
A Case Study of Business & Community Engagement (BCE)

at The University of Strathclyde

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Evidence from the JISC BCE User Needs, CRM and IPR studies has shown that institutions need help in understanding how to achieve alignment and integration of different processes, systems and operations in support of the developing BCE capability and infrastructure, especially within the information, administration and IT services. This project will gather evidence of current levels of integration and identify models of cross-institutional business processes impacting on BCE activity. It will identify good practice and ways for improving processes to better integrate BCE with core activities.

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Executive Summary

Staff at the University of Strathclyde took part in the Embedding BCE through Business Process Improvement and Internal Engagement Project in 2009, analysing the efficiency of the institution's business processes with respect to BCE. The study found that the breadth, variety, richness and impact of BCE work at Strathclyde was significant, especially with regard to its commitment to connect learning and research through knowledge exchange to make an impact on society. Knowledge exchange is focussed on increasing business competitiveness by providing access to expertise, skills and information available through the university.

At the time of the study, the university was undergoing a major restructuring; proposed changes aim to strengthen external engagement commitment and partnership development. In part this will be realised through a strategy group for outreach, which will be responsible for increasing awareness and opportunities for participation in engagement, sharing information, and identifying and disseminating good practice. For businesses the Research and Innovation Directorate coordinates research development, acts as an agency for technology commercialisation, and manages initiatives, such as student placement, and networks.

All faculties have strong links with industry, and Strathclyde is one of the UK's most successful universities in generating research patent royalty income. The Directorate's remit includes the provision of support during generation, management and realisation of commercial gain from external activities. Experience has shown that working with companies can be difficult with respect to the provision of Continuing Professional Development, so the current emphasis is to work with individuals. In addition to local, regional and national engagement activities, the university also has a strategy for the internationalisation of knowledge exchange through entrepreneurship in schools and the development of strategies for renewable energy.

It was acknowledged in the study that external engagement is more effective if the internal processes are streamlined. At Strathclyde a lot of engagement activities are managed by individual faculties; however, an Employer Engagement Task Group acts to build internal networks to share information. It was felt that seeking ways to engage internally in this way is a good use of effort, for example, better utilisation of the intranet could further support BCE.

Faculties recognise the influence of engagement activities on curriculum development and approaches to teaching and learning; further, in some areas, particularly those with a strong vocational element, engagement was felt to be essential to the relevance and currency of what they teach. Exchange activities tend to be delivered by enthusiastic individuals, who have a variety of skills, which are, in part, influenced by the context in which BCE is occurring.

In terms of central services: the university Research Portal supports knowledge exchange in practice; KE is recognised as a strategic priority in HR, although there is a perception that it is less highly regarded than teaching or research; the library supports KE, but there is a lack of awareness about the needs of the BCE community. It was observed that a significant amount of BCE activity is silo driven and dependent on personal relationships.

Strathclyde has put in place a structure for increasing the impact and value of external partnership development. However, interviewees commented that there is a lack of awareness about the location of expertise and the activities occurring across the institution. However, efforts are being made to build networks and facilitate access

to colleagues. The university evaluates information about knowledge exchange formally as part of its strategic planning cycle, but information recorded about community engagement is not consistent.

Overall, the majority of staff interviewed felt that the challenges of knowledge exchange were a price worth paying for the outputs and results generated.

Overview

Statement of Importance

Evidence from the JISC BCE User Needs, CRM and IPR studies¹ has shown that institutions need help in understanding how to achieve alignment and integration of different processes, systems and operations in support of the developing BCE capability and infrastructure, especially within the information, administration and IT services. These internal services are often not as responsive to BCE as they are to teaching and research because of uncertainty about policy, a perception of relatively reduced importance and the simple fact that BCE is not yet embedded in most institutions' organisational design, policies and practices.

Other related JISC projects² have sought to identify top level institutional business processes and functions, and the international e-Framework³ has process identification and improvement as its underpinning rationale, to enable technical interoperability and an internal service orientated approach.

The BCE Customer Relationship management (CRM) project⁴ is deriving process mapping and self-analysis tools to help institutions manage an enterprise-wide approach to CRM, before delivering some pilots to test effective approaches to CRM. Managing relationships, contacts and business intelligence is clearly core to BCE operations, so the CRM work is important in the context of this project, but here the focus is much more on the business processes implicated in all BCE operations, so interoperability with core institutional functions is main area of investigation.

Strategic change of the type spearheaded through BCE brings with it, not only the operational changes referred to above, but also changes in resources and resource profiles. BCE requires new and distinctive skill-sets, which include negotiation, high-level communication skills, brokerage skills and legal knowledge, as well as an understanding and experience of both business and academic sectors. The training and staff development needs are therefore considerable; a parallel BCE Programme activity 'Supporting Training, CPD and Staff Exchange for BCE Practitioners'⁵ is focussed on providing process, system and technology enhancements for existing training programmes, delivered by AURIL-CPD, PRAXIS, the UK Universities CPD Network and others.

The increasing professionalisation of institutional Knowledge Transfer and workforce development practitioners, through professional bodies like the Institute of Knowledge Transfer and networks like the UK Universities CPD Network, adds to the gathering momentum of BCE activities. This makes it more critical that effective processes to support these activities are identified, integrated and communicated and effective change management

¹ http://www.jisc.ac.uk/home/whatwedo/themes/business_community_engagement.aspx

² Notably: http://www.jisc.ac.uk/whatwedo/programmes/programme_jos/project_hilda.aspx

³ <http://www.e-framework.org/>

⁴ <http://www.jisc.ac.uk/media/documents/funding/2008/03/circular308appendixg.doc>

⁵ <http://www.jisc.ac.uk/whatwedo/programmes/bce/bcesupportingtraining.aspx>

processes adopted to minimise risk, ensure sustainability and ensure that the institutions have the operations suitably configured to deliver their strategies.

The Project

The Embedding BCE through Business Process Improvement and Internal Engagement project is one of four projects managed by the Advisory Services of JISC. The project is being managed by JISC infoNet (<http://www.jiscinfonet.ac.uk>), based at the University of Northumbria, with John Burke, Senior Adviser at JISC infoNet as Project Manager and Clive Alderson as Project Consultant.

Aims and Objectives of the project are:

1. Identifying the key business processes and system implications involved and analysing the related coherence and efficiency of these. This will be achieved through information gathering from a range of institutions across the sector, including some FE institutions and some from the devolved administrations;
2. Producing case studies which illustrate different models and degrees of business integration for different approaches to BCE. This will be achieved by working with a small representative sample of five institutions (including one English FE, one Scottish HE and one Welsh HE institution) to examine and document the 'as-is' state of business processes around BCE activities;
3. Devising change plans in each of the five cases to enable BCE functions to be more effectively embedded by identifying areas for process improvement, actions, resources and change agents needed in each of the five cases which would result in better integrated strategic BCE operations;
4. Producing an infoKit which distils the learning from the above activities and highlights recommended business process improvement steps and methods for better integration of BCE operations within institutions;
5. Base-lining and developing the level and nature of engagement between central functions, (including libraries, administration and information management/IT) and BCE operations;
6. Producing an infoKit for managers of the central functions within an institution, with advice and guidance on BCE and how to support it. This will demonstrate the benefits for the institution and promote enhanced internal engagement and better integrated BCE.

The Context

The University of Strathclyde is situated in Glasgow on the West coast of Scotland. The University has a long history beginning in 1796 when Professor John Anderson left a bequest in his will for the establishment of 'a second higher education institution' in Glasgow. His vision was the creation of a place of 'useful learning' and of education for all, regardless of gender or social class.

The University developed rapidly and by the end of the 19th century had become a major technological institution. During the nineteenth century it continued to grow, and although it offered some courses in management the focus was still on science and engineering. This was until the 1960's when the college broadened its activities by merging with the Scottish College of Commerce which offered a wide range of business and arts subjects. The enlarged Royal College was granted the Royal Charter, and became the University of Strathclyde in 1964.

In 1993 the University merged with the Jordanhill College of Education, a major teacher training college, and the new Faculty of Education was created. The University continues to grow and is today the third largest university in Scotland⁶.

There are currently approximately 25000 full and part time students attending the University of Strathclyde, with many more additional people involved in continuing education and professional development. The institution enjoys a powerful reputation for its commitment to commercially relevant research, experience in entrepreneurship education, and its strong links to industry and commerce. Its location in the city centre provides a strong physical civic presence.

The BCE landscape at Strathclyde

The comments and feedback contained in this case study should be prefaced with an acknowledgement of the breadth, variety and richness of the engagement activity being undertaken at Strathclyde. The impact of this work, both internally within the institution and externally across the broader community, is significant. Although not exhaustive, the following are some of the activities and initiatives identified during discussions and interviews with members of the university:

- Science Circus. This is an initiative involving the four west of Scotland universities which encompasses an assortment of activities including workshops, presentations, science walkabouts, and science busking. Aimed primarily at schools and community members to stimulate interest in the sciences and education.
- Strathclyde 100. A network of the university's successful entrepreneurs, with main activities including a mentoring programme for new businesses started by staff, students or alumni.
- Strathclyde Entrepreneurial Network (SEN). Set up in 2005, SEN has to date supported the creation of 47 new companies. It provides a wide range of support including one to one advice, access to funding support, and networking events and initiatives.
- The Centre for Lifelong Learning. The provision of CPD programmes to a broad base of learners. Cross departmental and cross faculty collaboration has led to a variety of interdisciplinary offerings.
- Senior Studies Institute. Part of the Lifelong Learning framework, the Institute provides programmes for older adults. An extensive programme of daytime Classes is provided covering subjects of special interest to the older learner.
- Professional Development Unit. In the Faculty of Education, the unit manages and coordinates a wide range of activities including short courses, seminars, conferences as well as award bearing courses.
- Institute for Advanced Studies. Facilitating knowledge exchange between a broad base of sources drawn from the third sector, industry, education and the public sector with the aim of influencing public policy and societal thinking
- Industry presentation day. Part of the Masters programme in Engineering. Students present their research to panels of employers and industry representatives.
- Strathclyde has the largest industrial sponsorship for research for the size of university in the UK.
- Strathclyde University Incubator Ltd. Created in 1990, the facility was set up to provide supported workspace for new and existing businesses.
- David Livingstone Centre for Sustainability. Cross disciplinary research centre looking at the challenges of global sustainability. The centres' staff includes economists, planners, scientists, and social scientists.

⁶ <http://www.strath.ac.uk/about/heritage>

Current activities include development of environmental entrepreneurship international training programme in collaboration with UNIDO.

- Institute of Photonics. A research unit within the Physics Department. Strong links to industry and developing laser technology with a view to commercialisation and knowledge exchange.

The Enquiry Process

The review of BCE activities at the University of Strathclyde was structured around a series of one to one interviews with a cross section of staff drawn from across the institution. The approach was conversational and responses were noted down and have been aggregated to form the basis of this case study. Comments and feedback have been anonymised.

Findings

The findings and feedback have been aggregated under the following headings:

- Strategy and Policy
- Processes and business systems
- Partnerships and collaborations
- Roles and skills
- Customer perceptions and Key performance measures

The findings have been informed by the views expressed by staff during interviews facilitated by the JISC infoNet project team. A full list of participants is provided at Appendix A.

Strategy & Policy

Strategy & Policy at Strathclyde

The University of Strathclyde was established in 1796 as a “place of useful learning”, and this remains a central element of the institution’s mission today. The term “Useful learning” is described by the university as encompassing the principle of combining academic development and pursuits with social and economic relevance through engagement with partner organisations at local, national and international levels. The university’s mission statement⁷ articulates this in terms of having a reputation for excellence across research, education and knowledge exchange (the terminology used at Strathclyde to describe the collection of activities we describe as BCE), and being modern in outlook, generating new ideas and fresh opportunities by engaging in collaborative activities and strategic partnerships. The commitment to “useful learning” is seen to be about connecting learning and research through knowledge exchange to make an impact on society.

Knowledge exchange at Strathclyde is particularly focussed on driving innovation and increasing business competitiveness by providing access to expertise, knowledge, skills and information available through the university. As a strategic priority, knowledge exchange is an integrated activity and the university has achieved a high level of recognition for this work. Strathclyde is in the top three in Scotland for the SFC Knowledge Transfer Grant, and is number one in Scotland and top five in the UK for the uptake in Knowledge Transfer Partnerships.

Knowledge exchange is one of the three strategic pillars of the university, with a designated Vice Principal holding overall responsibility for overseeing the direction, focus and implementation of strategy and policy. The recently appointed Principal is also heavily involved in this area of activity and has publicly stated that the development of external partnerships and engagement with business and the broader community is a priority within the university’s future strategic plans. There are two main university committees which drive and support the strategic development and governance of knowledge exchange activity, the Research and Knowledge Transfer Strategy Committee, and the International Policy Forum.

The Research and Knowledge Transfer Strategy Committee meets four times a year with a membership which includes the Principal, the Vice Deans for research, the Vice Principal, the Director of Research and Innovation, and representation from the Graduate Research Office. The committee has two sub groups - one for research and one for knowledge transfer.

The International Policy Forum, which is also chaired by the Principal oversees and promotes the internationalisation emphasis within all areas of the strategic plan including the knowledge exchange strategic pillar.

There are also plans to convene a strategy group for outreach. The group will draw together key practitioners under the chairmanship of the Vice Principal (with responsibility for knowledge exchange), with a view to formalising plans, increasing awareness and opportunities for staff to get involved in engagement, sharing

Information and intelligence, and identifying and disseminating good practice.

Operationally, the Research and Innovation Directorate is responsible for managing research development and knowledge exchange activity at the university. The Directorate provides a range of services and assistance for

⁷ <http://www.strath.ac.uk/about/focus/mission>

both businesses and organisations as well as for university staff. For businesses, Research and Innovation provides a coordinating role for all types of research including contract and collaborative research, and acts as a conduit for the commercialisation of technologies and access to services provided by the institution including student placements, CPD, KTPs, consultancy, spin out companies etc. There is approximately 45 staff in total within the Research and Innovation team across five distinct units including Grants and Contracts, and Business Development.

The Research and Innovation Directorate also supports the strategic research development goals of faculties, departments and university staff, and offers assistance with intellectual property rights, technology transfer and commercialisation. Support provision is also available for the costing and preparation of bids, and assistance with the administration and management of projects, consultancy contracts, and other external engagements. Contract negotiation and other legal tasks associated with external partnerships are supported through the central Grants and Contracts team.

Research and Innovation also manages a number of key initiatives including the Strathclyde Entrepreneurial Network, Strathclyde Links, and the West of Scotland KTP Centre (see later section on Processes and Systems).

Another key element of the university strategy for engagement and partnership building is the development of connections, networks and collaborations through the alumni office. Many graduates of the university are in contact with the office and individual faculties. These contacts and relationships are an important source of opportunities ranging from income generation through bequests and donations, to longer term interactions and support such as the development of the Hunter Centre for Entrepreneurship, in partnership with Sir Tom Hunter, a graduate and benefactor of the university.

At the time of the staff interviews the university was undergoing a major strategic review and restructuring exercise including faculty reorganisation, the re-grouping of central professional services, and a refocusing of decision making structures and processes. Plans include a number of changes to roles and responsibilities with the creation of Vice Deans for knowledge exchange within each faculty. This will further strengthen the university's commitment to external engagement and partnership development, as well as facilitate improved planning, operational management, measurement and recognition of knowledge exchange across the institution.

Processes & Business Systems

Commercial and income generation processes at Strathclyde

The Research and Innovation Directorate provides the main conduit linking external businesses and organisations with university services and commercial provision. The main services provided include the commercialisation of technologies, consultancy, CPD and training, support and assistance with the establishment and on-going support for spin-out companies and joint ventures, coordination of contract and collaborative research projects. The Directorate also provides access to placement opportunities including the organisation of knowledge transfer partnerships.

The Research and Innovation Directorate is made up of 5 distinct teams, namely, Grants and Contracts, Business Development, Research Development, International Business Development, and the Post Graduate Research Office. A large part of the Directorate's remit includes the provision of support and coordination throughout the process of generating, managing and realising commercial gain from external activities. This encompasses the identification and communication of opportunities to staff (including targeted emails to specific groups and individuals within the institution), liaison with departments, and contract management support. Assistance is provided with the protection and development of research results through Intellectual Property rights, technology transfer and commercialisation. Support is also given with the costing and pricing of bids, applications and tenders for commercial research, consultancy and CPD. The Directorate will also perform a troubleshooting role should any problems arise from external engagements.

Research and Innovation also manages three major initiatives to support and drive knowledge exchange activities and encourage, stimulate and facilitate entrepreneurial activity. These are the Strathclyde Entrepreneurial Network, Strathclyde Links, and the West of Scotland KTP Centre. The Strathclyde Entrepreneurial Network (SEN) Supports students and alumni of the university with business creation, business growth and the development of new product ideas. The network was created in 2005 to stimulate a culture of innovation and enterprise across the student base and throughout the alumni community. There is a range of support provided, including one to one mentoring and advice, networking events, and access to grants and financial assistance. The network also organises challenges and competitions such as the Strathclyde Enterprise Challenge. The SEN aims to connect budding entrepreneurs with the expertise available within the university and support clients to realise the value of their ideas and products as commercial ventures. The Strathclyde 100 initiative is another example of the work of SEN. This was established to create a global network of alumni entrepreneurs and business people to stimulate and harness the experience and skills of this group to provide mentoring, advice and support to aspiring Strathclyde entrepreneurs.

Strathclyde Links is a Scottish Government and ERDF funded project to help small businesses to access the research and consultancy expertise available within the university. The project creates opportunities through a series of events and facilitates introductions to the support available. The initiative will also assist small businesses to access funding and financial support.

The West of Scotland KTP Centre is based at Strathclyde and is the central hub for the organisation and management of KTPs for the university. Strathclyde has achieved a significant reputation for the volume and quality of its' KTP take up, and is in the top 5 in the UK for volume of KTPs generated. The range of KTP topics include product improvement, new product development, business process improvement, and development of business strategy.

The Centre for Lifelong Learning provides a central facility and access point for CPD provision. The CPD Programmes Manager has a remit to develop these activities both within the central facility and across the university as a whole. The central team manage approximately £450000 of commercial activity per annum, running both accredited and non accredited courses. Learners are located across the UK and internationally which calls for a range of teaching and learning approaches including lots of distance and remote learning and the use of technology such as webCT. The curriculum is varied and delivered by both internal and external tutors. The central team have developed a broad portfolio of tutors and facilitators which is essential to being able to match provision with the different demands of learners. Quality assurance is also managed by the central team.

Experience has shown that working with companies can be difficult and problematical in terms of logistics, timing and contracting issues. Emphasis has therefore moved towards directing course offerings to individual learners. Business is generated largely through the network of contacts which have been built up over time and also through the website and links to professional bodies.

Individual faculties also manage relationships with external organisations and learners independently from the central team. There is an extensive range of continuing education provision including commercial courses and other events and activities. All faculties have strong links with industry and professional bodies and place great emphasis on the influence of these connections on the curriculum and the commitment to continued engagement to inform future course planning. In order to meet the demands of a varied and diverse group of learners, faculties must offer a wide range of teaching and learning approaches and need to customise programmes to align supply with the needs of companies and other organisations.

As each faculty manages elements of their own CPD and Continuing Education programmes independently from the central team there is no single register of learners and they are not accounted for on the central student record system. In addition to this, feedback suggested that a move to online registration and payment for CPD courses would be helpful. This would streamline the process and reduce the need for different documentation requirements y finance and registry.

The university has a long established track record in generating research patent royalty income and is one of the UK's most successful universities in this arena. There are a diverse group of technologies available for commercialisation, and the Research and Innovation Directorate have a dedicated team in place to support and facilitate the licensing, collaboration and spin out process. Examples of successful spin out companies include:

Bio images Research Ltd. - Founded in 2000, the company undertakes early phase clinical studies in volunteers and patient groups using non invasive imaging techniques to monitor nasal, oral, ophthalmic and pulmonary systems.

Cascade Technologies Ltd. - The company designs and manufactures Quantum Cascade laser based gas emission monitoring systems and gas analysers for industrial emissions.

An additional income stream is generated through the provision of supported workspace through the Strathclyde University Incubator Ltd company. Established to provide a supportive structure for new and existing businesses, the incubator has supported over 125 businesses since it was established in 1990. In addition to the income generated from the facility, it also acts to encourage additional technology transfer from Strathclyde University.

An important element of income generation is the activities of the Alumni Office. The role of the office is twofold, to build and maintain relationships with graduates, and to recruit philanthropic donations and bequests to

support university developments. Income generation ranges from small donations to the generation of large endowments such as that which helped to create the Hunter Centre (for entrepreneurship). Financial support and on-going involvement from Sir Tom Hunter, the businessman and graduate of Strathclyde has assisted with the development of the largest endowed unit at the university.

Another example of commercial engagement is the widening of access to the university's sports and leisure facilities. Over recent years the campus has become more of a community resource and now manages an increasing number of fee paying customers using the indoor and outdoor facilities. The planned new build and development of sports/health facilities in 2011/12 will also stimulate the need to derive income from these facilities and there will be commercial targets associated with the new development. Current engagement is with the NHS, general public and schools and FE colleges who all pay to have access to the university's gyms, squash courts and playing fields. The proportion of commercial users as opposed to university students and staff is presently small (approximately 5%), but will be a growing percentage in the future

In addition to local, regional and national engagement activities the university has developed a strategy for the internationalisation of knowledge exchange. The current areas of focus are entrepreneurship in schools education, engaging with schoolchildren in Africa to deliver learning with an emphasis on equipping children with the skills to make a living. This work is attracting interest and funding from UNESCO. The second focus is on developing strategies for renewable energy, where projects in central/south America are financially supported through the Inter-American Development Bank. Finally, the university is developing projects through the David Livingstone Centre to look at water supply and sanitation issues, and currently discussing support options with the World Bank and the United Nations (UNIDO).

Staffing for these international projects are recruited both from internal departments and external sources. This type of work doesn't achieve the same recognition as mainstream research activity however for reasons of income generation and reputation it is a valued activity stream.

Events and conferences also provide the university with an income stream, and the university hosts many events each year ranging from lectures to dinners and conferences. Facilities can be hired and the university provides an events management service, and has full catering facilities. Although the majority of events are internal, external events and concerts are also organised.

Feedback from across the various projects and initiatives identified the need for efficient processes and structures if external engagement is to work effectively. Knowledge exchange involves a diverse group of users, customers and partners whose needs can present challenges to the normal delivery frameworks. In many instances management processes have been the result of gradual evolution and learning, and the development of internal relationships between the projects and central services such as finance, HR, marketing and central service teams like Research and Innovation. Inevitably tensions do surface from time to time as the demands of external partners result in central services having to work outside of normal operating parameters. However, the majority of comments acknowledged the difficulties associated with dealing with disparate stakeholders, and viewed the challenges of knowledge exchange as being a price worth paying for the outputs and results generated.

Academic and curriculum development processes at Strathclyde

As a place of "useful learning" it is not surprising to find that all faculties recognise the influence of external links to industry and other engagement activities on curriculum content and the use of different approaches to teaching and learning. In certain teaching areas, particularly those with a strong vocational or professional

emphasis such as Engineering, Business, Science and Arts, external engagement is seen as essential to maintain the currency and relevance of the subject. There is widespread belief in the need to bring practical experience and the information this generates back into the institution to influence and inform the curriculum and academic thinking. The co production of learning solutions is a prime driver for knowledge exchange and external engagement.

Specific programmes such as KTPs and the CPD initiatives have impacted upon the organisation of teaching and learning. KTPs require an emphasis on work based learning and the establishment of placement provision. This calls for the use of different skills and more use of coaching and mentoring approaches, as well as remote learning technologies for the delivery of learning materials and the transfer of information for monitoring and measurement purposes. The generation and management of work placements has also led to the establishment of new processes and systems to safeguard learners and participants, coordinate activities, and manage development in a variety of contexts and environments. KTP'S and work based learning requires a significant on-going engagement effort.

In terms of CPD, the needs of a diverse group of learners has led to a broad mix of pedagogy and a need for flexibility in the provision of learning. Part time and full time courses, delivered at different times of the day and in different locations including outreach venues can challenge traditional academic work patterns. The programmes organised and managed through the Centre for Lifelong Learning involve a number of community based activities and curriculum which demands a customised, blended approach. In some cases, to be attractive to learners, CPD and lifelong learning practitioners need to be creative which can work against the established criteria surrounding accreditation, assessment and curriculum delivery. The need for flexibility in delivery, and maintaining ease of access to university services is a constant issue.

It is also apparent that current focus is being given to the theme of employability within the curriculum and to look at ways this can be embedded within courses and programmes. At Strathclyde, one way this is being achieved is through the establishment of the Employer Engagement Task Group and the creation of the role of Employer Engagement Adviser who operates from the Careers service. The Task Group meets to consider plans and strategy and to proactively find out what is happening across the university and to build internal networks to share information and knowledge (there are not always mechanisms for knowledge and intelligence sharing).

Employability is a devolved issue and the degree to which it is embedded within the curriculum is not uniform across the faculties. Feedback suggests that Engineering is well down the road in this respect, however the perception is that it tends to be in its infancy in non vocational areas and part of the remit for the Employer Engagement Advisor role is to support the development of curriculum across the university by providing information and feedback from employers and through the dissemination of findings from the Task Group.

There are a number of initiatives at Strathclyde which involve students in engagements with external partners and organisations. These are managed both centrally by services such as careers, as well as by the individual faculties. These initiatives range from voluntary activities in the community to structured placements and internships.

Knowledge exchange is also seen as a vehicle for change in terms of research with a perception that greater emphasis is now being placed on the application of findings to a wider group beyond the academic audience. This is reflected in the greater amount of detail regarding the knowledge exchange element of projects funders seem

to require at the bidding stage. This additional recognition for wider engagement is largely supported by the interviewees, as long as the right balance is struck between greater engagement and academic emphasis.

IT Processes at Strathclyde

The use of IT systems is an important element in the engagement and delivery chain. The university web site is becoming the primary gateway for incoming requests and method of navigation to specific departments and contacts. Use of the internet is also a growing feature of curriculum delivery and as a tool for disseminating and receiving data and information from projects and engagements.

There are a number of client management and contact and activity databases operated across the institution, with no single, central CRM system (a CRM pilot project is currently underway). This results in a risk of multi contact inefficiency and inability to share information in a fully effective way. However, a common view is that due to the structure and culture of universities it is unlikely that a single, central system would work and that improvement and development activity could be more effectively applied to seeking ways of engaging internally to share information and good practice.

The Research and Innovation Directorate operates their own management system which contains details and records of contacts and interactions and includes records of clients, collaborators and partners and activity records for engagements managed through their office. This can be interrogated to provide information and advice to internal colleagues and for measurement and evaluation purposes.

The university intranet system is used to provide information and signposts to support and sources of assistance and funding opportunities for external engagement work. The general view is that this is a powerful tool but could probably be better utilised to support the knowledge exchange agenda. It was also conceded that as with any system, it is beholden on the users to be proactive and make the effort to maximise the functionality and benefits available to them.

Due to the diverse and often emergent nature of some elements of knowledge exchange activity (particularly community based, short term and self directed initiatives) it can be difficult to systemise and control. From a systems point of view, the knowledge exchange landscape of the university is a bit like an iceberg, with only proportion of the total activity visible, and the rest often only known to those directly involved.

Other references to the use of IT focussed on the greater use of technologies such as video conferencing and mobile devices. Use of web based systems are now a common feature of service delivery and contact with external partners. This includes the use of facilities such as “Facebook” and “LinkedIn” as a means of communicating and disseminating information (with the obvious risks associated with these platforms). Various interviewees also mentioned the use of wikis, blogs and “Twitter” as being useful mediums for supporting activities and staying in touch with developments and projects.

The university has an IT training team tasked with responding to the needs and requests of all communities within the institution. The approach is to tailor support to individual need, and although there is no specific plan or strategy to support knowledge exchange in particular, the team are keen to ensure that practitioners receive the support they need.

A recent development has been the creation of the Strathclyde Research Portal. This is an online “space” holding information relating to research and knowledge exchange to facilitate information sharing across the university. The portal also enables collaborative on line working including document libraries and the facility to co author

documents. Organised into 4 domains, one of the domains is specifically to support knowledge exchange in practice. The portal is designed to provide increased information on the range of knowledge exchange mechanisms, and advice on how to build relationships with external organisations, and provide opportunity to create on line “space”.

There was an overall consensus view that IT is a key enabler for effective knowledge exchange and engagement, and that it will therefore remain a development issue for universities. Many respondents recommended the early involvement of IT and Information Services in planning for knowledge exchange activity, and suggested their membership on the formal committees and forums which deal with knowledge exchange at a strategic level.

HR Processes at Strathclyde

Knowledge exchange is a recognised strategic priority and the perception is that mainstream HR policies are reasonably well aligned to the needs and demands of many elements of this activity. Support and advice is available to service managers and practitioners with respect to recruitment and employment policy and regarding safeguarding issues for students and external learners. However, the nature of some external engagement work can raise issues and challenges particularly where project-based, short-term appointments are involved. This wasn’t raised as a major issue and interviewees recognised the need for formal, structured protocols, even if at times they appeared “over engineered” in certain contexts.

Although there is still a perception that knowledge exchange does not receive the same level of recognition that teaching and learning, and research enjoy, the situation is seen to be developing and the view that knowledge exchange is moving towards more mainstream acceptance is strong. Many of the practitioners interviewed also noted that recognition can’t truly be expected until an agreed framework of measurement and evaluation for knowledge exchange is agreed. This may in part be facilitated by the current review of the performance review process which will look at how it might be more directly aligned to the 3 pillars of the strategy. This could lead to more explicit rather than implicit recognition of knowledge exchange activities and achievements.

The Leadership and Organisational Development Unit at Strathclyde is involved in developing and managing staff development for internal personnel. The unit views organisational development plans as a key driver and enabler of strategic direction and managing change. From an organisational development point of view therefore, the need to raise awareness about knowledge exchange is a good starting point to generating more interest and activity. Currently, knowledge exchange is not universally identified in development plans for staff, and is not highly prioritised within key programmes like the “Research Leaders” development programme. This programme could be used to influence the attention given to knowledge exchange by including it in the curriculum. Further emphasis could be given by focussing on the knowledge exchange element of all projects which would build awareness and recognition.

Library Processes at Strathclyde

The Library Service at Strathclyde is strongly linked to all faculties and with the other central services, and is active in all areas of the university. The library can be characterised as a demand driven service, which includes responding to the requests for support from knowledge exchange practitioners. Although there is no specific development plan for supporting knowledge exchange, support is available if needed. A number of barriers do exist, particularly if external partners seek access to certain materials or areas of the institutional repository. In some cases licences preclude private businesses (and any other external organisation). However, the library tries hard to provide access and opportunities for commercial membership, as well as offering many collaborators free access to research and other information.

The main barrier is a lack of awareness about what the knowledge exchange community need and want, allied to the general issue of resources and the inevitable need to prioritise the use of time and money to where the users demand. Every effort is made to engage with all parts of the university, and to keep library staff up to date with activities and issues.

Marketing Processes at Strathclyde

Marketing operates at different levels within the university ranging from central marketing, PR and publicity, to business development activity at department and individual service level. From a strategy point of view, the university undertakes centralised marketing activities and operates a press office and PR operation. The importance of the university's civic position and their desire to be outward facing and open to engagement is recognised and actively pursued. Strathclyde is recognised as a university which is easy to do business with, and has strong links with industry, community and other educational institutions.

Units such as the Research and Innovation Directorate have their own marketing and business development capability. It operates as a stand alone team but also provides a significant contribution to the institutional marketing strategy. Faculties and practitioners have access to this service. Marketing is a mature and established function with platforms and forums for planning and execution. Nevertheless, the perception is that many contacts and networks are not shared across the institution, with a significant amount of activity being silo driven and dependent upon personal contacts and relationships.

Other central Services

The Estates teams have a role to play in knowledge exchange in terms of maintaining the buildings, providing access and ensuring that the learning environment and facilities are managed effectively. Presentation and physical appearances can be important issues when thinking about the wider user group, and items such as parking, security, and cleaning can play an important role in building customer perception.

For knowledge exchange to operate effectively internal engagement between all central services is essential. Many interviewees cited the ability to organise and mobilise processes as a major contributing factor to the success of delivering the broad range of services required in knowledge exchange.

Partnerships and collaboration

Partnerships and collaboration at Strathclyde

The need to establish and maintain strong partnerships at all levels is a cornerstone of the university's strategy for knowledge exchange and engagement. A challenge for all institutions however is to plan and manage the plethora of partnerships and collaborations which take place continuously across all faculties and departments and at all levels within the university and within external organisations. Establishing review, measurement and evaluation processes to enable this takes an enormous on-going effort. Resource issues mitigate against always being able to plan the use of partnerships with every individual department or every company or collaborator.

At Strathclyde a major initiative is underway to develop the "escalator concept" with respect to partnership building and relationship management. Each engagement is nurtured to progress the relationship through different levels of relationship from single contact, one-off engagement through to managed, and hopefully through to framework relationships which are managed by a member of the SMT. This provides a structure for partnership development, and ensures that maximum impact and value is derived from engagement.

The university has many important partnerships which drive and enable the knowledge exchange agenda. The following are some examples:

Partnerships with funding agencies and development agencies including SFC and ESPRC etc.

Collaboration with other regional and national universities on initiatives such as the Institute for Advanced Studies, the Scottish Engagement Forum, the Maths knowledge transfer network. These links also provide a vehicle for collaboration and access to consortia funding.

Long standing partnerships with local councils to support initiatives such as health and fitness.

Partnerships with schools and FE colleges to support recruitment strategies and provide access routes to the university.

The opening of the Hunter Centre to create a hub for entrepreneurial education and engagement with business. This is also the result of a major collaboration with Tom Hunter, an alumni of the university.

The creation of numerous continuing education and post grad courses developed in collaboration with local industries and professional bodies. As well as providing the licences and accreditations to offer industry recognised CPD and commercial courses these associations maintain important links with industry and practitioners.

Partnerships with Alumni community to create networks and contacts through business and other external links. Initiatives such as the Strathclyde 100 and embryonic groups like "2000 maths".

As well as external partnerships, it is essential to facilitate, encourage and support the myriad of internal collaborations required to maintain the existing and future rich and varied knowledge exchange activities and provision. A frequent comment from interviewees was a lack of awareness about the availability and location of expertise, and the work and activities going on across the institution. Efforts are being made by different practitioners to improve internal contacts and networks in order to facilitate greater access to colleagues across the faculties.

Roles & Skills

Roles & Skills at Strathclyde

There are numerous roles associated with knowledge exchange at Strathclyde ranging from formal, directed roles identified within the formal university structure, to the informal, self selecting practitioner. The degree of connectivity between roles is therefore mixed. Many of the roles within Research and Innovation for example, operate within a structured, planned role description and people are recruited specifically to these posts. The skill sets required can be identified and selection is based upon an established competence framework and accepted body of knowledge. For many other roles involved in knowledge exchange, competence frameworks and role profiles don't always exist.

In the formal organisation structure roles involved in knowledge exchange range from Business Development Managers, to Marketing and PR personnel, to Legal Advisers, and specialists in contract negotiation. Many of the people involved in these roles are professionally qualified and have worked within the business sector prior to moving into education. These roles are predominantly focussed on generating engagement, managing relationships, and taking care of the business elements of knowledge exchange.

Within the faculties there are a number of specific roles to stimulate and facilitate knowledge exchange activity. These include those involved in marketing and business development, but also other roles with specific responsibilities including Knowledge Exchange Champions, Trainer for Work Placements, Knowledge Transfer Manager, Knowledge Exchange Fellowes, and roles such as Vice Dean for Knowledge Exchange. These functions require specific skills and experience and provide key input to the activation of the university strategic plans for knowledge exchange.

In terms of delivery and direct interaction with businesses and other external customers, the skill sets and required expertise can be more difficult to identify. However, when asked, the practitioners interviewed did focus on a number of common skills, attributes and characteristics. In summary these included, having an outward looking attitude, planning and time management skills, project management skills, having an appreciation and understanding of different sectors and cultures, having a proactive work ethic, and emphasis on coaching, mentoring and facilitation skills. Other comments focussed on the fact that requisite skills and expertise are greatly influenced by the particular context in which engagement takes place, and the accepted protocols and behaviours associated with different environments and customer groups. It was also pointed out that not every lecturer makes a good consultant, or would necessarily want to. The overriding view was that knowledge exchange activities tend to be delivered by enthusiastic individuals with the desire and motivation to make things happen. Although there are strategies and plans for knowledge exchange across all levels of the university, these tend to set the scene and create a fertile environment for activities to germinate, the practical generation of engagements and relationship building is a self directed and often emergent activity.

As a package, there is a high skill level required to operate successfully in many engagement contexts. This type of work is often challenging and for some will inevitably represent a distraction from their comfort zone and normal practice. However, the view amongst interviewees is that there is much greater capacity available at Strathclyde than is currently being utilised and that encouraging this talent must be the goal.

When discussing roles and skills, conversations often travelled to the issues of reward and recognition. The perception that knowledge exchange does not get the recognition achieved by the two other strategic pillars is

often identified as a major barrier to creating more interest amongst academic staff. A number of suggestions were made to reverse this view:

- to have knowledge exchange as an identified and explicit element in all development plans.
- to have clearly defined measures and metrics for knowledge exchange in all faculty strategic plans.
- to have greater emphasis on knowledge exchange within the performance review process.
- to have a more direct link between research and the university strategy for knowledge exchange.

Current restructuring at Strathclyde includes plans to establish Vice Deans for knowledge exchange in each faculty. This should focus more attention on engagement, and create greater visibility for the achievement of planned growth in external engagement and commercial activity.

Performance Measurement & Evaluation

Performance Measurement and Evaluation at Strathclyde

Overall, the institution has established a comprehensive range of measures to track the performance of specific elements of knowledge exchange activity. In particular, for business engagement and commercial training and the delivery of CPD programmes, KTPs, Spin outs, and the other activities of the Research and Innovation Directorate there is data to illustrate the volume of business, the revenue generated, the direct costs incurred, areas of growth and contraction, the types of engagement, and the margin achieved across the portfolio. The university maintains these records and prepares the annual report for the Knowledge Transfer Grant submission. The format and approach to reporting activity and performance is driven by the requirements and protocols of the different funding agencies and to the specific targets and emphasis the funders are focussing on. Results and records have been compiled for a number of years, therefore trends can be traced for different elements of activity. The university conducts a formal strategic review, where information about knowledge exchange is evaluated and applied as part of the continuous planning cycle.

Other commercial engagement activities such as the hiring of sports facilities and sports related initiatives are subject to detailed records including numbers of users, spectator volumes, income generated, and the resources allocated to different income streams and projects.

In terms of community engagement, records and measurements are not consistent and aggregating information is more difficult. The ability to improve and learn is impaired due to a lack of knowledge sharing and information exchange. The perception is that measurement and evaluation of many non commercial engagement activities can be characterised as an activity undertaken in silos with no platform or process for cross interrogation, comparison and corporate learning. This weakness has been acknowledged and a key objective of the university is to identify a records management system which will facilitate the logging of all engagement activity. This can then be refined to provide measures and reporting arrangements which allow meaningful evaluation and improvement planning.

Appendices

Appendix A – Interviewees and participants

Vice Principal Kenny Miller (Project Director); Diane McDonald (Project Manager); Alasdair MacKay; Graham Whyte; Simon Andrews; Julie Buckley; Kat Ferguson; Nicola Smith; Claire Jackson; Alison McFarlane; Anthony Mulholland; Niall Sturrock; Madeleine Rooney; Emer McDougal; Nigel Mottram; Catherine McMillan; Carol Trager-Cowan; Yvonne Kinnaird; Colin Thorn; Martin Gregory; Jean Shaw; Nick Joint; Alan Slevin; Anthony Keating; Fran Shepherd; Fiona Ireland.

Appendix B – Development Plan ideas

Development Plan ideas resulting from staff interviews.
Category: Policy and Strategy
<ul style="list-style-type: none"> - Continuous development of systems for capturing the volumes and outcomes of all types of engagement activity, including community based engagement. - Encourage discussion about KE activity and plans by including it as a standard agenda item at departmental meetings - Establish the Vice Deans for KE - Ensure early representation from IT and Information Services at strategic forums for planning KE activity
Category: Processes and Business Systems
<ul style="list-style-type: none"> - Continuous development of CRM processes - Establish on-line registration and payment systems for CPD and commercial training courses - Establish a central register for all CPD participants - Use of the Research Portal to share marketing information and contact management issues
Category: Partnerships and Resources
<ul style="list-style-type: none"> - Carry out a partnership review (not just strategic partners) to evaluate the impact of current arrangements and look for ways to maximise engagement opportunities - Establish partnership development plans in each faculty
Category: Roles and Skills
<ul style="list-style-type: none"> - Develop a framework of competence and skills for KE practitioners - Make KE an identified and explicit element in all staff development plans - Emphasis KE within the performance review process - Make a more direct link between research and KE strategy - Use the Research Portal to improve knowledge management and the sharing of good

practice in KE

Category: Measurement and Performance Results

- Conduct a mapping exercise and/or establish a working group to identify the breadth of engagement activities being undertaken and to propose improvements in activity capture
- Improve the dissemination of performance results for KE, and use the findings to stimulate involvement and activity