



SCOTTISH CIRCULAR ECONOMY BUSINESS NETWORK

Breakout 2: Re-tek Case Study

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SME ENAGEMENT IN THE CIRCULAR ECONOMY

Objectives

In this session you work with a concrete SME Case Study with specific challenges.

The objectives of the session are:

- **Discuss** and share solutions and best practice that could help this SME grow and innovate while implementing circular economy principles
- **Explore** how similar opportunities could apply to your business or wider business sector. Are there similar challenges and common solutions?
- **Identify** the potential for collaboration in this or similar models. Are there ways in which the SCEBN can provide a supportive role?

Flow

1. **Presentation of business case:** Explore the business model of the case study you are working with, where it is in the supply chain, who the customer target group is etc. 10 min
2. **Analysis:** What are the current circular economy activities? Can you identify other business opportunities that the company hasn't addressed itself? 5 min
3. **Barriers and challenges:** What is limiting the company from scaling up its circular business model or holding it back from embarking on new opportunities? 5 min
4. **Discuss solutions and opportunities:** What type of support would the company benefit from? How do they challenges apply more widely, if they do, and how can they be overcome. Where are the opportunities for collaborative solutions? 40 min

Re-tek UK Ltd

Re-tek recovers asset value through repair, refurbishment and re-use of excess or redundant Information & Communications Technology (ICT) equipment for domestic and international businesses.

The Business Model

The company's focus on re-use rather than conventional forms of recycling and landfill significantly improves the environmental effects and extends the life of the equipment such as PCs, Laptops, Mobile Phones, TFTs. The products, once processed, are presented for sale with warranties to market sectors both in the UK and overseas; particularly in emerging markets where older used technology is considered adequate and good value for money. Goods which are not fit for re-sale are passed to Re-Tek's downstream recycling partner where the constituent parts, e.g. Cables, PCBs, Batteries, Plastics etc are removed for re-use. In 2016, Re-tek received 165k ICT products, re-using and extending the lifecycle of 120k products. This equates to approx. 50 tonne per month being diverted from recycling and landfill based on an average weight of 5kg per unit. WRAP estimate that 1 tonne of electrical items avoids 3.3 tonnes CO2 equivalent. This is relative to a circa 165 tonne CO2 saving on a monthly basis or 1980 tonne CO2 saving annually based on our 80%+ re-use rate. The combination of diverting from conventional recycling and the re-use of goods equates to a significantly reduced environmental impact.

**East Kilbride,
Scotland, UK**

Founded: 1996

Employees: 38

Rev: £3m 2016

**165k products per
annum**

**22,000 sq ft
purpose built
facility**

ADISA Members

**ISO 9001, 14001 &
27001**

**Biomass Boiler,
Solar Panels, LED
Lighting**



The Motivation

Re-tek, by expanding re-use activities to the domestic sector, offers the first dedicated and resourced project in Scotland to target the Consumer to Business (C2B) market. The vision is to develop partnerships that will result in significantly more EEE being captured for resale markets in Scotland using a number of innovative collection models. Relationships will be developed and collections implemented with the following sectors: (1) Retailers (2) Third Sector organisations (3) Education Sector (4) Local Authorities and (5) Private Sector Partnership.

Initial Barriers

In order to drive re-use in the domestic market, Re-Tek contacted the majority of the Scottish Councils to discuss re-use containers in the Household Waste Recycling Centres. A portion of these centres are council managed, whilst others are sub-contracted to Waste Management/Producer Compliance Partners – resulting in differences in decision making processes, involvement of contracts etc. It is not unusual for agreements to forbid the removal of WEEE once it has entered the HWRC which negates any re-use activities. Through collaboration with a proactive PCS we have secured access to 2 HWRCs (council managed) and placed re-use containers for the collection of WEEE. We are keen to extend this service across other HWRCs and other partners such as Third Sector, Education and Retailers. Re-Use yield from the circa 500 units collected per month is approx 20%.

BUSINESS MODEL

Fill in the ReSOLVE levers you identify in the fields below. Do you find additional business opportunities for the company?

Re

Regenerating and restoring natural capital

Re-tek has recently started a new project to capture ICT equipment and recover Critical Raw Materials. The goal is to increase CRM recovery by 5% in 2020 and by 20% in 2030.



S

Maximising product utilisation

The repair of low to med level ICT equipment is not cost effective given the additional touch time requirements of the repair activities. The leaves a % of products repairable but untouched.



O

Keeping products and materials in cycles

In the B2B sector, with 80% yield the majority of products are already reused however the hoarding culture associated with domestic product is proving challenging to place back into circulation.



L

Optimising system performance

Collation of data for various collection models to help identify initiatives that are popular. Disseminating to the various agencies, such as ZWS, can be used to implement messaging to target specific collection models.



V

Displacing resource use and delivering utility virtually

Removing the responsibility of local authorities to collect WEEE through HWRCs is possible through the use of Apps which allow the end user to book in a collection direct from the home.



E

Selecting resources and technology wisely

We require a high re-use yield to cover costs of products that require data erasure yet cannot be sold. As such, we focus on working high value ICT equipment that can be replenished, data wiped and sold.



ADDITIONAL BUSINESS OPPORTUNITIES

Re – Commercialise extraction and recovery of CRMs in collaboration with partner.

S – Despite providing working units with no residual value to charities, we still have a surplus that could be repaired. These units are currently sold for recycling revenues, however a diversion into employment training scheme would provide skill opportunities. The units, once repaired, could be used in Third Sector orgs and for sale to families with low income.



O - Improve messaging relating to domestic WEEE to encourage re-use activities which will in turn benefit the Third Sector and private companies like Re-tek who specialise in data security and erasure
L - A key ingredient to the success of re-use is the collation of data, e.g. HWRC, Education. Based on the data, place focus on the model achieving the greatest returns and multiply across Local Authorities and other agencies involved.



V - The App can help Third Party orgs who collect equipment for reuse activities to provide increased product and revenues. For the private sector, each org has their own specific stream, e.g. ICT, Furniture, and the 'pick up anything' concept of the App would make the sorting of goods difficult and not cost effective.



E - Review capex of equipment to target other product, e.g. white goods.

BARRIERS

Below you find a number of barriers identified by the company. Discuss them and write solutions to overcome them on a separate sheet of paper, flipchart or use post-its with the respective number.

In addition to discussing solutions to the barriers, try as well to identify risks to the business model and mark them with an exclamation mark.



Hoarding culture and the challenges of changing consumer behavior to encourage re-use.

Dramatic reduction of recycling revenues. Pricing paid for metals, cables, PCBs etc. continues to drop (50% reduction in past 3 years). This in turn affects the revenues paid to clients and deems some collections to be chargeable which can result in units being lost to HWRCs.



Very poor uptake of re-use containers amongst Local Authorities, despite government push towards circular economy and low carbon initiatives. This is partly due to contractual agreements with the PCS and the continuing cuts in budgets.

Revenues, in line with the income sharing model to the client base, e.g. Education, Third Sector, are reduced as the quality and quantity of goods received from numerous collection models, is either non-functional or extremely old and as such difficult to recover a re-sale value.



Producer Compliance Partners are not keen to allow access to HWRCs given the revenues generated by WEEE products.

Consumer concern regarding data integrity and the risk of data and identify theft when donating goods or deposit in HWRCs.

The donation process also needs to be easy, i.e. within close proximity of the workplace. HWRCs are generally in industrial areas and can be difficult to reach

