Irish Green Building Council's submission to the EPA's public consultation on the draft national end-of-waste criteria for recycled aggregates

ABOUT THE IRISH GREEN BUILDING COUNCIL

The Irish Green Building Council (IGBC) provides leadership for a sustainable built environment. IGBC is a registered charity with over 340 corporate members drawn from all parts of the value chain, from occupiers, design professionals, contractors, suppliers, academics and public authorities and affiliated with a global network of 70 national councils within the World Green Building Council. This allows us to create workable solutions and tools to deliver transformative change towards a sustainable built environment.

Since 2018, the IGBC has been involved in several projects to decarbonise Ireland's built environment across its whole life cycle, and support Ireland's transition to a more circular built environment. These include:

- A large stakeholder engagement process to develop a roadmap to decarbonise our built environment across its whole life cycle. The Building a Zero Carbon Ireland roadmap calls for a review of the implementation of articles 27 and 28 of the Waste Framework Directive in Ireland to better support re-use, and in the interim for greater resources for the EPA to ensure article 27 or 28 applications are processed quickly and smoothly.

- CMex: IGBC collaborated with Excess Materials Exchange (EME) of Netherlands to create the CMEx platform, with funding from the Circular Economy Innovation Grant Scheme of the Department of the Environment, Climate & Communications. CMEx is a user friendly, digital platform that connects organisations with each other so that they can exchange or trade excess construction materials between them. When recruiting organisations to pilot the platform, the implementation of articles 27 and 28 of the Waste Framework Directive (WFD) in Ireland was often mentioned as the main barrier to the use of such a system.

- The IGBC is now developing a roadmap for circularity in the construction industry and is involved in a number of projects to support a more circular built environment. Read more.

This **submission was developed in close cooperation with our members**. Extensive discussions on this topic took place between January and December 2022, as part of the development of the Building a Zero Carbon Ireland roadmap, and of the CMex project. Furthermore, a **meeting on the public consultation was organised on 23rd February 2023**. These events were attended by **architects, engineers, demolition contractors, and researchers**.

SUMMARY

- **The IGBC welcome the publication of the draft national end-of-waste criteria for recycled aggregates** as something **much needed to decarbonise our built environment across its whole life cycle and transition to a more circular economy**.

The construction industry is both carbon and resource intensive. It is currently responsible for 37% of Ireland's national emissions, and almost 50% of all Irish waste, making it the largest waste stream. Furthermore, 50% of all minerals extracted in the world are used in the construction industry.

- **Parts of the document could be improved and/or clarified**. More specifically,

    - Keeping materials at their highest value should be the absolute priority. The National End-of-Waste Decision focuses too much on low value uses of aggregates.

    - Some of the restrictions included in Annex II seem arbitrary and may not achieve the desired outcome. E.g., "the material in this consignment is not suitable for use within 10m of a natural or man-made surface water feature, spring, open drain, lake, turlough likely to flood, or cavernous or karstified limestone features". This means they cannot go into roads with boundary drains, making the use of recycled aggregate impossible in almost all situations.

    - Further clarifications on who is the regulating authority for materials testing is needed (e.g., EPA, NSAI?). Self-certification should not be permitted as it could be very high risk.

    - The document should also clarify who is competent to deliver statements of conformity, and what is meant by "qualified staff" in greater details. The current definition is vague and opens to interpretations.

    - The document should not interfere with existing harmonised standards. Recycled aggregates are permitted in several the Harmonised Standards as long as the materials performance meets the stringent tests contained within the standards. As it stands, it seems that the document includes restrictions which are additional to the Harmonised EU Aggregate Standards. E.g., The restrictions around bound use are at odds with established EU aggregate standards.

- The **EPA should move fast to make the requested modifications to enable use of aggregates less restrictive**, as the current policy is holding the industry back from transitioning to a more circular economy.

- The role of Building Materials Passports (especially in new build) should be mentioned in the document.

- The re-use of this material could be further supported through the generalisation of much more detailed pre-demolition audits.

- Although this should not be included in this document, additional financial support is needed to support the re-use of materials, as this is currently more expensive than landfilling. E.g., this could be achieved through lower VAT for materials with lower embodied carbon, etc.

END-OF-WASTE CRITERIA FOR RECYCLED AGGREGATES & EXISTING BUILDINGS

Objective: To better support the facilitation of End of Waste approvals and secondary raw materials applications, the EPA should also take action to disincentivize "backfilling" as a recovery operation for Construction & Demolition Waste (CDW).

Rational: Ireland is currently performing well in relation to the European CDW targets (EPA, 2020). However, these statistics may be misleading as most Member States (including Ireland) include "backfilling" in them. Backfilling is a recovery operation where waste is used as a substitute for non-waste materials to reclaim excavated areas or for engineering purposes in landscaping. It is a low-value application. If not considering "backfilling", not a single

Member State would reach the 70% target (Collectors, 2020), and Ireland would only reach a 10% of CDW recycling rate. Additional challenges, include the large number of stakeholders involved in the construction value chain, resulting in sub-optimal coordination, and discrepancies in data collection. There is hence a substantial room for improvement in higher value applications of recovered CDW (Collectors, 2020).

END-OF-WASTE CRITERIA FOR RECYCLED AGGREGATES & NEW BUILDINGS

In new builds, the **introduction of material passports and the uptake of BIM and traceability methodologies could support re-use and reduce administrative burden**. For instance, in the medium term, materials passports could support the delivery of statement of conformity for end-of-waste.

Materials Passports are digital data sets which describe characteristics of materials and components in products and systems, giving them value for present use, recovery, and future reuse. They have a key role to play in supporting traceability to create circular material loops (European Union, 2021).

Rational: The construction value chain is highly fragmented, involving many stakeholders with different purposes, and relying heavily on subcontracting. In this context, the recovery of secondary raw materials would always be difficult, if not supported by efficient tools, such as materials passports.

APPENDIX I: CONSIDERATIONS & EXAMPLES FROM OTHER EUROPEAN MARKETS

Construction wastes are already widely recycled into construction products in several EU countries. Materials used in construction should as much as possible be re-used in this sector. For instance, if a material is re-used as a low-grade material for agriculture lanes or forest roads, it takes the valuable resources and associated embodied carbon out of the loop and will not allow a high-quality recycling sector to develop. Furthermore, this action is not in line with Circular Economy Principles, as it can no longer be reused a 2nd or 3rd time.

Low-grade aggregates traveling across the country (from large urban centres to rural locations) may also lead to significant increase in transport emissions.

Several European examples show how policies can support a greater re-use of CDW as new building stocks. For instance,

- Italy has introduced a minimum percentage (15%) and specified technical requirements for CDW to be used in new constructions.
- In London, circular procurement is used for projects above 1000m². More specifically, circular initiatives are supported and incentivised, as well as the use of recycled aggregates.
- In France, the procurement process takes into account the end-of-life stage (reusable materials, including recycled aggregates). This is also included as part of mandatory whole life carbon measurement under the RE-2020 regulation.