The consumer & the Circular Economy

What's in it for them?

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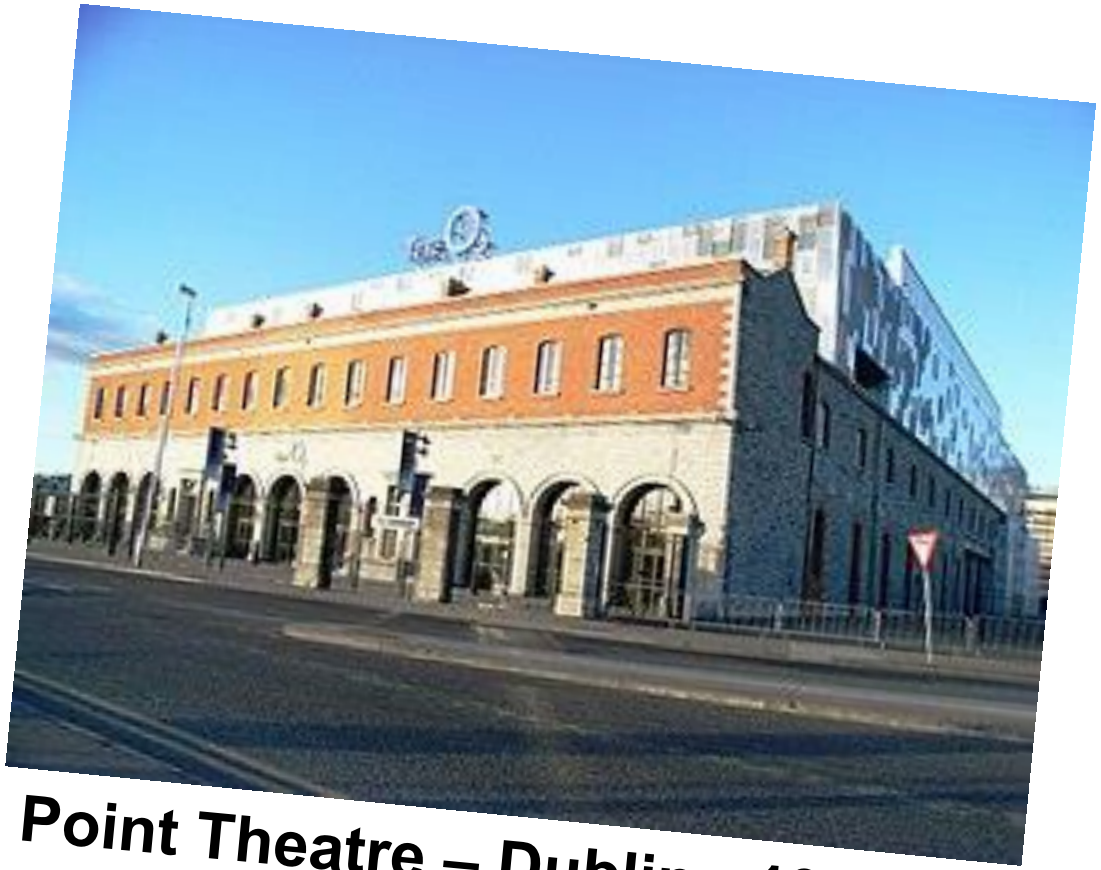
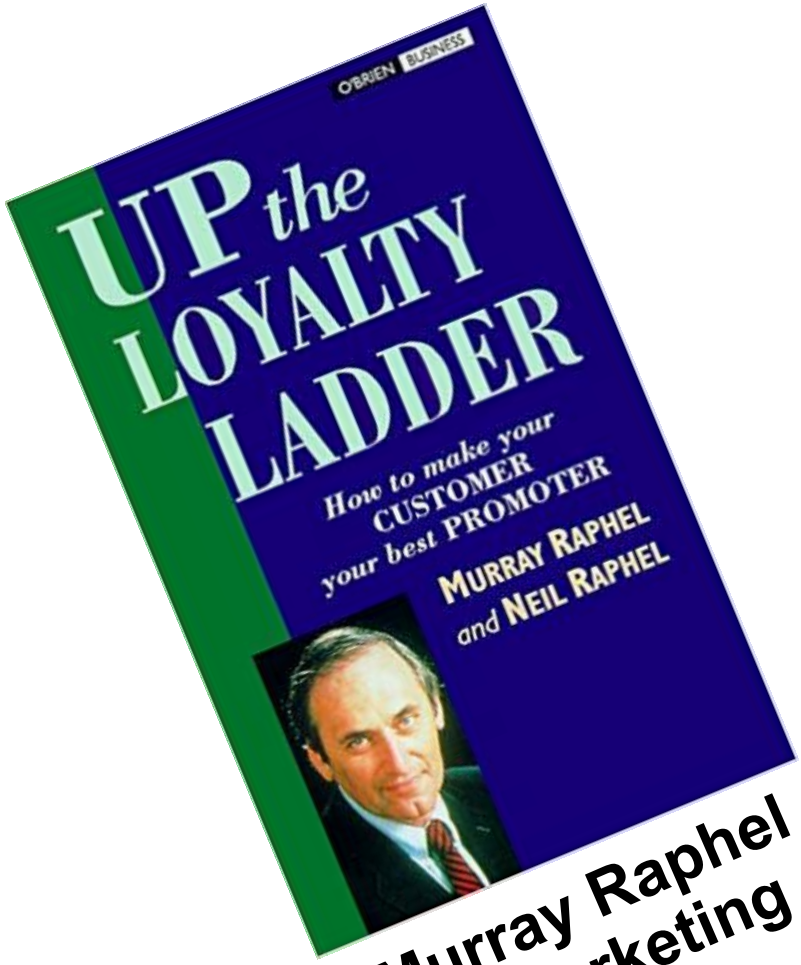
Paul McSweeney – CEO, ZeroNet Services



Point Theatre – Dublin - 1992



Murray Raphel – Direct Marketing Guru

Challenge – how to sell 5000 seats ……at £100 each!

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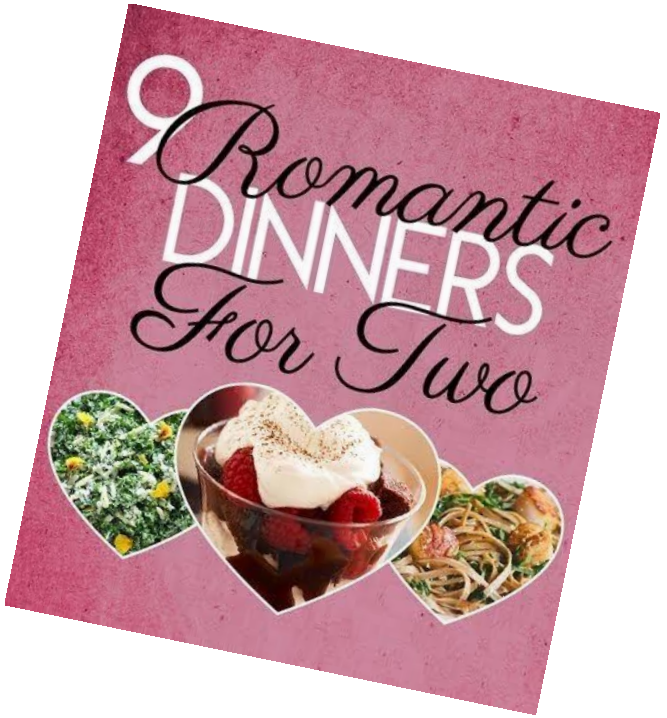
Why should I attend??



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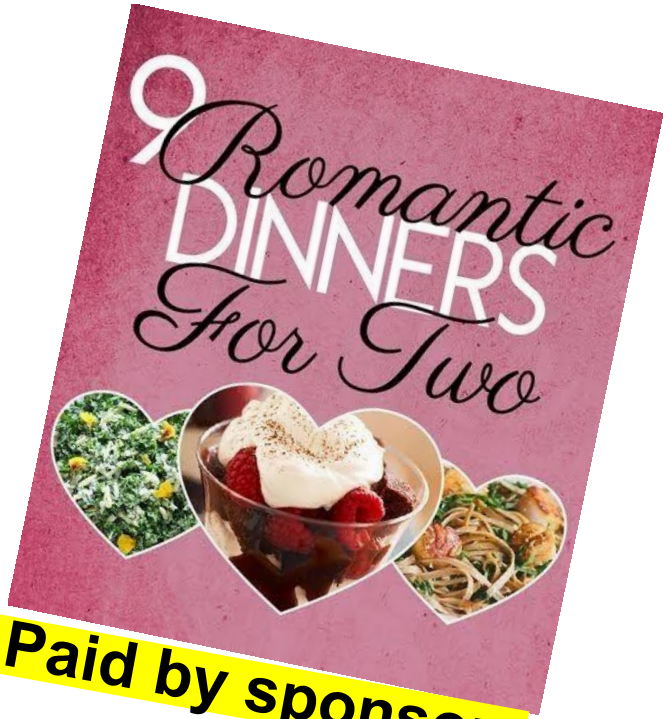
The big giveaway – worth £150!!

Why should I attend??

Paid by sponsor

Paid by publisher



Paid by sponsor

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The big giveaway – worth £150!!

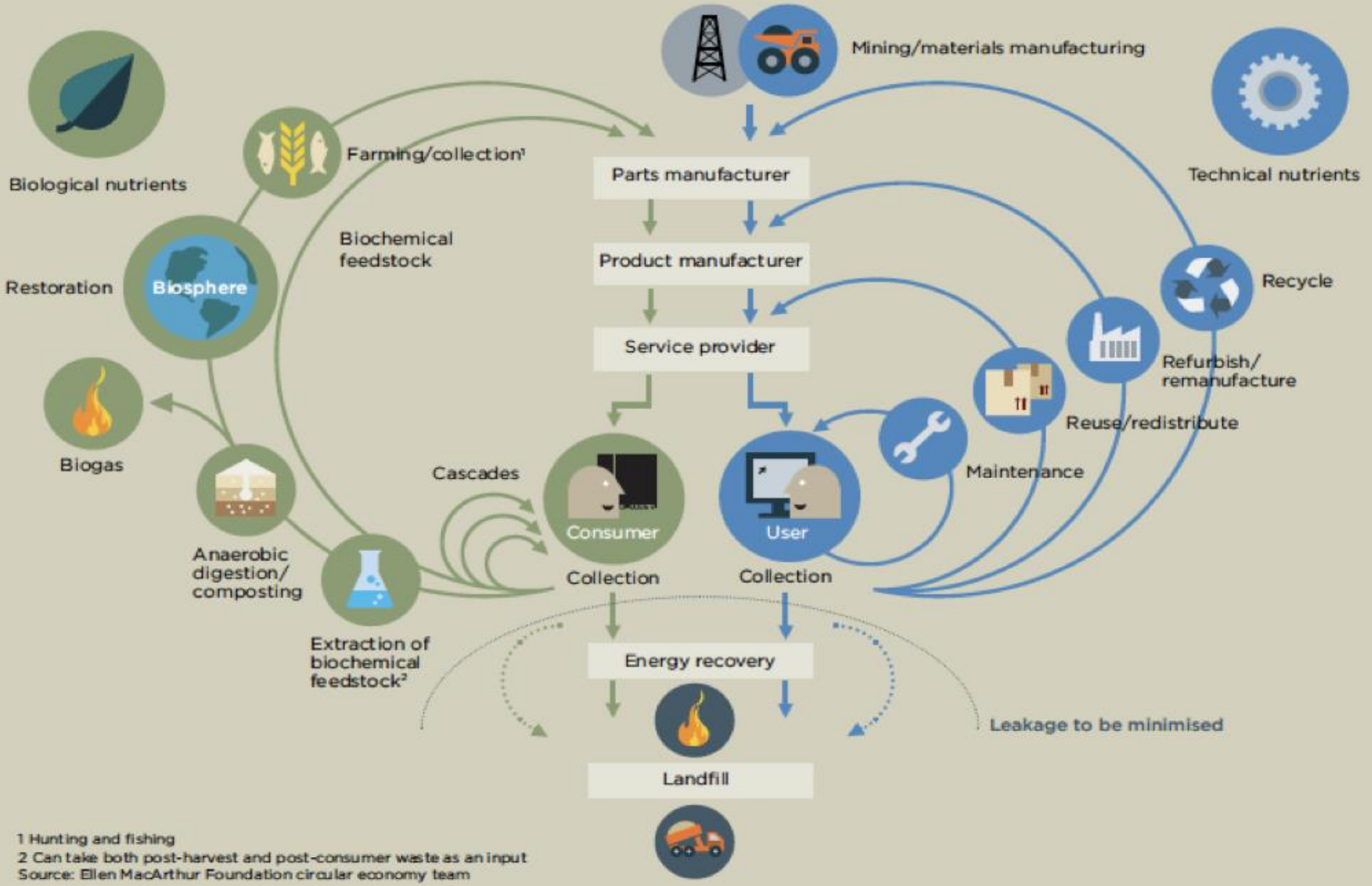
WIIFM…….??

Everyone’s favourite radio station!!!

What's In It.....FOR ME!!

Everyone's favourite radio station!!!

FIGURE 6 **The circular economy—an industrial system that is restorative by design**



1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input
Source: Ellen MacArthur Foundation circular economy team

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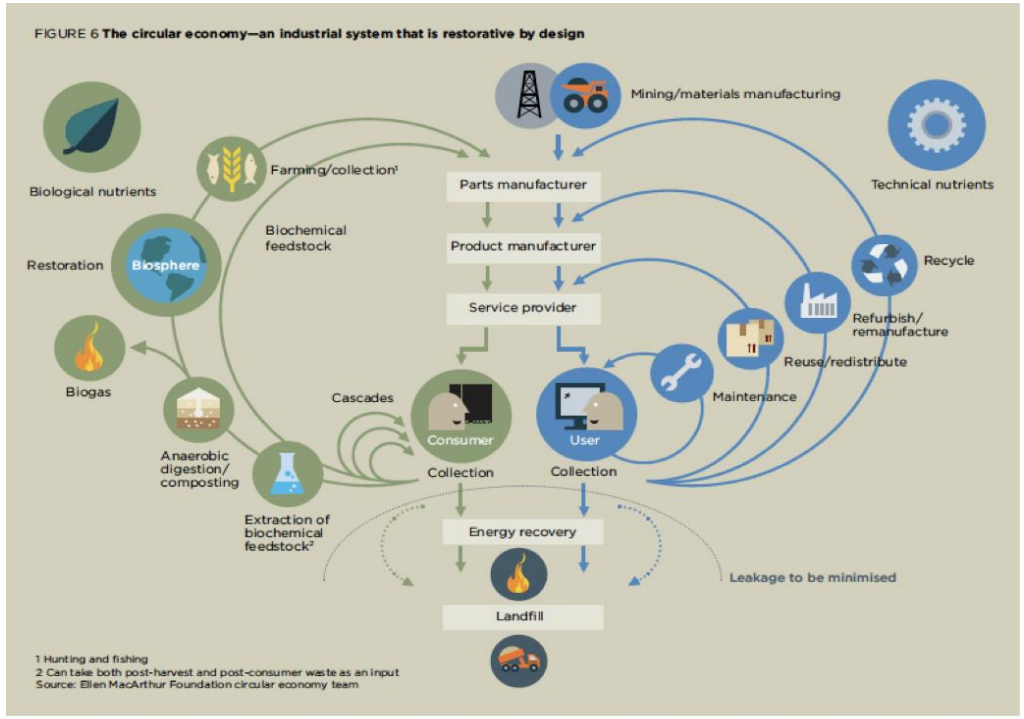
WIIFM……??



How to make the CE meaningful

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Agenda

- Introducing the ZeroNet – what is it for?
- Support for the ZeroNet
- The ZeroNet: A deeper dive
- Stirling trial overview (March 2019)
- Stirling 2020 – Scaling the ZeroNet

How to bring the CE home - WIIFM

Introducing the ZeroNet

Powering the Circular Economy

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Powering the Circular Economy

1

Simple interface, Easy-to-add services, Postcode aware

2

Driver app

Optimised 'reverse logistics'

3

Driver app

Intelligent collections/CEBMs

Features

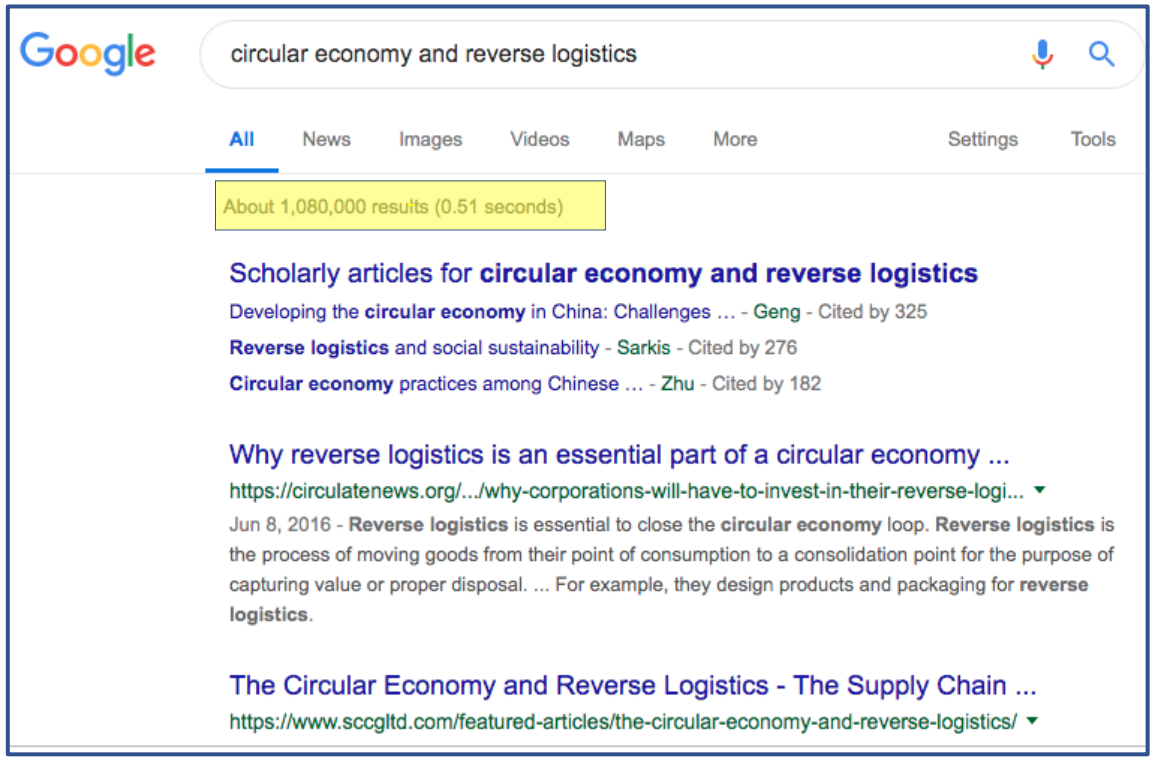
1. Intelligent collection network
2. Promoting the CE
3. Promotes reuse
4. Supporting:
   - CE Bus Models
   - Smart take back
   - Servitisation
   - Deposit/refund
   - 'Reverse' Supply Chain

CE100

ZERO WASTE SCOTLAND

B&Q H&M hp

Why is the ZeroNet necessary?



"Reverse Logistics is essential to close the Circular Economy loop"……

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Reverse Logistics and the Circular Economy

Major corporate support since 2013

ELLEN MACARTHUR FOUNDATION

CE100

Contact Level	Opportunity	Location
Worldwide Trade-in Manager at Apple	Product recovery/New Business Models	Global
Global Head of Innovation	Product recovery/New Business Models	UK & Europe
Head of Circular Innovation	Product recovery/New Business Models	UK & Europe
Sustainability/Innovation Head	Product recovery/New Business Models	Global
Global Sustainability Manager	Product recovery/New Business Models	Global
Director, Environmental Responsibility, EMEA	Product recovery/New Business Models	Global
Global Innovation Director, Marketing	Product recovery/New Business Models	Global
Global Sustainability Director, Packaging	Product recovery/New Business Models	Global

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EMF – CE100 Membership for 4 years

ZeroNet platform designed, built and trialed: 2016 - 2019

ZERO WASTE SCOTLAND

European Union

gov.scot

EUROPE & SCOTLAND
European Regional Development Fund
Investing in a Smart, Sustainable and Inclusive Future

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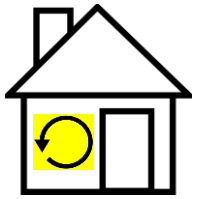
Funding support from Zero Waste Scotland

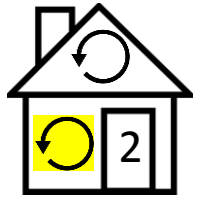
Why is the ZeroNet compelling?

"We are already there, it doesn't cost much to collect – once we know where to go and what to do"

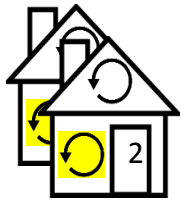
1. For RMG (et al), they are already at your house



2. A collection transaction is low cost/no cost



3. Multiple Tx per household



4. Multiple Tx in multiple households in same area

£⬇

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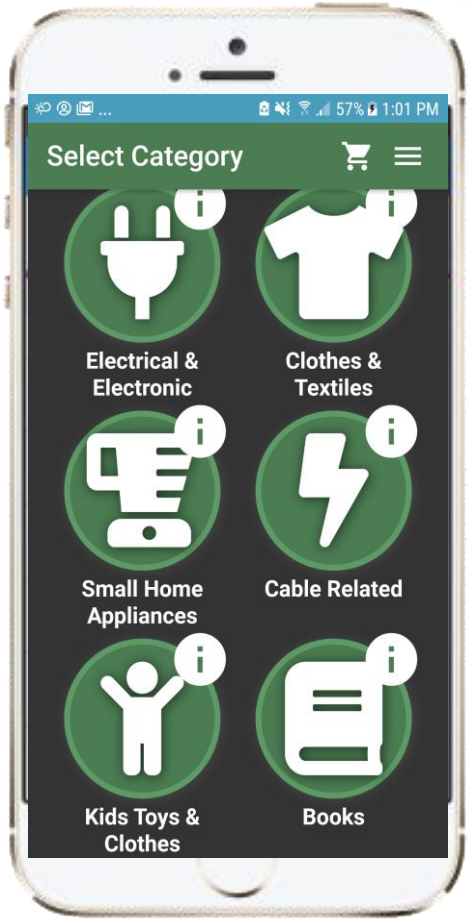
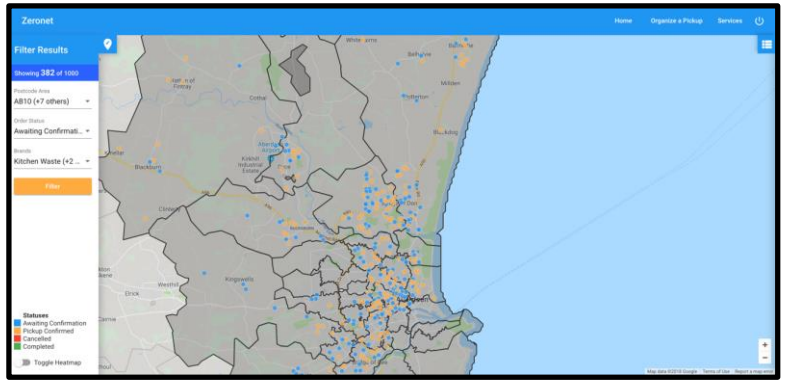
Reverse logistics ….low cost/no cost

The ZeroNet Platform – Architecture



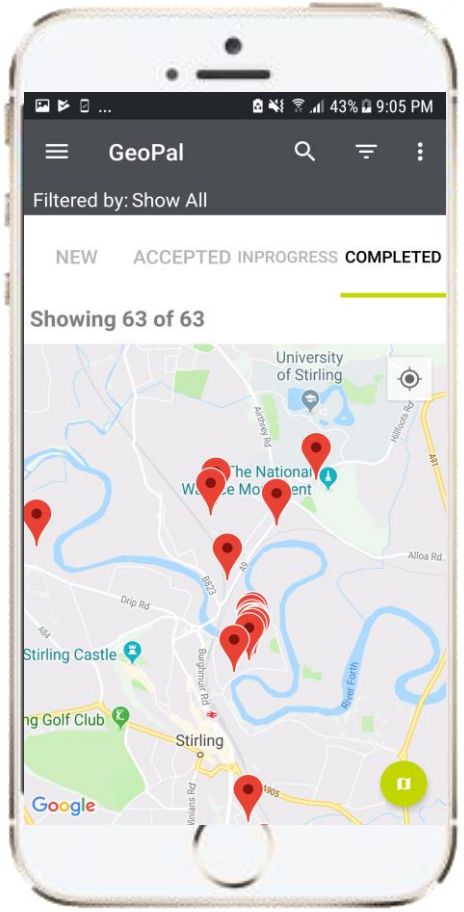
ZeroNet App (MS – Cloud)

- Quick registration
- Postcode sensitive services
- Consumer collection requests
- Consumer marketing and messaging



ZeroNet Portal (MS Cloud - Azure)

- ZeroNet Management and Admin
- Collection Scheduling, Tracking and Management
- Collection Service Setup and Deployment
- Notification management
- Partner Data Access and Reporting



Driver App (Amazon cloud)

- Driver collection management
- Data capture for supplemental services/adjacancies
- Ad-hoc and scheduled field-based job dispatch and tracking

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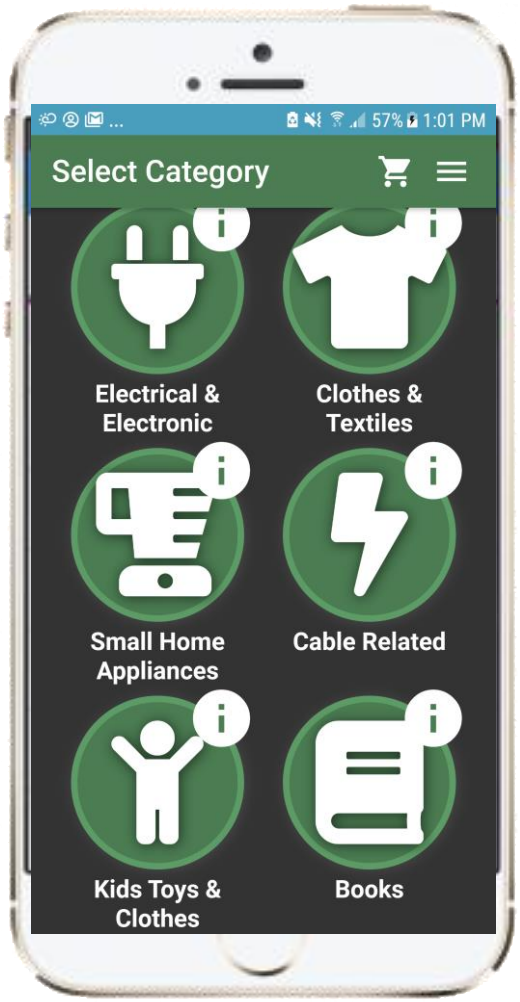
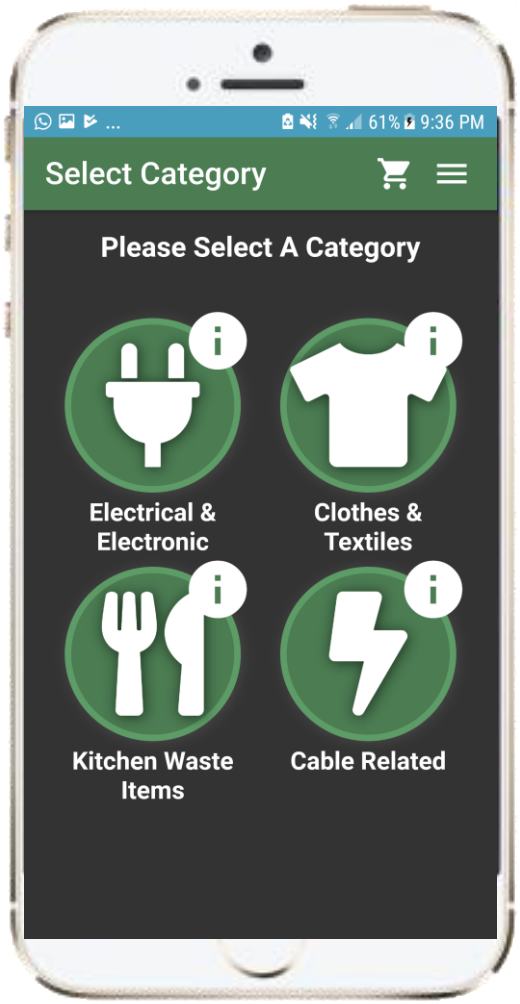
The ZeroNet App – Address based Services



Services can be added or removed in real-time through a simple operation in the ZeroNet Portal to link postcodes to services



Live Stirling Version

- Available only in following area
- FK7 7xx, FK8 1xx, FK9 5xx, FK9 4xx
- Approx. 13,500 homes

Live Stonehaven Version

- Available only in following areas
- AB39 2xx
- Approx. 4,900 homes

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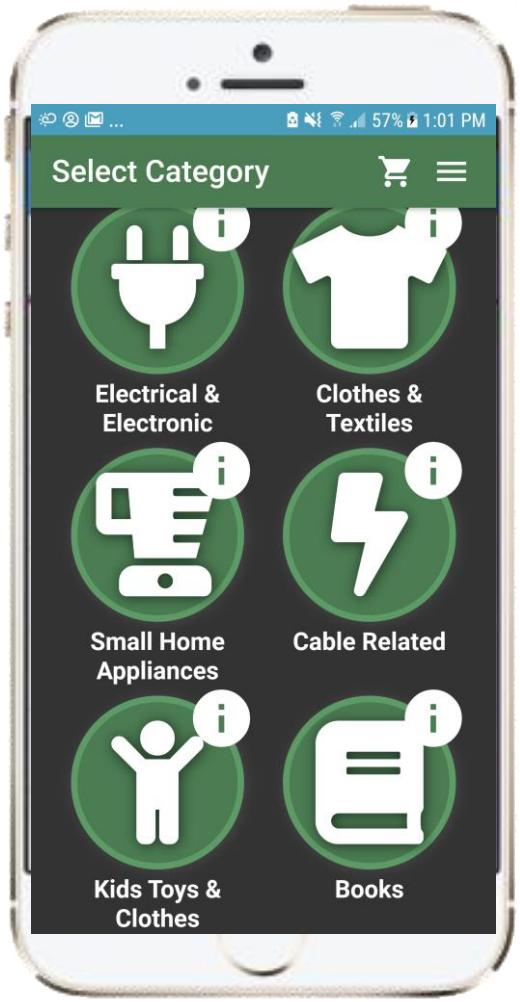

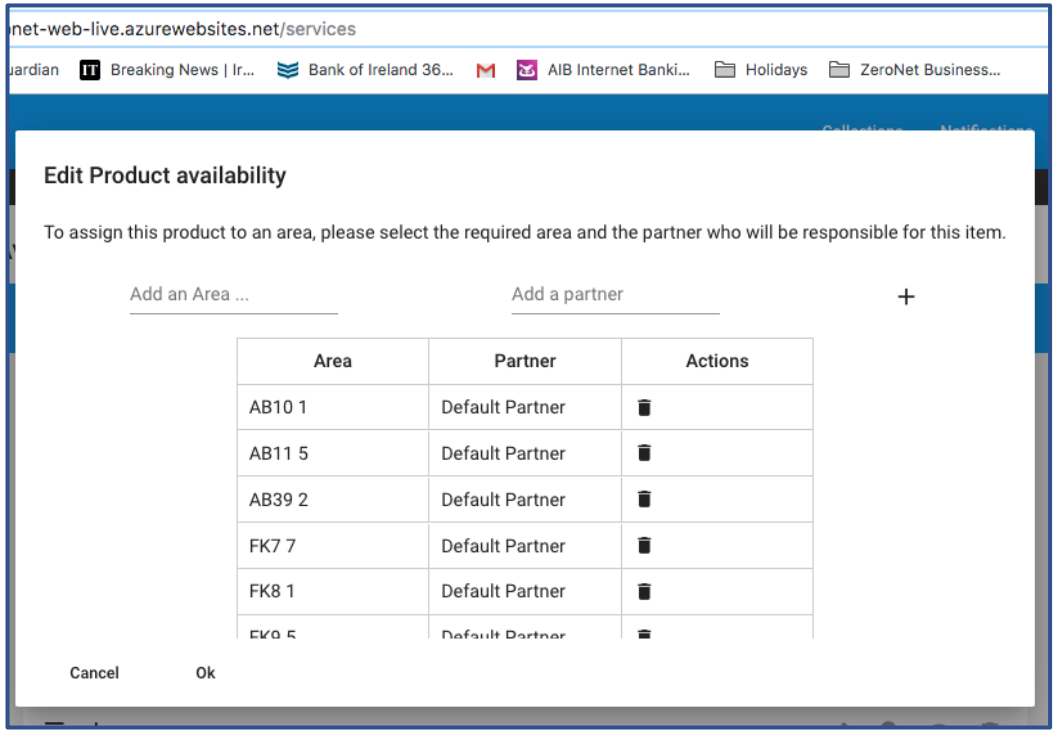

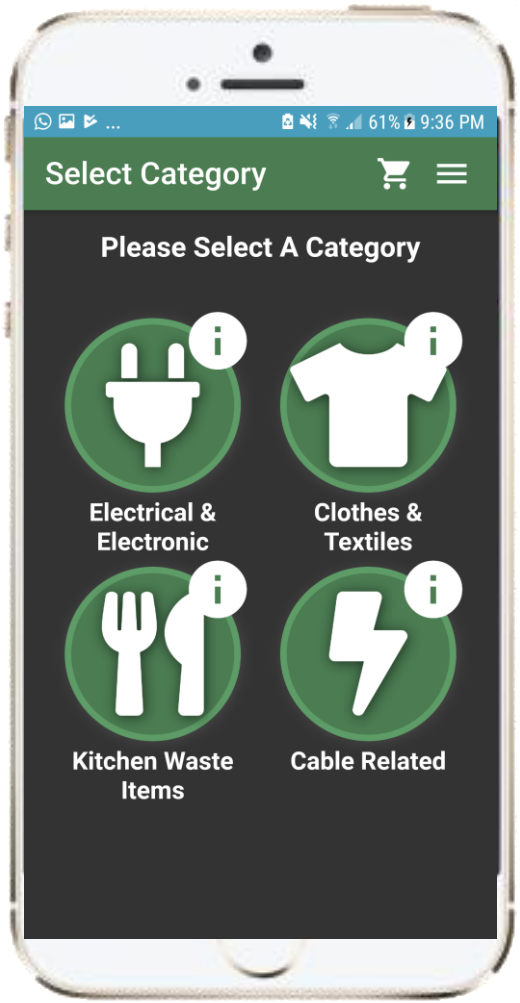

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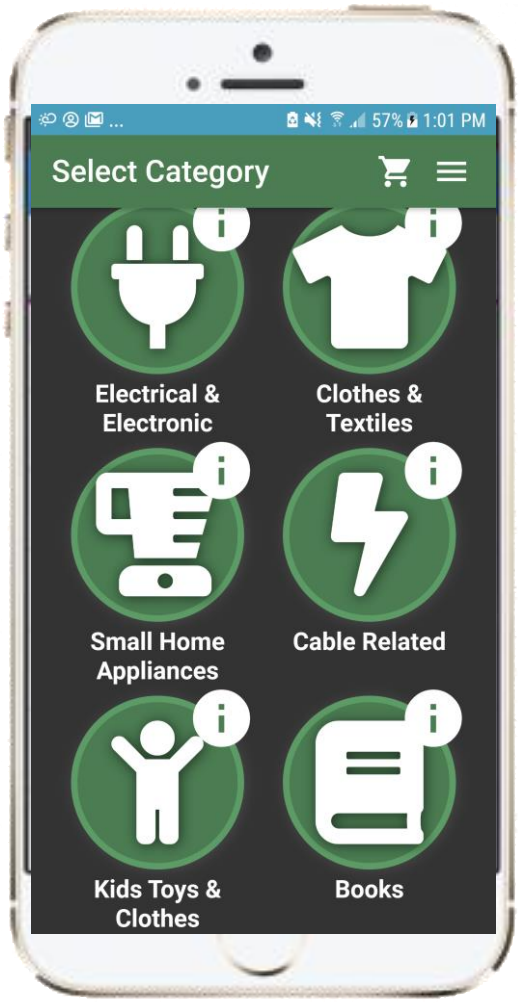

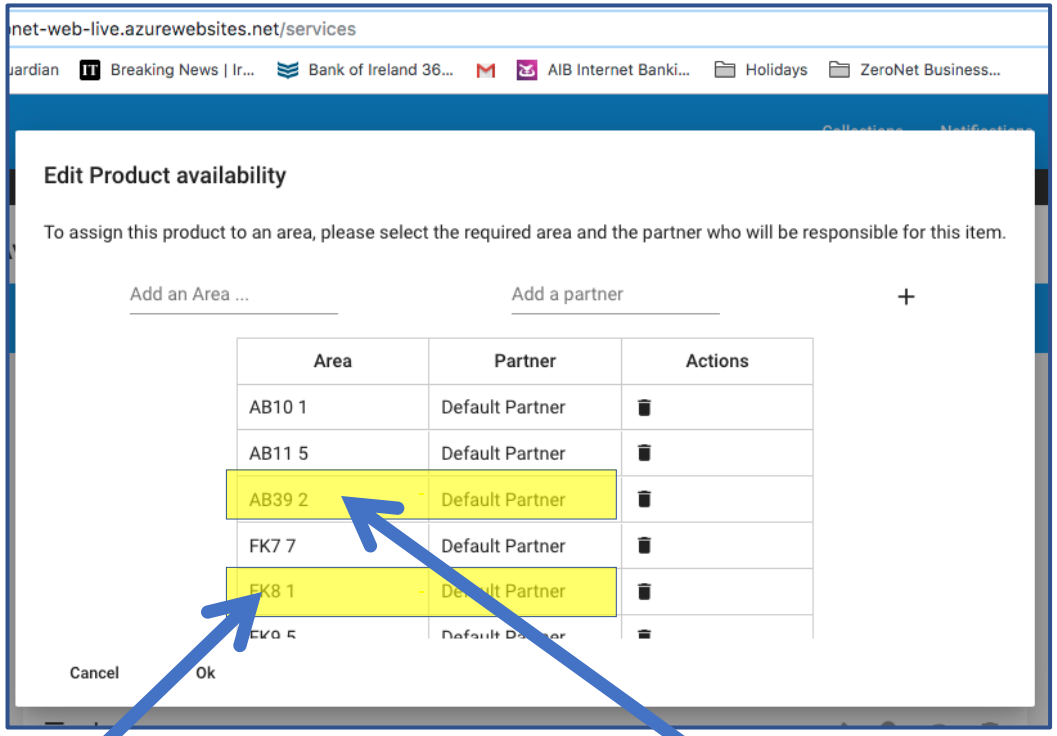

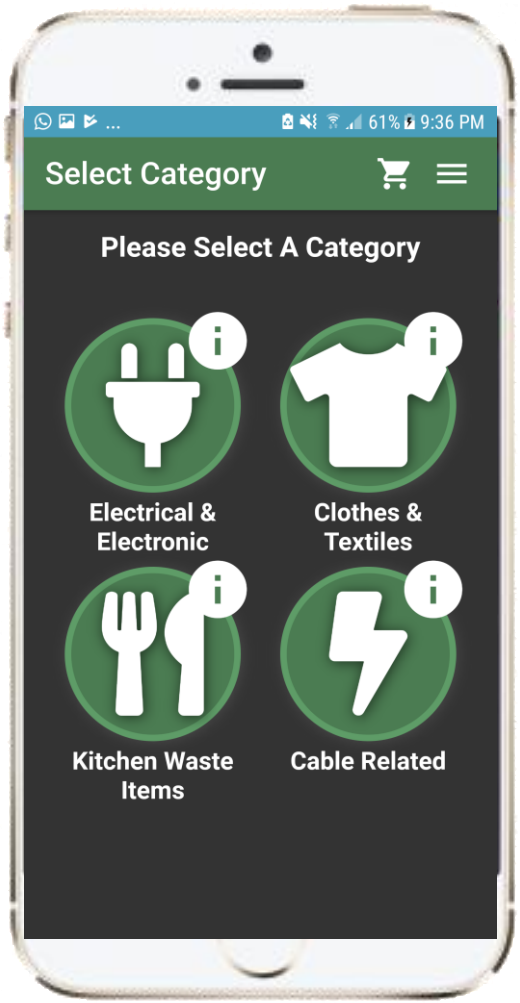

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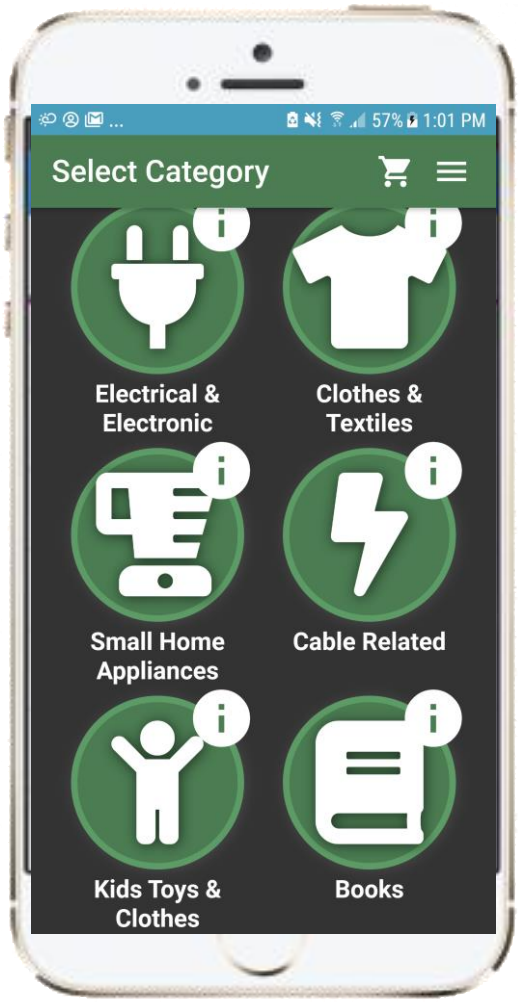

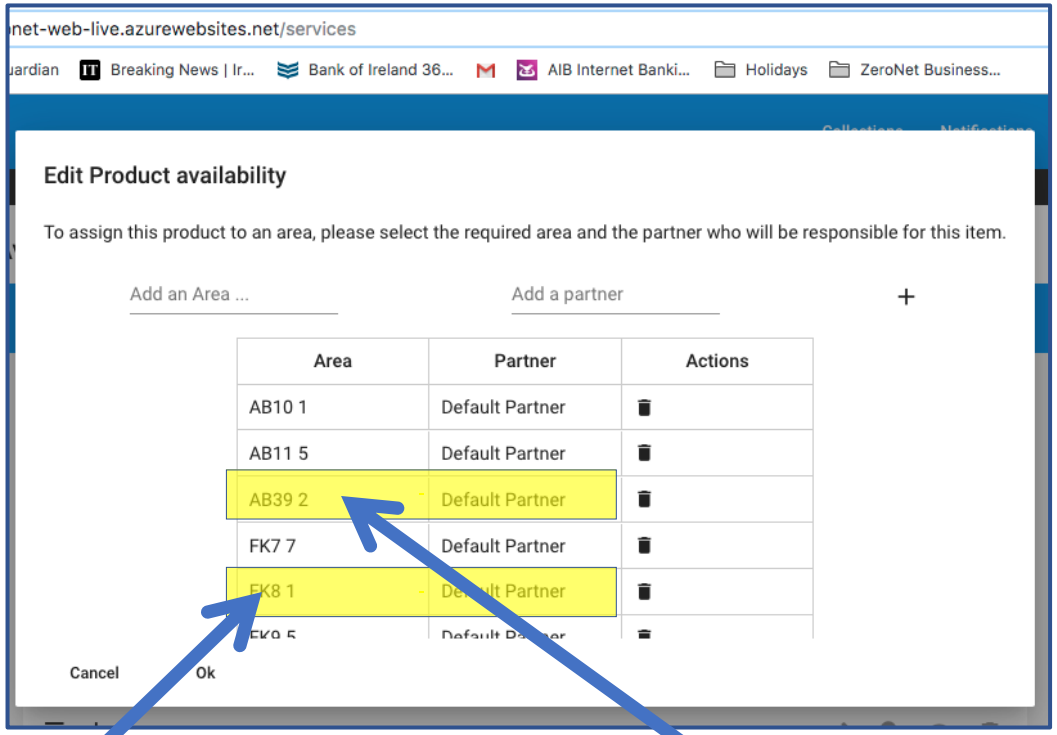

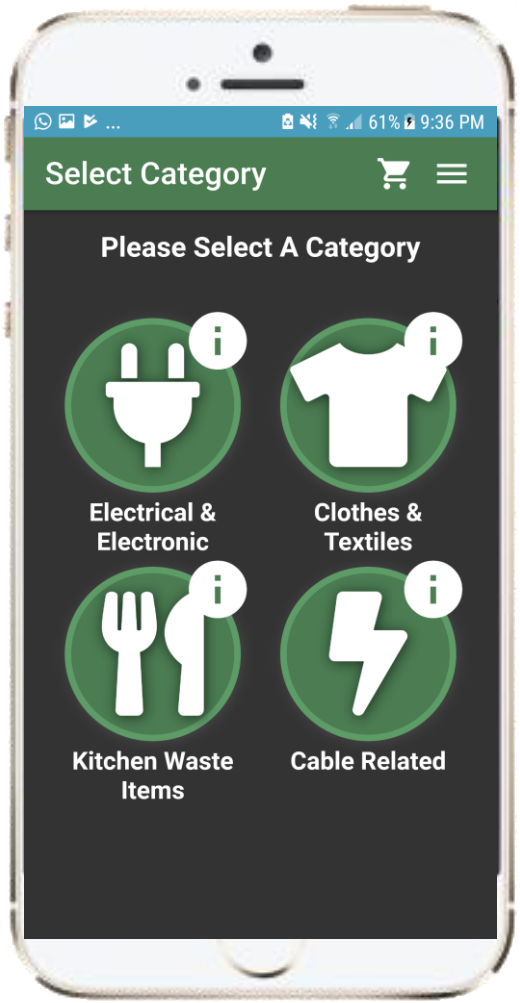

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GET IT ON Google Play

Download on the App Store

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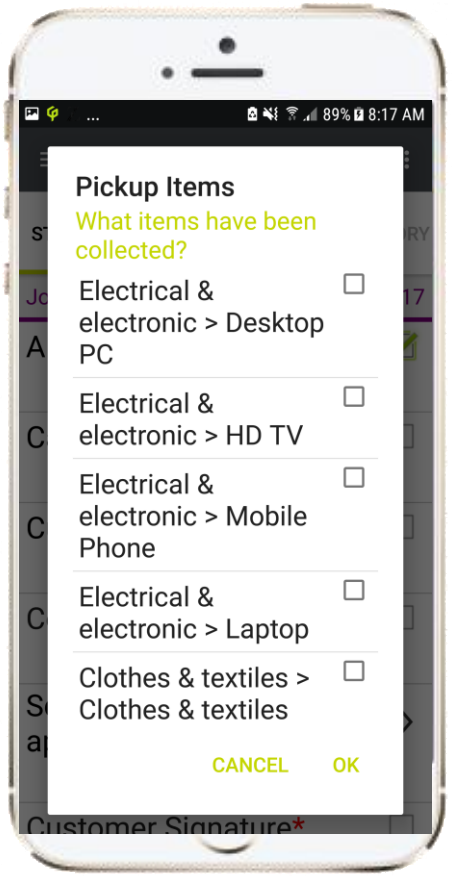
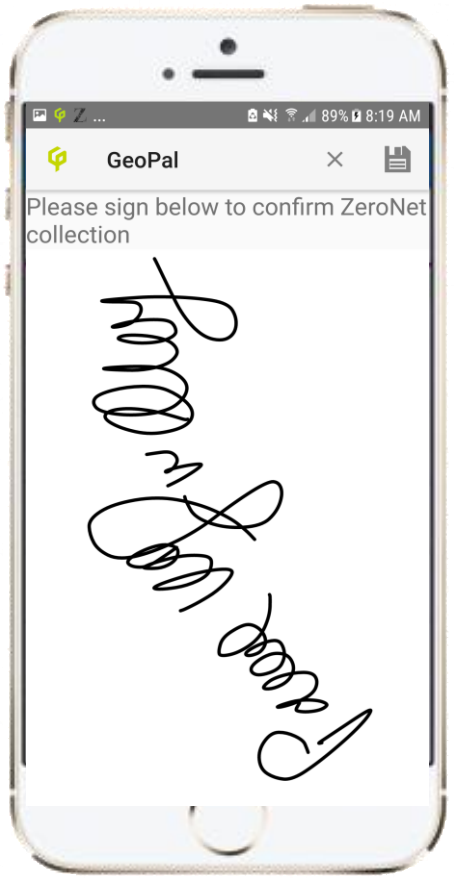
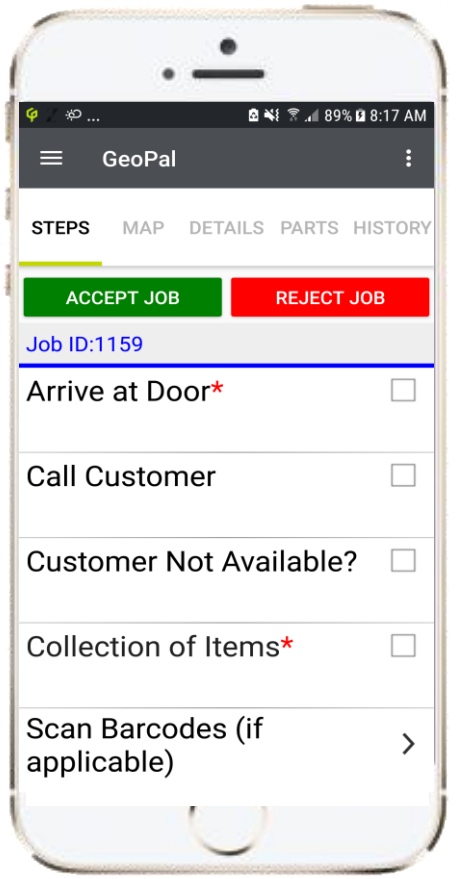
The GeoPal Driver App – Sample screens from actual ZeroNet deployment



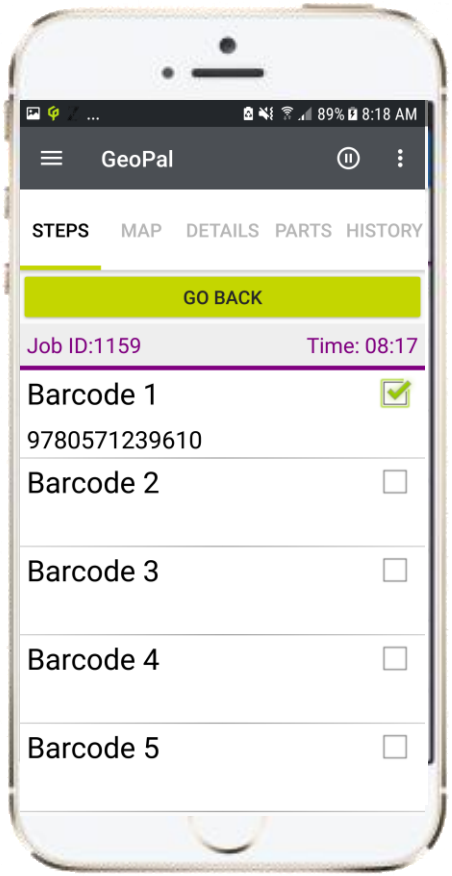
Dynamic pick-up list reflects items created in portal and entered by user



Driver and user signatures Are optional steps



Collection process can be tightly controlled



Any items recovered can be barcoded e.g. data bearing WEEE

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Stirling Trial – March 2019

ZeroNet Stirling trial - Overview

- Took place on 23rd March – ‘Family and Friends’ approach with support from local consultants Enscape
- 78 People approached/23 signed up (30% rate)
- All 23 participated in collection event on evening of 23rd
- No advertising was done – word of mouth produced very high ’hit rate’ (target was 25 households)
- Householder was very positive - see sample comments on next slide

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enscape

ZeroNet Stirling trial - Comments

"My experience with the recycling guys was positive. They were on time, cheery and helpful. The one thing I'd like to have is some kind of audit or trail to be able to follow the stuff to its eventual destination. I'd recommend others to use it if I had more details of that sort. It was very cathartic getting rid of all those cables, though."

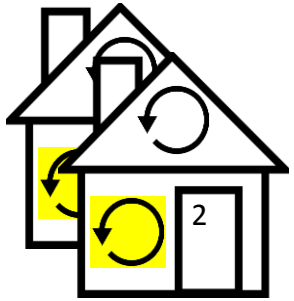
"……..I was pleased with the thank-you message at the end. Makes you feel that you have done something good……."

"……..App reminders were really helpful, had forgotten about the pilot!……."

"……..App easy to use and plenty of updates to keep you informed of when your collection will be……."

"……..Happy that charities are involved – much easier than having to donate in city centre where parking is difficult"

ZeroNet Stirling trial - Learnings



Density and multiple transactions per household is key to a profitable service

- Doorstep convenience was key factor, everyone appreciated this hugely
- ‘Face to face’ collection critical for secure handling of data bearing IT
- Secure destruction of data bearing IT was critical too – feedback via the app a big plus
- Charity and reuse organisations’ involvement is key
- Items recovered – mainly clothing – were generally in v good condition and suitable for reuse

Stirling 2020?

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Creating a model Circular City

Stirling 2020 – The Plan

- **Scale the project to be available in all homes in city – c. 13k**
- **Trial regular existing collection services inc. WEEE, textiles, kids toys, books etc**
- **Partner with reuse and charity sector**
- **Augment existing portfolio, possibly to include bio-waste recovery: e.g.**
  - **Food waste, coffee grinds, pods**
  - **Reverse supply chain – sectoral or branded partners**
- **Consider a 'Closed loop' retail model, or DRS trial**

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