



CIRCULAR ECONOMY



Tithe an
Oireachtais
Houses of the
Oireachtas

An Coiste um Chomhsaol & Ghníomhú ar son na hAeráide

Tuarascáil maidir leis an nGrinnscrúdú Réamhrechtach
ar an mBille um an nGeilleagar Ciorclach, 2021
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Joint Committee on Environment & Climate Action

Report on the Pre-Legislative Scrutiny of the Circular Economy Bill 2021
December 2021

Membership of the Joint Committee on Environment and Climate Action



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Cathaoirleach's Foreword



The Committee agreed to conduct very detailed Pre-Legislative Scrutiny of the General Scheme of the Circular Economy Bill in September 2021.

This report sets out the details of that scrutiny and also contains a number of recommendations that the Committee feel would enhance and strengthen the Bill.

I would like to express my appreciation to all the witnesses for their valuable contributions and to the members of the Committee for their dedicated work in this collaborative process.

A handwritten signature in black ink that reads "Brian Leddin".

Brian Leddin T.D.

Chairman

Joint Committee on Environment and Climate Action

December 2021

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Introduction

In accordance with Standing Order 146A the [General Scheme of the Circular Economy Bill 2021](#) was referred to the Joint Committee on Environment and Climate Action on 21 June 2021. The Committee agreed at its meeting on 22 June 2021 to undertake pre-legislative scrutiny of the General Scheme.

Stakeholder Engagements

The Committee held a series of three engagements with stakeholders which provided evidence from a broad perspective as detailed below. The Committee also invited a number of stakeholders to make written submissions on the General Scheme and these are set out in Appendix 3.

07 October 2021

Department of the Environment, Climate Action and Communications

- Leslie Carberry, Principal Officer
- Kevin O'Donoghue, Principal Officer
- Alex Hurley, Assistant Principal
- Catherine Higgins, Assistant Principal

14 October 2021

Voice Ireland

- Mindy O'Brien, Chief Coordinator

European Environmental Bureau

- Jean-Pierre Schweitzer, Policy Officer for products and circular economy

21 October 2021

CIRCULÉIRE

- Dr Geraldine Brennan, Head of Circular Economy, Irish Manufacturing Research

Background

The Climate Action and Low Carbon Development (Amendment) Act 2021 supports Ireland's transition to Net Zero and achieving a climate neutral economy by no later than 2050. In order to achieve this goal, a shift from the current model of production and consumption is required.

The current global economic model is based on a linear model of “take – make – waste” whereby raw materials or natural resources are taken and turned into products that ultimately become waste due to their design. By contrast, a circular economy minimises waste by reusing or remanufacturing products or parts of products, keeping materials in use for longer. A circular economy model therefore offers a more environmentally and economically sustainable alternative to the linear model.

The ‘Programme for Government: Our Shared Future¹’ sets out commitments in respect of waste and a circular economy action plan with intentions for measures to introduce and promote a more sustainable and responsible system and culture for consumption, use and re-use of materials and end of use recycling and disposals.

On the 15 June 2021, the Government approved and published the General Scheme of the Circular Economy Bill which was referred to the Joint Committee on Environment and Climate Action for pre-legislative scrutiny on the 21 June.

In May 2021, Deputy Richard Bruton provided the Committee with a rapporteur's report for consideration which set out a broad examination of implementing a Circular Economy in Ireland. There was extensive stakeholder involvement in the drafting of this report and the findings of the report also informed the Committee's approach to examining the General Scheme of the Circular Economy Bill. A copy of the draft report can be found at Appendix 3 of this report.

¹ <https://www.gov.ie/en/publication/7e05d-programme-for-government-our-shared-future/>

Summary of the General Scheme

The overall aim of the General Scheme is to provide a statutory framework for the implementation of a Circular Economy in Ireland, moving away from the current linear economic model. To achieve this, the Bill will provide a legislative basis for several key measures including a Circular Economy Strategy, the Circular Economy Programme and the National Food Loss Prevention Roadmap.

The Circular Economy Strategy will set out policy objectives taking into account other Government policy such as the National Development Plan, Climate Action Plan etc. The Circular Economy Programme will be prepared by the EPA and will support the implementation of the policy and objectives of the Strategy. The Bill will also provide for the establishment of the Circular Economy Fund which will replace the Environment Fund to align with the circular economy transition.

The Bill also introduces the National Food Loss Prevention Roadmap which will help to reduce food waste by 50% by 2030. In addition, the Minister for Environment, Climate and Communications will be given powers to introduce levies or bans on single-use items in line with the policy objectives of the Waste Action Plan. Amendments to the Waste Management Acts are included and will support the delivery of the Waste Action Plan.

Finally, the Bill will prohibit the issuing of new licences for the mining of coal, lignite and oil shale, reducing reliance on fossil fuels.

Committee scrutiny of the General Scheme

1. The Committee held three engagements and also requested a number of submissions in relation to the General Scheme, with stakeholders welcoming the recent policy move towards circular economy development. While it was agreed that the provisions of the Bill bring very positive developments, in examining the General Scheme, the Committee identified a number of key issues where further consideration is necessary to ensure the legislation works in the long term and does not just provide solely for short to medium term goals.

The key issues raised are as follows:

- ❖ Language
- ❖ Targets and accountability
- ❖ Further considerations

Key Issue 1 - Language

2. There was broad agreement amongst stakeholders and Members of the Committee that the language used in some parts of the General Scheme was too vague and that consideration should be given to strengthening those terms and definitions as set out in this report. The Committee agreed that the strengthening of language would ensure that the legislation is most effective in the longer term and will be more likely to achieve positive outcomes for a circular economy.

3. The Committee expressed concern with the current definition of the “circular economy” which is set out as follows in the General Scheme:

“an economic model, and the policies and practices which give effect to that model, in which resources are kept in use for as long as possible, the maximum value is extracted from those resources whilst in use, and products and materials are recovered and regenerated at the end of life.”

The Committee agreed that a stronger, broader definition of the “circular economy” is needed that goes beyond the limits of resource use, and that greater emphasis needs to be placed on “reduction” to encourage the reduction of resource use and to ensure that environmental damage is reduced all along the supply chain. The Department advised that while the circular economy is a concept that is difficult to capture in the language of legislation, it is open to making the definition as broad and progressive as possible.

4. The Committee and stakeholders expressed particular concern with regard to the use of the term “*may*” in a number of heads of the General Scheme where a stronger term, such as “*shall*” would be more appropriate and would also “futureproof” the legislation.

5. There was strong stakeholder support for eliminating or moving away from the use of the term “waste” throughout the General Scheme of the Bill in an attempt to shift the focus towards “resources” and resource management. In its submission, the Community Reuse Network Ireland (CRNI) highlighted examples in Head 4 of the Bill where a change of language would align more closely with the concept of a circular economy:

“1. (b) that ‘the operation of waste re-use ... activities’ is replaced with ‘the operation of preparation for re-use ... activities’

2. (c) that ‘with respect to any aspect of waste management’ is replaced with ‘with respect to any aspect of resource management’”

6. The Committee also expressed concern that the phrase “time to time”, which is used in a number of heads of the bill, is vague and that clear, specific timelines are required for the effective monitoring of progress and to ensure accountability. Members agreed that this is particularly required in provisions that are holding the Minister to account but also regarding the EPA’s progress review of the Circular Economy Programme. The Department advised that more specific timelines are being set out within the draft Bill and agreed to examine the language used under Head 5 with regard to the EPA.
7. In this regard, several stakeholders specifically referred to provisions as set out in Head 6, whereby the Bill specifies that “the Minister *may*” make regulations and implement levies and bans on certain products. Several stakeholders and Members of the Committee outlined that the current wording appears to give discretion to the Minister as to whether levies or targets are set and that stronger wording is needed to ensure the best outcomes from the legislation. The Committee agreed that the wording in Head 6 of “the Minister *may*” should be amended to “the Minister *shall*”, thereby making it a mandatory provision for the Minister and future Governments.
8. The Committee expressed concern that the term “recovery” in Head 6 is ambiguous and is often used synonymously with incineration. Members agreed that, currently, the language could unintentionally be interpreted as including incineration in the circular economy fund. This would be in direct conflict with the new European Green Deal funding which explicitly excludes incineration having access to such funding. The Department agreed that greater clarity was needed in the drafting of the Bill and advised that this was not the policy intention of the Bill but rather that materials sent for recovery to incineration would incur a levy that would fund the circular economy fund. The Committee agreed that the language around recovery should be further examined throughout the General Scheme to reduce any ambiguity in this regard.

Key Issue 2 - Targets and accountability

9. While the introduction of targets in the General Scheme was largely welcomed by stakeholders and Members of the Committee, throughout engagements and the wider submissions, the Committee heard that the absence of defined targets and responsibilities throughout the General Scheme has the potential to negatively impact the efficacy of the legislation.
10. Stakeholders highlighted a number of policy documents such as the Waste Action Plan for a Circular Economy and the National Waste Management Plan for a Circular Economy, which referred to the introduction of targets for reuse, repair, resource consumption and reduction of waste. While the General Scheme sets out some targets around reuse and repair, stakeholders stated

that the introduction of targets within the Bill that would align with such policy documents would be transformative in facilitating the move to a circular economy.

11. The Committee expressed concern that the Circular Economy Strategy will not set out firm targets to drive the necessary cross-sectoral change and agreed that stronger provisions around accountability were needed. While the first Strategy is likely to be published before the legislation is enacted, the Committee agreed that the opportunity to provide for the criteria and ambitions of future strategies in the legislation should not be missed. However, the Department advised that, as a first step, the strategy document will raise sectoral awareness and understanding of what the circular economy is and that the current version of the Strategy is a short-term document of less than two years.
12. Witnesses highlighted the measurement and setting of targets as particularly relevant in the context of the move, within the UNFCCC and the EU, towards transparency and accountability around Scope Three greenhouse gas emissions, reflecting materials, lifecycle and supply chain.
13. The Department further stated that specific targets and sectoral roadmaps will be identified for the second version of the Strategy which will then be a statutory document. The Committee acknowledged that this is the international experience particularly in countries such as the Netherlands who are leaders in circular economy policy in the EU.
14. Dr Geraldine Brennan, CIRCULÉIRE noted the importance of regulations, guidance and supportive infrastructure in implementing circularity at scale while stating that incorporating obligations for sectors at this stage could be very challenging and that in order to get industry on board, an understanding of what the circular economy is and what that involves for a business is essential. Dr Brennan highlighted that countries such as the Netherlands are using tools like “material flow analysis” to identify the inputs and outputs of the economy in order to best inform circular economy policy. The Committee agreed that the use of greater material flow analysis to ascertain how materials in industries are used, reused or disposed would be beneficial for informing future policy around the circular economy in Ireland.
15. However, some stakeholders and Members emphasised that without strengthening the provisions to include some sort of target such as a “comply or explain” target, it would be difficult to gain the necessary momentum across industry and achieve the change that is needed. The Committee noted that despite putting in place waste management plans setting a waste reduction target of 1% decrease of household waste per annum over lifetime of the plans, Ireland has continued to increase its waste.
16. In consideration of this, Ms Mindy O’Brien, highlighted that in order to move away from the current levels of waste and disposable economy, it is essential

to provide for sectoral targets to encourage this move within industries. Ms. O' Brien stated that without indicating some sort of target range for industries and how to meet that target, then it is unlikely that the legislation will action the change needed. The Committee agreed that the Bill should be more ambitious with regard to setting some level of sectoral targets for waste reduction, and it was agreed that this would provide a more equal ground for those industries that are already working more sustainably.

17. Witnesses highlighted the key role of Green Public Procurement and Circular Procurement in progressing a circular economy. CIRCULEIRE highlighted the that the buying power of the public sector can and should play a strategic role in encouraging circular good and services. They recommend all government procurements should include waste hierarchy principles including remanufacturing, reuse, repair, preparation for reuse as well as end of life management recycling and recovery – particularly for high-value capital investment projects associated with Project 2040. They noted that Green Public Procurement can reward good company practice, drive a better market for in the Producer sector and help regulators better understand and solve the challenges in circular economy development.
18. Voice, CRNI, Rediscovery Centre and others stated the Bill must move away from a focus on waste and recycling and look towards initiatives that futureproof the design of sustainable products and support circularity in key value product chains. They suggested Green Public Procurement (GPP) requirements should be strengthened and placed on a statutory basis. In Italy all public authorities are required to apply waste prevention criteria into calls for tenders and contracts. The Italian Code for Public Contracts sets mandatory environmental sustainability criteria that must be applied by public authorities in public procurement. These witnesses would like to similar measures introduced in Ireland. Committee members noted the potential to prioritise use of lifecycle and price quality ratio approaches to tenders as more compatible with Green Public Procurement.
19. The Committee discussed the need for active measures to meet the challenge of reducing food waste by 50% by 2030 and stakeholders recommended interim targets to monitor progress. It was also noted that an absence of adequate public information campaigns for waste reduction, waste disposal and correct bin use needed to be addressed, while the Department agreed that food waste disposal particularly on a commercial level must be examined.
20. In its submission to the Committee, FoodCloud suggested expanding Head 7, beyond the limits of a roadmap, to “Food Loss and Waste Prevention” to allow the inclusion of greater detail, including the intended roadmap but also targets, the measuring and reporting of food waste or implementation of actions to reduce and prevent food waste. Such a change would ensure the legislation is effective in achieving the necessary progress in this area and aligned with EU and international goals and standards. The Department

advised that there is as of yet no baseline data for such a complex area in order to inform targets such as these but that the power to introduce such principles and reporting requirements could be set out in the legislation.

21. Stakeholders also expressed a need for stronger levels of accountability for the National Food Loss Prevention Roadmap as currently set out in Head 7 of the General Scheme. The CRNI referred to the need for more specific interim timelines to ensure the National Food Loss Prevention Roadmap is reviewed on a consistent basis to monitor progress with greater transparency.
22. There was considerable discussion of the role which industrial washing and sterilisation facilities can play on supporting packaging reuse and refilling. The plans for a new State owned and run washing facility were widely welcomed and there was some discussion of the importance of ensuring that such a facility would be accessible to a variety of public and private actors, including small food producers, hospitality businesses, canteen facilities.
23. The introduction of targets for reused and repaired products as seen in Head 12 of the General Scheme are largely welcomed by stakeholders. However, Members agreed that the provisions surrounding these targets must be refined to meet the level of ambition required. Several stakeholders highlighted the need for the Bill to specify the “lines of accountability for meeting targets” along with progress reporting on a regular basis to ascertain both the effectiveness of the targets and identify measures to ensure targets are achievable.
24. The Committee expressed concern that there is little incentive to buy reused or repaired products as it is generally cheaper to buy new than have something repaired. Members agreed that the financial viability of repurposing products was heavily impacted by financial factors such as VAT and insurance issues for those working in the repair and reuse sector. Stakeholders agreed that reducing VAT on repurposed goods would create incentives for consumers to move towards a more circular economy.
25. The potential use of tax measures to support reuse and repair was also suggested by CRNI and other witnesses. The Committee agreed that initiatives to support reuse and repair should be explored including VAT relief or tax credits for refurbished items, tax incentives for SMEs who invest in collection sanitisation and reuse of packaging and higher VAT or tax levies on the use of virgin plastic. However, while the issue will be considered, the Department advised that such action would be more effective if taken on a Single Market EU-wide basis.
26. Dr Brennan suggested extending the targets for reuse and repair to include “remanufacturing” stating that there is an opportunity to encourage the set-up of repair and remanufacturing in Ireland, highlighting that remanufactured products are guaranteed, as with new products, with a warranty.

27. Stakeholders highlighted that Ireland's packaging waste has increased so significantly that the waste issue cannot be resolved through recycling with Repak stating that Ireland currently exports circa 55% of its packaging waste annually for recycling. The Committee noted the deficit of waste management infrastructure in Ireland and acknowledged the opportunity to provide for the development of better waste infrastructure in the Bill.
28. While waste management is a challenging area, the Committee agreed that to address the issue, there is a need for radical change to consumption at every level, moving away from the current disposable economy. In light of this, Members stated that the ambitions of the Bill should be stronger and should include specific targets for progress reporting, waste reduction and prevention as well as innovative measures to combat the excessive use of disposables.
29. The Committee and stakeholders therefore welcomed the introduction of powers for the Minister to impose levies and bans on single-use products where reusable alternatives exist in Head 6 of the General Scheme. However, some stakeholders suggested that the list of products should be extended to specifically include other single-use items including wet wipes and single-use toiletries and condiments. The Department, however, advised that the broad categories listed cover a significant range of products that will be specified within the future regulations.
30. The Committee heard extensive evidence that sectors must start "designing out" packaging that increases waste and work to implement new initiatives that will prevent and reduce packaging. Voice Ireland highlighted that this is particularly possible in the likes of hospitality/catering settings and supermarket settings where reusable or refillable items can be returned and washed on an industrial level instead of using disposable packaging for food. In addition, Members agreed that supermarkets should be required to provide loose fruit and vegetables at an equal or lesser price to pre-packaged bulk items to allow consumers to reduce their own packaging waste and noted that such a requirement could be set out in Head 7 in the National Food Loss Prevention Roadmap. The Committee was informed of a recent requirement in France for all Supermarkets larger than 400 square metres to allocate 20% of floor space to reuse/refillable products.
31. To encourage uptake of initiatives such as these, stakeholders suggested extending Head 12 of the Bill to include targets for implementing reusable or refillable packaging and sectoral waste prevention. The Committee agreed that the implementation of reusables and refillable packaging is something that requires further exploration, including funding mechanisms to develop the reusable/refillable packaging infrastructure. France requires its Extended Producer Responsibility (EPR) scheme, to dedicate 2% of its income towards the development of reuse infrastructure. As REPAK is responsible for the funding of packaging collection and recycling in Ireland, it is the most likely source of revenue, up to 8% of its income, to finance reuse infrastructure. In

addition, Members agreed that increased public awareness as to the advantages and conveniences of reusables would encourage higher levels of uptake. Noting the stakeholder evidence that without sectoral targets the necessary waste reduction will not happen, Members agreed that the inclusion of provisions that not only support a move away from disposables but set targets towards increasing reusables on an industry level would be welcome. Stakeholders proposed sectoral should be developed for, but not limited to, packaging including food retail and e-commerce, plastics, batteries and vehicles, consumer goods including textiles and electrical and electronic equipment, food and food waste as set forth in Head 7, and construction and construction and demolition waste.

Key Issue 3 - Further Considerations

32. Stakeholders stated that in order for the Bill to be as effective as possible, it is essential that the provisions therein align fully with other climate policy. The Committee agreed that, due to the far-reaching nature of a circular economy, further consideration should be given to expanding the Bill to include a number of relevant measures including relevant EU directives and national policy in relation to biodiversity and habitats.
33. The Committee agreed that in order to action the change to a circular economy, it is necessary to devise and implement a communications campaign highlighting the intended strategies as well as the individual behavioural changes needed. The campaign should encourage buy-in from the general public as well as businesses and high-level stakeholders.
34. Stakeholders stated that there is a need for strong leadership with regard to reusables in order to move away from the disposable economy, including “biodegradable” packaging as they are likely to be incorrectly disposed of. Members agreed that Government Departments including the Houses of the Oireachtas should consider leading the move from disposables by implementing a reuse policy within Departments.
35. Stakeholders highlighted that “greenwashing” common to packaging labels is a key issue with false claims around “compostable” and “biodegradable” packaging materials creating confusion for consumers. While some Members referred to the potential solution to this issue being one standard label for packaging, the Committee noted that in order to implement this in the Single Market, there is an EU mechanism whereby the Commission must be notified, by the Member State and the changes proposed to the labelling must be justified on health, safety and/or environmental grounds. It was also noted by Stakeholders that the current compostable/biodegradable standard EN 13432, the item must be correctly disposed of in an industrial composter and not in a regular compost bin in order for it to break down within 12 weeks.

36. Following on from this, the Committee noted that in many cases, chemicals such as perfluoroalkyl and polyfluoroalkyl substances, PFAS, are included in food packaging that is advertised as being compostable despite exceeding the PFAS limits for compostable items. PFAS create the waterproof or oilproof barrier on packaging for food and are commonly found on compostable food packaging. The chemicals not only come into contact with food but also end up being sent to composting facilities, with the chemicals contaminating compost and ending up in plants and water further down the chain. The Committee noted that Denmark has imposed a ban on PFAS in food contact material and stakeholders advised that similar provisions should be set out in the Bill to combat this issue.
37. In their submission to the Committee, Zero Waste Ireland (ZWI) expressed disappointment that the General Scheme does not contain provisions for a Deposit Return Scheme (DRS) that includes glass in Ireland. Such a scheme incentivises consumers to return empty containers and/or bottles for recycling or reuse. While the Committee noted the legislative regulations² for a DRS in Ireland for plastic bottles and aluminium cans that will come into force in 2022, the Committee agreed that glass should be included due to its strong reusability and the negative social consequences of broken glass on the safety of public spaces like beaches, football pitches and bike lanes. Members agreed that further consideration should be given to including Deposit Return Schemes within the scope of the Bill and including glass in such schemes.
38. Members noted that there may be challenges with regard to buy-in for increasing reuse in different sectors where cheaper disposable alternatives are readily available. However, stakeholders highlighted not only does reuse have fewer environmental impacts, but the long-term costs are lower while also providing local jobs.
39. In addition, stakeholders stated that while increasing awareness around correct bin use was needed, a more effective option would be to simplify packaging at manufacturer level which would also simplify disposal and make it easier to recycle less complex materials. Members agreed that such anomalies must be examined, and measures implemented to discourage and prevent unnecessary waste from packaging.
40. The Committee agreed that planned obsolescence is a significant challenge particularly regarding electronics. Jean-Pierre Schweitzer highlighted that some EU Member States such as France and Italy have legislated for a ban on obsolescence but have found difficulty with regard to implementation. It was noted that Italy had recently prosecuted a case in this area.

² <https://www.gov.ie/en/press-release/b7f94-regulations-signed-for-a-deposit-return-scheme-for-plastic-bottles-and-aluminium-cans/>

41. The Committee agreed that further examination of the issue was needed to ascertain if measures such as enabling “*a right to repair*” and “*a right to reuse*” could be implemented to reduce waste as a result of planned obsolescence.
42. Witnesses discussed the WEEE system currently in place in respect of white goods and the potential for review of that scheme or the addition of complementary measures to place a stronger emphasis on recovery, repair or reuse of such goods was emphasised.
43. The need for specific serious measures in respect of the management, recovery and reuse of precious minerals was highlighted. Mr Schweitzer stated to the Committee that:

“Any kind of wasteful application of electronic products or products containing critical materials at this time is dreadful. It is in this context that we have to think about it.”
44. Some Members highlighted the potential role for emerging technologies such as anaerobic digestion on a smaller scale where food waste is used to create gas for cooking in certain industrial settings such as hotels. However, the Department advised that in relation to food waste, the Bill and roadmap is focused on waste prevention and correct brown bin use rather than the exploration of new technologies and initiatives such as anaerobic digestion.
45. The resource efficient and sustainable nature of many historic or traditional crafts and practices was also highlighted, along with the potential for reimagined and new investment in and development of such skills and heritage.
46. In its submission, ZWAI commended the proposed amendments to the Minerals Development Acts 1940 in Head 19 prohibiting future prospecting for coal, lignite or oil shale. However, highlighting the extensive waste in the construction and demolition industry where only 9% of waste was recycled from 6.2 million tonnes in 2018, ZWAI suggested the Bill be extended to include provisions for quarrying licenses and levies to incentivise increased recycling and recovery of materials in the sector, particularly from deconstructed buildings. The UK has an aggregate tax of £2/tonne to encourage the uptake of recycled material and has resulted in a C&D recycling rate of over 25%.
47. Some members highlighted the importance of access to circular economy facilities such as Civic Amenity (CA) site and emphasised the need for greater harmonisation of opening hours, materials accepted and tariffs at CA’s across the state. The Department agreed, adding that harmonisation would enable more co-location with community, cooperative and social enterprises engaged in re-use activities such as the Men’s Sheds. Ms. Mindy O’Brien suggested these civic amenity sites could host more sharing facilities such as tool libraries.

48. The Committee heard from the Department a recognition of the complexities regarding the Bill's compliance with GDPR, with some members raising concerns regarding how amendments to the Waste Management Acts with respect to CCTV will be legally robust.

Recommendations

Language

1. The Committee recommends that a broader definition for the Circular Economy be drafted beyond the limits of resource use to encapsulate the wider economic, social and environmental aspects of the Circular Economy concept to ensure the legislation is as progressive as possible.
2. The definition of the Circular Economy in the general scheme should be modified by the addition of the following text in bold:

“Circular economy” means an economic model , and the policies and practices which give effect to that model, **“in which every stage of the supply chain is adapted- from the first choice of materials to produce the goods or services through to their end of life in that use - in such a way that at each stage their harmful impact on the environment is minimised and in which resources”** are kept in use for as long as possible, the maximum value is extracted from those resources whilst in use, and products and materials are recovered and regenerated at the end of life.
3. The Committee recommends further consideration be given to the use of the word “may” in provisions whereby the Minister is being given powers to impose levies, product bans and regulations. Members agreed that the term does not stand up to the necessary ambition of actioning a circular economy and that, where appropriate, should be replaced with “shall. The Committee therefore recommends that in Head 6, “The Minister may” be replaced with “The Minister shall” in Sections 1 and 2 (a) and 2 (b).
4. Similarly, the Committee is of the view that the phrase “from time to time” is too vague and recommends that the phrase be replaced with more specific timelines, particularly with regard to Ministerial accountability in Head 3, progress reviews for the EPA in Head 5, and the National Food Loss Prevention Roadmap in Head 7. Such timelines will provide a more transparent process and ensure initiatives are progressing successfully.
5. The Committee recommends that further examination be given to the use of the term “recovery” throughout the General Scheme of the Bill in

order to address any ambiguities with regard to incineration. The Committee recommends the removal of the term “recovery activities” in Head 4.

6. In order to align more closely with the concept of a circular economy, the Committee is of the view that consideration should be given to moving the focus of the legislation onto resource use/management rather than “waste”. The Committee therefore recommends eliminating the use of the term “waste” and replacing it with “resource” where appropriate.
7. The Committee recommends that in Head 4 on the Circular Economy Fund, section 9 might be revised to supplement the current emphasis on waste with language around resource use reduction or resource effectiveness and repair or restoration.
8. In Head 14, the Committee is concerned that including reference to household waste within regulations on commercial waste could dilute the targeted efficacy of the regulations in this section. Separate regulations should be provided for each of these areas.
9. The Committee recommends that new provisions under Heads 19 and 20 should read as ‘Any prospecting licence granted by the Minister under this section after the commencement of the Circular Economy Act 2021 shall not permit prospecting for coal, lignite, natural gas or oil shale.

Targets and accountability

10. The Committee recommends that the proposed Circular Economy Strategy provide target ranges for sectors to expedite the move towards a circular economy, and that numerical targets are included in the Bill.
11. The aim of the Circular Economy Plan should be to reduce the negative impact of supply chains on the environment in a sustained and progressive manner, measured against key criteria which should be set out in the Bill, which include inter alia:
 - reducing the use of non-renewable materials; promoting biodiversity and natural replenishment;
 - reducing specified categories of waste; removing unintended barriers to, and promoting adoption of repair;
 - upgrading, re-use, repurposing and recycling to new uses
 - creating new markets.

12. Key milestones in respect of these goals at sectoral level should be set out in the Plan and monitored. An authority should be given to develop sectoral audits.
13. The Minister shall set out in the Bill the process of drawing up the plan and the consultative stages before adoption in regulations.
14. Explicit authority should be taken in the Bill for evolving and promoting the uptake of sound principles in respect of design, procurement, packaging, logistics, retail, repairability, etc.
15. The Circular Economy Programme should be developed by the Minister (not the EPA). It should cover each of the key sectors and it should be recognised in the legislation that other relevant Ministers must make an effective contribution within their area of responsibility to putting forward measures in the Programme, which achieve the goals of the Plan.
16. Progress under the Programme should be reported annually in tandem with the Climate Plan.
17. The EPA should be empowered to develop in conjunction with the sectors Codes of Good Practice, which could be used in assessing standards of practice within the sector, for example bronze, silver and gold.
18. The evolution of the Food Roadmap should be accompanied by powers, authority and accountability.
19. The power to impose levies should be extended to the use of materials which present substantial difficulty for recycling, where suitable alternatives exist.
20. The areas where targets are set should be extended to include overall material use and the efficiency of its use, nationally and sectorally.
21. The Committee recommends that provision be made for the introduction of material flow analyses, including metrics, measurements and data, within sectors to inform future targets for a circular economy. The Committee suggests an examination of how this process is undertaken in the Netherlands.
22. The Committee recommends that the language within Head 6 be amended to make it clear that this is an indicative list of products and to include a number of other single-use items:

- wet wipes
- single-use hotel toiletries
- single-use sugar and condiments

23. The Committee recommends that specific consideration be given to compatibility with the UN Convention on the Rights of People with a Disability and clear provision be made in the Bill for situations where a material which items which might usually be considered 'single-use' are also, when required by a person with a disability, performing an important additional function. It may be necessary to revise Head 6 to better reflect this.

24. The Committee also recommends that in the review of Head 6, Section 4 might be revised to remove the specificity of "in or at a sales outlet" as that may inadvertently exclude single use materials procured in a commercial or manufacturing context and place a disproportionate share of the levy on retail and private customers.

25. The Committee agreed that greater levels of accountability and progress reporting, accompanied by corrective measures, would ensure that the future legislation is robust enough to achieve real action. The Committee is therefore of the view that further consideration should be given to extending the Bill to include targets and interim targets in a number of areas including but not limited to:

- Targets around reusables and refillables for food and beverages in certain sectors such as hospitality and catering;
- Targets for refillables in certain sectors such as supermarkets, including a percentage of floor space dedicated to refill/reuse similar to the French provision of 20% in shops over 400 sq metres;
- Targets for reusable packaging across industry;
- Targets and interim targets for food waste reduction targets and progress reporting for sectors.
- Textile reuse, repurpose and recycling;
- Electronics and Waste Electronic reuse, repurpose and recycling;
- Construction and demolition waste reuse, repurpose and recycling.

26. In order to reduce packaging further, the Committee recommends that a requirement for loose fruit and vegetables to be of equal cost per kilo as packaged fruit and vegetables be set out in the provisions of the Bill.

27. The Committee recognises the potential for local job creation in reuse and repair of products. The Committee recommends extending targets on reuse and repair in Head 12 to include targets for remanufacturing, and reuse of products across different categories such as textiles, furniture and electronics.
28. The Committee is of the view that consideration should be given to exploring potential financial incentives for repair and reuse “cafés”.
29. The Committee also recommends the constructive use of VAT relief for refurbished/repared items, tax deductions/credits for businesses purchasing recycled refurbished or repaired items, grants or tax incentives to invest in sanitary equipment to wash reusable packaging. This could be achieved through examining the supports under the Circular Economy Fund.
30. The Committee also recommends examining the area of insurance and liability for those working in the repair and reuse sector.
31. The Committee welcomes the planned development of new public industrial washing and sterilisation facilities as an area which should be expanded further and recommend that provision might be made in the legislation to allow for the setting of regulations and standards around the use of such facilities, which should be accessible to a variety of public and private actors, including SMES in manufacturing, retail and hospitality.

Further Considerations

32. The Circular Economy Plan should be developed and amended in step with the Climate Action Plan, and the review of its progress should occur in a linked manner.
33. The Committee recommends that the final draft of the Bill should be compatible with best practice on GHG measurement including the measurement of Scope 1, Scope 2 and Scope 3 emissions.
34. The Strategy should consider how to achieve greater harmonisation of civic amenity site services in terms of opening hours, materials accepted, accessibility, tariffs charged. Co-location with cooperative and social enterprises such as Men’s Sheds should be encouraged.
35. Additional purposes for support by the Circular Economy Fund should be considered and mechanisms be put forward in the legislation for broadening the scope of the fund, such as:

- to promote accurate information on the impact of supply chains to consumers for labels or otherwise;
 - to encourage the creation of credits gained from positive enhancement of environmental quality, which could form the basis for generating rewards to those desiring them;
 - to facilitate the emergence of new economic activities consistent with the delivery of this Plan, which might not otherwise be economically viable.
36. The power to have a register of households with incomplete segregated collection facilities should be extended to commercial premises which are often greater offenders and responsible for more illegal dumping.
37. The Bill should allow for a differential levy under Head 15 for different categories of waste.
38. The power should be created, if it is not already in Head 14, to create new areas of Extended Producer Responsibility.
39. The Committee expressed concern that including the same hard legal requirement for fees on any collection of household waste as applied to commercial waste could have inadvertent consequences on engagement in waste or resource management by voluntary organisations or vulnerable communities.”
40. The Committee recommends that provision be made for the implementation of a national public awareness campaign for the Circular Economy. Such a campaign should also include raising awareness around reusables and refillables and correct waste disposal.
41. The Committee also notes the need for a careful and thoughtful review and updating of Health and Safety standards, regulations and guidelines in the area of repair and reuse, including specific consideration of appropriate provisions in respect of retail, hospitality, material recovery and construction.
42. The Committee recommends that the existing plastic bag levy be expanded to include appropriate levies on all single-use bags (virgin paper, fibre etc) – and plastic bags that are not designed for more than a few uses and are not robust enough to withstand more than 10 uses.
43. The Committee recommends that an appropriate tax measure such as VAT or a tax levy on the use of virgin plastic be introduced to discourage its use and encourage wider use of recovered and recycled plastic.

44. The Committee expressed concern that the use of chemicals such as perfluoroalkyl and polyfluoroalkyl substances (PFAS) regularly exceeds the limits for what is deemed to be “compostable”. The Committee therefore recommends that a complete ban on PFAS use in food contact packaging be provided for in the Bill and that further examination of the use of PFAS in compostable products be conducted. Such a ban has been implemented in Denmark and the Committee recommends an examination of the experience of this jurisdiction.
45. The Committee also recommends standardised labelling for compostable/biodegradable/degradable products to ensure such products meet the one compostable EN13432 standard.
46. The Committee recognises the intended introduction of Deposit Return Schemes for aluminium cans and plastic bottles in 2022. As glass is an acceptable material for deposit return and for the development of collection, cleaning and refilling infrastructure, consideration should be given to including glass containers in any future expansion of the deposit return scheme.
47. The Committee recommends that an examination be conducted into the potential measures for addressing the challenge of planned obsolescence, particularly in relation to electronics. This should include a broad examination of international examples and potential measures could include “a right to repair”.
48. The Committee recommends that the Bill might provide for legislative or regulatory measures to track and discourage early or intentional obsolescence in design or manufacturing of goods and that such measures could be informed by a consideration of the operation of similar policies in other countries, including France and Italy.
49. The Committee also recommends proactive measures to support and encourage more successful “repair cafés” as seen across EU Member States and in the UK, including grants from the Circular Economy Fund and potential use of VAT reliefs and tax credits.
50. The Committee recommends that a review be conducted into how the WEEE scheme might be revised or supplemented to better complement the wider approach to a circular economy and particularly recommend the addition of complementary measures to move beyond recycling and support recovery, repair or reuse of white and electronic goods.

51. The Committee recommends that consideration be given to the renewal and wider development of traditional and heritage crafts, skills and practices which have the potential to contribute to efficient resource management including reuse, repair and restoration.
52. The Committee recommends that consideration be given to the area of anaerobic digestion and other emerging technologies that may offer innovative ways to manage waste within industries.
53. The Committee recommends that provisions should be included to grant the appropriate Minister powers to introduce licences and levies for quarries to incentivise the recovery and recycling of construction industry materials.
54. The Committee agree with the emphasis placed by witnesses on the significant role a circular economy and measures to support material reuse and recovery can play in addressing the embodied emissions associated with construction and demolition and given that that Ireland is entering a period of significant construction, we recommend that particular consideration be given to measures in this area.
55. The Committee recommends that there should be specific measures for tracking, reuse and repair of products which are built with critical materials such as precious minerals.
56. The Committee also recommends that given the importance of management of minerals in a circular economy, potential appropriate tax measures such as levies in respect of waste of precious minerals including through intentional obsolescence should be considered.
57. The Committee also recommends that given the importance of management of minerals, including precious minerals, in the context of national and global circular economy strategies, regulation and, where necessary, limitations in respect of the extraction of such minerals should be considered.
58. The Committee agreed with recommendations from witnesses that Green Public Procurement be placed on statutory footing and recommends specific provisions reflecting the importance of Green Public Procurement and Circular Public Procurement be included in this Bill and other related legislation.
59. The Committee recommends the development of public procurement quality criteria that support a circular economy and act as a driver towards a more a sustainable and responsible system and culture for consumption including, but not limited to, quality criteria such as life-cycle costing, material flow analysis. Measurement of Scope 3 GHG

emissions, the use and re-use of materials, end of use recycling and disposal, and the reduction of packaging.

60. The Committee recommends that particular care be taken in respect of the Bill's compliance with GDPR, that a data protection impact assessment of the legislation be conducted, and particular consideration given to Head 10, 11, 13 and 18, and any necessary revisions be made.
61. The Committee notes with concern the omission of "natural gas" in the phrasing "Any prospecting licence granted by the Minister under this section after the commencement of the Circular Economy Act 2021 shall not permit prospecting for coal, lignite, oil shale." given that natural gas is included in the Minerals Act 1940. The Committee queries this omission.
62. The Committee notes that given extraction has a global dimension, consideration should also be given to environmental and human rights considerations in devising circular economy action plans.

Appendix 1 – Terms of Reference

Functions of the Committee – derived from Standing Orders [DSO 95; SSO 71]

- (1) The Select Committee shall consider and, unless otherwise provided for in these Standing Orders or by order, to report to the Dáil on any matter relating to —
 - (a) legislation, policy, governance, expenditure and administration of—
 - (i) a Government Department, and
 - (ii) State bodies within the responsibility of such Department, and
 - (b) the performance of a non-State body in relation to an agreement for the provision of services that it has entered into with any such Government Department or State body.
- (2) The Select Committee appointed pursuant to this Standing Order shall also consider such other matters which—
 - (a) stand referred to the Committee by virtue of these Standing Orders or statute law, or
 - (b) shall be referred to the Committee by order of the Dáil.
- (3) The principal purpose of Committee consideration of matters of policy, governance, expenditure and administration under paragraph (1) shall be—
 - (a) for the accountability of the relevant Minister or Minister of State, and
 - (b) to assess the performance of the relevant Government Department or of a State body within the responsibility of the relevant Department, in delivering public services while achieving intended outcomes, including value for money.
- (4) The Select Committee appointed pursuant to this Standing Order shall not consider any matter relating to accounts audited by, or reports of, the Comptroller and Auditor General unless the Committee of Public Accounts—
 - (a) consents to such consideration, or
 - (b) has reported on such accounts or reports.
- (5) The Select Committee appointed pursuant to this Standing Order may be joined with a Select Committee appointed by Seanad Éireann to be and act as a Joint Committee for the purposes of paragraph (1) and such other purposes as may be specified in these Standing Orders or by order of the Dáil: provided that the Joint Committee shall not consider—

- (a) the Committee Stage of a Bill,
 - (b) Estimates for Public Services, or
 - (c) a proposal contained in a motion for the approval of an international agreement involving a charge upon public funds referred to the Committee by order of the Dáil.
- (6) Any report that the Joint Committee proposes to make shall, on adoption by the Joint Committee, be made to both Houses of the Oireachtas.
- (7) The Chairman of the Select Committee appointed pursuant to this Standing Order shall also be Chairman of the Joint Committee.
- (8) Where the Select Committee proposes to consider—
- (a) EU draft legislative acts standing referred to the Select Committee under Standing Order 133, including the compliance of such acts with the principle of subsidiarity,
 - (b) other proposals for EU legislation and related policy issues, including programmes and guidelines prepared by the European Commission as a basis of possible legislative action,
 - (c) non-legislative documents published by any EU institution in relation to EU policy matters, or
 - (d) matters listed for consideration on the agenda for meetings of the relevant Council (of Ministers) of the European Union and the outcome of such meetings,
- the following may be notified accordingly and shall have the right to attend and take part in such consideration without having a right to move motions or amendments or the right to vote:
- (i) members of the European Parliament elected from constituencies in Ireland,
 - (ii) members of the Irish delegation to the Parliamentary Assembly of the Council of Europe, and
 - (iii) at the invitation of the Committee, other members of the European Parliament.
- (9) The Select Committee appointed pursuant to this Standing Order may, in respect of any Ombudsman charged with oversight of public services within the policy remit of the relevant Department consider—
- (a) such motions relating to the appointment of an Ombudsman as may be referred to the Committee, and
 - (b) such Ombudsman reports laid before either or both Houses of the Oireachtas as the Committee may select: Provided that the provisions

of Standing Order 130 apply where the Select Committee has not considered the Ombudsman report, or a portion or portions thereof, within two months (excluding Christmas, Easter or summer recess periods) of the report being laid before either or both Houses of the Oireachtas.

b. Scope and Context of Activities of Committees (as derived from Standing Orders) [DSO 94; SSO 70]

- (1) It shall be an instruction to each Select Committee that—
- (a) it may only consider such matters, engage in such activities, exercise such powers and discharge such functions as are specifically authorised under its orders of reference and under Standing Orders;
 - (b) such matters, activities, powers and functions shall be relevant to, and shall arise only in the context of, the preparation of a report to the Dáil;
 - (c) it shall not consider any matter which is being considered, or of which notice has been given of a proposal to consider, by the Joint Committee on Public Petitions in the exercise of its functions under Standing Order 125(1)1; and
 - (d) it shall refrain from inquiring into in public session or publishing confidential information regarding any matter if so requested, for stated reasons given in writing, by—
 - (i) a member of the Government or a Minister of State, or
 - (ii) the principal office-holder of a State body within the responsibility of a Government Department or
 - (iii) the principal office-holder of a non-State body which is partly funded by the State,

Provided that the Committee may appeal any such request made to the Ceann Comhairle, whose decision shall be final.

- (2) It shall be an instruction to all Select Committees to which Bills are referred that they shall ensure that not more than two Select Committees shall meet to consider a Bill on any given day, unless the Dáil, after due notice to the Business Committee by a Chairman of one of the Select Committees concerned, waives this instruction.

Appendix 2 – Links to Official Reports

7 October 2021 - [Official report](#)

14 October 2021 – [Official report](#)

21 October 2021 – [Official report](#)

Appendix 3 – Rapporteur Report

Circular Economy Report for the Joint Committee on Environment and Climate Action - Richard Bruton TD

Following agreement by the Joint Committee on Environment and Climate Action Richard Bruton TD acting as a rapporteur has produced the following report on the Circular Economy.

The government has committed to developing a Circular Economy Strategy and have opened a public consultation on the matter. It is therefore very timely that the Committee should consider its potential at this time, and contribute to a high level of ambition being formed.

This is an initial draft. All research and engagement with stakeholders was carried out by Richard Bruton TD. This engagement will continue, but it is opportune to circulate a draft of the approach proposed so that a wider range of input and reaction can be obtained.

To succeed a strategy for a circular economy must have wide support across our entire community. I hope that this is a meaningful contribution to the creation of that broad-based support.

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Creating a Circular Economy

Executive Summary

One of the legacies of the Covid crisis is an increased consciousness of the risks associated with global supply chains. Now is the time to reinforce the impetus created by the Climate Crisis to deliver more sustainable supply chains. Switching from carbon sources of Energy will only get us about half the way to the 2050 net zero target.

The present linear model is often described as 'Take, Make, Use, Discard'. It treats as costless the adverse environmental impacts along that supply chain. It is estimated that the raw material resources which we use in a year is already 50% more than nature can replenish in a year, and this will rise to a factor of 3 by 2050 on present trends. This is simply not sustainable.

The ambition of the Circular Economy model is to break the link between economic growth and degradation of our environment. It seeks to rethink supply chains in their entirety on this basis. At a conceptual level, the problem can be characterised as what the economists call market failure—the failure to put a price on environmental damage. However, it is not easy to design the sort of market tools which would be needed to fix the market failure along all the different supply chains.

The concept of a new hierarchy such as Reduce, Reuse, Repurpose, Recycle is a useful starting point for policy prescriptions. However, the reality is that the cost constraints arise in each of the rungs of such a hierarchy ladder. There is a need to develop environmental impact methodologies that can help compare the true costs and provide greater accuracy in the choice of policy tools.

There is growing concern among consumers about the environmental impact of choices, the ethical means of production and where waste ends up. However, clear information is often hard to come by, labelling is often deliberately ambiguous.

Some basic facts which illustrate the need and the opportunity of fresh circular thinking about supply chains in Ireland include:-

- Building, mobility and nutrition are the dominant drivers of Ireland's higher than average material extraction and there is strong evidence of poor attention to resource use in these areas.
- Environmental degradation in Ireland is clear in emissions, in biodiversity loss, in water quality etc. Eco-design is weak.
- Over 600kg of municipal waste is generated for each one of us, which is 22% higher than the EU average and seventh highest amongst members.
- Food waste, estimated at over 1m tonnes, creates over 3m tonnes of GHG emissions each year.

- There has been a very sharp fall in the reliance on landfill. However, all of this has been taken up by the two incineration sites, with recycling stagnating or even marginally deteriorating with the current rate standing at just 38%.
- Only one third of plastics now put on the market are recyclable.
- Up to one third of the items placed in the green bin should not have been placed there. Only half of compostable material is estimated to end up in the brown bin for those who have one, but 57% of homes do not have a separate brown collection.
- There is a network of 96 Bring Centres but together they only receive 137k tonnes of material, less than 5% on the waste we generate.
- Most recycled material other than compostable material is exported, representing about 75% export dependency.

Despite the emergence of some innovative initiatives which are the hallmark of circular are poorly developed. The market for materials recovered through recycling is weak and hampers best use of materials. The Repair, Reuse and Refurbishment sectors are very small. The Sharing Sector in Ireland is also in its infancy. Building and car occupancy in Ireland are exceptionally low. Few of our public buildings accommodate different users.

Making the right choices at the outset is so much better than trying to correct this afterwards. This is why the new Environment Taxonomy established by the EU to shape investment decisions will be so important. It creates a framework within which there will be screening criteria on investment with respect to Climate impacts, Circularity, Biodiversity, Pollution, and Water impacts. Financial institutions will have to disclose the extent to which their portfolios are aligned. A similar regime will be needed for public procurement and investment.

If we are to deliver a circular strategy, a big shift will be needed. Eco design must become a central tool to drive rethinking of the supply chains. Standardisation of what must appear on labels and the verifiability of any claims. Standardisation of Public Procurement to align with the new attention to circularity. The creation of new targets and the emergence of new markets are needed to make a Circular Economy model a reality. Tighter regulation of what materials can be used and a consistent methodology for Product Environmental Footprinting are needed.

Proposed Actions

- 1) Momentum must be injected into The Strategy for Waste and the Circular Economy by setting timelines and responsibility for the delivery of the large numbers of important actions set out, and integrating their implementation into the Climate Action monitoring process.
- 2) New actions to promote the Circular Economy should be integrated into the Climate Action Plan— built into the detailed sectoral planning, the implementation oversight and the reporting obligations. It provides a broader framework within which the actions in Electricity, Transport, Buildings, Agriculture, Waste etc can be viewed. It gives a richer perspective on what sustainability requires, identifying opportunities beyond GHG inventories alone, and pointing up those situations where rapid carbon reduction

may compromise other goals. It also avoids setting up separate institutional arrangements that strain limited resources.

- 3) The Proposed Circular Economy Strategy should establish target ranges for key indicators which embed real ambition and the adoption of a Circular approach to create a clear performance framework for the strategy. Targets should include:
 - Halving extracted raw material 2030
 - Halving Residual waste 2030
 - Halve Food Waste 2026
 - Adopting a Zero Pollution Target for 2050
 - Zero Plastics to incineration or landfill 2030
 - Double the size of the Reuse Sector 2026
- 4) The Central Bank and DPER should immediately customise the EU Taxonomy for Sustainable Investment to Irish needs. It could over time establish growing momentum for channelling investment only into sustainable patterns, and for greater attention by investors to the environmental impact of the entire supply chain, forcing the application of best practice principles. It should cover public as well as private investment.
- 5) An updated directive for Green Procurement should be issued by DPER, which incorporates the approach enshrined in the EU Green Deal, and a requirement set that all frameworks of procurement at national and local level should embed this in procurement frameworks within two years.
- 6) The EPA should generate more data to verify and inform consumers of the impact of choices made around product, service, packaging, reuse and end of life disposal, and popularise the research that they do so people better understand the contribution they can make.
- 7) A series of Sectoral Roadmaps to enshrine the adoption of circular principles should be developed in consultation with stakeholders, embracing the entire supply chains, involving both suppliers and consumer interests. Credible targets should be set and benchmarks of improvement should be set and verified. This roadmap would inform regulatory oversight, enterprise support policy and public procurement. It should target areas of competitive advantage for job creation opportunities in Ireland. A much larger Innovation Fund should be evolved to support pioneering change in key sectors.
- 8) A Construction Sectoral Roadmap should develop a comprehensive database to inform policy and set out a strategy to address the opportunities for circular thinking outlined. Specifically it should evolve policy initiatives to promote better preplanning, better choice of materials and methods, more effective reuse of materials, easier repurposing and refurbishment, better occupancy patterns.
- 9) The recasting of the Common Agricultural Policy for Ireland must be used to embed Circular practices in the Farming and Food sectors
- 10) A Roadmap for halving food waste must be urgently developed drawing lessons from the successful approach in the UK. The objective must be to maximise the beneficial use of food at risk of loss, and optimise its use within the Food Hierarchy.

- 11) A Roadmap across the Distribution and Retail Sectors must be urgently developed to accelerate the change already underway in limiting single use items, packaging, plastics, recovery and reuse. It should chart out how the new targets can be delivered.
- 12) An Economic Regulator of the Waste Sector should be established to move towards geographic franchises. It would also regulate consumer protection and reporting obligations, oversee the quality of separation and segregation, and develop optimal market design features to promote best practice in reuse and recycling.
- 13) The effectiveness of the very complex structure of regulation in delivering the step change now needed in the sector should be independently assessed and a report presented to the Minister within 12 months.
- 14) A New Markets Task Force should be established to report in six months on how viable networks can be created to deliver on the potential for more sustainable practices through sharing, refurbishment, recovery and reuse of materials.
- 15) A regional network of Rediscovery Centres, modelled on that in Ballymun, should be established to become hubs for innovation, and focal points for local engagement with community-led sustainability initiatives. A certain number of the Civic Amenity Centres should be earmarked to develop such centres, and applications should be invited for community partners to develop the initiative.
- 16) The mandate of Enterprise Ireland and the Local Enterprise Offices should be extended to cover start-up in this circular sustainability space. By reducing our global footprint, they perform a not dissimilar role to export earning enterprises who have traditionally been the focus of support.
- 17) The network of Bring Centres must develop their role significantly. An implementation plan being prepared by the City and County Managers is an opportunity to shape a vision for these centres as real drivers of local sustainability. They need to build much closer relationships with the enterprise sectors in their area and reach out to engage with the Green Schools initiative.



Richard Bruton TD
Member of the Joint Committee on Environment and Climate Action
May 2021

1 The Concept of Circularity

One of the legacies of the Covid crisis is an increased consciousness of the risks associated with global supply chains. The integration of the global economy, and the erosion of previously undisturbed ecosystems to meet the needs of a more urbanised society has created new risks of viruses which can spread rapidly. It will bring enhanced focus on devising lower risk supply chains, and so reinforcing the impetus from the Climate Crisis for more sustainable supply chains.

With 70% of carbon emissions coming from how we obtain and use materials, we need to make a step-change in the way we produce, consume and dispose of the items required to support our lifestyles. Switching from carbon sources of Energy will only get us about half the way to the 2050 net zero target, so the concepts of circularity will become central to the transformation required.

The present model often described as “ Take, Make, Use, Discard” treats as costless the various impacts not directly paid for along that supply chain. The impact on the atmosphere, on the natural environment, on seas and waterways are not brought to bear on the decision makers. It is estimated that the raw material resources which we use in a year is already 50% more than nature can replenish in a year, and this will rise to a factor of 3 by 2050 on present trends. The evidence of degradation of the planet’s resources is already well documented, not only the evidence of global warming and its impact, but also the loss of biodiversity, the depletion or degradation of important resources, the growing plastic pollution of our oceans, and the dangerous levels of pollution associated with existing patterns of development.

Described as making supply chains “circular” instead of linear, the ambition of the Circular Economy model is to break the link between economic growth and degradation of our environment. It is built around a hierarchy of “Rs” which go far beyond the focus on recovery and recycling which informs the existing targets set out for the waste sectors by EU regulations.

It has centred on waste management and pollution. It has been built around improvements by 2030 and beyond; in air quality targets, recycling targets, certain end of life obligations, restrictions on the use of non-recyclable packaging and on Single Use Plastics, and requirements to cut reliance on Landfill, all set at EU level. They focus on the end of pipeline rather than the design of the entire chain.

The Circular Economy goes much further and seeks to change the principles on which supply chains are built. It seeks to create entirely new expectations on producers who have not had to account for their choice of materials to use (beyond the highly toxic), nor how their product is assembled and distributed, nor what packaging they deploy. Traditionally these would have

been seen as decisions internal to the enterprise. What the Circular Economy asks of producers is to design out of their supply chain the sources of environmental damage: waste, pollution, carbon impact, non-renewables and non-recyclables.

In the Circular Economy designers are asked to look at the supply chain in its entirety to follow a much more demanding nine R hierarchy, which embraces:-

Refuse
Rethink
Reduce
Reuse
Repair
Refurbish
Remanufacture
Repurpose
Recycle
Recover.

It creates stringent expectations that designers will look all along the supply chain from cradle to grave: to only use renewable power, to look to the sustainability of materials chosen, to design out the need to discard either product or packaging and to design in measures to lengthen the life of products, and after that to accommodate secondary uses, when refurbished or when dismantled. At each step in the hierarchy the aim is that full lifecycle environmental as well as internal costs will be assessed when devising effective measures to be incorporated into design. This has now moved to the heart of the ambition of the EU within the wider Green Deal.

The Green Deal will see the emergence of a whole range of new targets, which Ireland should seek to lead out upon:— for Reduction, for Reuse, bans a wide range of Single Use items, for Ecolabelling, and for an EU Environment Taxonomy to establish investment criteria on which Corporations and Financial institutions will be forced to disclose and to show that they are designing out the risk in their investment portfolios. Increasingly too, Central Banks are recognising that prudential regulation is not just concerned with financial risk, but also the wider risks of sustainability and exposure of portfolios to investments liable to become stranded assets. A Zero Pollution target has also been set.

At a conceptual level, the problem can be characterised as what the economists call market failure. Producers and consumers are not charged with the full costs in terms of carbon emissions, pollution, degradation of biodiversity, and the basic finite nature of the planet's resources when they manufacture, consume or discard.

However, it is not easy to design the sort of market tools which would be needed to fix the market failure along all the different supply chains. Instead in the face of a climate and biodiversity emergency, the demands of urgency are pushing for the setting of regulatory targets and administrative processes which will force change into the system. However, care must be taken to choose targets carefully, with careful attention to the alternatives which are most effective and impose least cost on the community.

The well established imperative to reduce greenhouse gases has stimulated the emergence of sophisticated Energy Trading systems to promote renewables and force down the use of fossil fuels. The calculation of Marginal Abatement Cost Curves have helped governments to identify the options with the lowest cost over their lifetime to achieve the goals. It is not so easy with the multiple different environmental goals emerging within the Circular Economy.

While the concept of a hierarchy is a useful starting point, the reality is that cost constraints arise in each of the rungs of the hierarchy ladder. Policy efficiency demands that the marginal cost of further environmental improvement be equalised across the range of policies. Any regulatory standard set must take this into account through Regulatory Impact Assessments, and avoid unintended consequences. There is a need to develop environmental impact methodologies that can help compare true costs and provide greater accuracy in the choice of policy tools in each of the sectors with greatest potential. The EPA should undertake research on the trade offs that are inevitably made when setting policy targets or deciding how far to push measures.

Many Circular Economy Strategies rely on greenhouse gas emissions as the proxy for wider environmental deterioration. However, this correlation does not always hold up. Some policy actions with the biggest carbon impact may damage biodiversity, for example planting monoculture conifer forests. The concept of circularity creates the broader framework which will become more important as we make rapid progress to making our energy sources renewable, it will be the poor use of materials along the supply chain that will then become the knotty remaining challenge. The Circular Economy thinking also reaches beyond the inventory of carbon generated in production activities. They are the currency of national commitments in the Paris Agreement, but they can deflect attention from the gains from circular principles along the entire supply chain where the gains may be reflected in the inventory of another country.

The public is intuitively sympathetic to using materials more carefully. There is a growing interest among consumers around the environmental impact of what they buy and the ethical means of production. Already you can see how this customer pressure is forcing change from retail level back up the supply chain. However clear information is often hard to come by, labelling is often deliberately ambiguous, and consumers are exposed to “green washing” by marketers. In practice, it is only the very determined consumer who can have the discernment to embed circular thinking in their day to day lifestyle.

If we are to build a much wider consumer awareness and commitment to the principles of circularity there needs to be an evolution of convincing data on what savings are achieved along the supply chain by adopting the approach. This is challenging because the environmental impacts are diverse and methodologies for combining them into some composite indicator are only emerging.

A big question for consumers is will this add to their cost of living. If suppliers can now blithely ignore environmental costs, policies which require them to be counted will impose new costs unless smart design can avoid them. This is the challenge for designers. However, consumers will also have new opportunities of choosing refurbished items, or of repair to extend life which can potentially reduce cost. The consumer too needs to rethink priorities, when existing consumption patterns are effectively robbing the coming generations of their opportunities.

The economic activities which could grow if the Circular Economy was robustly embraced are underdeveloped and fragile. At the same time evaluations of the potential impact can demonstrate huge material savings and job opportunities. The opportunities are particularly strong in sectors such as food, construction and packaging and many countries are taking a sectoral approach to the development of policy, emphasising not just sustainability, but job opportunities, often well dispersed through the regions.

2 The State of Play In Ireland

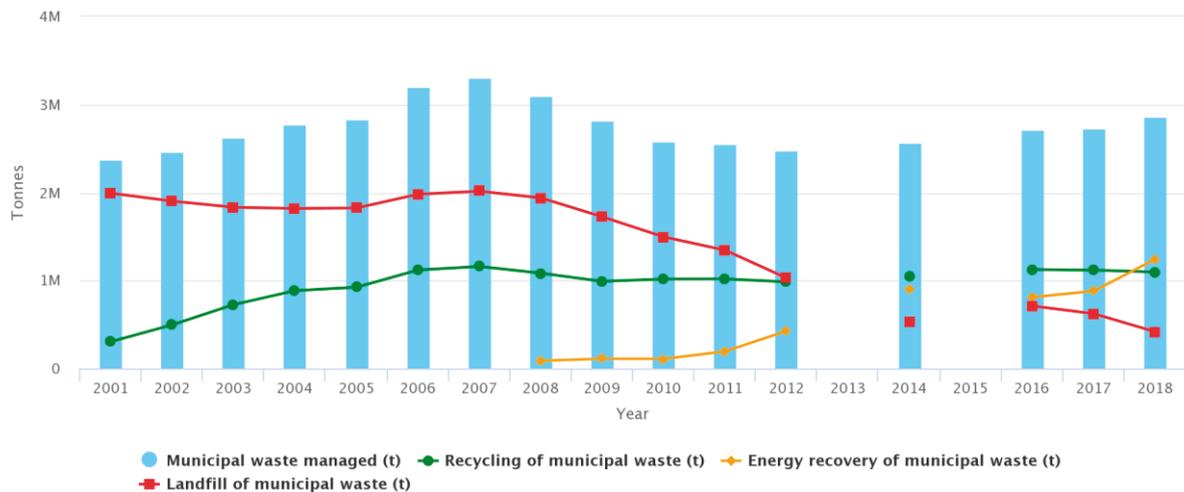
Ireland is beginning to develop a new strategy incorporating circular economy concepts, with the publication last year of the “Waste Action Plan For a Circular Economy”. However, it has still to emerge from under the waste management approach which dominates our regulatory frameworks. A new Circular Economy Strategy is promised for later this year, so it is timely for the Oireachtas to consider what should be in it.

Material Use

Globally use of extracted materials has grown four fold since the 1970s, and this pace of expansion is not sustainable. Building, mobility and nutrition are the dominant drivers of material extraction. Ireland's large construction sector makes Ireland a relatively high user of materials. Unlike some countries, the efficiency of material use has not been measured, nor been a focus of policy. A serious Circular Economy strategy will have to develop granular detail on material use by sector and the extent to which available opportunities for reduction can be achieved.

Waste Volumes

Waste has, on the other hand has been the focus of considerable policy development. Overall Ireland generates 14mt of waste, with almost 45% from the construction sector.



Highcharts.com

1

Extended Producer responsibility schemes apply to certain sectors: vehicles, tyres, batteries, electrical and electronic equipment, and farm plastics. They are funded by a levy on those placing product on the market. €140 per tonne for farm plastics, €31,000 if you import more than 10 cars, €2.80 levy on each tyre, a once off registration fee to WEEE of €400-€600 and an annual membership fee of €600-€400 for producers of batteries and electrical goods. They are all meeting or exceeding the respective EU target for the recycling rate and are in the case of vehicles, batteries and electrical/electronic equipment around 85%, a recycling rate of 94%² and 70%+ recycling rate for farm plastics.³

The main focus of policy development has been on the municipal waste stream coming from both household, making up a little over half, and commercial users. Together they generate 2.9m tonnes of waste each year. This is up 21% since the year 2000, but is still well below the boom time peak of 3.3mt in 2007. For each one of us 600kg of municipal waste is generated, which is 22% higher than the EU average and seventh highest amongst members. Best performers at a comparable level of development are Belgium 411, Sweden 434, and the UK 463, so we should be able to reduce this amount. Within this, Ireland generates 220kg of packaging per head, estimated to be 27% above the EU average, while plastic packaging at 59kg per head is said to be almost 80% higher than average, although this figure is disputed.

Food waste, estimated at over 1m tonnes, beyond the farm gate is a particular target of attention. Only a quarter of that occurs in the household sector. Nearly half arises in the processing sector, and the food service sector is put down as the sector with the highest amount of avoidable waste (in some cases 80% avoidable). It is estimated that 20% of food is wasted in Europe, and the picture is probably similar here. Food Cloud is an innovative Irish

1

<https://www.epa.ie/nationalwastestatistics/municipal/#:~:text=Ireland%20generated%202.9%20million%20tonnes,2017%20and%2041%25%20in%202016.&text=A%20further%206%2C000%20tonnes%20was%20exported%20for%20disposal>.

2

<https://www.epa.ie/nationalwastestatistics/tyres/#:~:text=A%20recycling%20rate%20of%2030%25%20of%20all%20tyres%20collected>.

³ <https://www.farmplastics.ie/faq/>

enterprise which acts as a broker between charitable outlets and food donors, and its technology has been taken up in other European countries.

Waste Disposal

There has been a very sharp fall in the reliance on land fill in the past decade down from 60% to 15%, and the number of active landfills now stands at five, one sixth of what it was a decade ago. The introduction of a €75/t levy by government on top of gate fees contributed to this trend. However, all of this has been taken up by the two incineration sites, with recycling stagnating or even marginally deteriorating, with the current rate standing at just 38%. This is just about reaching the EU target, but with that target set to rise to 65% by 2035, Ireland faces a major challenge.

In glass and paper, Ireland is delivering 80% recycling rates, falling to 64% for metal and wood. The problem area is plastic where current recycling rates are under 30%. The big problem with plastic is that only one third of plastics now put on the market are recyclable through the Green Bin. Only hard plastics are currently on the recycling list. The problem is that many of the separation plants cannot detect soft plastics. This sorting technology is beginning to change, and food producers have made changes to allow hard black plastics to be recycled. However a knottier problem is the use of composite plastics in packaging design. The EU regulations require the end of all non recyclable plastics and a recycling rate of 55% by 2030.

Overall the recycling rate for packaging is 64%, comfortably above the present 55% target. Recycling is supported by a levy on packaging placed on the market administered by Repak, as an Extended Producer Responsibility scheme for Packaging. To spur change, a ban on Single Use Plastics will apply to certain items later this year, and the present fee of €115/t for all plastic packaging placed on the market will move to impose a higher fee for non recyclable plastic of €175/t in July 2021, rising to €271 in 2023. However, also a €800/t EU levy on non recycled plastics is coming into effect in 2021, but payable in arrears from 2023, as a new revenue source for the EU. The immediate plan is that the Exchequer will meet the calculated liability. However, it will almost certainly shift back onto a direct charge in the sector as time goes by. It will dramatically alter the balance against the use of virgin plastic and the use of non-recyclable composites now in use. Repak current charges per tonne; €2.05 (paper, glass & aluminium).

Many corporates have recognised the growing disquiet around the profligate use of plastics, and 132 major companies have signed up to the plastic pledge. Together they account for 60% of the plastics put on the market. The pledge commits them to make progress in reduction, in a move to recyclable/reusable/compostable materials, eliminating single use, etc. IBEC observes that 80% of environmental impact is baked in at the design stage and is establishing a Circular Economy Expert Forum to assist companies who need guidance in overhauling product design. However, it recognises the complexity and risk of unintended consequences for crude regulatory targets.

Recycling rates are also hampered by poor segregation of waste by both households and business. Up to one third of the items placed in the Green Bin should not have been placed there. This is undoubtedly due to poor awareness, but the lower charge on green bin collection can cause perverse behaviour if there is no enforcement. Depending on the source of the misplaced material, it can contaminate what is collected.

Only half of compostable material is estimated to end up in the Brown Bin for those who have one, but 57% of homes do not have a separate brown collection. The gradual extension of the brown bin collection has nonetheless seen compostable collection from Municipal Waste grow from 110k tonnes ten years ago to 245k tonnes today, with non municipal sources bringing total composted volumes up to 436k tonnes.

The content of the residual bin going to landfill or incineration contains 16% organic waste, 15% paper, for which there is a kerbside collection, 16% textiles, for which there are clothes banks available, 1% WEE for which bring centres are available and 19% plastic. Almost two thirds of its content could have found a better destination. The situation with business is even worse, where 70% of what ends up in the residual waste stream could have been recycled.

Household separation of hazardous waste will become mandatory within the EU 2022, of organic 2023, and of textiles in 2025. Indeed Denmark has committed to have ten separate streams sorted in homes and business, requiring segregation of the distinct streams which now all enter our Green Bin.

Waste Collection

There is a network of 96 Bring Centres who together take in 137k tonnes of material. This represents less than 5% of the total municipal waste volume. The potential of this network is very underdeveloped. The annual footfall is just 1 million, with an estimated 153,000 users. Which suggests fewer than 10% of households use them at all. The City and County Managers have recognised the need to develop this network and have published a review which aims to standardise the offering across the country, and step up their role in managing the waste stream on circular economy principles. An implementation plan is to follow.

The Waste Collection network is huge with over 2,000 collectors, who vary in scale and sophistication, although it has consolidated from 3,800 ten years ago. They are licenced by the EPA and have to conform to basic standards in collection, separation and disposal, as well as to Local authority regulations. Traditionally, many kerbside collections were operated by Local Authorities, but over time they exited due to operational challenges and their inability to get Councils to agree to cost covering charges for collection. In total, there are now 63 kerbside collection companies, but the top 20 have 90% of the market. About 80% of the country is served by more than one operator.

Currently, only half of homes have a brown bin collection, with a huge range across rural and urban counties from a low of 5% to a high of 90%. Over 20% of homes have no municipal collection at all. The sophistication of segregation and collection has improved with better detection equipment. However, to date waste collectors still face poor practices from their

customer base, and particularly the business users. Initiatives to monitor the quality of separation, contamination and presentation are beginning to emerge and some incentives are offered.

Fly tipping of rubbish remains a huge problem with the full range from individual households refusing to have a paid service to organised crime level dumping. Enforcement efforts have been stepped up with greater coordinate enforcement initiatives and new bylaws requiring householders to demonstrate how they dispose of their waste.

Competition and Pricing in Waste Collection

Regulations were introduced in the past five years which prevent an undifferentiated charge for residual waste regardless of volume or weight. Many different pricing regimes apply with varying levels of incentivisation of good waste minimisation/segregation behaviours. The Department monitors the pattern of pricing, and in particular the rate of increase in charges, but does not seek to standardise charges.

Because of the way Councils exited the collection business, a pattern of competition has emerged where kerbside collectors compete side by side in the same market, and indeed on the same street, resulting in wasteful duplication. The Competition and Consumer Protection Commission has recommended that a regulator should be established for the sector, and that over time, a system should be evolved where collectors compete for a tender to deliver an exclusive collection within designated geographic areas. This has so far not been acted upon.

Material Recovery Evolving

Some of the larger Waste Collection and Processing businesses are becoming sophisticated businesses and are actively managing material recovery opportunities to keep down their waste disposal costs. Innovative uses are emerging. They include diverting plastics from incineration to more efficient use in Cement kilns, and the manufacture of recycled plastic and wood products, roadway products, soil restoration products. There are five players in the processing of compostable waste, and a number of specialist plastic recyclers.

Despite the emergence of some innovative activities, most recycled material other than compostable material is exported. In total just short of 1m tonnes of recycled material is exported, including over 700,000 tonnes from the municipal stream, representing about 75% export dependency. About two thirds of those exports are to the UK or other European destinations. Paper is the main item which goes outside the EU. There is also export dependency for about 25% of the materials which go for incineration.

The market for materials recovered through recycling can be problematic. It is much more difficult to extract reusable materials from some packaging, such as tetrapak, so its value to collectors is low by comparison with PET bottles which have a ready market. It is still cheaper to produce plastic from virgin material than from recycled plastic, so equalising measures will

be required in the market if the potential for reuse of these recovered materials is to be realised.

Rethinking Markets

The scale of the Repair and Reuse market in Ireland is not known and the CSOs are currently establishing a baseline. There are established secondary markets in clothing and furniture. There are some exciting remanufacture initiatives in the Community sector like the Rediscovery Centre in Ballymun and some others who cooperate together through the Community Reuse Network Ireland (CRNI). They have established a Circular Economy Academy which promotes and supports such initiatives in the Social Enterprise and Community sectors. If Bring Centres could be harnessed to deliver quality material for refurbishment, this is a sector which could be ripe for rapid growth, both as a community based social enterprise and on a commercial basis. It will be access to seed capital, enterprise support normally reserved for export oriented sectors and a supportive policy framework.

The Sharing Sector in Ireland is also in its infancy, but it looks likely to take off in the arena of mobility, where private rolling stock is estimated to be idle over 95% of the time, suggesting massive overproduction for our needs. In the same way building occupancy in Ireland is exceptionally low. For example, 70% of us live in houses too big for our needs. This is more than double the proportion in other European countries. Similarly few of our public buildings accommodate different uses. While there are undoubtedly substantial barriers in promoting higher occupancy rates, it cannot be forgotten that buildings account for a major part of both material use in their construction and energy use to heat or cool them.

3 Understanding Supply Chains and the Policy Options

The New Areas of Focus

The policy concepts of the Circular Economy demands interventions far earlier in the chain than traditional Waste policy embraces. It requires:-

- Creating new expectations of sustainability in the Investment World and in the Disclosures Corporations make.
- Setting new obligations for designers and manufacturers to minimise the impact of their entire supply chain, not just end of life disposal
- Reshaping how Packaging and Labelling is conceived and adapting marketing approaches to fit these requirements
- Reframing the options offered by Distributors and Retailers to facilitate new expectations of circular consumption
- Developing new options in Consumer Markets and ensuring access to accurate information to inform choices.

Little of this territory has yet been developed in Ireland.

EU Framework

For Ireland with over our three quarters of products imported or exported, it will be the standards set by the European Union in these spheres which will shape the framework.

Making the right choices at the outset is so much better than trying to correct things afterwards. This is why the new Environmental Taxonomy established by the EU to shape investment decisions will be so important. It creates a framework within which there will be screening criteria on investment with respect to Climate impacts, Circularity, Biodiversity Pollution and Water impacts. It will require life cycle appraisal, test the use of best available technologies for sustainability, require consideration of the incorporation of renewables, tests of resilience and resource use. Financial institutions will have to disclose the extent to which their portfolios are aligned. It will start to evolve proper standards for funding through Green Bonds. The steady roll-out of this approach will shift the goalposts for enterprise in an evolving manner more effectively than a suite of regulatory obligations.

Many other elements of the EU approach under the Green Deal have been published in outline, although many of the precise dimensions are yet to be nailed down. This allows Ireland to assess our preparedness and also to consider how we might seek to influence the detail finally put in place.

- 1) Eco- design standards will become the central tool to drive rethinking of the supply chain. This will seek to build in near zero environmental impact, use of renewable or recycled materials, product durability, end of life recoverability, and promotion of “product as a service” so sharing opportunities are maximised. In practical terms we may expect more bans on single use items, premature obsolescence, protocols for repairability and upgrading, responsibility for end of life processing, modular construction and interchangeability.
- 2) Standardisation of what must appear on labels and the verifiability of any claims. This will go beyond contents, footprinting and traceability, to also embrace repairability. Digitised tracing will make this easier. The challenge will be to make information accessible to consumers in a form that it can be easily understood.
- 3) Standardisation of Public Procurement to align with the new attention to circularity.
- 4) The creation of new targets which have not yet featured in Waste Policy in areas such as reduction targets for materials, requirements for recycled content, new take back obligations and end of life rules and standards for when an item which has become “waste” can re- enter the supply chain for legitimate use(the so called “ End of Waste” rules.
- 5) Measures to promote the emergence of the new markets needed to make the system effective, particularly in reuse.
- 6) Tighter regulation of what materials can be used as the EU strives for Zero Pollution and of when, how and where used materials can be collected and processed for recycling or recovery, and in particular restrictions on export beyond the EU.

This approach will be rolled out in priority sectors first. The sectors of Construction, Electronics, Textiles and Plastics have been set as the early movers. The Food Sector will

have its own tailored approach under the “ Farm to Fork” strategy, for which Ireland, like other member states, will have to submit our own plan for sign-off.

Another feature beginning to emerge at European level is a desire to develop a consistent methodology for **Product Environmental Footprinting**. Detailed guidelines for such exercises have been evolved and several pilots have been put in place. This methodology allows all the various impacts to be categorised and assessed. It can be a powerful tool for business to manage a strategy to improve their value chain. It also has potential for use in guiding policies and procurement systems. It's use for labelling is likely to be more controversial, in choosing relative weightings for different environmental impacts. Its complexity and evolving nature will probably delay a strong take-up. However it's attraction for being able to compare the wide range of impacts and their link to design options in the chain is obvious to help guide to rational policy choices.

Examples from Other Countries

Other countries have already started to shape their policies in some detail for adoption of circular principles, and provide some practical examples for Ireland to consider.

- Many have set national targets for reducing all raw material use(eg by 50% by 2030 in the Netherlands) or certain categories of material use and for improving the efficiency of resource use, for example to double GDP per tonne of natural resources over time. Japan has developed a “ Cyclical Use Rate” which measures the ratio of recycled as a % of virgin + recycled, with a short term target of 20%.
- France has set targets for the acquisition of Eco-labels. It has also pioneered legislation to require supermarkets to eliminate food waste supported by a VAT refund, and to devote 20% capacity to package free dispensing.
- Sectoral Pacts have evolved both within countries such as Denmark and Luxembourg and can lead to smart specialisation for countries. International pacts are also emerging such as the European Plastics Pact.
- Some countries are announcing Zero Waste ambitions, and set dates by which certain materials can no longer go to incineration or landfill.
- Many sub sectoral targets have been set such as 15% bio-plastics by 2030(Netherlands), and iconic projects in areas like Fashion and the Sharing Economy.
- The UK has been a trail blazer in respect of food waste. Their system of transparent data collection has spurred efforts to cut waste. They put a roadmap in place which has delivered results. They have also created. “Surplus for Purpose Fund” which has stimulated a lot of innovation

4 Aligning Supply Chains in Ireland

The Climate Action Plan(2019) and the Strategy for Waste and the Circular Economy(2020) have taken certain steps in aligning Ireland to a circular approach. However, a dedicated

strategy for the Circular Economy is promised and is needed to widen the canvas of policy initiative. This makes this review by the Climate Committee particularly timely.

The Waste Strategy makes a very important start. It signposts important changes needed across key sectors, flagging possible new regulatory obligations, new opportunities in downstream processing and in upstream procurement policies. It points to the need to set new targets for waste reduction, for reuse, for further obligations within Extended Producer Responsibility, and to establish stronger price incentives within the waste sector. However, in few of these areas is the detail of new policy nailed down, nor has a time limit been put on the processes of examination, assessment and consideration of the exact nature of policy tools, and a consultative approach. It is wise to avoid a confrontational approach, but the urgency of change needs more edge.

- 1) Momentum must be injected into The Strategy for Waste and the Circular Economy by setting timelines and responsibility for the delivery of the large numbers of actions set out, and integrating their implementation into the Climate Action monitoring process.**

The upcoming dedicated strategy for the Circular Economy is being billed as a high level framework for policy. However, it is important that it goes beyond a general scoping of the challenges and triggers specific changes in individual sectors. Ranges must be set for the potential improvements by 2030 and clear policy actions will be needed.

- 2) Actions to promote the Circular Economy should be integrated into Climate Action planning, built into the detailed sectoral planning, the implementation oversight and the reporting obligations. It provides a broader framework within which the actions in Electricity, Transport, Buildings, Agriculture, Waste etc can be viewed. It gives a richer perspective on what sustainability requires, identifying opportunities beyond GHG inventories alone, and pointing up those situations where rapid carbon reduction may compromise other goals. It also avoids setting up separate institutional arrangements that strain limited resources.**

Setting Targets for the Circular Economy

It is essential from the outset to establish that the Circular Economy Strategy implies transformational change across the economy. High level targets must be set which demonstrate the scale of ambition as has occurred in other countries. Potential targets should include:

- Halving extracted raw material 2030
- Halving Residual waste 2030
- Halve Food Waste 2026
- Adopting a Zero Pollution Target for 2050
- Zero Plastics to incineration or landfill 2030
- Double the size of the Reuse Sector 2026

- 3) The Circular Economy Strategy should establish target ranges for key indicators which embed real ambition and the adoption of a Circular approach to create a clear performance framework for the strategy.**

Shifting Focus within the Marketplace

A conscious policy of embedding this new way of thinking in the marketplace must be undertaken. Key influences in that regard are investors, public procurement and informed and mobilised consumers.

Sustainable Investment

Ireland has not yet started to adopt the approach anticipated by the EU Taxonomy for Sustainable investment into obligations of reporting by financial institutions or by corporations, but it is included in the Programme for Government.

- 4) The Central Bank should immediately customise the EU Taxonomy for Sustainable Investment to Irish needs. It could over time establish growing momentum for channelling investment only into sustainable patterns, and for greater attention by investors to the environmental impact of the entire supply chain, forcing the application of best practice principles.**

Public Procurement

Although manuals to promote green procurement which would assess environmental impact over the entire life in making procurement choices, this has been slow to embed. Unless agencies come forward seeking such an approach, a framework will not be created. Frameworks only come up for review in a very slow pipeline, so a systematic overhaul of procurement frameworks have not occurred. The onus is placed on the EPA to justify the incorporation of a new approach on a framework by framework basis, which represents a wholly misplaced burden of proof. No data has yet been published to demonstrate a shift in procurement practices. Other countries, such as Portugal, have been much more full blooded in their approach.

- 5) An updated directive for Green Procurement should be issued by DPER, which incorporates the approach enshrined in the EU Green Deal, and a requirement set that all frameworks of procurement at national and local level should embed this in procurement frameworks within two years.**

Mobilising Informed Citizens

Ultimately it will be our own motivation and commitment as citizens, consumers, workers or leaders of organisations which will dictate our successful move to sustainable patterns. However we can make it easier to do the right thing by creating awareness and access to better options. Consumers in particular must be supported by:-

- Reliable information about the impact of different choices
- Incentives to manage waste in a sustainable way
- Good secondary markets to extend the life or reuse materials
- Transparency on how segregated materials are processed

Much information is now appearing on packaging, but some can be misleading.

- 6) The EPA should generate more data to verify and inform consumers of the impact of choices made around product, service, packaging, reuse and end of**

life disposal, and popularise the research that they do so people better understand the contribution they can make.

Creating Sectoral Roadmaps

Eco-design is also only in its infancy in Ireland. There are some important emerging elements such as the Near Zero Energy requirement in Buildings, the commitment to deliver 70% renewable power by 2030, and the commitment to end non-recyclable plastics by 2030. However, the government should quickly move to endorse some broad principles to inform both company and sector wide thinking about the obligations to achieve circularity.

The principles should seek to design out adverse environmental impacts and embrace circular use of resources.

- Minimising energy use and switching to renewable sources
- Scoping out the pathway to the Zero Pollution goal
- Uptake of recycled content to replace virgin materials
- Design for reuse- modular, replaceable, dismantlable, common chargers
- Design for durability, upgradeable, repairable, easy access to spare parts
- Deliver low impact logistics and develop the so called reverse logistics capability associated with the take back of product or materials for use in the chain.
- Ending all single use elements, adopt minimum safe packaging approaches, seek packaging materials that yield simplest route to recycle the value of materials, and only deviate for clear reasons of extending useful life
- Promoting the provision of smart consumer usage and product as a service to reduce sub optimal choices, maintenance or usage patterns typically associated with ownership. Many successful examples of the sharing economy particularly in mobility services can be mirrored in others. Coordinated management of boilers, heaters of vehicle fleets which store heat or energy can significantly cut non renewable energy use.
- Clear end of life protocols to collect and reuse materials in their highest value opportunities, and establish smooth regulatory approval practices for these reuse opportunities to be seized. These will represent a major step up from existing Extended Producer Responsibility schemes which fund collection and appropriate disposal.
- Promote organisation environmental footprinting as a tool to improve environmental management.

7) A series of Sectoral Roadmaps to enshrine the adoption of circular principles should be developed in consultation with stakeholders, embracing the entire supply chains, involving both suppliers and consumer interests. Credible targets should be set and benchmarks of improvement should be set and verified. This roadmap would inform regulatory oversight, enterprise support policy and public procurement.

While the concepts of circularity must be adopted nationally, the detailed changes to seize the opportunities can only be realised by a detailed Sectoral roadmap. The elements of a sectoral approach should include

- Audit and transparent publication of data on the full supply chain
- Identifying opportunity for ecodesign and developing sectoral pledges to progressively realise them
- Identify the true cost of the waste flows generated by the sector
- Strengthening Extended Producer Responsibility to embed better selection of materials to avoid waste, delivery of reuse targets, and setting dates for the new areas(Mattresses, Paints, Textiles, Medicines, Hazardous Farm Waste)
- Facilitating the emergence of the Secondary Markets to extend life or reuse materials, which may involve rewards for recovery, and developing enterprise support programmes where needed
- Devising the nudges and the enablers that will accelerate adoption. In particular sectoral funds to foster collaborative innovation have a proven track record elsewhere
- Simplifying the tests for a material to cease to be waste and to enter the supply chain as a legitimate material
- Setting standards for Consumer information and promoting better consumer choices
- Setting of benchmarks for improvement in the reduction of use of problematic materials, on extending useful life,

While it is not possible here to work through how this model can be applied in each sector a few examples of its potential are worth outlining.

Construction

The construction of buildings and how we use them dominates the country's use of materials, the generation of waste, and is a very significant source of greenhouse gas emissions. The potential impact of the sector on our environment has been reflected in Near Zero Energy Regulations and tighter planning regulation on new builds to encourage compact and sustainable living.

However, there remains untapped opportunity to incorporate circular thinking in new building through rethinking the choice of materials, the incorporation of previously used materials, the design of systems facilitating dismantling or repurposing, creating demolition planning requirements, and the establishment of "end of waste" protocols to create a market in recycled materials.

There is arguably even greater opportunity in applying circularity concepts to the use of our buildings. Making it easier for people to match space to their needs, to repurpose buildings to changing requirements and to adapt to reduce energy needs offers potential gains from the entire stock of 2.5million buildings rather than just the tens of thousands newly built each year.

- 8) A Construction Sectoral Roadmap should develop a comprehensive database to inform policy and set out a strategy to address the opportunities for circular thinking outlined. Specifically, it should evolve policy initiatives to promote better preplanning, better choice of materials and methods, more effective reuse of materials, easier repurposing and refurbishment, better occupancy patterns.**

Food

From Farm to Fork, there are huge opportunities to adopt more sustainable practices. It is a vital economic sector and one in which Ireland is more carbon efficient in meat and dairy than other European Member States. It is also clear that consumer expectations will seek to establish and verify sustainable methods of production, which will demand transparency back through the supply chain. Significant areas of potential have been already identified:

- Teagasc has identified a series of initiatives to achieve further efficiencies in fertiliser use, slurry management, crop and herd management, and further areas where sequestration of carbon through forestry and land use.
- A target has been set of halving the 1million tonnes of food waste beyond the farm gate, which represents over 3 million tonnes of GHG emissions, or 5% of our national inventory. Food Cloud has also done deals with farmers to harvest food which might otherwise have been ploughed back.
- Commercial and Consumer options to purchase the quantities they require with minimal or no packaging, to store and consume with lower waste, and to dispose of waste correctly.

While some momentum has already been achieved in these areas through Smart Farming initiatives, commitments by larger supermarkets, and innovative networks for distributing food to charities through Food Cloud, we need a more systematic approach.

9) The recasting of the Common Agricultural Policy for Ireland must be used to embed Circular practices in the Farming and Food sectors

10) A Roadmap for halving food waste must be urgently developed following the successful approach in the UK. The objective must be to maximise the beneficial use of food at risk of loss, and maximising its use within the Food Hierarchy. It should as a first step

- Reinstate Food waste reporting by retailers and other commercial outlets
- Improve the arrangements for food flows to stamp out waste, such as arrangements around special offers, volumes prepacked, and avoidable waste rampant in the catering sectors.
- Ban labelling for “ Best Before” or “Sell By”
- Move immediately to ensure we meet the EU deadline for universal brown bin use, particularly in commercial premises.
- Adopt Product Environmental Footprinting on our food products, to give greater substance to Origin Green.

Distribution and Packaging

Distribution channels have a huge influence on the sustainability of the products we source, the logistics of handling them and the amount of waste associated with them. A move to adoption of more circular principles within this chain can have a very significant impact.

Packaging waste is greater per head of population in Ireland than in the rest of the EU. It now generates more than 1million tonnes per year of Municipal waste. This includes over 0.25 m tonnes of plastic, two thirds of which is not recyclable. There is a serious problem with leakage of plastic waste into the wider environment as litter, polluting land, waterways and oceans with material which does not decay.

Existing EU waste policy is forcing the pace of change with higher recycling targets in all packaging forms, but particularly in the realm of plastics. However, further impetus for change will come with the prospect of

- targets for the absolute reduction in packaging
- Targets for a fixed portion of recycled material along with virgin materials in packaging
- The new €800/tonne on plastic which is not recycled
- Standardisation of what information labels must provide in terms of environmental footprint and recyclability.

There are some strong examples of Distributors leading changes, such as commitments to have all own brand packaging recyclable at an early date, recycling opportunities for soft plastics, debarring certain types of packaging by new suppliers, better arrangements with suppliers to minimise waste.

11) A Roadmap across the Distribution and Retail Sectors must be urgently developed to accelerate the change already underway, and to chart out how these new targets can be delivered. It should incorporate the following specific initiatives

- An early date of next year should be set for when soft plastics are collected in the Green Bin. This can be accompanied by more stringent policing of the misplacement of materials for that bin and of contamination. Setting a date to ban plastic to landfill or incineration would spur change.
- A reduction target for packaging volumes should also be set for 2025. This would spur innovation in reusable containers and packaging and particularly in the burgeoning e-commerce sector and take-away sectors. The French model of 20% of floor space in larger supermarkets devoted to sales where people bring their own container is now a timely move, if a period of transition was afforded.
- The Plastic pledge should be extended and clearer benchmarks of progress should be devised with bronze, silver and gold status awarded depending on performance.
- A date should be set when plastics would no longer be accepted for municipal incineration or landfill.
- While the use of compostable containers is helpful, there should be a requirement on takeaway outlets to have a segregated bin to collect them, so they do not just end up in residual waste.
- Promotion of reusable containers and Deposit Return Schemes have potential, but care needs to be taken in their design to ensure that the costs are not excessive and

to ensure that the environmental impact of the return logistics (weight, distance, washing and handling) doesn't overwhelm the hoped for savings from repeated use. This is an area where quality information is needed. It is notable that in Sweden, an approach has been taken to first allow the sector the opportunity to hit the higher recycling targets needed before a compulsory scheme was introduced.

- The EPA should provide consumers with information on the actual recyclability performance of different types of packaging, many of which though described as recyclable, require a lot of processing to deliver reusable material.

Reform in Collection and Disposal

The Waste Sector has delivered a steady movement away from disposal by "Hump and Dump" to finding the resource value locked up in waste. However, there is still a long journey ahead.

Oversight of progress in the sector is very complex with a mix of county regional and national competences, and could be described as an "Alphabet Soup"

- Permits are issued by the NWCPO
- Compliance with permits is done through the 31 Local Authorities
- Enforcement of unlawful activity is done through 3 regional groupings WERLAs
- Capacity planning is done by 3 RWMOs (but in future to be coordinated by the EPA)
- Waste Processing licences are issued by the EPA
- Monitoring of the pricing policies of waste collectors is done by the PMG

However, there is no economic regulator of the sector.

The Competition and Consumer Protection Commission has recommended that an economic regulator should be established to create such exclusive areas chosen to be of minimum economic efficiency (of at least 5,000 homes). It estimates that side by side competition adds about 30% to collection costs. Without that, the CCPC argues, the country will have few economic levers to ensure that strategic policy on waste management is delivered and environmental goals achieved.

12) An Economic Regulator of the Waste Sector should be established to move towards geographic franchises. It would also regulate consumer protection and reporting obligations, oversee the quality of separation and segregation, and develop optimal market design features to promote best practice in reuse and recycling.

13) The effectiveness of the very complex regulatory structure in delivering the step change now needed in the sector should be independently assessed, within a tight deadline of 12 months.

Creating new Marketplaces

Given that the “ Take Make Use Discard” model stems from the failure of the market to properly price environmental damage, it is not surprising that there will need to be a conscious effort made to develop the market opportunities thrown up by anew approach.

- The concept of “Product as a Service” should be cultivated and barriers to its market penetration should be addressed. Stand out examples which can promote better resource use include: facilitation of downsizing; promotion of the Sharing Economy; and the expansion of Energy Saving Contractors who are paid from the savings they can deliver. Such initiatives are the key to rapid adoption of more sustainable practices.
- Digital connectivity can allow a network of storage heaters or EV batteries to become an efficient way to store cheap renewable energy if they are on a smart network. Optimal repair, upgrade and maintenance can improve performance and extend product life.
- Secondary markets for reuse are scarce and struggle to make ends meet. There is an opportunity to harness the Civic Amenity Sites to become centres for exchange, for innovative refurbishment, for sustainable fashion, and for collective community effort to promote sustainability.

14) A New Markets Task Force should be established to report in six months on how viable networks can be created to deliver on this potential.

15) A regional network of such Rediscovery Centres should be established to become hubs for innovation, and focal points for local engagement with community-led sustainability initiatives. A certain number of the Civic Amenity Centres should be earmarked to develop such centres, and applications should be invited for community partners to develop the initiative.

16) The mandate of Enterprise Ireland and the Local Enterprise Offices should be extended to cover start-up in this circular sustainability space. By reducing our global footprint, they perform a not dissimilar role to export earning enterprises who have traditionally been the focus of support.

17) The network of Bring Centres have the potential to develop their role significantly. An implementation plan being prepared by the City and County Managers is an opportunity to shape a vision for these centres as real drivers of local sustainability. They need to build much closer relationships with the enterprise sectors in their area and reach out to engage with the Green Schools initiative.

Appendix 4 – Submissions



30th September 2021

Dear Deputy,

The Committee on Environment and Climate Action will begin its pre-legislative scrutiny on the Circular Economy bill shortly and we ask that we meet with you to discuss the strengths and weaknesses we find in the current Heads.

We welcome this Bill as the first piece of legislation to provide a statutory basis for Ireland's circular ambition. It includes important new measures including a more strategic approach to policy making, the introduction of targets and levies facilitating waste prevention and a circular economy fund.

However, to future proof this Bill for the transition to a circular economy it will need to align with measures in the European Commission's Circular Economy Action Plan 2.0, the review of the Packaging and Packaging Waste Directive, the Sustainable Products Initiative and the implementation of the actions under the Government's Waste Action Plan for a Circular Economy.

The Bill must move away from a focus on waste and recycling and look towards initiatives that futureproof the design of sustainable products and developing circularity in key value product chains. Circularity is a prerequisite for climate neutrality as nearly 50% of all GHG emissions come from making and consuming stuff.

We warmly welcome the introduction of targets and would like to see these extended, monitored and evaluated. Greater levels of accountability are sought to ensure that legislative intent is manifested into real action.

While the Bill sets many good provisions and ambitions to further develop CE initiatives in Ireland, we would like to detail our recommendations to you so that the final legislation is ambitious and makes Ireland a world leader in CE action.

Overall we believe the Bill should provide for a more holistic approach, with strengthened language, clearer lines of accountability, refined and strengthened targets and regular progress reporting. More specifically, we identify below a number of key areas which we feel have potential for immediate consideration.

Consumption has an impact on the climate as making and using things contributes approx 45% to our global emissions. We concur with Deputy Bruton's report that this Bill should link with the Climate Action and Low Carbon Development (Amendment) Act 2021 and this can be done through linking in with scope 3 emissions calculations. [Briefing: What are Scope 3 emissions? | The Carbon Trust](#)

Strengthening the Language:

In a number of places the Bill specifies that the Minister "may" implement levies or set targets. For example:

- In relation to Head 6 on levies and bans on certain products, article (1), 2(a) and 2(b)
- In relation to Head 12 under "explanatory notes", the Minister may specify the exact targets to be included if deemed appropriate.

In both cases the wording should be strengthened to "**The Minister shall**". With the current wording, it appears to be at the Minister's discretion as to whether levies or targets are set at all.

As a Circular Economy Bill we would like to see a shift **away from the concept of waste**. In Head 4 regarding the Circular Economy Fund, article (9) includes a number of sub articles that should be reworded, to better align with the waste hierarchy and principles of a circular economy:

1. (b) that "the operation of waste re-use ... activities" is replaced with "the operation of preparation for re-use ... activities"
2. (c) that "with respect to any aspect of waste management" is replaced with "with respect to any aspect of resource management"

Head 12 of the CE Bill as drafted amends the Waste Management Act to require the inclusion of targets. The introduction of targets for the use of reused and repaired products and materials is very welcome and addressed further below. This Heads also refers to the introduction of targets related to waste generation. We would like to see, instead, targets more directly related to circularity - for example, a consumption target.

Refined and strengthened targets - accountability, progress reporting:

We welcome targets introduced in Head 12 of the CE Bill for the use of reused and repaired products. We also propose that the CE Bill includes targets for the use of reusable food and beverage containers, the reduction in packaging placed on the market, and the introduction of mandatory interim food waste prevention targets.

By way of general comments in relation to any and all targets due for introduction, it should be specified in the Bill:

- the lines of **accountability** for meeting targets
- a requirement for annual work programmes, 6 monthly reviews of progress, annual **progress reporting** to take place to ensure the effectiveness of the targets and identify barriers.
- a commitment to introducing corrective measures including **financial supports** as required to ensure targets can be met.
- the authority for the Minister to modify such targets **upwards**.
- the requirement for the Minister to set these targets must be set out in primary legislation according to retail sector (i.e., grocery, on the go food catering, restaurants, other retail).

In relation to targets for the use of reused products where there is an exchange of hands including the use of reused or repaired products in public procurement:

- this should be linked to a job creation target as has been done in Flanders, Belgium (e.g. 5kg per person + 3000 FTE social employment)
- this should be set per product subcategory e.g. textiles, furniture to avoid any one product group dominating
- this should be measured in line with the Q2Reuse methodology developed thanks to EPA research funding (number of units at the point of exchange / sale).
- the ambition should be for at least a doubling of current reuse levels in 5 years
- this target should be introduced with immediate effect within a 1 - 2 year timeframe
 - the procurement of used goods must on par with any national reuse targets

In relation to targets for the use of reusable food and beverage containers:

- Such targets should be based on numbers of units sold to end users as opposed to the number purchased in by the business.
- We recommend a suite of targets by sector including
 - The reusability of eat-in and take-away containers within the hospitality / Restaurant / Catering (Horeca) sectors
 - Targets related to the set aside of floor space for refill purchases within grocery providers of a minimum size (as has been done in France)
 - Targets for the reusability of packaging for e-commerce
- 'Reuse' or 'Refill' must be statutorily defined on the number of rotations the item is reused or refilled, the condition of which is maintained after a certain number of high temperature sanitation/washes. While this may differ according to the type of container, the minimum threshold should be reused/refilled 20+ times.
- Industry will not change their practices without setting statutory targets and enforcement. Voluntary targets do not support needed change. The measures should be enforced by requiring a mandatory reporting mechanism on reuse/refill activities.

In relation to food waste prevention targets:

1. Mandatory reduction targets must be set statutorily, otherwise, like the last waste management plans, targets will be missed consistently.
2. Mandatory reporting requirements on food businesses on the amount of food waste they generate and actions they have taken to reduce such food waste. As we must reduce our food waste by 50% by 2030, there should be a mandatory 7% food waste reduction target each year.

Improving Circularity in Key Value Product Chains:

Packaging:

Head 6 of the CE Bill as drafted gives the ability to the Minister to establish levies and bans on certain products such as disposable cups, food containers, food packaging and plastic bags.

Our Response:

We recommend **expanding the list of products subject to potential levies or bans** to be consistent with the Waste Action Plan for a Circular Economy and give the Minister the authority to impose levies or bans on these additional items:

1. Wet wipes (non-medical)
2. SUP hotel toiletries
3. SUP sugar and condiment items
4. We call to expand the plastic bag levy to include all single use bags (paper, fibre, etc) – those bags that are not designed for more than a few uses and are not robust enough to withstand more than 10 uses.
5. Impose a tax on Virgin plastic to boost viability and take-up of recycled plastic resins (like Italy). The Circular Economy Report for the Joint Committee on Environment and Climate Action, written by Richard Bruton TD as Rapporteur, supports equalising measures to boost viability of recycled material

The statute must declare that containers that claim to be compostable / biodegradable / degradable must use one label, 'compostable', that must meet the EN13432 standard.

Expanded Producer Responsibility is not covered in this Bill, but is required under the SUP and the Waste Action Plan. Under the SUP, producers/retailers providing plastic food containers, drinks containers, wrappers, etc are responsible for the representative cost of bin waste and litter removal.

- We call for this upcoming EPR scheme to be expanded further to cover the disposal costs of all takeaway containers, regardless of the material used. We

note a big uptake in the use of compostable takeaway packaging which is either littered or placed in general waste bins. Under the SUP, such material would fall outside the EPR scheme.

- 2-10% of the fees collected by the EPR Scheme in Ireland (REPAK) must be used to develop reuse infrastructure for packaging on an annual basis.

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Food Waste:

Head 7 of the CE Bill as drafted refers to a National Food Loss Prevention Roadmap being prepared from time to time by the Minister

Our Response:

There should be much more detail in this section and more statutory requirements. The roadmap should not be prepared and published 'from time to time'. We call for the following:

- The roadmap must be reviewed every 3 years and published with data supplied from all food sectors and the waste industry to make transparent whether interventions are working.
- Mandatory reduction targets must be set statutorily, as highlighted above
- Remove 'best before' and 'sell by' dates from all packaging labels
- Like France, all unused short-dated food must be donated to charities or sold at a reduced price to consumers – require reporting on donations to track whether donated food is used or disposed of. Passage of the Good Samaritan Food Donation Act to relieve liability concerns.
- Review current contractual arrangements with suppliers to determine whether such practices cause food waste (on the farms or with wholesalers)

Circularity in a toxic free environment:

We must design out waste and hazardous substances to make circularity easier, safer and more transparent. For instance, VOICE has just published its report ([link here](#))¹ proving that some packaging purporting to be either recyclable or compostable is imbued with PFAS (Forever Chemicals) to create a waterproof and greaseproof barrier. The presence of these chemicals will affect the safe and effective compostability and recyclability of such products.

We propose the CE Bill includes **a ban of PFAS use in food containers**. This was done in Denmark² and can be done here to protect public health without compromising the effectiveness of food packaging.

Getting the Economics Right:

Head 4 of the CE Bill provides a statutory basis for the establishment of the Circular Economy Fund.

Our Response:

This is warmly welcomed and could provide much needed support for driving more circular activities. In addition to grants or temporary funds, we believe the fund should be used to provide long term and sector-wide financial measures that assist,

¹[Microsoft Word - Report on PFAS in food contact materials v4.docx \(website-files.com\)](#)

²<https://www.foodpackagingforum.org/news/denmark-moves-ahead-with-pfas-ban-in-fcms>

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support or promote operations that are established for the prevention or reduction of waste in the State under Article 9(a). For example, through:

- VAT relief and tax credits for refurbished/repairs items – consumers have already paid on these items when first sold and there should not be a penalty to repair and sell these items again.
- Tax benefits for businesses for the purchase/use of repaired, refurbished items.
- Tax incentives/grants for businesses to invest in sanitation equipment/collection units to support reuse.

Finally, we believe that the requirement for **Green Public Procurement** (GPP) should be strengthened and placed on a statutory basis. Excellent progress has been made recently with new GPP guidelines from the EPA, training for procurers and suppliers and a GPP monitoring and reporting process to capture the frequency and value of green criteria in public procurements over €25,000.

However there is still a dearth of case studies or examples of prevention being built into GPP. In Italy all public authorities are required to apply waste prevention criteria into calls for tenders and contracts. The Italian Code for Public Contracts (Legislative Decree 50/2016, as modified by legislative decree n. 57/2017) in Article 34, sets mandatory environmental sustainability criteria that must be applied by public authorities in public procurement. We would like to see something similar introduced in Ireland.

We ask to meet with you to discuss our proposals and the Committee gears up for the consideration of the Circular Economy bill.

Kind Regards,

Mindy O'Brien, Dr. Sarah Miller, Claire Downey, Oisín Coghlan Chief Executive
Chief Executive CRNI Executive Director VOICE Rediscovery Centre Community
Reuse Friends of the Earth

Oireachtas Joint Committee on Environment and Climate – Pre-Legislative Scrutiny of the General Scheme of the CE Bill**Addendum (27/10/21) to Opening Statement delivered by Dr Geraldine Brennan, Head of Circular Economy, Irish Manufacturing Research who are the Secretariat of CIRCULÉIRE on 21/01/21****1. Additional Sectoral Insights – ICT & EEE Products****1.1. Trade Tariffs, Duties and Taxes - Secondary Market IT Equipment**

- Secondary market sale of re-used equipment attracts the same sales tax rates in most geographies as well as the same import and export taxes as new products.
- By way of an illustrative example, [The New York District Export Council \(DEC\) 2020](#) cites a number of barriers to the export of used and refurbished equipment such as special licensing, mandatory registration, proof of refurbishment by the original manufacturer, restrictions on age of equipment. Used equipment may also be subject to the same import tax as new equipment in certain cases according to them.
- The illustrates the need for harmonization of appropriate trade measures to support circular economy objectives.

1.2. Classification of Electrical and Electronic Equipment Waste & Reuse Metrics

- Significant volumes of used IT equipment are classified as electrical waste when moved across EU borders even though a percentage is re-usable in secondary markets. Under this classification it is destined for recycling.
- While guidelines and legislation since the 2012 directive have as a stated aim the inclusion of re-use as an important aspect of eWaste management, the reality on the ground is that it is very complex to implement and Electrical and Electronic Equipment that has been used is treated as eWaste and sent down the recycling route unless specific actions have been taken in the country of origin to reclassify it as product for resale.
- Addressing this will require a coordinated classification approach across the EU aligned with broader CE objectives (reuse and repair).
- See Mazahir, S, Verter, V., Boyaci, T. and Van Wassenhove, L. (2018) [Did Europe Move in the Right Direction on e-Waste Legislation](#), Production & Operations Management, Vol 28, Issue 1 – available open access via Research Gate.
 - The paper cited explores ideas to mitigate this issue such as reclassification along different lines so that the potential for re-use is not buried in the mountain of general WEEE. It also explores and evaluates tax and other incentive measures that could help.
 - Perhaps, for a range of equipment such as computers and IT equipment, legislation could be devised such that default position should be to classify it for re-use and only when proven that it cannot be reused – result in classification as eWaste. This places the emphasis and mindset on the re-use agenda versus the status quo which is recovery for recycling.
- Moreover, currently weight-based metrics underpin most WEEE EPR Schemes, exploration of alternative metrics which incentivise and measure re-use - for example number of units recovered and placed back into circulation for use (e.g. following a simple PAT test).

2. IBEC (2019) Circular Economy Survey

- Ibec's Research Unit, in collaboration with the EPA, undertook an online survey of Ibec member companies during 2018 – which included 217 respondents from a mix of manufacturing, service and distribution businesses. The objective was to assess the perceived importance of the circular economy to senior managers, and understand their current state of readiness, evidenced by their level of engagement in circular initiatives.
- Key findings included:
 - Only half of respondents (1 in 2 businesses) understood beforehand what was meant by the circular economy with less than two out of five (39%) aware of the EU initiatives to drive the transition.
 - However, almost half the respondents (49%) acknowledged that moving to a more circular economy presents a business opportunity in the long-term, with such initiatives being increasingly important to company operations.
 - Only one-tenth of the respondent companies had a specific budget in place to support circular economy initiatives. These firms appeared to be a lot more active in pursuing circular initiatives.
 - Almost two out of five respondents (39%) reported that they expect availability of funding to be a major challenge in the next 3 to 5 years.

3. Circular Economy Legislative Examples from other EU Member States

3.1. France's Anti-Waste Law (2020)

- Anti-Waste Law aims to eliminate waste and pollution from the design stage and transform production and consumption systems to a circular model.
- 5 Key Measures included in this law (see page 4 of the [EMF \(2021\) Case Study](#))
 - Eliminating plastic pollution through a range of policy measures including phasing out single-use plastic packaging by 2040;
 - Tackling construction waste with an Extended Producer Responsibility (EPR) scheme;
 - Promoting reuse and employment through EPR funding;
 - Banning the destruction of unsold goods;
 - Encouraging repairs through a repairability index.
- Source: <https://ellenmacarthurfoundation.org/frances-anti-waste-and-circular-economy-law>

3.2. The Netherlands

- Below is an overview of the different types of measures the Government of the Netherlands have adopted to support the transition with the goal of a circular economy by 2050 - please refer to the source for further details of these measures.
 - Help for circular businesses
 - Legislative stimulus for a circular economy – *“The government wants to use legislation to advance the transition to a circular economy. To this end, the programme Removing Regulatory Obstacles to Green Growth identified areas where legislation needs to be changed. As this programme expired at the end of 2019, the [Circular Economy Implementation Programme 2019-2023](#) (Dutch) is now investigating which legislative amendments may be necessary”*
 - Responsibility for sustainable products
 - Products that prevent waste
 - More sustainable manufacturing and consumption through market incentives

- Circular procurement
- 2020 budget: extra money for circular projects
- Planning and adjusting on the way to 2050
- Source: <https://www.government.nl/topics/circular-economy/accelerating-the-transition-to-a-circular-economy>

3.3. Germany

- **Germany's Circular Economy Act** - The Bundestag has adopted the Act Reorganising the Law on Closed Cycle Management and Waste with the consent of the Bundesrat on February 24th 2012. <https://www.bmu.de/en/law/circular-economy-and-safeguard-the-environmentally-compatible-management-of-waste/>
- **German Federal Government has agreed a draft bill amending the CE Action to facilitate the extension the principle of Product Responsibility – introducing a “Duty of Care”** - “In addition to transposing waste legislation adopted under the European Union’s Circular Economy Package into national law, Germany also intends to use this opportunity to introduce, among other things, a so-called “duty of care” (Obhutspflicht) which will require distributors in case of distance sales to ensure that the goods remain usable if returned by the customer and do not become waste”. Source: [Global Compliance News \(2020\)](#)
- **German Environment Agency (2020) 9 Principles of a Circular Economy** - https://www.umweltbundesamt.de/sites/default/files/medien/1410/publikationen/2020_10_23_leitlinie_kreislaufwirtschaft_englisch_bf.pdf

3.4. Scotland

- Link to [Public Consultation Paper \(Nov 2019\) on Scotland’s CE Bill & Secondary Legislation](#)
 - Link to [Submissions](#)
 - Link to [Overview of £18m Circular Economy Investment Fund administered by Zero Waste Scotland](#)
- As a result of the COVID-19 pandemic, the Scottish Government announced on 1 April 2020 that the proposed Circular Economy Bill would not be introduced in the present Parliamentary session. The Scottish Government reiterated its commitment to developing the circular economy in Scotland and to considering other means of continuing to achieve their objectives.

3.5. Slovenia – Insights from EIT Climate-KIC

- When EIT Climate-KIC started discussing a circular economy programme with the Slovenian Government, they were engaged with one, then two Government Ministries. Through developing the planned programme of work over the past 2 years, EIT Climate-KIC are about to sign off activities involving up to 9 Ministries.
- To date – the impact of their work in Slovenia has less been about specific regulatory changes (although they will be coming) and more about the cultural changes.
- The Slovenian Government has recognised that seeking to build a Circular Economy to transform different key economic sectors cuts across the functions of multiple Ministries, so intra-governmental engagement, buy-in and sign-off is key to building the type of circular economy outcome we collectively seek.

3.6. Circle Economy's National Policy Instrument Framework & Repository of International CE Strategies & Policies

- Dutch NGO Circle Economy have developed a framework of policy instruments that can be used to support the transition to a circular economy at the national level.
- See framework here: <https://www.circle-economy.com/resources/the-national-policy-instrument-framework>
- See public repository (google sheet) of CE National Strategies and policies analysed to inform the development of Circle Economy's Policy Instrument Framework: <https://docs.google.com/spreadsheets/d/17gzoMjQiGVBZLPsock8TqRRLGsZPGBeBWD7YlJ3tV1w/edit#gid=0>

4. EU Carbon Border Adjustment Mechanism (CBAM) + Circularity

- Submissions to EU Green Deal CBMA Public Consultation (Oct 2020)
 - Link to [European Environmental Bureau \(EEB\) Submission](#)
 - Link to [Institute for European Environmental Policy \(IEEP\)](#) entitled "[A circular economy-compatible carbon border adjustment mechanism](#)" (October 2020).
- Appilia (2021) "[The CBMA: what implications for EU industrial competitiveness](#)" Online Event – 30th September 2021
 - Link to [summary of discussion](#)
 - Link to [slides](#)

5. Taxation of Materials & Labour Market Consequences of Circular Transition

- 5.1.1. Stahel, W. (2013) [Policy for material efficiency—sustainable taxation as a departure from the throwaway society](#). Philosophical Transactions of the Royal Society. Volume 371, Issue 1986. In *Allwood, J., Ashby, M., Gutowski, T. and Worrell, E. (Eds) Discussion Meeting Issue 'Material efficiency: providing material services with less material production'*.
- 5.1.2. Kaubinger, F., Lanzi, E. and Chateau, J. (2020) [Labour Market Consequences of a Transition to a Circular Economy: A Review Paper – Environment Working Paper No.162](#), OECD Working Paper.

6. Circular Economy Rebound

- Zink, T & Geyer, R.. (2017) [Circular Economy Rebound, Journal of Industrial Economy \(JIE\)](#), Volume 21, Issue 3, Pages 593-602
 - The paper cited above highlights the importance of looking at the circular economy from both the economic and engineering perspective.
 - The authors draw parallels between the "Jevons paradox" ("[...in the long term, an increase in efficiency in resource use will generate an increase in resource consumption rather than a decrease...](#)" ([Giampetro, M. & Mayumi, K. \(2018\)](#)) and make the case for the phenomenon of "energy efficiency rebound" being likely to apply to materials coining the term "circular economy rebound".
 - The authors define "circular economy rebound" as occurring "...when circular economy activities, which have lower per-unit-production impacts, also cause increased levels of production, reducing their benefit" (Zink & Geyer, 2017).

FoodCloud Written Submission re: PLS of the Circular Economy Bill

Thank you for the opportunity to submit this feedback on the draft Circular Economy Act.

We recognise the significant work that has gone into the development of this Bill to date and appreciate the opportunity to provide these recommendations.

Our recommendations focus on Head 7, expanding this to cover Food Loss and Waste (FLW) Prevention, rather than just the roadmap, and then updating some of the key language in this section to give greater clarity. We believe these updates can help to provide much more clarity on the necessary actions to achieve a 50% reduction by 2030 and to sustain further reductions in the following years.

Recommendation to update Head 7:

- We recommend changing Head 7 to 'Food Loss and Waste Prevention', rather than refer to a roadmap so that more detail can be included in this Act to ensure we achieve the necessary progress in tackling food loss and waste. The existing reference to the roadmap does not specify the need for targets, measuring and reporting food waste or implementing actions to reduce and prevent food waste, and therefore may not be effective in achieving necessary progress.
- Under this Head, it should specify that:
 - The Minister shall ensure that the Food Loss and Waste Prevention Roadmap published in accordance with this Act is prepared and published not later than 6 months after the commencement of this section.
 - The Minister shall prepare and publish annual progress reports on the National Food Loss and Waste Prevention Roadmap containing information setting out the policy objectives and priorities of the Government in relation to food waste prevention and updates on the progress of policy objectives and the achievement of targets included in the FLW Prevention Roadmap.
 - The FLW Prevention Roadmap shall include:
 - Mandatory food loss and waste reporting (this is will be an EU Directive from 2023) will be introduced to ensure the food industry and government begin to act now, ensuring that Ireland does not continue to be a laggard in measurement and reporting in this area. The reporting standard should align with the International FLW Protocol¹.
 - Ensure the Food Waste Hierarchy is followed and that we 'encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products' in line with EU Waste Directive 2018².
 - The additional costs to manage and implement the roadmap (management and publication of reporting and progress reports, investment in solutions to tackle food waste and R&D of new innovations, education initiatives) will be supported through the

¹ <https://www.flwprotocol.org>

² <https://eur-lex.europa.eu/eli/dir/2018/851/oj?locale=en>

Circular Economy Fund and solutions to finance efforts through tax incentives and other legislative and regulatory means will be explored.

- The need to conduct further research on the social / environmental cost of food waste (similar to the social cost of carbon) to support incentives to reduce negative impacts of wasting food. Food that is produced, but never consumed, still causes environmental impacts to the atmosphere, water, land and biodiversity.³
- Note: The above recommendations are aligned with the EU Waste Directive (2018, previously referenced) and the obligations for member states (outlined below)

Additional Comments Head 7:

The above objectives are linked to international goals as formulated by the United Nations (UN) Sustainable Development Goals: No.6 (clean water and sanitation), No. 7 (affordable and clean energy), No.9 (industry, innovation and infrastructure), No.12 (sustainable production and consumption), No.13 (climate action), No. 14 (marine protection), No. 15 (biodiversity), No. 17 (partnerships).

From an EU level, the objectives link to various policy initiatives, such as the European Green Deal (including the Circular Economy Action Plan, the EU Climate Law, the EU Biodiversity Strategy, the Farm to Fork Strategy) and the Commission Recommendation on the use of Environmental Footprint Methods, amongst others.

Tackling food loss & waste and the recovery and redistribution of surplus food, fit for human consumption has an important social aspect for those on the lowest income levels and cannot afford to purchase food. It will also have a positive impact in supporting climate change, by reducing GHGs along the food chain, reversing biodiversity loss and supporting the efficient use of our precious natural resources⁴

Recommendation Head 7: Language and Terminology

Alongside the recommendation that Head 7 refer to Food Loss and Waste Reduction and Prevention, we also recommend the following considerations to the language used:

1) Recommendation to be more specific on terminology used (inclusion of Food Waste in Head 7):

Although stated in the act –

(1) Subject to subsection (2), the Minister shall from time to time prepare and publish National Food Waste Prevention Roadmap (in this section referred to as the “Food Loss Prevention Roadmap”) containing information setting out the policy objectives and priorities of the Government in relation to food waste prevention.

For the avoidance of doubt, and in acknowledgement of clear definitions of ‘food loss’ and food waste’, Head 7 should be called the Food Loss **and Waste** Prevention Roadmap to align with international goals (e.g. UN SDG 12.3) and standards (e.g. FLW Protocol

³ <https://www.fao.org/3/i3991e/i3991e.pdf>

⁴ https://ec.europa.eu/food/system/files/2020-05/f2f_action-plan_2020_strategy-info_en.pdf

previously referenced). This will ensure Head 7 in this act will align with the revised EU Waste Framework Directive 2018 (previously referenced) which requires Member States to reduce food waste at each stage of the food supply chain, monitor food waste levels and report back regarding progress made. Moreover, it lays down obligations for Member States to:

- prepare food waste prevention programmes (specific and/or as a part of general waste prevention programmes);
- encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products as part of measures taken to prevent waste generation;
- provide incentives for the application of the waste hierarchy, such as facilitation of food donation (articles 4 and 9 of the revised Waste Framework Directive).

The Act also:

- introduces a 'food waste' definition based on the definition of food from the General Food Law;
- requests the Commission to adopt legislation on food waste measurement by end-March 2019;
- requests the Commission to prepare a report accompanied, if appropriate, by a proposal by end-2023 to set up an EU-wide food waste reduction target (to be met in 2030);
- states that consumer understanding of 'use-by' and 'best before' dates should be improved in order to reduce food waste.

Under Article 9 (Prevention) of this Directive it is also clearly stated that we must –

- reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the United Nations Sustainable Development Goal to reduce by 50 % the per capita global **food waste** at the retail and consumer levels and to reduce **food losses** along production and supply chains by 2030;

2) Recommendation to update wording highlighted (in bold) below to be more specific in terms of the time to prepare and publish reports to monitor progress and to ensure accountability and effective monitoring of this progress:

Section to provide that:

*(1) Subject to subsection (2), the Minister **shall from time to time prepare** and publish National Food Waste Prevention Roadmap (in this section referred to as the "Food Loss Prevention Roadmap") containing information setting out the policy objectives and priorities of the Government in relation to food waste prevention.*

(2) *The Minister shall ensure that **the first Food Waste Prevention Roadmap** published in accordance with this Act is prepared and published not later than 6 months after the commencement of this section.*

Explanatory Note:

This Head will place the National Food Loss Prevention Roadmap on a statutory footing, making the ongoing development of policy in relation to food loss prevention a legal requirement upon Government.

This act should clearly outline the need for annual (or bi-annual at a minimum) reporting against the roadmap that is prepared and published no later than 6 months after the commencement of this section. The language used suggests that a *new* roadmap could be prepared and published rather than reporting against and updating (based on further research, development and innovations) the roadmap that will be published following the commencement of this section. This could lead to a lack of accountability, an inability to effectively track progress and a lack of recognition that significant reductions must be reached in only 9 years. Any roadmap will need to be updated based on future developments, these developments should be recognised as significant improvement to our capacity to tackle food waste and therefore should be tracked and acknowledged as progress, rather than encourage a 'new' roadmap. WRAP in the UK publish annual progress reports⁵ on the progress of their roadmap.

⁵ <https://wrap.org.uk/resources/report/food-waste-reduction-roadmap-progress-report-2021>

Proposed Amendments to the Circular Economy Bill by VOICE and the Rediscovery Centre

Head 3 - Preparation by Minister of Circular Economy Strategy

(1) Subject to subsections (2) and (3), the Minister shall ~~from time to time~~

- a) ~~within a regular and scheduled timeframe~~, prepare and publish a Strategy (in this section referred to as the “circular economy strategy”) containing information setting out the policy objectives and priorities of the Government in relation to the circular economy ~~including sectoral roadmaps setting out measures to give effect to waste prevention targets. The sectors to be included, but not limited to, are packaging including food retail and e-commerce, plastic, consumer goods including textiles and electrical and electronic equipment, batteries and vehicles, food and food waste as set forth in Head 7, and construction and construction and demolition waste.~~
- b) ~~prepare and publish a review on an annual basis, which shall be freely available to the public, to evaluate outcomes against stated deliverables of the Strategy including any relevant data on progress, identify barriers to progress and provide adjusted roadmaps or other measures, including financial measures, to address any barriers or shortfalls~~

(2) The Minister shall ensure that the first circular economy strategy published in accordance with this Act is prepared and published not later than 6 months after the commencement of this section and relates to a period of not ~~less~~ ~~more~~ than 3 years commencing on the date of the first publication of the statement.

(3) The Minister shall, in preparing the circular economy policy strategy, take into account the following: (a) the Waste Action Plan for a Circular Economy; (b) the Climate Action Plan ~~and the Climate Action and Low Carbon Act (2021)~~ (c) the Programme for Government; (d) the National Development Plan; (e) the National Planning Framework (f) the National Marine Planning Framework (g) relevant EU directives (h) national policies in relation to the bioeconomy (i) ~~relevant EU directives and national policies in relation to biodiversity and habitats.~~

Head 4 - Establishment of Circular Economy Fund

(9)b to assist the establishment, equipping and, where appropriate, the operation of waste **prevention, preparation for re-use** and recycling activities generally, ~~or recovery activities in respect of any specified class of~~ **to reduce** waste,

(9)c to assist, support or promote research and development with respect to any aspect of waste **resource** management,

(9)d to assist, support or promote the production, distribution or sale of products of a particular class, **or products meeting a relevant quality mark**, being products which possess characteristics (whether characteristics of an inherent nature or related to the process by which they are manufactured) likely to render them less harmful to the environment than other products falling within the same class,

Head 5 - Circular Economy Programme

Section to provide that:

(3) The Agency shall ~~from time to time as it thinks appropriate~~,

- a) **within a regular and scheduled timeframe**, and at least once in each period of **no more than** 6 years after the date of making of a circular economy programme, evaluate the programme and make such revisions to it as it thinks fit and references in this Act to such a programme shall, unless the context otherwise requires, be construed as including references to such a programme as so revised.
- b) **prepare and make public a report on the evaluation of the programme including rationale for any revisions made to the programme**

(4) Upon the establishment of a circular economy programme or of any revisions thereto, the Agency shall -

- (a) cause to be published in at least one national newspaper a notice of that fact and of the means by which a copy of the programme, as made or revised, may be obtained by members of the public at a cost not exceeding the reasonable cost of making a copy, ~~and~~
- (b) **publish the programme on the Agency's website for easy public access;**

(b) (c) furnish a copy of the programme, as made or revised, to the Minister and each local authority, and any other public authority which in the opinion of the Agency has an interest in the programme; and

(d) on an annual basis, prepare and publish reviews that evaluate progress against planned deliverables including recommendations for measures to address any shortfall

HEAD 6 - Environmental Levies and Prohibitions on Certain Products

Section to provide that:

(1) The Minister may shall, with the consent of the Government, make regulations seeking to reduce the use of the following specified categories of single-use products where reusable alternatives exist.

(a) Disposable hot beverage cups;

(b) Disposable cold beverage cups;

(c) Single-use disposable food containers;

(d) Single-use food packaging;

(e) plastic bags

(f) Single-use sachets or containers of condiments, sugar and milk;

(g) Single-use hotel toiletries;

(h) Non-medical wipes

Such regulations will have the objective of reducing the harmful environmental impacts and material wastage associated with these categories of products.

(2)

(a) Consistent with subsection 1, the Minister may shall make regulations providing that there shall be chargeable, leviable and payable a levy (which shall be known as an "environmental levy" and is in this section referred to as the "levy") on those items identified in subsection 1, recognising that the scope of this levy may widen, with the consent of the Government, or

(b) Consistent with subsection 1, the Minister ~~may~~ **shall**, with the consent of the Government, and with an appropriate lead-in time and in such circumstances where reusable alternatives are available, make regulations providing that the sale or use of certain single-use products identified in subsection 1 shall be prohibited in the State for environmental reasons.

(c) The levy shall apply in respect of the supply to customers, at the point of sale to them of the products subject to the levy.

(d) The exact specifications of the categories of single-use products referred to in subsection 1(a)-(e) will be specified in the regulations.

(16) Food contact materials in which perfluoroalkyl and polyfluoroalkyl substances (PFAS) have been used may not be placed on the market, commencing 1 year from the enactment of this section.

HEAD 7 - National Food Loss Prevention Roadmap

Section to provide that:

(1) Subject to subsection (2), the Minister shall ~~from time to time~~

- a) ~~within a regular and scheduled timeframe in line with the review period of the Circular Economy Strategy~~, prepare and publish National Food Waste Prevention Roadmap (in this section referred to as the “Food Loss Prevention Roadmap”) containing information setting out the policy objectives and priorities of the Government in relation to food waste prevention **as well as the measures for achieving those objectives and targets**
- b) ~~on an annual basis~~, prepare and publish reviews that evaluate progress against planned deliverables and targets based on data collected from all food sectors and waste industry, provide adjusted roadmaps or other measures, including financial measures, to address any barriers or shortfalls, report the review to the Minister and make publicly available the results.

(2) The Minister shall ensure that the first Food Waste Prevention Roadmap published in accordance with this Act is prepared and published not later than 6 months after the commencement of this section.

(3) The Minister shall set annual food waste reduction targets, sector by sector, to reach the 50% food waste reduction target by 2030.

Head 12 - Amendment of Section 22 of the Waste Management Act

Provide that section 22 the Waste Management Act is amended:

(a) by replacing subsection (6)(b)(ix) with the following:

(ix) appropriate qualitative or quantitative indicators and targets, including on

- a) food waste prevention and other sectoral waste prevention,
- b) the adoption of re-fillable and re-usable packaging systems,
- c) the use of reused and repaired products and materials,
- d) the quantity of generated waste and its treatment, and
- e) on municipal waste that is disposed of or subject to energy recovery and on the use of reused and repaired products and materials.

Clear lines of accountability shall be established for the realisation of these targets

Any targets introduced herein or through the policies listed per Head 3 (3) shall be assessed to ensure consistency and full alignment with other targets

(b) by the insertion in subsection (9) of the following after the word 'matter':

'including relevant targets, '

Explanatory Note: The Waste Action Plan for a Circular Economy provides, inter alia, for the inclusion, on a nonstatutory basis, of targets related to reuse and repair in Waste Management Plans. In order to ensure ongoing alignment of Circular Economy Policy at national and local levels, this head places that requirement for inclusion of targets on a statutory basis and provides for the Minister to specify the exact targets to be included if deemed appropriate.

Further Considerations

In addition to the above, consideration should be given to:

- adopting regulations to address issues caused by 'best before' and 'sell by' dates on all food products, ensuring unused short-dated food is donated to charities or sold at a reduced price to consumers, and reviewing current common contractual arrangements between suppliers and retailers that contribute to food waste.
- the introduction of mandatory sustainability criteria for public procurement, and reporting on progress of same by the Office of Government Procurement.
- developing regulations to combat false green claims and greenwashing, particularly in relation to biodegradable, degradable and compostable packaging materials
- regulations for the introduction of financial incentives to promote prevention, preparation for reuse and the use of recycled materials including but not limited to:
 - VAT relief and tax credits on second life, refurbished and repaired items,
 - tax credits or deductions for businesses for the purchase of second life, repaired or refurbished items,
 - tax incentives/grants for businesses to invest in sanitisation equipment or collection units to support reuse.
 - Tax on items made from virgin plastic
- regulations setting criteria for liability relief for the individual, community or social enterprise or business that repairs an item for free, accepts reusable containers for the purchase of food or drink, or donates food to a registered charity
- regulations outlining the consumers' 'Right to Repair' and 'Right to Reuse'.

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The logo for VOICE, featuring the word "VOICE" in a bold, green, sans-serif font.

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The logo for REDISCOVERY CENTRE, featuring an orange triangle with a white line inside, followed by the words "REDISCOVERY" and "CENTRE" in a bold, sans-serif font.



Rationale Behind Proposed Amendments to the Circular Economy Bill by VOICE and the Rediscovery Centre

Head 3 - Preparation by Minister of Circular Economy Strategy

Head 3 puts the Circular Economy Strategy on statutory footing and creates the framework from which all initiatives and sectoral roadmaps evolve. We believe that the statutory language must more clearly outline what is expected from the Strategy, including sectoral roadmaps, which mirror those set out in the government's Waste Action Plan for a Circular Economy and the EU Green Deal.

These include, but are not limited to, packaging including food retail and e-commerce, plastics, batteries and vehicles, consumer goods including textiles and electrical and electronic equipment, food and food waste as set forth in Head 7, and construction and construction and demolition waste. Without this statutory mandate, we fear that these roadmaps and ensuing actions and results may not materialise.

We also contend that there must be adequate monitoring of progress of actions under the roadmap against targets with the ability to adjust actions to address and overcome barriers as they arise. Precedent for frequent reviews and reporting on progress was set in *Our Rural Future* Rural Development Policy.

This strategy will have regard to many other statutes and regulations, both national and EU, and we amend this section to include the newly passed Climate Action and Low Carbon Act (2021) and relevant EU directives and national policies in relation to biodiversity and habitats. We include climate change and biodiversity considerations as more than 90% of biodiversity loss and half of total greenhouse gas emissions come from resource extraction, processing and consumption.

Head 4 - Establishment of Circular Economy Fund

This head establishes the new Circular Economy Fund, which replaces the Environmental Fund. It outlines what type of activities may be funded and includes some of the legacy language from the original legislation to allow funding to go to 'recovery activities'. These type of activities include incineration, waste to energy and cement kilns which burn waste for some energy recovery. This is not part of the Circular Economy and should be struck from the language.

Additionally, we want to move away from the terminology like 'waste' and move towards 'resources'. Proposed amendments move us in this direction.

Head 5 - Circular Economy Programme

Head 5 authorises the Environmental Protection Agency (EPA) to develop the Circular Economy Programme. Current language gives a great level of discretion to the EPA to develop the programme and review as it sees fit. We believe that there should be more frequent reviews to align with other progress reporting (strategy, food loss prevention) and to ensure the programme is having the desired effect. We also call for this information to be made publicly available.

HEAD 6 - Environmental Levies and Prohibitions on Certain Products

This Head gives the Minister the authority to impose levies or bans on a list of items. We support this section, however, it gives the Minister the discretion to do such action. We believe that we won't reduce our waste, especially packaging waste, unless there is mandated action. Therefore, we call for the 'may's to become 'shall's to require the Minister to either impose a levy or ban an item, subject to consent of the government.

We also call for an expansion of the list to include Single-use sachets or containers of condiments, sugar and milk; Single-use hotel toiletries; and Non-medical wipes, which were all mentioned in the Waste Action Plan for a Circular Economy.

We also call for a ban of PFAS chemicals in food contact material (including packaging, wrap and other items). This has been done in Denmark, Spain and California. According to VOICE's study, many fibre containers, including 'compostable' items have been tested and have been found to contain high levels of these 'forever chemicals,' which may not only leach onto our foods, but also contaminate compost that is created in industrial composting facilities that accept compostable containers. They build up in organisms over time and many are toxic. Scientific studies have associated exposure to PFA with a wide range of health effects – including for the immune, digestive, metabolic, endocrine, and nervous systems as well as for reproduction and development.

HEAD 7 - National Food Loss Prevention Roadmap

Head 7 directs the Minister to prepare a Food Loss Prevention Roadmap so that Ireland can meet its obligations under the Sustainable Development Goals and the EU Green Deal to reduce its food waste by 50% by 2030.

We call for a more frequent review of the plan as well as annual progress reports to align with other progress reporting (strategy, programme) and evaluate progress against planned deliverables and targets based on data collected from all food sectors and waste industry. Additionally, this report must be publically available.

We also call for annual reduction targets to ensure that we meet the 50% reduction target by 2030.

Head 12 - Amendment of Section 22 of the Waste Management Act

This head places the requirement for inclusion of targets on a statutory basis and provides for the Minister to specify the exact targets to be included. We call for an expansion of the section, seeking targets for

- 1) food waste prevention and other sectoral waste prevention,
- 2) the adoption of re-fillable and re-usable packaging systems and
- 3) the use of reused and repaired products and materials.

Further Considerations

In addition to the above, consideration should be given to:

- adopting regulations to address issues caused by ‘best before’ and ‘sell by’ dates on all food products, ensuring unused short-dated food is donated to charities or sold at a reduced price to consumers, and reviewing current common contractual arrangements between suppliers and retailers that contribute to food waste.
- the introduction of mandatory sustainability criteria for public procurement, and reporting on progress of same by the Office of Government Procurement.
- developing regulations to combat false green claims and greenwashing, particularly in relation to biodegradable, degradable and compostable packaging materials
- regulations for the introduction of financial incentives to promote prevention, preparation for reuse and the use of recycled materials including but not limited to:
 - VAT relief and tax credits on second life, refurbished and repaired items,
 - tax credits or deductions for businesses for the purchase of second life, repaired or refurbished items,
 - tax incentives/grants for businesses to invest in sanitisation equipment or collection units to support reuse.
 - Tax on items made from virgin plastic
- regulations setting criteria for liability relief for the individual, community or social enterprise or business that repairs an item for free, accepts reusable containers for the purchase of food or drink, or donates food to a registered charity
- regulations outlining the consumers’ ‘Right to Repair’ and ‘Right to Reuse’.

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Repak Ltd

General Scheme of the Circular Economy Bill

Repak Submission to the Oireachtas Joint Committee on Environment and Climate Action

Repak Submission to the Oireachtas Joint Committee on Environment and Climate Action on the General Scheme of the Circular Economy Bill

1. Introduction

Repak Limited welcomes the opportunity to provide input to the Oireachtas Joint Committee on the Environment and Climate Action as part of the pre-legislative scrutiny of the General Scheme of the Circular Economy Bill 2021.

1.1 Repak Background

As an environmental not-for-profit organisation, with a social mission, Repak's purpose, on behalf of its members, is to:

- lead the recycling and sustainability of Ireland's packaging waste,
- advocate for a new circular economy,
- educate businesses and consumers on reducing and recycling packaging waste.

Repak is an Extended Producers Responsibility (EPR) scheme, approved under licence by the Minister for the Environment, Climate and Communications to operate as a compliance scheme for packaging recovery. Since Repak was set up in 1997 Repak members have funded over €500m for the recovery and recycling of packaging waste in Ireland and have grown packaging recycling from a very low base to the point where Ireland is now one of the leading recycling countries in the EU.

2. Repak Circular Economy Initiatives

Over the past number of years, as the concept of a Circular Economy gained momentum throughout the EU and further afield, Repak has been very much at the forefront in promoting the transition to a Circular Economy and in leading the recycling and sustainability of Ireland's packaging waste.

The following are examples of Repak's Circular Economy initiatives:

- **Repak' Plastic Packaging Recycling Strategy 2018-2030**

In September 2018 Repak published a Plastic Packaging Recycling Strategy 2018-2030.

https://repak.ie/images/uploads/downloads/Plastic_Packaging_Recycling_Strategy_2018-2030.pdf

This Strategy is an initiative building on the principles of the Circular Economy in an Irish setting and following on from the publication of the EU's Plastics Strategy earlier that year, which aimed to transform the way plastic products are designed, produced, used and recycled in the EU.

The Repak Strategy endeavoured to inform policy makers, recommend actions for stakeholders and for Repak members in particular. One of the key drivers of the Strategy is the new target requiring all Member States to reuse and recycle 50% of all plastic packaging waste by 2025 and 55% by 2030.

A total of 65 different organisations and 81 individuals were invited to consult on the proposed Strategy and their input is reflected in the 35 recommended actions, to deliver the objectives of the EU Plastics Strategy.

The Repak' Plastic Packaging Recycling Strategy drew attention to the urgency and complexity of the challenge of improving the circularity of plastic packaging in Ireland. It set out measures to:

- Assist Ireland in meeting its recycling targets.
- Promote the design and production of plastics and plastic products that optimises use and recycling.
- Support the circular economy.
- Achieve the above in a cost-effective manner.

Repak's Strategy also highlighted the fact that achieving the EU Circular Economy vision will involve the collective action of many key stakeholders, including Government and their Agencies, Producers, Waste and Resource Sector including trade bodies, Consumers and consumer representative NGOs.

The Strategy runs to 2030 and in that regard, it is very much in its infancy. The intention is to review it in 2022 to ensure it is aligned to the national Circular Economy Strategy.

➤ **Repak Members' Plastic Pledge**

The Repak Members' Plastic Pledge was launched in 2018. It is a B2B initiative focused on the prevention of plastic packaging waste, minimising avoidable single use packaging, promoting packaging reuse and increasing packaging recycling rates.

The number of businesses signed up to the Repak Members' Plastic Pledge has been increasing steadily. Current membership is at circa 140, as momentum continues to grow.

Repak publishes an annual Members Plastic Pledge Report:

https://repak.ie/images/uploads/reports/Plastic_Pledge_Annual_Report_2020.pdf#Achievements

The 2020 Report highlights a number of significant achievements, such as:

- The reduction or replacement of over 23,000 tonnes from the estimated 318,760 tonnes of plastic packaging waste generated in 2020.

- On average plastic packaging reductions of 18.6% were achieved by businesses.
- Members achieving an average of 67% recycling rate. And an average of 54% recycled content

➤ **Plastic Challenge Working Group**

The Plastic Challenge Working Group, a multi stakeholder working group tasked with finding solutions to the key barriers to achieving the objectives of the Repak Plastic Strategy, was also formed in November 2019. It comprises representatives from Repak, Plastic Pledge signatories, policy makers and waste industry representatives. A number of the projects initiated by this group now form part of the Government's Waste Action Plan for a Circular Economy.

➤ **Packaging Design Guide**

With Ireland transitioning towards a Circular Economy, how we design our packaging and the materials we select has never been more important. Designing packaging for a circular economy is about adopting a systemic perspective during the design process, to employ the right materials for the appropriate lifetime and extended future use. However, creating a circular economy for packaging is about more than just the material selection, it requires fundamental changes to business models and how we use packaging.

Repak's new Packaging Design Guide provides Members with valuable information on the various stages involved in packaging recycling, and how the design of packaging impacts on those stages.

The Guide also answers some of the most frequently asked questions about packaging design and recycling.

To view the latest Packaging Design Guide:

https://repak.ie/images/uploads/reports/Packaging_Design_Guide_for_Circular_Economy.pdf

➤ **Awareness Raising**

Education and awareness raising drive behaviour change and are therefore an important component in the transition to the Circular Economy.

The Repak Team Green initiative was launched in 2018 to educate and engage with general consumers and householders on best practise recycling. Over 22,000 people have joined Repak Team Green, and this initiative encourages consumers to reduce, reuse and recycle more and better with annual campaigns, highlighting different aspects of how to improve recycling in Ireland. Annual Team Green communications campaigns target primary and secondary school students and provide educational tools and tips on recycling and protecting the environment. This is in addition to seasonal campaigns at

Christmas and Easter, educating consumers on best practise reduction and recycling of packaging.

For more information on Team Green: <https://repak.ie/team-green>

3. Repak Comments on Heads of the Circular Economy Bill

The following are Repak comments on a number of Heads of the Bill:

➤ **Head 4 - Establishment of Circular Economy Fund**

If the purpose of the Circular Economy Fund is to provide the finance for the transition to a Circular Economy, then the Fund needs to have a direct impact on outcomes that support the transition. The funds must be used on tangible projects, which are fully costed with measurable outcomes that can be reported against. In particular, supporting waste recycling infrastructure should be prioritised to build toward making Ireland self-sufficient. It is important that there is clear ownership and responsibility regarding the management of the fund, with full transparency in annual reporting on funds received and spent.

➤ **Head 5 - Circular Economy Programme**

The Circular Economy Strategy is far reaching and requires a wide variety of stakeholder buy-in in delivering the desired outcome. Delivering practical results requires broad agreement on the direction of travel. Taking on board the recently published EPA non-statutory Circular Economy Programme, consultation with relevant stakeholders should take place before a Circular Economy Programme is finalised and translated into a statutory obligation.

➤ **Head 6 - Environmental Levies**

Environmental levies and the banning of certain items for environmental reasons should ensure that certain non-recyclable items or difficult-to-recycle items, are eliminated from the waste stream. This will enhance the purity of the waste stream and improve the quality of the material being sent for recycling.

➤ **Head 8 Section 10 of the Waste Management Act (WMA)**

Updating Fixed Penalty Notices (FPNs) to additional waste-related offences and to the management of waste collection permits is long overdue. Non-compliances in Waste Collection Permits will dissuade Operators from taking unnecessary risks in areas like storage, export, transportation etc.

FPN's will strengthen the work already and continuing to be carried out by Repak in registration and maintaining registration of Operators as part of the scheme. FPNs however would need to be substantial to bring about behaviour change, and consideration should also be given to the publication of successful prosecutions.

➤ **Head 9,10,11 – Amends to the WMA**

Repak is fully supportive of the amendments proposed and the insertion of the new section 14A Operation of CCTV for the purposes of Waste Management Act.

➤ **Head 12 Section 22 of WMA**

The calculation methodology for measuring reuse and repair targets need to be published. The targets need to be tangible, achievable and there needs to be full clarity regarding the ownership of these targets.

➤ **Head 13 Section 34C of WMA**

This will make enforcement and service analysis more explicit and should certainly help the public in sourcing services for their household waste needs and for business procuring other relevant services.

However, it would also be beneficial if a schedule of audits and site visits were also published.

As well as activity at local Council level, consideration should also be given to how this data could be compiled nationally.

➤ **Head 14 Section 34 of WMA**

The application of incentivised pricing to commercial waste is a positive move as is the proposal to amend the administration of the collection permit application process to set individual recovery operator recycling targets and the maintenance of service provision records.

➤ **Head 15 Waste Recovery Levy**

A waste recovery levy is to be welcomed if it makes the “easier option” of energy recovery, less enticing. However, €5 per tonne is unlikely to be enough. The levy should be set at an appropriate rate to stimulate and to divert more material into recycling in accordance with the Circular Economy.

➤ **Head 16 Regulations in respect of End of Waste**

Repak strongly supports the proposal to review and amend the process for determining End of Waste. Anecdotally one of the biggest challenges in End of Waste assessments is the length of time to process an application and the backlog of applications. The process is not user friendly and from an administrative viewpoint is both over burdensome and is a barrier to innovation and the development of circular economy solutions and initiatives in Ireland. A fit for purpose End of Waste process has the potential to contribute significantly to the Circular Economy.

4. Recommendations

Given that the Circular Economy Bill is a key step in the successful transition of Ireland’s economy to a Circular Economy, the following two key elements need to be addressed further in the Bill:

➤ **Development of Waste Management Infrastructure.**

It is well recognised that in terms of waste management infrastructure, Ireland has a significant waste infrastructure deficit and hence an over reliance on export to manage our waste at end of life. This applies to all waste generated, and annually for general non-recyclable waste, capacity management is a problem, i.e., incineration/ alternative capacity. It is also relevant with regard to recycling infrastructure. Regarding packaging waste, Ireland currently exports for recycling circa 55% of its packaging waste annually.

There is now an opportunity to address the infrastructure deficit by developing new recycling facilities and markets in Ireland. As a first world country we should aim to be self-sufficient and should put in place a programme to provide finance and investment to support the development of effective and environmentally sound waste collection, sorting, and recycling infrastructure. Both the public and private sectors have a role to play and the scale of the challenge here would warrant a separate Head (dealing with infrastructure) in the Circular Economy Bill.

An immediate action that could be implemented is to adapt the findings of the National Review of Civic Amenity Sites Report 2020 and make it easy for the public by introducing a consistency of approach across the 31 Local Authorities in all aspect of increasing the provision and running of sites.

The provision of glass container banks should also be brought in line with best practice in Europe, i.e., one glass container bank per one thousand inhabitants and for this consistent approach to be adopted by all Local Authorities. Currently there is on average one bring bank per 2,630 inhabitants with black spots of one per 15,000 particularly in growing urban areas. Repak has always and will continue to financially support the roll out glass container banks. In 2020 circa 87% of all glass containers placed on the market were collected and recycled.

➤ **Communications and Awareness Raising**

As with any change management project, communications and awareness raising are vital in achieving success. Transition to a Circular Economy will require extensive buy in from many stakeholders, not least the general public and businesses in Ireland. Anecdotally there appears to be a low level of understanding and awareness in Ireland of the Circular Economy. A communications campaign with clear strategies and messaging will need to be put in place to inform and drive sustained behaviour change. In any communications campaign all form of media through which the message would be communicated would need to be employed (from TV adverts, internet, social media, newsprint etc.) over a specific timeframe.

The Circular Economy Bill should give greater emphasis to communications and awareness raising. This should be managed via a dedicated government resource that engages with all stakeholders and provides a clear, measurable roadmap to 2025 and 2030. The communications plan should be the fulcrum around which Government, Industry, Regulators, NGO's, Extended Producer Responsibility Schemes operate and the public at large need to have line of sight of and understand the direction of travel.



22.10.2021

The Rediscovery Centre

The Boiler House

Ballymun Rd,

Ballymun

Dublin

Overview

The Rediscovery Centre welcomes an opportunity to contribute to the pre-legislative scrutiny process for the Circular Economy Bill. Our views were shared with a number of Deputies in a joint submission alongside VOICE, CRNI and Friends of the Earth. For clarity, we will outline those views below and provide further detail regarding specific points.

In general the Bill is welcome as the first piece of legislation to provide a statutory basis for Ireland's circular ambition. The measures included, particularly the strategic approach to policy making, the introduction of targets and levies and the statutory basis for a circular economy fund could be transformative in driving the transition to a more circular economy.

Having analyzed the bill in depth, we would like to propose changes that can **strengthen** the proposed measures, provide a more **holistic approach** and future proof this Bill. Our recommendations in relation to potential revisions are outlined below.

Strengthening Proposed Measures

Eliminate the word “waste”

We support a shift away from the concept of waste across all Circular Economy legislation, policy and actions. Ensuring the wording of the Circular Economy Bill reflects this may appear cosmetic, but is necessary to shift the focus and understanding of the circular economy toward effective resource management.

For example: In Head 4 regarding the Circular Economy Fund, article (9) includes a number of sub articles that require rewording as follow:

1. (b) that “the operation of waste re-use ... activities” is replaced with “the operation of preparation for re-use ... activities”
2. (c) that “with respect to any aspect of waste management” is replaced with “with respect to any aspect of resource management”

For example: Head 12 of the CE Bill as drafted amends the Waste Management Act to require the inclusion of targets, referring specifically to the introduction of targets related to waste generation. We would like to see, instead, targets more directly related to circularity - for example, a consumption target.

Strengthening Targets and Roadmaps

We warmly welcome the introduction of targets in Head 12 of the Bill particularly for the use of reused and repaired products. This would place Ireland at the forefront as the first Member State to formally legislate for reuse targets.

However, to ensure their effectiveness, we would like to see a strengthening in the monitoring and evaluation of these and other proposed targets and roadmaps. To effect this, the Bill should provide:

- **clear lines of accountability** for meeting the targets

Clear lines of accountability are necessary to ensure that legislative intent is manifested into real action.

- **a commitment to providing a roadmap** detailing actions to meet the targets and **to providing 6 monthly progress reports** accompanied by corrective measures (including financial supports) where necessary with a full review every two to three years

Progress reports are necessary to ensure that the targets are effectively tracked and any shortfall is addressed. An excellent example of progress monitoring is included in Ireland's Rural Development Policy 2021-2025, *Our Rural Future* which requires committee oversight and biannual progress updates on the implementation of the policy.

In addition to providing a roadmap and progress reporting for the targets set out in Head 12 of the Bill, we also support a commitment to providing **progress reports and reviews** of the National Food Loss Prevention Roadmap. These should align with the reporting periods for targets as suggested above, and with the review timeframe of the All of Government Circular Economy Strategy.

- **a strengthening** of the requirement to set exact targets

In relation to Head 12 under "explanatory notes", the Minister may specify the exact targets to be included if deemed appropriate. With the current wording, it appears to be at the Minister's discretion as to whether targets are set at all. We would like to see the wording strengthened to "The Minister shall".

A More Holistic approach

Targets Alignment

While the introduction of targets is, as outlined above, very welcome, it will be critical to their success that any and all targets proposed now and into the future are aligned, if not **completely integrated** with one another.

This Bill proposes the introduction of targets for the quantity of generated waste and its treatment, recovered / disposed municipal waste and the use of reused and repaired products and materials. The *All of Government Circular Economy Strategy* proposed the introduction of targets related to the circular material use rate and priority waste prevention targets in Circular Economy Sectoral Roadmaps. The *Waste Action Plan for a Circular Economy* also referred to the introduction of targets for reuse, repair, resource consumption and reduction of contamination levels through the *National Waste Management Plan for a Circular Economy*. Finally, targets in relation to food waste prevention, preparation for reuse and refill are sought by key stakeholders including VOICE Ireland and CRNI to support the food waste roadmap, electrical and electronic product reuse and a reduction in single use plastics.

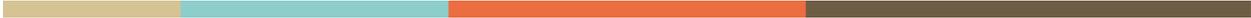
For any or all of these to be successful they must be built into a single framework and clearly aligned.

Alignment with Climate Action and other Policy

It is estimated that around 40% of global emissions are associated with the production and distribution of our goods. Through the transition to a more circular economy, significant carbon savings can be delivered.

While we acknowledge this is a complex area due to the global nature of manufacturing of consumer goods, it is essential that the link is made between the circular economy and climate legislation and policy. For example, this Bill should be linked to the Climate Action and Low Carbon Development (Amendment) Act 2021 as suggested in Deputy Bruton's report on circular economy as rapporteur for the committee. One option is for targets and funded actions providing carbon savings to be included through Scope 3 emissions calculations.

Alignment with other policies is also critical. We are at a pivotal moment in terms of Ireland's Circular Economy. We must look towards our future in a holistic manner, building



a shared vision that is complementary to social economy, bioeconomy and the economy of wellbeing.

Strategic Alignment in Communications

We welcome the inclusion in Head 4 of awareness raising, promotion, education and training as initiatives to support through the circular economy fund.

With a growing number of Government, business and third sector actors in this field, greater levels of coordination and collaboration will become essential in engaging the public and businesses in the circular economy. From initial market research funded by the Department of Environment, Communications and Climate (DECC) and carried out by the Rediscovery Centre, we understand that the circular economy is not part of the public debate or public discourse.

The DECC proposed in the recent *All of Government Circular Economy Strategy* draft outline the creation of a national circular economy “brand” for Ireland that sits separately from organizations such as the EPA, CIRCULÉIRE, the Rediscovery Centre and DECC. To complement and build this brand, the strategy proposed the development of a **circular economy platform**.

This platform should enable a collaborative approach to community and public engagement through online and offline targeted action in support of a more sustainable and equitable circular economy. Importantly the platform should provide a portal to both future and established Circular Economy activities and highlight publically available resources and design interventions to encourage active participation. It should employ a hybrid of online and in person offerings, ensuring that digital inclusion takes place. A dynamic offline campaign should complement the interactive and diverse digital element and ensure inclusivity and widespread participation.

We believe the platform should be considered a high priority for this fund, to provide the diverse and growing sector with an opportunity to collaborate on coherent and clear communications that will underpin the transition to a circular economy.

ZERO WASTE ALLIANCE IRELAND

Towards Sustainable Resource Management



Submission to the Joint Oireachtas Committee on Environment & Climate Action

28 October 2021

Zero Waste Alliance Ireland is a member of



and



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Submission to the Joint Oireachtas Committee on Environment and Climate Action

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Submission to the Joint Oireachtas Committee on Environment and Climate Action

1. INTRODUCTION

On Thursday 07 October 2021, the Joint Oireachtas Committee on Environment and Climate Action commenced pre-legislative scrutiny of the general scheme of the Circular Economy Bill, and we understand that the Committee is welcoming submissions from persons and organisations who have an interest in the Circular Economy, and who may be able to provide expertise or information which would assist the Committee.

We also understand that the Committee must necessarily confine itself to scrutiny of the proposed legislative provisions; and therefore our submission will be primarily directed at the proposals contained in the Circular Economy Bill at its current stage.

2. ZERO WASTE ALLIANCE IRELAND (ZWAI)

Zero Waste Alliance Ireland (ZWAI), established in May 1999, and registered as a company limited by guarantee in 2004, is a Non-Government Environmental Organisation (eNGO) and a registered charity. During two decades ZWAI has submitted to the Government and to State Agencies many policy documents on waste management, on using resources sustainably, on promoting re-use, repair and recycling, and on development and implementation of the Circular Economy.

One of our basic guiding principles is that human societies must behave like natural ecosystems, living within the sustainable flow of energy from the sun and plants, producing no materials or objects which cannot be recycled back into the earth's systems, or reused or recycled into our technical systems, and should be guided by economic systems and practices which are in harmony with personal and ecological values.

3. OBSERVATIONS ON THE CIRCULAR ECONOMY BILL

3.1 The Circular Economy Fund (Head 4)

We are concerned that sub-section (9) provides for payment to assist “*recovery activities in respect of any specified class of waste*”. The term “**recovery**” should be removed from Head 4, as it is used by the waste industry to refer to incineration or co-incineration of waste with recovery of a relatively small proportion of the embodied energy in the materials burned. The term recovery is also used in **Head 15**, but under this Head the “*waste recovery activity*” is defined by reference to the Fourth Schedule of the Waste Management Act, which clarifies the use to some extent.

The Regulation establishing the EU Recovery and Resilience Facility¹ provides that no measure included in a Member States’ Recovery and Resilience Plan² should lead to significant harm to environmental objectives within the meaning of Article 17 of the Taxonomy Regulation, including to the circular economy objective.

According to this Article, an economic activity shall be considered as doing ‘significant harm’ where that activity “*leads to a significant increase in the generation, incineration or disposal of waste, with the exception of the incineration of non-recyclable hazardous waste*”³; or leads to significant inefficiencies in the direct or indirect use of any natural resource at any stage of its life cycle.

Therefore the inclusion of the term “recovery”, as applied to waste, under Head 4 of the Bill would be in conflict with the EU Recovery and Resilience Facility.

Instead, we propose that the Circular Economy Fund may provide financial assistance for the activity of “repairing”, in preparation for re-use of faulty or damaged equipment, and to organisations which carry out such work, provided that they are not-for-profit charitable organisations or have a social purpose.

¹ The aim of the Recovery and Resilience Facility is to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. https://ec.europa.eu/info/business-economy-euro/recovery-coronavirus/recovery-and-resilience-facility_en

² Ireland’s National Recovery and Resilience Plan, published on 01 June 2021, does not mention the Circular Economy. <https://www.gov.ie/en/publication/d4939-national-recovery-and-resilience-plan-2021/>

³ Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088 (the “Taxonomy Regulation”); Article 17, Significant harm to environmental objectives.

We specifically propose that the Bill should enable the Minister to give financial support, under appropriate conditions, to “repair cafés” which are disadvantaged in Ireland compared with other EU Member States (see additional information about repair cafés in section 3.6 below).

The Explanatory Note under Head 4 of the Bill states that the Circular Economy Fund will replace the **Environment Fund**. As the Environment Fund provides the very necessary financial support to a wide range of environmental NGOs, to the **Irish Environmental Network** and to the **Environmental Pillar**, it is our submission that this support should be specifically identified in the Bill, more clearly than set out at present in sub-section (9), paragraph (m).

3.2 Environmental Levies and Prohibitions on Certain Products (Head 6)

If the Circular Economy Bill is to become comprehensive, it must also address the fate of unwanted materials and objects which are not re-used or recycled, and which become discarded in landfills or burned in incinerators, cement production plants or similar facilities for the thermal destruction of such materials.

It is therefore our submission that references to the **landfill levy** should be removed from the Waste Management Act 1996 as amended, the Waste Management Regulations, and from the relevant Statutory Instruments, and should be included in the Circular Economy Bill. This would be logical, as the operations of the Environment Fund, established under section 74 of the Waste Management Act, will be replaced by the Circular Economy Fund (section 3.1 above).

Secondly, it has always been an anomaly that while “wastes” deposited in a landfill are subject to the payment of the landfill levy, no “**incineration levy**” has been established; and it is our submission that the Circular Economy Bill provides an appropriate and timely opportunity establish such a levy.

We therefore welcome the long awaited “Waste Recovery Levy”, proposed in **Head 15**, by way of a new Section 73A to be inserted into the Waste Management Act. It is also appropriate and welcome that the levy will apply to the “*export of waste for recovery by means of backfilling or incineration*”.

However, we would also suggest that the original term “*energy recovery*” should be used in the Bill, as it states more clearly the nature of the activity; whereas the term “recovery” (introduced by the waste-to-energy industry) is easily misused or misinterpreted to give the impression that the actual materials are recovered, and not merely some of the embodied energy (see also section 3.8 below, on **Head 12**).

While this section addresses the prohibition or reduction of use of certain types of specified products, or prevents their being placed on the market, we would

suggest that this Head of the Bill should enable the Minister to make regulations prohibiting the destruction of materials which are capable of being recycled.

The Explanatory Note under **Head 9** refers to the Waste Management (Tyres and Waste Tyres) Regulations (SI 400 of 2017) which established an Extended Producer Responsibility scheme for the environmentally sound management of waste tyres; but, as the Committee will be aware, very large quantities of end-of-life tyres are burned as a co-fuel in cement production plants. Such tyres contain the easily separated and valuable resources of rubber and steel which can be re-used or recycled, while the nylon fibres also have a value.⁴

It is therefore our submission that the Circular Economy Bill should include, under **Head 6**, a section enabling the Minister to prohibit the incineration, thermal destruction or landfilling of certain classes of materials which may be reused or recycled.

3.3 Proposals for Recycling and Single Use Plastics (Head 6)

Single-use products, such as disposable food containers and single-use food packaging are addressed under **Head 6**, under which the Minister is enabled to make regulations governing their use, to introduce levies for certain items and to ban certain items for environmental reasons.

Zero Waste Alliance Ireland welcomes this section of the Bill, and we note that the EPA has reported that people living in Ireland produce more than 13 million tonnes of waste every year. Ireland generated over 1.1 million tonnes of packaging waste in 2019, up 11% from 2018. Most of this consisted of plastic and paper/cardboard, with smaller amounts of glass, wood and metal packaging.

These figures indicate the growing problem, and show that the current methods of recycling are failing to manage the continuing increase in waste. The statistics emphasise the need to look at current practices and investigate improved waste segregation. Almost 70% of the contents of the non-household residual waste bins could potentially be diverted either to recycling or to brown bins.

The Single Use Plastic (SUPs) Directive (EU) 2019/904 aims to reduce the volume and impact of certain plastic products on the environment, and the Government commenced its transposition of the directive and has banned specific plastic items from being placed on the Irish market from 03 July 2021.

We would point out that, in addition to the proliferation of disposables in society generally, music festivals utilise very large quantities of single-use plastic and other materials for drinks and food. Images in the press in recent years have highlighted the shocking sea of litter often left by audiences at events, a metaphor

⁴ Submission by Zero Waste Alliance Ireland to the Department of the Environment, Community and Local Government, on Tyres and Waste Tyres, 30 January 2014.

for a global addiction to convenience and a disconnection from the environmental impacts of this throw-away culture.

At the same time, festival organisers can control what comes onsite; can choose to take action to limit plastic waste, and by doing so can positively influence the attitudes and behaviour of their audiences. It is therefore our submission that the Circular Economy Bill should include a specific provision enabling Government investment in the creative sector, so as to deliver a system which would eliminate single-use plastic at such events. This can be achieved through training and development, and by the introduction of systems to reduce carbon footprint, such as the implementation of sustainable programs like Julies Bicycle, Green Arts initiative etc.

ZWAI would like to propose a complete ban on disposable beverage cups in particular, and we agree that a levy for other forms of single-use items should be introduced with the objective of reducing the harmful environmental impacts and material wastage associated with these categories of products.

3.4 Food Loss Prevention (Head 7)

Under **Head 7** – National Food Loss Prevention Roadmap – ZWAI would like to propose that retailers should be provided with an incentive to reduce their supply of fruits and vegetables which come in plastic packaging.

An emphasis should be placed on providing to consumers the same items loose and unpackaged, which would allow purchasers to reduce their plastic waste consumption. We suggest that a key provision would be a regulation requiring retailers to charge no more for fruit and vegetables displayed loose, than for those displayed and sold wrapped in plastic film.

3.5 Introduction of a Deposit Return Scheme

It is very disappointing that there is no mention in the Circular Economy Bill of a proposed deposit and return scheme which was the subject of extensive stakeholder consultation earlier this year.⁵

We therefore suggest that some of the proposals made in our submission to the Department of Environment, Climate and Communications on the Legislative Framework and Scope of a Deposit Return Scheme (DRS) in Ireland could

⁵ Deposit Return Scheme Consultation Document; Department of the Environment, Climate & Communications, April 2021.

appropriately be included in the Bill, and we would recommend this brief (14-page) document to members of the Committee.⁶

ZWAI strongly believes that Ireland should impose 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 POPs. Relying on other countries' infrastructure to achieve our "recycling" targets is not acceptable from a global ecological and societal perspective.

ZWAI strongly suggests, as in our previous submission on DRS, that glass should be included in the accepted materials of the scheme.

There should be a distinction between one-way containers and reusable containers

We recommend a system similar to that which Denmark has implemented, where importers and producers of refillable glass beverage containers are obliged to operate a deposit return system.

We propose that these containers should be part of the scheme in the same way that one-use beverage containers are, with the exception that instead of the systems operator being responsible for them, producers should be responsible for their own containers.

We also propose that it would be essential that the DRS includes alcoholic beverage containers.

The aim of a DRS in Ireland should be to collect as much packaging as possible by encouraging consumers to dispose of their waste responsibly, and not by encouraging them to buy more which would increase the amount of packaging going through the system.

The waste collection system needs to be revisited in light of the success of segregation in other European countries, and a reduction in the quantities of waste exported.

3.6 Electronic Waste

In 2019, Ireland surpassed all EU targets for recycling and recovery of this form of waste, producing an unacceptable quantity of 62,600 tonnes. E-waste is considered the fastest growing form of waste in the world, which is why action needs to be taken by the government to implement change.

⁶ Submission by Zero Waste Alliance Ireland to the Department of the Environment, Climate and Communications on the Legislative Framework and Scope of a Deposit Return Scheme in Ireland; 07 May 2021.

It is our suggestion that planned obsolescence should be phased out, and encouragement should be given by government agencies to communities to enable them to reuse and/or repair electronic goods. This can be done with financial and other supports and incentives from central government, channelled through local authorities; and, in this context, we refer to our suggestions for the encouragement of repair cafés (see section 3.1, Head 4, above).

Repair cafés have been hugely successful in France, the Netherlands, other EU Member States, and Britain.⁷ There have been a few small-scale attempts to open similar cafés in Ireland, however with liability concerns many people have been discouraged. Currently, there are many community groups in Ireland that wish to run repair cafés but are prevented from doing so because they cannot get insurance, or the cost of insurance is too high. 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.

The Committee may be interested to learn of the existence of a Europe-wide network of “Right to Repair” organisations based in many EU member states, and representing civil society, community repair initiatives and public institutions.

It is our submission that the Bill should include a section enabling “*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. We also propose that this should not apply to commercial repair work.

We also wish to draw the Committee’s attention to the large amount of energy consumed by the audit process and the “mining” of cryptocurrencies; during this year the operation of just one such currency, Bitcoin, has consumed more energy than the Philippines. The presence of cryptocurrencies being mined in Ireland is an excessive drain on our already strained energy supply.

The process of mining cryptocurrencies is also very intensive in terms of physical hardware. The devices used in this process have an average lifespan of just 1.29 years, thereby generating large quantities of e-waste, consisting of computer and server hardware. The total amount of waste from this process worldwide has been estimated by researchers to be equal to the electronic waste of a country the size of the Netherlands. Some of this material can be recycled but currently most of it goes to waste.

It is therefore our submission that the Bill should include a section addressing this problem area.

⁷ <https://repair.eu/our-network/>

3.7 Indicators and Targets (Head 12)

We welcome the proposal in **Head 12** which will require targets for reuse and repair to be included on a statutory basis in the Waste Action Plan for a Circular Economy. However, it is our experience that obtaining accurate and reliable data on waste and other materials collected for reuse and recycling is extremely difficult. After discarded materials have been collected by waste management firms (private sector waste collectors), it is virtually impossible to determine their final destinations, either qualitatively or quantitatively.

It is therefore our submission that the Circular Economy Bill should require all holders of waste collection permits and waste licences, operators of waste transfer facilities and material recovery facilities, and waste brokers, to provide on a statutory basis, detailed information to the Minister and to the Environmental Protection Agency, including the types and quantities of materials exported as “waste” or for “recovery” or for “recycling”. In the absence of such data, the implementation of a Circular Economy becomes almost impossible to achieve, and progress towards targets extremely difficult to measure.

3.8 Waste Recovery Levy (Head 15)

In section 3.2 above we welcome this long-awaited levy, which removes the anomaly that discarded materials sent to landfill have been for many years subject to a landfill levy, while materials incinerated have not been subjected to any levy.

However, we also suggested in section 3.2 above that the term “recovery” should be replaced by “energy recovery” for the purpose of clarity.

3.9 End of Waste Regulations (Head 16)

Determining whether substances or discarded materials are “waste” or have ceased to be “waste” is important; and, as pointed out in the Explanatory Note, an appropriate determination has “*considerable potential for furthering circular economy objectives by extending the productive life of materials and supporting the use of secondary materials over virgin materials*”.

As we suggested in section 3.1 and 3.2 above, the destruction by burning of potentially recyclable materials, which have been defined or classified as waste, is contrary to the concept of the Circular Economy.

3.10 Amendments to the Minerals Development Act 1940 to 1999 (Head 19); Use of Construction and Demolition Waste

The proposed amendments to the Minerals Development Acts 1940 to 1999 and the Minerals Development Act 2017 are welcome, prohibiting future prospecting for coal, lignite or oil shale; but there is no mention of the need to prohibit prospecting for natural gas in tight formations from which it could be extracted only by hydraulic fracturing (fracking).

The legislation to ban licences for new oil and natural gas exploration, which is included in the Climate Action and Low Carbon Amendment Act, should be cross-referenced in this part of the Circular Economy Bill.

The quantities of construction and demolition (C&D) waste generated in Ireland increased to 6.2 million tonnes in 2018, which is an increase of 1.5 million tonnes from the previous year, and only 9% of this waste was recycled. In the Circular Economy, it is essential that the recycling rates for C&D waste need to be very significantly improved by better segregation of C&D waste into individual material streams, either at source or at waste processing facilities.

It is also our submission that non-scheduled minerals, in particular, stone (to be crushed for aggregate), sand and gravel should be licensed under the Circular Economy Bill, and a levy paid for the extraction of these mineral resources. The absence of a levy has resulted in quarrying for aggregate being cheaper per tonne than using materials recovered from the demolition of buildings, or produced during construction activities.

A levy on the quarrying or extraction of aggregates for construction would drive this sector towards greater use of materials such as soil, stone, sand and gravel which can be recovered from deconstructed buildings, while a prohibition on demolishing buildings without recovery or recycling of their components would provide an added incentive to increase recycling rates. Successful application of the circular economy in the construction sector could result in millions of tonnes of resources being beneficially reused annually.

Construction and demolition waste is a priority area of the EPA-led National Waste Prevention Programme (NWPP), which aims to prevent waste and drive the circular economy in Ireland, and is also a key concern that ZWAI believes should be addressed in the Circular Economy Bill.

It is also our submission that the Bill should include a section prohibiting the demolition of buildings wherever possible, and that end-of-life buildings which cannot be repurposed should be deconstructed, components reused or recycled, and C&D waste minimised.

3.11 End-of-life Vehicles

The European Green Deal⁸ identifies vehicles as one of the products where “*the Commission will consider legal requirements to boost the market of secondary raw materials with mandatory recycled content*”. Additionally, vehicles are among seven sectors selected as the key product value chains in the new EU Circular Economy Action Plan⁹.

The EU Directive 2000/53/EC on end-of life vehicles¹⁰ (the ELV Directive) has not been substantially revised since its adoption in the year 2000; while, during the same period, the production of motor vehicles has undergone significant changes and transformations, influenced by the increasing use of new technologies and components such as plastics, carbon fibre and electronics, causing specific challenges for their recovery and recycling from ELVs.

Furthermore, the electronic components contain valuable materials, such as gold, silver, palladium, tantalum and other rare earth materials; there is no specific requirement in the ELV Directive to separate and recover these materials, and the way in which ELVs are currently managed creates negative environmental consequences and represents a loss of valuable resources.

In 2017, 11.21 million passenger cars and light commercial vehicles (below 3.5 tonnes total mass) were removed from the stock of registered vehicles. The average weight of an ELV in 2017 was 1088 kg; and therefore the 11.21 million vehicles gave rise to 12.2 million tonnes of waste. Based on the average material composition of ELVs, 12.2 million tonnes represent a material flow of 8.5 million tonnes of ferrous metals, 490,000 tonnes of non-ferrous metals (excluding wiring harnesses), 365,000 tonnes of glass, and 1.48 million tonnes of mixed plastics. These figures exclude tyres, battery casings and the plastic sheathing of wiring harnesses.

From the perspective of the Circular Economy, ensuring the recovery and reuse of these materials is a major challenge.

In Ireland, ELVs are subject to the European Union (End-Of-Life Vehicles) Regulations 2014 (S.I. No. 281 of 2014), amended by the European Union (End-Of-Life Vehicles) (Amendment) Regulations 2020 (S.I. No. 82 of 2020). These Regulations impose rules on Authorised Treatment Facilities, and prescribe targets for the appropriate treatment, reuse, recovery and recycling of ELVs and components. Their primary purpose is to prevent pollution, to limit the use of

⁸ COM(2019) 640 final. To access the document: <https://ec.europa.eu/info/node/123797>

⁹ COM(2020) 98 final. To access the document: <https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1583933814386&uri=COM:2020:98:FIN>

¹⁰ Directive 2000/53/EC of the European Parliament and of the Council of 18 September 2000 on end-of life vehicles.

hazardous substances, and to ensure that targets for reuse and recycling of ELV components are achieved.

To some extent, the EU Directive on ELVs and the Irish regulations may be considered as assisting the Circular Economy, but they are out-dated, are aimed only at “end-of-life” solutions, and fail to address the necessity of ensuring that road vehicles are designed and built with “circularity” inherent in the design and manufacture. For example, it is not difficult to design and produce a vehicle which can be easily dismantled; in contrast to the current system in which so-called vehicles dismantlers (the “Authorised Treatment Facilities”) do no more than remove liquids (oils, fuel, etc), crush and bale the vehicle, and transport it to a “defragger” facility where the vehicle is cut into small fragments, the steel and aluminium are generally recovered, while most other materials are either burned or landfilled.

The Circular Economy Bill 2021 provides an opportunity to change this practice, and to require a much higher level of reuse and recycling; and it is our submission that the Irish ELV Regulations should be either updated by the Circular Economy Bill, or absorbed into it. The latter suggestion would have the effect of bringing a very significant source of potentially recyclable materials (or a significant source of waste if improperly managed) under the control of the Circular Economy legislation.

3.12 Transformation of Civic Amenity Sites

Civic Amenity Sites (CAS) are reception facilities which enable householders (and commercial users at some facilities) to deposit a wide range of wastes including recyclable and non-recyclable materials, bulky waste and certain categories of hazardous waste.

They play a significant role in waste management in Ireland, providing an alternative option to collection of household and commercial wastes from premises where wastes are generated. For many householders, it is less costly to bring segregated waste to a local authority operated CAS than to pay for the same amounts of waste to be collected by a licenced collector, generally a privately owned company. CASs are valued by communities as a whole, especially where a site is operated by helpful and courteous local authority staff.

In Ireland however, unlike the situation in most EU member states, the private sector operators of Civic Amenity Sites do not allow customers to collect reusable materials from a CAS, though in a very few cases a local authority CAS will allow minor amounts of reuse activities. The impact of this restriction has a particularly negative effect when customers see usable or reusable materials which they would like to take, but are prohibited from doing so, while being aware that the greater proportion of these materials will be sent to a landfill or incinerator.

On the other hand, at one particular CAS, the local authority is leasing to a social enterprise (a charity shop), a property unit adjacent to the CAS; the charity shop is allowed to collect materials that would otherwise have been disposed of as waste, and the materials collected are sent for sale to that organisation's retail shops. This is a small example of the Circular Economy in action at a CAS.

It is our submission that the country's network of CASs should be provided with the necessary legislation, in the Circular Economy Bill, to transform them into local hubs for the implementation of the Circular Economy in Ireland. This possible operational change is already the subject of discussion, but is lacking the necessary legislative backing.¹¹

3.13 Privatisation of Waste Management in Ireland

One of the problems facing the implementation of the Circular Economy in Ireland is the fact that, in contrast to many other EU Member States, the collection, management and disposal of waste in Ireland is handled almost entirely by companies operating in the private sector.

A study by the Competition and Consumer Protection Commission (CCPC)¹² of household waste collection in Ireland and 10 other European countries showed that competitive tendering, or a State-run monopoly, was most commonly employed. Competitive tendering gives municipalities a higher degree of control over the industry, and leads to fewer operators, fewer collection vehicles on the road, and a reduction in emissions.

Other EU countries maintain a high level of control by retaining ownership of waste, which the State manages by either collecting the waste directly, or by contracting it to the private sector, using a competitive tendering process.

In contrast, and unique in Europe, a system of side-by-side competition operates in Ireland, with private firms simply competing against each other. In Ireland, the shift from a single service provider – formerly the local authority – to the current system of individual households purchasing a waste collection service, has led to an increase in the power of the market and the private sector waste collection companies, without any countervailing buyer power which would be present if, for example, the local authority had selected a single waste collection provider through a tendering process. Furthermore, in Ireland the price difference between waste collection companies is generally marginal, thus discouraging switching.

¹¹ National Review of Civic Amenity Sites, Department of Environment, Climate & Communications and Regional Waste Management Planning Offices; November 2020.

¹² The Operation of the Household Waste Collection Market. Competition and Consumer Protection Commission, September 2018.

The operation of household waste collection is now the responsibility of the private sector, with State involvement restricted to issuing and managing waste licences, and the adoption and enforcement of environmental regulations.

It is clear from the CCPC report that the State has lost control, and this has important implications for the State's ability to direct how and where waste should be treated, and has a dampening effect on the State's power to implement the Circular Economy through management of discarded materials. It is also apparent that the lobbying power of the private waste management sector has made progress towards the Circular Economy more difficult to achieve.

It is our submission that this is an area which the Committee should consider when examining the draft Circular Economy Bill 2021.

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Submission to the Oireachtas Joint Committee on Environment and Climate Action on the Circular Economy, from Zero Waste Alliance Ireland (Zwai), and from Herr Ltd, as it applies to Wastewater

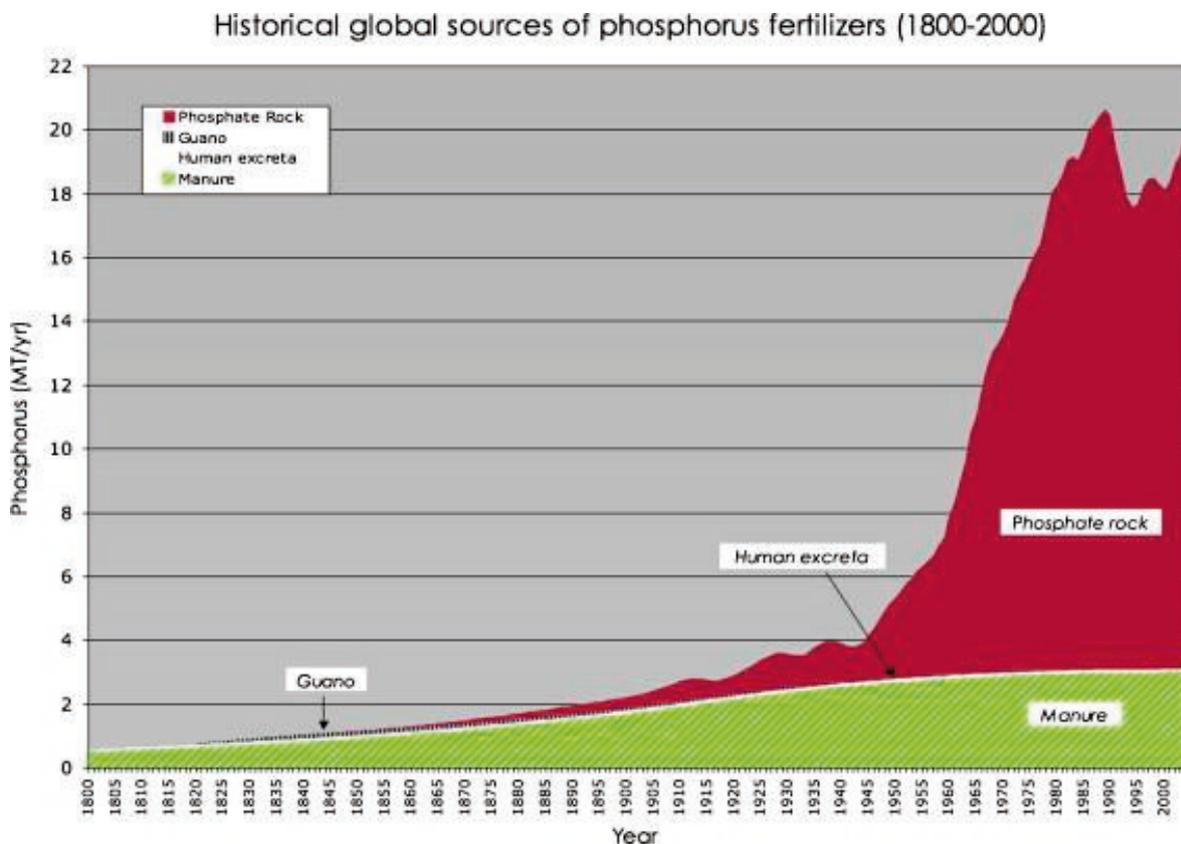
The Zero Waste Alliance of Ireland and Herr Ltd calls on the Oireachtas to prioritise the following issues and to adopt and to mandate the new measures that we are respectfully proposing.

- Scientists are now highlighting the growing urgency to more efficiently and more sustainably remove or avoid Phosphorus, Nitrogen and Pharmaceuticals from Municipal as well as Domestic wastewater discharges, that otherwise enter our ground water and surface waters
- We want to point out the ever-present health threat to the food chain from organic pollutants and heavy metals by continuously relying on treated municipal sewage sludge and on mined mineral based phosphorus fertilisers that are being applied on farmland.
- Instead, the scientific community are now urgently calling on us to recover and recycle Phosphorus and Nitrogen from wastewater to agriculture without toxic metals or residual pharmaceuticals. At present, so much of the phosphorus and nitrogen-based fertiliser is still being “wasted” from our present agriculture and our wastewater treatment systems. Over the coming decades, with the wasting of phosphorous, the remaining phosphorous resource will become more expensive, then unaffordable and eventually it will be economically depleted.
- We want to highlight the potential food threat that this poses to our grandchildren, because of increasing fertiliser prices and phosphorus shortages. Don’t leave it as late as we did for Climate Change. We ask you therefore to act “now”, to prevent the public health impacts from pharmaceuticals and the emergence of antibiotic resistant bacteria that remain in wastewater discharges. We want to point out to the committee that it is not possible to protect the growing global population when the resources to make clean toxin free fertiliser are being wasted and anti-biotic resistance is becoming a growing health threat.

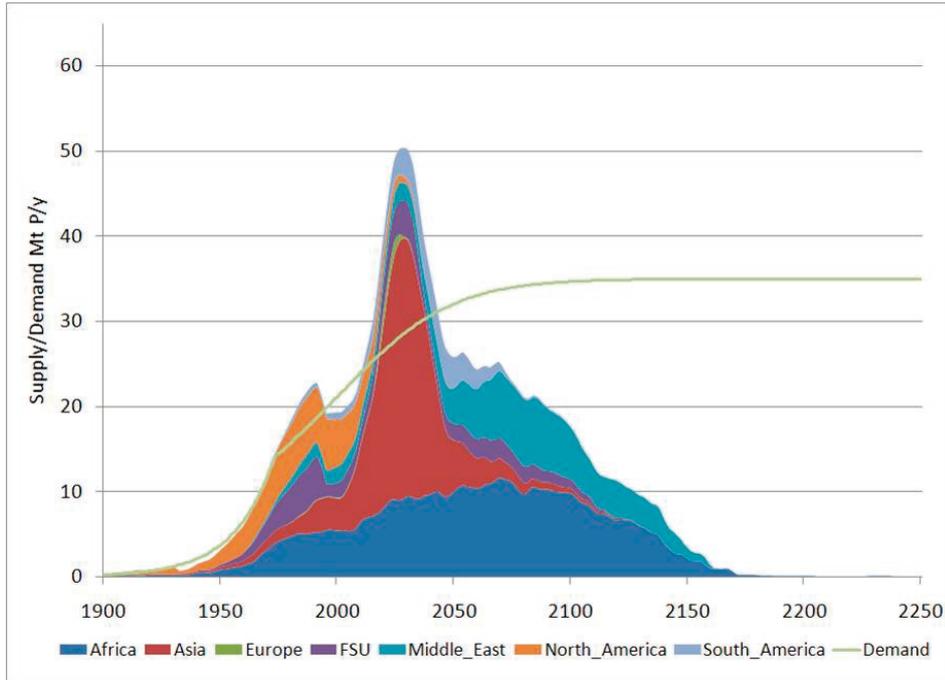
- In adopting some of the many changes that will be necessary to address these global challenges, the ZWAI are therefore proposing a “paradigm shift” in domestic plumbing systems, to separate various wastewater streams within homes, to be separately treated and managed. We are arguing that nutrient resource recovery at home at the “front of the pipe” is a more sustainable and a more energy efficient than trying to do so at the “end of the pipe”. We also call on the Oireachtas to require and mandate rainwater harvesting for all new buildings and houses where water shortages are likely in future, such as Dublin.

Our growing dependence on the use of phosphorus rock fertiliser

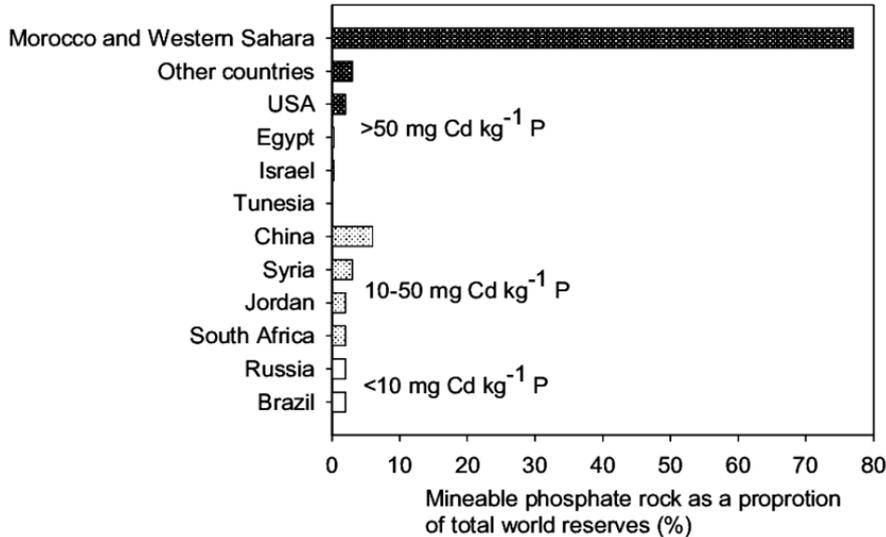
For fertilising the land, the image below shows how farmers, have moved from depending on the use of animal manure alone, and then to use guano (dried bird droppings) and now today we are so dependent on the use of phosphorus rock. The use of mined phosphorus rock as a fertiliser has allowed the global population to expand from 1800 to the present day level of 7 billion people.



We may not have access to cheap toxin free phosphorus rock fertiliser over the coming decades. The image below shows one of the more pessimistic projections for the depletion of phosphorus rock reserves set against the growing world market demand for phosphorus.



Some scientists argue that other phosphorus resources will be found and that we have a much longer to time to react, but there is a consensus however that phosphorus resources will eventually be depleted. The projection over the coming 4 to 5 decades, is that Morocco which has 80% of the world resource will eventually be the only supplier of phosphorus, but its supply will have worrying levels of cadmium.

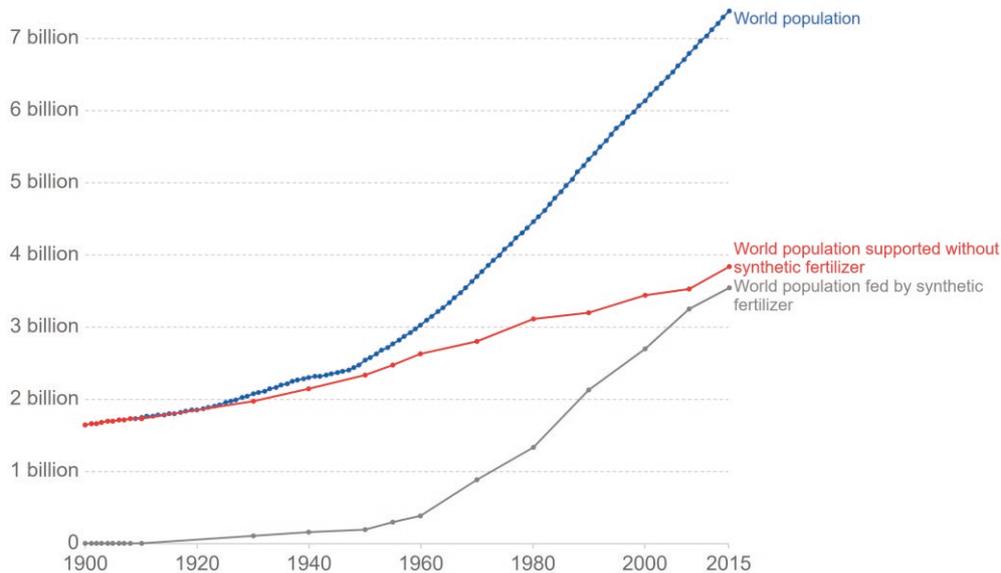


The cost for the de-contamination of phosphorus rock along with increasing global demand for this finite and diminishing resource will push up prices, cause social unrest, cause hunger, and potentially lead to international political tension.

Our wasting on fossil fuel-based nitrogen fertiliser is another issue of concern.

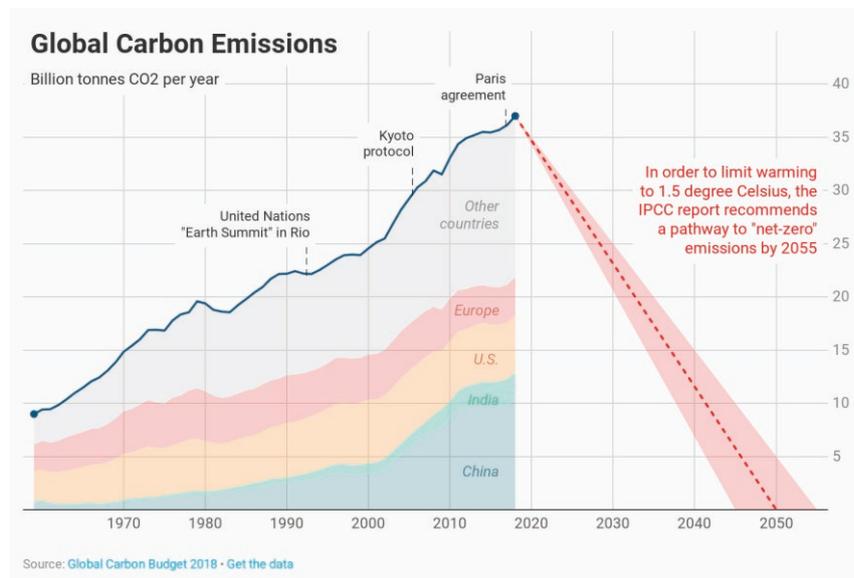
World population with and without synthetic nitrogen fertilizers

Estimates of the global population reliant on synthetic nitrogenous fertilizers, produced via the Haber-Bosch process for food production. Best estimates project that just over half of the global population could be sustained without reactive nitrogen fertilizer derived from the Haber-Bosch process.



Source: Erisman et al. (2008); Smil (2002); Stewart (2005) OurWorldInData.org/how-many-people-does-synthetic-fertilizer-feed/ • CC BY

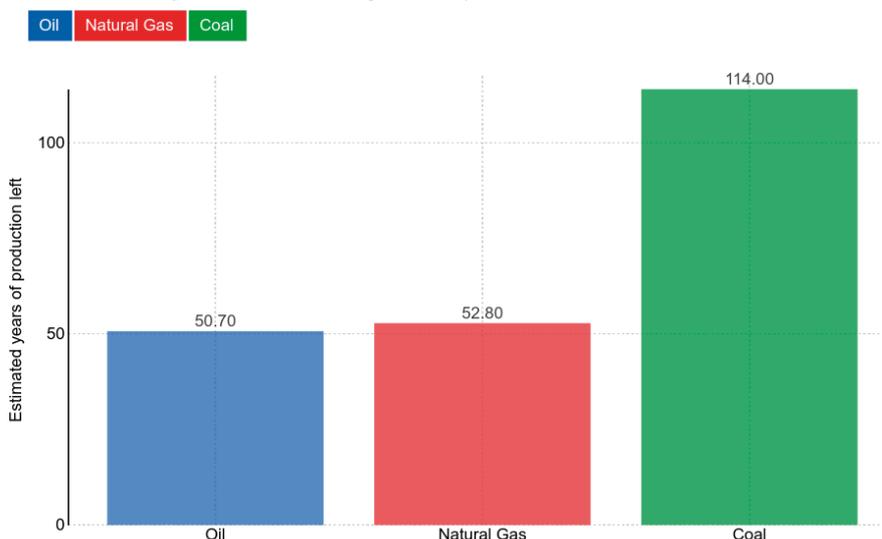
We are now being urged by the IPCC to leave the Coal and Natural Gas in the ground to avoid greenhouse gas emissions. But the Haber Bosch process to make ammonia fertiliser is today still completely dependent on using Coal and Gas to do so. We want to point out that fossil fuel will eventually also be depleted.



Source: Global Carbon Budget 2018 - Get the data

Years of fossil fuel reserves left

Years of global coal, oil and natural gas left, reported as the reserves-to-product (R/P) ratio which measures the number of years of production left based on known reserves and annual production levels in 2015. Note that these values can change with time based on the discovery of new reserves, and changes in annual production



Source: BP Statistical Review of World Energy 2016

OurWorldInData.org • CC BY-SA

The option of using renewable energy to manufacture ammonia fertiliser is proposed as an alternative option, but we must also consider the growing market demand and competition for renewable energy for the other sectors that must turn away from fossil fuels. Anthony James, from the National Centre for Sustainability, Swinburne University of Technology in Australia states, that *Phasing out fossil fuels for renewables may not be a straightforward swap. In one future model scenario – phasing out fossil fuels over 50 years – wind and solar plants need to be installed at eight to ten times current rates by 2035.*

Furthermore, there are uncertainties about the global availability of all the important metal and mineral resources that are required to make all these windmills, solar panels, and batteries etc. As it stands, Ireland may soon be struggling to provide electricity at times, because the installation of new Data centers will be demanding so much more electricity than all the other forms of electricity can provide. In addition, the European Environmental Bureau has stated that *“Europe’s current extraction and consumption of natural resources is far from sustainable, future trends are not encouraging. Projections suggest that material and energy consumption may double by 2060, with the twin green and digital transitions boosting the demand for yet more metals and minerals.”*

We in ZWAI argue that this is an example of the kind of shortages that mankind may have to face in future. We are concerned that the ever-reducing availability of key resources to make green energy or ammonia or non-toxic phosphorus will fail to reliably meet the ever-growing demand of the growth economy and rising global population.

None of this endless growth and endless consumption is sustainable.



#WhyFPMatters

Anti-biotics and hormones in our surface waters

Our Municipal and our Domestic Sewage treatment systems are failing to prevent pharmaceuticals and personal care products from entering the water environment.

In April 2016 the “[Science for Environment Policy](#)” newsletter the EU put out a public statement that “[Wastewater treatment plant discharges can promote the development of antibiotic resistance in streams](#)”. They claim that up to 25,000 EU citizen die from infections caused by bacteria resistant to antibiotics.

The Irish Times on Jan 5, 2012 “[The undiluted truth about chemicals in our waters](#)” Martin Cormican, a professor of bacteriology at NUI Galway School of Medicine, has concerns over antibiotics entering our waterways. He believes this may be contributing to the worldwide problem of antibiotic resistance.

Septic tanks are wasting phosphorus and are emitting nitrates and pharmaceuticals into ground water

About 30% of Irish citizens use septic tanks. The Irish EPA continue to insist on the use of septic tanks and underground percolation.

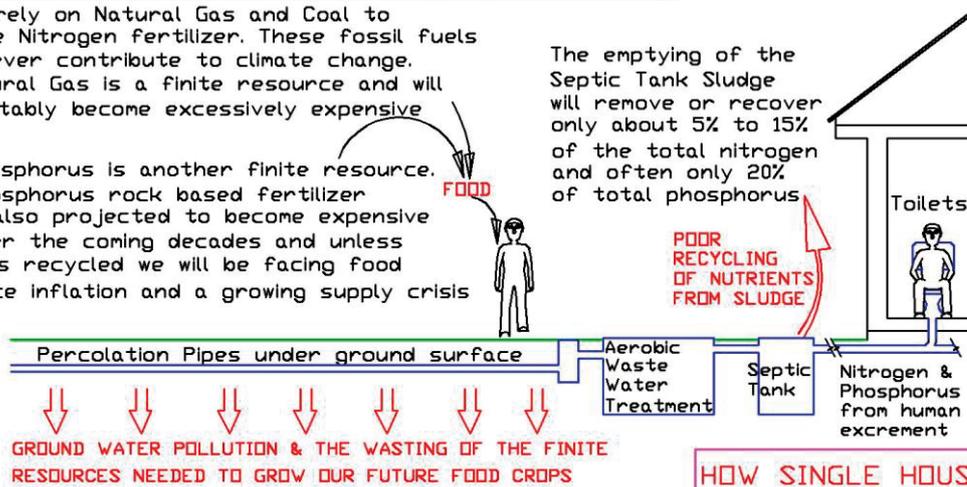
While this method certainly protects people from e coli, new scientific studies however claim that they “**waste**” about 80% of nitrogen and 50% to 80% of the phosphorus into the soil. It is well known that nitrates and the pharmaceutical compounds in septic tank wastewater discharges easily pass through the soil and enter the water table. The Irish EPA are acknowledging that these pharmaceuticals often end up in nearby wells. They acknowledge that most of the nitrogen and phosphorus is still being “lost and wasted” in the ground and this is detailed in Table 3.1 of their new Code of Practice for Domestic Sewage Treatment.

400,000 septic tank system in Ireland are adding nitrogen into the ground water. The prevention of ground water pollution with nitrates is now a requirement of EU Directive 2006/118/EC. Under this Directive every effort should now be made to protect the ground water pollution from nitrates. We should also be preventing the wasting phosphates

We rely on Natural Gas and Coal to make Nitrogen fertilizer. These fossil fuels however contribute to climate change. Natural Gas is a finite resource and will inevitably become excessively expensive

Phosphorus is another finite resource. Phosphorus rock based fertilizer is also projected to become expensive over the coming decades and unless it is recycled we will be facing food price inflation and a growing supply crisis

The emptying of the Septic Tank Sludge will remove or recover only about 5% to 15% of the total nitrogen and often only 20% of total phosphorus



Between 85 % to 95% of remaining nitrogen is lost and wasted in the ground. Unless it is adequately diluted in ground water, it will also become a pollutant.

Between 65 % and 95% of phosphorus is wasted or lost in good percolating soil. It can also become a pollutant in nearby surface waters where there is poor percolating soils

HOW SINGLE HOUSE SEWAGE TREATMENT SYSTEMS ARE WASTEFUL OF OUR "FINITE RESOURCES"

Herr Ltd 2019

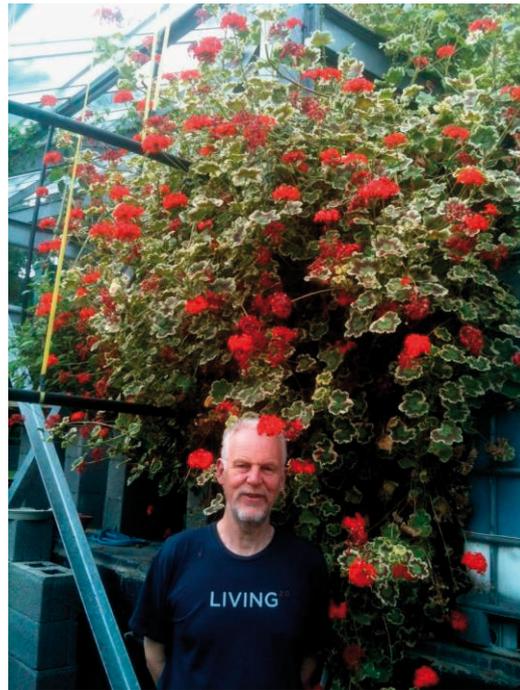
The root of our wastewater problems is that the largest portion of the Nitrogen, Phosphorus, and pharmaceutical pollution from septic tanks or municipal sewage treatment plants originates from urine and faeces. A **paradigm shift** is therefore required by the Oireachtas to permit that urine be separated and separately treated, and for toilet solids to be separately composted. Dana Cordell from the university of Technology Sydney, makes the case in her paper "[8 reasons why we need to rethink the management of phosphorus resources in the Global Food System](#)". She makes the point that human urine is the largest ever renewable, source of nitrogen and phosphorus and that this justifies its separate treatment for nutrient recovery.

Analysis of various pollutants & nutrients in Domestic wastewater						
These "approximate" figures depends on the diet, lifestyle & nationality of the residents	Grey	Kitchen			Faeces	
	Water	Solids		Faeces	Urine	& Urine together
Phosphorous P	14%	14%		26%	47%	73%
Nitrogen N	7%	8%		15%	70%	85%
Potassium K	10%	37%		18%	35%	53%
Faecal bacteria & viruses				100%		100%
Ingested medicines & hormones				faeces & urine		100%
Volume of wastewater / person/ day	140 litres			0.6 litre	1.5	

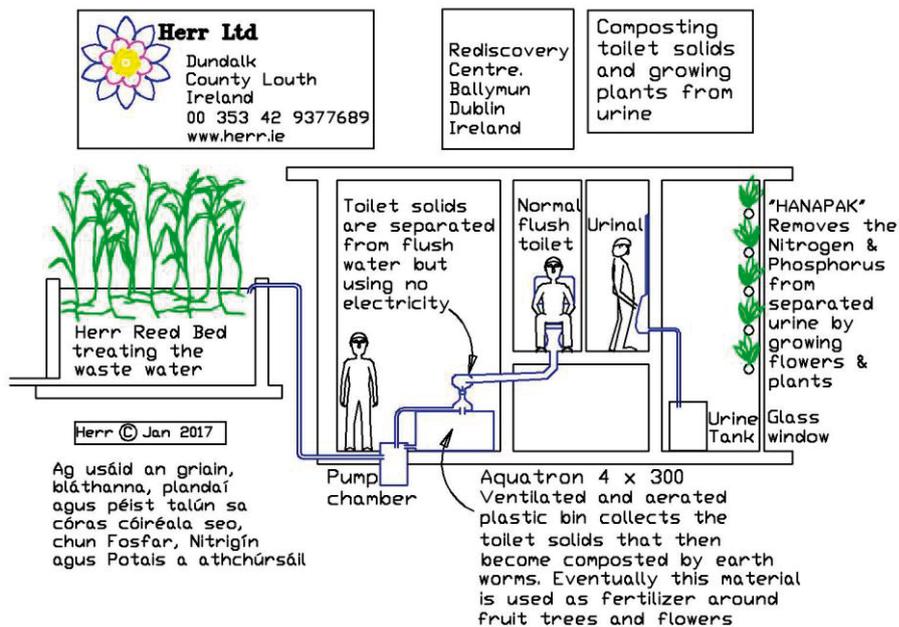
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Proposal 1

A mini pilot demonstration system can be seen at the Rediscovery Centre in Ballymun, Co Dublin. It shows flowers growing in dilute urine and a hygienic toilet composting system. This is a nature-based treatment system that should be permitted by the Oireachtas as an alternative to septic tanks. The Oireachtas should require changes in the EPA Code of Practice and the Building Regulations to allow the growing of plants and flowers in urine hydroponic systems. This will remove the nitrogen and phosphorus. The pharmaceuticals will be removed also. Homeowners should be allowed and encouraged to do this.

**Proposal 2**

To allow and encourage Aquatron toilet composting systems in people's homes.

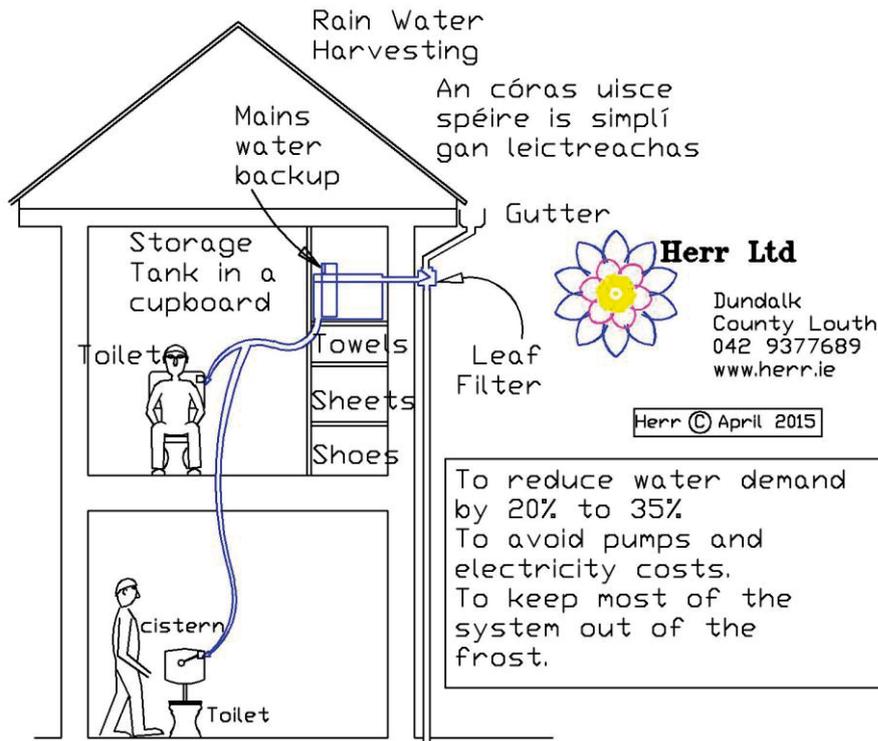


Proposal 3. We also propose that separated urine should be permitted to be collected at a community level to make a phosphorus product called struvite. Please go to the video showing how easy it is to recycle phosphorus by mixing urine with magnesium salt to make Struvite. We need to be doing this in rural isolated communities the Irish communities such as Eco community in Clockjordan Co Tipperary. <https://www.youtube.com/watch?v=A8F3KcIgcg> I ask your committee to permit homeowners in communities in Ireland to separate and collect urine to make a toxic metal free Struvite fertiliser that is also free of pharmaceuticals.

Proposal 4



All the houses in the photograph have solar panels, but no rainwater harvesting. Why? We ask the Oireachtas Committee to require that Rainwater Harvesting systems to flush toilets be made a planning obligation and requirement for new buildings, particularly in the Dublin Area.



Given the potential for future water droughts due to climate change, and the leakage rates of over 45% in the water supply pipes in Dublin, surely, we should “require” that rainwater to be used to flush toilets in all new houses?

Yours Sincerely

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