

CRNI RESPONSE TO DRAFT NATIONAL HAZARDOUS WASTE MANAGEMENT PLAN 2021 – 2027

1.0 CONSULTATION RESPONSE

CRNI welcomes the increased focus in the Hazardous Waste Management Plan 2021-2027 on supporting and driving priority prevention actions to reduce the generation of hazardous waste and promoting safe reuse and recycling pathways. This builds on the growing momentum and ambition for a more circular economy and ensures alignment with the European Green Deal, the Waste Action Plan for a Circular Economy and the All of Government Circular Economy Strategy.

We would like to propose an even greater focus on these prevention measures as a priority through the following:

- increased emphasis and priority order of the objective to promote the safe reuse and recycling pathways in support of the circular economy
- ensuring any awareness activities are coordinated from an early stage with key stakeholders including practitioners
- more clearly distinguishing between water-based non-hazardous paint and oil-based hazardous paint in the plan
- supporting and fostering the development and expansion of existing paint reuse schemes and involving community based programmes in informing the development of any nationwide collection system
- supporting further investigations into paint remanufacturing
- backing a strong sustainable product policy at EU level, the extension of ecodesign regulations to e-bikes and facilitating the right to repair for all consumers
- supporting activities that enable product life extension in batteries
- taking urgent measures to address the absence of preparation for reuse of WEEE
- acknowledging the connection between incinerator ash and the generation of municipal solid waste
- including prevention methods in the mapping, development process and contingency planning for hazardous waste treatment capacity

These measures are described in more detail below.

2.0 OVERALL OBJECTIVES

We strongly welcome the overall objectives of the plan being first and foremost to drive priority prevention actions by industry and the public to reduce the generation of hazardous waste. Our ability to transition to a more Circular Economy relies on this shift in Ireland's policy focus to better align with the priority order of the waste hierarchy.

We would also welcome the increased emphasis and priority order of the final objective to promote the safe reuse and recycling pathways in support of the circular economy. We believe this should take precedence over the objective of supporting effective regulation of the movement and disposal of hazardous wastes, as this refers to disposal.

3.0 PREVENTION

Under this objective the RWMPs are required to conduct awareness raising campaigns to highlight best-practices and alternatives, particularly in relation to paints, cleaning products and gardening chemicals.

Recommendation: Given the involvement of the reuse sector in paint management, we would request that any such awareness activity is coordinated from an early stage with key stakeholders in the waste prevention committee and practitioners working with paint as described below.

3.1 PAINT REUSE

CRNI is proud of its members achievements in the development and expansion of paint reuse schemes, and acknowledges the central role of our member the [Rediscovery Centre](#) in making this possible and the EPA's role in facilitating research into this expansion¹. Other members supported by the Rediscovery Centre (Dublin) and now rolling out paint reuse schemes include [Northside Community Enterprises](#) (Cork City), [Renew Enterprises](#) (Waterford City) and [CycleSense](#) (Skibbereen).

These reuse projects contribute to reducing the generation of hazardous waste by diverting decorative water-based paint (which is non-hazardous) from being combined with oil-based (hazardous) paint waste. This reduces the quantity of hazardous waste arising, saving treatment costs and the unnecessary environmental impacts of hazardous waste incineration overseas.

Recommendation: This distinction between water-based non-hazardous paint and oil-based hazardous paint should be made clearer in the plan.

¹Miller, S. et al, *Rediscover Paint – Investigating methods for the expansion of paint reuse in Ireland*, EPA Research Programme 2014-2020 Final Report 2016-ET-CP-82, available at <http://www.rediscoverycentre.ie/wp-content/uploads/2020/07/EPA-Rediscover-Paint-Final-Report.pdf>

We therefore welcome the focus on establishing collection platforms for surplus paint as a measure to be completed during the lifetime of this plan. It is critically important that these platforms, as highlighted in Table 2.4 of the plan, build on current initiatives such as the roll out initiated by the Rediscovery Centre to support nationwide, large-scale collections.

Recommendation: Support and foster development and expansion of existing paint reuse schemes, working with the social enterprises already pioneering in paint reuse, through the paint network established by the Rediscovery Centre and the Regional Waste Authorities, in addition to local authorities and industry as proposed.

These social enterprises have already invested significantly, with support of Local Authority Prevention Network and other funds, in building the equipment and skills to carry out this important reuse and hazardous waste prevention activity. They also demonstrate that small and distributed, community based activity can be as effective and innovative as large scale activity.

Many of these schemes have established effective collection systems via civic amenity sites that can be used as a model for further expansion.

Recommendation: Where a nationwide large scale collection system is developed, these distributed and effective community based programmes will provide extremely valuable experience and capacity as outlets for collected paint and must be supported.

Support for infrastructure development, including collection and treatment, to drive this important prevention activity is discussed below.

In addition to the diversion and treatment of water-based non-hazardous paint, the oil-based hazardous paint can also be recycled through a remanufacturing process. This process can require the use of significant volumes of new paint which is costly, and specialist equipment which involves capital investment and may be suitable for larger / industry scale schemes.

Recommendation: Further work should be supported to explore and establish remanufacturing.

3.2 BATTERY LIFETIME EXTENSION AND REUSE

Seven of CRNI's members provide bicycle repair and refurbishment services.

A noticeable trend in the bicycle sector is a growth in demand for e-bikes, which contain lithium ion batteries. However, there can be challenges in repairing or otherwise extending the lifespan of e-bikes. For example, the consolidation of e-bike manufacturers has seen the discontinuity of certain models, making them harder to repair due to a lack of availability of spare parts. E-bikes cannot be easily converted to push bikes due to the heavy frames, which are designed to carry batteries. Therefore once the batteries are spent there are few reuse options available currently.

Early anticipation of these challenges and the exploration of reuse, repair, refurbishment or proper recycling pathways would ensure e-bikes do not contribute significantly to hazardous waste arising in the future.

Some options for tackling this at an early stage include:

- backing a strong sustainable product policy at EU level, the **extension of ecodesign regulations to e-bikes** and facilitating the right to repair for all consumers

Many of the e-bikes currently placed on the market are of poor quality design.

CRNI is a member of the [Right to Repair](#) campaign, a coalition of European organisations pushing for system change around repair and of ECOS, the Environmental Coalition on Standards. As shared in a [presentation](#) to the EPA, DECC and other stakeholders, product requirements related to circularity (e.g. reparability, availability of spare parts and repair information to professional repairers) have been incorporated in ecodesign regulations adopted by the Commission on 1 October 2019 concerning electronic displays, washing machines, dishwashers and refrigerators.

These regulations will be extremely important in facilitating repair in Ireland. Many of the common barriers facing the repair sector, some of which are highlighted in a University of Limerick report on *A Preparation for Reuse Trial of Washing Machines in Ireland*² will be addressed through ecodesign measures including the relatively short lifespan of goods, the difficulty of disassembly for repair, the availability of spare parts and provision of repair and maintenance information.

As the Commission looks to expand the scope of ecodesign, we believe that e-bikes and e-mobility products should be considered as candidates for future regulation.

- Facilitate **product life extension** of batteries

E-bikes feature battery arrays within a light casing. With an appropriate and safe storage and testing set up, this array could be checked for functionality and recovered or graded for reuse either in e-bikes (where casings are replaced) or other applications such as storage for e-bike chargers using solar power, phone charging etc.

We are aware of the Long-Life Lithium Battery (LLLB) innovation fund project, which aims to identify and isolate damaged modules from existing waste lithium battery flows in Ireland and investigate the potential for refurbishment and reuse of undamaged modules. This project has important potential for reducing hazardous waste caused by electric vehicles and in future, electric bikes.

The work of WEEE Ireland as part of its R&D mandate is also important in providing input to the UCD Science Foundation Ireland project – Lithium Cobalt Recycling Innovations in the Circular Economy.

² Available at https://crni.ie/content/uploads/2021/05/UL_REhab-trial-writeup.pdf

In addition to lithium ion batteries, it is also possible to extend the lifespan of lead acid batteries. Battery Regeneration Ireland³ is working to deliver battery desulphurisation / regeneration services potentially extending the life of the battery by several years.

Recommendation: Support for ecodesign measures and battery waste prevention systems should be a priority in reducing hazardous waste arising from these product groups.

3.3 WASTE FROM ELECTRICAL AND ELECTRONIC EQUIPMENT

As highlighted in Section 5.3 of the plan, many everyday consumer electronic goods contain hazardous materials such as heavy metals or batteries. Furthermore, WEEE is one of the fastest growing waste streams in the developed world.

There is currently very limited reuse and no preparation for reuse of EEE/WEEE in Ireland. This means that all of the WEEE collected via take back schemes or at Civic Amenity Sites is recycled.

According to the European Commission, between “13% and 16% of waste electric and electronic equipment (WEEE), furniture and leisure goods disposed of at household waste collection centres are in excellent working condition and could easily be prepared for re-use”⁴. This suggests that in Ireland, up to 2,325,000 appliances were lost to recycling in 2017 that may have been perfectly functional and potentially reusable when collected by take back schemes⁵. These items may contain batteries that are still perfectly functional, that are otherwise lost during the recycling process.

Urgent measures are required to address the total absence of preparation for reuse activity, which is a major gap in Ireland’s Circular Economy journey.

CRNI has strongly advocated⁶ targets for preparation for reuse in line with recommendations in the EPA research report⁷ by University of Limerick, with a focus on IT equipment and large Household Appliances (LHA)⁸. These must be introduced through conditions in the Ministerial approval that the compliance schemes operate pursuant to Regulation 33 of S.I. 149/2014. Suitable infrastructure is also required in order to underpin a preparation for reuse activity.

³ <https://www.batteryregenerationireland.ie/>

⁴ European Commission (2019), *Waste potential: more of our refuse electronics, furniture and leisure goods could be reused, suggests German study*. Available at https://ec.europa.eu/environment/integration/research/newsalert/pdf/waste_reuse_potential_Germany_530na3_en.pdf

⁵ Based on collected data from <https://www.weeeireland.ie/>

⁶ See also our submission to the Waste Action Plan for a Circular Economy at <https://crni.ie/key-policy-areas/>

⁷ Report prepared for the EPA by Johnson, M., McMahon, K, Fitzpatrick, C. *Research of Upcycling Supports to Increase Re-use, with a Focus on Waste Electrical and Electronic Equipment (UpWEEE)*, REF 2015-SE-DS-5, published 2018

⁸ LHAs and IT were identified as the main product categories with potential for re-use. Further consideration and feasibility studies for alternative WEEE product categories and the introduction of preparation for re-use is necessary before increasing the number of product categories that preparation for re-use will apply to.

RECOMMENDATION: Preparation for reuse targets are required to ensure the management of WEEE in line with the waste hierarchy.

4.0 COLLECTION AND TREATMENT

4.1 INCINERATOR ASH

As shown Section 3.1 of the plan, hazardous waste arising from waste treatment operations such as incinerator bottom ash, fly ash, boiler ash and residues from flue gas and air pollution control at waste-to-energy facilities make up a significant volume at 152,635 t although this is expected to fall with the change in classification of bottom ash. This does not capture the hazardous ash generated overseas as a direct result of the export of municipal waste from Ireland.

Residues from waste-to-energy facilities are a consequence of municipal and other waste generation. This underlines the importance of connecting with the other plans and policies to ensure that waste prevention (including avoidance, reuse and repair), preparation for reuse (including repair and refurbishment) and recycling are at the heart of all resource efficiency planning.

Recommendation: The connection between incinerator ash and the generation of municipal solid waste should be acknowledged in the plan.

4.2 TREATMENT PROCESSES

Section 6.2 of the plan sets out in detail the various treatment methods for hazardous waste. A key recommendation is to strengthen knowledge of national hazardous waste capacity to inform infrastructure development and contingency planning, in accordance with application of the proximity principle. This is to include updating and maintaining inventory of national capacity for storage, treatment and disposal of hazardous wastes.

Recommendation: We propose that the mapping, development process and contingency planning for hazardous waste treatment capacity must include prevention methods.

A list of existing prevention methods should be included in the plan, taking into account the key product groups for example:

- Incinerator ash prevention methods: reducing municipal waste generation
- Other discarded electrical & electronic equipment: product life extension of EEE/WEEE and batteries through repair, refurbishment, novel methods
- Paints, varnish, inks and adhesive wastes: removal and reuse of non hazardous fraction

This also highlights the need to support infrastructure development for such activities. As long as these activities continue to be omitted from the overall landscape of resource management, they will not be brought into the mainstream as is required for an effective circular economy.