

# Circular Vision

WEEE Ireland Webinar Series. IV:  
White Goods Repair for a Circular Economy

Dissemination event for the CESI project and  
other Repair projects

16<sup>th</sup> June 2022



# Agenda

- **11am Welcome & Introduction**  
Elizabeth O'Reilly, Head of Environmental Compliance & Membership, WEEE Ireland
- **11.05am IMR & the CIRCULÉIRE Innovation Fund**  
Dr Shirley Gallagher, IMR/ CIRCULÉIRE, CESI Project Officer
- **11.10am CESI: Delivering an Irish White Goods Circular Economy Skillset Initiative**
  - Beryl Gilmore, Compliance Executive & CESI Programme Manager, WEEE Ireland
  - Elizabeth O'Reilly, WEEE Ireland
- **11.30am Repair by Numbers: White Goods Sector Repair Data from Ireland with dss+**
  - Sofia Fedato, Project Manager, dss+
  - Marco Meloni, Senior Consultant, dss+
- **11:50am RepairMyStuff.ie: Industry and Local Authority Awareness Collaboration**
  - Nial O'Connor, Monaghan Co. Co.
- **12.00 Panel Discussion, Q&A with WGA, FIT & Project Stakeholder Panel**
  - **Speakers as above**
  - **Industry representative:**
    - Ian Collins Commercial Director, Beko Ireland & Chair of WGA
  - **Training Agency Representative:**
    - Andrew Finn FIT, Director of Academic Affairs and Programme Development





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**CIRCULÉIRE**



**Circular economy:** an economic model based inter alia on sharing, leasing, reuse, repair, refurbishment and recycling, in an (almost) closed loop, which aims to retain the highest utility and value of products, components and materials at all times.

**Extended producer responsibility (EPR):** an environmental policy approach whereby producers take over the financial and/or organisational responsibility for collecting or taking back used goods, as well as sorting and treatment for their environmental management.



ANNUAL ENVIRONMENTAL REPORT  
TWENTY TWENTY ONE

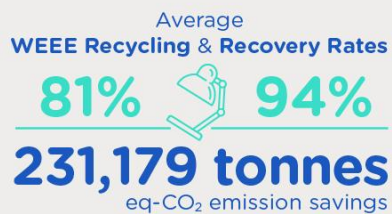
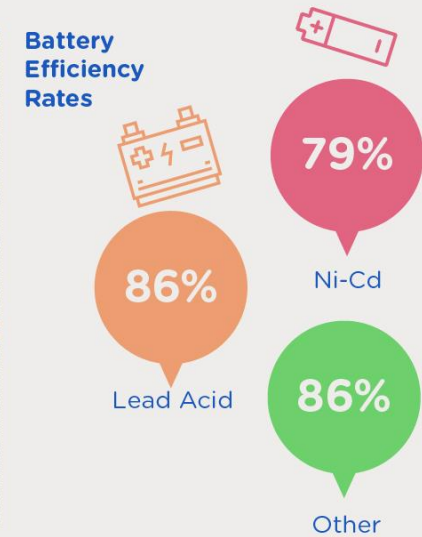
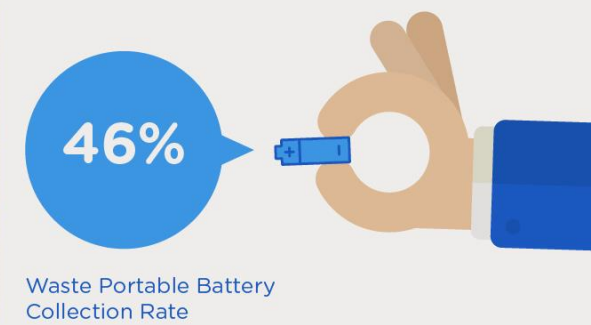


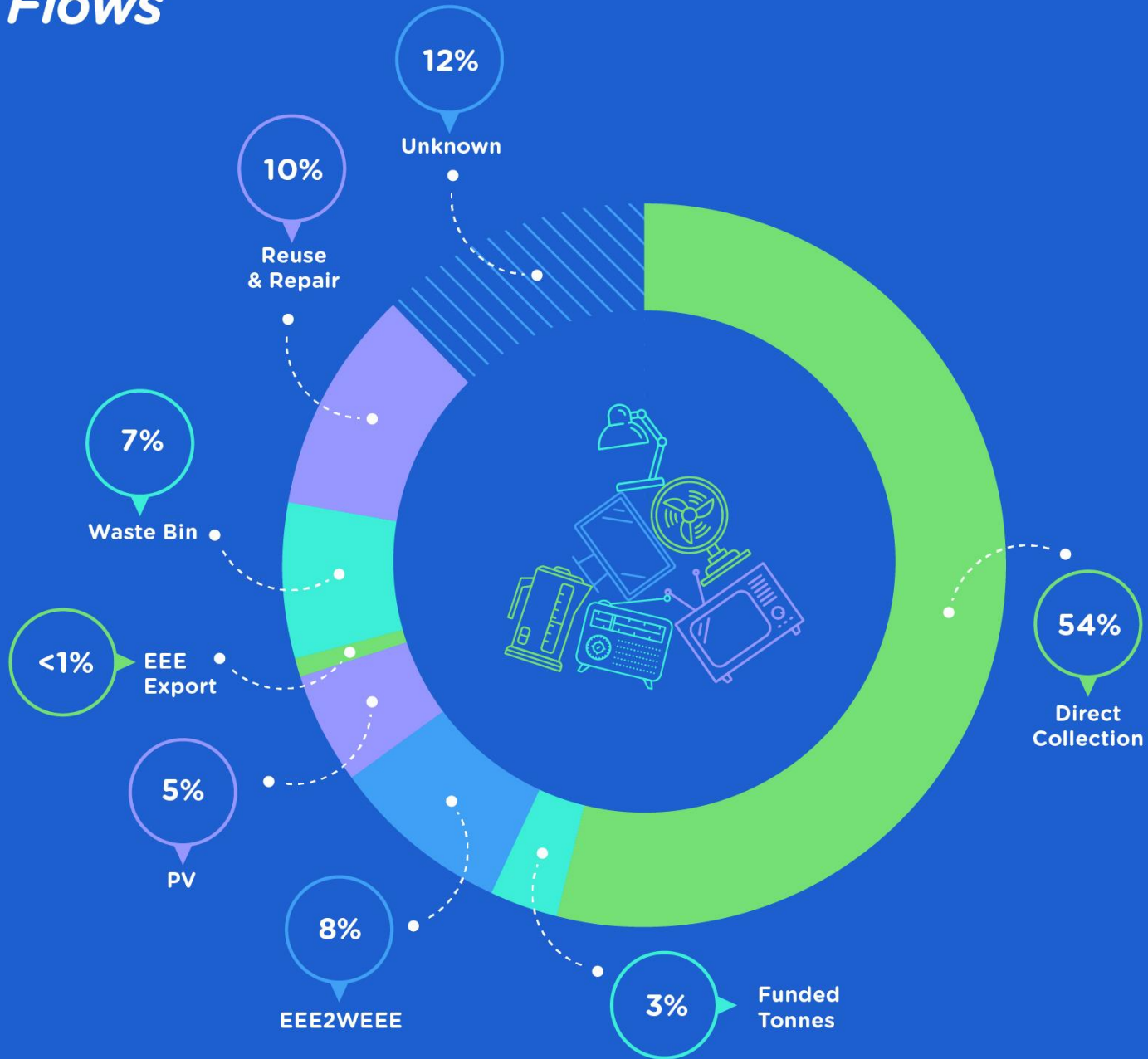
...visit [weeeireland.ie](http://weeeireland.ie)





# 2021 Key Performance Indicators





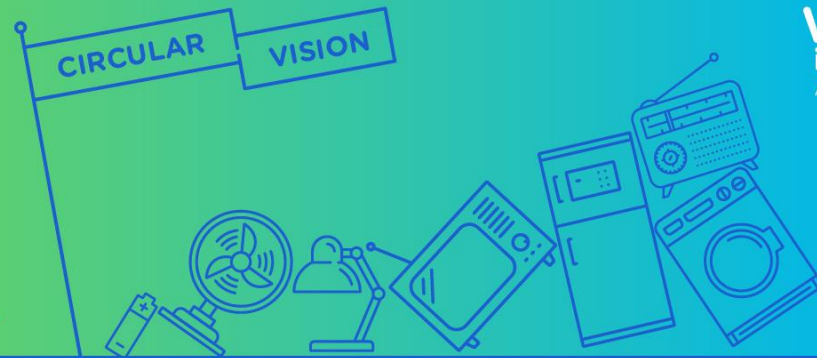
# VISION

Transformation of the existing successful WEEE and Waste Battery system in Ireland into a more sustainable model which benefits environment, business and society, embedding a circular ethos across the EEE and battery value chain.





# WEEE Ireland Circular Economy Strategy



## STRATEGIES <sup>27</sup>

CIRCULAR  
ECONOMY

Smarter  
product use and  
manufacture

R0 Refuse

Make product redundant by abandoning its function or by offering the same function with a radically different product

R1 Rethink

Make product use more intensive (eg. by sharing product)

R2 Reduce

Increase efficiency in product manufacture or use by consuming fewer natural resources and minerals

Extend lifespan  
of product and its  
parts

R3 Reuse

Reuse by another consumer of discarded product which is still in good condition and fulfils its original function

R4 Repair

Repair and maintenance of defective product so it can be used with its original function

R5 Refurbish

Restore an old product and bring it up to date

R6 Remanufacture

Use parts of discarded product in a new product with the same function

R7 Repurpose

Use discarded product or its parts in a new product with a different function

Useful application  
of materials

R8 Recycle

Process materials to obtain the same (high grade) or lower (low grade) quality

R9 Recover

Incineration of material with energy recovery

LINEAR  
ECONOMY

INCREASING CIRCULARITY

<sup>27</sup> Kirchherr, Julian & Reike, Denise & Hekkert, M.P., (2017). Conceptualizing the circular economy: An analysis of 114 definitions. Resources, Conservation and Recycling. 127. 221-232. 10.1016/j.resconrec.2017.09.005.



Filter by

All Initiative Types



All Company Types



All Waste Types



All Circular Activity Ty



GO

PRODUCER - OTHER LARGE EQUIPMENT - REPAIR

**Whirlpool's repair and spare parts service**



Explore >

PRODUCER - ALL WEEE - RECYCLE

**I4R - WEEE Recycling Information Platform**



Explore >

LARGE COMPANY - OTHER SMALL EQUIPMENT - REFURBISH

**Glen Dimplex's Repair and Spare Parts Availability**



Explore >

PRODUCER - BATTERIES - REUSE

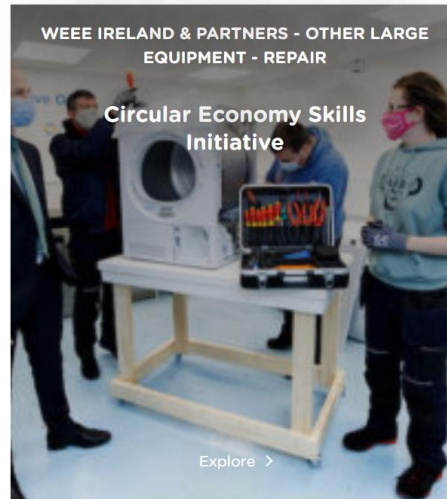
**Conn's Cameras Reuse of Cameras**



Explore >

WEEE IRELAND & PARTNERS - OTHER LARGE EQUIPMENT - REPAIR

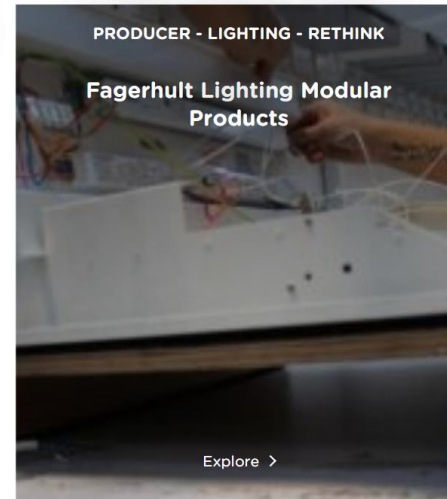
**Circular Economy Skills Initiative**



Explore >

PRODUCER - LIGHTING - RETHINK

**Fagerhult Lighting Modular Products**



Explore >

WEEE IRELAND & PARTNERS - BATTERIES - REUSE

**Long-Life Lithium Batteries**



GOVERNMENT - RETHINK

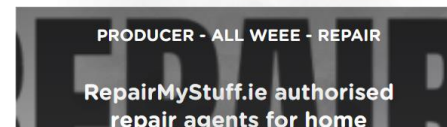
Training for a sustainable future

**MODOS Training Programme - WEEE Ireland Members**

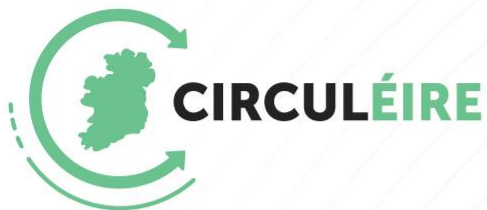


PRODUCER - ALL WEEE - REPAIR

**RepairMyStuff.ie authorised repair agents for home**



<https://www.weeeireland.ie/our-story/close-the-loop-case-studies/>



**Dr. Shirley Gallagher**  
**IMR/CIRCULÉIRE**

Shirley is an analytical chemist who has specialised in calibration, validation, quality, and IT support systems.

As an auditor, Shirley has worked as an internal and external auditor for UK and Irish governments and private industry, with expertise to ISO standards in energy, environmental, quality, water and health and safety as well as sustainable tourism.

Shirley was CIRCULÉIRE's project officer for the CESI project and will outline the role the platforms innovation fund has played in supporting this and other CE industry projects



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



Co-funded by the  
European Union





# The National Platform for Circular Manufacturing



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





# Compliance & Membership



Senior Membership Executive & CESI Programme Manager **Beryl Gilmore** will be presenting at the webinar today





# Circular Economy Skills Initiative

*White Goods Repair Technician Training*



## ...Bottleneck

- What in our current Scheme model was actually causing a problem?
- Is there a solution that we could explore that could likely solve this?
- Why are we not working on that solution right now?
- By solving **this** problem would there be additional benefits to our Members/System - short - medium - longterm
- Is this a Circular Economy problem/possible solution



# Repair

**Circular transition** toward....

*more prevention, repair, reuse, prep for reuse and increased recycling and recovery rates*

## Barriers?

- What are Members already doing that we could support them on, help build more of and capture data on to support circularity and learn from...?
- Why is more repair not happening?

The industry told us – **not enough engineers, no new trainees coming through, average age 59+ .. competition for existing engineers**

- no training for engineers in place in Ireland – 20 years trying to find a solution

*Can we remove the bottleneck by engaging the industry in a circular economy repair training project...that will deliver change for their individual businesses, the wider sector and of course consumers?*

# Project Partners



- Project Lead, Co-ordinator and Project Management
- Circular Economy & E-waste expertise
- Committee management
- Application, Interim and Final report



- Industry Trade Association
- Main LHA Membership of EPR Schemes
- Industry advice, guidance and technical input
- Donation of equipment for workshop



- Training Agency, Curriculum development
- Trainee recruitment
- Training centre set up and management



- Tutor recruitment
- Trainee allowances and support
- Ongoing development and further courses



- Innovation Fund provider and Project Oversight
- Project Officer Support



## A Joint Initiative Of

**fit**  
The ICT  
Sector Pipeline

**Imeth**  
Innovation  
Management  
Enterprise  
Technology

Structural Economy  
Initiative

**weee**  
ireland  
A COMMITMENT TO  
SUSTAINABILITY

**CIRCULAR**  
ECONOMY





## Supported by Irish Producer Industry Partners



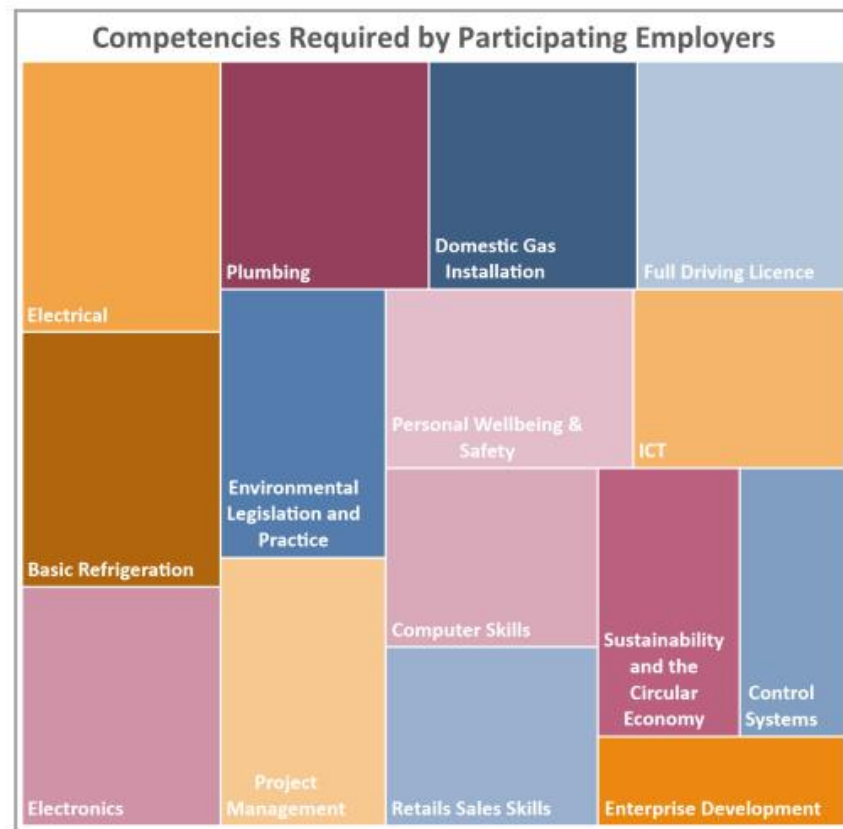
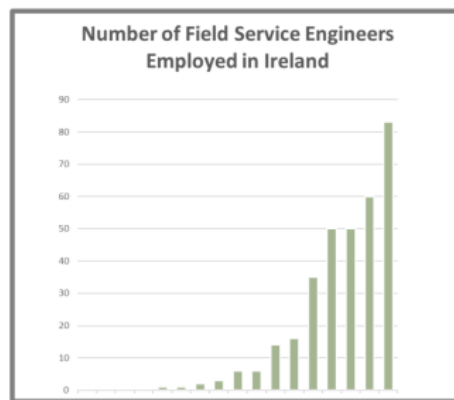
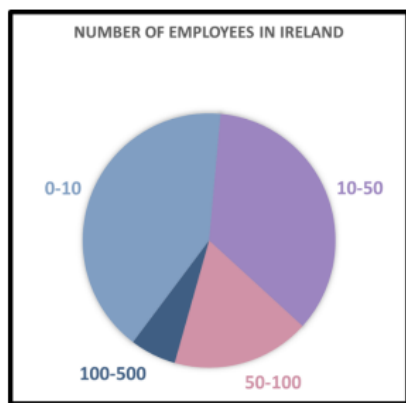
# First Steps...



- Partnered with the WGA (White Goods Association) and training partners FIT (Fastrack into Information Technology)
- Set up an industry-led steering committee
- Following on from this we found that there was a need for a technical committee led by the Industry Service Managers to advise on technical matters
- FIT, in conjunction with the technical committee, coordinated a Skills Needs Analysis (SNA) which was sent out to 50 White Goods Repair providers within both OEMS and independent contractors, and other project stakeholders and interested parties. (60%+ response rate)
- The key findings from this were used to frame the curriculum of the Repair Technicians Course
- WEEE Ireland helped create a Circular Economy module, focussing on circularity thinking, e-waste management challenges and solutions and 'R' strategies



# Skills Needs Analysis - Results



The top 6 Competencies required by Companies

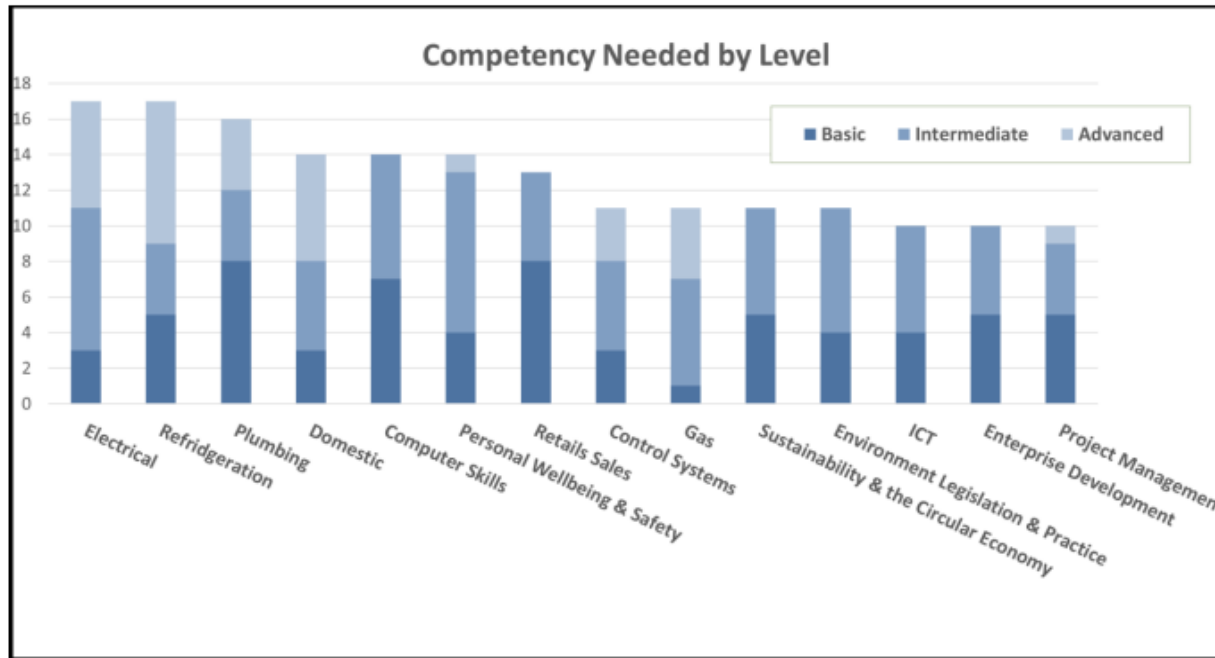
1. Electrical
2. Basic Refrigeration
3. Electronics
4. Plumbing
5. Domestic Gas Installation
6. Full Driving Licence



# Competencies Required

A large number of respondents also indicated increasing requirements with respects to sustainability and environmental priorities, fostered by environmental concerns, changing customer demands and legislation.

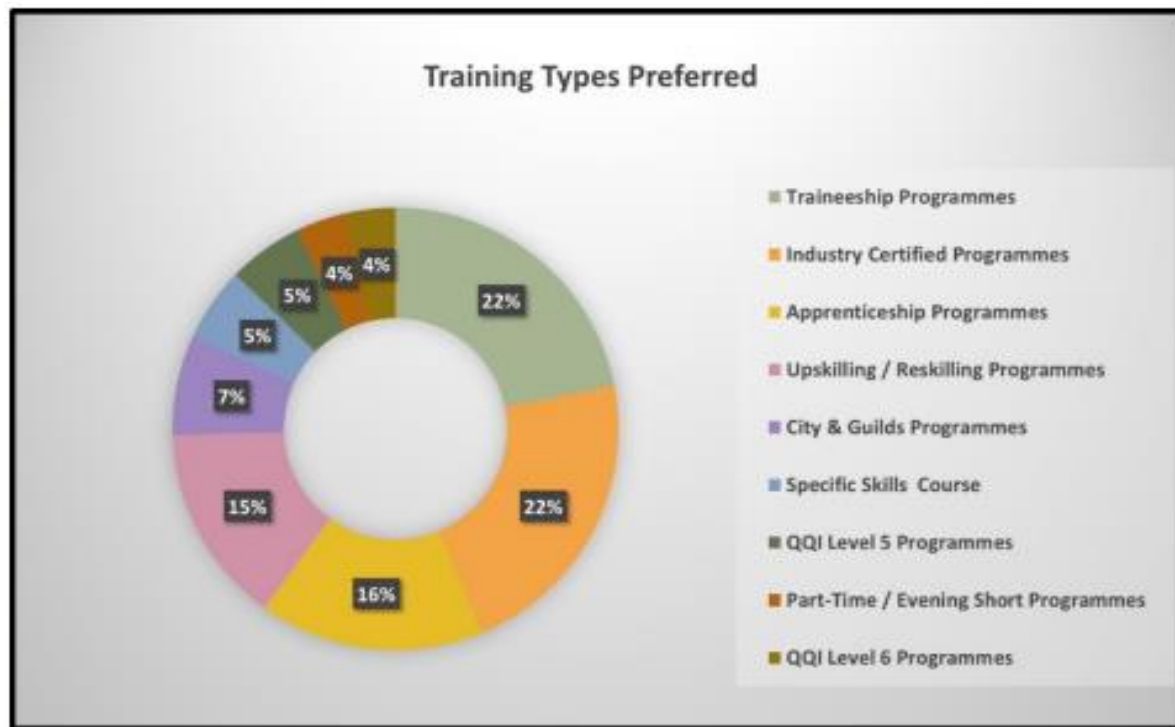
- Employers were asked to further break out their competency requirements with regards to Basic, Intermediate and Advanced categories.
- This data was analysed to rank the top 14 (the driving licence competency was excluded)
- Competencies most needed are shown in the Chart below.

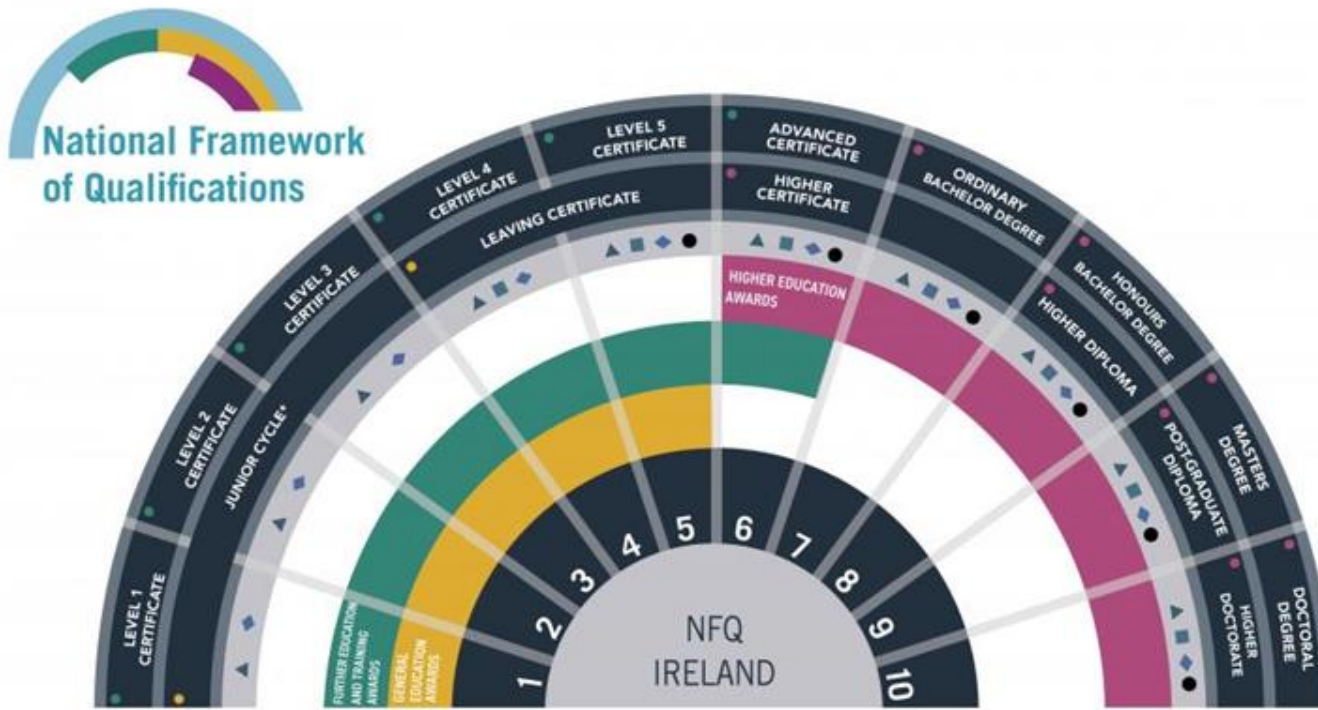


# Types of training preferred by the Industry

Companies were asked to share their thoughts with regards to types of training preferred and indicated 4 front runners as shown in the chart below. They are:

- Traineeship Programmes
- Industry Certified Programmes
- Apprenticeship Programmes
- Upskilling / Reskilling Programmes





#### CLASSES OF AWARD

- Major Awards:** named in the outer rings, are the principal class of awards made at a level
  - Minor Awards:** are for partial completion of the outcomes for a Major Award
  - Supplemental Awards:** are for learning that is additional to a Major Award
  - Special Purpose Awards:** are for relatively narrow or purpose-specific achievement
  - Professional Awards:** are for occupation-orientated qualifications including apprenticeships
- \*Please refer to NCCA website, [ncca.ie/en/junior-cycle/](http://ncca.ie/en/junior-cycle/)

#### IRISH REGISTER OF QUALIFICATIONS

- For more information on
- Qualifications
  - Providers
  - Courses
- visit [www.iriq.ie](http://www.iriq.ie)



© QQI 2021

The White Goods Field Service Engineer is a Special Purpose Quality and Qualifications Award placed at Level 6, which coincidentally is the same level as most craft-based apprenticeship programmes, though those are of longer duration i.e. 4 years.



# QQI

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Quality and Qualifications Ireland  
Dearbhú Cáilíochta agus Cáilíochtaí Éireann

*Programmes validated with the State qualifications authority QQI go through a rigorous validation and approval process prior to any enrolment.*

*The broad process includes scoping of learner and industry need, programme aims and objectives while also demonstrating adherence to exacting quality assurances standards, which must adhere to a wide-ranging criterion.*

**The CESI project achieved an extraordinary turnaround to be accredited within 9 months from the project start date .**



# Module Development

## List of Modules – Classroom/repair rooms 26 weeks

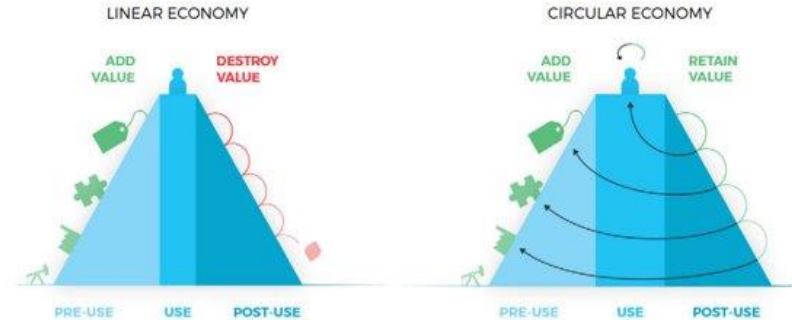
- Domestic Appliance Electrical Skills
- Small Domestic Appliance Servicing
- Large Domestic Appliance Servicing
- Health and Safety Awareness
- Domestic Appliance Mechanical Skills
- Manual Handling (Certified)
- Enterprise Development
- Networking and Configuration (Smart Appliances)
- Customer Service/Professional Development
- Circular Economy
- Industry Supported Work Experience – 12 weeks



MODULES

# Circular Economy Module

- Developed and taught by the Compliance & Membership Team using resources from CIRCULÉIRE, Ellen MacArthur Foundation, industry case studies, APPLiA, EU & national CE reports and policy papers, etc.
- Content:
  - Presentation of CE concepts and the benefits of the Circular Economy
  - The specific challenges of e-waste in the Circular Economy and the origins of the CESI project
  - Importance of natural resource management, especially for Critical Raw Materials
  - Role of repair within the Irish CE
- Interactive session and brainstorming exercise *How can we facilitate repair, for the public and for repair technicians.*



The value hill model proposes a categorisation based on lifecycle phases of a product in pre-, in- and post-use, and clarifies the systemic differences between the current linear economy and the circular economy that we are striving for.<sup>7</sup>



# Progress so Far – 31<sup>st</sup> May 2022



- 24-week training course started the 25<sup>th</sup> of November 2021
- Site visits by the trainees to Recycle It, Retail hub and the Rediscovery Centre
- WEEE Ireland delivered Circular Economy module to the trainees in late April
- Classroom and Workshop Course Completed early May 2022
- Work-experience started May 9<sup>th</sup> 2022

- 4 trainees went to Whirlpool

- 2 trainees to Beko

- 2 trainees to Glen Dimplex

- 2 trainees to Miele

- 1 trainee to BSH

*(trainee did not start with BSH as took up industry employment prior to placement.)*



# Detailed Project Milestones

- Skills Needs Analysis Review
- Technical Committee and Steering Committee (25 meetings each)
- FIT allocated space in their new training centre in Dunshaughlin for the project
- They kitted out two repair rooms and classrooms for CESI use



- Curriculum developed and submitted to QQI for their approval
- QQI accreditation Level 6 awarded
- Recruitment and Project Page built on [www.fit.ie](http://www.fit.ie)
- 350+aplicants
- 10 successful applicants and industry experienced tutor
- Training centre kit out with industry donations
- Classroom and workshop training completed



- PR – press release and significant media coverage
- Minister Ossian Smyth visit
- Circular Economy Workshop and site visit day organised by WEEE Ireland
- Industry placements agreed
- Trainees currently out on work experience with industry partners





# Challenges & Solutions



## Timeline changes

- Covid – later start and smaller numbers on the course than originally planned
- Following SNA and Curriculum review, more training and industry placement time was needed

Extension sought and received from the project team

## F-gas

Ongoing engagement with Commission for Regulation of Utilities seeking the CESI course to be accepted as a route to refrigeration engineer due to shortage in this sector


## Industry placement – more offers than trainees

- Positive momentum to begin next courses as soon as possible
- potential for part-time courses to support existing workers who want to upskill/change jobs



# PR and Communications



 Circular Economy Skills Initiative

## Embark on a rewarding career in environmental sustainability

The Circular Economy Skills Initiative opens up a new and exciting career for women and men who have an interest in prolonging the life-cycle of our white goods in the interest of sustainability, reduced waste and environmental wellbeing.

[Register Now](#) ↗

- Advertising of the course on FIT.ie
- Active recruitment promotion through WI social, media & PR channels
- **Received >350 applicants**
- Applicants were filtered to those who had an interest in repair
- Short-list was chosen and places offered



# PR and Communications



Ministerial  
Visit Jan 25<sup>th</sup> 2022  
Dunshaughlin  
Minister for State  
Ossian Smyth



“This will be instrumental in making the circular economy real for consumers and industry alike”



Ossian Smyth, Minister of State with responsibility for Public Procurement and eGovernance, visits the FIT (Fasttrack to Information Technology) centre in Dunshaughlin, Co Meath, the venue for the Circular Economy Skills Initiative

Meeting  
The  
Trainees



REPAIR TECH: David Courtney from Cíomachán, right, with Junior Minister Ossian Smyth and John Lee, Course Tutor, pictured at the FIT (Fasttrack to Information Technology) centre in Dunshaughlin, Co Meath, the venue for the Circular Economy Skills Initiative. Photo by Andrea Poveda Photography

## Unique course trains next generation of repair engineers

by ALISON COMYNN

Students of a unique training course for repair technicians received the Ministerial seal of approval last week when visited their training centre at the FIT (Fasttrack to Information Technology) centre in Dunshaughlin, Co Meath. He was a guest of the course, which is the first of its kind in the country. The course is run by the Louth and Meath Education and Training Board (LEMB).



Minister Ossian Smyth at the FIT (Fasttrack to Information Technology) centre in Dunshaughlin. Picture: Andrea Poveda

### Getting our fix of repair technicians

DRIVE TO TRAIN UP MENDING EXPERTS

Minister Smyth, who has been paid tribute to by the Government for his role in the economy Skills Initiative, is training a new generation of repair engineers. The course began in 2019 as a result of an initiative between the White Goods Association (WGA), WEEE, Ireland and technical training agency FIT, supported by LMETB and the CIRCULÉIRE Innovation Centre. The course is designed to combat a major skills gap in the white goods industry, which is projected to grow as more people embrace the benefits of repairable products. The course is a key part of the government's strategy to create jobs and support the circular economy. The course is a key part of the government's strategy to create jobs and support the circular economy. The course is a key part of the government's strategy to create jobs and support the circular economy.



# Reporting and Dissemination CESI



- Promoted in WEEE Ireland communications and Annual Reporting as part of a focus in 2021/2022 on Circular Economy Activities
- Case Study on CIRCULÉIRE resource library and WEEE Ireland '*Close the WEEELoop*' microsite.
- Repair Webinar 16<sup>th</sup> June 2022
- Public invitation and to all WEEE Ireland members, WGA, Technical Committee and Steering Committees
- Questionnaire out to all stakeholders and responses currently being collated
- Final Report due 16<sup>th</sup> July along with full Finance and Impact reports for CIRCULÉIRE
- Further PR and dissemination activities planned in 2022 including media output (July), WEEE Ireland online conference (October) and WEEE Forum EPR event, Brussels (December).



# Stakeholder Survey – early responses

6. Have you had difficulty in sourcing/employing repair technicians in Ireland in the last 5 years?

[More Details](#)

● Yes	7
● No	0
● Not applicable	3



In a survey sent to all stakeholders involved in the CESI project, so far 100% of respondents (where applicable) have had difficulty employing repair technicians in the last 5 years\*

*\*final data collection ongoing*

# Stakeholder Survey

13. Would you consider employing a trainee repair technician from the CESI project after the course and work experience is completed if an opportunity arose in your organisation

[More Details](#)

 Insights

 Yes	6
 No	0
 Non Applicable	3



So far 100% of respondents (where applicable) would consider hiring a trainee repair technician after the course was finished  
Some trainees have already received offers

# Next Steps...



- Carbon reporting review – emissions savings from repair activity?
- Close out Project Reporting and submit to CIRCULÉIRE with Financial and Impact Reports
- Trainee placement completion and graduation July 2022
- Discussions on next course and possible rollout to other centres are underway
- Industry steering committee has agreed to support the next steps as this rollout develops
- Consideration of expansion or replication of the course into other EEE sectors
- WEEE Ireland will continue to support WGA and Members as the programme evolves





# WEEE Thank You!

*We would like to thank all the partners and stakeholders involved in this project and in particular the service managers from the Producer brands and distributors, John Lee the tutor on the CESI course, the staff in FIT for all their help, and special thanks to all the students who completed the training and will be graduating in the coming weeks. We wish them the very best in their career pathways*





## Repair by Numbers: White Goods Sector Repair Data from Ireland with dss+



**Marco Meloni**

- Senior Consultant with a background in industrial ecology and circular economy
- Consulting, advocacy, and research in the circular economy of electronics, including material flows, repair and reuse, recycling, and energy efficiency
- Focus on the implementation of innovative and sustainable processes in a wide range of fields, including food, food waste, electronics, and the development of eco-industrial parks.



**Sofia Fedato**

- Project Manager with a background in environmental economics
- Sofia has 3 years of consultancy experience in extended producer responsibility, environmental policy assessment, circular economy strategies and environmental compliance.
- Focus on the electronics waste management sector, including project experience on repair and reuse & advocacy



Protect. Transform. Sustain.



**REPAIR**  
  
**MYSTUFF.ie**



## **Nial O'Connor - Monaghan County Council**

- Nial has 20 years' experience working in waste management and the wider circular economy for Monaghan County Council
- In 2017 with funding from the Environmental Protection Agency he developed and delivered [www.repairmystuff.ie](http://www.repairmystuff.ie) which is Ireland's leading online directory for the repair industry.



## Ian Collins, Commercial Director Beko Ireland & Chair of WGA

- Ian is an experienced Commercial Director with a demonstrated history of working in the consumer goods industry.
- Marketing Graduateship focused on Marketing, Sales Management & Business Studies from Marketing Institute of Ireland.
- *Sustainability Change Starts Today* [www.beko.ie](http://www.beko.ie)

## Andrew Finn, Director of Academic Affairs & Programme Development, FIT



Andrew has significant experience in the further and higher education sector and has been part of the leadership team who have grown the Tech Apprenticeship model in recent years.

Specifically, Andrew has many years of experience relating to programme development, quality assurance and creating programmes that are relevant to contemporary skills development while also meeting industry needs.

# Thank You

...visit [weeeireland.ie](http://weeeireland.ie)

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