

### Kit-Catalogue<sup>®</sup> open source database system

Loughborough University's award-winning Kit-Catalogue<sup>®</sup> is an online system that can help any organisation effectively catalogue, record and locate its kit, such as laboratory equipment, workshop machines, ICT and specialist tools. The aim is to reduce the costly duplication and double purchasing of equipment within HE institutions and promote the reuse of equipment across the organisation. Early adopters of the system included the University of Nottingham, Northumbria University and Bristol University, and Kit-Catalogue<sup>®</sup> now powers the M5 Universities Equipment Database - the first regional equipment database in the UK.

#### Benefits for researchers

- Loughborough's Kit-Catalogue<sup>®</sup> is populated with 2,074 laboratory items. By making all of the equipment available in one place, researchers become more aware of what is available on-site, potentially reducing the need to travel far afield to carry out research experiments.
- Due to the high level of detail ascribed to each item listing, more effective judgements can be made in deciding exactly which item will be ideal for each individual laboratory operation. By offering the possibility of full descriptions, specifications, photographs, user manuals and case studies for each item, Kit-Catalogue<sup>®</sup> also allows students to increase their knowledge of items.
- By encouraging equipment sharing between different departments across campus, a greater potential for collaborative research arises, which in turn enables a greater possibility for new areas of research.
- By allowing all custodians to control the availability, access and visibility restrictions for each of their items, hindrances to normal teaching schedules and research projects are prevented.

#### Benefits for equipment managers and universities

- In providing the capability of detailed information in the back-end of the catalogue, Kit-Catalogue<sup>®</sup> enables equipment managers to effectively monitor and maintain equipment by generating simple reports with information such as calibration status, PAT test due dates, upgrades, financial information and a whole host of other information.
- With Kit-Catalogue<sup>®</sup> there is a potential to promote equipment use externally to regional HEIs, industry and Small to Medium Enterprises (SMEs), as Kit-Catalogue<sup>®</sup> provides the option to make any item publicly visible and available for external hire. This provides a potential to generate money for the laboratories and enhances possibilities for collaborative research and development.
- By enabling public visibility for a host of items, Kit-Catalogue<sup>®</sup> could also attract prospective researchers and students to join the institution, based on the level of high-quality equipment provided.

- The open source licence means that Kit-Catalogue<sup>®</sup> is easily adoptable and customisable to other institutions. Currently, 16 institutions use either their own full installation of Kit-Catalogue<sup>®</sup> or a hosted trial version.

### Case studies: saving money and energy

These two examples illustrate how Kit-Catalogue<sup>®</sup> has helped Loughborough University to save money and energy.

#### 1. Preventing double purchasing

Kit-Catalogue<sup>®</sup> prevents the unnecessary and costly double purchasing of items. At Loughborough, Kit-Catalogue<sup>®</sup> is linked to the procurement process and a notification is sent to the Kit-Catalogue<sup>®</sup> administrators when any equipment above a certain amount is submitted for purchase, for which duplicate or similar items will be checked against. Recently, one School proposed purchasing an item which, when checked, was already available on campus. The item was subsequently not purchased, saving the university over £25,000. This process also stimulated new collaboration between the researchers involved. Immediately, the real savings made by the implementation of Kit-Catalogue<sup>®</sup> could outweigh the cost of the project.

#### 2. Saving energy

With the prevention of the costly double purchasing of equipment comes the reduced need for heating and occupation of additional space within buildings for duplicated equipment. This kind of energy saving contributes towards the Green Impact Scheme for sustainability at Loughborough University.

### Project summary

In 2008, the Materials Research School and the Centre for Engineering and Design Education at Loughborough University created an 'Equipment Database', an online catalogue of laboratory equipment, workshop machines and specialist tools from across the University. This catalogue enabled staff and students to search for a particular item to borrow, book out or hire for research or teaching use.

In March 2011, the JISC funded developments to the equipment database to exploit the intelligent use of ICT to make cost and energy savings. The project made significant enhancements with the intention of providing public views of the website (<http://equipment.lboro.ac.uk>) as well as open linked data for other web services to exploit. The project enhanced the cataloguing effort, improved system functionality and integrated the system within procurement and policy workflows, encouraging greater use across the institution.

The enhanced Kit-Catalogue<sup>®</sup> application has been available as open source software (<http://www.kitcatalogue.com>) since December 2011. Since then, Loughborough has continued to develop the software, further populate its own catalogue, establish a user group from adopters of Kit-Catalogue<sup>®</sup>, and become a partner in the national UNIQUIP project to standardise equipment taxonomies to facilitate national equipment sharing. The project won an S-Lab Award for Laboratory Equipment and Services in June 2012, and was a finalist for the Outstanding ICT Project of the Year at the Times Higher Awards in November 2012.

### About Loughborough University

Loughborough is one of the country's leading universities, with an international reputation for research that matters, excellence in teaching, strong links with industry, and unrivalled achievement in sport and its underpinning academic disciplines.

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