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WEEE Ireland Annual Conference 2020

Dr Geraldine Brennan
Dr Damian Coughlan

IRISH MANUFACTURING RESEARCH

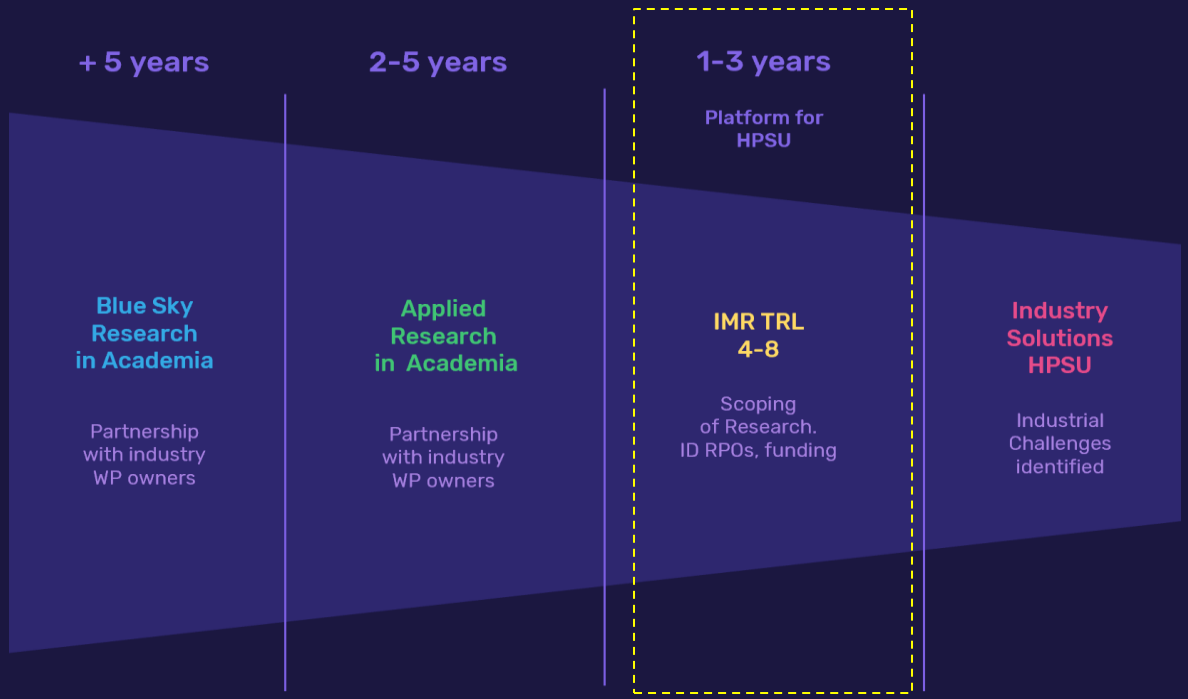
An Roinn Comhshaoil, Aeráide agus Cumarsáide
Department of the Environment, Climate and Communications

epa Environmental Protection Agency

eit Climate-KIC
Climate-KIC is supported by the EIT, a body of the European Union

Irish Manufacturing Research (IMR)

- IMR are a Mid-to-Late Stage TRL Technology Centre supported by Enterprise Ireland and IDA Ireland.
- Established in 2014, incorporating ICMR and i2e2 (industrial networks), to position Ireland as a leader in Advanced Manufacturing.
- Demystify, De-risk and deliver emerging technologies & concepts



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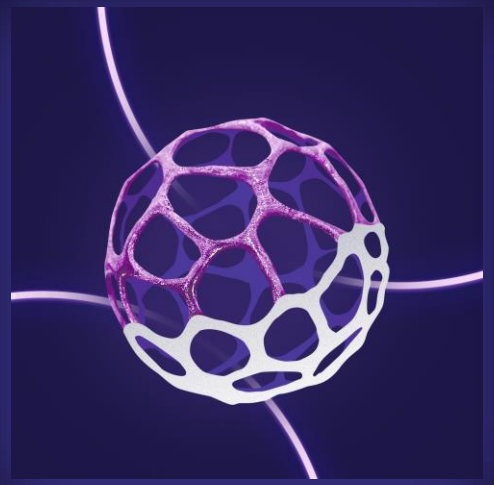
IMR 4 Thematic Pillars

Digitisation

Data driven business

Automation & Control

Self Adaptive Autonomous Automation



Design for Manufacturing

Customer defined manufacturing

Sustainable Manufacturing

Zero Net Carbon Manufacturing

CIRCULÉIRE: National Platform for Circular Manufacturing

Vision

- Industry led €4.5 million public-private partnership to accelerate the transition towards a net zero-carbon circular economy in Ireland (2020-2022).

Mission

- De-mystify, de-risk and deliver circular economy (CE) concepts through large scale systems-level innovation and test-beds.

Novelty

- Innovation network (with €1.5m innovation fund) seeking to address the “circularity innovation gap” in Ireland through a nexus approach
- Co-creating innovative solutions with industry - starting with 25 Industry Founding Members and engaging with stakeholders from across the innovation ecosystem

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CIRCULÉIRE: Founding Industry Members

Boston Scientific

DePuy Synthes
COMPANIES OF Johnson & Johnson

Johnson & Johnson VISION

Murphy's Liquidation Furniture

Farrell
making furniture work better

MASONITE

Wisetek™

MSD

Hovione

freefoam
Building Products

ARYZTA
Passion for good food

Wyeth® | Nutrition

APL
AUTOMATIC PLASTICS

Pfizer

BROCKLEY GROUP

CIRCULÉIRE

DAWN MEATS

KERRY

iQuTech.com
Your Supplier Quality Management Partner

WEENER
PLASTIC PACKAGING GROUP

Gannon Eco
Material Reprocessing

Keogh's
Grown with love in Ireland

The Culinary Food Group

OPTEL

P Carney Aluminium

REPAK

weee ireland

Ballina Beverages

Coca-Cola®

Strategic Partners:

Roinn Cumarsáide, Gníomhaithe ar son na hAeráide & Comhshaoil
Department of Communications, Climate Action & Environment

epa
Environmental Protection Agency

eit Climate-KIC

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Novelty of CIRCULÉIRE

- Co-creating innovative solutions with industry to reduce CO2e and waste:
  - *through product redesign; business model innovation; industrial symbiosis; material substitution and other circularity strategies*
- Innovation network fostering cross-sector collaboration
  - *Increase understanding of what circularity means for your sector*
  - *Identify barriers to implementation of circularity and develop strategies to overcome them*
  - *Develop frameworks, toolkits, training + innovation demonstrations to de-risk & prove value of CE*
- First major (public-private) systems innovation initiative for circularity – laying foundation for wider transition of Irish economy
- Informing national CE policy innovation

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CIRCULÉIRE Key Member Benefits

- Annual Innovation Fund - Calls for Circular Innovation Pilots
- 3 x Thematic Working Groups per annum – e.g. 2020
  - *1) Circular Bioeconomy (w/Irish Bioeconomy Foundation);*
  - *2) Industrial Symbiosis & Closed Loop Production (w/International Synergies);*
  - *3) Circular Procurement (w/IDDEA)*
- Circular Economy Best Practice Guide / Sectoral Reports
- Circular Innovation Programme – Open Call for Start-Ups
- Circularity Training Courses
- Opportunities to feed into:
  - International Standard Development (NSAI / ISO TC323)
  - Irish Policy Innovation e.g. OECD Dialogue

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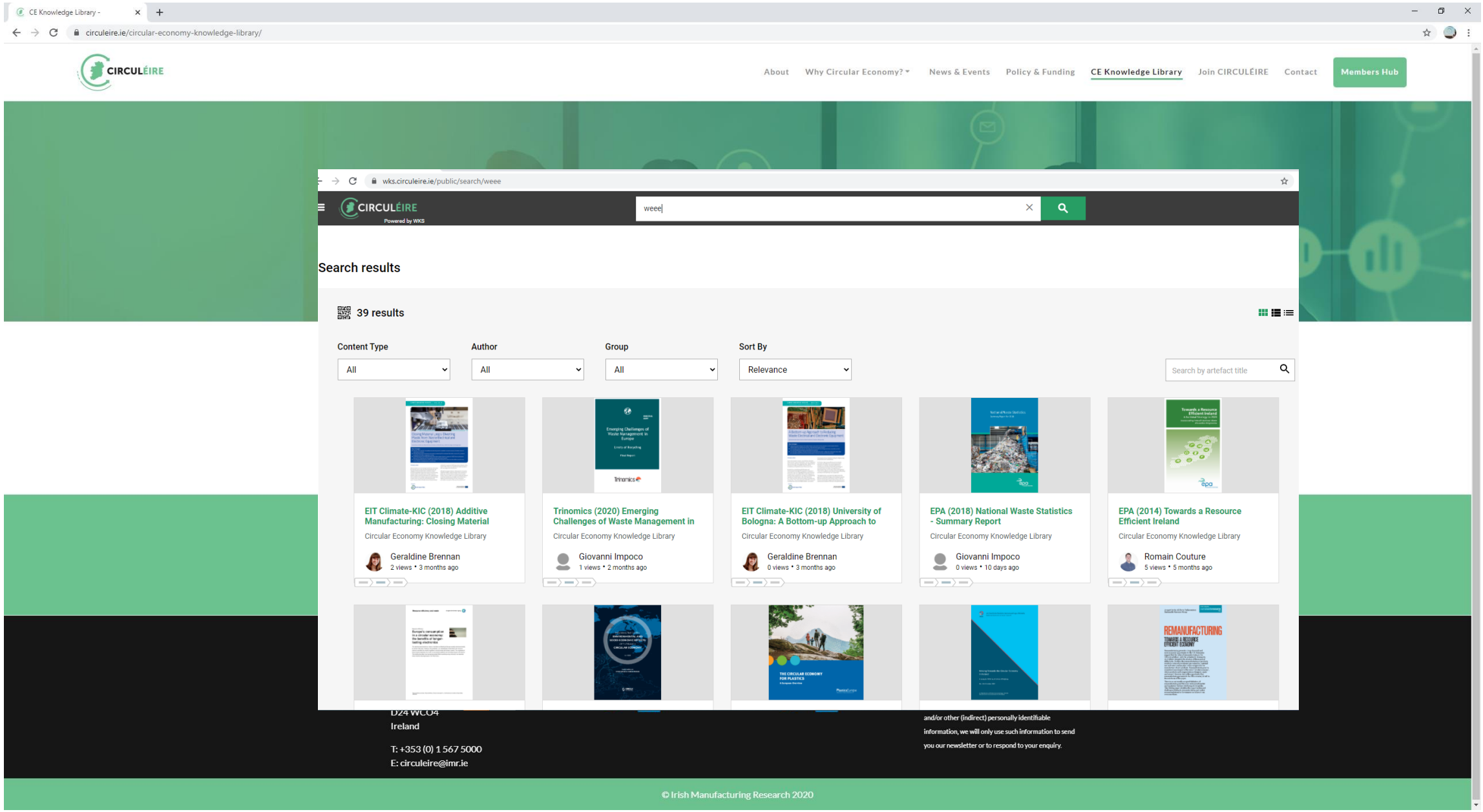
CIRCULÉIRE's Open Access CE Knowledge Library



https://circuleire.ie/circular-economy-knowledge-library/

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WEEE Ireland
2020 Gap Analysis

2020 Gap Analysis: Objectives & Methods

Objectives:

- Provide insight on the current challenges and transition to a Circular Economy for WEEE Ireland and its Members

Key Methods:

- Survey of WEEE Ireland Members Circular Economy
- Material Flow Analysis of WEEE Ireland waste flows

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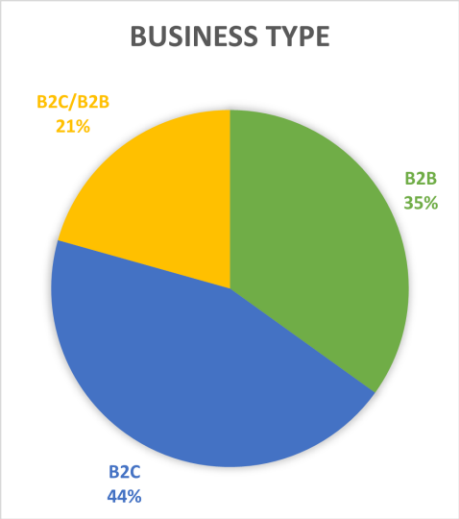
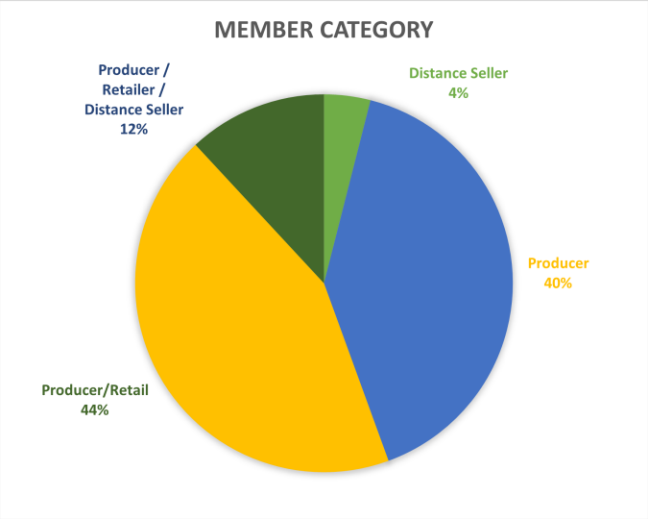
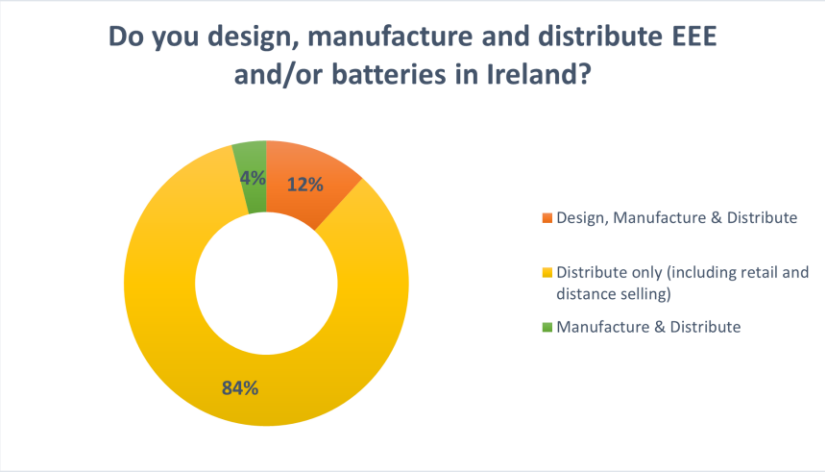
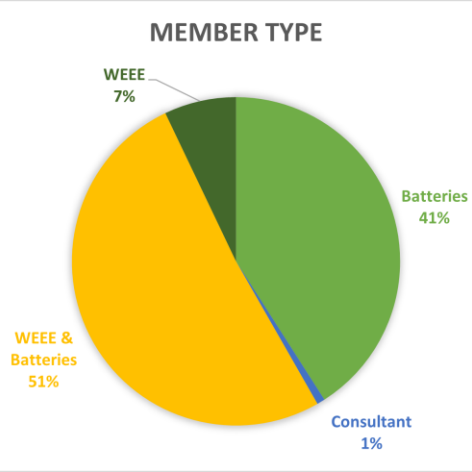
2020 Survey: Circular Economy









- **Members surveyed:**
  - July & August 2020
- **127 Respondents**
- **Survey focus areas:**
  - General Information
  - Understanding the Circular Economy
  - Activities in the Circular Economy
  - Challenges in the Circular Economy
  - Circular Economy Reporting

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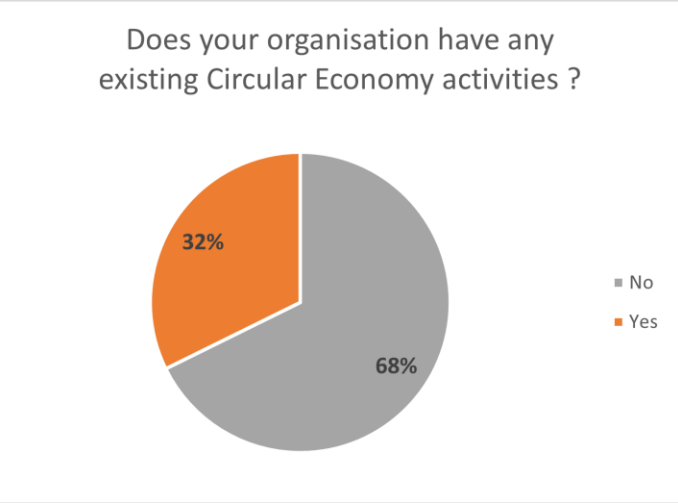
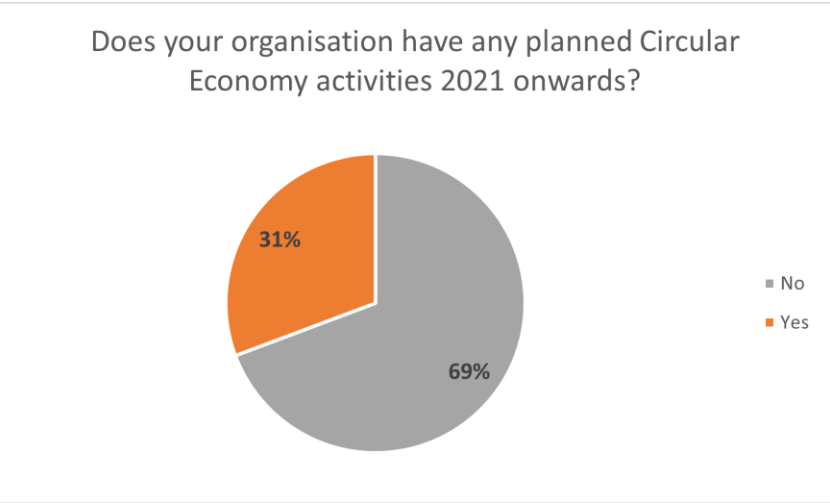
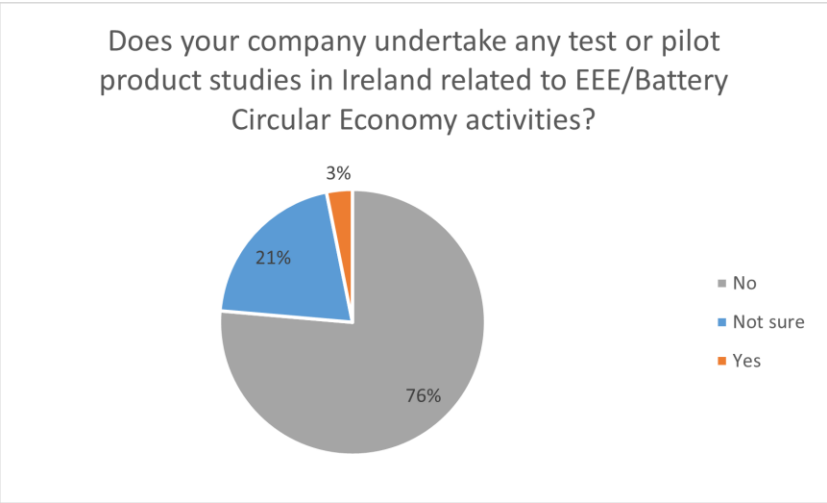
2020 Survey: Circular Economy Activities in Ireland







- **46% of Respondents have a dedicated role for Sustainability/Environmental initiates & dissemination (Director/EHS/Operations)**
- **14% of Respondents produce a Sustainability/Environmental Report**
- **36% of Respondents were aware of the CE and EU's CEAP**
- **13% of Respondents address CE in annual report or other reporting**
- **11% of Respondents have a CE strategy**

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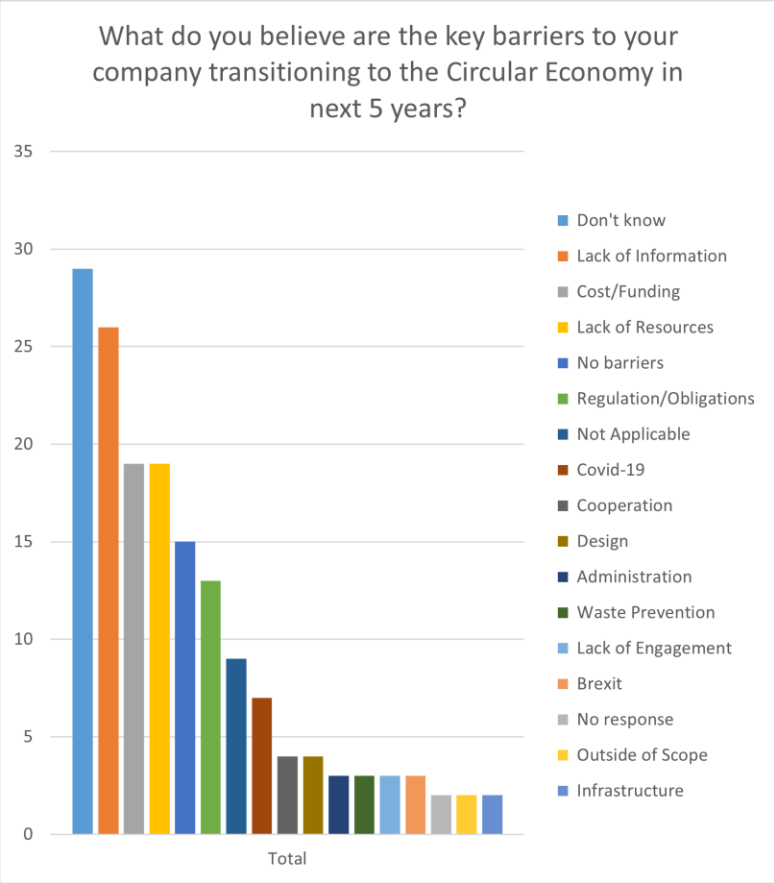
2020 Survey: Circular Economy Challenges



- Key Barriers
  - Lack of information, resources, funding and regulations/obligations
- Most challenging elements to scaling up circular economy activities
  - Waste Prevention and Eco-design
  - with Repair and Reuse also highlighted…
- Preparation for WEEE Re-Use Target
  - 64% (81 respondents) stated that they support a target on Producers & Schemes on Preparation for Reuse on WEEE.
  - The majority of respondents felt it was their responsibility as an organisation for supporting a target for Preparation for Reuse
  - 74% (94 respondents) stated they would be reliant on a Scheme to be able to meet a Preparation for Reuse target
  - 25% (33 respondents) stated they could meet the target as Producer on an annual basis.

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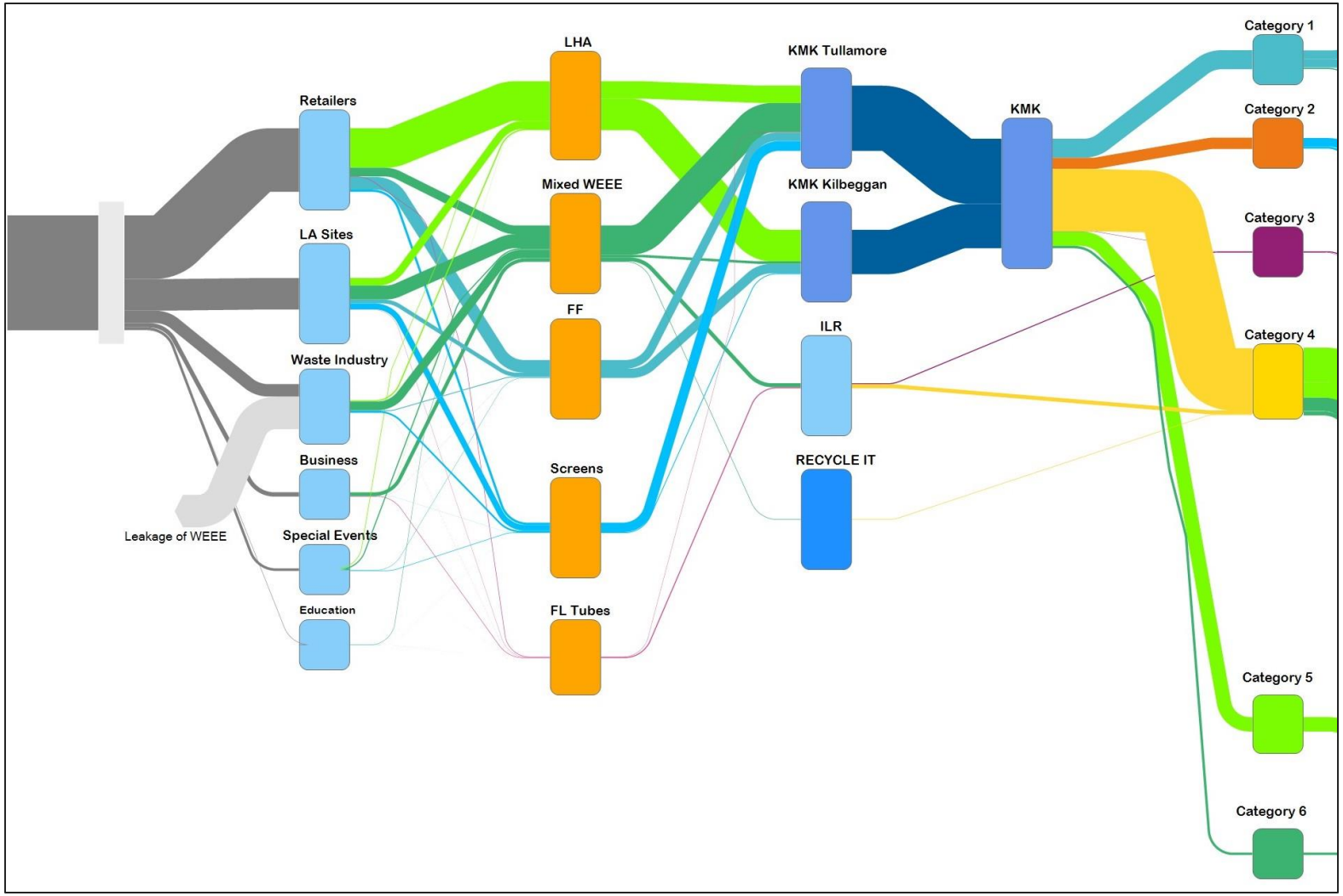
2020 Gap Analysis – Material Flow Analysis

Mapping waste flows

- Operating context: Ireland's national 65% collection target

- MFA visualises complexity of WEEE flows in WEEE Ireland's scheme
  - Flow of WEEE from Collection to Recycling
  - Highlights leakage



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2020 Gap Analysis: Key Messages

- **Scaling circularity requires engagement from every part of the WEEE value chain**
  - From design & manufacturer to distribution / take back – preparation for re-use and end-of-life management
- **Opportunities for bespoke capacity building / upskilling for WEEE sector in Ireland**
  - What it means for their business
  - Accessing circular economy expertise
- **Irish activity in sector regarding circularity exists**
  - Greater visibility required
  - Showcasing to share lessons learnt and practical opportunities
- **Material Flow Analysis creates understanding through visualising complexity of WEEE flows**
  - Highlighting leakage in system
  - Enabling identification of opportunities in light of targets to increase takeback

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Thank you!

Any questions?

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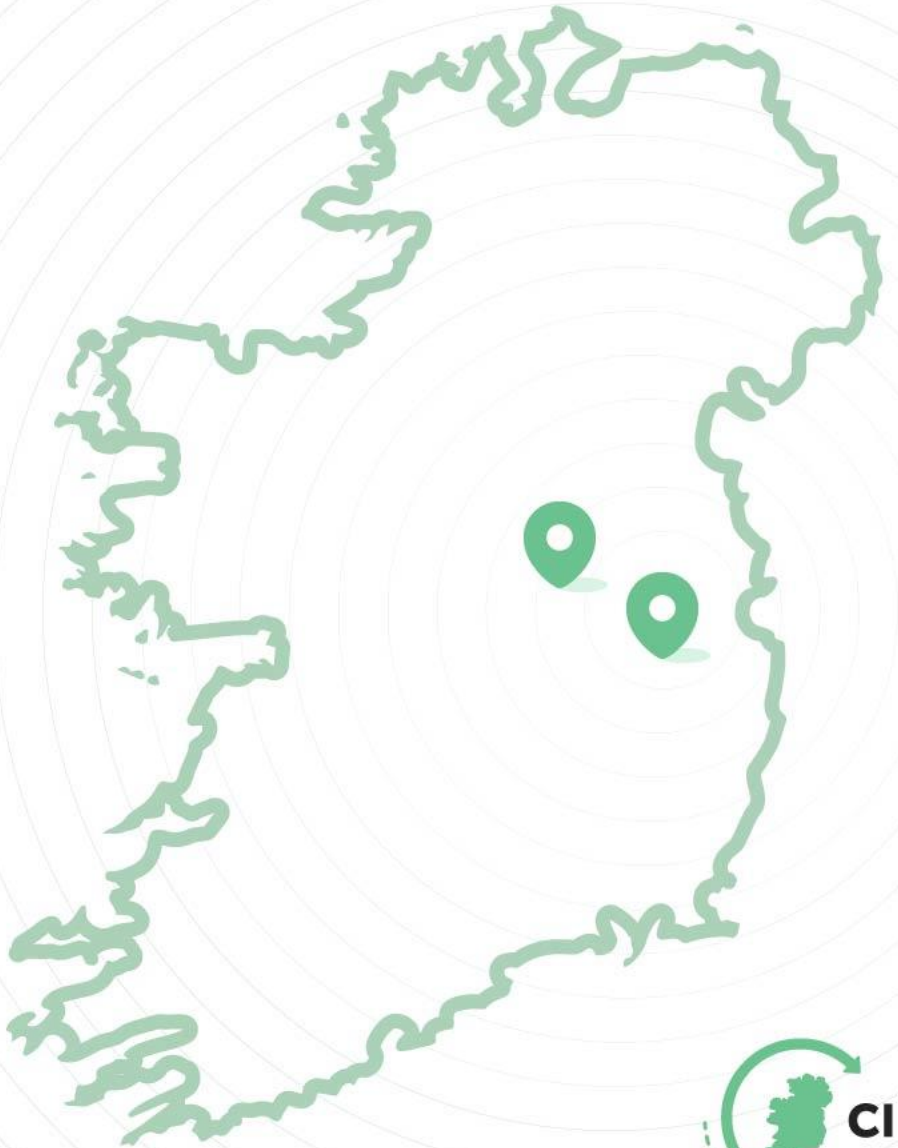

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