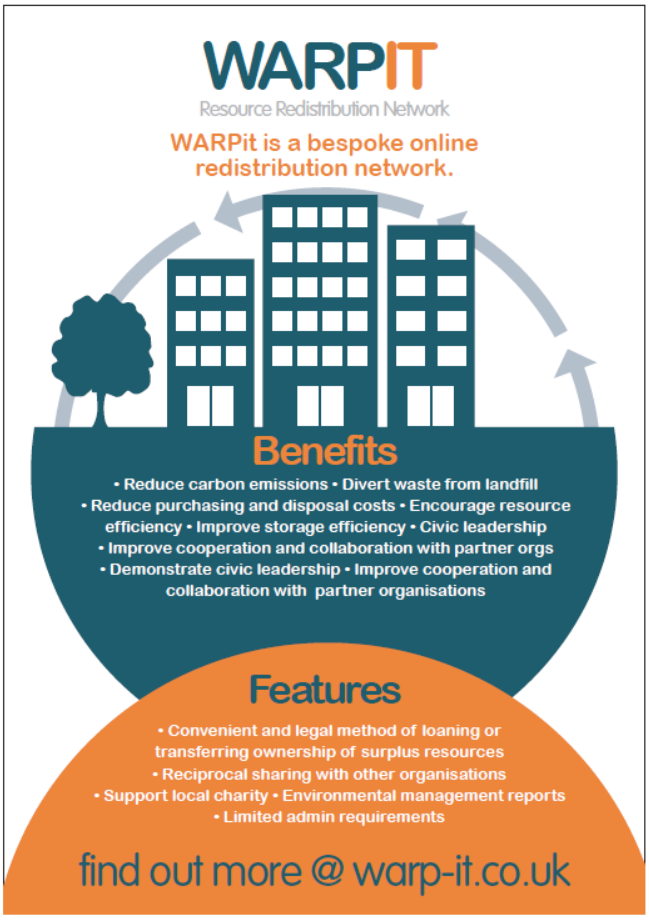
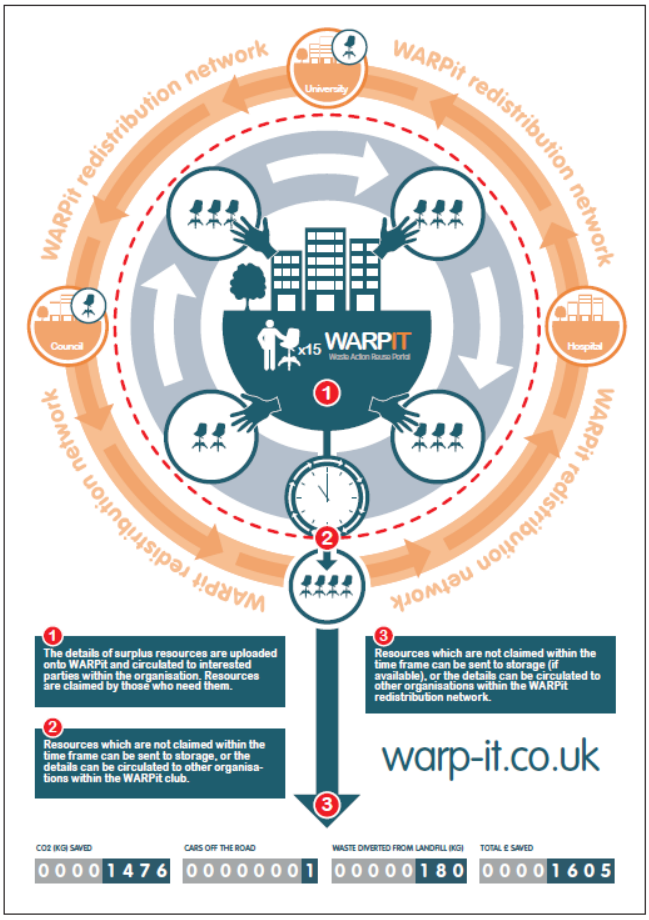
Case Study

Resources Re-use: University of St Andrews





The University of St. Andrews implemented WARPit, an online redistribution network tool to reduce carbon emissions and waste by avoiding unnecessary purchase of new items of furniture and other materials.

"The University of St Andrews recognises the impact of the transport, treatment and disposal of resources and subsequent wastes on our local and global environment, and on our carbon footprint.

We are committed to reducing this impact through the continued improvement of our Recycling and Waste Management practices, challenging our Procurement practices and promoting sustainable behaviour amongst members of the University community." - **Barbara Aitken, Environment Officer at the University of St Andrews.**

Key facts

- The University of St. Andrews implemented the WARPit tool to help facilitate re-use of furniture and other materials within the organisation.
- WARPit is an online tool that allows surplus resources from one department to be listed, ready for another department to claim as and when required.
- Items suitable for reuse are uploaded onto WARPit, an expiration date is set for when the item/s must be claimed and removed by.
- The University of St Andrews is partnering with local charities and schools on WARPit. This means that if an item is listed on WARPit and not claimed by a staff member, it will become available to their partner organisations.
- The tool automatically quantifies financial, waste tonnage and carbon savings in real time, therefore demonstrating the business case for furniture reuse.

Location

The University of St Andrews is unusual for a Scottish university being located, not in a city, but in a small coastal settlement in North East Fife. The University is an integral part of the burgh employing over 2,000 staff (of over 100 nationalities) and with over 7000 students in residence during term time.

The campus is spread over several geographic locations within the town, comprising over 140 buildings as well as playing fields and agricultural land.

Rationale

On joining the Estates Team, the Environment Officer at the University of St Andrews, Barbara Aitken, was struck by the large number of resources that were being disposed of to landfill that could have been reused within the University or deployed to local schools or charities for reuse and/or refurbishment.

It was reported that this practice of disposing of items rather than reusing and redeploying them within the University was due in part to an underused message-board style system to advertise furniture for reuse, a lack of storage space and there being no formal re-use policy in place.

The Estates team recognises the potential environmental and financial benefits to the University of re-deploying valuable resources within the organisation and the opportunity to demonstrate corporate social responsibility by supporting local schools and charities.

Scheme overview

To allow for increased diversion of waste from landfill and to facilitate a more 'closed-loop' nature to the University's waste management operations, it was decided to implement a single system that would register and track all surplus resources.

The University Estates team were drawn to the 'WARPit' re-use Portal, an online redistribution network tool developed by a company, Waste Action Resource Efficiency. Once users are registered, the tool enables individuals in an organisation to give away or loan unwanted items to others inside the same organisation or beyond. It is a subscription-based service priced at £250 per year for small organisations (<50 employees), £500 per year for medium-sized organisations (50-249 employees) and £1,000 for large organisations (250-5000 employees).

This system can be used for any unwanted resource for example, furniture, electrical items, specialist items (such as engineering, medical research and lab equipment), fixtures and fittings and office consumables such as unused inkjet cartridges, stationery etc.

Once a lead member of staff of an organisation subscribes to WARPit, additional user accounts can be created allowing wider access to the organisation bespoke web portal. Staff can then post a description of available unwanted items of furniture for donation or loan to other members of staff in the same or partner organisations. An email notification or regular digest of items recently posted onto WARPit can be sent to all registered users if requested.

The WARPit tool provides estimates of weight of waste diverted from landfill, cost savings (from both avoided procurement and disposal) and CO_2 savings, allowing users to track the benefits of the re-use activities. This function can be useful to assist with reporting requirements as well as gaining further support from senior management and staff, through demonstrating the quantified savings of any planned re-use activities.

Scheme implementation

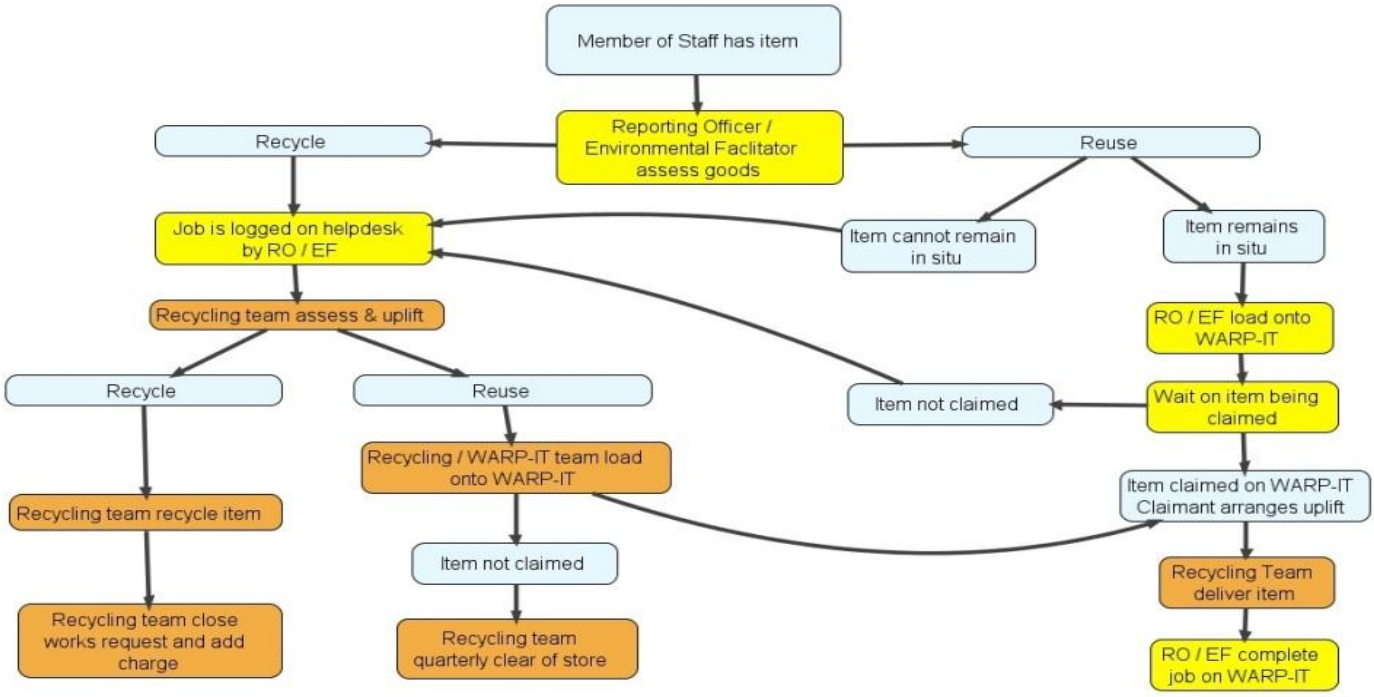
It was clear to the Estates team that the WARPit tool would be very useful in terms of redeploying resources within the University. Initial challenges were encountered in gaining support from senior management for the upfront financial outlay for access to the tool.

The University opted for a three-month trial membership of WARPit. Within this time period, the automatic savings calculation function of the tool, allowed the Estates and Environment team to present a business case to senior management to secure funding that would allow for an upgrade to full membership of the tool.

WARPit integrates with the University's existing Facilities Management System to enable items from WARPit to be uplifted, delivered and stored by Estates. A request for unwanted items to be uplifted is logged in the Facilities Management System, prompting the Estates team to collect the item. Details and a photo of the item are then entered onto WARPit.

During the trial period the logging of items on WARPit was managed by the Estates Environment team however, once the WARPit tool is fully rolled-out in 2013, items for reuse will be logged by the University's Environmental Facilitators (Environmental Champions within Schools and Units) and Reporting Officers (School and Unit staff designated to log faults and minor maintenance requests). All staff are able to log-in, view and claim items. The diagram below illustrates how WARPit will be used in practice at the University when the system is fully rolled-out.

Figure 1 Diagram to illustrate how WARPit will be used at the University once fully rolled-out in 2013



Capital expenditure

There is no capital expenditure directly associated with re-use and redeployment of furniture at the University of St Andrews. The introduction of WARPit required no changes to, or additional, infrastructure such as vehicles and containers, and was easily integrated by the University into existing estates management systems and procedures.

The University is not tied into any contracts for the collection of unwanted furniture so it was quite easy to start using the tool without consulting any third-parties.

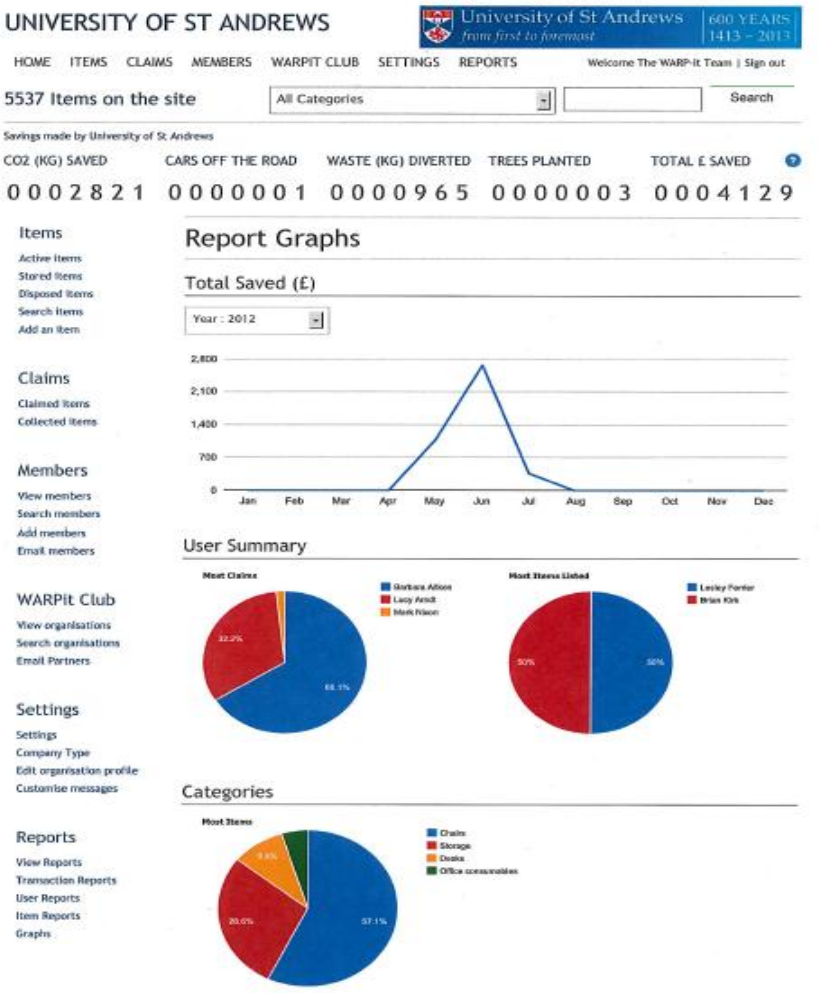
Monitoring and communications

WARPit provides management reports so that the University can monitor CO_2 and financial savings and how much waste has been diverted from landfill. The tool uses DEFRA's greenhouse gas conversion factors to provide indicative carbon savings.

Financial savings are calculated based on average new product prices from public sector contract catalogues combined with information in WRAP's annual gate fee report, which gives details of the current averaged costs of different waste treatment options, based on the assumed weight of each item. This assumed weight is taken from the Community Resource Network's 'Measure Your Treasure' guidelines. Where item weights are not included in these guidelines, weights can be estimated from supplier websites and inputted by users direct to WARPit.

Estimates for the equivalent number of trees planted and cars taken off the road are also given to provide a more tangible savings measurement!

Figure 2 Screen capture showing the data provided within the lead user area of WARPit



Benefits

During the 3 month trial of the WARPit system, the University of St Andrews;

- saved 2.8 tonnes of CO_2;
- diverted 0.97 tonnes of waste from landfill; and;
- saved £4,129 in waste disposal and procurement costs.

It is worth noting that these savings were made before the tool was opened up for access and use by all University staff.

Future potential

Although unwanted items are currently kept in a central storage location until a need arises for that particular item elsewhere in the University, the Environment team hope that when the tool is fully rolled out to all staff, items can be kept in-situ until they can be collected by a claimant.

The WARPit tool allows for an expiry date to be set on the listing for each item by the advertiser. The Environment team hope to utilise this feature so that if items are not claimed before the expiry date, they could be collected by the Estates team and kept in the central storage room before being re-advertised on WARPit or donated to charity as appropriate. By keeping items in-situ as far as possible, issues relating to lack of central storage once the volume of reusable items listed on WARPit increases would hopefully be alleviated.

The University is also confident that the tool will be used for a wide range of resources. Fixtures and fittings such as shelving, electrical items, consumables such as inkjet cartridges and lab glass ware and books are all potential candidates for re-use or redeployment within the university.

There is also exciting potential for extending use of the WARPit tool to wider local networks such as social enterprises, schools, hospitals, councils and businesses, thus widening the impact and the scale of materials being re-used.

Lessons learned

Through the initial use of WARPit, the University identified solutions to a number of potential barriers to re-use and redeployment of resources on their sites.

Once WARPit is fully rolled-out in 2013, it will be important to ensure that there is a sufficient 'float' of unused furniture to help prevent staff thinking that they won't be able to find the furniture they want.

A communications campaign will be run alongside the launch to highlight the 'as good as new' angle of re-use. The aim will be to counteract any negative opinions amongst staff about furniture items that are not brand new, in terms of aesthetics, durability, functionality, etc.

From experience of implementing other waste prevention initiatives at the University, the Estates team know that it will be crucial to ensure that the process of redeployment is as easy and accessible as possible for staff. This will be facilitated through having the central item store and through the use of existing estates management processes to request collection and transport of reusable items.

"I see the WARPit tool as a very effective stock-control system, much like an asset register, so that the University is better able to manage its resource use and waste. By integrating re-use into the University's waste and procurement policies and using WARPit as a comprehensive asset tracking tool, furniture procurement activities can be more closely linked with departmental refurbishments to further reduce waste" - **Barbara Aitken, Environment Officer at the University of St Andrews.**

Acknowledgements

With thanks to Barbara Aitken, Environment Officer, Bill Close, Grounds Foreman and other staff at the University of St. Andrews who provided information for this case study.

Disclaimer

This case study focusses on the WARPit tool as that was the system chosen by the University of St. Andrews as the tool that best meets their requirements as part of an effective re-use system. However, it should be noted that other tools and systems to facilitate re-use within and between organisations do exist and that this case study does not necessary infer Zero Waste Scotland's preference for the WARPit tool over any other.

Zero Waste Scotland
Suite 1b, Hillside House, Laurelhill Business Park,
Stirling, FK7 9JQ.

E-mail: helpline@zerowastescotland.org.uk
Helpline freephone 0808 100 2040
www.zerowastescotland.org.uk

Printed on 100% recycled paper

While steps have been taken to ensure its accuracy, Zero Waste Scotland cannot accept responsibility or be held liable to any person for loss or damage arising out of or in connection with this information being inaccurate, incomplete or misleading. This material is copyrighted. It may be reproduced free of charge subject to the material being accurate and not used in a misleading context. The source of the material must be identified and the copyright status acknowledged. This material must not be used to endorse or used to suggest Zero Waste Scotland's endorsement of a commercial product or service. For more detail, please refer to our Terms & Conditions on our website: **www.zerowastescotland.org.uk/terms**