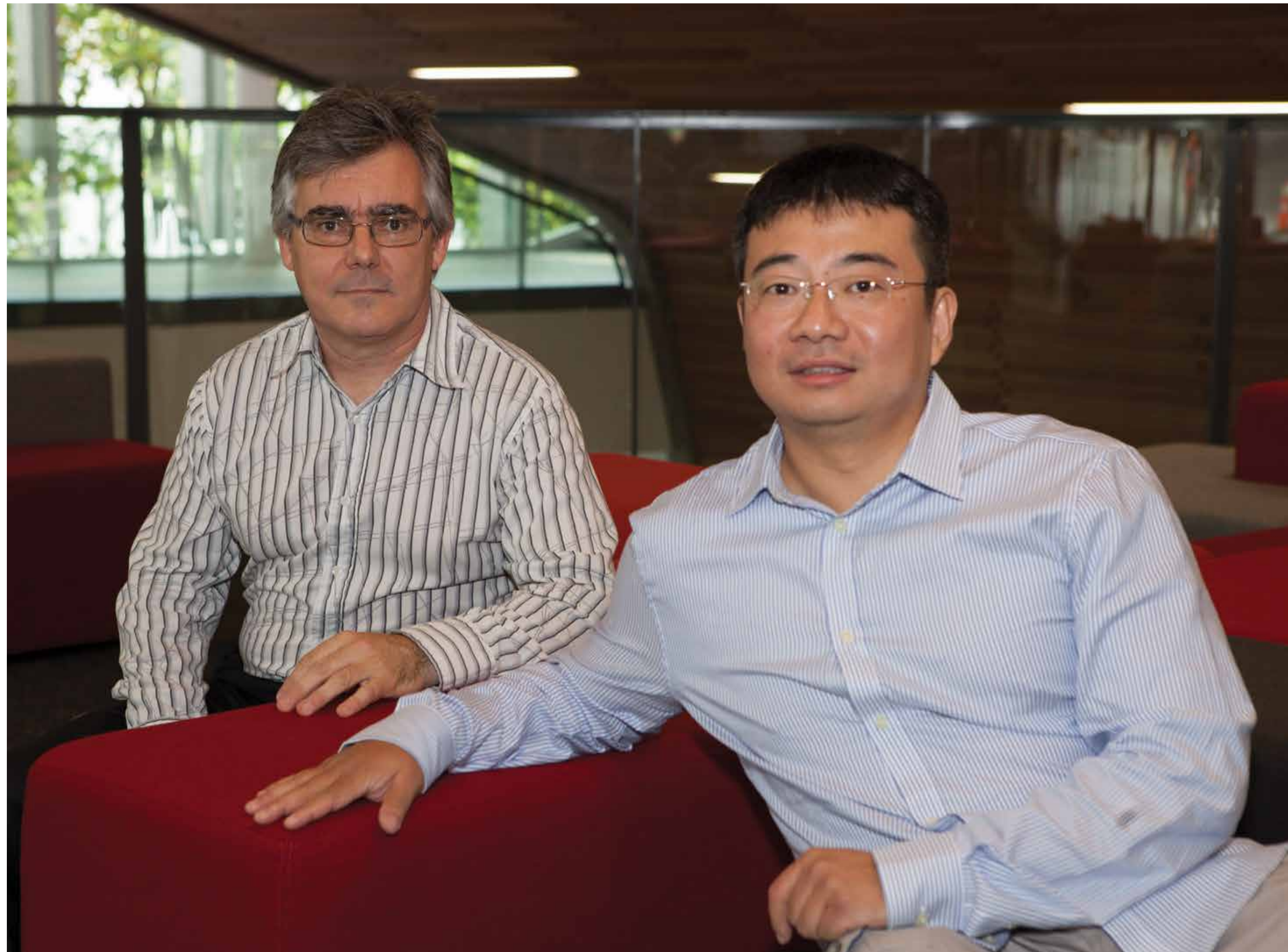


Greener and smarter computing project

The Greener and Smarter Computing on Campus project aimed to study green ICT initiatives in the tertiary education sector in New Zealand and worldwide. An online green ICT knowledge resource base has been developed; a pilot survey on ICT (Information and Communications Technology) usage behaviour has been developed, to be administered in early 2013; and the team also investigated, analysed and reported on several commercially available power management tools of potential use to AUT.



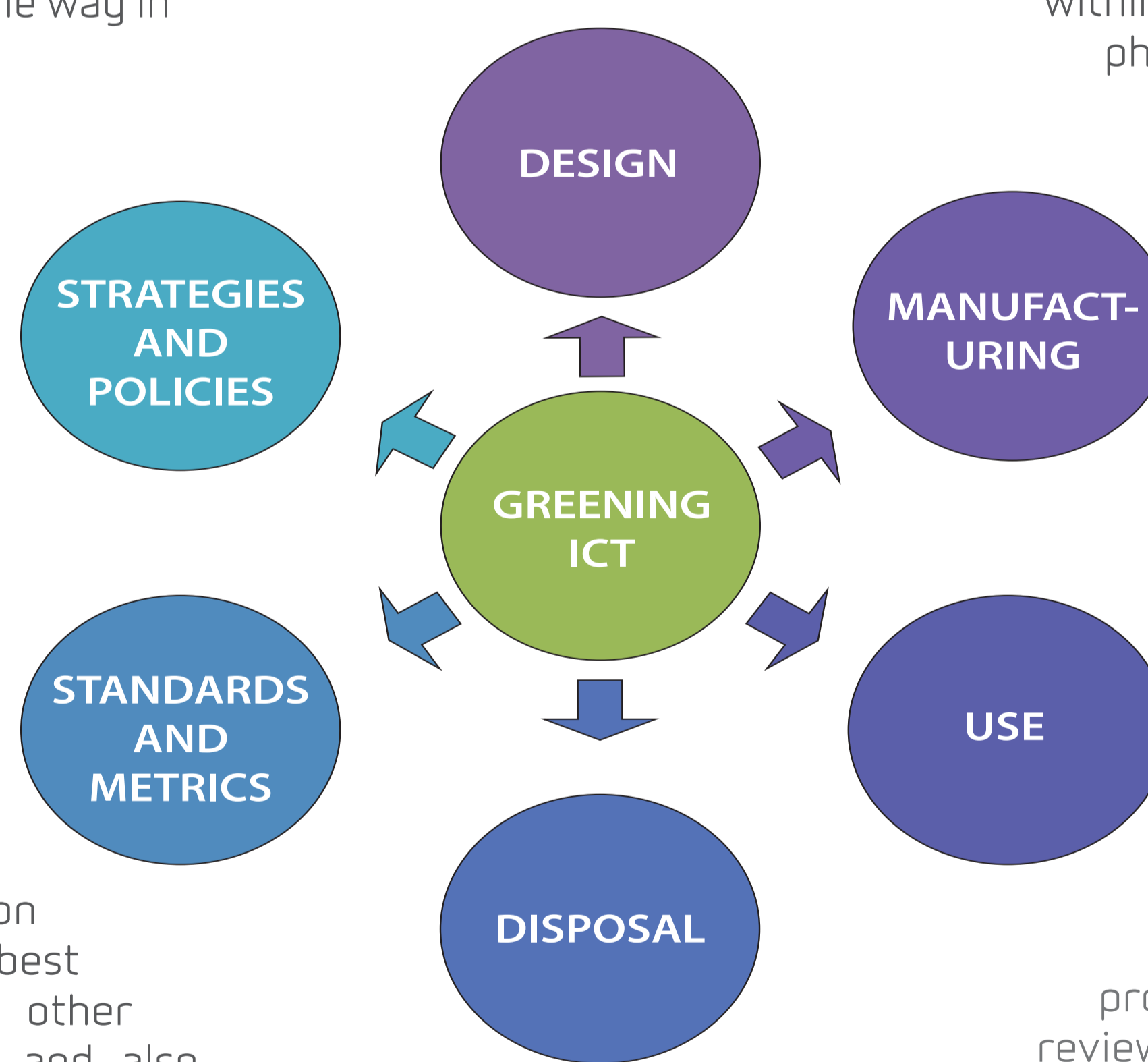
The current environmental conservation programs in AUT's three campuses include alternative transportation, use of renewable energy, a robust recycling program, sustainable building standards and business sustainability research. To date however, energy monitoring, power reduction management and energy consumption audits on AUT's electronic devices and facilities have largely been ignored. ICT is a major consumer of energy and natural resources, at AUT as elsewhere. The usage and disposal of computers, servers and printers has to occur in a sustainable way, and large organisations such as AUT are in a good position to lead the way in sustainability by publicly modeling good practice in energy conservation.

GREEN ICT KNOWLEDGE BASE

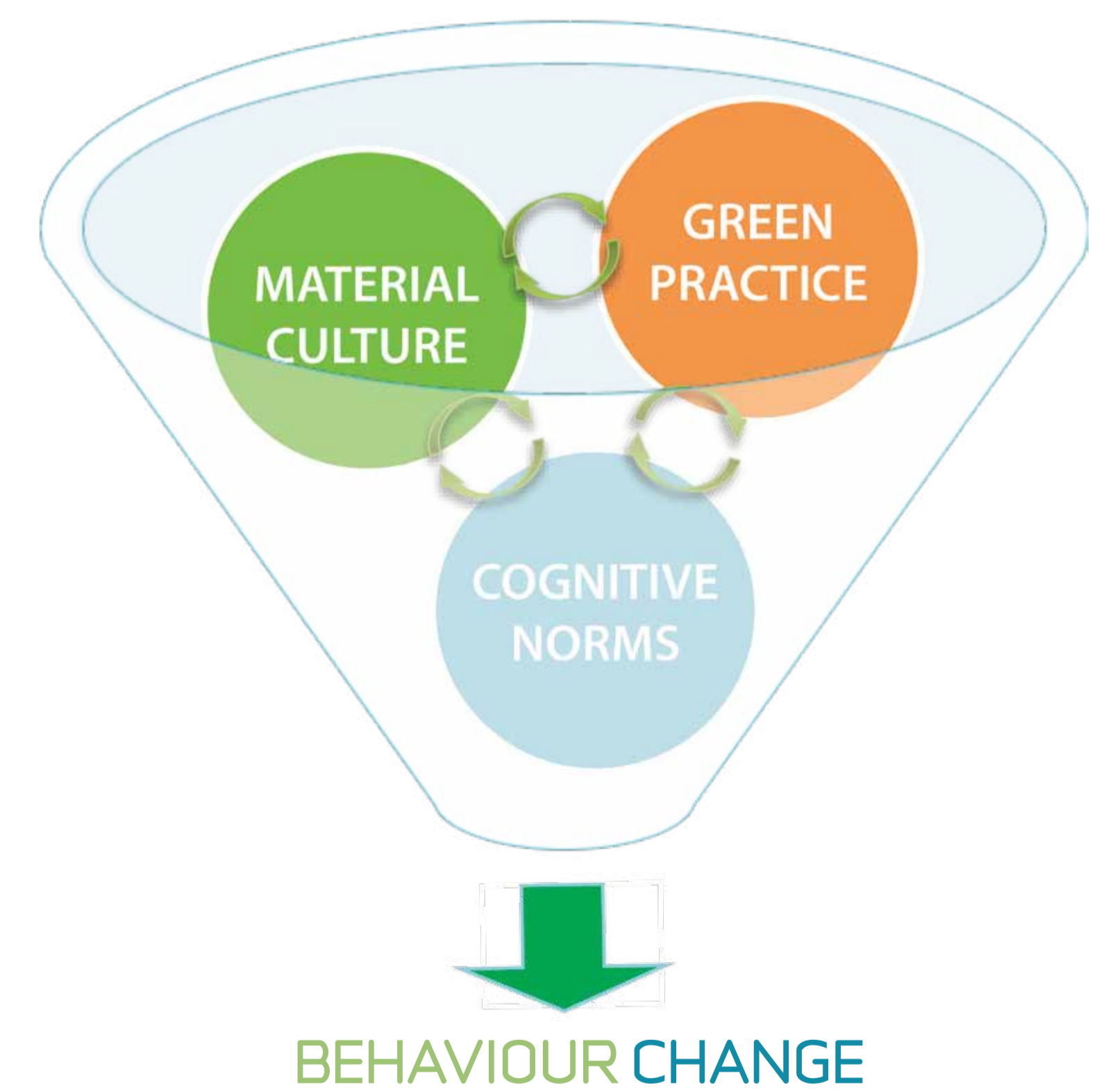
The Greener and Smarter Computing in Campus (GSCC) project aimed to study green ICT initiatives in the tertiary education sector in New Zealand and also worldwide, so as to build up the AUT's knowledge database on green ICT. Initial activities included building an online green ICT knowledge resource base, currently in the form of the AUTonline Organisation, LTDF Greener and Smarter Computing. This organisation contains a wide range of resources such as technical reports, articles on green ICT best practices from other pilot universities and also green ICT techniques, as well as training, teaching and research materials etc. 100+ documents that can be incorporated in other sustainability courses and used to promote more sustainable behaviours.



KNOWLEDGE CYCLE



The output of each of these two sub projects is a technical review report intended to inform future decision and development on ICT sustainability by IT services at AUT.



A customised COTS process was used to validate the power management software within defined parameters. Working through the Requirements, and Design phases led to the writing of a report for ICT stating the appropriateness of each software package.

Throughout the project interactions between the client, vendors other teams covered by GSCP allowed a flow of information back and forth, enhancing understanding of the team. An awareness of power management with respect to sustainability, and the implications for AUT ICT lead to the requirement of testing the software with the results being added to the report.

During the time spent on this project the team shared findings with the LTDF Forum about interaction and Community of Practice.

Project Fellow: William Liu

Project Team: Ramon Lewis

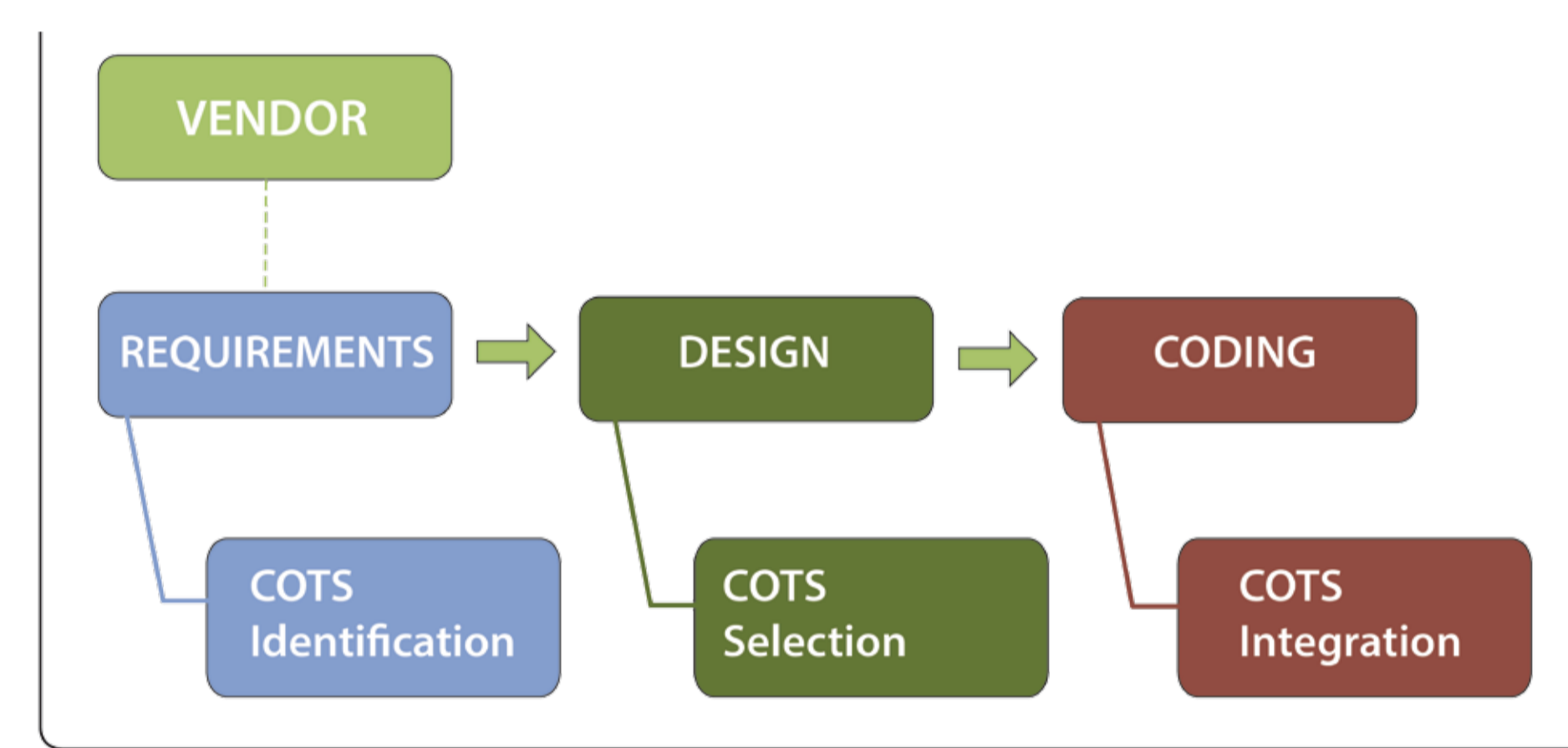
CfLAT Advisor: Peter Maclaren

GREEN ICT QUESTIONNAIRE

Additionally, a pilot and holistic approach based survey on ICT usage behaviour has been prepared, ready for seeking ethics approval, with the intention of carrying out the survey in early 2013. However, consultation has suggested this survey might be better combined with a broader survey encompassing wider issues of computing at AUT. This option will be further investigated before proceeding with the current survey.

GREEN POWER MANAGEMENT COTS PROJECT

Funded by a LATENT grant allowed investigation and reporting of possible power management software for implementation within AUT University's IT environment. This project reviewed a limited number of commercially available off the shelf power management applications that may benefit our client, AUT ICT Department, and produced a report for the client. A goal of the project is to add to the clients knowledge with respect to power management and what is available, allowing the client to justify continuing investigation or active appropriation of a particular software program or suite.



COTS METHOD



For further information about this project, scan the QR code or contact William Liu - wliu@aut.ac.nz