Imperial College London

Sustainable Procurement Initiatives 2009/10

Imperial College London is committed to its sustainability procurement strategy in all areas of its business and was successful in 2009 of achieving a highly commended Green Gown award for its innovation in use of green ICT in the area of supply chain management.

Imperial is also the first higher education in London to work with Sustain to build a collaborative local procurement network with both public and private sector organisations to source and develop the local supply chain for food.

Green Gown Award – Green ICT

Imperial College decided to save money, improve operational efficiency and reduce its carbon footprint by replacing paper-based procurement processes with electronic ones. By the end of the first year, more than 2 million pieces of paper had been removed from the procurement process, and the savings achieved had covered the £174k cost of the project.

The challenge

Imperial College spends £270m a year on goods and services. The use of paper-based processes for procurement was both costly and inefficient, and the College wanted to be able to streamline its processes with key suppliers in a way that would improve efficiency. The College undertook an analysis of the costs and benefits of introducing an electronic procurement system to replace the paper-based system.

The innovative approach

Imperial College made use of technology it already owned, the Oracle e-Business Suite, to introduce electronic transactions for invoicing, sending purchase orders and selecting items from catalogues. The need to print, photocopy, fax, post and store large quantities of paper was replaced with a set of streamlined electronic processes that saved time as well as paper.

Early work focused on the larger suppliers, though the College now plans to use electronic processes with its smaller suppliers too.

The results

The implementation of electronic processes generated huge savings in paper costs and created substantial improvements in operational efficiency:

- All purchase orders (160,000 documents a year) are now sent to suppliers electronically

- More than 50% of payable invoices are received and processed electronically, resulting in 100,000 fewer paper invoices a year

- All payable invoice approval notifications are now sent out to Imperial College buyers by email together with all approval responses

By replacing a manual process that involved copying invoices and sending and receiving approvals by internal mail, 240,000 pieces of paper a year have been saved.

The introduction of electronic catalogues means that suppliers no longer need to print and distribute catalogues to several hundred users.

The resulting improvements in efficiency meant that the College required fewer staff to carry out its procurement processes, enabling it to redeploy permanent staff and reduce the use of temporary staff.

Other Operational Initiatives

Office Supplies

We are currently renewing our offices supplies contract in collaboration with a number of other higher education institutions. The latest specification includes an even broader range of sustainable products and all of the suppliers are required to meet a wider range of environmental standards. Purchase orders are placed via an online catalogue which has a search function to preference and highlight those products with a high recycled content to aid our buyers in selecting these products. On the award of contract a number of promotion days will be held to promote environmental issues and products with recycled content above all others.

Energy – Facilities Management Procurement

Suppliers have completed the installation of smart metering and voltage optimisation to help monitor and reduce our energy consumption.

An energy working group is also in place to investigate further opportunities to reduce consumption. A recent success is the introduction of new laboratory fume cupboard specifications that will help reduce our energy costs across our laboratories as and when they are refurbished.

The College has signed up to the Higher Education Carbon Trust programme. A number of building surveys have been commissioned with more to follow under the auspices of the Action Energy programme managed by the Carbon Trust. Suppliers have been awarded contracts associated under this programme, which will help reduce our consumption of energy. It is anticipated that energy consumption can be reduced by 15% for some of our buildings. The concept of continuous commissioning has also been introduced to reduce our energy costs and environmental impact substantially.

Green ICT

A number of power saving initiatives have been introduced through the use of existing software tools and improved equipment specifications such as Vpro functionality, which allows switching off personal computers when they are not in use. This has reduced our energy consumption and will save £25 per annum per PC. Software and hardware specifications are reviewed regularly to help minimise energy consumption.

All personal computing equipment is Energy Star qualified, EPEAT Gold or Silver and energy ratings is now included in all our specifications.

The College has procured new servers as part of its replacement strategy that enables the use of computer virtualisation, which has so far eliminated the introduction or replacement of equipment. Even though the need for high performance computing tends to increase the requirement for servers, the use of virtualisation has allowed College to reduce the number of servers by 193 in total. This has not only reduced our total costs of ownership but has had the beneficial effect of reducing energy and space needed to locate this equipment.

New IT systems such as iRecruitment and iRemittances have been introduced to eliminate or reduce the need for paper when recruiting staff and trading with suppliers.

Electronic collaboration tools such as Sharepoint have been acquired reducing the need to exchange information on paper and a new clinical trials system now enables electronic data cap

Print Room Services

The College has awarded a new contract for on-site print-room performing printing and copying services for all staff and students. All printing and copying carried out by the print-room service provider is carried out on 100% recycled paper to maintain standards and consistency throughout the organisation.

Furniture

All of our office furniture is FSC certified.

Workshop furniture is reused wherever possible and the same principle will apply to other laboratories. Further furniture recycling policies are in place to reduce waste and encourage reuse.

Corporate Identity

All paper-based products carrying the College's brand identity (letter headed paper, envelopes, business cards) have been printed on 100% recycled paper since 2003. This is extended to all other major publications in line with our environmental procurement strategy.

Printed documents

Both of our prospectuses are printed on 50% recycled paper. Our staff magazine, Reporter, is printed on 100% recycled paper.

Unified Printing

The College continues to have shared access multifunction devices across all of its sites and has promoted this scheme to numerous universities and other organisations across the UK in the last year. This has resulted in a reduction of energy consumption (using the latest energy saving devices) and the volume of inkjet and laser toners purchased, as well as savings in print costs.

Food Procurement

The College has worked with Sustain to create their first procurement hub in London to purchase locally grown food. This is recognised as a beacon of best practice and culminated in winning a Good Egg award when we switched to sourcing free range eggs.

Rather than disposing of catering waste through the normal waste chain all food waste at our main Campus is now recycled and turned into compost material on-site. This system was purchased from Imperial Machine Company Ltd.

Laboratory Consumables

Departments now recycle non-contaminated glassware and plastic ware via our preferred laboratory suppliers.

Laboratory Equipment

We continue to encourage our suppliers to provide equipment with as little packaging as possible taking account of the need to prevent damage of valuable goods in transit. For example, by having a glass washer delivered on a pallet, in reusable protective cover means we no longer need to recycle large amounts of packaging.

Procurement Systems

All of our purchasing systems are electronic. As noted above this dramatically reduces the amount of resources used by the College's operations.

Corporate Social Responsibility – All key suppliers are to be requested to complete a questionnaire regarding Corporate Social Responsibility and sustainability.

Building Works projects

A CO_2 cooling system extension has been installed in our ICT Data Centre. The provision of additional high density cooling has allowed ICT to increase capacity for the central High Performance Computing (HPC) installation in the Data Centre. This CO_2 cooling system is more efficient than conventional cooling, therefore a higher density of computing equipment can be installed in the same area than with other cooling systems. The use of this centralised CO_2 cooling permits high density computing that is space saving, energy efficient and meets the need for short connectivity distances between computer systems within the HPC cluster.

All construction contracts over £250,000 by value incorporate a site waste management scheme to minimize waste generated.

For new builds and some refurbishments over £5m we are now targeting a BREAAM Excellent rating.

For projects of £300K to £5m we now have a sustainable design toolkit, which is cross referenced to the NBS (National Building Specification) and BREAAM. This incorporates best environmental practice plus allows us to track target and monitor performance similar to BREEAM Very Good, and or Building Regulations plus 20% on carbon emissions.

Sustainable Procurement Group – London

Imperial together with a number of other London higher education institutions has formed a centre of excellence to share knowledge and promote sustainable procurement initiatives across their organisations.