

CiCS Programme Definition 2007

Version 1.0

18 June 2007

Contents

1	Introduction.....	1
2	Strategic Aims.....	3
2.1	Vision.....	3
2.2	Strategy	4
3	Blueprint	6
3.1	Support for Learning and Teaching	6
3.1.1	Model	6
3.1.2	Measures	7
3.2	Research Support	7
3.2.1	Model.....	7
3.2.2	Measures	8
3.3	Corporate Information Systems.....	9
3.3.1	Model	9
3.3.2	Measures	9
3.4	Business Processes	9
3.4.1	Model.....	9
3.4.2	Measures	10
3.5	Data Network	10
3.5.1	Model	10
3.5.2	Measures	10
3.6	Telecoms	11
3.6.1	Model.....	11
3.6.2	Measures	11
3.7	Customer Services.....	11
3.7.1	Model.....	11
3.7.2	Measures	12
3.8	Delivery of Applications and Services	13
3.8.1	Model.....	13
3.8.2	Measures	13
3.9	Accessibility	14
3.9.1	Model.....	14
3.9.2	Measures	14
3.10	Resilience and Security.....	15
3.10.1	Model.....	15
3.10.2	Measures	15
4	Strategies	17
4.1	Benefits Management Strategy	17
4.1.1	Methodology.....	17
4.1.2	Benefits Identification.....	17
4.1.3	Benefits Realisation	17
4.1.4	Benefits Monitoring.....	18
4.2	Risk Management Strategy	18
4.2.1	Identification of Risks.....	18
4.2.2	Monitoring of Risks.....	18
4.3	Quality Management Strategy	19
4.3.1	Organisation and Processes.....	19
4.3.2	Information	19
4.3.3	Configuration	19

5	Stakeholder Map and Communications	21
5.1	Stakeholders	21
5.2	Communications Strategy	22
5.2.1	Communication Channels	22
5.2.2	Stakeholder Communications.....	23
6	Programme Plan	24
7	Benefits Profiles and Plan.....	24
8	Risk Log.....	24

1 Introduction

CiCS introduced formal Project Management in January 2001 and formal Programme Management of our portfolio of projects in 2004, following a formal review of our systems. Programme Management has helped us to better co-ordinate projects and resources, to prioritise projects and deliver benefits more effectively, and to improve reporting and analysis of the department's project-based activities.

MSP Methodology

Our Project Management methodology is based on PRINCE2, the industry-standard method controlled by the OGC (Office of Government Commerce). Our Programme Management is also based on the relevant OGC methodology, MSP – Managing Successful Programmes.

MSP focuses on Programme Planning, Benefits Management, Stakeholder Management, Risk Management and Quality Management. This is recognisably similar to project management, as are the key processes - Identifying, Defining and Establishing a Programme, Managing the Portfolio of Projects, Delivering Benefits, and finally Closing the Programme. The last does not apply here as CiCS has a rolling 'Business Cycle' programme which is reviewed annually.

CiCS Programme Management: Main Features

- Programme Board: The Programme Board is made up of the CiCS Executive plus the Programme Manager, ie Christine Sexton (Programme Director), Chris Cartledge, Dave Speake, John Hawley, John McAuley, Kath Winter and Pablo Stern (Programme Manager).
- Programme and Project Unit: Undertakes Programme Management of the department's portfolio of projects and also performs the functions of a project support office.
- Programme Definition: This document. It includes the Strategic Aims and Blueprint for the future, various strategies for managing the programme, a Programme Plan (see below), a Risk Log and also strategic Benefit Profiles. The latter three areas are dynamic and are therefore held as physically separate documents, but conceptually are part of the Programme Definition.
- Programme Plan: Details all projects and their main phases and inter-project dependencies. A Gantt-style chart aids planning and analysis.
- The University's Corporate Plan and Information Strategy and the CiCS Operational Plan form a backdrop to the Programme and are the main drivers for the Programme's 'Strategic Aims and Blueprint'.
- Resource Planning: CiCS works in a rapidly changing and dynamic environment and the conflicts between regular 'business as usual' work and project work can make longer-term resource planning problematic. The structures used here aim to help resolve this. The previous system of formally allocating predefined 'skill sets' to each phase of a project, tried for two years, did not in practice greatly improve planning or liaison between project managers and line management over resources. So from 2007 each project will define in the Project Definition what resources will be needed for each phase and the appropriate Assistant Directors will assess what is available and liaise with the Project Manager. The agreed resource levels will be reviewed at the end of each phase.
- Benefits: Projects deliver 'capabilities' but Programme Management is concerned more with the benefits that are reaped from these. Projects have their benefits for the University (and dis-benefits) clearly identified at start-up and beyond, and the Closure Documents indicate ongoing responsibility for these. The Programme 'Benefits Profile' gives an overview, related

to the CiCS/University strategy. Over 2007 there will be improved liaison between projects and the Customer Services section to ensure benefit realisation is managed more effectively.

- Annual Revision of the Programme: CiCS has, in MSP terms, a 'Business Cycle' Programme. This implies a rolling Programme Definition: much of the Project Definition (Programme Plan, Blueprint, Benefits profiles etc) should be fully revised annually, and updated as projects come on stream. A full revision may also be appropriate when strategic capability comes on stream, eg the Portal.

- Ongoing Project Control:

The Programme Board meets monthly, fed by monthly reports from every project:

- Projects progress is monitored. Issues are discussed and any which have been identified by the Project Manager as requiring decision or action are dealt with, and the Project manager informed appropriately.
- Project monthly reports will include any major changes in deliverables or timescales. These can then be agreed and included in the Programme Plan or questioned if problematic in terms of the programme plan (knock-on effects) or strategy (CiCS/University priorities). They will also have clear 'milestone' reporting.
- Proposed Project Definitions will be looked at with regard to departmental strategy.
- Post-Implementation Reviews will be formally monitored.

- Lessons Learned:

Many projects review the project process itself, sometimes with a formal 'Lessons Learned' document. The lessons learned from both successes and failures are brought into the Project Management methodology.

Other Programmes

The CiCS Programme intersects with other Programmes, and this overlap has to be managed effectively:

- SAP Implementation Programme

Projects which implement SAP systems are managed by the SAP Implementation Programme, but also report to the main CiCS Programme, and are included within this Programme Definition document. At the start of 2007 these projects were the Open Finance Project and the Open HR & Payroll Project.

- University Collaboration Improvement Programme

This Programme started in early 2006. Projects with significant collaboration aspects report to the UCI Programme and are managed by it as far as the collaboration aspects are concerned. Benefits management is key to this programme.

- Estates Programme

CiCS intersects with the Estates Department programme of works both as customers, eg Brunswick m/c room, and as internal suppliers, eg residences. CiCS monitors progress in these projects, and incorporates requirements into CiCS projects or sets up new projects where appropriate.

2 Strategic Aims

The Strategic Aims, sometimes called 'Vision Statement', identify what the department wishes to achieve in broad terms. They are derived from the University's Corporate Plan and Information Strategy.

2.1 Vision

The vision is defined in the University's Information Strategy, summarised here.

The Information Strategy has the following objectives:

1. to make information more accessible
2. to reduce the cost and effort of managing and using information
3. to improve the availability and exploitation of management information
4. to encourage the development of information skills so that members of the University are confident and effective in their use of information
5. to improve the quality and reliability of information.
6. to ensure that the University's information processes comply with legislative requirements and, as far as possible, with appropriate national and international standards.

These broad objectives are closely aligned with the goals articulated in the Corporate Plan. These are set out below, with an indication of how the Information Strategy facilitates their achievement.

The achievement of excellence

High quality information systems will enhance the student experience, improving the efficiency and effectiveness of the corporate processes that support learning and teaching. The Information Strategy will facilitate the development of a content-rich learning environment, blending external knowledge-based content with local delivery, and making it easier for students to access the learning resources they need. Teaching staff will also benefit from enhanced information skills, enabling them to exploit innovative approaches to learning and teaching.

The frontiers of knowledge

The Information Strategy directly supports the generation of new knowledge and understanding, facilitating access to the global knowledge base, and providing a range of information and computing resources that enhance and extend the research capability of individuals, groups and multi-institution collaborations. The Information Strategy also emphasises the effective dissemination of research outputs and encourages this to be seen as an integral part of the research process.

The impact of innovation

Protection and exploitation of the University's intellectual property is an important dimension of the Information Strategy. By enabling information to be shared rapidly and securely with trusted partners, high quality information systems leverage the value of our research and learning enterprise.

The power of people: staff

The effective use of information in all its forms is crucial to the effectiveness of staff at every level. The systems, resources and support which the Information Strategy aims to foster will

enable staff to be productive and confident in their use of information. The Information Strategy places a strong emphasis on staff development and training to enable all staff to benefit fully from the provision of high quality information systems and resources.

The power of people: students

The Information Strategy supports the development of information literacy amongst students; a key attribute of the Sheffield graduate set out in the Learning teaching and assessment strategy. Our students will have the opportunity to acquire valuable transferable skills in the discovery, access, use and management of information.

The sense of belonging

Effective use of modern information systems will underpin the development of better internal communications, and enrich our interactions with the University's external communities, locally, regionally and beyond. It will facilitate the development of lifetime relationships with students, and make it easier for them to support their University.

Delivering on our promises

The capture and analysis of high quality management information, and the ability to derive intelligence from it, is crucial to assuring the quality of all of the University's key business areas, and managing the risks associated with them. Information systems and resources also extend staff capabilities, and make it easier for them to deliver high quality services to the University's customers.

2.2 Strategy

The main principles and objectives which underpin CiCS strategy to implement the vision include:

- The network will be high speed and reliable, provide appropriate links to off-campus sites, and high speed links to external organisations including other HE and research institutions. CiCS will develop and manage the voice and data network infrastructure to provide reliable and highly functional connectivity amongst local campus and remote computing and information resources.
- Research needs will be taken into account in planning infrastructure and services. A central computational service will be supported as well as direct pump priming support for new projects and appropriate research training.
- Advantage will be taken of developments in mobile telephony including the delivery of information services to portable devices. The wireless network will be expanded and developed.
- Systems will be delivered where possible over the web in order to maximise access and facilitate maintenance. Where web based delivery systems are not available, consideration will be given to how users of all platforms, including remote users, will access information.
- Open computing and network standards will be adopted where possible and practicable to enable disparate systems to work together seamlessly and minimize the likelihood of 'vendor lock-in'.
- Open source solutions will be investigated where appropriate alongside commercial solutions.

- Secure, high quality, campus-wide Corporate Information Systems will be provided that reflect the existing and future requirements of the University and are capable of adaptation for the future.
- Group and collaborative working will be facilitated, including electronic management of documents, schedules and workflow.
- The Portal will continue to be developed with more features available through it, allowing remote access to a widening range of information and services.
- All services will be developed where possible to be accessed via the portal with a single sign-on.
- Systems and procedures will be developed to enable implementation of the Learning and Teaching Strategy and the effective use of IT in learning and teaching
- Duplication of information will be reduced and data interchange between systems will be improved. File incompatibility between different versions of software and software suites will be minimised. Data will ideally be held in a single location and will be capable of being accessed and manipulated in a user-friendly environment. Electronic sharing, processing and storage of information will be facilitated.
- All members of the University will be provided with assistance and training to help them acquire and develop the appropriate skills to make use of the CIT services.
- Informative and prompt user support will be provided with a HelpDesk and IT Support team to serve all users of computing resources.
- Up to date systems and software will be delivered efficiently and according to appropriate industry standards.
- New and emerging technologies will be investigated and evaluated.
- CiCS will consider the short and long term computing needs of the University and assist individual departments to plan for their future computing requirements. CiCS will seek to ascertain the needs of users using a variety of methods and operate within a customer-focused environment.
- CiCS will operate within a Programme and Project Management culture, and all new developments will be project managed.
- Business processes will be analysed and improved before systems are implemented.
- Risk assessment will be carried out at the start of all projects, and an audit of all operational risks will be regularly carried out. Risk will be mitigated wherever possible.
- The University's investment in Information Technology will be protected with detailed plans for disaster recovery and business continuity.
- Quality of services will be regularly monitored and improvement processes put into place where necessary.

3 Blueprint

The Blueprint gives an idea of how our systems and services will look in the future.

The 'Model' sections (below) indicate broadly how that part of the organisation will look in the longer term, while the 'Measures' indicate what targets should have been achieved by the end of the current phase of the Programme. Since this is a rolling Programme some targets further off are also identified.

3.1 Support for Learning and Teaching

3.1.1 Model

- Despite continued increases in student PC ownership, the demand for on-site facilities to support the learning and teaching aims of the University is also increasing. In partnership with the Library, CiCS will open the Information Commons (IC) during this planning period to provide an integrated learning environment for students, giving access to print and electronic materials and making both traditional and virtual learning environments accessible in the same space.
- The IC addresses the need for an increase in IT enabled study spaces and provides a range of better quality study spaces, including group space and classrooms. To complement this CiCS will review the rest of its stock of student computing rooms with the following aims:
 - to improve the quality of the spaces (refurbishment, re-location/consolidation, upgrading)
 - to improve the range of facilities (wireless, laptop points, printing, etc)
 - to provide a range of types of spaces (group study spaces, teaching spaces, perhaps portal only stations)
 - to better meet the needs of teaching departments.
- Student Residences provided by the University will provide high speed access to the University network for student's own PCs. Increasingly accommodation in the private sector will also provide either Internet access or even direct access to the University network. A convergence of modes of service delivery will enable students to access services in the same way both on and off campus, e.g. access to file store. Increasing complexity and involvement will blur the support boundaries requiring enhanced support for students' own computers and a practical working plan as to its limits.
- WebCT VISTA will continue to be available for all modules and to all students on those modules if the module leader requires it. Access to VISTA is primarily through a portal gadget (or portlet) which gives users access directly to their individual modules.
- The new Portal will include Athens and Shibboleth authentication to continue to give seamless access to a wide range of online research journals and other information resources.
- CiCS will improve the range of services available to Student's own computers via the web.
- CiCS will improve the range and quality of services accessible from mobile devices.
- CiCS will actively engage with learning and teaching pedagogy across the University.

- CiCS will work with other interested parties to see whether new technologies such as “podcasting” will provide an improved learning experience.

3.1.2 Measures

1 End 2007

- a. Information Commons open and fully operational.
- b. CiCS will be involved in committees and projects planning and developing learning and teaching pedagogy across the University.
- c. A plan for evaluating space usage in the Information Commons as well as other L&T spaces in the University will be in place
- d. Improve Student Computing Rooms, including improved signage and information provision, better technical equipment and an increased variety of learning space.
- e. A program to brand all teaching rooms to clearly identify the rooms as being centrally provided and run by CiCS will have begun.
- f. There will be large screens displaying availability of PCs at strategic points around campus.
- g. The Edge will be open at the student residences, providing a range of services as well as PCs.
- h. A security policy for student access to the network using their own computers will be drawn up.
- i. Greatly increased access to the network will be available in student bedrooms.

2 Future Major Targets

- a. CiCS will work with other interested groups to improve services to mobile devices such as an institutional calendar.
- b. L&T support teams in CiCS will work together to provide a better, more joined up service to the University.
- c. The Ridge will open in the next phase of the residences project.
- d. Continued development of the programme to improve quality of student computing rooms.
- e. High speed networking to upgraded centrally provided student desktops to support rich media based modes of learning and teaching.
- f. Delivery of academic applications to students’ own computers.

3.2 Research Support

3.2.1 Model

- CiCS will locally host information services for the Library where there is no online facility available from the publisher or by national agreement. These will be web delivered wherever possible.
- CiCS will provide a centrally supported web service to enable research groups to deliver rich web sites without the need to manage their own web server.
- CiCS will provide an institution wide general purpose computation facility and provide support to research groups for access to national facilities and for building their own clusters.

- CiCS will ensure adequate provision of Access Grid and other appropriate video-conferencing facilities.
- CiCS will extend its central provision of full backed up filestore to better meet the needs of research groups for archival storage of data.
- CiCS will provide support and development effort for systems (such as SAP and URMS) allowing online costing, management and submission of research proposals, and financial management post-award.
- CiCS will provide advice on the appropriate use of information technologies by research projects, via its liaison service and through specialists, in areas which are of wide applicability or growing importance (such as statistics, computation, visualisation and Grid computing).
- CiCS will work with researchers in devising research projects and grant applications which take advantage of new information technologies.
- CiCS will work with research institutes, e.g. ICOSS and HRI, to promote the use of IT in research and develop the necessary facilities within the University to permit such research to take place.
- CiCS will host specialist services and equipment where appropriate and where research institutes or departments lack the necessary staff or facilities e.g. HRI web server. This service may be charged for.
- CiCS will offer charged services to assist research such as hosting computer equipment, providing system management (facilities management), providing a back-up service.
- CiCS will seek to better support research collaboration across groupings such as WUN and White Rose.
- CiCS will work to provide the Shibboleth persistent e-infrastructure.
- CiCS will provide RTP training to meet the needs to understand emerging technologies, like the grid.

3.2.2 Measures

1 End 2007

- a. Better support for collaboration across White Rose through the use of Shibboleth or other techniques for federated authentication.
- b. An exemplar Portal (INCIPIT) and grid facility for the WUN Medieval Studies Group to provide a template for other WUN groups.
- c. Roll-out of the storage service facility for large collections of research data.
- d. Upgrade to the Computation facilities as new faster, but inexpensive technologies become available.

2 Future Major Targets

- a. Removing barriers to the use of HP computing facilities.

3.3 Corporate Information Systems

3.3.1 Model

- The in-house, web delivered CIS system will provide a comprehensive service in the areas it covers, and use up-to-date technology. There will be extensive functionality for academic departments, much of which will be delivered with a light web interface.
- Accounts and purchasing will be integrated with each other and with other central systems including CIS and OLAP systems.
- Reporting of corporate data will be web delivered, and provide an integrated view of data from all systems.
- Other packages will support specific functions, for instance Staff Development, External Relations or OLAP analysis. Such packages will be largely web delivered, and integrated with other corporate systems where appropriate.

3.3.2 Measures

1 End 2007

- a. SAP Financials, HR & Payroll will go live in August 2007.
- b. On-line registrations including on-line payments and module choice will be in place for registering students.
- c. Postgraduate selectors will be able to make applications decisions via a web interface.
- d. Communication with UCAS will no longer be through MARVIN.

2 Future Major Targets

- a. Planning and analysis tools to replace Applix will be purchased and implemented

3.4 Business Processes

3.4.1 Model

- To meet the requirements of national legislation, a comprehensive Records Management Service (RMS), including repository, will be established. This facility will provide full guidance, policy development and service to the University and will, using record indexing, enable the institution best meet the needs of legislation. To further enhance service delivery, a review will be undertaken to determine best practice for the processing and retention of “e” documents and e-mail.
- An Electronic Document Records Management System (EDRMS) will be established and implemented University-wide. Such a system will be integrated with the RMS and will offer a workflow process.
- To better manage the process of approvals and presentation of Unit information, a new system (the Unit Maintenance System) will be introduced providing the university with a single dynamic system which will streamline information flow.
- Potential students and staff will be able to access an on-line student prospectus.
- More on-line, web based student centric systems will be developed in particular with regard to student registration, academic recording and financial support mechanisms, including fee and other payments.
- An upgraded Report-writing facility will be implemented thus enhancing CIS reporting and provision of management information.

- A Customer Relationship Management system will be developed and implemented for use by Marketing & Communications in the first instance with further roll-out to follow.
- The HESA Student Return review was completed mid-2006 and institutions have been formally notified of the new requirements both for data and new system processes; a project has been instigated to implement these requirements.

3.4.2 Measures

1 End 2007

- a. The Document management pilot will have completed, and there will be a plan for further roll-out, which will have commenced.
- b. The Unit Maintenance System will be fully rolled out by the end of 2007.
- c. The on-line prospectus front end will be released to Admissions tutors in March 2007.
- d. The upgraded report system, Cognos 8, will be fully implemented by mid 2007.
- e. The HESA student return development is underway with a project board providing the necessary guidance; the revised student record data-set to be configured for the 2007-08 student entry.
- f. The on-line student registration project was put on hold during 2006 and has recently recommenced with new project management and timescales being put in place.
- g. Phase I of the Customer Relationship Management project went live in July 2006 and Phase II is expected to complete in Spring 2007 prior to project closure.
- h. Facility on-line will be available to staff via the staff portal in spring 2007.

2 Future Major Targets

- a. The on-line registration and associated workflow protocols should be piloted in a number of academic departments during the 2007/08 academic year.
- b. The revised HESA Student return will be implemented during the 2007/08 reporting period.
- c. The Records Management Storage facilities will be established in Firth Court and the North Campus.

3.5 Data Network

3.5.1 Model

There will be a high speed wired data network that provides 100Mbps to every desktop across the campus. It will have two central routers in separate buildings dual feeding five aggregation centres. These aggregation centres feed individual buildings on a single circuit.

There will be a wireless network to communal areas (e.g. libraries, restaurants, halls) within the campus, and to other areas where appropriate.

3.5.2 Measures

1 End 2007

- a. Increased network resilience at core and aggregation centres
- b. Continuing development of wireless network

- c. Improve routing of secondary fibre between Brunswick and CC.
- d. Double connection speed to JANET/YHMAN.

2 Future Major Targets

- a. Provision of line powering to data points.
- b. Improvement of network capacity overall.
- c. Replacement of aggregation switches
- d. Highly desirable that new installs use one data point per computer instead of mini-hubs.

3.6 Telecoms

3.6.1 Model

- CiCS will continue to provide, maintain and develop voice services to University users. Convergences between voice and data services are more commonplace and, where possible, these will be embraced where they provide an advantage to the University.
- We will assist departments by making them aware of how the voice platforms can help them meet enquiry handling expectations (in conjunction with SRAM).
- Services and policies (including Telecom Strategy) will be reviewed regularly.

3.6.2 Measures

1 End 2007

- a. Upgraded core hardware and software on the existing Avaya voice platform.
- b. IP Telephony functionality established on switch; testing and piloting within CiCS done.
- c. Call management system (call logger) installed, with web access for authorised users.
- d. New tariffs for outbound call traffic and new maintenance agreement for telephony platform negotiated/implemented. Rationalised charging scheme for departments implemented.
- e. Procedures in place for establishing and publicising mobile phone compatibility with University services.
- f. Private radio system reviewed/replaced (in conjunction with Safety Services).

2 Future Major Targets

~

3.7 Customer Services

3.7.1 Model

- In this model, customer support and services are available in the forms that best meet the needs of the customer. Some modes of service and support will be available at any time, from anywhere, and where appropriate some services may be available as self service – for instance easy-to-use self-service access to support information will be always available through the web site and knowledge base.
- Standards for customer service will be set, and the service will be monitored and measured. Procedures will be adopted and support staff will be provided with

opportunities to develop the necessary skills to meet those standards. Feedback will be sought from our customers. The process of change will be managed and processes will be in place to ensure that the benefits of change are understood and realised by customers.

- All customer services will provide access to support via telephone, email, the web site and in person. Training and documentation will be developed in response to the needs of customers (achieved by monitoring queries and seeking feedback). All communication channels, support services, documentation and training will be co-ordinated, complementary and consistent.

3.7.2 Measures

1 End 2007

- a. Self-service and Knowledge base aspects of the helpdesk system will be Live.
- b. CiCS Web pages re-launched to provide a more customer-centric view of services provided and their support.
- c. Initial analysis complete of the management information available from help desk system to help improve responsiveness of service and to influence information provision, documentation and training.
- d. Information pack for staff developed.
- e. Management Information further improved to include 'dashboard' to give at-a-glance information about current activity.
- f. PDAs in use by mobile IT support staff to log and pick up jobs and queries from helpdesk system.
- g. Regular Helpdesk Customer Satisfaction Survey
- h. The ideas underlying service management approaches, such as ITIL, will have been introduced to managers in the department and a plan for development and implementation drawn up.

2 Future Major Targets

- a. Improvements based on monitoring of service standards can be measured in customer satisfaction ratings.
- b. Development of help desk system to deliver direct access to appropriate expertise. Knowledge base fully functional and providing self-service answers to queries that would have otherwise had to wait for expert.
- c. 'Hot Topics' (including fault statuses) to be published from help desk system.
- d. UCards and registration systems are more integrated (with each other and with systems that depend on their data). This enables self-service and a generally more efficient service.
- e. A standardised approach to service management, likely to be ITIL, will have been adopted and fully embedded in all service processes.

3.8 Delivery of Applications and Services

3.8.1 Model

- CiCS will continue to press forward with the delivery of applications and services over the web.
- Managed applications will be extended to all University members, regardless of location and client machine.
- Server virtualisation will be a major part of our energy and space usage strategies, both in the Windows and Linux/Unix environment.
- MUSE, the University portal, will provide seamless global single-sign-on access to on-line services for students, staff and researchers. Where practicable, all information and services will be web-based, and accessible through MUSE. Key information, relating to an individual, will be drawn from systems and presented to the user in MUSE.
- High volume business processes will be considered for transformation to web-based transactional processes, which will incorporate workflow authorisation if required. All self-service processes will be presented within the presentational framework of MUSE.
- Web based content will be input and managed through the Content Management System. The CMS will be used to present and manage the external-facing website.
- University stakeholders will as appropriate have the opportunity to develop an electronic relationship with the University, for example through persistence of data in the online application systems or the provision of a portal account.
- The cPanel web hosting service is provided to allow hosting of static and dynamic web pages outside of the main Content Management System.
- Central filestore will be used wherever practicable for service provision and for server storage.

3.8.2 Measures

1 End 2007

- a. Delivery of selected services to mobile devices such as smart phones will be further improved.
- b. Instant messaging service in place.
- c. Cognos Version 8 (ReportNet) fully rolled out. Old version of WebReports decommissioned
- d. SAP Financials and HR & Payroll systems will be fully live August 2007.
- e. Move of all staff to IMAP mail service complete.
- f. Electronic Document Management system fully operational
- g. Agreed elements of web-based collaboration system will be deployed.
- h. All systems and services monitored for availability, response times and other vital statistics.
- i. Pilot for replacement desktop in place.
- j. Initial tranche of servers virtualised.

2 Future Major Targets

- a. Evaluation and implementation of Web 2.0 technologies.

- b. Major shift of desktop delivery service to thin-client.
- c. Increased integration of services through open standards.
- d. Reappraisal of backup strategies.
- e. Reduction in energy usage.

3.9 Accessibility

3.9.1 Model

- Major standard services will include basic accessibility provision. For instance the Managed XP Desktop service includes Microsoft screen reader and screen magnifier software. However, since individual needs are varied, there is an expectation that students with additional support requirements will supply the software they require on their own computers. CiCS will work with external suppliers of non-accessible systems and software to meet accessibility requirements.
- Accessibility issues will be considered before any new CiCS service is launched. All CiCS projects now have provision of accessibility written into the 'Service Launch' process, and accessibility was therefore considered for the University Portal, CMS and WebCT.
- CiCS services will be extended as appropriate to improve general accessibility, eg Wireless Networking.
- All support information provided by CiCS will be provided in appropriate formats to facilitate accessibility. Large print and Braille will be available on request. The CiCS Helpdesk service can be contacted using a variety of methods, including drop-in, email, phone, and website.
- Voice services will meet accessibility needs, e.g. by providing special handsets where necessary.
- CiCS will work with other departments to assist in their accessibility provision.
- Some provision is best made on an individual basis. Where a general provision is not apparent CiCS will consider providing something specific e.g. specific documents can be brailled if necessary, one-to-one training is possible. CiCS will make all reasonable efforts to help in such situations.

3.9.2 Measures

1 End 2007

- a. All CiCS support service staff receive ongoing training in appropriate interaction with disabled people.
- b. All CiCS training continues to meet accessibility standards, either within standard provision, or by providing sessions or materials to meet specific needs.
- c. All support information provided by CiCS available in appropriate formats to facilitate accessibility. These include material provided electronically (online or CD-ROM), which can be resized on screen or accessed by screen reader software. Braille and large print documents will be provided on request.

2 Future Major Targets

- a. All software to be tested for accessibility before implementation.

- b. Management systems to have accessibility written into development and upgrade programmes.
- c. CiCS services and facilities to meet accessibility requirements wherever possible. Difficulties with the physical environment will be overcome.

3.10 Resilience and Security

3.10.1 Model

Information in electronic form and the means to store, transmit and process it are indispensable to the success and development of this University. However, the power and convenience of handling information and communication in this way is counterbalanced by the potential for disruption through failure, attack or misuse, and has to be managed within an increasingly complex body of law and in the context of a wide range of threats to the security of that information.

In order to protect the University, its systems and information the University will need:

- A data network that will continue to provide service, even when significant components and facilities are out of action.
- Systems or processes to monitor the state of all services and can detect and report failure or problems.
- A Business Continuity Plan for all its information systems and networks.
- An Information Security Policy; specific policies that cover the use of information and information systems; and policies that set out how compliance with legal and other regulatory requirements are ensured.
- A high level commitment to information security and staff 'dedicated to support the security function'.
- Systems in place that prevent and detect the connection to the network of insecure, compromised or unauthorised equipment. Processes that can detect intrusion or failure of security.
- Adequate systems and protocols to respond to and co-ordinate an effective response to major security incidents. Procedures to deal with complaints and misuse of computing facilities.
- Education and information for all staff and students about security policies and guidelines as to best practice.

3.10.2 Measures

1 End 2007

- a. Stand-by generator for Computing Centre installed and working
- b. Stand-by generator for Brunswick Road installed and working
- c. Fire suppressant system to be installed to Computer Centre machine room.
- d. Fire suppressant system to be commissioned in Brunswick Road.
- e. Information Security Policy reviewed and programme of work to complete a full set of policies to a recognised standard (identifying new policies to be developed or existing ones reviewed).
- f. Staff dedicated to the Security function.
- g. Improved Business Continuity arrangements in place for the end of 2007.

- h. Storage and backup strategies reviewed.
- i. Network and server monitoring with paging and alerts to appropriate staff.

2 Future Major Targets

- a. Implement IEEE802.1x log on to network (if appropriate to our environment).
- b. A completed set of policies and procedures under the Information Security Policy will have been completed and approved by the University.

4 Strategies

4.1 Benefits Management Strategy

4.1.1 Methodology

CiCS organised formal Benefits Realisation Management training in 2005, initially for the SAP Programme and then for other staff. This has resulted in a more coherent approach to benefits management, and in particular:

- a. The application of benefits management in the SAP Programme.
- b. The setting up of the University Collaboration Improvement Programme, which started in early 2006. This has been set up specifically to co-ordinate and actively manage the roll-out and benefits management of the collaboration aspects of a number of projects, some of which have extensive overlaps in potential capabilities and benefits.

During 2007 the 'benefits realisation' approach to project strategy will be promoted more extensively. It is likely that a new post will specifically include a benefits realisation mandate.

4.1.2 Benefits Identification

Projects deliver *capabilities*, whilst the programme is more concerned with the *benefits* achieved for the University.

This is a rolling portfolio programme, so the expected benefits of the programme as a whole cannot be pre-defined. The expected benefits to the University from the current and potential projects however can be identified and summated, and the prioritisation and orientation of projects can be made in the light of the overall benefits.

- a. Each project should identify the benefits to the University which it expects will result from the capabilities it will deliver.
- b. There may also be cross-project benefits, and these should be identified by the project team, departmental leaders, the Programme Manager and in Post-Implementation Reviews.
- c. There can be unexpected benefits from projects and these should also be included in the Benefit Profiles. These are most likely to be identified by the project team and Post-Implementation Reviews.

The aim for 2007 is to put in place a more structured approach to realising the benefits of the capabilities which CiCS projects deliver, taking an end-to end approach, from project conception to full roll-out and ongoing promotion. The new Programme and Project Unit will work with the Customer Services section to improve liaison between projects and Customer Services and to ensure benefit realisation is managed more effectively.

4.1.3 Benefits Realisation

Responsibility for the realisation of the benefits varies according to the type of project.

- a. Where projects re-engineer or improve business processes the relevant department is responsible for realising the benefits, and minimising dis-benefits. They will always be represented on the Project Group.
- b. Some projects impact on large numbers of departments, particularly those delivering capabilities to academic departments, like the Departmental Admin System projects. There will be a representative of the departments on the Project Group, but the Project Group as a whole will be responsible for roll-out and publicity, in order to maximise benefits accrued.

- c. Some projects are ‘enabling’ projects internal to CiCS, particularly infrastructure ones. They may for instance keep the technology up to date and facilitate the delivery of new facilities, like the Network Upgrade project. In these cases the benefits realisation is implicit, providing that the new facilities or requirements do emerge. Nevertheless they may have a high profile, like the Managed XP project, and there may be potential benefits which still need to be actively sought, such as the extended use of Managed XP possible if academic departments take advantage of the local application installation facility.
- d. Other CiCS-centred projects do require active promotion of the new capabilities in order to deliver benefits, like the Wireless Network, and the Project Definition and roll-out plan should make clear which CiCS staff group is responsible for realising the benefits, and minimising dis-benefits.

Also, Project Closure Documents always include handover details, and these include responsibility for further rollout, publicity, process consolidation etc as appropriate. The Customer Services Section will be actively involved in managing the transfer of responsibilities, and the realisation of benefits.

The Post-Implementation Review, which happens a few months after a project ends, may also include a new approach to benefits realisation, particularly of course where new potential benefits have been identified.

4.1.4 Benefits Monitoring

The ‘Benefit Profiles and Plan’ section of this document (held separately) brings together the strategic benefits expected from the Programme and how each project contributes to it. This is reviewed bi-monthly by the Programme Board, and is also of course fully reviewed and updated at the annual review of the programme.

One of the central purposes of the Post-Implementation Review, which happen a few months after a project ends, is to examine how benefits are being realised and take appropriate action.

Regarding collaboration benefits, as indicated in 4.1.1 these are being actively managed and monitored by the University Collaboration Improvement Programme.

4.2 Risk Management Strategy

Programme (not project-only) risks are dealt with here.

4.2.1 Identification of Risks

A thorough strategic risk assessment was carried out at the start of the Programme, and will be repeated at the annual review stage.

Additional strategic risks may be identified through the year, particularly if major projects are newly identified or there is a significant change in CiCS’ strategic aims.

4.2.2 Monitoring of Risks

Alternate monthly Programme Board meetings will include a review of the identified risks in the Risk Log, and consideration of potential new risks. This review may include modifying the perceived impact or probability of risks, and may of course involve initiating appropriate action to forestall risks or minimise their impact.

4.3 Quality Management Strategy

4.3.1 Organisation and Processes

Projects are organised and run in accordance with the industry-standard PRINCE2 methodology. The Programme organisation is based on the government-recommended MSP methodology.

1 Project Level

Each Project Group is responsible for the quality of its deliverables. All deliverables are signed off by the Project Group, the Service Launch Checklist helps ensure a controlled delivery, and the Post-Implementation Review directly assesses the quality of the products as used Live. Many projects also undertake a review and complete a Lessons Learned Report, to assist in improving the quality of future projects.

Each Project Manager reports monthly to the Programme Manager for the monthly Programme Board meetings (below).

2 Programme Level

The Programme Manager and monthly Programme Board meetings monitor and support each project, ensuring that minimum standards of reporting and accountability are maintained, and ensuring that projects operate properly individually and collectively.

The monthly and in particular the annual Programme Boards also monitor the Programme outputs and how these match the expected benefits and the University's strategy.

3 University Level

At a higher level, the quality of the Programme's outputs is monitored by the University's CIS Sub-Committee, and by the committees to which this reports and the Pro-VC responsible for Information Systems.

4.3.2 Information

All project documentation uses standard templates developed on PRINCE2 principles for the University by CiCS.

At project start-up all projects produce a Project Definition which includes an agreed definition of requirements and deliverables, against which actual deliverables can later be measured. Where these are significantly modified during the life of the project such changes are recorded in the Change Log section of the Project Definition.

Some projects will have a Quality and Test Log, which defines in a standard format how each deliverable is approved and signed off. Some projects do not warrant this level of documentation, either because they are too small or because the deliverables make it inappropriate - where the only deliverable is a report for instance.

The Service Launch Checklist ensures that every service launch is undertaken in a controlled manner.

All projects issue a Project Closure document which identifies the project's deliverables and what body approved them. A Lessons Learned Report may also be produced.

4.3.3 Configuration

Project Managers are responsible for project documentation. The Programme Manager and Programme Director ensure that projects produce the necessary documentation for effective

communication and record-keeping at both project and programme level, and provide support where necessary.

The Programme Manager keeps Programme documentation up to date, in particular the dynamic sections of this Programme Definition, which are held separately from the main document. The Programme Manager also produces reports as required by Programme Board meetings, by the department and by University bodies.

All Programme documentation is fully reviewed and updated on an annual basis.

Project and Programme documentation are held on a shared file-store, available to the appropriate CiCS staff. Much higher-level and support documentation is available on the CiCS Programme and Projects website.

5 Stakeholder Map and Communications

Who are the main programme stakeholders and how the programme establishes and maintains communication flows with them.

5.1 Stakeholders

Stakeholder	Interest	Programme Actions
Senior Management Group (SMG)	Achievement of corporate objectives.	Ensure changes in corporate objectives or strategy are reflected in the CiCS Programme. Ensure key programme deliverables and benefits are well understood. Ensure highly visible and high prestige services are handled sensitively.
Registrar and Secretary	Effective administration, strategic balance	Ensure involved in key decisions and issue management. Ask to sponsor certain strategic projects. Keep well informed.
Director of Finance	Effective administration, financial probity	Ask to sponsor certain strategic projects. Keep well informed.
Administrative Departments	Achievement of departmental objectives Effective IT systems & support	Have representatives in relevant Project Groups. Involve in specification, testing and rollout of products and services. Ensure involved in and supportive of business process analysis and improvement where these are necessary to maximise benefits.
Academic Departments	Support for research and teaching. Efficient administration Effective IT systems & support	Have representatives in relevant Project Groups. Involve in specification, testing and rollout of products and services. Vigorously publicise proposals, invite input and promote deliverables, as Project Group representatives can only be token.
Staff	Good working environment Efficient administration	Ensure support and training in place for new services.
CiCS Management	Achievement of departmental objectives Development and management of departmental Programme.	Director of CiCS is Programme Director. Co-ordinate Operational Plan with Programme Plan. Provide reports, and administrative support for Programme. Monthly Programme Board meetings. Annual Programme upgrade.
CiCS Staff	Job satisfaction Career development Job security	Projects' Lessons Learned Reports address staff development and concerns.
Students	Support for learning and research. Efficient administration	Have student representatives on Project Groups where appropriate, and/or ensure the Student Union is consulted. Vigorously promote new services. Develop comprehensive web deployment of information and administrative functions.
Applicants	Good information.	Develop comprehensive web deployment of information and

	Efficient administration	administrative functions.
Alumni	Networking, nostalgia.	Ensure systems in place to provide communication and proactively involve alumni.
Research sponsors	Comprehensive information Efficient administration	Ensure good communication via Research Office
Government bodies - HEFCE, SLC, Inland Revenue etc	Compliance with directives Good data flows	Ensure good communication channels within CiCS and from CiCS to external bodies. Ensure other administrative departments keep CiCS aware of statutory and other strategic changes.

Also see *SLA Stakeholders* on the web at www.shef.ac.uk/sla/services/information/cics/stakeholders.php for a map of stakeholders in CiCS services.

5.2 Communications Strategy

5.2.1 Communication Channels

CIS Sub-Committee, meets quarterly. Includes key corporate stakeholders. Receives proposals and reports for all corporate system projects, and information on other projects. Feeds up to higher committees.

Application Groups, meet as needed but at least quarterly. Include stakeholders for their area. Commission and receive proposals and reports from relevant projects and areas of work.

Information Division senior management meetings, meet regularly and as needed. Information of all types communicated.

Programme Board, meets monthly. Includes CiCS Executive & Programme Manager. Receives report from each project, and Programme documents as appropriate. Team leaders get monthly reports.

Project Groups, meet as needed, perhaps once a month on average. Include project stakeholders. Initiate, receive, modify and approve key project documents and reports.

Intra-project communications. Extensive communication of all types within each project group, involving all key stakeholders in each project.

CiCS Liaison Service. A major formal channel of communication with our users across departments.

CiCS User Group. A major formal channel of communication with our users across departments.

Departmental Liaison Meetings. A useful channel of communication.

Website:

CiCS Projects website. Provides descriptions and monthly news for every Live project. Provides information on processes and support for those involved in projects.

CiCS website. Provides documentation and information on software and services and information on CiCS structure, strategy and plans.

University website. Now the central medium for information distribution to the wider public.

University newsletters. Issued at various intervals. Previously issued by e-mail and hard-copy, now largely over the web.

CiCS Projects News, issued occasionally to CiCS staff, e-mail.

Press, publicity, marketing. Occasionally used to publicise new initiatives.

Informal 'networking'. Low staff turnover and high goodwill results in highly effective informal communication networks throughout CiCS, and a network of channels across the University.

Direct external communications. Specific directed communication with external bodies, as appropriate.

5.2.2 Stakeholder Communications

Stakeholder	Channels
Senior Management Group (SMG)	CIS Sub-Committee, Website, Newsletters
Registrar and Secretary	CIS Sub-Committee, Information Division senior management meetings, Intra-project communications, Website, Newsletters.
Director of Finance	CIS Sub-Committee, Intra-project communications, Website, Newsletters.
Administrative Departments	CIS Sub-Committee, Application groups, Project Groups, Intra-project communications, Liaison Service, Website, Newsletters, Informal networking
Academic Departments	CIS Sub-Committee, Application groups, Project Groups, Intra-project communications, Liaison Service, Website, Newsletters, Informal networking
Staff	Website, Newsletters, Informal networking
CiCS Management	Programme Board meetings, Project Groups, Intra-project communications
CiCS Staff	Project Groups, Intra-project communications, Website, CiCS Projects news, Informal networking
Students	Website, Newsletters, Press, publicity & marketing
Applicants	Website, Press, publicity & marketing
Alumni	Website, Press, publicity & marketing
Research sponsors	Website, Press publicity & marketing
Government bodies - HEFCE, SLC, Inland Revenue etc	Website, Direct external communications.

6 Programme Plan

Defining the portfolio of projects, including main phases of each project.

This is held as two separate documents, one text and one graphical (MS Project).

7 Benefits Profiles and Plan

Defining what benefits are expected from the Programme, and mapping these to projects.

This is held as a separate document.

8 Risk Log

Identifying Programme level risks, ie strategic and inter-project risks.

This is held as a separate document.