

University of Warwick Impact Report

Case study of a one-year pilot trial of the asset resale service ‘UniGreenScheme’ at the University of Warwick.

Number of items collected

280

Avoided Disposal Costs (£)

£ 1,637

Number of items sold

154

Sales rebates received by the
University of Warwick (£)

£ 4,518

Net weight (kg) collected for resale

6,551

Net financial benefit for the
University of Warwick (£)

£ 7,544

CO2e (kg) saved through re-use

5,702

Net financial savings for the
research industry (£)

£ 12,386

Staff time saved (£)

£ 1,387



A surplus reaction chamber being collected from the Department of Chemistry.

The Problem

Departments across the University of Warwick are regularly purchasing new equipment in order to maintain world-class facilities. With new purchases, older equipment quickly becomes redundant and falls out of use.

Until recently, internal reuse (with often limited success) or disposal were the only options for departments for clearing obsolete equipment. Research staff would usually choose to store obsolete equipment, often for many years, to avoid throwing working equipment away.

But over time, obsolete equipment can accumulate significantly leading to cluttered facilities and over-filled store-rooms, taking up valuable space.



This laboratory at the University of Warwick was filled almost entirely with obsolete equipment, and so the lab space was unusable.



These two valuable instruments, an Agilent ICP-MS and Varian GCMS had both sat unused in the University of Warwick Department of Chemistry for over a year.

The UniGreenScheme Solution

To tackle this problem, in 2017 the University of Warwick signed a contract for UniGreenScheme – an equipment resale service. UniGreenScheme would collect surplus equipment from the university, process it for sale and return a share of the profits to the relevant departments.

UniGreenScheme indemnified the university against all product liability for the testing and onward distribution of the equipment, thus protecting the university from risk.



UniGreenScheme made 15 collections from the university campus over the course of a year.



The equipment was processed and sold on by UniGreenScheme to research facilities worldwide.

It was hoped that the UniGreenScheme resale service would prevent waste through external reuse and increase financial efficiency by providing rebates on obsolete equipment.



This large Viking milling machine was surplus to requirements in the Department of Physics.

UniGreenScheme removed it for resale saving the department considerably in removal costs alone.

Environmental Impact

Weight (kg) items collected	Weight (kg) items sold	CO2e (kg) savings from items sold
6,551	1,749	5,702

Over 12 months, UniGreenScheme collected 6,551 kg of surplus items from the university, the majority of which was research equipment from the laboratories. So far, only 1,749kg of this has sold, but a further 4,802kg of equipment is still held in stock awaiting sale.



Example items collected from departments across the University of Warwick campus.

The significant amount of equipment still held in storage is not surprising given the niche nature of research equipment.

For example this Danfysik Magnet Power supply was collected from the Warwick Chemistry department. The technical team were not sure of what it did, or its working condition.

Ultimately it was sold through UniGreenScheme to an electronics engineering company in Essex, **but it took nearly a year of storage between collection and sale to find the right buyer.**

The resale of equipment saved 5,702kg of CO2e, by preventing the unnecessary manufacture of new equipment, and there are a further 15,654kg of CO2e to be saved if all the equipment collected over the 12 months ultimately sells.



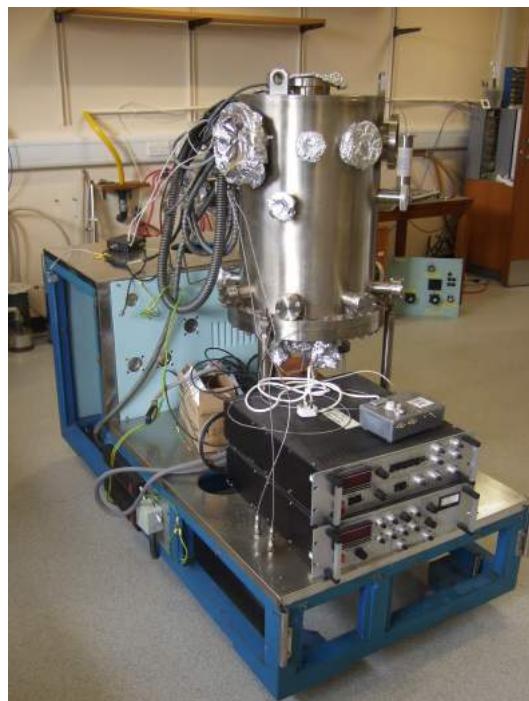
Financial Impact

Total rebates paid to University (£)	Estimated savings for University (£)	Net financial benefit for the University (£)
£4,518	£3,024	£7,544

From the equipment sold so far, the university has already received £4,518 in repayments from equipment sales. This was generated without any other additional costs to the university.

Moreover, the university saved a further £1,387 in staff time, as UniGreenScheme carry out the equipment removals, and saved £1,637 in avoided disposal costs. **This means the net financial benefit to the university was £7,544.**

However, the net financial benefit is expected to continue to rise as more of the equipment held in stock sells. For example, UniGreenScheme currently store three ultra-high vacuum chamber systems for the Department of Physics whilst they await sale.



One of the three ultra-high vacuum systems collected from the Department of Physics.

External Impacts



In addition to the financial savings for the University of Warwick, each resale provided a financial benefit to third-party.

The buyers of equipment were able to buy second-hand equipment considerably cheaper than newer alternatives, and the total external saving from sold equipment is estimated **as at least £4,842 vs equivalent new purchases.**

For example, this Edwards vacuum pump sold to a research lab in Stirling for £600, but a similar pump would have cost the company £2,500-3,000 to buy new.

Resale of Other University Assets

During the course of the pilot trial, it became apparent there was a demand for a resale service in other working areas of the university, other than just the research departments.



For example, this Bevan Funnell table set with twelve chair had sat in a store-room for nearly a decade unused, but was able to be sold through UniGreenScheme.

UniGreenScheme are also discussing projects with other departments across the university to see where a resale service could be useful.

At other universities, UniGreenScheme have sold gym equipment, catering equipment, IT equipment, toner cartridges, shed and outbuildings, and numerous miscellaneous assets from aeroplane parts to forklift trucks, so there is an enormous potential for the service at Warwick.



This boardroom table and chairs was also sold through UniGreenScheme resale services.

Summary

The first year of implementation of the UniGreenScheme resale service at Warwick was generally a success.

The university saved over £7,000 and further financial savings are expected as more equipment sells.

In addition, over 6,000kg of waste was prevented, and 1,700kg of this is already rehomed in various research facilities across the UK and worldwide.

However, only three research departments at the university used the service during the 12-month period, and far more impact can be achieved as awareness of the service continues to grow and projects accumulate for a wider range of research departments.

Most other universities have seen a two to three fold increase in uptake in their second year, and we look forward to similar results in Warwick over the next year.

"Whilst there is lots more to do, I am very pleased with the first twelve months at Warwick. I look forward to watching the service grow within the university, and seeing more and more equipment being diverted from disposal into re-use".

- Michael McLeod, Managing Director, UniGreenScheme.



There are numerous collections of equipment planned across the campus in the next six months such as this surplus Instron tension testing machine at the Department of Physics.

UniGreenScheme

The Asset Resale Service For Universities

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