of small community based enterprises, it is essential to have:

- Guidance and leadership from local authorities and Government;
- Investment by government in waste and recycling ambassadors to reach into communities, schools and businesses to increase public awareness and encourage positive action;
- Financial assistance (from the Environment Fund and from other national sources) for suitable small-scale and local enterprises;
- Removal of liability issues and the need for expensive insurance which is a significant barrier to waste prevention initiatives community based enterprises, whereby Repair Cafes and Reuse initiatives are hampered by the perceived risk associated with the reuse of an item which has been repaired, exchanged or re-furnished; and
- Recognition by the proposed Advisory Group on a Waste Action Plan for a Circular Economy that community based schemes have an important role to play (we strongly suggest that at least one community representative should be appointed to the Advisory Group).

### 3.4 Waste Prevention

While Zero Waste Alliance Ireland is happy to acknowledge that many of the waste prevention initiatives operated or funded by the EPA or by local authorities are very effective (including, for example, Stop Food Waste, Free Trade Ireland, Reuse Month and Community Reuse Network Ireland (CRNI)), it is our submission that they are significantly under-funded and under-utilised.

The Conscious Cup Campaign, funded by the Waste Regions, has been quite effective in informing people that disposable cups are not recyclable and difficult to manage and that the reuse opportunity is easy to adopt. Unfortunately, it appears that many of the government-supported initiatives that actively achieved waste prevention have been discontinued, such as Green Business, Green Healthcare and SMILE. These programmes were effective in reaching individuals and companies to encourage behavioural change.

Many waste prevention programmes supported by local authorities are undertaken at a community level with very small financial support, and within a short time-frame. While these types of projects may be valuable to illustrate what works and what doesn't and what is effective, they are discontinued when the funds are exhausted, and there is no mechanism to utilise and build on the expertise and experience gained through these pilot-scale projects, so as to share and develop similar initiatives in other communities.

As we pointed out in section 3.3 above, local waste prevention initiatives require:

- a national programme; and,
- guidance and leadership from local authorities and Government.

We can point out the one of the positive developments which we have seen is a huge shift in the individual behaviour of people seeking zero waste solutions. For example, the **Zero Waste Alliance Ireland** Facebook page has nearly 15,000 members, packaging-free and refillable shops are popping up throughout the country, new businesses have been established that upcycle and revamp old items, shoppers are now buying second-hand clothes and other items; while communities that have gone plastic-free are now investigating how to move towards zero waste. However, there is very little Government or institutional support for their actions; and apart from **Zero Waste Alliance Ireland**, **Community Reuse Network Ireland**, the **Re-Discovery Centre** in Ballymun and **VOICE**, there are almost no organisations which can provide guidance on how people can start their journey to zero waste.

It is our submission that it is vitally important that the government must adopt strong policies to advance waste prevention actions, but it is equally important to financially support the work of communities and individuals to make choices that support sustainable consumption. The priorities are clear under SDG 12, Responsible Consumption and Production.

For example, Scotland and Wales have Zero Waste offices to promote zero waste and the circular economy. The success of Zero Waste Scotland to sustain multi-annual projects, offer support, advice and certification/training is a testament to the structure adopted, that of a not-for-profit limited-by-guarantee company. The longevity and sustainability of such a structure is a stark contrast to the poorly funded and ad hoc temporary projects undertaken in Ireland – and is also in stark contrast to the way in which Irish Governments have handed control of all our discarded materials to the “waste industry”, with the result that the State has lost control over waste, as pointed out in the recent report by the Competition and Consumer Protection Commission.

A brief summary of Zero Waste Scotland (ZWS) will serve to show what can be achieved in Ireland if we adopt a similar long term support structure:

- Using evidence and insight, the ZWS goal is to inform policy, and motivate individuals and businesses to embrace the environmental, economic, and social benefits of a circular economy.
- It is a not-for-profit environmental organisation, a company limited by guarantee, funded by the Scottish Government and the European Regional Development Fund.(ERDF)
- Since the formation of the company in 2014, it has seen Scotland recognised internationally as one of the leading nations driving a circular economy.
- Some key achievements include:
  - ✓ Transforming attitudes to food waste; ZWS has helped to reduce household food waste by 7% between 2011 and 2015 and has supported local councils, which now provide food waste recycling services for 80% of Scottish households.
  - ✓ Supporting the implementation of the 5p carrier bag charge which saw distribution of single-use bags fall by 80% in the first full year since it came into effect.
  - ✓ Implementing lifetime cost savings of more than £200 million, by avoiding more than 1 million tonnes of carbon emissions between 2013-2017
  - ✓ Creating the Revolve quality standard, in partnership with the reuse sector. In August 2017 , reached the milestone of 150 Revolve stores certified through the programme – a number which continues to rise.
  - ✓ Delivering the Circular Economy Investment Fund and supporting the Low Carbon Infrastructure Transition Programme, both backed by European investment, to develop game-changing innovation and infrastructure for a more resource efficient, circular economy.

- ✓ Working with government and other agencies to jointly win the World Economic Forum: Circulars Award 2017 for Cities and Governments and hosting a major international Circular Economy Hotspot in 2018.

It is our submission that a similar organization, if created and funded in Ireland, would serve as a major catalyst to offer continuity of supports, funding opportunities and a one stop shop location for both communities and industry. It would educate, lead, shift our behaviour and expectation towards a genuine Circular Economy in Ireland.

### **3.5 Financial Supports and Incentives for Waste Prevention**

It is our submission that consumers and businesses should be incentivised to shift a more sustainable consumption pattern by means of balanced financial supports, encouragement and penalties, coupled with strong enforcement

Shops, supermarkets and restaurants/cafes must make it easy and economically beneficial for consumers to make the sustainable choice. Producers must place items that are package-free or with packaging that is easily recyclable or compostable with easy to understand end of life instructions. Products themselves must be easily repairable with open-source repair instructions and once the product has reached the end of its life, it must be easily recyclable or compostable. Eco-design criteria for many high-tech items have been established in the EU and standards, including eco-labelling, and this criteria must be adopted for popular items bought by consumers.

In addition, the following actions and facilities should be widely available in all supermarkets, shops and cafes – it is inadequate that while they may be available in a few outlets in Ireland, individuals have to make very serious efforts to shop sustainably. Our suggestions include:

- Remove liability issues from re-using food containers;
- Currently, some supermarkets and food outlets will not allow shoppers to bring their own containers to buy meat, fish, cheese, deli-meats and salads as well as drinks; while other countries including France and Italy, have adopted legislation outlining this right to re-use;
- Encourage supermarkets and shops to offer bulk buying of goods and cleaning products with refillable containers; for example, Italy has created a fund to support shops that offer refill options of up to €5,000 per shop, to install refill infrastructure; and France also calls for a National target of 5% refillables packaging by 2023 and 10% refillables packaging by 2027;
- Address the liability concern around repair and reuse, as we have pointed out above; currently, there are many community groups that wish to run Repair Cafes, but are barred from doing so because they cannot get

insurance, or the cost of insurance is too high; and this is a clear example of the very profitable insurance industry holding communities to ransom, while moving their privately gained profits out of Ireland to parent companies in other countries;

- It is our submission that there should be a right to repair, with the owner of the repaired item taking responsibility for the repaired item, relieving the repairer free from liability, when the item is repaired for free in a community initiative. This should not apply for commercial repair work;
- Additionally, remove liability for food donation to organisations such as FoodCloud to encourage supermarkets and other food shops to donate excess food. Such liability should be limited to areas where the donor is 'grossly negligent';
- Reduce the cost of an item when an individual brings their own container, as is the case with the Conscious Cup Campaign where participating cafes offer some form of discount to those patrons who bring their own cup;
- As advocated by ZWAI more than a decade ago, the VAT rate should be reduced to 0% for reuse or repair actions to bolster this service-based business, which supports the goal of moving towards a circular economy.
- Charge shoppers for containers they use when buying products, where the loose, unpackaged item is available, i.e., for fruit and veg, dry goods and cleaning products.
- Increase the plastic bag tax and expand the tax to include all single-use plastic, compostable and paper bags, including bags used for bread, fruit and veg, and meat.
- If customers don't bring their own packaging, they have the option to purchase a recyclable or compostable container or rent one through a deposit/refund scheme.
  - For example, if a person wanted to buy a coffee, they could have the following options:
    - bring their own cup;
    - if they forgot their cup, they could use one of the cafe's ceramic cups and consume on-premises or rent one through one of the burgeoning cup rental schemes such as RíCup or 2GoCup;
    - Purchase a compostable take-away cup for €0.50 or €1, whatever levy the government determines is the appropriate level;
- Reintroduce 'pay by weight' waste regime to both households and commercial enterprises to encourage the proper segregation of waste;
- Mandate that waste companies enforce proper segregation similar to actions taken by Panda which refuses to take contaminated bins and takes photos and issues warnings to households not separating properly;

- Require the full implementation of the household food waste regulations 2012 to install organic bins to all households;
- Mandate that all commercial premises, including apartment buildings, install a three bin system;
- Enforcement of these initiatives must be fully funded and resourced;
- Increase significantly the fees that producers pay for placing unsustainable packaging onto the market through effective eco-modulation;

### **3.6 Segregation at Source**

In section 3.2 above, we proposed that segregation at source is an essential pre-requisite to zero waste and sustainable waste management. The problem is how to achieve this, in the context of a modern society. Waste companies still indicate that there is huge contamination of the recycling and organic bins.

Most households have a three bin system, but confusion as to what goes into the bin and how it goes in is still rampant. MyWaste.ie has been a good source of information for those individuals seeking clarification. However, despite investment in advertisements, posters and social and traditional media, knowledge of the recycling list and how to manage household and commercial bins is still not as high as we would like.

Waste companies also need to help with public awareness and use their existing communications with their customers to push how to separate their recyclables/organics. Many people now use more visual content for their information such as videos and vlogs. We reviewed several waste companies' websites, and none of them had good videos on how to recycle. An easy way to reach customers is by featuring a 'how to' video on their websites such as the one done by the Irish Times.

In other countries, pay-by-weight has shown to be very effective in increasing the recycling and organic collection rate and decreasing the material thrown in the residual bin. For example, the city of Parma, Italy was able to increase separate collection of waste, reduce residual waste per capita, and increase the effective recovery rate whilst simultaneously reducing the average household waste bill.

But it is our submission that Ireland should go further than the current 3-bin system, and that households and businesses should be encouraged and incentivised to segregate discarded materials into, e.g., paper and cardboard, plastics, tins and metal, objects, glass, etc.

Most importantly, Ireland should implement the Packaging Waste Directive by insisting that all larger shops and supermarkets should have a facility within the shop where customers can deposit excess packaging waste before leaving the shop; and can also deposit packaging waste when returning to the store on the next shopping trip. In such a system, common in some other EU member states,

discarded packaging is deposited under the watchful eye of other shoppers, and any customer who throws into the “recycling basket” a dirty or incorrect item can be quickly given a gentle reprimand. In this way, failure to segregate properly sorted and clean discarded packaging can become as socially unacceptable as littering with cigarette butts (or, in an earlier era, which a few of us can remember, when buses had warning notices advising passengers that “spitting was prohibited” !). In a similar manner, public attitudes can be made to change; but as long as people can place into a “waste bin” materials which then mixed with other householders’ wastes in a compaction vehicle before being delivered to a so-called “recycling facility”, nothing will change.

### **3.7 Civic Amenity Sites**

The role of a Civic Amenity Site could be multi-purpose, depending on the available space for the necessary activities. At a minimum, Civic Amenity Sites should take all recyclables, which many of them already do. These materials include plastics, WEEE, used paint, chemicals, textiles (those that are dirty/torn and unable to be reused), organic waste, bulky items and furniture.

We also suggest that these sites should take residual waste as well to prevent fly-tipping/littering; and if a household cannot have collection of discarded stuff, or if collection is too expensive, they should be easily able to bring their waste to a Civic Amenity Site for disposal. In most cases, the fees charged by Civic Amenity Sites to take such materials are sufficiently low to encourage householders, especially those living in rural areas, to use the CA site instead of paying for bin collection, even if driving to the nearest CA site incurs a cost.

The household to which the writer of this section belongs is a rural household, and the person responsible for disposal of unwanted materials, e.g., waste, finds it more convenient and less costly to drive 25 km to the nearest CA site, rather than pay for household bin collection.

It is also our submission, based on what we have observed in other EU member states, that CA Sites are ideally placed to provide re-use opportunities, especially if people are bringing their broken furniture, old items, timber, slates, small amounts of concrete blocks or brick, etc. The writer of this submission has inspected CA sites in Belgium and another EU member state where the number of people bringing discarded materials and items to a Civic Amenity site operated by a local authority was nearly equalled by the number of people examining and what had been deposited, and taking some of it away to re-use. We have never seen this activity in Ireland – instead, all of the materials and objects deposited in the CA site are taken by a private waste contractor to a sorting facility, from where some of the “waste” may be taken for recycling, may be exported, or more likely will end in a landfill, incinerator or cement production plant in the form of Solid Recovered Fuel (SRF) or similar material.

There is no reason why genuine re-cyclers or up-cyclers could not use these discarded items as raw material for their new products. However, a storage area should be provided for this and a covered workplace would be practical to encourage the work to be done on-site and visible to people bringing their old things.

Sweden has been one of the leaders encouraging upcycling and providing venues for such actions. For instance, Alelyckan Re-use Park, Sweden offers people the option of donating items that may have another life, either through sale at a thrift shop or repaired or upcycled. Sweden also has a Recycling Mall, where everything sold in the shopping centre is either second-hand, repaired, upcycled or organic/local. This is a larger version of the Rediscovery Centre and offers a large space where artisans can upcycle and repair items.

If room is made for such upcycling and repair activities, this could be a place for repair classes, swaps or other reuse activities. VOICE, along with other organisations, ran a Library of Things at the Dublin Food CoOp in 2017 during Reuse Month. It was well received and this type of initiative could be expanded upon and permanently located on a CA Site as well.

### **3.8 The Specific Problem of Waste Management in Apartment Blocks**

The most problematic area for separate collection of recyclables and food waste is in apartment, flat and multi-family dwellings. In most apartment complexes, residents do not pay for the waste and it is unfortunately believed in Ireland that there is no way to enforce rules to control usage of the facilities. Communal waste facilities offer the potential for greater efficiency in collection, but unmanaged apartment bin storage areas endure what is known as the Tragedy of the Commons, where individuals act contrary to the common good and spoil the resource through their actions.

Currently, residents in most apartment buildings in Ireland do not have access to proper recycling and food waste collection facilities and hence all this waste currently goes into the single residual bin. Additionally, according to the waste industry, buildings that do have separate waste collection bins, the contamination levels are very high, making the recycling material less attractive in the recycling loop.

Nine percent of the country's population or 414,000 individuals currently live in apartments or converted houses, (CSO 2016 Census), which is double the amount in the 2011 Census (4% or 188,000 people).

In 2015, Ireland generated 1 million tonnes of food waste and 983,300 Tonnes of packaging waste, averaging 80 kg of food waste and 213 kg packaging waste

per person. This amounts to 77,500 tonnes of packaging waste generated by apartment dwellers, which is potentially recyclable and over 29,000 tonnes of food waste annually

To date, very little has been done in Ireland to tackle effective waste separation systems in a multi-family living environment; and this is in contrast to what is being done in some other EU member states, where apartment-living has a much longer history. Countries such as Estonia, Lithuania and Slovenia have for many years used a system of waste collection where apartment dwellers can get help to segregate discarded materials, and bring them to a central site within the block or complex. Obviously, in such a situation, any dirty, soiled or inappropriately segregated objects would be seen as “un-neighbourly” !

In 2014, VOICE coordinated with Dun Laoghaire Rathdown County Council (DLR) in its Beacon South Quarter apartment food waste collection pilot programme to tackle behavioural change, but the Council discovered that it was difficult to engage directly with residents, and found lacklustre support from the management association and waste collection company.

DLR convinced the waste management company to provide aerated food bins and the management company provided free biobags to residents. Signage around the bins was improved and with this three-month, limited access pilot, this pilot-scale scheme was able to achieve 25% diversion of food waste from the residual bin with relatively little contamination. We do not have information of whether the separation of food waste in the Beacon South Quarter is continuing.

Under the Building Energy Rating (BER) system, any house going up for sale must have a BER rating. Most home owners would like to have a high BER rating to encourage buyers to agree to a higher price. There are many businesses and individuals that are trained to conduct the BER inspection to issue the certificate, which is paid for by the homeowner. Similarly, the government could set out mandatory waste segregation criteria for different bands of certification and a pool of independent inspectors could go out to each business to evaluate their bin system, hold workshops with employees and issue a rating certificate. These waste inspectors would be trained and the companies would pay directly for their services. This system would also be mandatory for apartment buildings.

### **3.9 Commercial Waste and Small Businesses**

It is our submission that the adoption of a Deposit Refund Scheme (DRS) for drinks containers would encourage businesses to collect and recycle more of their aluminium cans, plastic and glass drinks bottles. Such DRSs have been functioning very well in Norway, Sweden, Austria, Estonia, Lithuania. Slovenia

and other countries (in some of them for nearly two decades); and we cannot understand the delay in adopting these schemes in Ireland.

The government could incentivise the installation of a 3-bin or a 4-bin or 5-bin system through tax credits or grants, as long as the quality of the collected recycling and organic waste is certified to be free of contamination.

This would be a good way to encourage the proper management of waste in a corporate setting and allow companies the 'bragging rights' of being platinum, gold, silver or bronze waste-free companies. There should also be a certification for those businesses that have adopted in-house initiatives to reduce their residual waste.

Additionally, like Health and Safety requirements and enforcement actions, businesses must prove that they have a multi-bin system and invest in proper training and attendance of their staff in how to manage their waste streams (including WEEE, textile and other waste streams). They can then post on their websites and walls that their waste management and training certification is up to date.

Currently, many commercial premises have 1, 2 or 3 waste streams, but pay their waste management companies per lift rather than by weight. There is no incentive for them to properly segregate their waste under this payment arrangement or to reduce their residual waste. However, there are waste contractors that offer a pay by weight option and this should become mandatory and rolled out to all commercial premises, including apartments.

Under a curious anomaly, specific to Ireland as far as we know, apartments are considered commercial entities rather than households and as such do not fall under the Household Food Regulations 2015; and management companies and waste companies do not have to provide an organic waste collection service. This should be addressed and the government should mandate that all commercial premises (including apartment buildings) have a multi-bin system and be charged on a pay-by-weight basis.

### **3.10 Food Waste**

Approximately 30% of Ireland's food waste comes from farms, 30% from retail outlets, and 30% from households. Stop Food Waste has outlined the causes for each segment, including from retail: kitchen waste, portions too big, plate waste, lack of measurement and from household: lack of planning, bad storage, buying too much, underuse of leftovers.

Another major cause of food waste is the supermarkets' overuse of pre-packaged food items and multi-buy 'buy one get one free' options. Consumers are forced to buy more food than they need, seduced by a lower price, bagged items such as

a bag of carrots where they calculate that it is less expensive for them to buy more and throw away unused items rather than buying what they need for a higher price per kilo. Lack of education and awareness of the personal cost implications of food waste, and the environmental effects of food waste, are also contributors to the high amount of food waste. Also, more people are strapped for time and find that the quickest way to feed their family is through convenience pre-prepared food. Cooking and home economics skills are wanting as well.

Ireland produces many high quality food items which should be promoted and marketed for home consumption. The best way to reduce the carbon footprint of food production is to shorten the supply chain and support community supported agriculture schemes and 'buy Irish' products. In a paper presented to a conference organised in 2019 by the Food Safety Authority of Ireland (see section 2.3 above), our ZWAI speaker pointed out that that food grown locally, sold locally and eaten locally needs much less packaging (especially plastic packaging, which was the topic of the conference paper) than food brought to Ireland from distant countries.

ZWAI is also trialling a project which will help the generators of food waste, e.g., hotels, restaurants, hospitals, canteens, etc., to convert discarded food into a usable and safe compost.

FoodCloud has become Ireland's biggest food redistributor to charities, however, they could take in more food if supermarkets and food companies were relieved from potential liability, which can be done through legislation, see Good Samaritan Food Donation Act referred to above. Additionally, legislation could be adopted to mandate that all food businesses donate surplus food instead of disposing of it, such as was done in France.

### **3.11 Plastic and Packaging Waste**

Awareness around the environmental impacts of plastic packaging waste is huge, and consumers are angry with the amount of products wrapped in plastic, as illustrated in the number of people partaking in the Sick of Plastic 'Shop and Drop' days of action and communities that are trying to go 'plastic free'. Currently, there are 69 'Sick of Plastic' groups around Ireland and many 'plastic-free' communities and schools trying to go plastic free. Under ChangeX.org, there are 154 Plastic free Schools and 61 Last Plastic Straw groups throughout the country. Recently, Dun Laoghaire County Council passed its draft by-laws to ban single-use plastic, which exceeds all restrictions under the EU Single-Use Plastic Directive.

We believe that there are several ways to make it easy for the consumer to make the right choice:

1. Make buying in bulk mainstream and encourage supermarkets/shops to install refill options for dry goods, spices, nuts and cleaning products through incentives (like the €5,000 grant in Italy). Ensure that buying in refillable containers is less expensive.
2. Mandate that supermarkets offer unpackaged fruit and veg at the same or discounted price to pre-packaged items so that customers pay for the convenience of buying products wrapped in plastic.
3. Charge plastic levies at the till, similar to the plastic bag levy and expand this levy to all single-use bags and to-go plastic packaging, including disposable coffee cups and plastic clamshells. Create a consumer awareness campaign to go along with this approach to explain why the government is doing this, where the money goes and options on how people can avoid these levies (ie, using a reusable bag, container, etc.)
4. Address the liability concerns and pass legislation allowing the 'right to reuse' to reduce the amount of plastic packaging used and encourage consumers to bring their own containers.
5. Encourage refill options both at home and in shops.
6. Create a label to be affixed to all packaging stating in which bin the packaging goes.
7. Ensure that all plastic packaging is easily recyclable and increase face to face engagement with consumers on how to recycle correctly (clean, dry and loose) and easy ways to avoid plastic packaging.
8. Mandate that all retailers have signage and messaging to their consumers that loose is best and how to manage their plastic packaging at home and on the go.
9. When individuals are consuming food on-site, mandate that all food vendors offer reusable cups, plates, cutlery for in-house consumption. If the customer is taking the food/drink off-site, the first question from the business employee should be 'do you have your own packaging and can I fill it for you?' If the customer wants disposable packaging, they should pay for it or participate in a deposit/refund scheme and rent the container.
10. Legislate against 'greenwashing' and deceptive messages put out by companies/producers. For example, both in Ireland<sup>18</sup> and in other EU States<sup>19</sup>, some producers are now labelling their existing single-use plastic cups, plates and cutlery as reusable, urging consumers to wash them to use again. This deceptive practice must be stopped in its tracks
11. Retailers and Manufacturers who ship their products to customers (individuals or businesses), including retailers from other countries

(including Amazon), must make significant efforts to reduce their single-use packaging and pay for the introduction of such secondary packaging onto the marketplace.

12. Manufacturers must first look at methods to provide their products without packaging, including secondary and tertiary packaging and plastic wrap, and then ensure that their products and packaging are easily recyclable/compostable and label their packaging with how to manage their packaging and products at the end of life.

### **3.12 Single Use Plastics**

The Single Use Plastic Directive (SUPD) banned ten single-use items that had a significant environmental impact and where there were readily available alternatives. While we feel that a significantly high latte levy would impact consumers and nudge them to use reusable cups, a complete ban on single-use cups would also have an immediate effect and is allowable under the SUPD where the establishment of market restrictions (completely or for certain applications only) are allowed on food containers and cups. We would completely support the ban on non-reusable cups as reusable ones are readily available. This ban should also apply to cold drinks that are sold in shops, theatres and other venues and cups that are sold in bulk either through wholesale or retail environments.

The 'right to reuse' should also be enshrined in Irish law, allowing consumers to bring their own containers, at their own risk, when buying products, and any liability on producers/retailers should be limited to grossly negligent behaviour, which must be proven by the person who brought their own container.

Retailers (restaurants, shops, cafes, etc) should offer reusable items before placing anything in a disposable container and all food consumed on-site should be placed in a reusable container, using reusable cutlery. Compostable alternatives should only be offered for takeaway food/drink where it is difficult to adopt a reusable container, but a levy should be imposed on such items. Additionally, if compostable packaging/cutlery is on offer, there must be a compost bin collection on-site and adequate signage informing customers to place these items and left-over food in organic bins.

As mentioned previously, consumers should focus on buying the products, not the packaging, and if they want the single-use packaging, they must pay a price for this container. This could be done through a levy, where the product is pre-packaged or purchase arrangement where customers pay extra for a container when the food is ordered and placed into the container. Street organic bins should be in place to collect compostable packaging and food. As with all new

initiatives, there needs to be an orderly rollout with an effective and impactful public awareness campaign.

Additionally, customers should be offered the opportunity to 'rent' a container through a deposit refund scheme. A reusable to go food container pilot is now underway at University College Cork. There are other initiatives in the Netherlands and Switzerland adopting this approach and the environmental group, Recycling Netwerk in the Netherlands is working with Deliveroo in Hasselt, called "Deliveround", to pilot reusable containers that will be delivered and old containers collected in reverse logistics.

Lastly, individuals, businesses or community groups that purchase disposable cups, plates and cutlery for personal, social or business use should also be subject to the levy when they buy these products in bulk. This levy should be placed on prepacked items for non-retail use as well.

Currently, the Conscious Cup Campaign encourages individuals to use their reusable cups whenever they purchase beverages in cafes and shops and they have mapped cafes that offer some form of economic incentive, whether it is a discount, double loyalty points or a donation to a charity. To date, there are over 2,000 listed participating shops and cafes; this does not include many entities that offer discounts and are not mapped. If a levy is adopted, then a mandated discount is not needed.

There are a few shops in the Dublin area that offer a discount to customers for bringing their own containers for foodstuff. Marks and Spencers in Britain offer a discount to customers who purchase takeaway meals in their own reusable containers.

However, it has been confirmed through a study done by Cardiff University for Bewleys, that an incentive alone is not as effective as it is in conjunction with a levy. It states that their "...field experiment explored how the use of reusable coffee cups could be encouraged by easily implementable measures. It found that through clear messaging, the provision of reusable alternatives, and financial incentives, the use of reusable coffee cups can be increased by (on average) 2.3 to 12.5%.

Another example to follow is a local law in Berkeley, California, which was passed last year to encourage the use of reusable items in the following ways:

- mandates only reusable food-ware be used by restaurants for on-site dining (imagine McDonalds and Starbucks won't be able to serve in disposables on-site);
- charges \$0.25 for take-out disposable cups;

- accessory foodware items for take-out (straws, lids, stirrers, utensils) only available on request;
- mandates all take-out single-use foodware must be compostable in the City's waste system (they already banned polystyrene in 1989!);
- establishes grant funding and technical assistance to help businesses convert to reusable foodware;

As a result, two other cities in California enacted similar ordinances: Watsonville and San Anselmo; and there is a similar but stronger measure under consideration in San Francisco which (if enacted) will:

- mandate only reusable foodware be used by restaurants for on-site dining (imagine McDonalds and Starbucks won't be able to serve in disposables on-site);
- charges \$0.25 for take-out disposable cups AND food containers;
- mandates all take-out single-use foodware must be compostable in the City's waste system;
- says that online food ordering is subject to the mandatory cup and container charges, AND requires that customers can only be given accessory foodware items (straws, lids, stirrers, condiment packages, napkins, utensils, etc) only provided if the customer requests them- there has to be an "opt-in" place to click on the app or website;
- Mandates that food vendors also provide a reusable option at no charge to the customer for take-out cups and containers. This supports 'producer responsibility' as customers shouldn't always have to carry reusable food containers and cups with them- they should be available free of charge when customers make their take-out order. A deposit can be charged to ensure that the customer returns the cup or container.

In addition to single use plastic products used in the food industry, including sale and consumption of take-away foods, ZWAI believes that single-use menstrual products, nappies and wet wipes create serious environmental, economic and social impacts throughout their lifecycle, from the production phase to the end-of-life.

There is a growing awareness about the negative consequences of the current production and consumption model of single-use plastics, but so far, the environmental and economic impacts caused by single-use menstrual products, nappies and wet wipes have not been put on the table. Within the current EU legal framework, there is no specific regulation addressing the waste management (collection, treatment and final disposal) of these products and no

legal measure exists to support effective circular systems – such as reusable models and closed-loop recycling processes. To achieve the EU Circular Economy objective, a legal framework for these products needs to be created to assure that only safe, circular and sustainable products are placed on the market, while at the same time allowing single-use products to be effectively collected and recycled.

Current waste generation of single-use menstrual products, baby nappies and wet wipes accounted for approximately 7,832,000 tonnes within the EU-28 in 2017 alone. This is a huge amount of unwanted and potentially hazardous material which is currently not separately collected for recycling, ending up in incineration facilities (13%), at landfills (87%) or littered into the environment.

It is therefore our submission that a strategy must be adopted to increase the market size for reusable menstrual products (e.g Moon Cup), nappies and wipes, while simultaneously ensuring that the single-use equivalents are collected separately and recycled effectively.

Our key recommendations include:

- a) set up a reuse target of 30% by 2030, to be increased to 60% by 2040 combined with
- b) a separate collection target for recycling of the remaining single-use menstrual items, wet wipes and nappies of 40% by 2025, 70% by 2030 and 90% by 2040.

Economic incentives are needed, such as Extended Producer Responsibility (EPR) schemes to help finance the transition from single-use to reusable systems. e.g. the implementation of local washing systems for reusable nappies.

### **3.13 PET Plastic Beverage and Food Containers**

We have an issue with the continued use of PET plastic. Only PET #1 and HDPE #2 bottles and jugs are truly recyclable, and that full-body shrink sleeves on those items can also limit their recyclability. Furthermore, other types (#3-7) are not really recyclable and no market exists for them.

Since the recent collapse of international end-use markets, MRFs in the United States have struggled to find buyers for some of these plastics. In many cases this has forced municipalities to drop mixed plastics from their lists of acceptable material.

We have always argued that MRF acceptance of those plastics does not verify their recyclability – as MRFs frequently send them to landfills or incinerators if

buyers aren't available – and that those items have "negligible-to-negative value" as a result. Items like take-out food-ware and single-use plastic bags are seen as contaminants, rather than truly recyclable products. The report directly quotes Waste Management as stating collected plastics with no market demand will be disposed of rather than recycled.

Companies cannot legitimately place recycle symbols or 'Check Locally' text on products made from plastics #3-7 because MRFs nationwide cannot assure consumers that valueless plastics #3-7 bales will actually be bought and recycled into a new product. Retailers and consumer goods companies should seek (or be forced) to shift away from using certain plastics given the current infrastructure gap.

We recommend that these types of un-recyclable materials be banned over time (next 5 years max) and that levies are placed on their use in the interim period while alternatives are developed. The EPR system should apply to the producers of these plastics to recover the full cost of disposal.

In addition, the government should consider banning the following items (many of which are made from these plastic types):

- sweets and chocolate wrappers;
- condiment sachets such as ketchup, mustard, sugar cubes, jam, milk/creamer jiggers, when served on site;
- Plastic sweet sticks (sustainable option: make from cardboard);
- Release of balloons and Chinese Lanterns;
- Provision of disposable plastic water bottles to school-provided meals;
- Free give-away of plastic drinks bottles/drinks pouches in public areas;
- The selling of disposable water bottles in public spaces/events;
- Disposable containers, cups (including the lids) and plastic cutlery served on-site. (only reusable items allowed);
- The supply or use of plastic bottles in festive, sporting or cultural events
- Plastic wrap around fresh fruit and vegetables, except lots weighing 1.5 kilo or more, and fruits and vegetables posing a risk of deterioration when they are sold in bulk;
- Plastic herbal tea bags;
- Free plastic toys in children's fast food meals; and,
- Plastic confetti.

One possible problem is that there may not be enough rPET to meet the 30% recycled content requirement under the Single Use Plastic Directive. The quality

of rPET for drinks containers and other food grade packaging must be of high quality to allay health and safety concerns. Coca Cola, once a company most associated with fighting the adoption of deposit refund schemes throughout the world, and the company which also produces the largest quantities of beverage containers which are not recycled, are now finally supporting DRS systems to ensure the quality of rPET.

Plastic PET bottles collected through a DRS are of higher quality as they are collected in a single stream and not contaminated by other plastic polymers or other materials; and this is being demonstrated by the recently established DRS in Lithuania, which in less than 6 months from start-up in 2018 has resulted in a recycling rate of 95-96%. In Ireland, Wellman International, a PET recycling company cannot accept rPET from Irish Material Recycling Facilities as the rPET is not clean enough. Instead, this company imports rPET flake from the Netherlands and Germany which they turn into rPET fibre. They support the introduction of a DRS in Ireland.

We therefore strongly recommend the adoption of a DRS in Ireland both to deal with our litter problem, but also to improve our recycling rate and develop our market share of clean rPET.

### **3.14 Textiles and Garments**

The negative effects of “Fast Fashion” on volumes of discarded garments, ending up in a recycling centre at best, but more likely a downcycled cul-de-sac, are becoming clearer to shoppers. They want better value for money, and “Slow Fashion” fills that need, encouraging people to buy more classic and higher quality garments with a view to using them for longer. Their higher quality will mean they last longer and stay in fashion longer, yielding better value all round.

In Britain, garments have an estimated life span of two years, three months. The average Scottish household owns around £4,000 worth of clothes, but wear only 70 % of that each year, most commonly because it no longer fits. Recent research from the “Love Your Clothes” campaign found that women in Scotland were already good at looking after their clothing to make it last longer with 65 % stating they will attempt to mend or fix an item so that they can wear it again.

In Ireland 12,000 tonnes of textiles are reused locally in Ireland via charity shops. A much larger portion is either exported to second hand markets (unknown quantity via textile recyclers) or discarded in recycling and residual waste bins (approx. 80,000 tonnes under household and 20,000 tonnes under non-household categories).

There is growing awareness of the impact of the fashion industry on waste arisings, both pre-consumer and post-consumer. The European Commission has listed textiles as a key priority area for the draft Circular Economy Action Plan 2.0, but still more work needs to be done.

We suggest the following actions to support the future sustainable consumption of textiles by manufacturers and the general public:

1. An education, information campaign to build awareness of the impact of textiles, Fast Fashion in particular, on global resources and persuade consumers to reduce their consumption and move to Slow Fashion mode. Lifetime value and versatility should become key decision criteria at purchase time.
  - A good example is the “Love Your Clothes” campaign in Britain. Love Your Clothes is an initiative created by WRAP (UK) that aims to raise awareness of the value of your garments and helps you make the most of the clothing you already have by encouraging people to think about the way they purchase, use and dispose of clothes.
2. Encourage re-use and swap shop networks so clothes do not get recycled or downcycled until much later in their life. Examples such as the “Revolve” scheme in Scotland would be a good one to follow.

- Revolve provides Scotland’s re-use organisations with training, support and advice to give customers the assurance that the items they buy are of good quality, offering a similar shopping experience to buying new. There are currently over 140 Revolve certified stores in Scotland.

One such example is *Seamster Vintage*, a quality retro clothing store based in Glasgow’s Southside that specialises in everyday vintage wear as well as their own line of handmade zero waste accessories. With an ethos that fashion should be sustainable, affordable and fun, all stock is carefully washed and repaired to bring it back to its best. Any items that are not repairable are upcycled into eye catching accessories, giving new life to the vintage fabrics.

Shopping “*Revolve*” helps Scotland make the best use of its natural resources, while reducing the number of items that end up in landfill each year. We can do likewise in Ireland.

3. Prevent textiles from entering the general waste collections. We must offer separate collection of textiles , independent of the charity collections, which are not reliable or standardised. It will see increasing volumes of textiles enter the second hand market and is not a sustainable solution unless we create increasing local demand for those textiles. Driving the demand for second hand textiles is therefore key in enhancing the flow of textiles locally as is ensuring the quality of the textiles collected.

4. **Circular Design:** We must focus our design efforts on re-use, versatility, repairability and long life. Soiled, badly worn or poor quality textiles are unsuitable for reuse or repair. We must encourage better design and engage consumers to prioritise good quality items, robust, versatile and long lasting.
5. We must ensure that textiles collected are re-used, repaired or re-worked as close as possible to the sourcing area. This retains value in the location, reduces travel miles and offers employment opportunities locally or regionally.

As is the case with paper and cardboard, significant volumes of textiles are contaminated by disposing of them in the wrong bin. Poorly segregated clothes will end up in landfills, incinerators or downcycled needlessly. This is a big loss of value for reuse, repair and upcycling opportunities. This loss happens also if we export textiles without offering them to local re-use, repair projects.

Exporting our textiles leaves us vulnerable to market price variations. In a scenario reminiscent of the Chinese plastics recycling import ban, some African markets are pushing for bans on the import of low quality second hand clothing.

It is important that the requirements of local second hand clothing retailers (such as charity shops) and repair workshops are considered for any future standardised separate collection scheme to ensure maximum local reuse and lowest travel miles are spent. Some options are :

- Offer regular standardised local textile collection services. A condition could be introduced to waste collector permits to provide for the separate collection of textiles in partnership with local second hand retailers (e.g. charity shops). Think in terms of “*FoodCloud*”.
- Safeguard the current textile banks that are connected with local charities. To further support local reuse, Local Authorities should prioritise banks that direct textiles to local second hand retailers (e.g. charity shops).

**A further recommendation by ZWAI is that we need an EPR scheme for textiles.**

The producers must contribute to the full lifecycle costs of using their fashions. This funding contribution can be a welcome financial support to get repair and remake workshops off the ground. And coupled with favourable VAT treatment may enable these ventures to be profitable or break-even. Perhaps a partnership or collaboration could develop between Charity Shops and clothing brands or a series of franchised workshops are accredited to re-make and re-sell selected fashion brands. (A number of EU Member States are reviewing the option of EPR schemes for textiles in view of the mandatory separate collection requirement set out in the Waste Framework Directive).

An EPR scheme for textiles must be carefully designed to support local reuse, re-work while maintaining the value of fashion brands in the re-used market. We also need to pay attention to the existing network of second hand outlets and their ability to source high quality branded fashion.

**REMAKE and REPAIR workshops and shared facilities** will also provide opportunities for a concentration of activity in repairing, remaking and refurbishment of used garments.

The economies of scale will mean that centralised ,shared or co-managed textile restyle workshops will arrive, especially if EPR funding can flow to them and brand authorizations are given. It will make sense to share the facilities by different charity shops, designers, brand owners and retailers. Centralised skills and the scale to rework slow fashion items to new retail quality will enhance the products coming on tap for the shops. The workshop service can be offered as a wholesale supply source to these shops. Grants and government incentives are required to kick start the SME business model. These remade clothes should be VAT free as it has already been paid on first purchase.

Designated zones (warehouses and workshops) could be created for redesign/remake/repair similar to SMILE exchanges. There is an opportunity for Councils & IDA to offer support such as the New Frontiers, LEO schemes for SME start-ups.

**A further recommendation by ZWAI is that there should be a trade-in system for high quality fashion clothes.**

Such a scenario could follow the example of the business model for used motor vehicle sales.

The fashion retail chains and boutiques must be enlisted to make this happen as ubiquitously as in the motor trade. It will operate the same way. Customers trade in their fashion items in retail condition or needing slight repairs and get a credit that is used towards the purchase of new items.

Branded stores & franchises (e.g. Debenhams, Next, River Island, etc) may restrict their items to own brand clothes to maintain the brand image and display similarity. We would suggest the following approach:

- The traded in items must be made available alongside the new items in the same store and with parity of place on display;
- Product guarantees need not apply to used clothes and VAT should not apply (paid on new items only);
- Stores can be encouraged to open these TRADE IN aisles or dedicated racks through rates rebates (based on a % of floor area allocated to the Trade-in displays) or rent rebates;

- The customers will look after their clothes better and know there is a value to them. So they will be less likely to discard them or buy cheap fast fashion items that are worthless in the long term. This enforces the Circular Economy goal that goods are reused, reworked and recycled at their highest utility value for as long as possible;
- This will achieve a goal of reducing the volumes of discarded or downcycled clothes and create an acceptance of re-use and repair for fashion items. It will also indirectly reduce the growth of fast fashion (low quality) sales as people will realise there will be no value in the goods as a trade in later; and,
- It may impact the supply of items to charity shops as high value items will be traded back to the supplying store to get the best trade in price but the new awareness will lift all boats and draw more people into re-use stores /charity shops and keep more clothes in use for longer by more people.

**“Trading in your fur coat should be as easy as trading in your Ferrari” !**

### **3.15 The Circular Economy**

In 2016, ZWAI undertook a research project on the Circular economy, describing the background and origin of the term, and our report provided some examples of successful implementation of the CE in other EU members states. Since that time, much has improved, and many more examples could be found if the research were to be continued

#### **3.15.1 Kalundborg Eco-industrial Park**

Kalundborg Eco-Industrial Park is an industrial symbiosis network located in Kalundborg, Denmark, in which companies in the region collaborate to use each other's by-products and otherwise share resources.

The Kalundborg Eco-Industrial Park is the first full realization of industrial symbiosis. The collaboration and its environmental implications arose unintentionally through private initiatives, as opposed to government planning, making it a model for private planning of eco-industrial parks. At the center of the exchange network is the Asnæs Power Station, a 1500MW coal-fired power plant, which has material and energy links with the community and several other companies. Surplus heat from this power plant is used to heat 3500 local homes in addition to a nearby fish farm, whose sludge is then sold as a fertilizer. Steam from the power plant is sold to Novo Nordisk, a pharmaceutical and enzyme manufacturer, in addition to Statoil power plant. This reuse of heat reduces the amount thermal pollution discharged to a nearby fjord. Additionally, a by-product from the power plant's sulfur dioxide scrubber contains gypsum, which is sold to a wallboard manufacturer. Almost all of the manufacturer's gypsum needs are

met this way, which reduces the amount of open-pit mining needed. Furthermore, fly ash and clinker from the power plant is used for road building and cement production. These exchanges of waste, water and materials have greatly increased environmental and economic efficiency, as well as created other less tangible benefits for these actors, including sharing of personnel, equipment, and information.

### **3.15.2 “Splosh”**

Splosh sells customers a one-off ‘starter box’, containing a range of simply designed bottles. A sachet of concentrated liquid is added to the bottle with warm tap water to create cleaning products. Bottles can be used repeatedly, with refill sachets delivered in boxes through the post.

Angus Grahame set up Splosh in 2012 with the idea that there must be an opportunity to sell household cleaning products outside of the supermarkets using a ‘one time sale’ model. Angus also looked into how these could be sold online but the typical size and weight of the products made this difficult. As a result, he began looking into how these could be completely redesigned for a new e-commerce business model.

With Splosh, instead of buying new bottles filled with product on a weekly basis, customers purchase a one-off ‘starter box’, containing a range of simply designed bottles. Inside each bottle is a sachet of concentrated liquid – customers just add warm tap water to create cleaning products that Splosh claim clean with comparable effectiveness to competitors. These bottles can be used repeatedly, with refill sachets delivered in boxes through the post.

If the bottle is reused 20 times it means 95% less packaging waste

This system has necessitated a complete redesign of many standard household cleaning products. The first step was to create a completely new, concentrated form of cleaning fluids – a more difficult task than just removing the water – and the main challenge faced was in finding chemists that had suitable expertise.

After creating the concentrate, packaging was chosen. The film pouch that holds the fluid is PVOH (polyvinyl alcohol), a dissolvable material used in a variety of industries. In this case it was an especially useful design choice, as once dissolved, PVOH actually improves the product, adding viscosity and a mild cleaning action to the mixed solution.

The other aspect was the external packaging. This needed to be durable, but also integrate with the postage model. Packages left on doorsteps or returned to sender would be inconvenient, so the box was designed to fit through a letterbox, and is classed as a ‘large letter’ by Britain’s Royal Mail postal service.

### 3.15.3 Scotland: Making Things Last -- A Circular Economy Strategy for a Country

Developed by the Scottish Government, in partnership with Zero Waste Scotland, Scotland's Enterprise Agencies and the Scottish Environmental Protection Agency.

The Scottish Government developed a strategy in 2016 to move the country towards a more circular economy, aligning its economic and environmental objectives. It aims to bring together business sectors and individuals to jointly work towards that goal.

Two of the strategy's key elements are: to develop a more comprehensive approach to producer responsibility by setting up a single framework for all product types that drives choices for reuse, repair and remanufacture, while more fully exposing and addressing the costs of recycling and disposal; and to reduce all food waste by 33% by 2025 – the first such target to be set in Europe.

The strategy's four priority areas, based on their resource use, environmental impact and importance to the Scottish economy, are:

1. **Food, drink, and the broader bio-economy:** the beer, whisky and fish industries could reduce costs by £500-800 million a year by taking a more circular approach;
2. **Remanufacture:** contributes £1.1 billion a year to Scottish GDP and could contribute £1.7 billion a year by 2020;
3. **Construction and the built environment:** generates around half of all waste produced in Scotland, so has a significant opportunity to increase resource efficiency;
4. **Energy infrastructure:** has significant potential to re-use equipment from decommissioned oil, gas and renewables infrastructure (£30-35 billion is expected to be spent on oil and gas decommissioning by 2040)

Illustrating the economic and environmental integration of the approach, action in these priority areas is being delivered in close collaboration with Scotland's Enterprise Agencies, the Scottish Environment Protection Agency and Zero Waste Scotland. The focus areas of the strategy are also aligned with the priorities of the Innovation Centres in Scotland and the Scottish Institute for Remanufacture.

Close cooperation between the Scottish Government and the delivery partners was crucial in shaping the Scottish Government's public consultation, '*Making things last: Creating a more circular economy in Scotland*', published in August 2015. For six months before the consultation, the Scottish Government and its partners worked to increase interest and debate through a series of workshops,

seminars, media releases and the publication of evidence reports focused on different sectors.

The public consultation attracted 78 responses from industry, academia, community organisations, local government, trade organisations (representing their members' views) and individuals. For example, while waste prevention was implicit in the consultation, some respondents argued it should have more prominence in the strategy, a recommendation the government adopted by adding a new chapter and setting the food waste reduction target. The consultation also sought views on the idea of a centre of expertise for circular economy design, but no clear vision of how that could work emerged. Instead, in line with consultation feedback, the strategy's design focus is on providing mainstream business support and influencing decisions at EU level.

Linked to the circular economy strategy, the Scottish Manufacturing Action Plan (2016) is also encouraging manufacturing firms to adopt circular practices such as remanufacture as one of its core themes. The plans to establish a manufacturing skills academy provide a further opportunity to incorporate circular economy practices in education programmes on product design and resource use.

The Scottish Food Waste Reduction Target, to reduce food waste 33% by 2025, is the main focus of the waste prevention part of the strategy. To work towards this target Resource Efficient Scotland, part of **Zero Waste Scotland**, is supporting SMEs in preventing food waste and adapting to the 5kg threshold for separate food waste collection, in place since January 2016. Broader waste collection also features in the strategy. The Scottish Household Recycling Charter has been introduced to promote a consistent approach to household recycling of food, glass, paper/card and cans/plastics across all municipalities in Scotland and is gaining momentum. While implementation will take time, by July 2016 half of Scottish councils had signed the Charter. Through harmonised services based on best practice, the expectation is for increased householder participation, improved quality of recycled materials, and greater economic benefit to local authorities.

With the strategy now in place, the Scottish Government and its partners are working on the priorities identified to move Scotland towards a more circular economy. This in turn will provide opportunities for businesses, communities and people across Scotland.

It is relevant that neither England nor Wales have a Zero Waste policy similar to that of Scotland, and that the Scottish Government works closely with Zero Waste Scotland. Scotland might therefore be a good example for Ireland to follow.

#### **3.15.4 Denmark: Public procurement as a circular economy enabler**

Initiated by the Danish government, the programme aims to shift public procurement to support the transition to a circular economy. Through the

partnership, members work to integrate procurement policies that emphasise circular economy criteria such as the use of non-toxic chemicals, extended product lifespan, and the cycling of biological and technical materials.

Public procurement refers to the process by which public authorities purchase goods and services from companies. The impact of public procurement on the transition to a circular economy could be significant as it is worth around EUR 2 trillion in the European Union, around 19% of GDP. Integration of holistic procurement requirements can increase demand for circular products and services, drive innovation, minimise environmental degradation and save public money, as the costs of the product's entire life cycle will be considered.

### **3.15.5 “Public procurement 19% of GDP in the EU”**

In Denmark, where the public sector procures goods and services for around EUR 38 billion annually, a national initiative is aiming to shift the country's public procurement practices to support a green transition of the market.

### **3.15.6 Partnership for Green Public Procurement (GPP)**

The Partnership for GPP is a collaborative initiative between Danish regions, municipalities and the Ministry of Environment and Food on common objectives for green procurement. The current 14 partners have committed themselves to integrate green goals in their procurement policies as well as greening their procurement on 11 specific product groups. Criteria include recyclability, number of chemicals, product lifespan and total cost of ownership – all elements essential for the transition to a circular economy. The partnership's total volume of procurement is significant at EUR 5 billion.

The Partnership for GPP was established in 2006 by the then Minister of Environment, Connie Hedegaard, and Denmark's three largest municipalities. The objective is to create a coalition of governmental bodies to increase procurement volumes and therefore have a larger impact on the market. The partnership is in close collaboration with the Forum for Sustainable Procurement, which is a broader national initiative targeting all stakeholders with an interest in procurement, and has been running since 2011.

The key activities of the Partnership for GPP revolve around collaboration, capacity building and sharing of knowledge and experiences. Through the partnership the members get access to knowledge on how to integrate environmental and economic requirements into tenders, and a common set of criteria they can use to strategically drive the market in the same direction. Membership is free, but active participation and the development of specific actions are requirements.

### **3.15.7 Example: residential construction in Odense Municipality**

Odense Municipality was to construct 40 new residences for youths with disabilities. By rethinking the tender and implementing green procurement requirements the new buildings were constructed using fewer unwanted chemicals, alternative materials such as paper wool for insulation, recycled bricks, and energy efficient solutions including LED lighting and solar water heating. The construction cost of the residences was 5% higher than business-as-usual, but it is expected that the extra investment will be repaid quickly due to lower operating costs (source: gronneindkob.dk, and ansvarligeindkob.dk).

### **3.15.8 Portugal: Green Growth Commitment**

In Portugal, a country only slightly larger than Ireland (92,200 km compared with our 84,420 km, but with a population of 10.5 million compared with Ireland's 6.38 million) the government has embarked on a green growth agenda that incorporates circular economy policies and targets across sectors including construction, industry and waste management. The Green Growth Commitment was developed in collaboration with 100 organisations, and represents a long term economic strategy for Portugal to plot a course to recovery since the 2007-08 financial crisis.

Once the Economic and Financial Assistance Program to stabilise its economy after the financial crisis was complete, the Portuguese government looked for an economic development vision that promoted long-term benefits in growth and employment. The government established a Green Growth Coalition in 2014 to represent around 100 organisations from the business, science and finance sectors, along with public bodies, NGOs and foundations. This coalition took on the task of devising a national strategy to stimulate economic growth and jobs whilst addressing resource scarcity and climate change.

The coalition set up a four-month public consultation on a Green Growth Commitment to canvas views from a wide range of stakeholders on the opportunities and constraints of this vision. Along with 74 written contributions, this process included 10 seminars on specific themes, attended by 1,500 people and featuring 91 speakers, with an accompanying online portal and social media presence. The government found that this intense consultation process strengthened the initiatives and the commitment of stakeholders across society to implement them.

The resulting vision has 14 objectives, each with quantified targets for 2020 and 2030, and is updated annually. They span the following areas:

- Stimulating green activity sectors, including creating new jobs
- Promoting efficient use of resources, including increasing water and energy efficiency

- Increasing renewable energy use, and improving biodiversity quality.

Three objectives under 'Promote efficient use of resources' are of particular interest to the move towards a circular economy:

- Increasing the productivity of materials (from 1.14 EUR of GDP per kg of materials consumed in 2013 to 1.17 in 2020 and 1.72 in 2030)
- Increasing the use of waste and by-products as raw materials in the economy (from 56% in 2012 to 68% in 2020 and 86% in 2030)
- Increasing the ratio of building renovations to new buildings (from 10.3% in 2013 to 17% in 2020 and 23% in 2030).

To meet these objectives the agreement sets out 111 initiatives across 10 sectors. In the waste sector for example, initiatives include:

- Encouraging the use of waste in the production of new products
- Stimulating the selective collection and recycling of urban waste
- Increasing the operational efficiency of urban waste treatment systems
- Promoting industrial symbiosis type agreements between different industries that involve the trade of waste and by-products.

Policy types in the package span a range from public procurement, fiscal measures, information dissemination and R&D support.

Policymakers learned a number of lessons during the process of developing the commitment. Firstly, a solid and well-balanced framework setting out a clear vision of green growth in 2020 and 2030 was a crucial starting point, and was followed by stakeholder involvement at an early stage to ensure that sectorial contributions supported the overall strategy. Collaboration with other ministries was also a key factor at the start of the project, in order to gain wider support and avoid the Green Growth Coalition being seen as a political project of the Ministry for Environment, Spatial Planning and Energy.

According to Jorge Moreira da Silva, former Minister of Environment, Spatial Planning and Energy: "Portugal is proud of having a Green Growth Commitment that is no longer a political unilateral initiative but rather a strategy that was adopted by society as a whole. This is the main guarantee that green growth is not a trend in Portugal, but a paradigm shift that is rooted in the population and a fundamental part of the country's future".

### **3.15.9 The result**

In order to progress the initiative, policymakers found thematic workshops useful in selecting ambitious but realistic goals and targets, and capacity building in

government bodies at regional, local, sectorial level was essential to developing “Regional Green Growth Strategies”. Finally, building alliances with external partners, such as the Green Growth Knowledge Platform or Green Growth Group, was important to network with international initiatives and share best practice.

Though still in its early stages of implementation, the Portuguese Green Growth Commitment is an example of an economy-wide vision that incorporates circular economy policies into a more traditional green growth agenda that focuses on renewable energy and reducing greenhouse gas emissions. When taken alongside the country’s Green Taxation Reform, which aims to divert taxation from labour and income to resources and pollution, the vision of resource husbandry is a bold one that will be watched closely by policymakers around the world.

### **3.15.10 Netherlands: Green Deal**

Many circular economy opportunities are profitable but are not realised due to non-financial barriers. The Green Deal, a joint initiative between two Dutch ministries, addresses these barriers by providing advisory support to selected innovative business initiatives.

Many circular economy opportunities have sound underlying profitability but often face non-financial barriers that limit their expansion or hold back their pace of development. For many small players a lack of clarity in obtaining relevant permits, navigating applicable regulations or out-dated perceptions of regulatory hurdles are also important hindrances to them taking on new projects. To help businesses overcome these barriers, policymakers are key players.

In the Netherlands the Government has addressed these non-financial barriers with a whole new programme, the Green Deal. The programme is a joint initiative of the Ministries of Economic Affairs, Infrastructure and the Environment, and the Interior and Kingdom Relations, with a board comprised of businesses, non-governmental organisations (NGOs) and government.

Through this programme the government has taken a new role of providing a responsive service to organisations that ask for help to realise green growth. This includes circular economy opportunities that face implementation barriers. The policymakers experience is that even if a regulatory hurdle has already been overcome, the perception that it still stands remains in people’s minds for a long time. By advising on regulation, administration, financing, and in some cases amending regulations and facilitating the involvement of key stakeholders, the government has managed to stimulate economic activity from the ground up without providing any further financial incentives.

The applicant organisation, which can be a company, industry organisation or NGO, outlines their business idea, the barriers that stand in its way and potential solutions to them. If successful, the government signs a voluntary agreement

(Green Deal) with the initiating organisation to work with them for two to three years. Once the government selects an idea it is subjected to an intensive legal assessment with respect to national and EU legislation. The proposed initiative must be in line with policy aims, be profitable (or have the potential to become so) and should be able to demonstrate results preferably within three years.

Policymakers involved in the development and execution of the Green Deal report a surprising level of appetite to sign deals both on the part of the applicant organisations that drive the process, and also from the government. They also note that an unexpected benefit has been to give companies increased confidence in their business model, by virtue of its selection by the government as promising and worthy of 2-3 years of support. Companies have reported finding great benefit in the simple act of opening up a line of communication with the government, and with other companies.

To maximise the chance of achieving scale-up and impact the Ministry has refined the programme strategy over the years. The number of Green Deals per year has fallen from over 70 in both 2011 and 2012 to 13 in 2013 and 17 in 2014. This reflects that currently negotiated deals are more strategic in nature and have a larger number of parties involved.

The government for its part has become comfortable with the evolutionary approach of reviewing each deal after two to three years and stopping those that are not running as successfully as hoped. Targeting projects of above average innovation and ambition, and therefore risk, entails that some Green Deals cannot be completed, or only partially. However these projects are still valuable, the ministry says, as they provide lessons for other projects and to the Green Deal approach overall.

Another lesson learned over the last years, according to the Ministry, is to make sure that texts of Green Deals are precisely formulated, that the targets are SMART, and that ideally an agreement on scale-up is included.

By 2015, some 185 projects have been successfully implemented, and these include

#### **3.15.11 Dutch Phosphate Value Chain Agreement**

In 2011, the government brought together 20 water, chemical and food industry and agricultural stakeholders through the 'Nutrient Platform' to sign the 'Phosphate Value Chain Agreement'. This was a Green Deal that aimed to turn the Netherlands into a net exporter of secondary phosphate. The Ministry of Infrastructure and Environment appointed and funded a full-time value-chain director to head the network for two years and work closely with the Nutrient Platform to execute the agreement.

The deal brought together stakeholders in the value chain that do not normally work together and generated trust even when certain parties stood to benefit

more than others. The government set new rules for the use of recovered phosphates as fertiliser in the Netherlands, to overcome the barrier of legislation hindering the use of recovered materials, in particular if they contain heavy metals or other pollutants. The Nutrient Platform also involved the financial sector to make a closer connection between innovative companies and financial institutions to accelerate sustainable secondary phosphate innovations being brought to market. This action was needed to overcome the barrier of high price volatility in the secondary phosphate market discouraging investment. No government incentives such as subsidies needed to be offered.

### **3.15.12 Agreement on ship-generated waste in the Netherlands**

In September 2014, a green deal agreement was signed between the maritime industry (ship suppliers, ship owners, port reception facilities), an NGO, five Port Authorities and the Dutch Government on ship-generated waste. The agreement is an example of the international element of the Green Deal programme, which seeks to take advantage of the interest it has generated in other countries and in international bodies such as the EU, OECD (Organisation for Economic Co-operation and Development) and UNEP (United Nations Environment Programme).

The agreed concrete actions were to optimise the delivery of ship-generated waste at port reception facilities (PRFs) in the Netherlands and to promote the separated delivery of plastic ship-generated waste. Even the application by ships of sound waste management procedures on board is undermined if the separated waste streams are mixed after discharging them to a PRF. It is therefore important that good waste management facilities are adopted by more PRFs worldwide. The parties to the agreement are willing to share their experiences and lessons learned and are open to assist others interested in following a similar approach. The agreement was submitted to the Marine Environment Protection Committee of the International Maritime Authority.

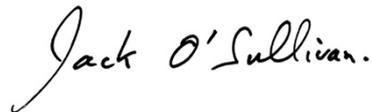
### **3.15.13 Results**

As clarified in the Danish report “*Delivering the Circular Economy – A Toolkit for Policymakers*”, profitability is often not the key barrier to implement or scale-up a circular economy business opportunity. Rather it is unintended consequences of existing regulations, social factors such as a lack of experience among companies and policymakers to detect and capture circular economy opportunities, and market failures such as imperfect information and unaccounted externalities that need to be addressed. By the end of 2015, after four years of numerous applications and 185 concluded projects, the Dutch government has proven with the Green Deal Programme that with a responsive and collaborative approach and by bringing in relevant stakeholders across sectors many of these barriers can be overcome without needing to provide financial incentives

## 4. CONCLUDING OBSERVATIONS

Clearly, much has been done, but there is a great deal more to do !

Ireland is not a leader in either waste prevention, waste elimination, repairing, re-use and recycling; and the circular economy is a long way off – almost beyond the horizon. But in the same way as the Citizens' Assembly led the way to better policies on climate change, and the “Fridays for Future” and the “Extinction Rebellion” activists are changing Governments' policies world-wide (and have been praised by the Un for doing so), ZWAI has a realistic hope that a new Waste Action Plan, supported by appropriate policies and fiscal changes, will help to move Ireland away from its current low position in the “waste hierarchy of European countries”, so that we may become a leader.



Seán Cronin, Jack O'Sullivan & Dalia Smelstoriūtė

**On behalf of Zero Waste Alliance Ireland.**

ZWAI is very pleased to acknowledge with thanks our collaboration with IEN members, and the information we obtained through our membership of the European Environmental Bureau (EEB) and Zero Waste Europe (ZWE) in preparing this submission.