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Green IT News for Universities and Colleges

About Us

This newsletter is from the JISC-funded SusteIT initiative. Its aim is to publicise the outputs of both our own activities, and those of the JISC Green IT programme as a whole, and to provide brief updates on other developments within the field. See below or www.goodcampus.org for more details on our work. You can unsubscribe by clicking on the link at the bottom of this page.

Green IT Amsterdam

SURF, the Netherlands equivalent of JISC, is beginning a green IT initiative in Dutch universities and hopes to introduce some of the ideas and practices developed within JISC's UK programme. However, an inaugural Amsterdam conference last month - which featured a presentation by SusteIT Director Peter James - also highlighted innovative work across the North Sea. In particular, a [Green IT Amsterdam initiative](#) has been set up with the aim of bringing together major IT users (including the University of Amsterdam), vendors, infrastructure providers (there is a surprisingly large data centre sector in or near to the city), and government to increase sustainability and improve the area's attractiveness as a place to do ICT-supported 'green business'. One interesting project is moving beyond PUE to create a 'Datacentre Energy Dashboard' to drive concrete improvements in energy efficiency. A second is OZZO (Energy Self Sufficient Data Centre), a project to move processing between a virtualised infrastructure of low carbon processing centres according to energy or other circumstances, e.g. maximising use of wind-energy powered ones in breezy conditions. A third is development of a 'Smart Grid' in the Amsterdam region.

Green IT in Hong Kong

JISC Green IT Related Events

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The V Factor! How videoconferencing can save time, money and CO₂ emissions, 2 February 2011

A virtual event with sessions at Aberystwyth, Bangor, Cardiff and Swansea Universities. Click [Read More](#) below for more details.

Green ICT Best Practice, 10 February 2011

London Higher/EAUC workshop, Royal Society of Arts, London Topics to include printing, data centres, procurement, and London Re:Fit programme. Please contact Paresh Shah if you wish to attend, paresh.shah@londonhigher.ac.uk

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Other Relevant Green IT Events

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Data Centre Conference and Expo
2-3 March 2011, London

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University of Hertfordshire's Data Centre Wins International Recognition

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The progress the sector is making towards more energy efficient data centres is demonstrated by several new facilities. Both are designed, and are well on the way to achieving, a PUE (Power Utilisation Effectiveness) Index of around 1.2. (The PUE Index is the ratio of total energy to server energy, so a smaller number means a lower overhead for non-computing consumption such as cooling). Although this measure is flawed, the numbers

SusteIT researcher Lisa Hopkinson recently participated in an international conference on Climate Change, held in Hong Kong and attended by many mainland Chinese delegates. She presented on green IT activities in UK universities and colleges to a group of IT professionals from bodies such as the Professional Commons, IT Voice and Internet Society-HK. Green IT issues are still in their infancy in Hong Kong, which has little legislation or special incentives to drive IT energy and carbon reduction. However, energy costs are an important driver. Other than large organizations such as banks, few members of the audience had introduced basic measures such as power management. Those developing new data centres were interested in the new ASHRAE standard, especially the widening of relative humidity bands (a big issue in a steamy part of the world). There was also considerable interest in the potential impacts of current and future European green IT regulations (e.g. WEEE and ROHS) on local IT suppliers. The Hong Kong Legislative Council includes a specific IT seat elected by the IT community (now there's an idea for UK electoral reform!). As the audience included at least one prospective candidate for the 2012 election it is hoped that Green IT issues may increasingly rise up the political agenda. [Click here](#) to view the presentation.

Dissolving Computer Problems

Spilling coffee on expensive kit has always been an IT occupational hazard but a new drinks-related threat is emerging - dropping your computer into your mug by mistake. IBM has been publicising 'supercomputers that will fit in a sugar cube', taking advantage of a new architecture involving many computer processors stacked on top of one another, with water flowing between each one. UK start up [Iceotope](#) also has a similar approach, though it uses an inert fluid rather than water. Both vendors claim that their technology should substantially improve computing energy efficiency.

nonetheless demonstrate the rate of progress since the original SusteIT report was prepared in 2008, when many new centres were only achieving 1.5 or higher. The University of Hertfordshire's achievements were recognised this week by its winning a Datacentre Leaders Award 2010 for 'Innovation in the Micro-Data Centre'. It is also the first university facility in Europe to be fully compliant with the EU Code of Conduct on Data Centres. A new SusteIT case study details the measures which underly this success (several of which were financed through a JISC Institutional Innovation project). They include a 24 degree Centigrade operating temperature, a 30-70% relative humidity band (and very efficient dehumidification), a contained hot aisle, heat recovery and free cooling. The University's Data Centres Manager, Steve Bowes-Phipps (pictured), notes that "our refurbished data centre has squeezed the maximum amount of capacity and power out of limited space, whilst also lowering total operational cost. As an added bonus, we lowered the costs for running the LRC as well. The EU Code of Conduct highlighted energy efficiency opportunities, and now provides a widely recognised badge that tells our stakeholders that we've done the right thing."

The University of St Andrews has a similar story, which will be featured in a forthcoming case and our next newsletter. In the meantime, presentations from our November event there can be viewed on www.goodcampus.org.

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Virtual Meetings in Universities

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As part of a JISC-funded study, and in collaboration with JANET and a parallel project of the Welsh Videoconferencing Network, HEEPI and its SusteIT initiative are examining the current take up, and business and environmental impacts, of virtual meetings (e.g. audio, video and web conferencing) and remote working in universities and colleges. This involves separate [surveys of travel managers](#) and internal university use - the latter can be replicated for free in some other universities or colleges if there is interest. Contact Lisa Hopkinson (details below) for more information. The topic is timely, in the short term because it can help cope with Arctic weather and transport strikes, and in the medium term because there are plans to introduce reporting of, and targets for, scope 3 carbon emissions (which includes travel-related) in English universities (at least) by 2013. (NB The JISC Green IT programme has also funded a related project on [Greening Events](#) at the University of Bristol.)

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