

e-Procurement to Reduce Costs and Carbon Footprint

A case study in Green ICT

Summary

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. 'Supplier buy-in has been crucial to the success of the project,' says John Whitlow, Head of Purchasing at Imperial College.

Internal change had to be managed carefully too, and he says:

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'Cultural changes had to be made within our accounts payable function. There were lots of manual processes in place, and we had to deal with organisational issues, not only in terms of getting senior management on board, but also in terms of changing the way we were working.'

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 reduction in paper usage brought environmental benefits equivalent to savings of:

- 19,512 CO2 kg in paper manufacturing
- 296 trees
- 25,687,272 gallons of water
- 1,132 pounds of air pollutants

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November 2009



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.

Lessons learned

Now that the bulk of the implementation is over, John believes he has learnt some valuable lessons that he can share with other institutions wanting to follow suit:

1. Start consultation with relevant parties early, as the consultation process can take longer than you imagine.
2. Identify suppliers who would be prepared to work with you early on. 'Early wins are important to make sure you get success,' says John. 'You mustn't lose sight of including suppliers in the process, as they're a key party to that.'
3. Spend time making sure your data is clean and in a standard format.

'We had really good quality information that was agreed between all parties, and that meant when you received the data coming back, there was very little intervention needed,' says John.



Imperial College's e-procurement project was highly commended in the Green ICT category of the 2009 Green Gown Awards.

Left to right: Kate Humble (TV Presenter, BBC), Mr John Whitlow (Head of Purchasing, Imperial College London), Mr Amer Mahmood (ICT Project Manager, Imperial College London), Dr Malcolm Read (Executive Secretary, JISC)

Further Information

For more information about JISC's Green ICT programme, visit: www.jisc.ac.uk/greenict

UK Government Sustainable Procurement Action Plan
www.defra.gov.uk/sustainable/government/documents/SustainableProcurementActionPlan.pdf

HEFCE Strategic Statement and Sustainable Development Action Plan
www.hefce.ac.uk/pubs/hefce/2009/09_03/09_03.doc

Improving Procurement in Further Education Colleges in England
www.nao.org.uk/publications/0506/improving_procurement_in_furth.aspx