

BI INTERNATIONAL CASE COMPETITION 2020

Main case delivered by:



INTERNATIONAL
CASE COMPETITION



RedoIT

Supplying a safe treatment of expendable IT-devices for
consumers

Written by:
Svein Lund, BI Norwegian Business School,
with help from Bjørn Arild Thon, RENAS
for the International Case Competition
at BI Norwegian Business School, February 2020



RedoIT

Introduction

What does the average consumer do when he or she renews a digital device, a smartphone, a laptop or any other digital device? What happens to the device, or more important, what happens to the data on that device? Can we be sure that the data (some of it might be sensitive) have been securely removed? Have we successfully retrieved all the data we want to keep in a secure way? Does the old device have any value – either as a resalable object or as recyclable material?

All these questions need answers. Large companies usually have the necessary knowledge and employees to take care of these problems, but the average consumer and perhaps a number of small businesses do not. RedoIT is a project that addresses these problems.

RedoIT is a project established by RENAS, a company that collects and recycles electronics and electrical equipment, and WorkIT, a small company situated in a town outside Oslo employing people who have problems adapting to normal work life. WorkIT will be responsible for securing and deleting data from the devices, securing valuable components and materials, and perhaps rebuilding devices for resale. RENAS will be responsible for the logistics, the collecting of devices, the sale of components and materials and the sale of the rebuilt devices.

RedoIT is a pilot project. If this is a success, RENAS would like to scale it up to the national level – partnering with companies similar to WorkIT in other parts of Norway and establishing services there. This will again require a national logistics plan, partnering with companies that can collect devices from customer and delivering them in a secure way to the company in question.

RedoIT is in the process of being established. A number of certifications need to be attained and process need to be formalised. They also need a business model. This will be your task – developing a business model both for the initial RedoIT project and for the up-scaled national version. The business model should also include a model for marketing the services, both locally and on a national basis.



RENAS was established 20 years ago and is owned by Elektroforeningen (EFO) and Elektro og Energi – a branch association in The Federation of Norwegian Industries (Norsk Industri), an employers’ organisation in Norway. RENAS’ purpose is to provide a cost effective and environmentally friendly collection, treatment and recycling of electrical and electronic waste (WEEE – Waste electronic and electrical equipment).¹

The EU Directive on waste electronic and electrical equipment (WEEE Directive) requires producers to join an authorised producer compliance scheme (PCS). RENAS is Norway’s leading WEEE compliance scheme and also offer producer compliance for waste batteries and packaging.

RENAS is a non-profit organisation owned by trade organisations representing their member companies. They apply a fully transparent pricing mechanism. The fees collected only cover the actual costs of waste collection and handling.

RENAS takes on the collection, treatment, recovery and environmentally sound disposal of WEEE. They also offer producer compliance for waste batteries and packaging through high quality partners.

Through a combination of experience, knowledge, high standards and accountability RENAS holds the leading position in the Norwegian market. More than 3000 national and international member companies from a diverse range of industries have made RENAS their preferred partner.

¹ <https://renas.no/english/>

Extended Producer Responsibility

OECD *defines* Extended Producer Responsibility (EPR) as an environmental policy approach in which a producer's responsibility for a product is extended to the post-consumer stage of a product's life cycle. An EPR policy is characterised by:

1. the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and
2. the provision of incentives to producers to take into account environmental considerations when designing their products.

While other policy instruments tend to target a single point in the chain, EPR seeks to integrate signals related to the environmental characteristics of products and production processes throughout the product chain.²

Extended producer responsibility means that the producer, in addition to being responsible for the product until it is fully recycled, must take into account the recycling process when designing and manufacturing its products. Producer responsibility means they have to cover the cycle cost at the time of purchase of the product. Cycle cost is therefore included in the price when the product is sold. An environmentally friendly design and production would therefore lower the products sales price.

Returfellesskapet³

Together with two other non-profit organisations, Batteriretur and Grønt Punkt Norge, RENAS has formed the organisation Returfellesskapet.

Batteriretur⁴ collects all types of batteries from all over Norway.

Grønt Punkt Norge⁵ collects packaging from all over Norway for recycling.

² <http://www.oecd.org/environment/extended-producer-responsibility.htm>

³ <http://www.returfellesskapet.no/#Om-Oss-Seksjon>

⁴ <https://batteriretur.no/>

⁵ https://www.grontpunkt.no/?qai=cpc&gclid=EAIaIQobChMI1ciw7eCw5wIVCM-yCh0xbwiaEAAYASAAEgICh_D_BwE

WorkIT

(WorkIT is a fictitious name for the company described. You will not find it on the net. However, the description is accurate, and many companies like WorkIT exist in many towns of a certain size in Norway).

WorkIT's vision is to facilitate for active labour participation for people who fall outside the ordinary work life in the region. WorkIT is owned by the municipalities in the region. They offer different programmes.

- **Work Preparatory Training:** This programme aims at people whose ability to find a normal job, for some reason, has been reduced. The goal is to evaluate and train the person with the aim of him/her returning to the regular workforce, in a job he/she masters.
- **Permanent Adapted Work:** This programme aims at people with a permanent disability and who have been granted disability benefit from the government. The people are trained in individually adapted programmes, at specific tasks they master. The goal is to integrate these people into regular jobs, the government subsidising their wages if employed in a normal company.

RedoIT

RedoIT is a department at WorkIT that specialises in performing IT-related tasks. The tasks they perform are copying data from devices, secure deleting of data, dismantling devices, reassembling devices, securing components for reuse, securing materials for recycling, etc. All the employees have thorough training and are followed up closely. All the tools and equipment used in the department are of the highest quality. The result of their work is in compliance with the National Security Authority.

RedoIT targets consumers and small businesses as their customers. Customers can hand in devices and be sure that all sensitive data on the device has been securely deleted and that wanted data has been secured and handed over on a memory stick. The device, if still quite new, can then be repaired/prepared and sold as second hand. If reselling is not possible, working components can be secured and used when preparing other devices for resale and valuable materials (see below) can be secured for recycling.

In 2013, 174 million mobile phones were shipped to Western Europe. The potential for recovering valuable materials from these phones is:⁶



The competition

There are a number of customers offering much the same services as RedoIT. DRIG⁷, Alternativ Data⁸ and Greentech⁹ are three of these companies. However they mainly target businesses. RedoIT will have an advantage of targeting ordinary consumers and small businesses – supplying the same services at a lower cost.

Circle Economy ¹⁰

Circular economy is a manifestation of economic models that highlight business opportunities where cycles rather than linear processes, dominate. It is restorative and regenerative by design and aims to keep products, components, and materials at their highest utility and value at all times.

In today's established economic systems, goods are produced, used and discarded, a linear economy where the flow has a clear beginning and a clear end. A circular economy works quite differently. Products and services in a circular economy are designed in a way that allows them to be reused, either in the biological or technical cycles.

⁶ <https://eurometaux.eu/about-our-industry/the-metals-story/recycling/>

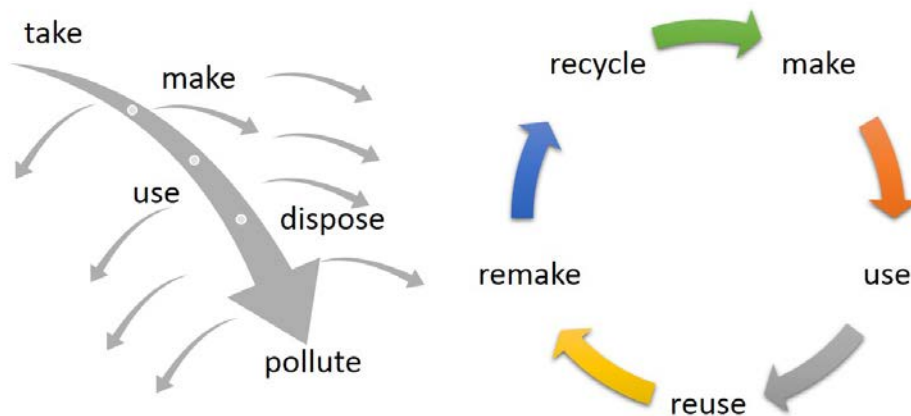
⁷ drig.no

⁸ https://www.ad.no/?gclid=EAIaIQobChMInZmv8J2z5wIVAhUYCh1r1wdDEAAYASAAEgJx1vD_BwE

⁹ <https://greentech.no/>

¹⁰ <https://sustainabilityguide.eu/sustainability/circular-economy/>

All products are manufactured in a way so they can be disassembled and materials will either be broken down by nature or returned to production. Biological material therefore consists of non-toxic, clean feeds and technical materials are designed to be a resource to be used industrially again. The goal is to throw nothing away and to reduce the need for purchasing new commodities, while production and transportation is best achieved with renewable energy.



CC 3.0 Catherine Weetman 2016

With the RedoIT project, RENAS will be contributing (as it does with all the work it does) to implementing, or even introducing, circular economy to the consumer IT-industry. A safe and sustainable way of disposing of IT-devices has been lacking. When you hand in your device to RedoIT you will be sure that all your sensitive data will be securely deleted, and the value that the device represents will be taken care of with either the remake and resale of the device, the reuse of valuable components or the recycling of scarce and valuable materials.

Conclusion

RedoIT is a project established by RENAS, a company that collects and recycles electronics and electrical equipment, and WorkIT, a small company situated in a town outside Oslo employing people who have problems adapting to normal work life. WorkIT is not the company's real name. We have chosen to rename it to WorkIT. But the company does exist, and the description of WorkIT matches the description of the real company. WorkIT will be responsible for securing and deleting data from the devices, securing valuable components and materials, and perhaps rebuilding devices for resale. RENAS will be responsible for the logistics, the collecting of devices, the sale of components and materials and the sale of the rebuilt devices.

RedoIT is a pilot project. If this is a success, RENAS would like to scale it up to the national level – partnering with companies similar to WorkIT in other parts of Norway and establishing services there. This will again require a national logistics plan, partnering with companies that can collect devices from customer and delivering them in a secure way to the company in question. Remember that *secure* is the key word here. Transport has to be secure, the deleting of data has to be done in accordance with regulations given by Norwegian authorities. Companies doing this work should be able to officially certify that all data deleting has been done in accordance to these regulations.

RedoIT is in the process of being established. A number of certifications need to be attained and process need to be formalised. They also need a business model. This will be your task – developing a business model both for the initial RedoIT project and for the up-scaled national version. The business model should also include a model for marketing the services, both locally and on a national basis.

RENAS is anxious to start up the RedoIT project as soon as possible.
Bjørn Arild Thon is greatly looking forward to your solutions.

Good luck!