Universities Innovation Fund: Proposed Approach by SRUC to deliver the UIF priorities during 2017-18

Introduction:
Knowledge exchange to promote innovation is the core, uniting competence required to help achieve the SRUC Mission – “committed to excellence and impact in the advancement, communication and translation of knowledge throughout the rural sector”. Our commitment to KE is embedded in our Strategic Plan 2013-18 (http://www.sruc.ac.uk/downloads/download/708/sruc_strategic_plan_2013-2018).

SRUC has a long established framework for KE delivery of innovation from its R&D programme (funded from a number of sources including Scottish Government, SFC and industry). For SFC funding this is documented in our Outcome Agreement for 2017/18. This paper outlines for 2017/18 how SRUC proposes to put further emphasis on activities that support the national priorities and outcomes identified by Universities Scotland in its “5-point action plan”, the Innovation Scotland Action plan, the Scotland Can Do Innovation Forum and the Scottish Government’s review of Enterprise and Skills support. SRUC aims to address and develop these national priorities as part of its UIF funding, within the context of its particular mission and focus. SRUC undertakes many activities collaboratively with other Scottish universities. This collaborative approach is co-ordinated through the Research and Commercialisation Directors Group (RCDG), who have, in discussion with Scottish Funding Council have agreed that the best mechanism to work at a sector level to deliver the national outcomes is to undertake to work together to:

- Analyse current activity and identify best practice
- On the basis of this, where appropriate, devise and execute a pilot programme
- If successful, develop/initiate a sector-wide programme.

Through the RCDG each institution has agreed to contribute to various outcomes. Each institution notes and acknowledges the importance of each of the outcomes but for the best use of resource and to exploit the specialist knowledge generated each institution will be involved with a different combination of work. This is particularly true for SRUC who while having specialist expertise of relevance to the primary and secondary food producing industries (ie the rural sector and food and drink), also has wide, extensive and long standing experience of interacting directly with industry to effect translation and uptake of research outputs and outcomes into practice. SRUC therefore would fully share this experience with the wider HEI community, through deepening collaboration and through various collaborative initiatives through Universities Scotland and its relevant Committees particularly RKEC and especially through RCDG and all the associated Priority Actions Working Groups. However it should be emphasised that SRUC also has much to learn from the sector so very much sees this as two way working to the mutual benefit of all beneficiaries.

Priority Actions/Outcomes
The national outcomes for UIF were identified through a sector-wise workshop facilitated by SFC in October 2016. SRUC's approaches to these outcomes are given below:

Outcome one (demand Stimulation): Working with Scotland’s enterprise agencies, Scottish Government, business networks, Interface and others to increase the demand and quality of engagement from businesses and the public sector for university services.

SRUC specialises in the primary food and land based sector and currently have over 16,000 SME (mostly farmer and grower) clients and a further 2000 food industry related clients from a diversity of companies with whom we directly interact to translate and exchange the outputs of our R&D programme as specific KE initiatives that promote innovation to the
farming and land based industries organised as part of the UIF funding. Therefore this is how we addressed the 2016/17 priority action 5 to “effectively collaborate within the academic and SME base”. One of our key objectives facilitates innovation and uptake of research outputs directly to industry. To maximise impact we use a network of “trusted brokers”, staff who are well regarded by industry and are well known and trusted. It takes time to build this trust. During 2016/17 we identified a cadre of staff who could contribute to this essential role, and who are gaining experience in their direct translational interactions with industry. However, we fully recognise that we can learn from others on where other approaches have been effective, therefore through active participation in US RKEC and RCDG we will continue fully participate with HEI’s on defining best practice in this area.

Further support to industry is provided through a fully structured advisory programme (worth £12m per annum, partly funded from Scottish Government (for policy relevant initiatives) and through farmer subscriptions). UIF KE activities compliment and reinforce such activities. We also interact with Interface especially with regard to the Secondary food producing industries, and with other HEI’s who have expertise in the land based sector and in food and drink. Further to this we continue to fully participate with the wider HEI sector in collaboration to understand how we can further promote demand for our services and participate in promoting the services of the wider university sector. This will include full participation in the RCDG sector Group for this Outcome 1.

**Outcome two (simplification/commercialisation): in partnership with the Enterprise Agencies and interface, Scottish HEI’s as a sector will have demonstrably simplified access to the knowledge and expertise in Scottish Universities**

SRUC is an organisation that is designed (through our Consulting service) to enable easy access to businesses (see outcome one above) who mainly wish innovative services and advice. However, we also work closely with the wider HEI sector to ensure easy access to knowledge and expertise, particularly at the research innovation interface. Our model is to provide for the transfer and exchange of innovative paid for novel services (rather than mainly through protected IP) to the food and land based sector. We are, however, open to deepen our collaboration with other HEI’s to ensure the better transfer of new IP to new business start ups. One example of this is in the “Agritech” sector (e.g. precision farming/ “big” data) we are involved in three of the four UK Agritech Innovation companies set up in 2015-16 by BEIS. Therefore we are actively working to deepen collaboration within Scotland and wider afield, including key HEI’s, other research organisations and the Scottish and UK governments. Further we have much experience of direct contact with industry to access our knowledge and expertise (mainly as noted above through the provision of services). We wish to fully share our experience with all HEI’s to contribute to mechanisms that will simplify access to knowledge and expertise in the Scottish Universities. Therefore SRUC will fully participation in the RCDG sector Group for this Outcome 2.

During 2016/17 (Outcome 8) SRUC through its extensive experience in handling such client interactions from its consultancy activities and applied research contracts with industry contributed such experience to help facilitate the effective operation of such a protocol through RKEC and RCDG.

**Outcome three (simplification/greater innovation): In partnership with the EA’s and Interface, Scottish HEI’s will, at a national level, have made strategic use of their sectoral knowledge to promote greater innovation in the economy.**

SRUC actively promotes knowledge, innovation and enterprise to the primary food and land based (i.e rural) sector (working with others (see below)). SRUC suggest that we would take the lead on this for the rural (ie primary food and land based) sector but perhaps more
importantly would fully participate in this Outcome 3 with RCDG, by providing constructive, more generic input from our wider experience of promoting innovation and enterprise to industry.

We will continue to work for more flexible interventions for innovation led growth that do not assume a one size fits all model, and encourages traction in high growth sectors such as Food and Drink, where R&D spend has been low but sector growth projections are high.

In anticipation of the new Scotland Food and Drink Strategy 2017-2020 we will continue to work in collaboration with Queen Margaret University and Abertay to look at the alignment of resources focused on collaborative academic capacity building. We will further develop this partnership and engagement with the Food and Drink Industry via our joint work with the Food and drink Industry Liaison Group. This will support ongoing inter-institutional initiatives in support of graduate start up and employability in the Food and Drink sector.

Following on from 2016/17 priority actions 1 & 2, at SRUC staff specialise in research, consultancy or education with many operating across more than one area. Researchers working with consultancy colleagues ensure that links and networks with industry are very close. Many our research projects are “applied-specific” in nature and are collaborative with industry or indeed deliver directly to industry. We actively also encouraging our younger staff to become members of local business groups, as it is from such experience that benefits accrue and help facilitate building of trust as well as effective mechanisms for collaboration and mobility.

Further as noted in 2016/17 priority action 4, SRUC do not have “Enterprise and Innovation Officers”, rather many of us have multifunctional roles that go beyond job titles, but do encompass the remit of promoting and developing innovation and enterprise. This has been in 2016/17 a major focus for us particularly promoting a better “entrepreneurial culture” that fosters innovation and a willingness to take research outputs to the next level of actual goods and services. In addition SRUC fully engages with RKEC/RCDG to help develop a national approach to enterprise and innovation, and for us it is also to learn lessons that can be transferred to existing staff in SRUC. This helps to elucidate appropriate professional development for staff. In 2017/18 we wish to extend this to provide opportunities for our students (undergraduate and postgraduate) to encourage the adoption of an entrepreneurial approach. We have started this with the production of a newsletter twice yearly, the invitation of successful entrepreneurs as speakers drawn from key industries (across Scotland and the wider UK), as well as student competitions (including greater encouragement to participate in existing schemes such as the Converge Challenge)

SRUC is a member of the contract group (Priority Action 7 in 2016/17) of RCDG and this made good progress to formulate a simple agreed contract templates. As noted before we interact with directly with industry frequently using appropriate agreed term and conditions for contracts, collaboration agreements, licence and non disclosure agreements. We have shared these with others on the group and are more than happy to share to any other HEI as well as RCDG our approaches in the area.

We consider that it important to continue to collaborate fully with RKEC and RCDG to develop structures and mechanisms that more effectively engage with wider society, culturally as well as economically (2016/17, Priority action 10). As noted in 16/17 we do this through a range of initiatives, but see the full engagement with wider society as an important element of Knowledge exchange in its widest context.
Outcome four (entrepreneurialism): Scottish HEI’s as a sector will have made a significant and positive change in the way entrepreneurial opportunities are promoted and delivered to students, HEI staff and businesses

At SRUC we deliver courses that are vocational and focused on supplying skills needs for the rural industries. They are applied in nature and feature units/modules that train and help prepare students to run a business. Many of our graduating students will have careers within a rural enterprise. Beyond formal training we aim to promote an innovation culture in our students. We equip students with the skills and attitudes to be open to new ideas, to think of novel solutions, to adopt new technology i.e. be entrepreneurial we do this by using our specialist farm resources to promote innovation and entrepreneurship. These research farms can be used to demonstrate state of the art activities and facilities e.g. measurement of greenhouse gas emissions from farmed animals; “smart” monitoring equipment for optimising production; precision agriculture. We also promote through UIF the use of external speakers from Scottish Universities and other organisations (e.g. Scotland Food and Drink) as well as invitees from our well developed industry links to specifically promote aspects of innovation and entrepreneurialism both as part of the formal delivery of our undergraduate and taught postgraduate courses. In addition SRUC staff specialise in research, consultancy or education activities with many operating across more than one area. Researchers working with consultancy colleagues, ensure that links and networks with the rural industries are very close. Many research projects are collaborative with industry or indeed deliver directly to industry. However, within this already productive framework, we intend to continue to encourage development of further networks with industry (SRUC are already members of local business groups), especially for our younger staff. In our experience it is from such activities that added benefits accrue, not only for future collaborative research, but also from the development of trust, that facilitate and enable the effective uptake of innovation and innovative new approaches.

Further to the priorities specified in 2016/17 (priority actions 1 & 2) it is felt that the above revised priority for 2017/18 encompass these every well and we will continue to promote an entrepreneurial culture and opportunities not only to our staff and students and to our many clients, but also particularly in association with other HEI’s (learning from their experience) through active and full participation in RCDG sector group for this outcome 4. Following on from 2016/17 (priority action 3) as SRUC encompasses research, education and consultancy activities, we already encourage internal mobility between these functions, but as members of a wider HEI community together with our strong direct linkages to industry (e.g. through local business groups) we are developing networks with industry and activity encouraging mobility to industry from our staff, not only in the UK but internationally.

This also has resonance here with 16/17 priority action 6. As noted above we have good strategic relationships with industry (but there is always room for improvement), and on a wider cross Scotland HEI basis we are more than happy to fully participate and contribute our strengths in this area to promote more strategic relationships and would wish to continue to do so in the relevant outcomes (including this action 6) in 2017/18 working constructively with RKEC and RCDG.

Further SRUC will fully collaborate with other members of RCDG to fully promote an entrepreneurial culture to our students, staff as well as business, utilising and applying our extensive experience of direct business interactions as outlined elsewhere in this document.

Outcome five International): In partnership with Scottish Development International, Connected Scotland and others, Scottish HEI’s will have pooled their knowledge and networks, and shared good practice to promote and engage Scotland internationally.

SRUC are involved in a number of international funded (e.g. the Gates Foundation) initiatives with other HEI’s. As noted in 2016/17 (Priority action 11) SRUC have undertaken
joint initiatives and collaboration with other HEI's across various sectors to promote more effective international engagement. This is a key part of our strategy as an organisation. Agri-food industries face substantial challenges to feed a world population of up to 10bn by 2035. Not just scientific, but cultural, economic and social. Solutions must be grounded in multidisciplinary, multifaceted approaches. We aim to work together with others in a smart connected way to address these "grand" challenges. We will deepen collaboration with key HEI's and with Government to develop and fully engage with a coherent programme of international agriculture and primary food production. As such we are interested in ensuring we are involved with development of best practice in these activities. We aim to grow our international programme of activity, with collaboration with others to make a step change difference in international agriculture, with emphasis on improving sustainability, application of appropriate technology and reduction in food waste. To further foster good practice in this area SRUC would wish to fully collaborate with all other HEI's in Scotland through participation in the RCDG sector group for this priority in order to find ways to build international collaboration and to promote Scotland internationally more effectively.

**Outcome six (inclusive growth and social impact). Building on current and good practice Scottish HEI's will have scaled up their support of the Scottish Government’s ambitions for inclusive growth**

Taking consideration of the Scottish Government’s policy framework for inclusive growth SRUC is well positioned to make a significant contribution in specific aspects of each of the three main pillars of this framework.

In regard to **multi-dimensional social justice**, we particularly promote and contribute to equality of opportunity, participation and environmental sustainability. Specifically for opportunity and participation, our courses are designed to provide training opportunities from secondary (NC) through to tertiary, HNC/ HND Degree and PhD in land based and rural disciplines, all of which are vocationally oriented, preparing students for diverse careers (i.e. well paid jobs) in all aspects of the rural sector. All courses have well designed articulation, allowing entry and transfer at all points. We have embedded flexibility for entrance of students from a diverse range of backgrounds and outlooks. The purpose of these mechanisms are to allow students to progress (i.e. perform as well as they are able) as far they wish. This is coupled with a support system to provide advice and tutoring at each stage of their student career. Use of UIF in particular with students (tailored for course) is to provide opportunity to engage with practitioners to encourage innovation and entrepreneurship. Further, promoting environmental sustainability within the rural sector is at the core of what we do, with a portfolio of relevant research, translated (with the aid of funding from UIF) for our education courses (at various levels), and for specific KE events with key end users, especially our diverse industry clients (as noted in outcome one above), providing direct consulting services for a range of appropriate rural end users.

In terms of tackling inequality, this is coupled with our philosophy of flexibility of progression to allow students, in particular, to enter courses at a range of entry points, together with support to progress as noted above. In terms of the wider rural community, SRUC provides consulting services (see outcome one above) to the whole rural sector (accomplished by a number of regional offices across Scotland). The aim of these services is to provide equality of opportunity to all participants in the rural industries regardless of size/remoteness (i.e. place) of the rural enterprise. We aim to reach and influence all types of rural enterprise promoting the outputs of our research through innovative changes in various farming practices that will benefit in terms of improved quality, profitability and competitiveness.

Tackling inequality is linked to our approach to pro-growth and improving competitiveness. Our structure is such that research, education and consultancy services are all linked to provide an effective means to disseminate advances in innovation in the rural industries.
SRUC is primarily a KE organisation whether that is to our education, research or consulting clients. Our primary aim is to encourage the effective diffusion of knowledge generated though our R&D programmes through well designed KE activities. As such we undertake KE training of our staff to ensure that they are up to date in the latest mechanisms to deliver innovation to the full range of our industry clients and learners. Much of what we do is aimed at improving the competitiveness of the rural sector. Linked to outcome five, we also take an international perspective, in particular, through association with international networks and linkages encouraging the uptake of innovation that can be applied collaboratively to the benefit to rural industries and at home and abroad.

We recognise however, that much can be done here by adopting effective collaborative approaches with other HEI’s we will therefore share our more generic experiences in this area by fully participating in the RCDG sector 6 group discussions in this area.

**Outcome 7 (equality and diversity). **Building on current and good practice HEI’s will have ensured positive promotion of equality and diversity in staff and all who are affected by the use of UIF.

This is central to everything we do, whether that in relation to activities associated with the UIF or any of our other activities. Our policies in SRUC recognise the value and contribution of every individual and seek to enable them to achieve their full potential and aspirations without suffering discrimination of any kind. Our policy helps meet our obligations within the Equality Act 2010 and through the Public Sector equality Duty. SRUC has developed a Single Equality Scheme with the express aim of eliminating any form of discrimination, harassment or victimisation in relation to the identified Protected Characteristics, and promoting equality across the organisation and in our interactions with our clients and, students. (see attached EIA in relation to the UIF). However, we also have a much to contribute and gain by fully participating in the RCDG Working Group on this outcome 7 and would fully wish to do so to better aid our positive promotion of equality and diversity values to all our staff.

**Platform Grant**

As noted above SRUC uses UIF, guided by its objectives, to undertake a comprehensive programme of KE focused on rural industry across Scotland promoting the uptake of innovative outputs from our R&D. In addition we also have a major commitment to the public audience, through school based KE and our participation in science festivals and key agricultural events such as the Royal Highland Show. SRUC would use the Platform Grant to partly support the administrative and managerial costs of producing an enhanced programme of KE. This includes a contribution to specialist activities such as communications, publications, web development and marketing services. It would also provide a contribution to senior staff time to actively participate, leading where appropriate, in cross university groupings such as RKEC and RCDG, together with interaction with Interface, Scotland Food and Drink, Innovation Centres, Scottish and Highlands and Islands Enterprise and other organisations. In addition specific KE co-ordinators have been identified within the institution to ensure a cross institution approach across its Education, Consulting and Research divisions. We also allocate resources to train staff in KE approaches as well as the systematic evaluation of KE to facilitate continuous improvement and to maximise impact.

In total the current SRUC cost of such necessary support (including initiatives to the public and for cultural engagement) is £500K. Current cost to support communications/marketing and senior staff is £450K. In future, assuming a platform grant of £250K, SRUC would be able to support such service activities for KE to around the same levels as now.