



# Outcome Agreement with the Scottish Funding Council for 2020-21

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Version: 1.2

## Introduction

### Executive Summary

1. The University of Dundee remains committed to the delivery of its key priorities as a triple intensive institution, across:

- Teaching,
- Research and
- Impact on the Economy and Society.

Our five-year *University Strategy to 2022* sets out our ambitious agenda for each of these and this aligns with the priorities set out by Scottish Government and SFC through the Outcome Agreement process. Our activity contributes to both Scottish Government’s National Outcomes and the United Nations Sustainable Development Goals. In delivering our strategy, we aim to be the most potent force for social, cultural and economic transformation in our region.

Figure 1: Our strategy at a glance



### **Progress so far**

2. We have made excellent progress in our strategy and the outcome agreement process and continue to contribute greatly to the priorities set out by Scottish Government and SFC. We have been more successful than any other University in improving access to students from deprived backgrounds (SFC: *Report on Widening Access*). Our students consistently rank their experience with us as being amongst the best in the UK. We work successfully with industry to ensure our curriculum is aligned with skill requirements and deliver a wide range of apprenticeship subject areas. Our research has been of the highest calibre, pushing new boundaries in response to the issues facing society and delivering real world impact that truly transforms lives. We have continued our sector leading approach to working with other sectors to translate the knowledge we create into real-world solutions. We contribute almost a billion pounds to the Scottish Economy annually.

### **Challenges**

3. We have also faced some challenges. The University has faced significant financial pressures, with reductions in public funding combining with our success in high-cost, intensive research that is not fully funded to create budgetary deficits. We have received below average funding settlements from the SFC for a period exceeding seven years, further eroding our financial position. These below average settlements are in stark contrast to our contribution to the outcomes set out by SFC and Scottish Government. We are progressing the implementation of our financial recovery plan and doing so in a way that ensures we maintain the focus on our strategic priorities. Our Academic Excellence and Structures project is currently consulting with staff and students to identify ways of enhancing our quality and improving our financial position.
4. The global pandemic has also presented significant challenges during the 2019/20 and 2020/21 academic years. Considerable effort has gone into delivery of education and assessment online, social and mental health support, implementation of social distancing in our campuses, keeping essential research open and implementing technological and cultural change to support remote working. Our staff and students faced a steep learning curve in adapting to new technologies and, supported by our learning technologists and IT experts, they rose to this challenge. Our efforts have been hugely successful, and we continue to deliver on our priorities throughout the pandemic. Our health subjects have risen to the challenge to develop the Scottish health workforce, though this has incurred significant cost for student support and curriculum redesign. Dentistry has been particularly hard hit, due to the higher transmission rate in dental settings; our Dental School has been effectively closed by the pandemic and we look to support from Scottish Government and SFC for ensuring there is no gap in delivery of qualified dentists into the workforce for Scotland.

### **Process**

5. This Outcome agreement has been drafted through negotiation with the Scottish Funding Council and following consultation with our Students' Association, our staff unions and our governing body. The consultation was achieved through the local joint committees of staff unions consisting of Unison, Unite, and the University and Colleges Union (UCU), and through the executive of the Dundee University Students' Association (DUSA). The President of DUSA is also a member of the Outcome Agreement Team for the University and participates in negotiation meetings with the SFC. An Equality Impact Assessment has been completed in relation to this agreement.

### **Outcomes for Students**

6. The University of Dundee is successful and plans to remain successful in working with our students to deliver positive outcomes for our students.

### **Fair access and transitions**

7. The University is committed to widening access to higher education. 2019/20 HESA data indicates that we achieved our highest proportion of MD20 students to date, exceeding 17% for the first time. Early data for 2020/21 shows that, despite the impact of the pandemic, that absolute numbers of MD20

students have increased and we expect the percentage to remain at this high level. We have put in place support to mitigate digital poverty impacting on this group and the SFC funding to help support this has been welcome. In addition to fully allocating this funding, we allocated an extra £50k to support student internet access e.g. dongles. We also issued over 150 laptops to students in the first lockdown.

- 8. We continue to prioritise Articulation from FE partners and actively work with our partners mapping *curricula* and encouraging this route into HE. Data from the National Articulation Database shows that the University is outperforming most other research intensives for absolute numbers articulating with advanced standing and we are the most successful research intensive outside of the central belt.

*Table 1: Articulation with Advanced Standing for Research Intensive Institutions (source: National Articulation Database on 19/01/2021)*

	Number of students articulating with advanced standing
Heriot Watt	177
Strathclyde	114
Dundee	97
Aberdeen	51
Stirling	21
Glasgow	15
Edinburgh	12
St Andrews	1

- 9. We continue to undertake activity to meet CoWA targets, alongside our contextual admissions policy. We are committed to engagement with schools (e.g. LIFTOFF, Reach, ACES, City Campus), our targeted pre-entry support through Access Summer Schools and offering bespoke support to groups such as care experienced applicants and learners who are carers. Our use of supported offers via UCAS to enable Access students a clear route to achieve the minimum level of preparedness and qualification for them to be successful at Dundee lies at the heart of this, whilst it also secures their strong subsequent progression. All contextually eligible applicants (over 1,000 per year) are offered this support.
- 10. We commit a considerable proportion of our core funding to supporting access from diverse backgrounds, including our Access Summer Schools, targeted staff to support widening access and articulation, and further activity to support retention of these students. We welcome the recent review of the Widening Access and Retention Fund (WARF) and await its outcomes, as we are not currently eligible to receive these funds, which undermines our ability to sustain this activity as costs rise and income remains unchanged.
- 11. Whereas we previously offered both online and on-campus outreach and summer school activity, in response to the pandemic, we have now moved all our outreach and summer school activity online. The switch to fully online has been challenging but the presence of dedicated teams - specifically the Reach and ACES AHDP Project teams, currently funded by the SFC and the University to mid-2021 have enabled a smooth transition. Uptake of online Access activities has grown, possibly through being more accessible and cheaper for participants than commuting to events. Where they were needed by applicants, such as for art portfolio development, materials have been delivered in a Covid-safe way to individual learners' homes. As we are fully online, differing local tiers across Scotland in themselves did not present a challenge. Our Access Summer Schools moved fully online for 2020 and potentially 2021. Demand and successful completion were both up in 2020 by over a third. Equally a third of all MD20 entrants to the University this cycle signed up and benefited from them. We hope that fraction will grow, whilst recognising students are free to use their summers as they choose. As we deliver a high percentage of professional degrees, many of course are key workers and carers. In his December 2020 "The Impact of

COVID-19 on Fair Access to Higher Education”, the Scottish Commissioner for Fair Access highlighted our work under his “Major themes – Outreach and Access” section, using our development of our online Access Summer School as his example of how universities had “worked hard to mitigate the effect of moving outreach activities online”.

12. We also identified that another significant gap in the support network for school pupils from a deprived background relating to a reduction in school guidance available, as secondary schools transitioned into online / socially distanced learning. We again mitigated this in part through the Reach and ACES AHDP Project teams, giving pupils support from university-based teams to guide them towards university entry.
13. Renewal of the funding for Reach and ACES (collectively Access to the High Demand Professions projects) from the summer of 2021 is essential for supporting this cross-Scotland activity, needed now as never before. The outcome of a further one-year funding bid to the SFC is due in February 2021, noting the significant institutional contributions from seven HEIs that have worked in close partnership for over a decade to make this national endeavour so cost effective.
14. We are compliant with the requirement for access thresholds, which we promote via our recruitment activity in Scotland. Our approach to contextual admissions, which is annually refreshed, clearly sets out that care experienced learners are part of our Contextual Category 1 (see below) and receive adjusted supported offers. Our outreach to schools, pupils and parents highlights our positive approach to widening access. We remain the only Scottish partner of the Talent Foundry, who continue to encourage the youngest secondary school pupils to aspire to HE. This helps ensure that the additional places we received in 2012-13 continue to be used for widening access purposes, particularly focusing on MD20 students. Our approach to widening access is set out here:  
<https://www.dundee.ac.uk/study/widening-access/>
15. Our Recruitment and Admissions Policy, our Contextual Admissions Policy and our Gender Action Plan set out our approach to identifying and addressing under-representation of protected characteristic and socio-economic groups in our institution. We communicate frequently with applicants, publishing easy-to-understand public-facing guidance tailored for student enquirers. We will continue to work with low progression schools through initiatives such as the Discovering Degrees for Schools programme, STEP UP, Talent Foundry, Reach and ACES, to name but some.
16. Annually we review our contextual admissions factors. Our approach to contextual focuses on a wider set of contextual factors. These are:

Contextual Category 1 - this applicant cohort includes any applicant who met one or more of the following flags:

- A - Home Postcode in SIMD Q1
- B – Free School Meals
- C – Care experienced
- D – Unpaid carer
- E - Refugee / Asylum seeker
- F - Estranged

Contextual Category 2 - this applicant cohort includes any applicant who met one or more of the following:

- M - Home Postcode in SIMD Q2
- O - Participation in Reach/ACES access activity
- P - Mental Health issues
- Q - Other disability declared
- R - SWAP East Apply Centre

- S - Transgender
- U - Adult Returner
- V – Disrupted Education & Remote / Rural– assessed as attending 5 of more Primary / Secondary schools or residing more than 40 miles from their secondary school.
- Z - Other (e.g. assessed criminal conviction, children’s panel enquiry, etc.)

17. We are committed to recruiting those from care experience backgrounds and employ both transitional and support arrangements to assist them complete their programmes of study. Our contextual admissions policy includes identification of care experience applicants in Category 1, which mean that these students are guaranteed an offer if they meet the conditions set in our access thresholds. Furthermore, our programme of active engagement targets these applicants providing individual advice and guidance. In addition, the University has signed up to the Who Cares? Charter and staff are receiving additional training to support care experienced applicants and students. Fuller details of the support we offer to care experienced students can be found on this webpage for care experienced applicants: <https://www.dundee.ac.uk/student-services/student-community/careexperiencedstudents/> Our corporate parenting policy can be found here: <https://uod.app.box.com/v/corporateparentingpolicy> Additional guidance for applicants can be found here: <https://www.dundee.ac.uk/study/widening-access/application-guidance/#!faq-0>

### **Quality, learning, teaching and participation**

18. Our transforming lives vision sets out that our core purpose is ‘to transform lives locally and globally through the creation, sharing and application of knowledge’. Our students are key partners in the realisation of this core purpose: the learning they experience transforms their lives and, later, their application of that learned knowledge and experience in their careers will transform the lives of those around them. This is underpinned by our high-quality learning and teaching, excellent student support and an unwavering commitment to enabling our students to succeed.
19. Our partnership with our students is an integral part of our success and students are an integral and valued part of our community. Our students play an active leadership role through their representatives. We work in partnership with the Students’ Association and Student Representatives Council to deliver better outcomes for students.
20. Our partnership with our students is formalised in a three-year Student Partnership Agreement (SPA) to further enhance the experience of our students. In place since 2013, these have been developed to promote an understanding between students and staff about agreed enhancement-focused goals. We recently moved to three-year agreements (from annual agreements) to better support implementation and engagement. Each SPA is an important statement of our commitment to the fostering of our University community within which we all have a role and a function to perform and where we all have rights and responsibilities. Our SPAs are designed to promote the engagement of students during their period of study at the University. All students are encouraged to provide feedback on their experience whenever possible.
21. The SPA complements other strategic documents such as the the Student Voice and Representation Agreement, the Memorandum of Understanding between DUSA and the University and the Code of Practice Regarding the Implementation of the Education Act 1994 – Provisions Relating to Students’ Unions. The University has further enhanced the approach through targeted funding for Student Voice Support Officers to further support representation in every school. This is one of many examples identified by sparqs as being leading practice in Scotland. Since 2017, we have taken our partnership approach further by developing School Partnership Action Plans to address the enhancement areas of focus at School level in partnership with School Student Presidents.
22. Our institutional student partnership agreement can be found here:

<https://www.dundee.ac.uk/corporate-information/student-partnership-agreement>

Though the latest agreement does not specifically reference the pandemic, we have moved processes and engagement with engaged student representatives online. Early evidence is that this has supported greater engagement from a broader range of students in activities such as periodic reviews.

23. We support learners throughout their learning journey, to assist them to complete their programmes of study. Our Retention and Progression Strategy and Action Plan is monitored by the Retention and Progression Committee. The University assigns an Advisor of Studies to every student to provide them with academic guidance and where necessary to refer them to the extensive range of support services provided by the University. Working in partnership with Dundee University Students' Association (DUSA), we jointly review support for students on an ongoing basis to ensure that we are collaboratively operating effectively and to enhance consistency of implementation. Support for the complete learner journey is provided to students by our Academic Skills Centre (ASC) which delivers, inter alia, one-to-one support sessions and a comprehensive series of workshops including an annual Academic Skills Week co-organised with DUSA. It also provides a number of student-facing resources including the Live Smart, Learn Smart and the Exam Revision toolkits. ASC has provided key support for learners and teaching staff during the pandemic. The University has a rigorous early warning system for student disengagement, monitoring student attendance and assignment submissions to identify students at risk and follow this up with individual meetings. The coordination and smooth running of all these support services is overseen by the Student Experience Oversight Group, comprising senior officers from the University and DUSA and co-chaired by the President of DUSA and the University Secretary. We are looking to improve the information we can provide to students to help them understand their progression.
24. Our Senior Advisors of Study further enhance our support in each School by providing effective oversight and smooth functioning of the Advisors of Study system to support all students. Senior Advisors are responsible for ensuring that each School holds an Advisors Forum each year to disseminate good practice within Schools.
25. We recently approved the procurement of an electronic attendance capture and response management system to further optimise our response to early warning signs of disengagement by students. The implementation of this new system has been affected by the pandemic. Monitoring of attendance in remote modes of studying imposed by the pandemic has presented challenges. Many of our support mechanisms have adapted well (e.g. advisors of study support) and additional information about student engagement with online learning resources has supplemented these mechanisms. Some students, like everyone else, are affected by the emotional toll of the pandemic and uptake of our support mechanisms, both academic and pastoral has increased.
26. Our high-quality learning and teaching is externally validated through the ELIR process and recognised through the achievement of accolades such as our award of TEF Gold, being ranked in the top 15 in the UK in the NSS, and rising to 23th in the UK (4th in Scotland) in the Sunday Times Good University Guide 2020. Our courses are also externally accredited and recognised by various professional, statutory and regulatory bodies. We are concerned that the shift to remote learning during lockdown periods will adversely affect our strong NSS results.
27. Alongside the skills developed through the curriculum, students are encouraged to participate in DUSA's Student Societies, volunteering opportunities and placements to develop transferrable skills. As mentioned above, students are supported throughout the learner journey by the Academic Skills Centre including one-to-one support sessions designed to support skills development.
28. We recognise that much skills development normally takes place outwith the formal curriculum. This has been challenging for many during the pandemic as work and other opportunities have been adversely affected and our ability to mitigate this has been limited. One example of mitigation has been the option for virtual placements with employers. We continued to promote our skills award (Dundee Plus) where

possible, which requires students to reflect on and evidence the skills they develop alongside their studies. The award categories are based on the key graduate employability skills as identified by the CBI's FutureFit report. For example, Leadership Plus, which offers mentoring from senior staff in banking, retail and IT organisations, was expanded with over 30 Alumni joining the scheme to offer remote mentoring to our students. Alongside this, our Careers Service and DUSA have collaborated on a COVID-19 volunteering award for students who go above and beyond during the pandemic.

29. Accelerated due to the pandemic, we continue to make significant investments in our infrastructure and services to support excellent outcomes for students, as reflected in strong results in the National Student Survey and the International Student Barometer, particularly with respect to investments in staff time and infrastructure to enhance our virtual learning environment (VLE). We invest regularly in our VLE and recently installed a new network to better enhance the student learning experience. This delivers better connectivity and supports both on-campus and remote delivery of learning. We have also increased the provision of technology for those unable to access it due to economic or other circumstances. Alongside this, we have introduced enhanced support through our helpdesk to better support staff and students working and studying remotely.
30. More widely, our students receive support through our excellent Student Services Team. Our student Enquiry Centre deals with around 500 enquiries a week and provides the interface between the student and Student Services, including Registry, the Careers and Enterprise Hub, the Academic Skills Centre and the Support Hub which contains: Counselling; the Health Service; Disability Services; and the Student Funding Unit. The Support Hub provides a comprehensive range of support services for all students, including those with diverse needs and those from disadvantaged backgrounds.
31. Prior to Covid-19, demand on these services was increasing annually, especially in relation to counselling and mental health. As a result, the additional funding for mental health counsellors announced by Scottish Government and SFC was gratefully received. We have well-established and highly valued provision of mental health nurses, student and staff counsellors, mental health advisors in Disability Services, general pastoral support workers, and partnership working with the NHS. Yet, we also recognise that the numbers of staff and students presenting with conditions related to mental health, stress and related factors have been increasing, though waiting lists have reduced during the pandemic. Online provision of support has generally worked well and we would intend to maintain a blended approach going forward as this improves access to services for students on other campuses and for students who have difficulty travelling to our City campus.
32. Working in partnership with DUSA, we have put in place a series of support activities for students who may be isolated or in distress due to the pandemic. DUSA and our student services team have supported in-person socially distanced welfare checks on all flats in our student residences, including the delivery of food packs, and online and telephone welfare checks on students in private residences. This includes a range of online and (when permitted) socially distanced activities to create opportunities for social interaction. For example, bolstered with volunteers from across our community of staff and students, DUSA and Student Services served up an event on Christmas day for students who were unable to travel to see friends and family due to Covid-19 related restrictions. DUSA/Student Services also collaborated on a Self-Isolation Response Team to help provide for students self-isolating in university accommodation. This included providing welfare checks, wellbeing resources and food packs. Our welcome and induction for all new students was also moved to online delivery.
33. This is supplementing the support offered by our pastoral support staff leads and student welfare representatives in each of our schools who focus on welfare issues. These important roles enable the University to better identify groups that are experiencing stress/distress and better target support for these students. These representatives have close links with staff in Student Services to ensure effective referrals.

34. The University was also an early adopter of ASIST, Mental Health First Aid and safeTALK and we informed the adoption of these approaches by NUS and UUK. These programmes are delivered to groups of both staff and students at regular intervals to increase the pool of trained individuals in our community who can help people in distress. The University is also a signatory of the Health Universities initiative and have completed our first self-review to identify areas of strength and areas we want to improve.
35. The University and DUSA also work in partnership to ensure a safe environment for staff and students. We share a common understanding of acceptable behaviours and work together to ensure that effective mechanisms are in place to respond to allegations of harassment or behaviours that do not meet our shared values. Our statement on gender based violence can be found here: <https://www.dundee.ac.uk/corporate-information/gender-based-violence-statement>  
Our new Safeguarding policy and protocol has also improved our response when serious concerns are raised: <https://www.dundee.ac.uk/corporate-information/safeguarding-protocol>

### **Learning with impact**

36. The University has a broad education portfolio and we will look to enhance and develop our programmes of study to ensure they remain leading in Scotland and aligned to the skills requirements of industry. Our courses are aligned to the Scottish Credit and Qualifications Framework and designed to allow students to transfer credit internally or to other institutions, wherever specific prior learning is not a pre-requisite to transfer. We are currently developing further a set of Curriculum Design Principles to ensure that our portfolio continues to meet the needs of employers and students.
37. Our portfolio includes new offerings aligned with the purposes of the SFC Upskilling Fund. We welcome this policy initiative and are working towards an offering that appeals to employers, employees and prospective employees. This includes work-based learning opportunities and sits well alongside our significant apprenticeships offering.
38. The University maintains strong links with a wide range of employers who have opportunities to develop and contribute to the curriculum. For example, Industrial Advisory Boards have recently been established in Social Sciences and Business following the successful model implemented in Science & Engineering. Students also have extensive opportunities to network with employers at Careers Fairs and employer-led skills sessions and presentations, which successfully moved online during the pandemic. Links with employers ensure that a wide range of internships, part-time roles, volunteering opportunities and graduate jobs are promoted to all students through the University-wide Jobshop portal. The University is also actively engaged with employers through the Graduate Apprentice Scheme, where we are a leading institution in taking this agenda forward in Scotland, co-designing the curriculum with employers. We recently gained recognition for our public engagement through a Gold Watermark from the National Coordinating Centre for Public Engagement, the first university in Scotland and third in the UK to achieve this accolade. The Watermark recognises our strong links to employers and businesses.
39. The University continues to offer a high proportion of professional degrees where work-based learning is central to the teaching and learning of the subject, such as Architecture, Dentistry, Nursing, Medicine, Education, Social Work and Community Learning & Development. In other disciplines, many Schools offer opportunities for subject-specific work-based learning and encourage students to take them up, for example through optional sandwich years, credit-bearing industrial placements and vacation internships. These opportunities are advertised to all students and support for finding placements is offered by discipline staff and the University Careers Service. All students whose degree pathway allows have the option of taking a credit-bearing module at Level 2 which combines a 30-hour internship with activities and assessments designed to facilitate reflection on the experience, and articulation of the skills and knowledge gained. The number of students availing of this module has increased steadily and new employers have engaged with the opportunity to offer remote internships during the pandemic.



40. We have Employability & Enterprise Leads in each Academic School and these regularly share practice through the Employability & Enterprise sub-committee. The sub-committee is chaired by the Vice-Principal for Education and also includes representation from employers, students and Professional Services staff.
41. The University is a leader in the development of credit-bearing Careers Education and continues to advise other Universities on this topic nationally and internationally. Following an award-winning research project into the impact of dedicated careers modules, a member of Careers Service staff has contributed to a national toolkit for embedding employability. Over 4000 University of Dundee students have now completed these modules since their launch in 2004.
42. Our academic Schools continue to participate in the Skills Development and Investment Plans, both directly and indirectly. Direct involvement includes taking part in the development of these plans, offering CPD training to support these plans, developing content in response to the SFC Upskilling fund, and working through innovation centres and their funded places to meet the skills need in Scotland. Indirect activity includes our commercialisation and knowledge exchange activity, working with SMEs to develop their capacity, and our engagement with Professional, Statutory and Regulatory Bodies (PSRB) to develop and carry out ongoing review of our curricula.

### **Equalities and inclusion**

43. The University is fundamentally committed to the Public Sector Equality Duty and works to improve its approach for staff and students across the range of protected characteristics. This is a fundamental part of our Transforming Lives vision and our University Strategy to 2022: every high performing community must value diversity and enable all of its members to succeed.
44. The University has a long-established Equality, Diversity and Inclusion Committee overseeing all equality and diversity policy, including monitoring and implementation thereof. The Committee is working on promoting equality, diversity and inclusion across the protected characteristics and its inclusive approach importantly includes input from some of our protected characteristic staff network groups. The University holds Athena SWAN awards, both institutionally and in individual departments, including a silver award in our world leading School of Life Sciences. We are currently undertaking an application for the Race Charter Mark to demonstrate our commitment to addressing issues of race inequality. We are integrating the committees overseeing our Gender Action Plan, Athena Swan, and Race Charter activities to ensure that there is cross fertilization of the benefits of each of these for our students.
45. We actively monitor our progress in this endeavour and use this information to enhance our approach. We support staff network groups for protected characteristics, to enable our diverse groups to voice concerns collectively and to provide a consultative forum for issues and future development. Our partnership with DUSA also contributes to this agenda through the creation of welfare representatives in each school and through the adoption of the zero-tolerance approach to harassment, bullying and sexual harassment. Welfare representatives work together with the DUSA Vice President of Student Welfare to highlight issues within Schools, which helps to influence the campaigns which DUSA and the University run in partnership allowing campaigns to be tailored to Schools and particular student requirements. Student representatives are also members of our Equality and Diversity Committee, the Athena SWAN panels in each school and our Race Charter Committee. DUSA and the University are collaborating on a Black Lives Matter action tracker to improve the student experience for our black and BAME students.
46. We acknowledge and value diversity, as it enhances the strength of our community and is crucial to our vision of being Scotland's leading university. We will also enhance Equality and Diversity in our curricula, by implementing the framework developed by the Higher Education Academy and providing support to our staff to be able to do this effectively. Our equality outcomes plan can be found here: <https://www.dundee.ac.uk/media/dundeewebsite/hr/documents/equalitydiversity/PSED-Equality%20Outcomes%20-Uod-Outcomes%20Plan%20FINAL%20-28April%202017.pdf>

47. The institutional repository to key documents relating to equality and diversity can be found here: <https://www.dundee.ac.uk/equality-diversity/publications-policy/publications/>

## Outcomes for Research

### Research excellence

48. The University's performance in REF 2014 created an excellent platform upon which to further enhance our contribution to Scotland's world leading research base. Our performance in REF was exceptional for some areas, particularly Biological Sciences (top university in the UK), Maths (second only to Oxford for 3\* and 4\* research), Engineering (top 10 in the UK) and Clinical Medicine (top in UK for impact). There was strong performance elsewhere in Art and Design, Allied Health Professions (Dentistry & Nursing), Computer Science, English, Psychology, Psychiatry & Neuroscience, Geography and Education, all having more than 70% of their research scored as 3\* and 4\*.
49. As part of our preparation for REF2021, we continue to drive expectations that all research undertaken at the University is of an internationally excellent standard, has high impact and is focused in ways that are distinctive. Our approach enhances interdisciplinary and collaborative opportunities, particularly in relation to solving global and societal problems. This has given rise to exciting impact case studies for inclusion in the REF2021 process. Our approach aligns well with Scottish Government priorities and the UN Sustainable Development Goals. The Times Higher recently ranked the University 44th in the world for our impact on the Sustainable Development Goals<sup>1</sup>. This includes the following rankings:

Sustainable Development Goal	World Ranking
SDG 3: Good Health and Wellbeing	9 <sup>th</sup>
SDG 5: Gender Equality	91 <sup>st</sup>
SDG 6: Clean Water and Sanitation	66 <sup>th</sup>
SDG 10: Reduced Inequalities	61 <sup>st</sup>
SDG 11: Sustainable Cities and Communities	82 <sup>nd</sup>
SDG 12: Responsible Consumption and Production	32 <sup>nd</sup>
SDG 14: Life Below Water	57 <sup>th</sup>
SDG 15: Life on Land	53 <sup>rd</sup>
SDG 16: Peace, Justice and Strong Institutions	42 <sup>nd</sup>
SDG 17: Partnership for the Goals	47 <sup>th</sup>

These rankings not only confirm that our research is of the highest quality, but it also points to our broad-based, real world impact and how we are fulfilling our core purpose of transforming lives. We continue to build partnerships with internationally excellent universities to support the best collaborative approaches to contributing to these goals.

50. Our research community was dynamic in the face of Covid-19. Our best minds turned themselves to dealing with the virus and the impact of the pandemic, including health, social, economic and cultural effects. For example, we have been involved in clinical trials for vaccines and treatment drugs to combat Covid-19. The University is one of only two Scottish universities playing key roles in a pan-European consortium seeking to accelerate the development of therapies for Covid-19 and future coronaviruses.
51. Our excellence agenda is supported through our annual review which focuses on the quality of outputs, the sustainability of research and the identification of 'impact'. Our excellence agenda underpins our high-quality research portfolio. We continue to invest in the development of researchers of the future,

<sup>1</sup> Times Higher Impact Rankings 2020, [https://www.timeshighereducation.com/impactrankings#!/page/0/length/25/sort\\_by/rank/sort\\_order/asc/cols/undefined](https://www.timeshighereducation.com/impactrankings#!/page/0/length/25/sort_by/rank/sort_order/asc/cols/undefined) (Retrieved 21 January 2021)

nurturing talent through our doctoral programmes, participating in UKRI funded doctoral training programmes and participating in research collaborations.

52. Research postgraduate students and our post-doctoral staff are an important part of our research community. They bring dynamism, new insights and important contributions to our research portfolio. They are the lead researchers of tomorrow. We are committed to growing research postgraduate student numbers further and supporting their development through their studies. The SFC RPG grant is an important mechanism for supporting this activity. We are also committed to the development and support of our post-doctoral staff community through the commitments in the Concordat to support the Career Development of Researchers.

#### **Research Sustainability (incorporates Collaboration)**

53. The University is an international institution, ranked in the top 20 in the world by the Leiden World ranking<sup>2</sup>. We see great strength in partnership, in the sharing of knowledge and learning with others. We are committed to working with excellent institutions in Scotland, in the UK, in Europe and the wider world. We are committed to sustaining our valued partnerships in Europe beyond the UK's exit from the European Union. For example, we are deepening and broadening our relationship with CERN, the European Organization for Nuclear Research, which will greatly benefit both institutions.
54. As a research-intensive University, the University remains financially vulnerable due to the structural issue of underfunding of research in the UK. We have previously articulated our concern that the dual funding model for research in the UK is not sufficiently well funded. We are appropriately unabashed in our claim to be a world leading institution that has a significant positive impact on the Scottish Economy, not least in respect to life sciences and drug discovery. Inadequate funding of research in the UK puts this at risk. The vast majority of research funding for projects does not fund more than 80% of the cost of research (and some much less than this). This has been exacerbated by recent reductions in Research Excellence Funding (REG) funding at the University (c. £2m in two years, a 9% reduction), which has significant implications for our financial sustainability and our ability to support world-leading research. REG funding is pivotal in supporting Scotland's research base as REG provides important leverage to support research grant income. This is particularly the case with funding from charitable sources, which is invaluable to supporting world-changing research. Falling REG in leading institutions means the platform to support excellent research activity is shrinking, which ultimately will erode the world class research base in Scotland. Scotland is seeing this erosion in the most recent analysis of UKRI funding, where Scotland's share has decreased proportionately compared to the rest of the UK.
55. In addition to urging both SFC and Scottish Government to address the weakness in the dual funding model, we will continue to be proactive in taking action to address our financial sustainability. This includes diversifying our research income base, through maximising income from UK research councils and innovative funding partnerships with industry. We will not be targeting growth in research income, as the underfunding of research noted above will worsen our financial sustainability, though we note that this prudence may result in a falling share of SFC funding. We will seek to sustain and intensify within our current footprint.
56. The additional SFC funding announced to support research activity during the pandemic has been very important for supporting the sustainability of our research activity. From March 2020, our Research Office and Schools responded quickly and effectively to the Covid-19 crisis. This includes responding to how restrictions associated with the pandemic affected our portfolio of research projects. Our response also considered the impact on the post-doctoral staff and activity was undertaken to protect research jobs. This activity continued into 2020/21 and the costs associated with this activity will be supported by the SFC grant, including the costs accrued with the deferral, bridging and extension of research projects. The grant also helped to offset the significant additional costs incurred due to the changes in

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<sup>2</sup> For proportion of citations that are in the top 1% in the world's most cited publications.

the ways of working arising from the pandemic and in addressing the impairment to our research capacity.

57. The University has been hugely successful with applying for and winning grants associated with the Covid-19 virus and its impact (health, social and cultural). The additional research funding will also continue to support activity to win this additional funding, while also supporting the additional costs of redirecting part of our research focus to the response to the pandemic.
58. The Researcher and Research Postgraduate training programme has been redesigned to fit with the restrictions placed on us by the pandemic (e.g. new modes of delivery, new content, etc.). The pandemic has also affected our research student community, disrupting their research and affecting their employed work. The additional funding will also help provide support for research students.

## Outcomes for Economic Recovery and Social Renewal

### Responsive institutions

59. As noted above (*Learning with Impact* section), we actively engage with employers all the time through the Graduate Apprenticeship office, our Careers Service (which includes our Upskilling Activity), skills development boards, PRSB engagement, and through our Centre for Entrepreneurship. From these interactions and through organisations such as Skills Development Scotland we are engaging with market intelligence information about the workforce. Our professional degrees in health have their intakes directly determined by such market intelligence and we are actively engaged in the groups that plan these workforces.
60. We offer part time and CPD opportunities for those wishing to upskill or change career path. Recently, when Michelin announced the closure of their factory in Dundee, we were actively engaged with SDS in providing advice and opportunities to employees there who were made redundant. As the Michelin Innovation Parc concept emerged, an initiative focused on sustainable mobility and low carbon energy innovations and aims to progress emerging technology for a greener future, the University was engaged and actively shaping proposals. For more details, see <https://www.dundee.ac.uk/stories/exciting-collaboration-underway-university-dundee-and-michelin-scotland-innovation-parc>
61. Throughout the pandemic, we maintained ongoing interaction (introductions, communicating what the university provides) with companies, smaller start-ups and our main employers. Employers were made aware that as far as possible it is business as usual for our students (for graduates and those seeking summer positions) and that degree classifications should be treated no differently than before. As in-person events became impossible, we transformed our programme into series of remote/online talks from employers, remote Careers Fairs and remote internships. We have also seen local industry keen to contribute the covid response in Scotland. This is an example of the University working with local industry and the NHS:  
<https://www.dundee.ac.uk/stories/stitch-time-saves-ninewells>

### Work-ready

62. From very early on in the pandemic, it became obvious that the world of work was changed. Digital skills became a more important requirement for students and graduates alike. Over a longer period, we have seen an increase in requirements for graduates to have programming skills and this is an area which we are developing (upskilling the workforce in programming and other digital skills). We have been embedding more programming into relevant UG programmes to deal with this demand. For those already in the workforce, we are currently offering our online Java course with places funded through the Upskilling Fund.

63. With many of our courses holding professional accreditation, consultation with employers and PSRBs is ongoing, as course content is agreed and approved to meet accrediting body requirements.
64. As noted above, we continue to offer a broad spectrum of support for our students to ensure that they are better prepared for the competitive job market and have the right skills to enhance Scotland's workforce.

### **Innovation**

65. The University has an excellent track record in engagement with other sectors and contributing to the economy of our region and Scotland. A recent economic impact assessment reveals that the University supports over 8000 jobs and contributes over three quarters of a billion pounds to the Scottish economy. We aim to continue in this, proactively seeking out more partnerships with industry and transferring the knowledge we create into a range of sectors.
66. There are a number of motivations for the University to engage in innovation and commercialisation activities and these are usually not mutually exclusive:
  - To demonstrate impact from the research carried out by University staff. This includes contributing to the delivery of Impact that will be assessed in the Research Excellence Framework.
  - To create impact (economic, social, health, public good, etc) via commercial products and services that would not normally be delivered directly from a University.
  - As a sub-set of the above point, to contribute to the University's positive impact on inclusive growth within our locality/ region via the creation of highly skilled jobs and high value-added products and services.
  - To provide a channel to economic or societal benefit from University research, where no such channel or market currently exists.
  - To develop a local market for our highly-skilled graduates, and retain graduate talent in our region.
  - To help attract and retain entrepreneurial and externally-engaged academic and research staff, who know that they will have the opportunity to commercialise their work at Dundee.
  - To provide an appropriate route for development of lines of business that may start as service offerings of the University but which by virtue of scale and/or nature of activity may be better supported (e.g. from an insurance or other risk point of view) from a company vehicle.
67. We have developed and continue to engage in response to the Government's Industrial Strategy white paper. The strategy has identified four grand challenges:
  - AI and the data revolution (how to embed and maximise the advantages of AI and data)
  - Clean growth (low-carbon technologies and distribution across the economy)
  - Mobility (low-carbon transport, automation, infrastructure)
  - Ageing society (healthcare and labour market challenges).

Our aim is to raise awareness of these challenges and consider how the University engages with the funding opportunities, including the Industrial Strategy Challenge Fund (ISCF) and investments in Knowledge Transfer Partnerships, industrial PhDs, fellowships and the emerging regional development funds. Integral to this effort is a robust relationship management programme with new and existing industry partners as well as with key stakeholders across the HEI sector.
68. In addition to this, we will work directly with other sectors through our consultancy and service work, using knowledge and expertise to transformative effect. We are committed to continuing our approach to making our intellectual property accessible to other sectors, which has already led to ground-breaking innovations in healthcare and pharmaceuticals.
69. We underpin this approach with our business portal, guiding Scottish SMEs to funding opportunities such as the SFC funded Innovation Vouchers, Scottish Enterprise Research and Development Grants, and Knowledge Transfer Partnerships (KTP). The SFC Innovation Vouchers scheme aims to build relationships between SMEs and academic experts in Scotland. The aim of the scheme is to fund projects which drive

innovation, leading to new products, services and processes that will benefit the business, the institution and the Scottish economy. Our portal can be found here:

<https://www.dundee.ac.uk/industry/>

70. We will continue to work 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. Working with Interface, we currently handle 200 Interface directed enquiries per annum, in addition to supporting Interface events and meetings.

## Responsive and Collaborative

### Public health emergency

71. The University responded with vigour and intent to the Public Health emergency created by the Pandemic. As soon as the virus reached the UK, the University loaned key technology and equipment to the National Testing Centre in Milton Keynes.
72. We significantly contribute to the training and development of the health and social care workforce in Scotland, particularly leading the development of curricula that deliver the skills and values required to deliver high quality care in Scotland. We are working with our partners in the NHS and across other institutions to address the newly elaborated priorities relating to the workforce. Both students and staff volunteered to support the NHS during the crisis. We expedited graduation for final year students to enable them to join the fight against the virus.
73. Our incident management group supported staff and students who were infected by the Virus and worked closely with local Public Health to manage self-isolation and testing for those groups.
74. More generally, we moved delivery of our courses and assessment online in response to the pandemic to create safer studying conditions. This was a mammoth task which our students and staff embraced and made successful.
75. Alongside this, we have taken extra care to provide appropriate social and mental health support for staff and students. Details of the support for students can be found above in the section on Quality, learning, teaching and participation. One example of support for staff includes additional rest/family days to encourage staff to take time away from work to rest.

### Collaboration

76. We continue to grow and develop our partnership working with both FE and HE institutions in Scotland. This includes activity aligned with improving articulation (e.g. Dundee & Angus College, Fife College, Perth College), activity in controlled subject areas (e.g. Aberdeen, UHI, St Andrews), and activity in research and knowledge exchange partnerships (e.g. Glasgow, Stirling).

### Climate emergency

77. The most recent Greenmetric world ranking in which we appear has placed the University in the top 100 in the world, top in Scotland and in the top 10 in the UK for its environmental sustainability. We have worked to raise awareness of environmental issues across our campuses and amongst both staff and students and will continue to keep these important issues at the top of our agenda.
78. We are committed to meeting our obligations under the Climate Change (Scotland) Act 2009 and improving our environmental sustainability. There is a tension between growth in our activities and reducing our carbon footprint. Recent figures show that energy reduction within our footprint has been successful, resulting in lower carbon production. However, the opening of additional buildings, such as the high-energy-use Discovery Centre, has expanded our footprint and meant that carbon output initially increased in absolute terms. The national measure for carbon is absolute and we would welcome

discussion about this becoming a relative measure to allow for growth like this. However, we are already exploring new initiatives to address high energy usage like this. Our partner DUSA is also working to reduce its environmental impact to ensure that we have a campus-wide approach to environmental sustainability. Initiatives from DUSA include decreasing non-biodegradable packaging at its retail and catering facilities.

79. The University was an early adopter of alternative energy production, installing our Combined Heat & Power (CHP) station in 1996. The CHP Plant generates electricity which is fed into the University's private high voltage network. The thermal energy recovered from the process is distributed through the campus wide district heating networks – to serve all the buildings on the main campus. This was the first CHP installation at a Scottish University. We have continued to innovate and improve our energy centre over the years and our installation was shortlisted by the Association of Decentralised Energy in 2017 for an award under the category "Innovation of the Decade".
80. One of the drawbacks of being a leader in this field is that where others can benefit from investment to achieve new carbon reductions, our plant requires investment to maintain and improve on these reductions. A shift in focus from funding exciting new programmes in carbon reduction to upgrading existing and often trailblazing initiatives will be required in the coming years. As soon as conditions and funding allows, we expect to upgrade two of the CHP engines which will significantly reduce the emissions of the centre. This "E" series engine will initially only be released world wide to a few esteemed customers who have previously demonstrated their ability to deliver high performance from their CHP plant. We expect that we will be the first to install this model in the UK. These engines have half the NOx emissions compared to the previous ones. Alongside this, our long-term aim is to move away from use of fossil fuels and develop a new energy centre using a mix of renewable technologies.
81. We also employ the principles from a Circular Economy approach, where we aim to keep resources in use for as long as possible, extract the maximum value from them whilst in use, then recover and regenerate products and materials at the end of each use. For example, we have a furniture re-use store for office furniture and equipment. The Re-Use store also assists numerous local charities and communities with office furniture, supporting our local community in greener approaches. Our Freeshop (and halls recycling) for students, which helps students to recycle belongings that they do not wish to take home after completion of their studies, greatly enhances the student experience. The Re-Use Store and the Freeshop have both been running since 2010.
82. In our academic endeavour, we continue to teach, research and engage the public on issues relating to the climate emergency.

### **Summary**

83. The University is committed and working intensively on each of the funding priorities of SFC and Scottish Government. These priorities align with our core purpose of transforming lives and our wider strategy. We report great success in our annual outcome agreement self-evaluations and the outcomes we are delivering demonstrate the intensity of our approach. We are committed to building upon and sustaining this success as we move forward this with outcome agreement.
84. We look to SFC and Scottish Government to support institutions that are delivering on these priorities, like University of Dundee, with their funding decisions. Addressing the funding deficit in higher education will enable the University of Dundee to contribute even more to Scotland's success. Below average funding settlements from SFC reduce our ability to be a beacon institution for these priorities and impose savings on our success that limit our ability to deliver more.



## University Innovation Fund (UIF) FY 2020- 2021

In October 2017 the University of Dundee launched its five year 'Strategy to 2022', at the heart of which its core purpose is to "transform lives, locally and globally, through the creation, sharing and application of knowledge". The University's strengths continue to align well to the ambition of the University Innovation Fund (UIF) to incentivise universities to exploit their research to improve Scotland's economy through the seven national outcomes.

The University's strategy is built on working in partnership with external stakeholders to collaboratively engage on challenges of high societal importance and impact, and our collective energy is focused on four interdisciplinary themes:

- Understanding and improving health and wellbeing
- Life-enhancing creativity and design
- Innovating technological solutions to tomorrow's problems
- Promoting social change to enhance diversity, justice, and socio-economic prosperity

**The purpose of this paper is to provide an account of the University of Dundee's continued commitment to the priority outcomes in the UIF and report on progress for the period 2019 – January 2021. This is to accommodate the postponed submission of 2019/20 due to COVID-19.** This builds on the three-year plan submitted in 2017 and demonstrates clear achievements and highlights future activity as presented in the original plan.

The Research and Commercialisation Directors' Group (RCDG), developed under the aegis of Universities Scotland (US), provides a forum for collaboration across the Scottish HEI partners, enhancing our Research and Knowledge Exchange activities. This involves regular planning meetings and coordination through US' appointed UIF Manager to cluster multiple activities in pursuit of the UIF's seven national outcomes. The University continues to support this development and is integral to the delivery of activity to meet the agreed outcomes.

The following sections highlight developments and areas for further support.

### **Outcome 1 (Demand Stimulation)**

Working with Scotland's enterprise agencies, Scottish Government, business networks, Interface, and others, Scottish HEIs will have helped to increase the demand and quality of engagement from businesses and the public sector for university services.

The University continues to have strong performance in working with industry, with almost 20% of total research income coming from research and innovation activities. In 2020, we ranked top in Scotland and 5<sup>th</sup> in the UK for Industry Income (Times HE World University Rankings 2020). The Research and Innovation Services (RIS) directorate are central to providing a range of professional services to support researchers across our 10 Schools in delivering innovative research with impact. Our key activities to stimulate demand and raise awareness of opportunities for collaboration, commercialisation and consultancy for the period have included:

- The development and launch of an industry website (<https://www.dundee.ac.uk/industry>) in July 2020, providing an overview of our KE and commercial assets and opportunities, allowing ease of access, tailored to an external audience, to act as dedicated, central resource for industry to engage



with us. This was complemented by the creation of a business LinkedIn page to connect and engage with businesses and enterprise agencies. – *this activity meets outcomes 1, 2, and 3.*

- The development of a strategic partnership with Michelin Scotland Innovation Parc (MSIP) to enable the innovation of new products and processes for the future of sustainable mobility and low carbon energy. A Memorandum of Understanding was signed by our Vice-Principal (Research, Knowledge Exchange and Wider Impact), Professor John Rowan and John Reid, CEO of MSIP in June 2020.
- A programme of events led by our Vice Principal for Research, Knowledge Exchange and Wider Impact, Prof. Rowan, under the banner of “the Dundee Interdisciplinary and Innovation Forum (DIIF)” to connect the academic community with industry and support collaborations. These have included events in partnership with MSIP, Interface, North of Scotland KTP Centre, and local and regional SMEs. These events, usually hosted in person, were hosted online due to the COVID-19 pandemic. However, they maintained strong engagement with average attendance increasing by 54% when compared to 2019 and a peak of 92 attendees at the event in partnership with MSIP.
- Increased capacity of specialist resource with a realignment of personnel to be more outward facing and engaging across the business community, including a Business Development Manager for the School of Medicine focusing on income maximization across the School and working closely with School management to achieve their strategic goals, and a dedicated post to support the coordination of the Tay Cities Deal projects (following full signing of the Tay Cities Deal in December 2020). – *this activity meets outcomes 1, 2, 3 and 6.*
- Strengthening our relationship with Interface colleagues and the Innovation Voucher scheme by streamlining engagement and re-profiling the University’s areas of interest.

Additional, significant achievements from across the university have included:

- The development of a Doctoral Academy (DA) to grow and diversify the postgraduate researcher community. A newly established dedicated leadership team has been assembled, under an academic Director, to drive the alignment of institutional processes forward and steer strategic plans in relation to national and international funding and wider innovation and partnership opportunities. A successful DA will bring many benefits to the University, including better recruitment of top-quality candidates, greater opportunities for interdisciplinarity, increased citations, wider impact, increasing the supply of new doctorates into the knowledge economy, and boosting academic reputation. – *this activity meets outcomes 1, 5 and 6.*
- In December 2020 we became the first university in Scotland to receive a Gold “Engage Watermark” in recognition of our public engagement from The National Co-ordinating Centre for Public Engagement (NCCPE). This charter mark is awarded to universities for excellence in their support and practice of public engagement in all aspects of their work. The University was awarded the highest level of accolade following the rigorous assessment. We established a PE forum championed by the Vice-Principal (Research, Knowledge Exchange and Wider Impact), working across academic schools and professional services. This forum aims to identify synergies, share best practice, and exchange knowledge internally and externally. PE training and development is now integrated into our professional development programme as part of the PE Strategy launched in 2019.

## **Outcome 2 (Simplification/Commercialisation)**

**In partnership with the Enterprise Agencies (EAs) and Interface, Scottish HEIs as a sector will have demonstrably simplified business access to the knowledge and expertise in Scottish universities.**

The University is committed to increasing commercial activity and has continued to implement and build on its own established good practice around the engagement of business and industry, as well as engagement with collaborative initiatives between Scottish HEIs to simplify business access and engagement. A flexible and pragmatic approach to collaboration and deal structuring has led to many positive outcomes with social

and economic impact and exceptional commercialisation income return of >£7M over the last three years. Key achievements include:

- Our spin-out company Exscientia raised \$100M through a Series C financing round to back its work on AI-driven drug development.
- Our spin-out company Amphista Therapeutics secured £38M series B investment in an oversubscribed round to accelerate development of its novel anti-cancer assets.
- In4Derm, a new university spin out from 2020, successfully achieved significant seed investment to complete lead optimisation for an oral, first-in-class, anti-inflammatory drug
- Our spin-out company, Platinum Informatics, received £300k from the Early Stage Growth Challenge Fund managed by Scottish Enterprise. The fund was set up to support high-growth Scottish companies to overcome the challenges and impacts of COVID-19 and is awarded on competitive merit.
- Ten Bio Ltd, a new university spin out from 2020, won £65k in Scottish Edge - the UK's largest business funding competition and was runner up in Converge Challenge.
- Three of our spin out opportunities won funding from Scottish Enterprise High Growth Spin Out Programme, receiving more than £250k from Scottish Enterprise to support their development in delivering significant healthcare benefits.
- The University is ranked 1st in Scotland (5th in the UK) in the independent "Spinning out Success" report, produced by Octopus Ventures. It cited our research strengths in medical and computer sciences, evidenced by successful spin-out companies such as Exscientia Ltd.
- We adopted an RCDG suite of standard contract templates to speed up and simplify the contractual process for organisations and businesses seeking to collaborate with Scottish Universities.
- We simplified standard terms and conditions brought in to speed up business access to core facilities in School of Life Sciences. It is planned that this model will be rolled out across the Schools.
- NDAs (Non-disclosure Agreements) were delegated to the academic schools to speed up commercial discussions.
- A web-based MTA (Material Transfer Agreement) system was implemented for simplified access to reagents required for COVID-19 research by external parties.
- A stage gate process has been implemented to simplify and speed up internal commercialization processes.

The refocus on commercialisation and the allocation of resource in this area continues to be prioritised to ensure that income generation can be maximised and future-proofed with a robust pipeline of commercial opportunities. To support this, a commercialisation fund of £30k was provided from the UIF for the School of Life Sciences (SLS) commercialisation group. This aimed to support promising projects and technologies from SLS researchers' progress towards commercialisation. The pilot fund was awarded to four excellent projects based on the impact the fund was likely to have on the commercialisation of the projects. The projects included development of novel skin explant technology for spin-out progression; compound screening to support spin-out progression; assessment of compound sets for commercialisation and validation of a novel model for pre-clinical drug discovery.

The SLS Commercialisation Group brings together specialist RIS colleagues and the School's business development professionals and aims to nurture and support spin outs and promote commercialisation across cognate life sciences, medicine and health sciences interests of the University. Activities have included assessing opportunities, coordinating investor visits and supporting researchers in pitching to industry. This model is endorsed by the SLS management team and will be rolled out across other schools. – *this activity meets outcomes 1 and 2.*

Collaboration is a priority focus for the University of Dundee and proactively engaging through Universities Scotland and the Research and Commercialisation Directors' Group (RCDG). Institutional collaboration and

the sharing of best practice is integral to our activity. A specific example being hosting of our Technology Marketing Practitioners' Workshop, inviting colleagues from all Scottish Universities to share intelligence and best practice in Technology Marketing, and to discuss collaborative potential. Eight different universities participated, reflecting the importance of this area, and highlighting how the variability of focus and resources enabling engagement within the sector. There is more to be done to realise the full collaborative advantage offered by greater joint working and we will continue to operate in the spirit of shared-endeavour through FY 2020-21 and beyond. The University continues to play a leading role in the development and review of a series of institutional contract templates for use across the sector and external industry stakeholders.

### **Outcome 3 (Simplification/Greater Innovation)**

**In partnership with the EAs and Interface, Scottish HEIs will, at a national level, have made strategic use of their sectoral knowledge to promote greater innovation in the economy (including beyond non-STEM).**

Continuing to drive innovation with industry and the public sector is a central focus of the University's Research and Innovation Service (RIS). We are committed to increasing demand and simplifying access across industry and the public sector and will be cultivating approaches to enhance local and regional engagement as part of our strategy development cycle. Increasing capacity will be crucial to successful delivery of these ambitions, therefore we are committed to the formation of a Regional Innovation Team to develop a robust pipeline of innovation activities with local and regional SMEs, and increased engagement and collaboration with networks including Dundee and Angus Chambers of Commerce, Interface, North of Scotland KTP Centre and Scottish Enterprise. This will involve a tailored strategy focused on the University's strength in our regional location and as an internationally excellent university, including non-STEM academic Schools and soon to be appointed Regional Programmes Manager. *– this activity meets outcomes 1 and 3.*

Key activities within the innovation space include:

- Launch of an Innovation and Impact Development Fund (IIDF) to encourage the University's academic community to engage with and facilitate regional collaboration with SMEs and other potential partners. This fund also supported applications that involved public and third sector organisations, that would otherwise be ineligible for funding through other schemes, such as Innovation Vouchers and KTPs *inter alia*. A strategic fund (£40k), enabled up to £2.5k of support per project, and 17 projects were funded. *– this activity meets outcomes 1 and 3.*
- An Industrial Strategy Partnership Development Fund (ISPDF) was established to support the development of collaborative partnerships with industry and other partners. £30k (up to £5k per project) was made available to support successful applications in the development of collaborative partnerships with industry and other partners. Six applications were funded across the Schools of Medicine, Education & Social Work, Science & Engineering, Art & Design and Nursing & Health Sciences. These awards will fund capacity-building activities in preparation for future Industrial Strategy Challenge Fund bids and related opportunities, including conference attendance, collaborative workshops, laboratory equipment, software, and data to build relationships with industry partners. *– this activity meets outcomes 1 and 3.*
- With external support from Skillfluence Ltd., we have completed an audit and assessment of knowledge exchange (KE) activities, with emphasis on training and development opportunities. One of the key outputs from this was the development of a series of workshops to equip researchers with key skills for identifying, engaging and working with businesses. This was attended by 19 members of research staff from 4 universities. This initiative will be further developed to extend reach across the Scottish HEI sector. This activity highlights our recognition of the importance of industry engagement and knowledge exchange at an institutional and policy level, for both financial and reputational sustainability. *– this activity meets outcomes 1, 3 and 6.*
- A Knowledge Transfer Partnership (KTP) project between the University and IMV imaging Ltd was awarded the highest grade of "Outstanding" by the KTP Grading Panel for its achievement in meeting KTP's Objectives. The aim of the two-year collaboration was to enhance the performance of the in-house designed veterinary ultrasound scanners with advanced new features. KTPs are a well-

established route to build relationships with industry and the University has a growing portfolio led by an Innovation Manager. We currently have two KTP projects, spanning the Schools of Science & Engineering and Medicine. Dr Nikola Krstajic is working with Moor Instruments to develop an innovative medical device for optical imaging of blood flow during keyhole surgery to improve patient outcomes. The second project involves Professor Nikolai Zhelev working with Onorach to apply clinical research, machine learning and cyber security expertise to develop and validate their patFINDER software system; interrogating medical data to identify and recruit patient cohorts to clinical trials that meet specific inclusion/exclusion criteria. We will continue to work with the North of Scotland KTP Centre to raise awareness of the programme and to find new opportunities. Our current focus is on Management KTPs as there is currently ring-fenced funding to support these projects which can be supported by our new Business School. – *this activity meets outcomes 1, 3 and 6.*

- A trial of a new event format as part of the University's Interdisciplinary and Innovation Forum (DIIF) to directly connect the academic community with industry and support collaborations. This event brought together a strategically targeted, small group of academic staff and local businesses from a specific sector. This was a particularly successful event with insightful discussions for interdisciplinary research and resulting in follow-up meetings to discuss innovation funding collaborations. This style of event will be implemented across other strategically targeted sectors going forward.

#### **Outcome 4 (Entrepreneurialism)**

Scottish HEIs 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.

The Centre for Entrepreneurship (CfE) is the central mechanism through which the University aims to grow and embed an entrepreneurial culture throughout the institution. As well as working closely with other units across the University, the CfE has a successful partnership with 'Elevator' who run a public access business accelerator programme on campus (the first of its type in Scotland) within the Centre. This partnership model has been central to HEI collaboration across the sector and to support the Scottish wide proposal to establish regional centres of excellence, led by the University of Strathclyde. The CfE have attended initial meetings and aim to continue to feed into the various discussions and groups to develop this agenda. Elevator have plans to run a MedTech- specific Accelerator programme in Tayside for Q1 2022.

The annual **Entrepreneurship Week**, facilitated by the CfE, is a staple in our calendar. Taking place in the last week of February, it offers a series of lectures and workshops for staff, students, alumni and the public, and the topics include investment, social enterprise, women in business and starting a business. The annual public lecture in Entrepreneurship Week 2020 was delivered by Poonam Gupta OBE of PG Paper Ltd. The programme of events also contributed to the wider Tay Cities Business Month throughout February 2020, which coordinates free events for businesses and enterprises across the Tay Cities region, to deliver on the shared objectives of the regional economic strategy.

The CfE provides the opportunity to win funding that could kick-start a business idea, for staff, students and recent graduates. In 2020 the University Venture Competition had 64 applicants and a £28.5k prize fund. A total of eight projects were awarded funding across five award categories: Student, Science & Engineering Student, Art and Design Student, Recent Graduate, and Staff. Winning projects included; a mechanical instrument for forensic dentistry, a digital platform to tackle the major barriers in oral health, an innovatively designed hip implant, a sustainably sourced fashion brand, alternative leather watch straps grown from bacteria and yeast, skateboards made from cork and wood veneer, a low-cost disposable soft colonoscope, and bespoke 3D printed radiotherapy masks. The CfE also held two workshops with Scottish Edge during 19/20 to assist in University related businesses to apply to the competition.

The CfE have been championing enterprise education within the curriculum, with more provision in degree pathways and an increased uptake of modules. In 19/20 CfE have delivered 6 modules to 204 students. To provide greater access to develop entrepreneurial skills throughout the University and amongst recent graduates, the CfE run the extra-curricular Enterprise Challenge (an enterprising skills programme) that

exposes participants to fundamental business knowledge delivered by experienced industry speakers. The 8-week evening programme has ran over two cohorts through the 19/20 academic year accepting 104 participants. Whilst in Semester 1 of 20/21 it accepted a further 75 participants.

The Centre runs ten School specific public facing Entrepreneurial Masterclass lectures each academic year and in 19/20 has had entrepreneurs such as Hayley Scanlan (HS - Fashion Design), Paul Farley (Chill Connect - video games) and Prof Andrew Hopkins (Exscientia - Life Sciences). In Semester 1 of 20/21 it ran five more of these with inspirational talks from Joanna Montgomery who shared her journey of developing her 'pillow talk' system that allows two people anywhere in the world to be connected via their heartbeats and David Farquhar of Intelligent Growth Solutions an agritech business looking to revolutionise farming and food production with the development and supply of indoor vertical LED farms.

The CfE was central to our success in the Converge Challenge, having held 1 to 1 meetings, application workshops and mock panels throughout the year to promote and support the opportunity. The University had two shortlisted projects in the main Converge Challenge 2020 category final, Michael Connelly of Ten Bio and Andrew Woodland of In4derm. Andrew Woodland won the main Converge Challenge at the Converge Awards held in the V&A, and a prize of £78k (£50k cash and £28k in kind support).

The University continues to invest and support Graduate Apprenticeships and promote entrepreneurship, enterprise, and employability across all student groups (UG to RPG).

We also welcomed two post-doctoral research assistant interns from the School of Life Sciences after they successfully completed Life Arc Technology Transfer Fellowships. They provided support in the following areas whilst also receiving training in the basics of technology transfer including material transfer agreements, market assessments, technology scouting and assessments, technology marketing and elements of research development. The UIF enabled this pilot programme to run, with the aim of employment continuation supporting the growth in technology transfer skills in academia and industry. One of the interns went on to permanent technology transfer employment in the US, and the second moved onto an industrially sponsored research programme.

Following the success of these internships we appointed a PGT Biomedical Science student who has joined on a commercialisation internship.

### **Outcome 5 (International)**

[In partnership with Scottish Development International, Connected Scotland and others, Scottish HEIs will have pooled their knowledge and networks, and shared good practice to promote and engage Scotland internationally \(operating under Scotland's International Framework\).](#)

The University has an international outlook for research, innovation, and teaching, and collaborates and cooperates with industry, government, and academia on a global scale. Integration of internationalisation within research and innovation continues to be an institutional priority and is an integral part of the partnership work with academics in the proposal development pipeline.

We joined the European Universities Association (EUA), the largest European universities network, representing the sector by bringing its (850+) members together to develop vision for higher education, research, and innovation in Europe. This was intended to send a strong signal of the University's commitment to continue collaboration across Europe and aims to help our academic community sustain partnerships with EU institutions after Brexit. It will give us a voice in the European research and innovation policy debate, enhance our reputation as an engaged European research-intensive University, and provide us with access to best practice sharing with EUA members. We believe this is especially important with the recent confirmation of the UK's agreement to remain within the EU Horizon Europe Programme. Rebuilding connections and trust with former and new prospective partners for international collaborative research is a key priority.

The University is a global organisation with extensive networks and has established successful working relationships with SDI, having participated in and contributed to inward and outward missions led by SDI for the past two decades. The University's Senior Commercialisation Manager was a delegate on the SDI Digital Health Trade Mission in March 2020 in Denmark and Finland. Joining a delegation of eight Scottish digital healthcare businesses, the mission provided a forum to understand the digital healthcare environment in the Nordic countries by hearing from and meeting key stakeholders and businesses in both countries. Meetings were held with equivalent technology transfer representatives as well as businesses with the aim of following up on areas of synergy within the University on return.

Our Commercialisation Team took part in virtual Bio Europe 2020 - Europe's largest partnering conference serving the global biotech industry. During the event, the team participated in live virtual partnering meetings to promote business development opportunities for the University's technologies with global pharmaceutical and biotechnology companies. There was considerable interest within the University and new conversations are being developed as a result of this engagement.

Global Challenges has been a priority area of engagement and a strategy to enable the University to prepare and proactively respond to the research funding available through the GCRF initiative has been in place since 2018. The activities to facilitate and implement this strategy have been led by a dedicated GCRF Research Development Manager made possible by the funding provided by SFC for GCRF related activity. A summary of achievements for this reporting period include:

- Supported 30 projects utilising 2019/20 SFC-GCRF allocation of £824,858.
- Coordinated final internal funding competition to allocate 2020/21 GCRF SFC (£914,060) which takes us to the end of the GCRF Strategy lifecycle supporting a further 9 projects..
- Held two GCRF DIIF (Dundee Interdisciplinary and Innovation Forum) events, together totalling over 100 attendees, plus 2 smaller ODA capacity building events.
- The research community submitted 32 external ODA-related funding applications, and 11 awards. These include three large applications to the National Institute for Health Research (NIHR) Global Groups and Unit calls, totalling £11.7M.
- Created a fellowship for a displaced Syria scholar at the request of the Council for At-Risk Academics (CARA).
- Led establishment of Scottish ODA research managers' network.
- Developed external links via engagement with UK ODA Community of Practice, ARMA, UK Collaborative for Development Research (UKCDR), the African Research Universities Alliance (ARUA), and gained representation on the Board of Trustees of the Scottish International Development Alliance (SIDA) via co-option of GCRF Development Manager, Alastair Strickland. Through Alliance meetings, Alastair has engaged with the Scottish Minister for Europe and International Development, and the Shadow Secretary of State for Scotland.
- Developed the Dundee Safeguarding policy.
- Enhanced and implemented the project partner Due Diligence process.
- Increased engagement through our Global Partnerships Team and Regional Academic Leads.

A group from the University visited the University of Rwanda (UoR) in February 2020. This builds upon the June 2019 exploratory visit of the Vice Chancellor of UoR to Dundee, to develop strategic collaboration. The Dundee delegation comprised of representatives from the School of Art and Design, the Leverhulme Research Centre for Forensic Science, Education and Social Work, and RIS. A significant outcome from this visit is a joint undertaking by the University of Rwanda and the University of Dundee to jointly develop a \$10M funding bid to the World Bank for an African Centre for the Study of Higher Education.

The University is committed to the "Team Scotland" concept and has ensured that, where appropriate, activities are connected across the sector. Led by the University of Glasgow we participated in a multi-institutional delegation to a workshop in Cape Town in Feb 2020 which "... aimed to address critical skills

gaps in research management in sub-Saharan Africa, focusing on specialized skills development for Research Managers and Administrators". It built upon the success of an earlier 2019 meeting, this workshop featured more in-depth coverage of critical topics, introduction of new skills, and will invite other Scottish institutions to support attendance of their own partner organization." The GCRF Research Development Manager participated on behalf of the University of Dundee, and we sponsored the attendance of six individuals from key African partners; University of Lagos, University of Nigeria, University of Ghana, and University of Rwanda. – *this activity meets outcomes 1,3 and 5.*

We continue to have strong links with partners in China. AHRC's UK-China Creative Industries Collaboration programme is focused on the growing importance of the Creative Industries in both countries, and the great potential of enhanced collaboration the sector offers as a means of delivering sustained economic, cultural, and intellectual benefits. A leading example of this is InGAME, a groundbreaking R&D collaboration, that drives product, technology, and process innovation in gaming, led by Abertay University, in partnership with the University of Dundee and the University of St Andrews, in collaboration with local and international industry stakeholders. InGAME have secured funding for "InGAME International", one of eight new UK-China Research-Industry Creative Partnerships, delivered in partnership with Innovate UK and the Engineering and Physical Sciences Research Council (EPSRC). This forms the second phase of the programme and is supported by the UKRI Fund for International Collaboration.

Our research is globally recognised. the University won the United Nation's prestigious Risk Award 2019 for pioneering floating homes that allow families in developing countries to survive natural disasters while producing food, water, energy, and sustainable livelihood options. The RISK Award is organised by the United Nations Office for Disaster Risk Reduction (UNDRR) and sponsored by the Munich Re Foundation. PhD student Nandan Mukherjee accepted the award, and the accompanying €100k prize, at the Global Platform conference in Geneva in May 2019. The project was selected from more than 100 initiatives across 48 countries focused on coastal resilience in the face of climate and environmental changes. This international action-based research project was also shortlisted and was Commended in the Research Project of the Year: Arts, Humanities & Social Sciences category at the 2019 Times Higher Education Awards.

#### **Outcome 6 (Inclusive Growth and Social Impact)**

**Building on current and good practice Scottish HEIs will have scaled up their support of the Scottish Government's ambitions for inclusive growth.**

The University is a major employer in the City of Dundee and region, supporting over 8,000 jobs through its activity, and this part of our strategy to transform lives locally and globally. The social and economic impact of the University is currently contributing to a significant transformation of the region through the Tay Cities Deal.

The University has successfully progressed two major capital bids to as part of the Tay Cities Deal. Growing the Tayside Biomedical Cluster (GTBC), involves £25M capital for a new BioMedical Innovation Hub with work beginning in 2021 and Just Tech, which is still at the Outline Business Case stage will provide a £15M investment in innovation in forensic sciences. GTBC nurtures the best innovation prospects from the University's biomedical research and drug discovery strengths and exploits our unique environment for medical technologies development at our interface with the NHS and Industry, matched with significant growth in new skills pathways. Just Tech enhances our high-profile reputation in forensic science research to create a new economic cluster for the Tay cities region. Both projects will deliver economic growth in the form of significant job creation, enhanced health outcomes, increased training, and skills development to feed the talent pipeline in the Region.

In June 2019, the University was named Higher Educational Institution of the Year at the annual Herald Higher Education Awards and received the Outstanding Contribution to the Local Community accolade along with Abertay University in recognition of their roles as founding partners of V&A Dundee.

Professional Development of staff continues to be a strategic priority. Our Annual Review system is embedded across the University. Training and development needs are identified and reviewed with training plans implemented as appropriate using the professional networks of PraxisAuril, ASTP, AUTM, in-house training from the central the University's Organisational and Professional Development team (OPD) and shared training opportunities with other HEIs. – *this activity meets outcomes 6 and 7.*

The ISCF Manager secured a seconded position as the sector-wide University Innovation Fund Manager, hosted by the University West of Scotland. This position is in place for a six month period starting from the 1st November 2020 and builds on the work undertaken on UIF initiatives at the University. The post will work across the 19 Scottish Universities and have regular engagement with the Scottish Funding Council to support the delivery of the University Innovation Fund objectives.

Professional development also forms a part of the DIIF programme of events in the form of 'Write it Right' workshops. These sessions provide early career researchers and those new to writing grants with essential background on the process of applying for research funding and how to navigate the funding landscape. These workshops initially took place in person and were moved online due to the COVID-19 pandemic. They are exceptionally well attended and will continue to run multiple times throughout the year.

### **Outcome 7 (Equality and Diversity)**

**Building on current and good practice HEIs will have ensured positive promotion of equality and diversity in staff and all who are affected by deployment of the UIF.**

This outcome remains integrated into the University's ethos and culture. We have a rigorous and progressive values-led approach to equality and diversity (E&D) and this will remain at the heart of all developments and activities as we work towards delivering the UIF National outcomes.

The Covid-19 pandemic has reinforced and enhanced our commitment to addressing the needs of diverse members of staff and students especially those from groups that may have been disproportionately impacted. The University has conducted regular Pulse surveys to monitor the impact on staff resulting in policy revisions and practices including flexible working arrangements to ensure specific requirements are met and provided (such as reasonable adjustments for working from home and caring responsibilities).

The University was placed 20th in the world in the inaugural Times Higher Education University Impact Rankings. These rankings recognise universities' success in delivering the United Nations' Sustainable Development Goals (SDGs). Our best scores by rank included the SDG of Gender Equality, placing joint 31<sup>st</sup> in the world.

Administration resource in this area has grown and a robust training and development programme is in place with all RIS personnel involved. The EDI Team regularly visit Academic Schools and Directorates and increased awareness and knowledge is evident as equality and diversity are part of the toolkit for research and innovation activity. Equality Impact Assessments are carried out on a regular basis, reviewing existing and new policies and frameworks to ensure equality and diversity are considered, early and by design. In line with the Gender Equality and International Development Act and UKRI's requirement of Gender Equality Statements, we have integrated gender equality considerations into our internal funding process. All applications to our internal GCRF fund are required to submit a Gender Equality Statement and gender representation was monitored during the selection process. Furthermore, all applicants are now required to complete equal opportunities monitoring questionnaire as part of their application. – *this activity meets outcomes 5 and 7.*

The University has embedded staff and student wellbeing at the heart of our Transforming Lives strategy and a series of new policies to ensure implementation and compliance.



The University is an active member of the outcome groups training on Equality and Diversity and will continue to engage and participate and share best practice to further support E&D.