



Outcome Agreement SRUC

(Scotland's Rural College)

Academic Year 2021/22

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1. Introduction

SRUC provides world class translational research, education, skills and consulting. Our vision is to be a new Tertiary Enterprise University at the heart of the natural economy which delivers positive social, cultural and economic impacts for Scotland and that is attractive to learners, collaborators and investors.

Academic Year 2020/21 was a challenging year for the sector due to the extended and ongoing impact of COVID-19 but, despite this, SRUC continued to prioritise student support, experience, and achievement at all levels. Gains were witnessed this past year – such as real increases in digital competency and a sense of true cohesiveness of teams as well as important institutional achievements including a significant increase in NSS satisfaction rating, SRUC being listed as a new entrant in the Times Higher Education UK rankings, being named among the top 50 institutions nationally, and being approved to move to the scrutiny stage for taught degree awarding powers, which will begin in February 2022.

SRUC recognise that change will not cease, either internally within SRUC or externally in this journey to post COVID-19 economic recovery. The external strategic environment has witnessed significant change and SRUC has fully contributed through thought leadership on the national importance of the green aspects of an economic recovery to key policy reviews such as the Advisory Group on Economic Recovery (AGER report). Other policy reviews such as the Dasgupta review; 'The Economics of Biodiversity', and NatureScot's review on 'Supporting a green recovery', all affirm and amplify the importance of the role SRUC must play in building on existing strengths around the natural economy.

SRUC's position as a potential future model of an integrated tertiary institution was fully recognised as part of the SFC's recent phase three report on 'sustainability and coherence of the HE sector in Scotland'. SRUC is fully engaging in the current sectoral discussions about a new tertiary led quality framework as our operation in both the FE and HE sectors within a fully integrated organisation makes us uniquely experienced within Scotland.

In this Outcome Agreement for 2021/22, SRUC seeks to give assurance on the use of SFC funding and to demonstrate how we will deliver with impact across a range of priorities:

- Support and promote the achievement and retention of our students through a blended delivery model
- Ensure the wellbeing of staff and students through these challenging times
- Deliver an education-led economic recovery for Scotland through supporting the success of the natural economy now and in the future through our world class teaching, research and consultancy
- Take a regional approach with our campuses acting as anchor institutions to ensure that we
 deliver to the natural economy across Scotland.

1.1 Supporting Students

As a tertiary institution, SRUC is near unique in its level of provision from SCQF levels 4 to 12, working closely both with academic and industry partners across the rural sector and in schools. Widening access opportunities and the learner journey are key, and learners are able to progress flexibly and appropriately, with recognition given to prior attainment and focusing on the interests of the learner. On that basis SRUC seeks to meet the needs of the land-based sector for an appropriately skilled workforce by recognising the importance of the learner journey and focusing on positive purposeful destinations.

In line with Government guidance, and with SRUC ambitions as encapsulated in our Learning and Teaching Enhancement Strategy 2020-2025, our learning and teaching in 2021/22 has continued to be blended. This approach is based on solid pedagogic theory which is embedded in the principles of the strategy, that was co-developed with learners and colleagues across SRUC during 2019/20.

We adopt Sharma's¹ definition of blended learning – meaning learning and teaching that comprises a blend of face-to-face and online learning, technologies and teaching approaches – integrated with Laurillard's² active learning approach. The composition of the blend will flex according to subject and SCQF level.

With regard to the blend of face-to-face and online teaching, we have had positive feedback from students about the flexibility offered by the blend they experienced in 2020/21, but negative feedback regarding low levels of social interaction. SRUC's blend aims to address this by comprising high quality on-campus practical learning, combined with high quality on-campus, small group, interactive, classroom-based learning and high-quality online teaching.

With regard to a blend of technologies, this means utilising our digital tools to provide digitally-enhanced learning on-campus, as well as interactive virtual learning. With regard to a blend of teaching approaches, this means using a high mix of active and collaborative learning with a small amount of passive learning.

We have continued our offer of shorter stays (minimum 2 days) at SRUC accommodation (Barony, Oatridge and Elmwood) to support the blended learning approach.

In line with previous years all students have been encouraged to complete our digital requirements form so that we can support and provide those students in need of devices with appropriate equipment. We have also continued our weekly all student email where each week we highlight a theme to support students including funding and support, wellbeing as well as topical issues such as personal safety.

1.2 SRUC Students Association (SRUCSA)

SRUCSA and SRUC continue to grow their partnership working. Regular updates with the Academic Director and Principal have continued to keep SRUCSA up to date on students' safe return to campus. SRUCSA have also served as a sounding board for delivering suitable communications to students, keeping them informed. The truly partnership role that SRUCSA have played and will continue to play is vital as SRUC continues to respond to COVID-19 challenges.

During lockdown, SRUCSA were adept at keeping students informed though its social media channels. It will be growing these this year and combining real time, in person and asynchronous communication channels to increase student engagement.

SRUCSA have a range of activities planned this year. As part of the Enhancement Themes group, SRUCSA will be taking on a student intern who will be working to implement the recommendations found by previous student interns. This aims to lead to a growth in student-led community activities such as clubs and societies.

The SRUCSA officers are working on a campaign for the full year that will raise awareness of what forms gender-based violence takes, increase reporting of incidences at SRUC, and highlight support available to students. As part of this, Level 1 first responder training has been sourced and will be delivered by Rape Crisis Scotland for the SRUCSA team to help support students. SRUCSA have opened the training up to SRUC staff.

SRUSCA will again run their annual student-run qualitative feedback survey Speak Week as well as their student-led awards 'SRUCSA Awards'.

As part of the SRUC Student Voice project, SRUCSA is undertaking a review of their class rep system and how it serves SRUCSA and SRUC most effectively.

² Laurillard, D. (2012) *Teaching as a Design Science: Building Pedagogical Patterns for Learning and Technology*. Routledge.

¹ Sharma, P. (2010) Blended Learning. ELT Journal 64 (4): 456-458.

After a year-long exploration of their vision for the future, SRUCSA will be creating a new strategic plan with support from the National Union of Students' development team.

Continuing from their involvement in the work-based learning thematic review, SRUCSA will be liaising with SRUC in improving SRUCSA's provision for apprentices. This will put SRUCSA in a position where it is knowledgeable, prepared and equipped to support apprentice students at SRUC to a similar level that it currently supports undergraduate students.

An idea from their Liberation Officer for Disabled Students, SRUCSA are organising a Green Health Week which will be a week of events and activities for students, with themes of nature, the outdoors and wellbeing, both physical and mental.

Finally, collaboratively with SRUC Careers Advice staff, students, and Alumni, SRUCSA will be organising events focused on career paths with information sessions and talks from present staff and past students.

These activities, with the usual student voice, representation and advocacy work of SRUCSA, aims to ensure SRUC students have an excellent experience.

2. Wellbeing

SRUC's commitment to supporting mental health is articulated in our <u>Healthy Learning and Wellbeing Strategy</u>, developed by staff and students, and setting out how SRUC will support the physical and mental health of its community. The COVID-19 pandemic meant SRUC shifted to online support whilst retaining some on campus support depending upon the restrictions in place.

2.1 SRUC ensuring the wellbeing of students

Support for mental health and wellbeing comprises a five-pronged approach:

- Face-to-face (virtual or physical) general support: each faculty has dedicated pastoral student support workers whose main focus is on supporting the mental and physical health of SRUC students, a bespoke staff development site for such staff provides a range of resources around supporting the mental health of students. Other student-facing staff continue to undergo mental health first aid training to support students and staff in crisis. Each faculty has dedicated safeguarding managers and officers to ensure the health and wellbeing of our students and staff. A key focus of the 2021 start of year staff development programme was supporting academic staff to understand how they could also support the mental health and wellbeing of our students through their learning and teaching practices.
- Targeted counselling and occupational therapists: SRUC are utilising the Scottish
 Government funding both to employ in-house counsellors (50% of funding) and to provide
 access to external counselling (50% of funding). This flexibility of use will enable us to ensure
 our diverse range of students receive the support they need. This is complemented by the
 piloting of TogetherAll live therapy.
- Online support: working with SRUCSA, SRUC has a partnership with the charity SANE, providing access for students and staff to online support and out of hours telephone support until 22:30. Staff and their families have access to a 24/7 confidential employee assistance helpline which provides a range of practical and emotional support services. Togetherall (Togetherall) provides an online support network for staff and students.
- Student belonging: understanding that mental health and wellbeing can be bolstered by connectedness, SRUC endeavours to support students to feel part of a learning community. This year, the community building has been focused through our Virtual Learning Environment, (VLE), Moodle. This started through the online induction process, which was delivered at three levels cross SRUC, cross Campus and within programme, all trying to ensure students feel part of their learning communities. It has also been focused through our Peer Support project (part of the Enhancement Theme work) following the success of

Mucker's Nation in 2020/21, we are now supporting 9 peer support projects, with a total of 50 student volunteers. Three more projects are in the recruitment stage, and so this number looks set to rise.

• **Signposting to other support**: SRUC has created a directory of support agency contacts, online (e.g., through Moodle, MySRUC etc.), We have extensive connections with local authorities and third sector bodies and encourage students to connect with these as appropriate. We invite representatives from these to relevant cross-campus events in an attempt to support familiarity, and so to encourage use when required.

Following feedback from students, a cross-SRUC working group was set up in August 2021 to deliver a bespoke student mental health and wellbeing strategy for 2022-2025, which will include the Student Mental Health Agreement. Following a benchmarking exercise that will assess current provision against agreed best practice, this strategy will provide a comprehensive operational plan that will ensure our support of student mental health and wellbeing continues to be fit for purpose in a blended learning, COVID-19-impacted world.

2.2 SRUC ensuring the wellbeing of staff

SRUC is aware that work plays a crucial part in most people's lives and the importance of supporting wellbeing. As an organisation we recognise that we have a responsibility to support and enhance staff wellbeing across the organisation.

2.3 Healthy Workplace & Wellbeing Strategy

Improving the health and wellbeing of staff is a key priority for SRUC. A Healthy Workplace & Wellbeing Strategy was implemented which has been the core driver to ensure that SRUC has in place and supports staff access to the right support and tools to maintain their Health and Wellbeing.

- Occupational Health we engage the services of an occupation health partner, currently
 Duradiamond, to provide guidance confidential and tailored to the individual need on how
 we support staff to access the right support in the right way.
- Mental Health First Aid to date 37 colleagues across the organisation have undertaken inperson Mental Health First Aid training. This training teaches them how to help people
 developing a mental illness or substance use problem or experiencing a crisis. Mental Health
 First Aid is an initial response to distress and all trained staff understand that this help is given
 only until other suitable or professional help can be found.
- Employee Assistance Programme (EAP) SRUC has an EAP which provides a 24-hour support helpline from Health Assured to support staff through any of life's issues or problems. This is a completely confidential service. Services include: EAP, Home Life Support, Work Life Assistance, Physical and Emotional Health, Wellbeing Resources, Self Help Programmes, Mini Health checks and webinars.
- Togetherall All colleagues and students at SRUC can access free online support with Togetherall. Whether suffering from work-related stress, struggling to sleep or simply needing someone to talk to, Togetherall helps individuals get support, take control and feel better. On Togetherall members are anonymous and this allow them to participate in the anonymous global community, express themselves creatively, and access a library of self-care resources, including clinical tests, tips and guided group courses with topics. Trained professionals are online 24/7 to keep all members safe and provide extra support.

The Healthy Workplace & Wellbeing Strategy was due to be reviewed in 2020/21 with a view to a refreshed strategy being in place for 2021-2024. This has been delayed partly due to the pandemic but also with all the resources we currently have available to staff it is crucial that we review these to ensure that what we move forward with provides the right support for staff. Therefore, we are currently undergoing a review of this area which has included a review of mental health first aid, focus group

discussions and this will culminate in a staff wellbeing survey in November to allow staff to directly feedback on what works, what doesn't and what is missing. We are also looking at how we work within the hybrid working model now adopted. This will enable us to develop a refreshed strategy for 2022 –2025 that is fit for purpose to provide the right resources and support.

3. Fair Access and Transitions

SRUC is committed to widening access and we encourage students from the widest possible range of backgrounds to participate in tertiary education and appreciate that not all students have had the same opportunities to meet our advertised entry requirements. For this reason, we aim to identify applicants who could benefit from additional consideration in the admissions process.

SRUC undertook a significant review of its Admissions area and changes as a result of the review are being implemented during 2021/22. The changes fall in to two areas. The first is that we have updated and approved both our overarching admissions policy - structure-admissions-policy web link and our contextualised admissions policy - contextual-admissions-policy web link. The second, is that we undertook a process review of our Admissions area. SRUC are moving to centralised online Admissions for FE programmes and we are also moving all HE progression applications (HNC to HND and HN to degree) to an online system. Both these changes will lead to a much quicker and streamlined experience for the applicants.

Our approach to widening access to HE is primarily through encouraging progression pathways from FE to HE. For UG (SCQF 7+) students studying on our courses between 2017/18-2019/20, 21.7% had studied for a prior FE qualification at SRUC. In addition, 11% of students studying during that period had entered via an HE access scheme (SWAP or other). For those who exited with an HE award in 2017/18-2019/20, 22.8% exited with a higher award than that which they initially entered for. While students may not enter with the confidence, intention or qualifications to study beyond SCQF7 or SCQF8 (HNC/D), we encourage and support them while they are with us providing the opportunity to extend their studies to degree level if they so choose. Close coordination between programme leaders and year tutors supports the transition process, with some programmes delivering bespoke online bridging programmes. However, it was identified through our annual quality dialogue process that this is an area that requires further support. In 2021/22 we will be investigating the impact of such activities, identifying areas for further development, and scoping the potential of SRUC-wide bridging programmes.

SRUC works with colleges to support student transition to studies at SRUC. We do this though active engagement with groups such as SWAP West and SWAP East as well as partnerships supporting articulation - such as Business Management students from Ayrshire College joining the Rural Business Management degree at year 3 and Animal Care students from New College Lanarkshire progressing to higher level studies at SRUC's Barony Campus.

SRUC participates in and contributes to many initiatives to support Scotland's young people into Further and Higher Education – including the Schools for Higher Education Programmes - ASPIRENorth, Lift off in Fife, LEAPS and Focus West. SRUC is also active in delivering education to school students through supporting the regional initiatives such as Growing Rural Talent in Dumfries and Galloway as well as regional delivery of qualifications to school students – SRUC deliver significant quantities of Horticulture education from Elmwood and Oatridge. SRUC are also focussing on the National Progression Award in Rural Skills at SCQF level 5 – supporting school students to get meaningful land-based qualifications whilst at school. SRUC works closely with organisations such as the Royal Highland Education Trust (RHET) and the Royal Northern Countryside Initiative (RNCI) promoting opportunities and careers in rural industries.

4. Quality Learning and Teaching

4.1 Student Success and Retention

Like many other educational institutions during 2019/20 and 2020/21 the impact of COVID-19 on both staff and students was significant and SRUC is proud of the institutional response to the crisis. Many of SRUC's programmes are vocational with a high proportion of practical activity, which despite significant efforts on the part of colleagues in both the academic and support teams, made it challenging for some students to complete. This in turn has had a direct effect on success rates and should be borne in mind when drawing comparisons to previous years.

In 2019/20, SRUC continued to maintain a relatively high degree of success for its learners at the FE level with 63.6% of full-time students who enrolled successfully achieving their qualification, this increased to 65.3% in 2020/21. While this is still a decrease of 4.8% from 70.1% in pre-COVID-19 2018/19, it is a slight improvement on the previous session. In comparison to the Scottish National Average for 2019/20, this was only 0.4% below the average of 65.7%. In 2020/21, a further 14.3% achieved partial success while the remaining 20.4% withdrew from their programme. Prior to COVID-19, SRUC's success rates were consistently above 68% with withdrawal rates normally below 18% over the past four years so the pandemic has clearly had a detrimental effect on student outcomes.

Further to this, 89.1% of part-time learners successfully achieved their qualification, this is 0.8% above 2019/20 (88.3%) but is still 4.8% below the 2018/19 pre-COVID-19 level which was 93.9%. However, it does indicate that despite challenging circumstances SRUC continues to support part-time students effectively to achieve high levels of success.

At HE level in 2019/20 student success at SCQF 7 to SCQF 9, success rates dropped slightly, but all were above 80% and all were within 2 to 3 percentage points of the same measure for that group in the previous academic year. Withdrawal rates also increased slightly with the highest increase occurring at HNC/Year 1 i.e., from 9.5% in 2018/19 to 12.2% in 2019/20, HND/ Degree Year 2 and Degree Year 3 were significantly lower at 6.4% and 3.5% respectively.

Honours graduates however, saw an improvement in success with an increase from 87.9% in 2018/19 to 93.4% in 2019/20 and an allied drop in withdrawal from 6.9% to 4.1%. Data for 2020/21 is yet to be ratified.

4.2 Learning and Teaching Enhancement Strategy

In 2020, SRUC launched the new Learning and Teaching Enhancement Strategy 2020-2025 which comprises two pillars and ten principles to which all new and existing programmes of study will align, as well as a plan for implementation. Briefly the pillars are that "All learning, teaching and assessment at SRUC will enable learning for change and learning for all". The ten principles underpinning the pillars comprise:

- Working with learners as partners;
- Designing realistic learning;
- Embedding global challenges;
- Designing research-informed curricula;
- Encouraging critical and creative thinking;
- Building learning communities;
- Providing flexible learner journeys;
- Designing inclusive learning;
- Designing active blended learning and
- Enabling independent learning.

A key focus for 2021/22 is the first year of a three-year Curriculum Review, through which all SRUC programmes will be supported to embed the pillars and principles within their learning, teaching and assessment. This will be accomplished through three strands of activity, summarised as the SEEDABLE approach:

- **SE**: Sustainability and Enterprise: we will support programme teams to embed sustainability and enterprise, including relevant meta-skills, in their curriculum. This aligns to the first pillar of the strategy: Learning for Change.
- E&D: Equality and Diversity: we will support programme teams to embed equality, diversity
 and inclusion in their learning, teaching and assessment. This aligns to the second pillar of
 the strategy: Learning for All.
- **ABL**: Active and Blended Learning: we will support programme teams to adopt a planned rather than emergency approach to learning and teaching that is active and blended. This aligns to the active and blended learning principle.

A cross-SRUC steering group, comprising membership from academic, professional and consultancy services has been set up to advise and guide this work, ensuring it effects the changes required. In the first stage, the steering group is overseeing the development of a bespoke framework that brings together the three strands of work, drawing on and adapting existing models in the sector (e.g., Bacigalupo's 2016 Entrepreneurship Competence Framework, Hanesworth's 2017 Embedding Equality and Diversity in the Curriculum Matrix and Sharma's 2010 Blended Learning Model).

Cycle one of the review will commence in January 2022 and will take the Agriculture and Rural Business Management Board of Studies programmes through the Review process.

Alongside this, SRUC continues to focus on supporting academic staff to take a digitally-enhanced approach to learning, teaching and assessment. Investment in staff has meant increases to the Digital Learning Team with a particular focus on staff development. At the beginning of 2021/22 we launched our Moodle Standards – supporting a standardised approach to our Virtual Learning Environment – and Kaltura Classroom – our classroom capture software. 2021/22 will focus on supporting uptake and use of these, supporting our staff to deliver a high-quality digitally-enhanced student experience.

4.3 Digital Developments

At SRUC we believe that digital is a driving force to fulfil our full potential, and our focus on delivering our digital strategy continues. This year we will focus on:

Cyber Security: we have maintained our Cyber Essentials Plus accreditation but continue to work on enhancing our security position. The focus currently is on redesigning our network, changing our backup solution, implementing new anti-virus software and mobile device management. We have also started the process of rolling out multifactor authentication to our students. We are currently formalising our business continuity processes and are in the process of a business impact assessment which will lead to formal business continuity plans and exercises. This is important for our cyber resilience, but also more widely across SRUC.

Student Journey: Our digital strategy identified a need to review the whole student journey, both in terms of physical and digital touch points to ensure that it is in line with our values and provides our students with the best possible experience. This project has now started with scoping and business case writing currently taking place. By the end of 2021/22, we aim to have mapped our students journey and identified key physical and digital touch points needing focus.

Business Intelligence: Information is vital for managing our business. We have engaged with an external partner to help us explore what data we hold and how we can enhance our use of it. Student data and learner analytics will be in scope for this project.

Getting the basics right: We recognise that our ambitions must be supported with outstanding basics and so we continue our work on enhancing our student information management system, our VLE, and we are currently completing a trial for curriculum mapping software.

4.4 Student Feedback

Feedback from students is gathered via a range of mechanisms: at the module level via end of module questionnaires, at the subject level via Student Liaison Groups, at the campus level via the annual Speak Week and termly Student Panels (both run by our Students' Association), at the cohort level via surveys (e.g., the Marketing and Induction Survey, National Student Survey, Student Satisfaction and Engagement Survey), and at the institutional level via student representation on Academic Committees, including Academic Board, and via student-Board interaction through the Student Liaison Committee.

The root and branch review of our student voice mechanisms conducted in 2020/21 resulted in a multi-year project plan comprising seven sub-projects:

- 1. Facilitating My Voice to become a triangulation tool for student voice.
- 2. Reviewing and updating the standard operating procedure for Student Liaison Groups to strengthen their use in a blended learning world.
- Reviewing and updating the Student Liaison Committee to ensure its focus on strategic matters.
- 4. Reviewing and updating SRUCSA's representative and democratic structures.
- 5. Reviewing and updating our class rep systems.
- 6. Facilitating the development of a Student Opportunities Hub.
- 7. Creating resources and guidance for clarity on Student Voice mechanisms.

During 2021/22, projects 2 and 3 will be the focus for SRUC, while projects 4 and 5 will be the focus for SRUCSA.

Another area of focus will be the Student Satisfaction and Engagement Survey. While SRUC received high positive feedback in the SSES this year, with an overall satisfaction rating of 87.5%, the response rate is still very low at 17.5%. Work will focus on bringing this response rate up. This has already begun with an awareness raising campaign amongst staff via Annual Quality Dialogues and relevant Committees.

The National Student Survey saw an increase in responses from 71% in 2020 to 82.21% in 2021, and an increase in student satisfaction from 72% to 76.1%. Scores improved across 6 of the 8 scale questions. Of most note are 'Organisation and Management', 'Assessment and Feedback', and 'Student Voice', each of which improved by over 10 percentage points in 2021. In 2020/21, SRUC focused work on these areas; it is reassuring to see correlation between institutional focus and improved NSS scores.

The two areas which did not improve were 'Learning Resources' and 'Learning Community'. The Learning Community score, while comparable in its decrease with the sector, is disappointing as this is where SRUC usually performs best. The approach to learning and teaching for 2021/22 – which includes a focus on use of classroom teaching for interactivity – as well as further development of the Enhancement Theme projects, particularly the peer support project, aims to address this.

The Learning Resources score indicated issues within both Library and IT resources. With regard to the latter, this is more about digital skills than availability of resources, and this is being addressed by the Information and Digital Services team via a focused programme of work. With regard to Library Resources, 2021/22 will see a review and subsequent business plan for this area with a particular focus on developing a library service for a blended learning world.

Another area identified by the NSS, and echoed in other student feedback, on which SRUC is focusing in 2021/22 is student mental health and wellbeing. As highlighted in section 2.1, a cross-SRUC project was launched in August 2021 focused on developing a new student mental health and wellbeing strategy for roll out in 2022/23.

5. Meeting Future Skills Needs Including Skilling and Upskilling

The Scottish land based sector generated £27.1bn Gross Value Added in 2019, this represents 19.5 % of the total Scottish GVA in 2019 of £138.8bn. It generates 340,000 jobs and between 2019 and 2029, there is forecast to be a total of 65,400 job openings across land-based in Scotland, driven entirely by replacement demand, reflecting the aging profile of the workforce within the sector. In common with all sectors this is against a background of a decreasing number in the working age population which is projected to decrease by 4% until 2041 (source SDS Briefing Paper for SRUC, July 2019).

Our broader skills provision is developing in response to the Skills Action Plan for Rural Scotland, and we are seeking to better understand and align our provision to the needs of rural employers and to provide individuals with accessible education and skills provision. The Climate Emergency Skills Action Plan provides further context with agriculture and wider land-use, including forestry, one of the five main Scottish Government priority sectors within this plan. Moving to environmentally sustainable jobs, sectors and economies including the circular economy, will be a key element of achieving the net-zero carbon target for Scotland and SRUC has a vital role in maximising opportunities for people to gain the skills needed in a new green economy.

Against this backdrop SRUC intend to raise the level of our skills provision, presenting land based as an innovative high tech, rewarding sector to young people, influencers, career changers and career progressors. SRUC have appointed a new Skills Director (starting January 2022) to develop skills provision across SCQF levels 4-11 – to create a skilled Scottish workforce through upskilling and reskilling, particularly in relation to a green recovery. This ambition is supported by provision driven by the SFC funding streams such as the Upskilling Funding for Micro-Credentials, the Young Person's Guarantee and National Transition Training Fund. Broader sectoral provision and employer engagement continue to be supported by Flexible Workforce Development Fund (FWDF) activity. We are already utilising the Young Person's Guarantee to support the heavily COVID-19 impacted Hospitality sector by providing Barista training to upper level school students in Fife. Wherever possible we will seek to respond to national initiatives.

The Apprentice Employer Grant (AEG) ran from January to March 2021 and proved very successful for SRUC. This stimulated an earlier than normal Modern Apprenticeship recruitment phase which has slightly impacted on SDS contract performance, though SRUC are on schedule to meet the amended SDS contract of 221 MAs. We will seek to increase this activity in SDS contract year 2022/23 to 274.

The Work-Based Learning (WBL) Thematic Review took place in June 2021. The focus of the review was on the student and employer experience of undertaking an apprenticeship programme with SRUC. The aim was to identify and share good practice and innovation across faculties, departments, and support areas, along with areas for improvement. Actions that are currently being undertaken to address the outcomes of the review include a refresh of the SRUC WBL Strategy, improving benchmarking of candidate performance, the development of a WBL community of practice, and a key focus on providing enhanced digital materials to improve candidate support and performance. The use of our Training Moodle for WBL will be fully reviewed over the next 18 months. We are also planning to improve engagement with employers and industry through relationship building based on stronger and better communication and improved mentoring at the start of MA candidate journeys.

In the North and South & West faculties we continue to support the delivery of the Land-based Pre-Apprenticeship Pilot (essentially a Pathways to Apprenticeship-type programme) in partnership with Borders College and employers through the Scottish Machinery Ring Association (SMRA). In the south, again in partnership with Borders College and external partners, we support the delivery of the Growing Rural Talent project (Scottish Government/South of Scotland Enterprise funded) which has developed work-based pathways into agriculture and forestry at SCQF level 4 for senior phase pupils. Both these programmes are founded on strong industry engagement.

More generally we continue to engage with partners and stakeholders to take a coordinated and strategic approach to tackling skills within and in support of the rural economy, including National Farmers Union Scotland, Skills for Farming, Skills Development Scotland, Lantra Scotland, Scotlish Machinery Rings Association and the other land-based college providers across Scotland.

6. Equalities and Inclusion

Our Strategic Plan 2018-23 articulates the importance of offering choices equally - be they academic or vocational. Doing this relies on an inclusive approach to teaching, understanding the needs of all students and ensuring that our application, registration and teaching processes identify and address the needs of potential and existing students.

Our Board oversees our equality activity and one member, who takes on the role of Equality Champion, attends the Equality, Diversity and Inclusion Committee (EDIC). The Executive Leadership Team (ELT) is also represented on the committee, which is chaired by the Director of Professional Services, while our Athena Swan Self-Assessment Team is chaired by the Academic Director. EDIC has responsibility for the delivery of our vision to embed a culture of equality, diversity and inclusion within our organisation and, by doing so, creating an environment where everyone can thrive, contribute and succeed.

The EDIC introduced a revised Terms of Reference document in February 2021 which details membership including SRUCSA and Trade Union participants and representatives of specific action groups and employee-led equality initiatives. It also introduced a mode of operation which sees Committee members acting as a two-way conduit for staff and student issues and concerns and communication. The EDIC is responsible for the review and development of related strategy, action plans and policy which, depending on the content, will either be progressed to the ELT and/or SRUC Board or be devolved operationally.

Data gathered and assessed for our pay gap reporting (gender, ethnicity, disability) and exercises such as developing our Equality Outcomes helps our understanding and allows us to focus the content of the related Equality Outcome action plan. This, along with similar documents for British Sign Language and Gender Equality (Athena Swan), provides direction for our efforts along with our underpinning organisational values.

Our Equality Outcomes (2021-2025) are:

- Further embed equality and diversity in our management, leadership and governance structures and practice, ensuring external compliance and internal engagement.
- Provide an inclusive learning and working environment for employees, learners, and stakeholders in a culture that values all, is underpinned by dignity and respect and where everyone understands their responsibility in the delivery of that culture.
- Learners and employees from all backgrounds view SRUC as a welcoming and inclusive organisation where they will be supported to fulfil their potential and achieve high levels of success.

Fundamental to achieving these objectives is developing shared knowledge and understanding. SRUC have developed and/or delivered training in mental health support, Deaf Awareness, Equality Impact Assessment completion, allyship, British Sign Language and Mental Health First Aid with further training modules planned during 2021/22.

These training activities along with the increased frequency of equality-related communications across a variety of media have contributed to more conversations taking place about equality and embedding this into the day to day activity in SRUC. Our activities to mark particular recognition dates throughout the year follow a planned timetable and are co-ordinated across staff and student activity e.g., British Dyslexia Awareness Week included staff communications and the sharing of education resource packs to Academic colleagues for use with students. This approach will continue as plans are being developed for staff activities to support the SRUCSA Gender Based Violence education and awareness campaign. Our dedicated Equality and Diversity Yammer channel has been well received and will continue to be supported by an increase in content.

Learning for All is one of the pillars of our Learning and Teaching Enhancement Strategy 2020-2025, equality and diversity is embedded within this, Inclusive Learning Design being one of its principles. KPIs around diversity data are embedded in annual monitoring and are included within the special measures process. The Student Support and Engagement Committee provides a strategic focus to

the work being undertaken to support student mental health and inclusion. As noted in section 2.1, work has begun on the review of current student mental health and wellbeing provision, with a view to developing a new strategy for 2022+. The cross-institutional, cross-divisional Corporate Parenting Working Group, with both SRUCSA and student representation, refreshed our Corporate Parenting Plan in 2021, and is working on the delivering to the new three-year action plan.

7. Targets

For this transition year of Outcome Agreements, SRUC have submitted one year of projections for the revised list of measures. We believe they are simultaneously ambitious yet realistic – taking account of the additional challenges being faced as we pivot from the pandemic.

Within FE, particular highlights of the target include our aim to deliver 6.0% of credits to 10% of the most deprived postcode areas. SRUC do not believe SIMD is a useful indicator of deprivation in remote and rural areas and feel the 6% underplays the important inclusion role SRUC plays in remote and rural locations. SRUC has set an ambitious target for the proportion of full-time enrolled students successfully obtaining a recognised FE qualification of 70.0% - against a background of decline for two years as a result of COVID-19. SRUC's figure for the proportion of full-time FE college qualifiers in work, training or further study 3-6 months after qualifying fell last year as a result of COVID-19 and so we have set a target of 93.0%, which though not as high as it has been, reflects a journey towards our pre-COVID-19 levels. SRUC are seeking to improve the percentage of students overall satisfied with their college experience to 93%, as assessed by the Student Satisfaction and Engagement Survey (SSES). SRUC already has one of the highest SSES satisfaction rates within the sector, but we seek to not only increase satisfaction rates, but also aim to increase engagement with the survey, which has been a long-term issue for us.

Within HE, particular highlights include our target of 14% for the COWA measure: Proportion of Scottish-domiciled full-time first-degree entrants from the 20% most deprived areas, for the reasons outlined above. SRUC have a target of 85% for the proportion of Scottish-domiciled full-time first year entrants returning to study in year 2. This is a challenging target due to the HNC exit point and current relatively high levels of employment.

SRUC saw a significant increase in both NSS participation and satisfaction rates last year and so are targeting a modest +1% difference from the individual institution benchmark figure for students satisfied with the overall quality of their course of study next year to build on last year's strong improvements. SRUC are also aiming to see an increase in the learning community scale.

8. Climate Emergency

SRUC published our <u>Climate Change Action Plan 2020–25</u>. Over the period of this plan, SRUC has set a target to reduce total carbon emissions by 20%, as measured from the 2019/20 revised baseline year (excludes farms emissions metrics, which is being developed as outlined below). This will result in an overall emission reduction by 2025 of 62.4% from the 2014/15 baseline. This will be achieved through:

- Initiatives, including emissions reduction strategies, outlined in the plan.
- A strategic rationalisation of the SRUC estate.

This sets a realistic and positive pathway to ensure SRUC meets and exceeds the Scottish Government's milestone target to reduce emissions by 75% by 2030.

Owing to the very different nature of greenhouse gas emissions from SRUC Farms, we will be developing a separate net zero plan with high-level metrics feeding into the overall SRUC strategy that will build on the actions already identified in SRUC Climate Change Action Plan 2020–25. We have carried out baseline measurements to estimate emissions from our farms and we are undertaking a detailed scoping analysis to develop robust and meaningful emission targets which aligns with SRUC's ambitions to lead by example, to exceed stakeholder expectations and reduce our overall environmental impact on the planet. A small number of academics and consultants have

established a working group to focus on the prioritisation and implementation of measures to drive towards decreased emissions and increased sequestration on our farms.

Much of our research is focused on understanding greenhouse gas emissions in the natural economy. We have established a <u>Global Climate Emergency challenge centre</u>, which aims to find new systems-level solutions to tackle the worsening climate crisis. Working with partners we identify and implement interventions and ensure the adaptation to, and mitigation of, climate change impacts.

We have been awarded £21 million of funding via the UKRI Strength in Places Fund to establish a <u>Digital Dairy Value-Chain</u> with the aim of decarbonisation of the dairy industry in Scotland and beyond. We have developed and deployed <u>Agrecalc</u> a carbon footprint tool that enables farm enterprises to identify and measure emissions, benchmark key performance indicators, identify mitigation strategies and monitor improvements. We deliver <u>Farming for a Better Climate</u>, working with farmers and land managers to provide practical ideas to improve farm efficiency and reduce the farm carbon footprint. Through our research and outreach activities SRUC helps deliver net-zero emissions from food production while increasing the level of both efficiency and farm productivity.

SRUC played an active role in the recent 26th UN Climate Change Conference of the Parties (COP26), with our research featured in the SRUC conference presentations and podcasts. Professor Reed from our Thriving Natural Capital challenge centre co-hosted the Peatland Pavilion in the blue zone at COP26 to highlight the importance of peatlands as major global stores of soil carbon but also, in their damaged state, as large sources of greenhouse gas emissions. Whilst Professor Fischer-Moller who leads our Future Food Systems challenge centre, Professors McCracken and Thomson addressed the Scotland Climate Assembly on how the country can tackle climate change.

9. High Quality Research and Innovation

SRUC research aims to deliver research for change. Working in partnership with industry, policy, and society, our staff and students will collaborate to develop and deliver our underpinning strategy of driving real world change to the challenges we face. Our Challenge Driven Research Centres are both multi- and interdisciplinary, drawing on expertise from across SRUC and partners. By aligning our innovation and impact agendas to these Challenge Themes we will begin to imagine, anticipate, and develop new seams of creativity in emerging, cross-cutting areas, allowing us to be a leading force in the development and deployment of innovation to support our natural economy. The Centres (listed below) will be key foci for Knowledge Exchange with the use of research to influence change, enabling them to become key venues for networking, debate and collective influencing with/through key stakeholders.

Driving data and digital innovation: Building on SRUC's strength in generating, managing, and utilising data across the food chain, this Centre will utilise data and analytics to develop new understanding, including efficiencies across agri-food systems, and develop/improve products.

Global climate emergency: Focusing on systems-level solutions to tackle the worsening climate crisis, this centre will identify and implement interventions promoting adaptation to, and mitigation of, climate change impacts. The complexity of this challenge cannot be addressed by direct, short-term research alone but needs a broad, multi-disciplinary and open approach that takes the long view.

Safe & Improved Food: Working with industry and academic partners, this Centre will develop new ways of producing and processing food, to make it safer, healthier, more nutritious and/or tastier. This will be done in the context of ensuring a sustainable yet plentiful food supply to feed a growing global population.

Thriving Natural Capital: This Centre will show how natural capital, underpinned by the interdisciplinary science of ecosystem services, is essential to addressing UN Sustainable Development Goals and informing decision makers on the restoration of natural capital and its sustainable use.

Future Food Systems: Our land-based industries not only produce food and drink but are part of an integrated land use strategy delivering natural capital. In partnership with industry, this centre will generate knowledge to help create safe, sustainable, and new foods chains that deliver sustainable, healthy diets, driving transformation towards sustainable agri-food systems and economic growth.

9.1 Research Environment at SRUC Research Ethics and Integrity

Research Ethics and Integrity

As part of our academic restructure at SRUC we have reviewed and updated our academic governance processes and structures. This includes revisiting the governance of research ethics and integrity through the re-establishment of an Ethics Committee that reports to the Academic Board. The Ethics Committee is responsible for advising the Academic Board on the development, implementation and review of the institutional procedures and guidelines relating to the ethical issues arising from teaching, research, consulting, knowledge exchange and other related institutional activities. The role of the Ethics Committee is to be proactive in relation to emerging issues of institutional, national or international significance.

Work of Research Ethics and Integrity going forward is supported by a new Research Integrity Officer (appointed Jan 2021) which provides support for key Social Science and Animal Ethics processes as well as embedding wider research integrity in our operations. Our public reporting of Research Ethics and Integrity is captured in our redeveloped website and as information/content increases more information will be shared. The Research Operations Manager and the Reporting and Integrity officer are both members of the Scottish Research Integrity Network representing SRUC.

Our annual ethics reporting, particularly on animal usage at SRUC has continued. The major ethical issues we face at SRUC are research involving the use of animals and research involving gathering the views and opinions of others. All such research is covered by clear policies (e.g., for animals, SRUC has clearly written policies on the ethics of animal experimentation and a SRUC code of practice for the use of animals in research). All planned research involving the use of animals must be approved via our Animal Experimentation Committee. Similar arrangements exist where research will involve gathering the opinions of others. These are covered by written down SOPs, stored and managed in Q-pulse (a system specifically designed for quality assurance), which form part of our quality management system, with backup documentation that is available to all staff and students via our SharePoint site.

Further, as part of our quality management system (ISO9001/2008 certificated by BSI). We have a written Standard Operating Procedure (SOP) that outlines our code of professional conduct (SOP CO PM 016 Code of Professional Conduct) and how to act if misconduct is suspected or alleged. SRUC has a set of disciplinary procedures and professional misconduct is treated under these procedures as a serious offence likely to bring SRUC into disrepute. All SOPs as part of our quality management system are fully reviewed and reapproved every three years, with earlier review if substantial revisions are required before that time. Key training on research integrity and ethics for staff is ongoing and focusses predominately on key training and information related to our ethics processes reinforcing our SOPs on research ethics and information around our key research and ethics approvals.

We are moving to an overarching research integrity framework for our research practice to enhance the activities of our various ethical frameworks and professional codes of practice. We held a staff engagement seminar in May 2020 to promote the integrity framework concept and are currently working with the Research Committee to develop a new policy to embed in research practice. We have recently (December 2021) introduced new training modules to cover all aspects of Research Integrity (externally hosted) that we are rolling out to our Doctoral College community in the first instance (students and supervisors) with the objective of all research staff and students completing during the calendar year (2022).

PGR Training Environment

We provide our PhD students with support, training, and supervision, as well as meeting the requirements of our degree-awarding partners. We are partners in 3 Doctoral Training Programmes and hold an annual PGR conference – the winners of which represent SRUC at the annual SEFARI Postgraduate Student Competition.

SRUC underwent an Enhancement-led Institutional Review (ELIR) in Spring 2019 and our first Institutional Led Review (ILR) of Research Postgraduate provision was held in September 2018. This process is underpinned by meaningful academic dialogue – through the Academic Governance structure, annual internal monitoring and ILR processes. From this we have developed refreshed policies, procedures and academic governance structures, and reviewed PGR policies and procedures. We are now in the process of further embedding this as common practice.

SRUC Doctoral College





Supporting the life-cycle of research students working with PGR students and supervisors



Supporting academic, personal and professional development of PGR students and supervisors



Promoting interdisciplinary and entrepreneurial thinking working across SRUC and with our PGR partners



Connecting PGR community to network of peers, academics & support staff



Developing and delivering systems to support PGR progression, from application to alumni

Figure 1. Aims of SRUC Doctoral College

In 2020 we introduced our Doctoral College (**Fig.1**) to enhance our PGR training programme and ensure individual student projects fit into the wider SRUC research and innovation environment. Our PGR students are an integral part of SRUC research, and this enhanced PGR provision ensures we deliver a cohort of skilled research-trained individuals to support a knowledge-based natural economy. We are currently in the process of shortlisting for a Head of the Doctoral college to provide leadership in this area.

Career support for researchers

Staff and students are encouraged to participate in a range of development activities to enhance their teaching, learning and assessment skills, and to further their subject specialism - these activities are included within the broad definition of scholarly activity at SRUC. SRUC has adopted the use of the Vitae Research Development Framework for our research-active staff and PGRs. This allows individual development actions to be evaluated, and tailored programmes for researchers to be developed at all stages of their job progression. More general researcher skills events are run throughout the year, including sessions on grant development, postgraduate (PGR) supervision, and data skills including research integrity/openness, and support for PhD students/early career researchers.

9.2 REG funding case study

The global climate emergency, coupled to the devastating losses in biodiversity and the need to feed a growing population present significant challenges and opportunities for all in research and education to address the major challenges we face as a society. Our Challenge Driven Research Centres (described elsewhere) bring together experts to address and deliver to the Challenge. These Centres will tackle some of the world's most pressing issues by producing research that influences industry, policy, communities and society. Our Centres will be the key collaborative research platform in SRUC bringing together leading academic and industry/policy partners to help solve the challenge.

To help further address these challenges SRUC have used REG funding to recruit eight Challenge Fellows (Fig 2 below), to help strengthen and grow our challenge centres. In undertaking the recruitment equality, diversity and inclusivity (EDI) was monitored and measured across the entire process. EDI and gender aspects of the paperwork was assessed including external verification from other academic organisations with more established examples of "fellows" recruitment.

The recruitment drive focused on the word and visual elements of the recruitment pack as well as a diverse planned publicity drive using a wide range of global partners and social media resources/stories. In developing these, planned actions for addressing gender and age related EDI aspects were introduced. Across the STEM subjects fellowship application rates in the UK (UKRI etc) have been shown to be 70-80% male applicants. The application rates to the SRUC challenge fellows were just under 60% male. We interviewed an equal proportion of female:male applicants with an offer rate of 55% female, again ahead of the sector norm.

These fellows are already making an impact with activity at COP26 and securing new research income including ensuring that SRUC has been included in the new DEFRA framework for applied research. The fellows are working with the challenge centre leads to ensure that SRUC's research continues to evolve to meet the global challenges.

Figure 2 Introducing our Challenge Fellows



Dr Hannah Rudman's digital and data innovation applied research and development work is grounded in interdisciplinary Participatory Action Research, which is practice-led rather than practice-based, and typically helps to create actionable knowledge with participants. Her research investigates how digital tools and data can best assist in assuring, strengthening, and proving Scotland's natural economy's - and its agriculture and land-based sectors' - impact on grand challenges. Website Pure LinkedIn Twitter Email



Dr Elisa Fuentes-Montemayor is an ecologist and conservation biologist investigating the impacts of human activities (e.g. anthropogenic disturbances and conservation actions) on biodiversity and ecosystem functioning. Her work has a strong focus on applied ecology and conservation, and brings together academics, policy makers, industry and organisations involved in conservation and environmental management. Website Twitter Email



Dr Neil Burns is a quantitative ecologist specialising in population and ecosystem health. His research explores population processes related to animal distributions, movements, and connectivity in marine environments. Exploring marine spatial, and population processes allows us to understand how human activities influence environmental change and the effects these perturbations have on ecosystem health and services Pure ResearchGate Email



Dr Luís Novo holds a PhD in Terrestrial Ecosystems, and his work is centred on the development and application of phytotechnologies. His current research interests are focused on phytomining, phytoremediation of polluted soils, and plant-based strategies for climate change mitigation and adaptation. <u>Email Pure ResearchGate</u>



Dr Bingjie Li is a computational biologist specializing in quantitative genetics and breeding. Her research focuses on exploring the genetic architecture of complex traits through integrating diverse data sources, developing statistical methods to investigate genetic differences in livestock population, and developing new phenotypes to facilitate sustainable and precise breeding. <u>EmailLinkedIn Pure ResearchGate</u>



Dr Jolanda van Munster is a microbiologist with a passion for understanding how microbes interact with complex carbohydrates, in settings relevant to biotechnology and agriculture. She is studying the unique properties of rumen fungi relate to their unprecedented ability to degrade untreated plant biomass and aims to apply gained insights to improve livestock nutrition, and more broadly, to support a sustainable bioeconomy .<u>Email</u> <u>LinkedIn</u> <u>Pure</u>

ResearchGate Twitter



Dr Vijai Kumar Gupta is focussed on developing technologies to valorise available bioresources and its potential to address the key challenges in the agri-food-pharma-energy and relevant sectors. He will be focused on microbial glycobiotechnology, biomass to biorefineries towards sustainable product development and bioprospecting of bioresources. ResearchGate GoogleScholar Email



Dr Roberta Bergero is exploring how genetic variation and diversity and understanding the genetic architecture of plants can be harnessed to help address the future food security and climate changes our cropping systems face. Topics to be explored include (i) unravelling the genetics of plant sexual reproduction using domesticated plants and their wild relatives; (ii) speeding up or slowing down meiotic recombination in crop species and (iii) dissecting the molecular basis of dioecy in plants. ResearchGate GoogleScholar Email

10. Knowledge Exchange and Innovation - University Innovation Fund (UIF) **Plan**

The SRUC UIF plan for 2021/22 is focused on supporting stakeholders through a post COVID-19 and green recovery in the natural economy. The transition to net-zero and improved sustainability targets in agriculture create opportunities and challenges and we have prioritised in our UIF plan for this year activities which accelerate SRUC innovations relating to digitisation and new technologies associated with novel, efficient and sustainable production systems.

Reflecting the increased importance of vertical farming and local production in good food strategies, we have increased our engagement plans with local communities.

We have included within our UIF plan projects that aim to enhance the entrepreneurial opportunities available to students and we ensure that all projects are inclusive and address equality, diversity and inclusion issues. The current UIF outcomes will continue to set the framework for UIF projects at SRUC and we will continue to engage in the Universities Scotland's Research and Commercialisation Directors Group and with the UIF Collaboration Manager to develop our KE strategy and innovation strategy.

Projects and activities funded through our UIF Platform Grant will continue to be match funded by SRUC. In addition, where appropriate, we always try to partner with stakeholders such as levy boards, other HEIs, companies and others to add value to activities.

10.1 Delivery methods

Through the virtual delivery of UIF KE events during COVID-19 restrictions we have increased the reach of our KE particularly to remote rural small businesses and we will continue to utilise feedback in terms of early morning / evening online delivery supported by online or downloadable information. We will continue to optimise the advantages of virtual delivery in 2021/22 plans but will move back to in-person and hybrid delivery. We will use a diverse range of methods to aid uptake and help inclusion including workshops, webinars, hackathons, farm walks, videos and podcasts.

10.2 Detail of UIF project plans 2021/22

Our priority areas for UIF support this year will be activities relating to the digitisation and technological innovations supporting the greening and recovery of the natural economy and we will leverage value by partnering industry, HEIs and civic partners in place-based initiatives such as the SeedPod in Aberdeenshire supporting innovation in Scotland's food and drink industries and a Dairy Nexus in the South West of Scotland to develop and raise the profile of major dairy production and processing initiatives in SW Scotland. This project will build on recent successes to develop capital (Dairy Nexus) and operational (Digital Dairy Chain) projects supporting innovation and commercialisation.

These will provide substantial new funding to develop and link our research base for dairy production and processing to opportunities for dairy product development and digitalization along the dairy value chain. To maximise opportunities around the SeedPod in Aberdeenshire we will start to operationalise the business relationships that have developed, grasping the opportunity for SRUC to maximise knowledge transfer in this space through a series of KTE activities which will be a catalyst for collaborative relationship development.

10.3 Student Enterprise

We aim to dramatically increase enterprise and entrepreneurship across SRUC and through our ecosystems. We aim to do this through the creation of an Enterprising Campus that leads the way in sustainable entrepreneurship. We will support staff and students, incorporate collaboration with HEIs and industry/rural SMEs to meet the SRUC/UIF objectives by involving the sustainable circular economy, enhancing the entrepreneurial opportunities for staff and students, and increasing

relationship building between businesses in the rural and natural economy and SRUC. We plan a specialist CPD programme, which aims to develop highly networked educators who are confident to deliver excellent sustainable enterprise education across all subjects/levels. We will develop and launch an inclusive virtual student enterprise programme, which aims to inspire and support the sustainable entrepreneurs of the future. We will also establish an active cross-institution network, Knowledge Exchange for Enterprise Network (KEEN), which aims to help identify, champion, and boost cross-institution and externally linked enterprising activity.

10.4 SRUC Innovation Hub

The Innovation Hub at SRUC has a programme of innovation and internationalisation activities planned for 2022. Through our Orchard programme (Commercial opportunities | SRUC), we will support staff to develop innovations that directly theme with carbon calculation and take these concepts out to new sectors. This year we have projects supporting the commercialisation of innovative ideas on the digitalisation of carbon baselining and carbon capture, expanding the concept of carbon calculation and mitigation into new business sectors; soil health digital tools; soil improvers based on the circular economy of insect production; new diagnostic technologies to combat zoonotic diseases and machine learning tools to assist dairy farmers.

Through the Orchard, researchers, students and staff will be offered the opportunity to gain new skills that will help them turn their novel research and ideas into new businesses, products or services. A series of clinics and training seminars will be scheduled throughout the year to support the development of entrepreneurial behaviour, including the basics of intellectual property. This will be supported by the establishment of a mentoring system, and we will celebrate and reward engagement in KE and innovation activities by supporting participation in enterprise and innovation competitions such as CONVERGE, Scottish EDGE and RSE.

More student opportunities will be developed through THRIVE, a collaboration with Abertay University and Queen Margaret University offering enterprise training for students wishing to start a food and drink business. A SRUC enterprise student competition will be developed to encourage inclusive participation from all courses and celebrate achievements.

To investigate external sources of innovation funding, the Orchard will run three parallel programmes of SRUC Enterprise Accelerators (for staff, students and alumni) to convert ideas into commercially valuable projects. The programmes will run competitive calls, provide training/mentoring and award monies based on commercial potential. Funding for prizes for the SRUC Student Enterprise Accelerator (ideas) is already being discussed with CONVERGE, a membership organisation that supports start-ups and spinouts from Scottish HEIs, of which SRUC is a member. The Student Enterprise Accelerator participants will have direct access to the Converge training and competitions, thus forming a potential pipeline to CONVERGE Kickstart. This approach aligns in a more strategic way with the efforts by all HEIs and SFC to encourage the formation of start-ups. The outcome of the projects could be collaborations with industry; licensing technology or spin-out.

10.5 Internationalisation

SRUC and The Argentine National Institute of Agricultural Technology (INTA) signed a Memorandum of Understanding to commence a programme of collaborative bilateral activities from 2022, covering common areas of interest aligned to the governmental aspiration to transition to net zero and develop sustainable food production systems. Four working groups were established: Global partnership group; Animal Health and Zoonotic diseases; Livestock systems and GHG protocols. It is the intention that these groups will carry out work to encourage knowledge, student and staff exchanges, share good practice and develop data protocols to establish comparative records.

Funding will be sought in the first instance for a workshop to commence this international partnership to develop research projects with the potential to provide climate change adaptation and mitigation strategies and reduce carbon emissions through sustainable, resilient and bio-diverse agriculture. This will include the application of machine learning to agricultural production systems and the automated extraction of novel phenotypes from imaging and sensor data.

10.6 Preparing Scottish agriculture for the green investment revolution

Carbon management and markets represent an area of great opportunity to boost profitability and resilience within the rural sector and there is an urgent need to scale up investment in nature-based solutions in Scotland in order to tackle the climate crisis and nature emergency. There is unprecedented investor demand for carbon credits, with opportunities to fund carbon mitigation and sequestration projects.

Previous work has focused on the positive aspects of these opportunities and multiple win-wins for environment, economy and communities. However, there are also exist significant risks to those providing these carbon credits which have yet to be fully explored or accounted for; this requires expertise within agriculture as well as specialist knowledge from other related sectors to create valuable discussions and solutions. We showcased SRUC's impactful projects in collaboration with the Global Ethical Finance Initiative (GEFIi) and the Scottish Conservation Finance Pioneers Group (SCFPG) by running a series of finance for nature events at COP26.

10.7 Project plans relating to novel production systems

New vertical production systems have the potential to transform the production of local, nutritionally dense and sustainably produced foods but their acceptability with local communities and integration into other local production systems will be key to uptake and success. As such, our plans include digitally empowering participatory action research's social, cultural and environmental impact.

We will engage in a STEAM project which aims to demonstrate the power of collective action in the largest 'grow your own' project of modern times. It is a new creative initiative taking place across Scotland in 2022 that takes a unique approach to community growing; it aims to inspire hundreds of thousands of people to get involved in a national programme of sowing, growing, live music and cooking. Through a growing alliance we will engage with the businesses that are emerging in this space and co-construct a citizen science programme in schools which will inform future business strategies.

10.8 Net zero, Biodiversity and Digitisation

Carbon management is essential to green-recovery decision making and we are working towards a carbon negative model of food production. To accelerate business innovations that are verifiably low carbon and biodiverse we plan a series of UIF supported activities that relate to our widely used carbon calculator Agrecalc. To widen outreach, we will include an initiative with an urban community farm, which is a response to the growing challenges of climate change, biodiversity collapse and lack of access for all to healthy, fresh, affordable food.

The collection of trustable digital evidence of restoration activities and their impacts on biodiversity requires novel digital measurement methods. As such, we will showcase digital methods for measuring biodiversity and pilot training in the set-up and implementation of digital measuring technologies in the landscape. The digital evidence of baseline state and improvement has additional potential for crowdfunding mechanisms and providing new philanthropic economic opportunities for entrepreneurial land managing SMEs.

10.9 Circular Economy

The circular economy is making progress in the USA, Asia and England, but it is lagging in progress in Scotland. We will work with key Scottish businesses to promote the development of renewable materials from underutilized diverse sources. This will support a shift from a linear ("take-make-dispose") economy to one that keeps resources in use for as long as possible, a shift which has inspired innovations, activism and policies that could move us closer to this idealistic goal.

We are planning to develop a long-term strategic partnership with biorefining related industries, universities and relevant stakeholders (e.g., farmers) in Scotland to use agricultural and dairy waste and transform them into high-value sustainable materials for the circular economy. The partnership

will be aligned with potential research proposals (UKRI, IUK, EU) to enhance this strategic development for SRUC and ensure the transfer of knowledge developed in biorefining innovations. Economically utilising other forms of waste is also a key issue for Scottish farms, and we will run KE activities which optimise use.

10.10 Policy

We will strengthen our Rural Policy Centre as SRUC's hub for policy-focused KE activities and consolidate SRUC's position as the thought leader on contemporary rural policy issues. In doing so we will develop the structures and mechanisms to give more ambitious and effective connection of universities and social and cultural beneficiaries, particularly policy makers and parliamentarians, and ensure SRUC responds proactively and quickly to key policy announcements with evidence-informed opinion pieces. We also aim in 2021/22 to improve the RPC website, further enhance our social media profile, and ensure SRUC responds fully and in a timely manner to relevant consultations.

10.11 UIF knowledge exchange projects

We will continue to accelerate our research innovations out to industry by engaging with significant stakeholder events such as ScotGrass which usually attracts over 4,000 attendees and will again be hosted at SRUC's Crichton Royal Farm near Dumfries in May 2022, providing an opportunity to engage with a high number of farmers, students and industry stakeholders. The objective for 2022 is to disseminate current cross-divisional SRUC knowledge and innovative research alongside external expertise with a focus on precision methods practised on farm.

In the cropping sector we will have projects associated with examples such as Arable Scotland, established in partnership with AHDB and James Hutton Institute to be the premier field event for stakeholders engaged in arable crop production. Its aim is to bring together all those involved in Scotland's arable crop supply chains in order to accelerate new and sustainable solutions that address market, climatic and biodiversity challenges. This will be themed around the net zero challenges in arable production at the 2022 event and will link to a series of winter roadshows for farming businesses.

We will produce a range of resources as part of our UIF supported KE to stakeholders including strategy guides offering best practice advice arising from our science. UIF supported projects for this year will include guidance on the resources that are required to gather data on the growing and maintenance needs of animals, along with their nutritional requirements, incorporating new novel methods such as winter grazing on arable cereals and understanding the carbon cost of options.

We will use debates as an engaging method and continue our Graze Debate series in 2022, facilitating engagement with environmental and production outcomes on Scottish beef and sheep farms. This will promote alternative ways of farming sheep and cattle that favour the environment and livestock production. In addition, resilience to the changing climate is becoming more pertinent so we will incorporate methods into farming that enable production and high animal welfare in the face of changing weather patterns.

We have impactful evidence from SRUC research that will address ways in which suckler cow farmers can drive efficiency forward and improve the carbon footprint of the suckler cow, and will run KE events that optimise industry awareness. We will work with industry networks to improve uptake of disease control strategies and innovations in ultrasound scanning, using practical experience of applied control measures.

The Scottish suckler beef industry is approaching a crossroads, with changes to the subsidy regime on the horizon alongside ambitious climate change targets. The industry needs to change but the rate of change and uptake of research innovations in suckler production is very slow. UIF supported projects will showcase research findings on calf survival, growth rates and cow fertility which are fundamental to developing a profitable and more sustainable beef sector. These projects aim to give farmers the tools they need to make positive changes to their business and help steer the sector to a profitable low carbon future.

We will showcase the knowledge that SRUC has developed in innovative new food trends and how businesses can develop innovative products to meet this growing demand. We will also showcase to industry and consumers the journey SME's and Entrepreneurs have been on in partnership with SRUC creating innovative food products using Scottish local ingredients.

SRUC's Knowledge Exchange (KE) strategy is aligned to SRUC's aim of enabling continuous innovation and uplift in the natural economy. It is reviewed annually by an Innovation and KE Committee and reported to Academic Board. We will evaluate all UIF activities and assess for metrics such as numbers attending / engaging and impact measures such as stronger networks and attendees intention to apply knowledge gained.

11. Supporting Scotland's Rural Sector through SRUC's SAC Consulting Services

11.1 Farm Advisory Service (FAS)

The Farm Advisory Service is the national advisory programme in Scotland. FAS has a strong brand identity and is highly regarded by recipients, industry and stakeholders alike. To date FAS has delivered 1,032 events – both face to face and digital to 22,949 attendees as well as providing publications, videos, podcasts and online tools. There have been 2,875,704 webpage views on www.fas.scot.

One particularly successful addition to the traditional programme of events is a YouTube hosted TV channel "FAS TV", designed to help fill the gap in farmer-to-farmer knowledge sharing that used to happen pre COVID-19. Each thirty-minute episode brings the farm tour experience to life and features farmers and crofters across Scotland who show their farm and share their knowledge and experience. During 2021/22, FAS TV will be joined by FAS Radio, and across the whole programme of events emphasis will begin to shift from the production of new content, to finding innovative ways to put the right content in front of the right recipient at the right time, supported by developments to the FAS App and website.

FAS is the largest of our advisory activities and we are particularly proud of the culture of continuous improvement and innovation we bring to the programme. The current FAS programme was due to conclude in December 2021, however it is now expected to continue, in a similar form, until March 2024.

11.2 Scottish Farm Business Survey (SFBS)

The SFBS is a cornerstone of Scottish Government's Agricultural Statistics work commissioned annually by RESAS and completed by SAC Consulting's team of Farm Business Analysts (FBAs). It gathers granular economic and environmental data, in the form of carbon auditing in Agrecalc, from over 400 Scottish farms annually. Delivery during COVID-19 was extremely challenging due to restrictions on completing farm visits for high quality data gathering. The FBA team responded by embracing digital and remote working, and last year was highly complemented by RESAS as one of the few Scottish Government surveys to deliver on contract.

The context within which the SFBS is completed is changing fast due to the perfect storm of change that is driven by Brexit, Making Tax Digital (MTD) and changes in agricultural policy in response to our climate and nature emergency. The SFBS structure, therefore, must change in response to make it fit for the future. MTD is transforming farm accounts from paper to digital, with subsequent data gathering opportunities, but also data quality issues, as this transformation rolls out over the next 5 years. This presents opportunities to make more and better use of SFBS data. We will utilise SAC Consulting's expertise and current service provision of Xero digital platform for bookkeeping to help inform this change.

RESAS has recently begun its Agristats transformation programme. In close discussion with them we have established that the SFBS is a cornerstone of their work and will stay. Modernisation of the

SFBS will be done in line with their transformation programme assuring its alignment to their work, and ensuring we are in position to win future SFBS contracts.

We aim to provide more timely insights with the farming year into the impact of changing agricultural policy on the economic sustainability of farms within the survey. We will align the SFBS structure so that we can add on nature auditing and other key environmental measures as and when they become available. This will allow us to track environmental, social and economic sustainability on Scottish farms in real time. This can provide data insights not only for Government but also for farmers.

11.3 Advisory Service Subscription

For our 8,000 advisory service subscribers we offer support and insight to farmers as they grapple with uncertainty on future agricultural policy. We expect 'conditional' payment mechanisms will become the norm, that farmers will be asked to baseline their activities and then be assessed on the outcomes as years go by. We expect the outcomes will be whether productivity has improved, emissions reduced, and biodiversity increased. We are focused on preparing customers for a smooth transition and supporting the complex decisions they need to make.

We are refreshing our membership subscription offerings to offer a variety of audiences a renewed technical breadth and depth of consultancy service, directing businesses to be efficient, effective and delivering the needs created by policy and consumers.

College Outcome Agreement Impact Framework: Supporting Data

Measure		2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
A Credits Delivered (Core)		19,446	18,670	23,273	23,167	22,469	21,873	21,890	23,175
Credits Delivered (ESF)		0	414	0	0	0	0	0	0
Credits Delivered (Core + ESF)		19,446	19,084	23,273	23,167	22,469	21,873	21,890	23,175
B Volume of Credits Delivered to 10% most de	prived postcode areas	1,305	1,111	1,341	1,217	1,168	1,296	1,219	1,390
Proportion of Credits delivered to 10% most	deprived postcode areas	6.7%	5.8%	5.8%	5.3%	5.2%	5.9%	5.6%	6.0%
C Volume of credits delivered to care-experien	ced learners	0	73	81	127	591	793	657	765
Proportion of credits delivered to care-exper	ienced learners	0.0%	0.4%	0.3%	0.5%	2.6%	3.6%	3.0%	3.3%
D Number of senior phase age pupils studying	vocational qualifications delivered by colleges	2	8	38	41	94	69	75	90
E1 Proportion of enrolled students successfully	obtaining a recognised qualification (Full time FE)								
		66.2%	71.4%	70.1%	68.3%	70.1%	63.6%	65.3%	70.0%
Number of enrolled students successfully ob	taining a recognised qualification (Full time FE)	489	497	647	567	531	510	542	508
Total number of FTFE students		739	696	923	830	757	802	812	726
E2 Proportion of enrolled students successfully	obtaining a recognised qualification (Part time FE								
		88.1%	91.5%	92.4%	92.6%	93.9%	88.3%	89.7%	91.0%
Number of enrolled students successfully ob	taining a recognised qualification (Part time FE	3,563	3,446	3,001	3,466	3,914	1,930	1,529	2,002
Total number of PTFE students		4,046	3,768	3,248	3,743	4,170	2,185	1,704	2,200
E3 Proportion of enrolled students successfully	obtaining a recognised qualification (Full time HE)								
		-	-	-	-	-	-	0.0%	0.0%
Number of enrolled students successfully ob	taining a recognised qualification (Full time HE)	0	0	0	0	0	0	0	0
Total number of FTHE students		0	0	0	0	0	0	0	0
E4 Proportion of enrolled students successfully	obtaining a recognised qualification (Part time HE)								
		-	-	-	-	-	-	0.0%	0.0%
	taining a recognised qualification (Part time HE)	0	0	0	0	0	0	0	0
Total number of PTHE students		0	0	0	0	0	0	0	0
F Number of students achieving an HNC/D qua	5 5	0	76	58	61	15	127		130
	lification articulating to degree level courses with								
advanced standing		0	40	26	20	12	92		100
	qualification articulating to degree level courses								
with advanced standing		-	52.6%	44.8%	32.8%	80.0%	72.4%	52.6%	62.5%
G Total number of full-time FE college qualifier	· ·	472	445	508	484	395	345		460
.	ork, training or further study 3-6 months after								
qualifying		445	423	489	450	381	311		428
	n work, training or further study 3-6 months after								
qualifying		94.3%	95.1%	96.3%	93.0%	96.5%	90.1%		93.0%
Total number of full-time HE college qualifier	,	0	0	0	0	0	0	0	0
.	vork, training or further study 3-6 months after	_							
qualifying		0	0	0	0	0	0	0	0
	n work, training or further study 3-6 months after								
qualifying		-	-	-	-	-	-	0.0%	0.0%
H Percentage of students overall satisfied with	their college experience (SSES survey)				N/A - see				
		-	97.0%	87.6%	note	91.2%	-	92.6%	93.0%

Please note that figures for 2020-21 are impacted by the COVID-19 pandemic and may not be directly comparable to other years

University Outcome Agreement Impact Framework: Supporting Data

Measure	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
A Number of Scottish-domiciled Undergraduate Entrants	892	858	865	850	867	801	1,009	900
B Total number of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes		46	23	39	28	89		110
Number of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes with								
Advanced Standing		29	22	33	26	85		100
Proportion of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes with								
Advanced Standing		63.0%	95.7%	84.6%	92.9%	95.5%		91.0%
C COWA measure:Total number of Scottish-domiciled full-time first degree entrants	228	266	199	201	190	149	230	200
COWA measure: Number of Scottish-domiciled full-time first degree entrants from the 20% most								
deprived areas	24	22	15	21	20	15	31	30
COWA measure: Proportion of Scottish-domiciled full-time first degree entrants from the 20% most								
deprived areas	10.5%	8.3%	7.5%	10.4%	10.5%	10.1%	13.5%	14.0%
D Number of Scottish-domiciled undergraduate entrants with care experience	1	4	5	1	2	1	1	2
Proportion of Scottish-domiciled undergraduate entrants with care experience	0.1%	0.5%	0.6%	0.1%	0.2%	0.1%		0.2%
E Number of Scottish-domiciled full-time first year entrants	836	823	791	776	743	716		750
Number of Scottish-domiciled full-time first year entrants returning to study in year 2	716	683	637	626	636	599		650
Proportion of Scottish-domiciled full-time first year entrants returning to study in year 2	85.6%	83.0%	80.5%	80.7%	85.6%	83.7%		85.0%
F The difference (+/-) from the individual institution benchmark figure for students satisfied with the								
overall quality of their course of study in the National Student Survey	-5	-9	-7	-14	-12.3	-13.0	0.0	1.0
G1 The number of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes survey								
				310	324	351		
The proportion of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes								
survey in a positive destination				298	303			
The number of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes survey								
in a positive destination				96.1%	93.5%			
G2 The number of Scottish-domiciled full-time first degree qualifiers responding to the Graduate Outcomes								
survey in employment				88	108			
The number of Scottish-domiciled full-time first degree qualifiers responding to the Graduate Outcomes								
survey in employment in professional employment				44	40			
The proportion of Scottish-domiciled full-time first degree qualifiers responding to the Graduate								
Outcomes survey in employment in professional employment				50.0%	37.0%			
H Number of Scottish-domiciled Undergraduate Qualifiers	662	445	720	609	692	502		550

Please note that 2018-19 and 2019-20 figures for measure G2, 2019-20 figures for measures F and H and all 2020-21 figures are impacted by the COVID-19 pandemic and may not be directly comparable to other years





Outcome Agreement between the SRUC and the Scottish Funding Council for AY 2021-22

On behalf of the SRUC:

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Print name: Prof Wayne Powell

Position: Principal and Chief Executive

Date: 4th July 2022

Signed:

Print name: Linda Hanna

Position: Chair

Date: 19th July 2022

On behalf of the Scottish Funding Council:

Signed:

Print name: Karen Watt

Position: Chief Executive

Date: 28 July 2022

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