# The bright, lean, green, IT machine
## New College Swindon

## Project synopsis

The focus of this project was to investigate methods of sustainably reducing the environmental impact of IT in the FE and the wider business sector through case studies, technical articles, workshops and the development of a one stop shop website offering new consultancy services from FE.

The project identified a variety of ways to implement reductions in carbon footprint, through such techniques as voltage reduction, heat pump technology, new lighting technology and cloud computing.

## Project aims

The aim of the project was to help FE colleges build capacity and expertise in Green IT and then sell related consultancy and advice services to businesses (particularly SMEs) helping them to a) save money on IT and related energy costs and b) use IT resources effectively and efficiently.

The project intended to:
- Show FE colleges how to save money on IT and related energy costs
- Develop green IT learning materials for a new course
- Develop a toolkit to help key FE staff to sell Green IT services to businesses

The changes looked for from the project are:
- Trained FE staff who can deliver knowledge to colleagues and businesses
- Sustained value for money (VFM) processes and procedures which help to save money

Measures of success of the project were proposed as:
- A reduction of IT and related energy costs in real terms of at least 10 %
- An increase in the net income for FE College Business Service Units, from Green IT consultancy work
- Number of organisations involved, helping to develop their Green IT strategy

The project is innovative in terms of current sector practice as it will generate a new business stream for FE colleges, promoting and enabling full cost work with businesses.  It will develop sector expertise through the BCS qualification and through lead college involvement with Hewlett Packard and Intel. It also aimed to make an online toolkit available at the end of the project.

## Project delivery

On reflection, it the current economic climate, it has proved difficult for colleges to focus outside their core business, as they strive to optimise staff utilisation in the face of reduced funding.

Although this project offers the potential of full cost income, colleges still found it difficult to commit resource to this project and to recruit sufficient expertise. For example, in the recruitment of Green IT Advisors proved difficult within all three colleges. This has been as a result of not being able to source the essential skills for the project – largely as a result of a skills shortage in the South West. Despite various recruitment drives and interviews, neither Exeter nor Weymouth was able to recruit Green IT experts for the project. As a result, internal staff were seconded to work on the project from various departments (IT, Business Services, Marketing), creating resource pressures due to cuts to resources/funding. It is clear from the communications audit trail that this project was not a high priority for some of the staff seconded to it. New College Swindon used the services of a sub-contractor to provide Green IT consultancy to business, which was successful in enabling the delivery of case studies and articles. Staff for whom environmental management is a core part of their role were able and motivated to deliver against this project's targets. A prime example of this Is Charlie Chestnutt, the Facilities Manager of New College, who led the voltage reduction programme and disseminated his findings at the AoC and Green IT events.

Overall, management of the project suffered in its latter stages through the unavoidable absence of key staff and some long term illness issues.

We have also learned that businesses are slow to react to the needs of Advisors and often improvement and approvals processes take longer to implement than originally foreseen.
If undertaking such a project again, we would recommend that dedicated staffs are employed to manage and deliver the project and that longer timescales for implementation are recognised.

## Project outcomes
The main outcomes are in the following areas:

- development of learning materials,
- sharing best practice with other colleges and
- engagement with businesses.

College staff undertook Green IT Awareness Training. This has been disseminated to other members of the project team and a wider range of college staff. Case studies and technical articles on various Green IT issues have been produced and published on the Lean Green IT website, http://www.newcollege.ac.uk/lean-green-it-machine/case-studies/ . The site also hosts a Green IT Quiz to test knowledge of staff/businesses. The project has a dedicated share point site for the sharing of resources and the external customer facing website has now been launched. This website provides a one stop shop for businesses interested in learning about practical measures in Green IT. Case studies and articles include:

- Using Voltage Optimisation Technology to Reduce Power Consumption within New College Swindon
- Using Heat Pump Technology to provide heat to classrooms from the ICT Server Room
- Energy Saving Lighting Equipment within New College Swindon

The technical articles include:
- Cloud Computing
- The Reality of Virtualisation
- Printer Rationalisation and Environmentally Friendly Print Measures

Colleges have promoted Green IT during events, such as "Green Week" with posters and leaflets distributed to students. Project case studies were presented to at least 30 South West colleges at the AoC Sustainability event in February and at the Green IT seminar in July.

Awareness has been raised amongst staff and students within colleges as a result of these initiatives. Project case studies have been published through the Environmental Association of Universities and Colleges (EAUC). The project was also been extended to incorporate an EAUC development report to help enhance green IT within HE/FE.

Regarding the engagement with businesses, Green IT/Business Improvement Techniques (BIT) Advisors were allocated to develop the case studies and to start engagement with business. A Green IT Survey was circulated by all three partner colleges to in excess of 2000 companies to raise awareness of Green IT issues and measure awareness of the subject. This generated media interest in the project with articles featuring in local newspapers and online. The British Computer Society (BCS) jointly marketed a Green IT business event on 4 July 2011 at New College Swindon and have promoted the Green IT Survey to their professional membership of 70,000. Mark O'Neill, author of "Green IT for Sustainable Business Practice" has agreed to speak at this event.  The seminar in July was extremely well received, with particular interest in the voltage optimisation project, presented by Charlie Chestnutt of New College, Swindon. Client testimonials can be viewed on the Lean, Green IT website. The Green IT survey is still available online.

Advisors have engaged with 14 companies directly on the project with initial "Green IT Audit" meetings have been held with 9 companies to date, and clients report they are already implementing changes.  A presentation to 20 partners of New College Swindon in May resulted in interest from 2 large corporate organisations.

The project has enabled our service users to benefit from the information and services offered through the Lean, Green IT website and has also enabled us to identify new courses that FE colleges could potentially offer in the future, in partnership with BCS and Hewlett Packard. The impact of the project will be sustained in future by continued maintenance of the website, continued savings for FE colleges and businesses through sustainable implementation of, for example, printer rationalisation methods, voltage lowering techniques, use of cloud computing and use of LED lighting. The networking established between colleges and businesses will be maintained through BDMs.

## Sharing of project findings

Project outcomes and learning will continue to be shared through the Lean, Green IT website. We have already contributed to the wider FE sector through presentations given to the Association of Colleges and to the business sector through Gloucester and Wiltshire Partnership.  We will continue to participate in relevant events.

We will encourage service users and other contacts to add to the body of knowledge by posting their own case studies and articles to the Lean, Green IT website. We will review the content of the "Make I.T. Green" Good Practice Guide periodically to incorporate significant new findings. We will continue to offer CPD events showing how staff can contribute to environmental savings by reducing their personal carbon footprint.  In the work environment this can be achieved through changing behaviour linked to printing, pc usage and controlling air conditioning and heating.

 The networking established between colleges, green charities and businesses will be maintained through regular contact via BDMs.

Developing course materials and offering courses in Green IT will assist in future dissemination of the findings. We will share information and materials with other providers to support them in actively delivering courses and seminars.