

INFORMATION TECHNOLOGY STRATEGY 2010-14

Mission

Support the University's key processes by providing:

- Excellent, customer-focussed, cost efficient services and support
- A robust, secure and accessible architecture.

Operate in a manner that:

- Is underpinned by strong governance, ensuring alignment with University Strategy and corporate ownership
- Is firmly based on established best practices provided by the PRINCE2 and ITIL frameworks
- Ensures qualified and motivated staff
- Optimises the use of IT resources
- Understands and manages risk
- Is transparent in its objectives, policies and processes
- Seeks to utilise resources in sustainable, energy-efficient ways

Vision

A fully integrated infrastructure to support processes, communication and collaboration, and access to data and information resources that will:

- Deliver well-designed, integrated systems to drive consistent, efficient and effective processes across the University.
- Provide an outstanding experience for every student through truly flexible access to learning resources and supporting services that are available at any time, from anywhere, from the student's choice of device.
- Manage information as a highly valued asset that is of assured quality and appropriately protected whilst being made available easily and efficiently to those who need it.

Priorities

1. An IT infrastructure that is sustainable and fit-for-purpose

This will be the foundation for

2. Proactive support for the Learning and Teaching Strategy

3. Enhancing processes and efficiency across the University through effective use of Information Technology

It will be delivered by

4. An efficient, cost effective and standards-based IT organisation with well-motivated and qualified staff

1. An IT infrastructure that is sustainable and fit-for-purpose

1.1. General Principles

Sustainable, Value-for-Money

- Define economic, functional and technical lifecycles, ensure funding to maintain in fit-for-purpose state
- Outsource basic hardware services – initial configuration, installation, lifetime maintenance and vendor support, secure and environmentally sound disposal at end-of-life
- Outsource generic software services - email, collaboration tools and shared storage
- Outsource printing as a managed service
- Actively seek further opportunities to share or outsource services to further reduce costs
- Ensure value-for-money – exploit sector specific opportunities, embrace purchasing consortia, manage contracts and licences proactively

Excellent service to students and staff

- Customer focussed approach, “One-stop-shop” Service Desk
- Service Definition Documents and Key Performance Indicators
- Self-service access to IT and other services
- Recognising and supporting Internationalisation, Widening Participation, Collaborative and Equality and Diversity agendas

Standards-based, Secure and Compliant

- Compliance with all relevant legislative, regulatory and sector-specific requirements
- Strong standards defined and maintained for all key components, centralised procurement
- Strong and enforced IT Security Policy and Codes of Conduct

1.2. Personal Computing

Governance: Desktop and Collaboration Steering Group, Media Centre Steering Group, Space Management Group

Scope:

- Computers, in “Open Access” , teaching spaces and offices
- Standard software and services including office and collaboration tools – email, scheduling, access to shared storage, internet access
- The University’s “Media Centre”, with specialist hardware and software
- Integrated audio visual equipment in teaching spaces and meeting rooms

Key Outcomes

- Implementation of the IT Provisioning Policy, supporting standards and procurement
- Achievement of service KPIs, NSS and satisfaction survey results

1.3. Technical Infrastructure

Governance: consolidated demand from all Steering Groups, plus Risk Management Group

Scope:

- Managed data and wiring centres
- Copper and optic fibre network cabling across and between campuses buildings and halls of residence
- Server hardware, operating systems and core software - web, communications and database servers
- Storage and backup systems
- Connectivity and security equipment - switches, routers and firewalls for wired and wireless networks
- Data connections to the outside world, including the JANET connection

Key Outcomes

- Minimised risk of service outages and damage to data and assets through comprehensive monitoring and a 24x7 “on-call” rota of skilled staff
- Improved resilience –balance services across campuses, reduce single points of failure
- Network and data security – assured by industry standard firewalls, proactive patching and upgrades, effective monitoring, rigorous backup regimes
- Capacity management and planning
- Use of server virtualisation techniques as a key instrument to deliver resilience, responsiveness and value
- Clear segregation of production, test and development environments
- A practical and effective Disaster Recovery Plan, tested and maintained
- Achievement of service KPIs for system availability, security standards

1.4. Corporate Systems

Governance: Domain-specific Steering Groups for Student Information, Finance HR and Payroll, Estates and Business Services, Web Channels

Scope:

- Proprietary line-of-business software solutions such as QLX financials, SITS Student Records
- Bespoke developments such as SONAR web-based access to student information, Admissions Portal
- Integration services and reporting systems linking individual components
- Corporate communications systems including content management and portal systems supporting the Digital Communications Strategy

Key Outcomes

- Secure, accurate and accessible information for managing the institution
- Robust systems supporting robust processes based on sound business analysis
- Roadmap for systems review, updating and eventual replacement
- Standard off-the-shelf solutions selected as best-of-breed for a small Higher Education establishment wherever possible
- Centralised identity management to improve accuracy, simplify interfacing, improve efficiency
- Achievement of service KPIs for system availability and change management

2. Proactive support for the Learning and Teaching Strategy in providing an outstanding experience for every student

Governance: the Learning and Teaching Development and Practice Group

2.1. Develop the Learning Environment Virtually

Establish an effective VLE to support pedagogic objectives and promote access to learning, including

- Functionality to support podcasting and use of mobile devices
- Functionality to enable on line feedback and assessment
- Staged adoption of new technologies to support further enhancement of feedback and assessment

Provide WiFi everywhere on both Campuses

Develop a plan to further develop the VLE, considering:

- Developments that will provide access to learning resources that is truly flexible – available at any time, from anywhere, from the student’s choice of device
- Full support for on-line submission, marking, assessment and feedback

- Extension and enhancements to facilities for the capture, storage and delivery of video and other media, including streaming and asset management
- Developments to support distance learning and remote delivery

2.2. Develop the Learning Environment Physically

Integrate accessible learning resources, combining student support, access to books, journals and virtual resources, including

- Common objectives to achieve optimal integration with Library Services
- Effective integration between the Library catalogue system and the VLE
- Extending and enhancing the use of electronic resources
- Integration of all “front line” services in the Learning Resource Centres to provide an efficient “one-stop-shop” with excellent self-service facilities

Create flexible learning and teaching spaces fully equipped to meet the needs of all courses, with sufficient access to computers and provision for students’ laptops; ensure access to audio visual fixed and mobile equipment, ensure able to record easily

- Define, develop, implement and support technology solutions to support learning and teaching in classrooms and other teaching spaces, open access areas, collaborative working and social study spaces
- Maintain and develop the University’s “Media Centre” and equipment loans provisions to support the developing needs of the curriculum

2.3. Support Excellence in Learning and Teaching

Ensure opportunities provided by emerging technologies are fully utilised to enhance the student experience and increase accessibility; develop and support staff to be innovative facilitators of learning.

- Support and train staff to make effective and efficient use emerging technologies and the VLE
- Actively promote the application of e-learning
- Proactively monitor developments in new technology and their application to support learning and teaching, identifying opportunities to exploit these in the University, and developing plans for implementation
- Provide expert technology support for strategic initiatives and funding bids

Key Outcomes: Milestones and performance indicators from Learning & Teaching Strategy

3. Enhanced processes and efficiency through effective use of Information Technology

Governance: the University Strategic and Financial Planning Process

3.1. Implement key enabling technology components to underpin process improvement

Identified Opportunities:

- **Enterprise and web content management services and workflow tools**
 - Enable paperless processes
 - Assure clear ownership of content, held once, deployed as needed, currency assured

- **Management Reporting Engine**
 - For responsive and accurate cross-system reporting with less manual intervention
- **Customer Relationship Management**
 - To support external engagement, collaborative partners, marketing, management of alumni

3.2. Support process and efficiency improvements by implementing or updating major information systems

Identified Opportunities:

- Integrated **HR Management and Payroll System**, with maximum “self-service” functionality
- A commercial **conference and accommodation** management system
- Automation of processes for managing **graduation and alumni**
- Improved **space management and timetabling** systems
- Integrated “**smartcard**” system to promote self-service, security, cashless campus, absence monitoring
- Extension of the Estates and IT **Service Desk** to other frontline services

3.3. Promote new and innovative applications of Information Technology to support the University in delivering on its strategies

- Maintain an up-to-date knowledge of technology and its potential application across our business
- Liaise closely with colleagues across Academic and Professional Service functions to identify opportunities and understand requirements
- Establish and maintain relationships with other institutions, vendors and industry groups
- Proactively seek out new ways to exploit the University’s investment in IT

Key Outcomes:

**Approval and on-time, on-budget delivery of process improvement projects
Benefits demonstrated at post implementation review**

4. An efficient, cost effective and standards-based IT organisation with well-motivated and qualified staff

4.1. Effective Governance

Steering Groups

- Steering defined interest areas across the University, ensuring alignment with business needs
- Prioritising resources, development, changes within the interest area
- Agreeing and monitoring service definitions and service KPIs
- Consolidated by SMT
- Strategy and budgetary approval with ChET

Project Teams

- Established for the (fixed) duration of a project
- Managed by an appropriate Project executive
- Handing steering in operation to the appropriate Steering board

4.2. Professional Best Practice

PRINCE2 Project Management

- Effective project processes with clear roles and responsibilities
- Projects based on an agreed business case, defined scope and outcome, clear project end
- Projects managed by exception, active management of quality and risks
- Clear and concise communication
- Common templates and definitions

ITIL Service Management

- Foundation for high quality, cost effective services based on clear and transparent processes
- Management of incidents, problems, service requests, change requests
- “One-stop-shop” service desk based on a standard software solution that can be deployed across other Professional Services
- Service levels measured against agreed Service Definitions, commitment to continuous improvement
- Maximum self-service for maximum efficiency
- Increase score against the ISO 20000 Maturity Model for IT Service Delivery from 1.7 in July 2009 to at least 3.0 by July 2011

4.3. Qualified and Well-Motivated Staff

Key Outcomes

- Technically qualified staff based on manufacturers’ certifications, commitment to remaining up-to-date in a fast moving environment
- All IT Services staff trained in basic ITIL principles
- All IT Services staff trained in Health and Safety responsibilities
- PRINCE2 foundation certification for all IT Services staff expected to play a significant role in projects Staff developed as individuals, soft and management skills developed
- Communication at all levels – management team, departmental teams, work groups
- PRDP process embedded as part of the overall way-of-working
- Celebrate successes