Resource efficiency in facilities management

Food waste monitoring triggers improved performance

Contract caterer Elior turned to WRAP for advice on becoming more resource efficient. The resulting review highlighted potential savings of over £2,000 on a single site, while monitoring the food waste generated quickly led to a more cost effective, less wasteful method of working.

Background
Elior is a leading provider of food and integrated services, operating across a wide spectrum of sectors including business and industry, education, defence and healthcare. The company employs some 10,000 people. Recognising the impact of food services on society, it has made sustainable development an integral part of the business strategy.

At TDK-Lambda’s manufacturing site in Ilfracombe, Elior provides breakfast and lunch to 315 employees in addition to offering an all-day vending service. Elior’s Regional Director for the South, Mark Hall, described the drivers for becoming more resource efficient as three-fold: "Legislation, corporate responsibility and cost all play their part.”

"We have to ensure that we are compliant with the law, and we also want to do what’s right for the environment; we are a large player and since one of the largest waste streams in the modern world is food waste, we need to act on that.

Cost is also a big issue at the moment; food costs are increasing, along with transport costs, which are a key factor on food price increases. So any way that we can reduce wastage and consequently reduce food costs represents an achievement.”

Mark Hall, Regional Director for the South, Elior

Key facts
- Recycling rate at TDK-Lambda was already high – 97% across the site
- WRAP’s Resource Optimisation Review highlighted potential cost savings of £2,441
- The staff restaurant serves 315 employees. Monitoring food waste by weight rather than cost has had a significant impact

Resource Optimisation Review
At TDK-Lambda in particular, resource use was already a major focus. TDK-Lambda boasts a recycling rate of 97 per cent across the site, so Elior needed to address food wastage in order to meet client expectations. WRAP conducted a Resource Optimisation Review at the site, suggesting a range of initiatives that offered possible annual cost savings of £2,441, diversion of 1.6 tonnes of waste from landfill, and 2.6 tonnes of CO₂ equivalent saving.

The greatest potential came from a change in the management of food waste. Elior swiftly implemented a food waste monitoring system to assess wastage and realized that it was wasting greater levels than imagined. Elior previously had systems in place to monitor food wastage, but figures were recorded in cost rather than weight.

Monitoring
Although a target of three per cent was in place for order production waste, assessing by weight led to immediate behaviour
change. Hall explained: “Recording our wastage by weight has helped us enormously. In the first week, the chef manager phoned me to say he couldn’t believe that they had filled a whole bag of food waste. Previously, we had no indication on the volume being wasted. If anything, just holding on to the waste before disposal allows you a clear view of the quantities.”

**Stakeholder input**
The Resource Optimisation Review began with a stakeholder meeting between WRAP, Elior and TDK-Lambda, to outline the problems around wastage and assess the impacts of the food waste stream. WRAP then followed up with analysis of Elior’s activities before drawing up an action plan of suggestions for improvement.

**Quick wins**
Hall said: “Some of the disposables such as cutlery and tableware offered quite an easy solution – we were using polystyrene and the obvious solution was to remove those and move to a biodegradable product, or use china instead. So there were some quick wins, but also longer term concepts of what we need to do regarding food waste.”

**Behaviour change**
Since monitoring started, changes have already been put in place. For example, it became obvious that food preparation techniques could be tweaked to improve efficiency and the chef manager organised a training session to demonstrate the correct way to prepare fruit and vegetables for minimum wastage. Staff have also been keen to participate, suggesting menu ideas that make use of items that were previously un-utilised, such as the cooking of parsnip peelings to make soup.

This technique acts as an extension of the company’s already rigorous menu planning system. Hall explained: “For our Kitchen Planner we look at what’s in season, and also receive a market report from head office which tells us which items are likely to be difficult to source or expensive. For example, because of the drought in the South East, cauliflowers might be producing very low yields, so we would remove them from our menus and replace them with broccoli. We also check information such as the number of people likely to be on site and consuming food, and we base our ordering on these figures.”

The system works well, with only 1.6 per cent of the annual food budget unsold. However, recording data on food waste will help the company to reduce this still further.

**Key lessons**
Hall says that the use of clear bags when separating food waste has been crucial to success: “When you can actually see the mass, it makes an enormous difference. We learnt quickly that some of the things going in the bins during production – such as the tops from peppers, for example – could be made use of.”

> "The main point for us was that staff were completely unaware of the physical quantities being thrown away. We were always under the belief that we didn’t have a large volume of food waste, because it was being recorded in financial terms rather than weight."
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> Mark Hall,  
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> Regional Director for the South, Elior

**Added potential**
The system has been straightforward to implement, with staff putting waste into bags as they prepare food throughout the day. Elior has also posted signs in the canteen to raise awareness around uneaten food. Additional recommendations arising from WRAP’s site review include an audit of non-food wastes (including packaging) arising from kitchen activities, and further assessment of food waste to identify which
areas of the catering process need to be addressed.

For Elior, the review has already had a major impact, helping it to highlight areas for improvement, cut costs, and demonstrate its commitment to resource efficiency and the environment. The company is exploring the potential for a separate food waste collection for disposal to anaerobic digestion (AD), which involves the break-down of biodegradable material by micro-organisms producing a compost-like digestate and generating renewable energy. It also aims to apply the monitoring systems employed at TDK-Lambda to other sites around the UK.

"We aim to transfer the knowledge we’ve gained to other sites. We are very much run by having buy-in from our clients, but where we can, we will push it because it’s really worked. It’s been an incredibly simple process that’s had a massive impact. I think sometimes when things are over-complicated it becomes unpractical and there is a danger that things won’t be completed, but this has been really simple, with easy results, and the site staff have been able to see that it’s had a really significant impact."

Mark Hall,
Regional Director for the South, Elior