1. Background

Impact is the demonstrable contribution that excellent research (basic, user-inspired and applied) makes to society and the economy. It embraces the diverse ways in which research-related knowledge and skills benefit individuals, organisations and nations by:

- fostering global economic performance and specifically the economic competitiveness of the United Kingdom;
- increasing the effectiveness of public services and policy;
- enhancing quality of life, health and creative output.\(^1\)

Knowledge Exchange is the “The two-way flow of people and ideas between the research environment and wider economy, thereby contributing to national prosperity, the quality of life of citizens, and cultural enrichment of our society. Knowledge transfer encompasses the systems and processes by which knowledge, expertise and skilled people transfer between the research environment and its user communities in industry, commerce, public and service sectors”.\(^2\)

Research related impacts are derived through many different mechanisms across the university including consultancy, collaborative or contract research, staff exchanges, licensing and spin out company formation, public engagement, CPD and training and student enterprise. All of the different forms of knowledge exchange are embraced and included within this strategy.

Knowledge exchange (KE) and research derived impact is integral to the vision and mission of the University of Glasgow as demonstrated in the University’s strategic plan Glasgow 2020: a global vision – which sets out our aspiration to enhance our position as one of the world’s great, broad-based, research intensive universities that meets the strategic needs of our stakeholders.

The University now wants to formalise its approach to KE to demonstrate the value and the importance it places on embedding KE across the breadth of research, teaching and training activities to maximise the value we create for our partners, society, the public and the economy.

 Maximising impact from research requires efficient and effective KE with external stakeholders including industry, third-sector organisations, the public sector and individuals at a regional, national and global level. In developing this strategy, we recognise that we are already engaged in KE and in creating a variety of positive external impacts. However, we must move beyond traditional responsive KE activities and proactively shape the pathways from research to impact by embedding KE across our entire portfolio and in our strategic decision making processes. By changing how researchers plan for and undertake KE activities, the institution will also challenge our external partners to be part of our culture of research.

Increasingly, our diverse range of research funders expect the work they sponsor to have impact beyond the academic community. For the first time in 2014, UK universities will be assessed not only on their research excellence, but also on the impacts derived from that research. It is expected that the weighting placed on impact to determine both quality rating and funding will increase in future assessments.

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\(^1\) [http://www.rcuk.ac.uk/kei/Pages/home.aspx](http://www.rcuk.ac.uk/kei/Pages/home.aspx)

\(^2\) RCUK and DUIS definition of knowledge exchange
The SFC is also increasing its emphasis on KE, as they seek to develop a ‘step-change’ in the engagement of public policy and service providers, business and industry with Scotland’s universities by removing any barriers to the exploitation of research for economic and wider societal benefit at the University level. As part of this process the University has now signed an outcome agreement with SFC demonstrating our commitment to increasing KE activities by 7.5% year on year, creating 2-3 high growth spin-out companies and expanding our Easy Access IP portfolio by 10 each year. http://www.gla.ac.uk/services/planning/information

This strategy outlines our vision, goals and approach to KE and impact. Mindful that strategy is ineffective without a clear view of how it will be implemented, this document is designed to guide the development of action plans at all levels within the university. It will provide toolkit to support researchers, schools, and colleges in identifying, developing and delivering impact from their research

Our philosophy is built around the following goals where we want to:

- Build longer term, mutually beneficial relationships with external partners
- Support our partners to achieve success through contributions to the development of products and processes leading to economic, cultural and societal benefits;
- Inform legislation, policy and governmental guidelines for local, national and international agendas;
- Promote cultural exchange within and between communities at local, national and international levels;
- Improve the health and wellbeing of our communities and environment;
- Create career development opportunities for our students and academics.
2. Strategy

Aim
Capitalising on the strength of our research portfolio we aim to accelerate generation of economic and societal impacts in the UK and internationally through proactive KE activities and relationships.

We will focus on 2 overarching themes and 4 specific areas for development that, when implemented across the University, will help us achieve our defined aim. By implementing a holistic strategy, we will establish a university-wide framework for directing resource and activity, leading to KE and external impacts with greater reach and significance.

Overarching themes
A. Environment and Infrastructure - Create an environment where innovation, creativity, and enterprise flourish and increase the number of staff and students engaging in KE, commercialisation and public engagement.

B. Internationalisation - To utilise our strong UK based KE track record (for example in developing and leading Innovation Centres) in the strategic development of our international partnerships and to attract business and other stakeholders to Scotland.

Specific areas
C. Partnerships - Establish distinctive and user-focussed approaches to university-research user relationships that position us as a partner of choice for industry, cultural organisations and public service providers.

D. Leadership - Position the University to proactively lead more collaborative, large-scale, multi-disciplinary research and KE programmes.

E. Public Engagement - Stimulate a wider understanding of academic research by enthusing the public about current issues, the creative process and the aspirations and outcomes of our endeavours.

F. Enterprise and Commercialisation - Commercialise our intellectual assets, knowledge and expertise through innovative, flexible and pragmatic management practices that deliver value to all parties.
3. Strategic themes and objectives

A. Environment and Infrastructure

Successful knowledge exchange and impact creation is dependent on the skills, knowledge and creativity of our academic researchers and students. It is therefore essential that the university provides an appropriate environment and infrastructure that enables KE activities to thrive and where academics and researchers feel supported in pursuing these activities.

Current position: Barriers have been identified by academics and researchers undertaking KE related to their work, where it is often viewed as an additional, unsupported activity or process beyond research and teaching.

Objectives

Create an environment where innovation, creativity, and enterprise flourish and increase the number of staff and students engaging in knowledge exchange, commercialisation and public engagement.

A1. Encourage and support the development of college, school, institute and research group level KE and impact plans and invest in the provision of a support infrastructure to aid their delivery.

A2. Develop more targeted knowledge exchange training, mentoring and sharing of best practice.

A3. Review P&DR and Workload models to ensure that KE and impact generation are given appropriate recognition in job descriptions, promotion and zoning criteria.

A4. Invest in resources to develop and implement a coherent web and social media strategy for knowledge exchange and public engagement communications.

A5. Use existing interdisciplinary research, UG, PG and ECR networks more widely to promote KE opportunities to themselves, share their experiences and best practices and develop new models for engagement.

A6. Establish processes to track and record KE activities, partnerships and the impacts that arise from them.

B. Internationalisation

As a Global University, internationalisation is embedded in our core teaching and research activities and we need to ensure we build upon this base and embed KE within these programmes. For example embedding KE within our Transnational Education Programmes, and using our experience of leading large scale industrial and commercial programmes to enhance our international partnerships, could yield significant benefits in terms of our international offering.

Current position: Much of our international KE and impact activities focus on commercialisation or collaboration around specific research programmes and outcomes. Academics are also involved in influential, advisory capacities around the world, which is not something that is regularly recorded or captured. The other priority areas of the strategy support these developments for both local and international activities.

Objectives

To utilise our strong UK based KE track record (for example in developing and leading Innovation Centres) in the strategic development of our international partnerships and to attract business and other stakeholders to Scotland.

B1. Include 5 or 6 examples of strong KE and Impact examples within our International promotion activities. These should include the innovation centres and key partnerships such as Glasgow Life and CREATE.

B2. Use our international partners, networks and alumni to forge links with non-UK research users.

B3. To increase our visibility as a leading international research led university that delivers local, national and international impact through strategic and tactical partnerships and members of international networks.
C. Partnerships

The development of non-academic impacts clearly requires close cooperation and understanding between the University and other organisations and individuals. Partnerships are an essential element for effective knowledge exchange because they can provide a key link between user needs, long-term research and a clear route to application or exploitation of research outcomes. Experience shows that partnerships should be built on the *two-way flow of people and knowledge* and draw upon the *wider strengths of the University* beyond individual academics, including our facilities and teaching capabilities.

*Current position:* We currently engage with a large and diverse range of organisations, through which we exchange knowledge. However, only a small number of engagements have led to longer term, more strategic partnerships.

*Objectives*

*Establish distinctive and user-focussed approaches to university-research user relationships that position us a partner of choice for industry, cultural organisations and public service providers.*

C1. Develop more long-term, structured or strategic partnerships with local, national and international organisations and implement a structured approach to relationship management.

C2. Create more opportunities for external engagements that lead to mutually beneficial research, collaborations through which we accelerate the impact of our research outcomes.

C3. Enhance our engagement with Scottish business, in particular small and medium sized companies.

D. Leadership

Research funders are increasingly moving towards consolidated funding of larger-scale centres, which involve elements of basic, user inspired and applied research, working alongside end-users. Typically these involve multi-disciplinary and multi-institution proposals. Building on strong external partnerships we also need strong leadership to manage such initiatives (for example innovation centres), and other large scale research and KE funding.

*Current position:* We are successfully leading large scale research and KE programmes in one or two areas. We have excellent research networks through which we should be able to develop our leadership.

*Objectives*

*Position the University to proactively lead more collaborative, large-scale, multi-disciplinary research and KE programmes.*

D1. Use peer-to-peer and formal training to up skill potential future leaders in KE and impact generation.

D2. Invest in resource to support current research networks (e.g GRAMNET, GCID, Global Security, Sustainability), and create new inter-disciplinary networks to lead the development and co-creation of research with industry, public sector, and society.

D3. Engage in strategic networks and committees that will contribute to setting local, regional, national and European priority areas for development.
E. Public Engagement

Public engagement describes the things we do to connect and share our research with the public. When we do it well it can generate mutual benefit, with all parties learning from each other through sharing knowledge, expertise and skills. The process can build trust, understanding and collaboration, and increase the sector’s relevance to, and impact on, civil society.

Current position: Committed enthusiasts are largely responsible for most of our public engagement activity that takes places on a regional, national and international level. Whilst we have often adopted an innovative approach to the design of new channels it is not as integrated across the institution and culture as it might be.

Objectives

Stimulate a wider understanding of academic research by enthusing the public about current issues, the creative process and the aspirations and outcomes of our endeavours.

E1. Support researchers to build the capacity and capability to participate in high quality, effective engagement with the public, by forming a network of expertise.

E2. Embed a framework to support, manage, monitor and assess the success and impacts of public engagements.

E3. Make better use of our facilities and infrastructure such as the Hunterian Museum and local initiatives (Glasgow Science Centre and Glasgow Life) to further our leadership in public engagement based on our world-leading research.

F. Enterprise and Commercialisation

We are fortunate to have an environment that is rich with intellectual assets and facilities beyond the means of other organisations. As a result, the world leading research undertaken here often results in new inventions and innovations that have potential to contribute to disruptive industry solutions with significant economic and job creation potential. These developments are usually very early stage and high-risk and we often need to work with others to realise their value.

Current position: We have an excellent track record in enterprise and commercialisation and a strong strategic partnership with IP Group.

Objectives

Commercialise our intellectual assets, knowledge and expertise through innovative, flexible and pragmatic management practices that deliver value to all parties.

F1. Create high quality, high growth companies with significant potential for wealth and job creation in Scotland and make key early stage investments where necessary.

F2. Protect and license valuable and rapidly exploitable intellectual property on fair terms.

F3. Channel intellectual property into Easy Access IP as appropriate, and increase the volume of technologies available via this initiative.

F4. Increase the volume and value of translational research income to support the development and commercialisation of early stage Intellectual Property.

F5. Support the development of student and researcher enterprise through provision of appropriate training and facilities.
4. **Implementation**

To support the implementation of the strategy the University will put together a series of action plans, focusing on the priority areas for each of the 4 Colleges. In the first instance, we have identified the following 8 activities as the key tasks which must be undertaken.

1. Undertake a bench marking exercise to capture the breath of our KE activities and develop a system for capturing and sharing this knowledge across the University.
2. Review our support infrastructure and bench mark against other institutions and develop more focussed KE support structures.
3. Engage with policy makers to further influence how KE and Impact should be measured.
4. Promote the University’s nationally and internationally as a globally engaged, Scottish based institution that is able to attract business to the region.
5. Identify developing companies that we should seek to build relationships with, using the business development teams and senior management support where required.
6. Establish a framework model of strategic partnerships.
7. Further enhance our engagement and influence with the UK’s Enterprise agencies and key funders such as the Technology Strategy Board.
8. Develop and implement a coherent web, social media strategy for KE and public engagement communication.

5. **Performance Indicators**

- Increase the volume and value of collaborative research and KE activities by 7.5% year on year.
- Increase our income from the Technology Strategy Board.
- Identify 10 opportunities for strategic level engagements and well developed “value propositions” by 2015.
- Exchange at least 4 strategic research and KE related memorandums of understanding by 2015.
- Launch 2 innovation centres in 2013.
- Increase the number of public events, exhibitions or performances delivered based on our research outcomes.
- Grow third party translational funding to mature assets for investment, e.g. SE POC fund, RCUK follow-on fund, Biomedical Catalyst.
- Form 2-3 high growth spin-out companies per year.
- Conclude 5 new high value licenses per year.
- License 10 new Easy Access IP technologies per year.
- Increase the number of staff and research students engaging in KE engagement activities.