UNIVERSITY OF EDINBURGH

STUDENT SYSTEMS ROADMAP

2013-2016

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October 2013 Version 2.0

Part 1 – Why do this?   **Introduction**

The development of a student systems roadmap is a way of providing institutional leadership and direction for the support and development of student & academic administrative systems in the context of the University Strategy. The roadmap will help ensure effort is being prioritised in-line with strategic, business and user requirements along with compliance activity, with a view to the short and medium term.

The key stakeholders in this area are students (from pre-application to graduation and beyond), academic staff, administrative staff and the decision makers and planners who use the information that comes out of the student systems. In addition student systems are often at the heart of supporting our core student and curricula-related processes, initiatives and projects.

As well as providing the core administrative systems for student and academic administrative processes, student systems are increasingly supporting the relationship between the student and the University.

Student Systems do not operate in isolation. Crucially we need to work in partnership with other systems, for example the VLE, student portal, timetabling and school based systems, in providing a holistic service to students and staff. Student Systems present a challenge across the sector. Often introduced to facilitate statutory returns or manage the student record, they are increasingly being used to support the student experience, recruitment objectives and drive efficiencies within institutions. It is important we are well connected with other Universities, suppliers and those who drive compliance.

The roadmap is designed to help support this challenging position, within the context of a backlog of product developments, compliance activity, continuous improvement requirements and new enhancements. It is important that the roadmap reflects not only the approach to the delivery of projects, but also a high standard of support, training, engagement and communication.

Roadmap Objectives

The roadmap provides a clear vision for what we would like our student systems to provide in 2016. It also provides a clear vision for the role of the student record within the University.

The roadmap acts as a framework to support decision making and prioritisation of work and to help resolve competing priorities over resources and should assist other planning rounds within the University.

The roadmap articulates what we wish to achieve and also how we anticipate it will be achieved; it provides direction over a period of three years; it is pragmatic; sets a benchmark and realistic targets; supports engagement with users; and provides direction for colleagues.

Strategic Priorities

It is essential that student systems work is linked directly to the University Strategy. The table below provides a high level link between the roadmap and the strategy.

Strategic Theme	Impact on Roadmap
Outstanding Student Experience	Supporting the relationship between the student and personal tutors, academic, support and other services. Supporting enquiries, conversations, meetings and actions. Supporting assessment and feedback; availability and reliability of information on courses and programmes; core organisational elements of the student lifecycle including registration, course selection and information, progression and award, access to student the student record and HEAR.
Global Impact	Supporting international student recruitment, enquiry, application and admissions processes, student mobility and scholarships.
Lifelong Community	Work in partnership with Development & Alumni to drive traffic to their website to enable alumni to access their student record.
Partnerships	Exploring opportunities to collaborate and share activities in relation to student systems, processes and standards internally, across institutional boundaries and with commercial partners. Develop critical friend relationship with key external partners. Develop strong development partnership with key supplier.
Equality and widening participation	Support student recruitment and admissions processes to admit the very best students from a wide range of backgrounds by providing effective and efficient systems to support enquiry, application and admission processes.

Aspiration: In 2016 our student systems will provide:

Students with access to and ownership of their student record; accurate, useful and timely information on programmes, courses and assessment; access to complete academic and administrative processes where data is captured at source in a simplified and integrated manner; support relationship between student and academic and administrative staff; delivered any time, any place and on any (appropriate) device.

Academic Staff with access to information on their students, tutees, courses and programmes in a timely and accurate manner and the ability to engage in academic-related processes in a simple and effective manner where data is captured at source; support the management of effective relationships; and provide flexibility so that there are not system constraints on the administration of students. Confident in centrally provided student systems.

Administrative Staff with access to information and the ability to complete key administrative and academic-related processes in a timely, efficient and integrated manner in order to provide effective support to students and to carry out key student and academic related processes within their Schools, Colleges or Professional Services. Confident in centrally provided student systems.

Decision makers & external bodies with timely, accurate, joined-up and trusted information.

Part 2 – What will be delivered

Strand	Current Position	Desired Future Position	Rationale for Change
Self Service	Student has limited access to their personal student record and the information and process related to this. A number of the key high volume student-related administrative process are carried out manually with little or no automation.	Students with access to and ownership of their student record, and access to key documents anytime and on any device, with the ability to share this securely with others. Development of programme, course and students related processes where students or staff will compete to ensure data is captured at source, with automated processes which will drive efficiencies in administration.	Meet expectations of students regarding access to their student record and documentation, delivered any time and on any device. Provide staff with tools to complete administrative processes securely and timeously in a devolved structure. Provide efficiencies in administration. Improve data quality and accuracy of the student record in real time.
Assessment	Final course level marks uploaded to EUCLID along with final award (currently keyed in). Various systems used across institution to support assessment processing. Inconsistent communication of summative assessment to students. In-year information on assessment not available for students, academics and personal tutors.	Provide students with timely access to assessment information regardless of school and clarity regarding exam board decisions. Academic staff will have access to summative assessment details of tutees and students. Administrative staff will have centrally provided tools to support the assessment and exam board processes.	Support strategy to enhance Assessment & Feedback performance across institution. Support strategy to enhance student support through Personal Tutor scheme. Provide staff with robust processes, data and outputs to manage Exam Board, student progression and awards. Provide students with consistent source of information on summative assessment in-year and in line with the University Regulations.
Admissions	UCAS system delivered in 2006 which provides some of the functionality required by Admissions but has evolved in a way where there is significant working outside of core system and work-around in place. UCAS change to paperless from 2014 cycle. Online application form and back-end system in place for direct admissions. High number of applications started but not completed, high number of applications submitted without full information required to make a decision. Colleagues working outside of system which leads to concern over accuracy of MI. Concern over applicant experience, turnaround times and conversion rates.	Clear, intuitive and straightforward online application form and support for direct applicants and referees. Clear and timely communications from the University and supportive and helpful information delivered through applicant portal. Enquiries managed quickly and effectively. Provide staff with tools to support the delivery of quick and accurate decisions in line with Admissions Policy to support the achievement of recruitment targets. Provide tools to enable staff to quickly and accurately provide decisions on access to University Bursaries and Scholarships.	Support the achievement of University student recruitment and admission strategies. Reduce the number of applicants who fail to complete application form, take a number of attempts or submit with incomplete information; reduce turnaround times by ensuring all information is submitted prior to being passed to decision makers; develop clear, effective and timely communication and responses to enquiries to assist applicant conversion. Develop tools which staff will use, providing required Management Information. Support staff in the timely allocation of bursaries and scholarships to support conversion and achievement of University objectives.
Enhancing Student Support	Personal Tutor IT Tools delivered for undergraduate students to support the implementation of Personal Tutors at the University. Plans to roll this out for PGT and develop a different approach for PGR.	On-going development of Personal Tutor tools to support the evolution of the relationship between students, Personal Tutors and Student Support Teams in Schools. Potentially delivery of tools to support any scheme which is developed to enhance support available for PGR students.	Support the delivery of the Personal Tutor scheme and the relationship between the student and the University. Provision of online space to facilitate this relationship. Support the delivery of any scheme developed to enhance the support available to PGR students.

Strand	Current Position	Desired Future Position	Rationale for Change
Programme and Course Information	Programme (basic) and course (comprehensive but not golden copy) held on student record and published through University website in a format which is functional rather than useable. Various versions of the programme and course information published, feedback that making decisions on choices is not straightforward. Business processes variable with deadlines not commonly adhered to.	Provide students and academics with accurate, useful and timely information on programmes and courses from a single source of information, in a user friendly format, helping to set expectations and the course selection process. Provide academic and administrative staff with tools to support the management and maintenance of programme and course information, with one golden copy, supporting publication in a number of areas. Improve the user experience.	Programme and course information (along with student personal and assessment data) forms a fundamental part of the student record. This information and the processes associated with it need to be managed tightly and effectively, particularly in a devolved institution. Data from here drives other key processes. Students and academics need access to information that is accurate, useful and timely to help inform decision making. Colleagues need tools that help this data be managed, owned and used in multiple places.
Enquiry Management	Student has limited access to their personal student record and the information and process related to this. A number of the key high volume student-related administrative process are carried out manually with little or no automation.	Enquiries managed quickly and effectively, helping to build the relationship between the university and the enquirer, applicant and student. Reduce repeat, high volume enquiries to enable staff to focus on high value support for students. Provide tools to manage enquiries and use data to market to and recruit the very best students from a wide range of backgrounds. Provide a toll which will help distribute and manage enquiries, and provide management information which will help enhance service delivery.	Enhance access to and the support provided to Students, particularly by and through Professional Services. Seek to reduce number of high level, repeat enquiries, and answer more enquiries at the front line to free up specialist resource. Provide enquirers and applicants with more effective service to support student recruitment objectives and use management information to support future marketing activity.
Quality Hub	Majority of processes are reliant on information and data from student record system but operate independently of system. Desire to enhance the use of student data, the delivery of annual quality processes and the analysis which adds value to these exercises.	A quality hub which pulls together the key student course and programme information to support internal processes. Development of tools to help Schools manage key administrative processes.	Support enhancement within Schools and Colleges and appropriate oversight at College and University levels. Use of student data to support the development and analysis of performance of courses and programmes with appropriate internal and external benchmarking.
Management Information/ Business Intelligence	Significant amount of the data and information required by institution is available. Opportunity to enhance the use of this information, the availability of the information and the support available to staff. Guided by the Building a Business Intelligence Capability project.	Link to work being undertaken on MI/BI and changes in systems which support this activity. Aim to provide decision makers & external bodies with timely, accurate, joined-up and trusted information.	Provide colleagues with the BI/MI required to make decisions and support enhancement. Provide the University with efficient ways of managing and delivering student record data.
Compliance	Compliance activity (internal and external) drives a significant proportion of work.	Meeting external compliance requirements, while measuring effort taken.	Compliance will be an on-going requirement but need to ensure effort is proportionate.

Delivery Timelines

*Delivery dates identified unless Scope mentioned

Strands	2013/14		2014/15		2015/16	
	H1	H2	H1	H2	H1	H2
Self Service	Online registration new students. Online access to HEAR.	Online registration phase 2.	Students with access to and ownership of their student record, and access to key documents anytime and on any device, with the ability to share this securely with others. Development of programme, course and students related processes where students or staff will compete to ensure data is captured at source, with automated processes which will drive efficiencies in administration.			
Assessment	Assessment Scope. (SMART in HSS)	Assessment Scope (SMART in HSS)	Provide students with timely access to assessment information regardless of school and clarity regarding exam board decisions. Academic staff will have access to summative assessment details of tutees and students. Administrative staff will have centrally provided tools to support the assessment and exam board processes.			
Admissions	Paperless UG Admissions.	Direct Admissions Phase 1 Paperless UG Phase 2 Bursaries & Scholarships Phase 1	Direct Admissions Phase 2 Bursaries & Scholarships Phase 2	Unclear at this stage what further Admissions work required beyond 2015.		
Enhancing Student Support	Personal Tutor (PT) Enhancements. SSIG Research Students Scope.	SSIG Research Students Scope PT small enhancements	SSIG Research Students Scope PT small enhancements	SSIG Research Students Deliver PT small enhancements	No worked planned at this stage in this area	
Programme and Course Information	Scope PCIM Project.	Start PCIM Project Role that PATH plays in the future decided.	Provide students and academics with accurate, useful and timely information on programmes and courses from a single source of information, in a user friendly format, helping to set expectations and the course selection process. Provide academic and administrative staff with tools to support the management and maintenance of programme and course information, with one golden copy, supporting publication in a number of areas. Improve the user experience.			

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Delivery Timelines (cont.)

*Delivery dates identified unless Scope mentioned

	2013/14		2014/15		2015/16	
	H1	**H2**	**H1**	**H2**	**H1**	**H2**
Enquiry Management	FAQ Pilot Scoping Enquiry Management	FAQ Pilot Scoping Enquiry Management	Enquiries managed quickly and effectively, helping to build the relationship between the university and the enquirer, applicant and student. Reduce repeat, high volume enquiries to enable staff to focus on high value support for students. Provide tools to manage enquiries and use data to market to and recruit the very best students from a wide range of backgrounds. Provide a toll which will help distribute and manage enquiries, and provide management information which will help enhance service delivery.			
Quality Hub	Scope Quality Hub	External Examiners Phase 1	External Examiners Phase 2	A quality hub which pulls together the key student course and programme information to support internal processes. Development of tools to help Schools manage key administrative processes.		
Management Information/ Business Intelligence	Business Objects Upgrade and change in service.	Link to work being undertaken on MI/BI and changes in systems which support this activity. Aim to provide decision makers & external bodies with timely, accurate, joined-up and trusted information.				
Compliance		2013/14 SITS Upgrade UKBA Data Recording Data Retention Outcome Agreements	2013/14 Stat. Return SAAS Attendance Monitoring	2014/15 SITS Upgrade SITS Infrastructure Replacement	2014/15 Stat. Return	2015/15 SITS Upgrade

Technical Roadmap

Strand	Current Position	Desired Future Position	Rationale for Change
Architecture	A review of current architecture has been carried out.	A reference architecture to use to judge changes and additions against with a clear technical owner.	Simplification leading to improved long term maintainability.
	Core services are supplied by Tribal through their SITS product, with significant local configuration.	Core service supplied by Tribal through their SITS product. Significant but reducing proportion of local configuration relative to functionality from Tribal. Review our existing and proposed developments taking into account the Tribal roadmap, particularly in relation to web and mobile developments. Willingness to go back and remove local configuration where Tribal have developed new 'core' software.	Simplification leading to improved reliability and lower costs. We should seek to reduce local configuration.
	Core services are supplemented by tools from other vendors and other in-house built applications.	Clear rationale over when to buy and use Tribal and when to build. Mixed economy is necessary and will continue.	Simplification – use the right tool for the job.
Usability	Significant usability concerns with some systems.	Improved and more consistent usability using modern technology. Recognition that designers are needed. Adaptive design to support differing screen sizes for most commonly used functions.	Improved usability will enhance user experience and reduce support needs.
	Most services are not usable on small screens.	Adaptive design to support differing screen sizes for most commonly used functions.	Part of our mobile working/learning strategy.
	Most processes require the users to go to EUCLID and we may wish to challenge whether this is the place the information needs to be delivered.	Provision of information in or through the tools that staff and students already use.	Greater satisfaction with the experience/higher productivity.
Integration	Data fed from the student record to many other systems, providing student data where needed. Ad-hoc interfaces to other systems exist. Mixture of near-real-time feeds and overnight feeds, overlap of feeds for reporting and transactional systems; lack of test suits for interfaces.	Common mechanisms for the transfer of data, including the use of Tribal's STUTALK and enterprise service bus. Adoption of common data schemas and agreed processing timing/scheduling.	Re-use of services to reduce costs. Service clarity to ensure that service and processes align and meet expectations.
	Reporting through a range of BOXI universes with limited control over reporting and user engagement.	Change to Business Intelligence Suite – reports and data with Academic Registry provenance aligned to user needs. Support for ad hoc data exploration. Cross universe reporting and dashboards for important processes.	Most BI needs are being met with ad hoc approaches. This can lead to duplication of effort and inconsistencies. A more centrally led delivery will help move to more evidence based decision making.

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Technical Roadmap (cont.)

Strand	Current Position	Desired Future Position	Rationale for Change
Reliability	Current infrastructure is now nearing end of life and is no longer the IS recommended approach.	Move to new standard hardware.	Improved performance and availability and reduced costs.
	Limited use of formal software development control tools.	Introduce source code version control, automated build, automated deployment, and automated environment cloning. The technical constraints around Tribal's technical choices limit our ability to deploy these technique/tools as widely as is desirable.	Repeatable delivery reduced errors and hence downtime in the live environment. Delivers high quality at a lower overall cost.
	Disaster recovery requires manual intervention.	Automated failover between data centres. Use of automated failover also allows much planned patching/upgrading work to be done without or with much reduced downtime.	Improved availability.

How will this be achieved?   **Decision making principles and criteria**

Some principles and criteria have been developed to support decision making. They are not the only things that needs to be considered and this list may change over time.

Supporting priorities, sponsorship and support: Ensure there is a link between the proposed work and the strategic priorities articulated in the roadmap. Senior level support required for significant developments and to support change process.

Benefits: Establish a benchmark and set and measure expected business benefits. Aspirations should be set in relation to efficiency and quality and related business objectives.

Improving the user experience: Ensure the proposal is better than what already exists. Solutions should be focussed on the user experience and usability of the system.

Simplification: Seek to simplify where possible and avoid bringing in any unnecessary complexity.

Business Processes: Seek to standardise and simplify business processes.

Options including software/product: Explore a range of options externally and internally, including, do nothing. Understand and work through any impact of duplication of existing functionality or functionality which can be purchased. Understand what the impact is on existing systems, downstream systems and support.

Ownership: Have clear ownership, roles and responsibilities been established throughout the project and hand-over to business as usual.

Constraints: Understand constraints and risks.

Timing and Resources

The following should be worked through in relation to the timing of the work and the resources it will demand.

Clearly define work: Take time to clearly define the work, the business processes and dependencies.

Resources: Secure central and local area resources. Set clear expectations regarding time commitment, roles and responsibilities. Align any external resources. Ensure any short and medium term budget implications are understood and articulated.

Link to academic year and other enhancement: Work to establish the most effective implementation date.

Who does it impact: Understand who the end-user is and how this work impacts them.

Quick hit or long haul: Seek to deliver quick hits or break work down into phases.

Method

It is clear that the implementation of the student systems roadmap will not be a straightforward task. As such it is important to develop characteristics and methods which will be deployed in full or in part to help implement the roadmap. Lessons from the past have been learned.

A number of the methods identified below have proved challenging in the past and will continue to do so in the future. However, it is important that the University develops successful methods for supporting and enhancing student systems.

Partnership: All support work and enhancements will be delivered in partnership with users, suppliers and decision makers across the institution. A clear understanding of requirements, expectations, when users engage with systems, the student and academic lifecycle will underpin our approach.

Communication: Development and implementation of a clear and effective model of stakeholder management; effective, regular communications with users and advocates of the system; development of two-way engagement to support decision making and continuous improvement.

Tools: Focus on providing tools and support for the users, developed from an approach that facilitates co-creation, user engagement and ownership. Re-visit areas of the system more regularly. Avoid overly-engineered solutions.

Look and feel: Roll out student-facing (and high volume staff facing) elements of the system using new look and feel of the web interface and move staff interface over to the new look and feel as areas revisited.

Clarity: Clarification on roles, responsibilities and objectives. Clarity on prioritisation of effort and impact of those decisions.

Speed: Seek to finish projects quickly and get people using new capabilities quickly.

Support: Focus on providing a high and consistent level of support to users, training and knowledge transfer.
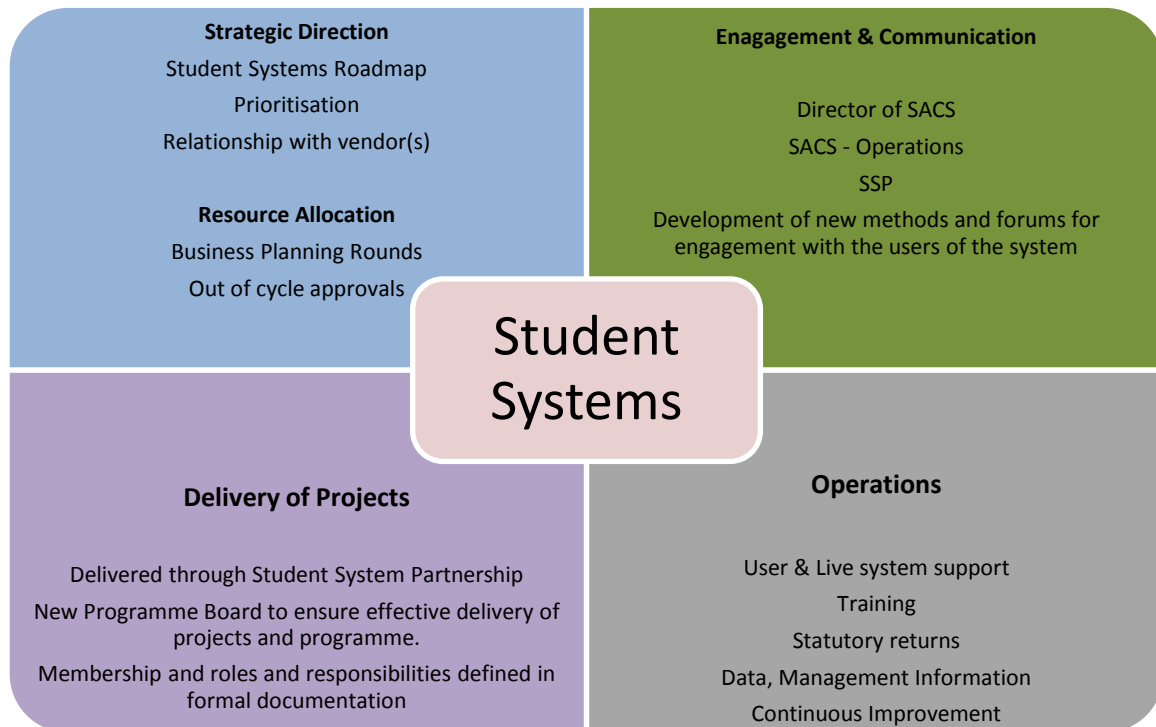
Reviews: Carry out regular post-implementation reviews.

External: Develop and manage relationship with key vendor to help deliver roadmap; develop critical friend relationship with key external bodies; and understand developments and enhancements in student systems within the sector, UK and internationally.

Confidence: Work to develop greater confidence in the centrally supplied student systems.

Strategic Oversight

The diagram below has been developed to help identify the focus of Student Systems within the University of Edinburgh. The two tables further below articulate the roles of the Student Systems Board and the SSP Programme Board.

Strategic Direction

Student Systems Roadmap

Prioritisation

Relationship with vendor(s)

Resource Allocation

Business Planning Rounds

Out of cycle approvals

Enagagement & Communication

Director of SACS

SACS - Operations

SSP

Development of new methods and forums for engagement with the users of the system

Student Systems

Delivery of Projects

Delivered through Student System Partnership

New Programme Board to ensure effective delivery of projects and programme.

Membership and roles and responsibilities defined in formal documentation

Operations

User & Live system support

Training

Statutory returns

Data, Management Information

Continuous Improvement

Student Systems Board

Remit:
Providing strategic oversight to the development of student systems, with a focus on medium term development, management and prioritisation of the student systems roadmap.

The Board will help co-ordinate medium term priorities from across the University, seeking to influence and support the University planning rounds and processes to provide a co-ordinated approach to the development of our student systems.

The Board will help co-ordinate priorities providing a steer on the weight of effort that needs to be placed on the various strands of work, supporting the resolution of conflicting and unplanned demands.

The Board will receive periodic reviews of progress against the aspirations articulated in the Student Systems Roadmap 2013-2016 and progress against the benefits articulated at programme level for key stakeholders.

Membership:
Senior representatives from key stakeholders identified in the Student Systems Roadmap: Students; Academic Staff; School and College Administrative Staff; Student and Academic Services Group; Decision Makers and Planners. Chaired by the Senior Sponsor (Deputy Secretary, Student Experience) and supported by Senior Responsible Officer (Director of SACS) and Senior Supplier (Director of IS Applications) and others as appropriate.

Frequency:
The Board should meet three times a year, seeking to align with planning rounds, and receive monthly updates for the Programme Board for information.

SSP Programme Board

Remit:
Maintain oversight of the student systems programme of work, monitor progress and ensure coherence and co-ordination of activities. Monitoring of timescales, resources and high level/key risks.

Ensuring individual projects are on track and taking appropriate action when there are changes (outwith the agreed parameters).

Ensure the programme as a whole is making appropriate progress to the aspirations outlined in the Student Systems Roadmap 2013-2016 and the programme as a whole is delivering benefits articulated for key stakeholders and supporting change management.

Membership:
Chaired by Senior Responsible Officer, with Senior Supplier, Programme Manager, Heads from SACS and Project Managers.

Frequency
Monthly meeting.