

## Information Technology Strategy 2009-2013

**Sponsor: Deputy Vice-Chancellor (Technology, Information and Learning Support)**

### Context

QUT is committed to having a strategic and managed approach to IT deployment, and to planning and reviewing the opportunities provided by appropriate IT investment.

IT strategy formulation at QUT is centred around a three pronged strategy:

- a) to improve quality in both research and teaching;
- b) to gain operational efficiency in support and service processes; and
- c) to transform relationships, among students, among staff, between students and staff, and between the institution and its community.

QUT's current momentum in developing research capability and capacity is significant. So too is its continuing commitment to teaching quality and well managed learning presently underscored by increased attention to student evaluation of teaching and units, review of our online learning and teaching environments, continuing reforms in assessment and related developments. But as the twenty-first century progresses, we are seeing the harnessing of IT for ever more powerful scholastic purposes, i.e. in terms of tools for research and learning, methods of investigation and scholarly communication, the capacity to visualise and explore hitherto invisible phenomena or incomprehensible data. These developments, together with the ability to bind previously disparate communities and to work across the globe will mark the next few years in higher education.

### Aim

This strategy outlines planned actions to ensure the enhancement of QUT's role as a leading Australian university. QUT will continue to adopt and adapt IT in support of its full range of activities, and in a way which will help lead exciting developments in research, teaching and community engagement. Also, from 2008, the IT Strategy needs to be informed by good practices in sustainability and carbon pollution reduction (i.e. Green IT). The objectives below are those of the QUT Blueprint to emphasise the integration and transparency of the strategies.

### Objective 1 Build our research capacity in selected areas

#### Strategies

- 1.1 Continue the implementation of an eResearch Strategy that aids in the improvement of research quality by:
  - capitalising on QUT's access to high performance computing and connection to the research world through cooperative infrastructure investments especially assisted by State and Commonwealth directed funds
  - integrating research outputs (from experimental data to refereed research literature) into the University's information architecture
  - providing greater access to research literature online
  - enabling and in some cases fostering multidisciplinary and cross-institutional research and building on successful precedents such as ATN Leap and eGrad School
  - supporting disciplines in developing and exploiting new forms of scholarly communication and data management.

This will be measured by:

- the development and implementation of a research support plan
- documented use of high performance computing
- growth in the QUT ePrint Repository
- growth in the availability of online library resources
- reporting of eResearch multi-disciplinary projects
- reporting on specific innovative initiatives.

**Objective 2 Strengthen our reputation for quality teaching and learning and provide among the best learning environments in Australia**

Strategies

- 2.1 Support the development and enhancement of QUT's new Student Management system, Student One to provide continual improvement in corporate processes and business-to-business activities.
- 2.2 Support the expansion of QUT virtual learning environments with academic and professional staff inputs and strengthening the associated systems support. This will be measured by the extension of virtual learning environments through QUT's governance processes, following the implementation of Blackboard in 2008.
- 2.3 Increase student access to the virtual environment from off-campus locations while maintaining strong on-campus access through both wired and wireless facilities. This will be measured by tracking student lab and wireless usage. (*University KPI F17*)
- 2.4 Ensure continuing maintenance of the high QUT standards for teaching and learning space technologies which will be measured by the turnover and refresh rates for these.
- 2.5 Ensure continuing support of the systems and processes that are developed to assist academic staff to improve their teaching, including the use of Learning Experience Survey results and providing advice and guidance to academics applying for the Australian Learning and Teaching Council awards and fellowships.

**Objective 3 Strengthen the “real-world” positioning in teaching and research through better partnerships across internal and external boundaries**

Strategies

- 3.1 Strengthen QUT's connectedness to industries and communities through better ties to workplace learning and supervision of QUT students by
  - providing potential employers and workplace supervisors with access to QUT's systems and data where agreed or necessary while maintaining appropriate levels of security
  - developing online applications supporting interaction between academic staff, workplace supervisors, and students.

This will be measured by:

- metrics on the number of workplace email alias redirects, number of VPN installations, IP addresses, and related data
  - the incidence of such triangulated applications.
- 3.2 Transform the way the University is experienced by its community and to permanently alter and step up its lifelong value to its students by

- harmonising and refining IT developments that are built around the “customer” during their progression through the student lifecycle, supported by consistent, single-source, data architecture
- sustaining graduate and Alumni access to approved systems and data, including the ePortfolio
- engaging staff and students in an increasingly self-service online environment designed to streamline and simplify the University’s business process.

This will be measured by

- records and reports of these developments
- reports on graduate and Alumni access as provisioning matures
- development of consolidated reporting of online engagement to the individual level to members of the QUT community and where available, benchmarking this data
- the successful expansion of the AskQUT system and adoption of the system by staff and students as one of their major sources of online self-service support.

- 3.3 Improve Faculty and Division understanding of governance and resource allocation processes relating to IT and the AMP (IT) which will be measured by monitoring regular communication processes relating to governance and resource allocation provisions.

**Objective 4 Integrate technology into our teaching, research, business/support functions and infrastructure**

Strategies

- 4.1 Continue to refine the University’s IT Governance processes including
- revising and promulgating an integration of roadmaps for data, information and technical and standards planning
  - confirming an explicit enterprise architecture and processes for its use as a governance tool, and providing for its annual review and refresh. This will be measured by the use of the enterprise architecture in QUT’s IT governance processes.
  - completing and refreshing the corporate systems register as a governance tool
  - further integrating IT investment with other (physical) assets and refining decisions and documentation as required
  - confirming the full scope of the project register, the AMP (IT) funding allocation, and the relationship with the projects funded from alternate sources including those related to teaching and learning
  - developing further senior staff engagement with and steering of significant IT projects particularly in the core activities of teaching and learning, and research.

This will be measured by completion of each of the intended actions except for the last point (senior staff engagement will be reported through the Project Portfolio Office).

- 4.2 Support the University’s integration of policy and operational decision making by
- developing policies and standards applicable to the whole of QUT for the administration of IT particularly in relation to new technologies that might be applicable in the higher education context such as Facebook, Myspace, YouTube and Second Life etc.
  - maintaining the existing standards and policies that support the Standard Operating Environment (SOE), Project Management Framework (PMF), Service Management Framework (SMF), Security, and network and server administration
  - building on the approved BSI reforms.

This will be measured by the preparation of progress reports on each of the areas mentioned including SOE and BSI projects, and recording and reporting exception requests.

- 4.3 Continue to review QUT's position in relation to open source, proprietary systems, and the extent of the University's engagement with vendor-supplier business processes.

This will be measured by monitoring the adoption of open source solutions by the University.

- 4.4 Build and strengthen the University's *enterprise architecture* by
- further developing the present definition of *technical architecture* and IT roadmaps, reviewing closer links with the other elements of the enterprise architecture
  - continuing the development of QUT's *data architecture*, again reviewing links within the context of the enterprise architecture
  - working with business owners to better integrate data and technical architectures with the emerging *business architecture* definition.

This will be measured by actual referenced use of the enterprise architecture in enterprise planning and project portfolio activity, e.g. in business owner project proposals.

- 4.5 Strengthen the University's communication capability across its campuses by
- ensuring a resilient and available network between campuses, with consistent standards of desktop access speeds that is supplemented by a reliable wireless network
  - implementing integrated workflow approaches especially to enhance and enable collaborative work
  - building on the implementation of the Microsoft Exchange system by exploring the potential for further collaborative technologies that can leverage from this platform, such as SharePoint
  - implementing agreed records management reforms
  - evaluating the maturity of project management at QUT and developing strategies to improve our maturity to an agreed level that ensures consistency and quality of project execution.

This will be measured by completion of each strategy as monitored by the Project Portfolio Office.

- 4.6 Build and strengthen QUT's IT capacity by
- introducing new operating platforms for the central hosts in a manner that manages suitable risk to take advantage of new central host technologies, and maximises scalability and reliability
  - developing sustainable and scalable data storage for staff and students
  - reviewing vendor suitability on a three-year cycle
  - reviewing disaster recovery approaches in the context of the Kelvin Grove "warm site" implementation
  - explore and as appropriate, implement IT capacity solutions outside the normal paradigm of QUT total ownership, e.g.
    - shared data centres with other universities, or
    - leasing data centre space
    - leasing server and storage or
    - software as a service i.e. external application hosting from commercial vendors.

This will be measured by reports through ITS on platforms, storage growth, vendor reviews and revisions to business continuity and disaster recovery plans.

- 4.7 Build on the consolidation of operations and systems supporting helpdesks and call centres to enable further integration of support and contact services for students and staff.

This will be measured by the development of integrated inquiry management and job tracking; BSI progress and through annual reporting from the new Integrated Help Services Section.

- 4.8 Continue to build on project management training for various project roles to ensure improved project execution.

This will be measured through PPO reports on project management training.

- 4.9 Support the implementation of systems and processes that improve personal productivity in the university for staff and students.

- 4.10 Ensure that the university's equipment and infrastructure, its planning with regard to IT and its service advice to the QUT community complies with Carbon Pollution Trading legislation, standards and best practice.

**Objective 5    Develop environments that foster and reward high-quality scholarship and that build a sense of community**

Strategies

- 5.1 Provide access to administrative and academic information by
- refocusing QUT Virtual as the organisational portal to integrated self service access to corporate processes and business-to-business activities for staff and students
  - developing more interactive websites that will require high bandwidth and the adoption of XML and web services standards across QUT
  - continuing to expand the range of and access to virtual resources including library databases and online course materials.

This will be measured by annual reporting on the number of resources accessible via QUT Virtual, website development and library reports on resources online.

- 5.2 Provide access for staff and students in a timely way through the implementation of the Provisioning Project and its Access and Identity Management processes.

This will be measured by the successful completion of the project.