OUTCOME AGREEMENT 2022-23

November 2022

Annexes:

Annex A: University Outcome Agreement Impact Framework: Supporting Data

Annex B: University Innovation Fund 2022-23

Approved by Court 23 November 2022

A: INTRODUCTION

This outcome agreement for 2022-23 sets out the ways in which Abertay University will continue to contribute to the national aims and priorities for higher education in Scotland during this academic year. It builds on our previous outcome agreements, and our Strategic Plan and associated operational plans. The structure reflects the guidance issued by SFC and sets out outcomes for students (section B), for research (section C), and for economic recovery and social renewal (section D).

This outcome agreement builds on our existing strengths. We would like to highlight in particular:

* Our continued commitment to, and strong performance in, widening access to higher education. 27% of our 2022-23 Scottish-domiciled undergraduate entrants (SDUE) came from SIMD20 postcode areas, or experienced educational disadvantage (as recognised by our contextual admissions policy) prior to coming to Abertay.

* The continued high levels of articulation with full credit into our undergraduate programmes, with 22% of our SDUE articulating with full credit onto years 2 or 3 of an Abertay degree in 2022-23.

* Our continued commitment to equality and diversity: we were the first in 2017 and are to date one of only two universities in Scotland to achieve the Race Equality Charter Mark bronze award, re-awarded in 2021.

* Our focus in 2022-23 on improving student engagement and retention and graduate destinations.

In developing this outcome agreement, we have consulted with the Students' Association and with our trade unions. This document was considered and approved by our Court at its meeting on 23 November 2022.

B: OUTCOMES FOR STUDENTS

Fair access and transitions

Improving access to higher education and continuing to ensure that we recruit students from a diverse range of backgrounds remain priorities for Abertay. Our approach to access to education reflects the strong sense of social mission felt by the Abertay community and the focus on social mobility in our Strategic Plan. We are committed to offering transformational opportunities to those who could benefit from Abertay's approach to education by providing a range of routes to an Abertay degree and by supporting students and graduates to reach their full potential.

Deprivation and educational disadvantage

In 2022-23, provisional data shows that 16% of our Scottish-domiciled undergraduate entrants (SDUE) came from the 20% most deprived postcode areas (a small decrease form 19% in 2021-22). Our contextual admissions policy, introduced in 2014-15, is well embedded and allows us to capture a wider range of disadvantage than relying solely on the postcode of applicants. Students who meet the criteria[1] are eligible for a contextual offer at our minimum access threshold level. We actively promote this policy and the associated access thresholds through local educational networks and via our prospectus and website. All our course information on our website encourages applicants who expect to pass three Highers to submit an application, and our prospectus lists the minimum grade requirements for each course.

In both 2021-22 and 2022-23, around 20% of our entrants met the criteria to be eligible for a contextual offer, with only around 42% of this group coming from SIMD20 postcodes. In 2022-23 we had no SDUE with care experience (this was 19 or 1.2% of intake in 2021-22).

> **Taken together**, **contextual entrants and SIMD20 entrants accounted for 27% of our Scottish-domiciled undergraduate intake in 2022-23 and 29% in 2021-22**.

National measure	2019-20 baseline	2020-21 actual	2021-22 actual	2022-23 provisional
CoWA measure: proportion of full-time first degree SDUEs from SIMD20 postcodes	16.3%	16.3%	18.7%	15.5%

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[1] The criteria we take into consideration include participating in a recognised higher education widening access programme; spending time in care; or a combination of other criteria including: attending a low progression school, living in an SIMD40 area, having parents or guardians who have not participated in HE, or having experienced serious disruption to formal education.

Articulation and pathways

In 2022-23, as with previous years, around a third (29%) of our SDUE joined Abertay in year 2, 3 or 4 of their degree programme (36% in 2021/22). This reflects our commitment to articulation and to offering a range of routes to an Abertay degree. It also reflects the model of progression we operate with our partner colleges (Dundee and Angus College, Fife College and Al-Maktoum College), with the expectation that there are clear articulation routes and automatic progression with no additional grade requirements to Abertay degrees for students passing their HNDs at partner colleges. Working in partnership with Dundee and Angus College, we have also mapped progression routes for Foundation Apprenticeships.

We also work with colleges across Scotland to offer a wide range of articulation routes across our degree programmes and to support transition through the learner journey. The full range of articulation routes is publicised on our website.

Our provisional data shows that 22% (219) of Scottish domiciled undergraduate entrants articulated with full credit in 2022/23. In relation to the National Measure, the proportion of HN entrants articulating with advanced standing is 61.3% in 2022-23.

National measure	2019-20 baseline	2020-21 actual	2021-22 actual	2022/23 provisional
Proportion of Scotland-domiciled HN entrants articulating with Advanced Standing	66.4%	62.0%	58.4%	61.3%

Abertay's long-running AHEAD[2] programme is a part time access course which provides students, on successful completion, with a guaranteed place on a range of Abertay undergraduate degree programmes. No academic qualifications are required, and it is free for eligible applicants who have been out of education for three years or more.

Our 2020-25 strategic plan reaffirms our commitment to offering a range of routes to an Abertay degree, and to continuing to work with our college partners to ensure a smooth and successful transition to Abertay.

High quality, learning, teaching, and support

Abertay University is deeply embedded in our regional economy. The 'localness' of our student demographic and our long history of delivering learning and research which is applied by business and industry locally, as well as nationally and internationally, means that we are in regular contact with our local Chamber of Commerce and the four local authorities which make up the Tay Cities Region (Dundee City, Angus, Fife and Perth and Kinross).

Our Learning Enhancement Strategy commits us to ensuring that all programmes have work-related learning opportunities built into the curriculum at appropriate stages, such that students not only learn new knowledge, but are able to apply their learning in practical situations. Our programme teams work closely with partners in the public and private sectors to ensure that appropriate opportunities are available to students.

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[2] https://www.abertay.ac.uk/course-search/preparation-courses/ahead/

In our Learning Enhancement Strategy agreed pre-pandemic, we had already set our intention to move towards a more blended learning model. Our experience throughout the pandemic has enabled us to accelerate and embed our approaches to digital education. This has seen the University adopt and formally approve a set of Principles for Blended Learning and Teaching which are now fully embedded within our provision. Student feedback from the 2022 Jisc Insights survey strongly suggests that students value the quality of that approach and particularly the digital offer (83% of students were highly satisfied with the quality of online elements of learning – 6 percentage points above sector average).

Supporting students in their transition to Abertay

For the start of academic year 2021-22 we introduced a suite of credit-bearing microcredentials (MySuccess at Abertay modules) for all first-year programmes which are intended to support transition to the University and to identify areas for academic and personal development. They aimed to enable students to develop the academic and social foundations for building a successful Abertay career. This was seen as of increasing importance given the fact that students arrived from a pandemic influenced school and college scenario with hugely disrupted journeys. One of the new microcredentials (ABE101) was focused around a formative diagnostic test and was used to inform students of their strengths and weakness across a range of areas: academic skills, numeracy, digital skills, and wellbeing. Abertay is also leading a QAA Collaborative Cluster project looking at this issue with eight University partners. In September 2022 the microcredential and diagnostic approach was expanded to support direct entry students in year 2 (ABE201) who would have otherwise missed the opportunity to engage with the learning that helped build those successful foundations.

From September 2021, we appointed three 2021 Abertay graduates in the role of student success officer (SSO), reporting to the School Academic Advisor in each academic school. The SSOs focus on supporting student engagement, starting before the formal start of term with engagement on the new microcredentials and ensuring students are supported in their first weeks at Abertay. The SSOs triangulate data sources and provide a proactive role to engage with students who are showing a lack of participation. They will continue to provide support throughout the academic year and work closely with Academic Advisors to support students in danger of dropping out.

The impact of these initiatives is already apparent, and they will continue to be evaluated, developed, and enhanced over the coming year.

Retention

Improving retention remains a priority for Abertay and we recognise that the outcomes for students remain lower than we would expect. Provisional data for retention of 2021-22 entrants into 2022-23 shows a drop with 80% of SDUE returning compared to 86% the previous year. Retention of SIMD20 entrants remains lower than overall SDUE retention, at 73% however retention of mature entrants aged over 21 years, most of whom are articulating students, was also 80% - the same level as the overall position. Given the delayed nature of these statistics, it is likely that they have been affected by the knock-on effects of pandemic-related factors.

Understanding the retention challenges and how we can address these has been a priority for us over the last year. This had led to a focus on improving student engagement, particularly to support those who may struggle in their first weeks at Abertay, and on working with partner colleges to ensure that we improve the transition for articulating students and keep the curriculum under review to facilitate this. The Student Success Officers referred to above will contribute to this, but there is a wider focus on developing a sense of belonging amongst students (and new students in particular), on continuing to improve the way in which we welcome students to the University, and on ensuring that our approach to learning and teaching encourages engagement and supports students who may have a variety of personal circumstances.

The University's recent QAA Enhancement-Led Institutional Review (ELIR) recognised the significant work that the University was undertaking to address the challenge of retention.

Activities to support retention include:

- Assessments have been introduced in the fourth week of teaching for entrants to enable early identification of those who are struggling or not engaging.

- Microcredentials to build successful academic and social foundations have been embedded within the first-year programme structures since 2021-22. The first offering was evaluated with students and staff and some adjustments were made to assessments for 2022/23.

- Student Success Officers (SSO) were introduced in September 2021 with the aim of reviewing and triangulating student data to identify those students who needed further personalised support.

- Outcomes from retention activities are monitored. Actions are included in programme annual reports and discussed within Divisional and School level annual reports.

- The Dean of Teaching and Learning undertook a granular level review of every student that was withdrawn in 2021-22 to identify trends and possible interventions.

- The Dean of Teaching and Learning is taking a holistic review of institutional induction and orientation processes for all new students across the years. New principles and processes are to be introduced for September 2023 to better instil a sense of community, purpose and belonging.

Reports on progress and actions are submitted to our Senior Management Team and Court on a regular basis.

Partnership, participation, and student experience

The Students' Association (SA) and University have signed a long-term Student Partnership Agreement (SPA) that is focused on the need for an effective system of student representation across all programmes and ensuring that special interests are supported through community representation. 2022 will see the partners work together to pilot the use of student voice technologies through a tool called Unitu.

Regular meetings are now held between the SA and Executive members and an annual funding agreement has been developed so that both parties are clear around expectations. The SA also regularly meets with the Dean of Teaching and Learning to navigate around obstacles and ensure that it can maximise outcomes. This is part of a key development around 'Students as Partners' that seeks to support activities that embed the student/staff relationship and make conversations between students and staff a normal facet of quality improvement. This includes an ambition to encourage students not to be passive consumers of their learning but to engage in more proactive collaborative approaches to the design and co-creation of learning materials, creating spaces for staff and students to work together on shared goals and projects to help shape the learning experience. Five projects are already in place on learning communities, and we hope for up to four more over the coming months focused on sustainability.

As part of the new first year microcredential initiative described earlier, the SA delivers a microcredential named 'Welcome to the CommuniTAY', the purpose of which is 'to showcase to students what Abertay has to offer and inform students how they can get involved' with a learning outcome that will enable students to 'clearly identify the different ways to make the most of the Abertay community and Student Experience'.

Learning with impact

Abertay's support for students to successfully complete their courses is covered under the headings *High quality, learning, teaching, and support* and *Retention.* Information on the support we provide to students to progress to positive next destinations and to prepare graduates for the challenging labour market is covered in section D under the heading *Confident and highly capable - work-ready – graduates.*

Public health emergency

Throughout the pandemic, our Coronavirus Management Team took the lead in developing appropriate policy and guidance as well as its practical implementation. The status of the virus is now such that our Coronavirus Management Team has been replaced by a Coronavirus Monitoring Team who ensure that Covid Sense messaging is promoted, that risk assessment approaches are adopted, that students and staff continue to report a Covid positive diagnosis so that support can be provided and there is an awareness of the incidence of the virus relative to the University community. We engage with the NHS Tayside Public Health Team, with the City Council and with the other educational institutions in the City, as appropriate.

Support continues to be provided to our students on-campus and remotely, including video counselling and mental health support; welfare advice and support including the provision of food vouchers for self-isolating students; financial hardship payments; study skills support; and general information and advice from our Support Enquiry Zone. In light of the increased demand for mental health support seen during the pandemic, a counsellor and/or a student advisor is on site each working day to be on hand for any student mental health or welfare crisis should a short face-to-face intervention be required.

Remote and flexible working

We implemented a new policy for remote and hybrid working in 2021, providing guidance for staff and managers and taking the opportunity to incorporate some of the benefits of our experience during the Covid-19 pandemic into how we will work in future. This has proved successful, and we are continuing to support flexible working practices including remote and hybrid working, recognising the benefits this offers to staff and for the environment.

People Strategy

During 2022-23, we will conclude development of a People Strategy that sets out what is important to us in relation to the University's staff, articulating the core University values for staff and the priorities for people and organisational development for the University to support achievement of our strategic objectives. This has been developed in consultation with staff, including our Trade Unions and Lead Voices (see below for more detail on Lead Voices).

Equalities and inclusion

For us, equality and diversity mean recognising and valuing that everyone is different and respecting and appreciating those differences to enable people to reach their full potential, and also to bring about improvements for organisational and societal benefit. Equality of opportunity and inclusion are embedded in Abertay's ethos, and this underpins our approach to equality, diversity and inclusion (EDI) as we aim to work together as a community, tapping into the talent and drive of colleagues who are passionate about EDI, and value the sense of shared endeavour that our approach brings.

The IDEA ('Inclusion, diversity, and equality at Abertay) Management Group, leads EDI for the University, and links senior management to groups that are key to driving improvement, including, for example, the Lead Voices Forum, Race Equality Charter (REC) and Athena Swan teams, Trade Unions and staff involved in EDI across the University.

Since 2017-18, we have operated our successful 'Lead Voices at Abertay' initiative. Volunteer staff members act as general 'advocates' or 'lead voices' for particular protected characteristics; connecting management with the wider staff community, and - crucially - acting in a peer-to-peer way and thus helping to articulate various staff views and share these with management, especially with respect to equality impact assessment of University policies and decisions. This is intended to provide a clear, structured approach to EDI engagement with more visible routes for input, named volunteers who will actively promote engagement across all protected characteristics, and increased visibility of EDI activities and best practice guidance across our community.

Our Lead Voices inspired our first ever 'Diversity Fest' in May 2021 and a second is planned for November 2022; a week-long festival of events designed to explore and celebrate equality, inclusion, and diversity at the University.

The University holds Bronze Awards under the Advance HE Athena Swan and Race Equality Charters. We were the first to be awarded the Race Equality Charter Mark in 2017 and are to date the only Scottish institution to achieve this award a second time, being re-awarded in 2021.

We were awarded the Diversity in the Public Sector award at the 2021 Herald Diversity Awards, recognising a commitment to continuous work to improve equality, diversity, and inclusion.

In 2021-22 the University developed a new vision and plan for embedding EDI in the curriculum, building on decolonising and anti-racist approaches.

The University is committed to tackling gender-based violence and since 2019, has established a reporting and support system, provided training to staff facilitated by Rape Crisis Scotland on how to support those reporting rape and sexual abuse, changed the process for non-academic student misconduct to align with sector guidance, rolled out online student and staff awareness and training modules, and implemented a 'tell us' campaign to raise awareness among student and staff on how to report GBV and access support.

Our biennial Mainstreaming Report (April 2021) provides more information on the range of activities taking place across the University and our priorities.

Fair Work practices

Abertay is an accredited Living Wage Employer and holds a Scottish Health Working Lives Gold Award.

The University has recognition agreements with two trade unions, UCU and Unite, and meets regularly with the trade union representatives for consultation and collective bargaining, and to ensure that staff have an effective voice. The University undertakes full staff engagement surveys every two years and has established mechanisms for staff engagement action planning and progress at local and University levels. In addition, the University's Lead Voices for different equality protected characteristics ensure effective voice for our diverse community.

The University provides extensive access to training and professional development opportunities through People Services, AbLE, the Graduate School, the Teaching Enhanced Learning Support team, IT, and others. The University's Development Discussions scheme ensures that all staff have the opportunity to discuss their development annually.

The University offers flexible working and introduced a Hybrid Working Policy in 2021. The large majority of staff are salaried and have indefinite contracts, with zero hours and fixed-term contracts only used where appropriate.

A reduction in the gender pay gap is a KPI for the University and we are engaged in a wide range of action to promote equality and an inclusive workplace, as outlined in the section above on *Equalities and inclusion*.

C: OUTCOMES FOR RESEARCH

Abertay is a compact and focused university with an established reputation for working well across traditional research boundaries, as well as within new and emerging disciplines and sectors. Our strategic plan confirms our ongoing commitment to high quality research and innovation that addresses real-world challenges and delivers real impact for society and the economy, aligned with national and local priorities[3].

Building on our significant successes and responding to external opportunities and challenges, our new Research and Knowledge Exchange (RKE) Strategy 2020-25, R-LINCS2, is set to produce a step-change in our research capacity and excellence, and our generation of collaborative research and interdisciplinary innovation with impact. Strategic RKE activity is focused within and across challenge spaces addressing key local, national, and international priorities that our research base best positions us to respond to. To address these challenge spaces, we draw on our research expertise that is encapsulated in our Pooled Excellence, which represent cross-institutional ways of working, and our academic units. Through investment in and delivery of our new RKE Strategy, Abertay will support areas of existing and emerging research excellence across the University and grow the value of our research to make a major contribution to economic prosperity, social and cultural impact, sustainable development, and inclusive growth. Our ambition is supported by significant investment in academic staff with strong research records, our postgraduate research (PGR) student community and the Graduate School.

An implementation plan to support our RKE Strategy was developed and agreed in 2020-21, with additional investment in academic staff and PhD studentships agreed in our planning process for 2021 onwards.

Our submission to the 2021 Research Excellence Framework (REF2021), the UK-wide mechanism for assessing the quality of research in UK higher education institutions, received extremely positive results

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[3] An overview of research at Abertay is available at https://www.abertay.ac.uk/research-overview/

for Abertay, signifying an overall picture of strength and improvement. We recorded a 23% increase in research that is judged as '*internationally excellent*' or '*world-leading*' since the last REF in 2014 (REF2014) – the biggest climb of any Scottish university, according to our analysis. Reflecting our ambitions to grow the research community and expand into new areas, we took an inclusive approach to REF2021, submitting more staff (80% of our eligible academic staff, compared to 36%) and to more subject areas (8 rather than 7) than for REF2014. We made progress in expanding opportunities for academic staff to engage in research, with a notable increase in the proportion of female staff submitted since REF2014 (39% of the total, up from 28%).

We achieved an average GPA (weighted to take account of the relative size of each submission) of 2.66, an increase of 0.5 from the equivalent figure for REF2014. Our overall score rates our research, impact, and environment as '*quality that is recognised internationally in terms of originality, significance and rigour*'. With regards to the individual elements which make up the overall assessment, excellent progress was made on impact, with an increase of 0.94 on our GPA compared to REF2014. This represents a significant step-change and recognition of the '*reach and significance*' of impacts on the economy, society, culture, public policy or services, health, the environment, or quality of life, that were underpinned by excellent research conducted at Abertay. We showed particularly strong performances and had the highest GPAs for any Scottish Modern University submitted in Art & Design (UoA 32) which covers our work in digital games; Engineering (UoA 12) which includes our work in cybersecurity, computing, forensics, and environmental engineering; Food Science (UoA 6); and Psychology (UoA 4), which respectively had 83%, 73%, 65% and 60% of research rated as '*internationally excellent*' or '*world-leading*'.

The REF2021 Institutional Research Environment was judged as vital and sustainable across all assessed aspects. The panel judged the supporting environment to be comprehensive and well organised, with a full complement of policies in place. Our provisions to support researchers were judged to be consistent with those that might be expected in a larger, more research-intensive institution and were consequently highly commended. Other positive aspects of the submission included good investment in PGRs and the Graduate School and the upward trend in research income, especially from UKRI. The panel judged our Research and Knowledge Exchange strategy to be coherent and convincing, with a focus on areas of strengths broadly aligned to the three schools,

Abertay is fully engaged with (and a signatory of) the principles of the *Concordat to Support Research Integrity* (CSRI), the *Concordat to Support the Career Development of Researchers* (CSCDR), the *Concordat on Open Research Data, the Knowledge Exchange Concordat* (KEC), and the *Concordat for Engaging the Public with Research*, which we use to guide development of our research culture, including supportive RKE policies, practices and structures. We are compliant with our CSRI commitments; all staff, students and visiting researchers must adhere to the highest standards of integrity in the conduct of their research as specified in the *Abertay Research Code of Conduct* (ARCoC) and engage in mandatory research integrity training. The *Dean of Research & Graduate School* and the *University Research Ethics Committee* are responsible for development and delivery of the CSRI Action Plan, which is reported to the University Research and Knowledge Exchange Committee (RKEC) which in turn reports to the University Senate. Abertay signposts contacts should anyone wish to discuss or raise concern about research misconduct, in line with our ARCoC and *Complaints Handling Procedure* policy.

We are progressing development of our open research environment; published outputs and research data are open-access compliant. Our *Open Access* and *Research Data Management Policies*, researcher development training, and individual support has been used to increase staff engagement in open science/research practices, pre-registration, and the use of open-access data repositories. We are committed to the responsible use of metrics in research evaluation and are a signatory of the *San Francisco Declaration on Research Assessment* (DORA). Our policy and practice on the use of research metrics for research assessment is included within our ARCoC and is mainstreamed within our Recruitment and Promotions Policies. Governance and progress with concordat action plans is reported and monitored through RKEC.

Research Excellence Grant

Introduction

Our Research Excellence Grant (REG) allocation helps support research, knowledge exchange and innovation (RKEI) excellence through pan-University leadership, and intra- and inter-theme support and initiatives, to drive discipline strengths and interdisciplinary research, within a resilient and sustainable research environment. Abertay recognises and rewards excellent research and the effective translation of research, including effective business support.

REG funding has allowed Abertay to provide fully funded (42-month RCUK-level stipend, fees, plus travel/consumables/equipment budgets) R-LINCS PhD studentships (32 awarded, 10 externally co-funded during the REF2021 period) which have supported the research of 60 academics, and Abertay Futures Scholarships (launched 2018) have provided 7 fee-waivers to excellent PGR students in priority areas. By integrating discipline-specific research under the remit of themed, competitive internal funding schemes, we have enhanced the PGR student community and research environment to facilitate the RKEI pipeline and ecosystem functioning. For example, 80% of R-LINCS supervisors have subsequently secured external RKE income and collaborative projects with UKRI, EU, business and charities in areas which are key priorities for the UK and Scottish Government.

Some case studies demonstrating how Abertay's use of the REG has helped leverage in funding from other sources whilst supporting excellent RKEI:

(1) The UK Creative Cluster For Computer Games

Overview

The most recent Making Games in the UK report (TIGA 2020) reported that Scotland had 1,803 permanent and full-time equivalent creative staff working on games development in 96 companies, up from 1,537 staff at 84 companies in November 2018. Scotland is home to 7.3 per cent of the UK's total games companies and 10.7 per cent of its developer headcount. Scotland's games development sector supports an additional 3,296 indirect jobs. Based on headcount, Scotland remains the 4th largest games development region in the UK behind the Northwest, London, and the Southeast.

The Creative Industries sector in Dundee forms a larger percentage of the local economy than any other UK city of comparable size. The Dundee creative industries cluster is dominated by an established computer games development sector, recognized in the Bazalgette report for its dynamism. Examples of sector growth include the acquisition of Ninja Kiwi by Modern Times Group (£135M) which has allowed Ninja Kiwi to develop its international partnerships and grow its portfolio further, and the rapid growth of Hyper Luminal Games which more than doubled its staff in 2022. Dundee offers a paradigmatic model of high intensity activity in a medium-sized UK city. The Think Global, Create Local report (Ukie 2020[1]) places Dundee in the top towns/cities with the largest Gross Value Added in the UK (£30.9M), with 33 Game companies and 306 full-time employees. Graduates from local universities anchor a growing number of digital agencies and applications developers resulting in a total of 3,571 jobs in digital tech industries.

REG contribution

Two R-LINCS studentships, Mavridou (2014-17) and Bozdog (2015-19; SGSAH ARCS co-funded studentship), developed understanding of how users interacted with computer games and digital media. This work informed the research and knowledge exchange described below. A third R-LINCS studentship on computer games, which will study how production methods for multi-media content will develop post-Covid, is in train.

Outcomes and impacts

Our research on computer games has been used by end users including games companies, museums, and cultural organisations to increase their income and public engagement. Most significantly this expertise contributed to the creation of the £11.5m AHRC and SFC-funded InGAME R&D centre, which delivers innovative research and R&D support to games companies in the city of Dundee and beyond. InGAME has provided mechanisms to de-risk creative experimentation and commercialisation, developed scale-up capacity, and drives diversification, growth, and innovation throughout the cluster and beyond. InGAME won the TIGA Excellence in Games Research 2021 award. To date, InGAME has funded 150 Collaborative R&D projects, leveraged £7.5m co-investment and supported upskilling of 1,500 industry professionals.

In addition, R-LINCS research led to the award of a £58k AHRC grant for collaborative research with Chinese academics and businesses. This grant will facilitate increased interaction between the UK and Chinese game industries, with the games market in the latter country being a major export target for the Scottish government. Building from the relationship with Perfect World, Abertay University secured £463k funding from AHRC for the Creative China programme project, InGAME International.

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[1] https://ukie.org.uk/regional-economic-report

Working with industry and academic collaborators in both the UK and China, this project aims to

   i)   develop UK-China games industry insight through interview and desk research into policy, commercialisation, and production
   ii)   develop a range of playable demonstrators that test different aspects of UK-China games product opportunities; and
   iii)   produce a programme of academic and professional outcomes, events, and training materials that support UK-China working and future research.

To date InGAME International has delivered several academic and practical outcomes, including

   a)   2 x published academic research papers that explore UK-China games culture and UK-China co-production of games products
   b)   a series of information and scoping events on topics including EDI in games, recruitment, and publishing on platforms such as Steam China
   c)   3 x UK investment forums for China audiences, delivered online and in Germany in partnership with our collaborators Ukie and Scottish Development International
   d)   a series of playable prototypes as case studies involving industry partners Perfect World (subsidiary Steam China), Outplay, and Beano Studios
   e)   a production case study involving UK studio Pocket Sized Hands developing an original game product for the China market; and
   f)   2 x 2-day international academic conferences (April 2022, September 2022) involving academic speakers from China, the UK and internationally.

The project team are currently curating a special issue of academic research on China and developing a Pathway to Partnership for UK-China industry/academia that will include a document outlining lessons learned from the research and interactive training materials. This work is likely to have impact with the games industry in both nations, through training and insight.

(2) Sustainable Alcohol Production for Scotland (SAPS)

Overview

The beverage alcohol industry has enormous economic benefits for Scotland. Scotch whisky alone generates more than £5bn annually in export revenues, representing around 25% of all UK food and drink exports. Scotland also produces around 80% of UK gin. The Scottish brewing industry has undergone a renaissance in recent years with 115 breweries now in operation, a dramatic 230% increase since 2010, with the growth overwhelmingly concentrated in the innovative micro-breweries sector. These successes reflect a growing consumer desire nationally and globally for Scottish beverages rooted in the nation's centuries-old brewing and distilling heritage. Scotland now has a worldwide reputation as one of the most creative and innovative countries for a wide range of quality beverages - not only whisky.

REG contribution

A R-LINCS studentship, Black (2014-21; JHI co-funded studentship), developed understanding of the use of legumes in brewing.

Outcomes and impacts

As well as winning a Herald Business Award[4], this research has been essential to our support for sustainable industrial processes for alcohol production. This has included improved bioprocess productivity leading to commercialisation of new quality products, including beer, spirits, and wine. For example, our research has resulted in a completely new range of faba bean-based beers and the world's first *climate positive* pea-based gin being introduced to the marketplace by Scottish breweries and distilleries. Significant environmental benefits have been made possible by innovative Abertay-led research that exploits legume starches for beverages and legume co-product protein for animal feed production. Compared to the use of conventional cereal crops our industry-facing research helps achieve substantial global mitigation of greenhouse gas emissions and nutrient leakages to the environment. Our research into transition paths to legume-supported food and feed chains have been presented to and supported by The Scottish Parliament and the European Commission.

(3) Changing Teachers' Training and Practice

Overview

The Scottish Government's October 2021 *Education Recovery: Key Actions and Next Steps* plan sets a goal that "every child and young person in Scotland will have the opportunity to fulfil their potential as they progress through the education system and on to positive destinations." The plan refers to improvement in attainment, particularly in literacy and numeracy as a key element in the Government's educational strategy. To address this, teachers need to develop skills that allow them to maximise children's learning.

REG contribution

A R-LINCS studentship, Ahmed (2018-21), developed understanding of 'self-referencing' (linking materials with the self) in education and how it enhances engagement and learning in classroom activities.

Outcomes and impacts

This work contributed to the award of a £484k ESRC grant for research on how improved understanding of self-referencing can be used by teachers to maximise children's learning. This learning has been disseminated to teachers through Continuing Professional Development and training. Although disrupted and delayed by Covid restrictions, CPD training has been delivered to approximately 80 teachers responsible for the education of over 1,500 children, in schools across three different local authorities in Scotland. Responses from attendees showed that 100% of them changed their practice to include self-referencing in class.

(4) Smart Technology to Support COP26 Goals

Overview

Soil composition is an essential element of any ecosystem and can have a profound impact, for example on flooding risk. Soil composition will also influence for example farming yield and carbon sequestration; and therefore impacts on Scotland's ability to meet CoP26 goals.

REG contribution

Two R-LINCS studentships, Casas (2017-18) and Khan (2021-on going), studied soil composition and its measurement. These studentships were funded jointly by R-LINCS and the Norman Fraser Design Trust.

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[4] https://twitter.com/AbertayUni/status/1531754247745900545

Outcomes and impacts

As part of the dissemination of this research, Abertay is working with JHI and industry to develop a free and user-friendly mobile phone app suitable for farmers to assess productivity of their agricultural products after application of basic silicate rock and report projected CO2 sequestration capacity. This technology, when rolled out, will provide a cheap and easy way to assess soil composition and the effectiveness of CO2 sequestration methods.

Plan for 2022-23

We will continue to support development of excellent and impactful RKEI through delivery of our R-LINCS2 (2020-25) strategy which will accelerate impact through an integrated strategy at individual, School, and University levels. Strategically, RKE is focused within and across challenge spaces addressing key local, national, and international priorities that our research base best positions us to respond to (Figure 1). Challenges are addressed by drawing on our Pooled Excellence research expertise, which represent cross-institutional ways of working. Researchers are able to align with one or more areas to encourage collaboration and cross-fertilization of ideas.
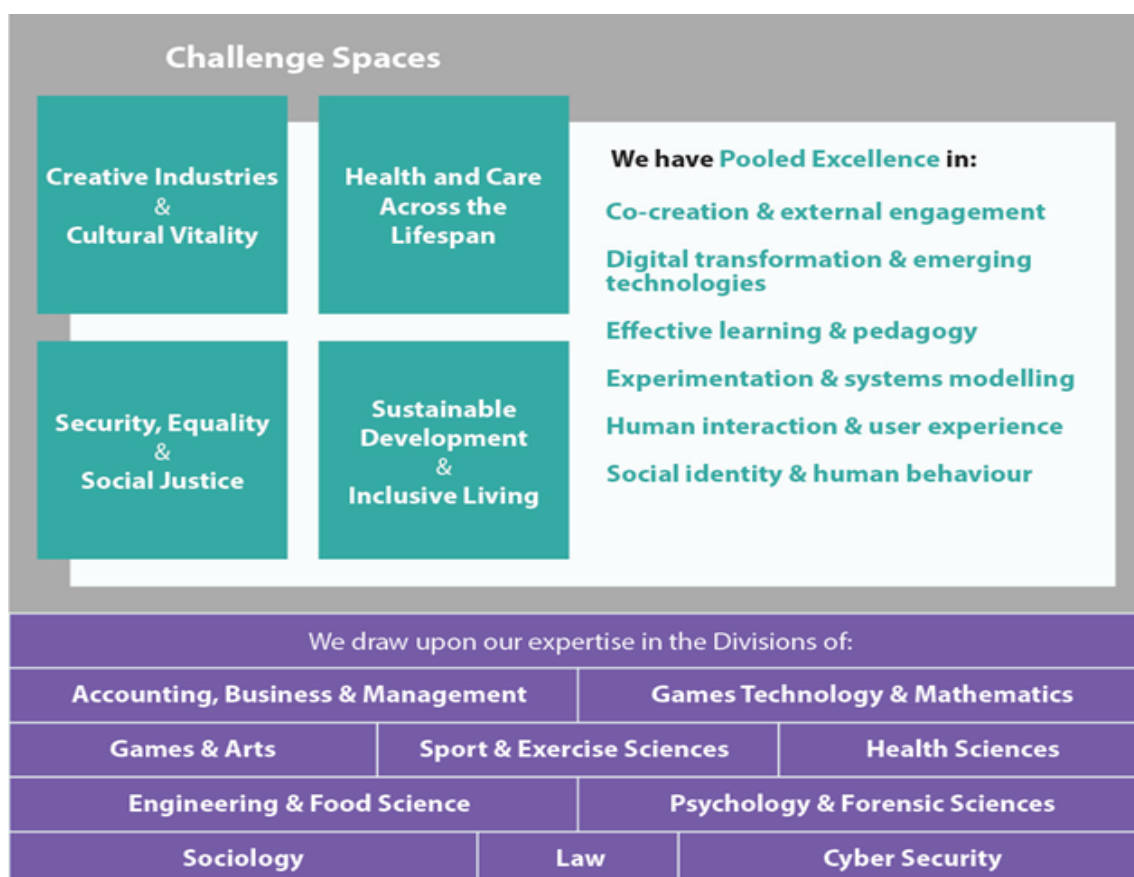

Figure 1. R-LINCS2 (2020-25).

Support for Research Degree (PhD) students

PGR students are central to our research community, working alongside experts to pose new questions and find creative solutions to problems facing society. All PGR students have access to our dedicated support, study, and social spaces within our pan-University Graduate School, as well as a comprehensive and integrated training and development programme. Abertay is committed to developing PGR students to be adaptable and flexible in an increasingly diverse and global research environment. Our PGR students have been supported throughout the Covid pandemic and have been able to seek financial support for research degree extensions and stipends through a fair and transparent application process and allocation of this fund. We will continue to monitor the impact of Covid and the economic climate on our PGR students through our annual survey.

D: OUTCOMES FOR ECONOMIC RECOVERY AND SOCIAL RENEWAL

Supporting the recovery - Reskilling and upskilling

Across AY 2021-22, we delivered microcredentials to 951 registered learners. National Transition Training Fund (NTTF) funding accounted for 27% of these learners, who were aged over 25 and unemployed or at risk of unemployment. The remainder were supported by the main SFC Upskilling Fund.

Our strengths in widening participation appear to be reflected in upskilling too. Around one third of learners were from the 40% most deprived neighbourhoods in Scotland, with around 17% from the 20% most deprived. More than 60% of upskilling participants were female, and around 13% reported a disability and 11% of learners are from BAME groups.

Recruitment for 2022-23 has been strong, and above target. We have had to cap numbers on courses overall, with waiting lists for most microcredentials. Demand for existing courses is holding up and we saw quick 'sell outs' for our suite of sustainability courses. Going forward, our focus on business and management, health and digital seems to fit well within broader provision across Scotland and the sustainability suite also chimes with ongoing policy priorities.

Abertay cyberQuarter

The Abertay cyberQuarter, a new hub for cybersecurity research, innovation, and industry growth jointly funded by the University and the UK and Scottish governments through the Tay Cities Region Deal, was officially opened in June 2022. The cyberQuarter builds on Abertay's reputation as a UK leader in cybersecurity education and provides a new model for supporting the rapidly growing cyber sector in a facility that is the first of its kind in the country. The cybersecurity arm of NHS NSS (National Services Scotland) will be located at Abertay cyberQuarter, bringing an initial 30 jobs to Dundee.

Business Development

A new Business Development Unit (BDU) was established in 2020-21 to facilitate the development of market-facing activities that exploit the University's academic expertise, and to help the University to generate income to support its academic activities. The Fundraising Team was incorporated into the BDU in 2021-22 and the wider team has been reconfigured to focus on income generation and relationship management across public, private, and third sectors.

Confident and highly capable - work-ready - graduates

One of the core themes of our strategic plan is 'to prepare students for the world of work and a life of

learning' and our Learning Enhancement Strategy and our Employability Strategy set out the guiding principles, goals, and indicators which we use to support us in achieving this.

Our Learning Enhancement Strategy commits us to ensure that all programmes have work-related learning opportunities built into the curriculum at appropriate stages such that students not only learn new knowledge but are able to apply their learning in practical situations. All relevant programmes are expected to have professional body accreditation.

In summer 2022, we commenced, through the AbLE (Abertay Learning Enhancement) Academy, a review of our employability provision across the University. A great deal of good practice has been identified and the work will be looking at how we ensure a coherent package of activities is available to students through programme and extra-curricular sources to ensure an improved impact on student graduate outcomes. This is not something that can be fixed overnight, but we are very encouraged that students recognise the need for career focused learning. This has become evident through the fact that 66% of our first-year students selected the employability microcredential in 2021/22 (ABE107, Planning your Future Career).

Student Enterprise

Bell Street Ventures (BSV) is Abertay's student and graduate enterprise programme. More information about BSV is included in the UIF annex.

Collaboration

As outlined above, we work closely with our partner colleges to support articulation pathways for students and during 2022-23 we will continue to explore how we can continue to improve students' experience of the transition from college to Abertay. We work closely with Dundee and Angus College to support the students on the 'Additional Funded Places Scheme'.

Climate emergency

The University has commenced the development of a new environmental sustainability strategy that is centred on the UN Sustainable Development Goals (UNSDG). Working with support from the Environmental Association for Universities and Colleges and in consultation with students and staff, we are developing a holistic approach to sustainability that will continue our work on existing priorities, such as carbon reduction and embedding sustainability within the curriculum but will also broaden the scope of our activity to look at the wider range of goals articulated in the UNSDG. Our new environmental sustainability strategy will be finalised during 2022-23 and is also closely linked to the development of the new Estates and Sustainable Procurement Strategies.

We continue to take advantage of any opportunity to reduce the carbon footprint of our facilities and are working closely with Dundee City Council to coordinate developments when appropriate. This is built into the current programme of building work on campus, along with future development of estates strategy. In response to the global climate emergency, Scotland's net zero by 2045 target, and the Climate Change Duties of Public Bodies: Reporting Requirements (Scotland) Amendment Order 2020, our Public Bodies Climate Change Duties (PBCCD) report submission, November 2022, will set out additional target information as required.

University Outcome Agreement Impact Framework: Supporting Data

	Measure	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23
A	Number of Scottish-domiciled Undergraduate Entrants	889	1,012	976	1,142	1,273	1,069	1,175	1,111	994
B	Total number of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes		481	444	530	509	435	463	486	253
	Number of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes with Advanced		334	315	342	323	289	287	284	155
	Proportion of Scottish-domiciled HN entrants from Scottish colleges to undergraduate programmes with Advanced Standing		69.4%	70.9%	64.5%	63.5%	66.4%	62.0%	58.4%	61.3%
C	COWA measure: Number of Scottish-domiciled full-time first degree entrants from the 20% most deprived	137	168	145	217	190	174	197	208	153
	COWA measure: Proportion of Scottish-domiciled full-time first degree entrants from the 20% most deprived	15.6%	16.7%	15.1%	19.1%	15.1%	16.3%	16.8%	18.7%	15.5%
D	Number of Scottish-domiciled undergraduate entrants	2	4	2	6	10	0	19	19	0
	Proportion of Scottish-domiciled undergraduate	0.2%	0.4%	0.2%	0.5%	0.8%	0.0%	1.6%	1.7%	0.0%
E	Total number of full-time first year SDUE	951	867	1,002	953	1,137	1,256	1,064	1,099	1,159
	Number of full-time first year SDUE retained	859	771	862	838	992	1,070	954	941	923
	Proportion of full-time first year SDUE retained	90.3%	88.9%	86.0%	87.9%	87.2%	85.2%	89.7%	85.6%	79.8%
F	The difference (+/-) from the individual institution benchmark figure for students satisfied with the overall	1	3	1	-4	4.4	6.8	4.7	5.5	
G1	The number of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes survey				371	381	405			
	The proportion of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes survey				348	355	381			
	The number of Scottish-domiciled undergraduate qualifiers responding to the Graduate Outcomes survey				93.8%	93.2%	94.1%			
G2	The number of Scottish-domiciled full-time first degree qualifiers responding to the Graduate Outcomes survey in employment				266	254	284			
	The number of Scottish-domiciled full-time first degree qualifiers responding to the Graduate Outcomes survey employed at 'Professional' level or above				147	156	172			
	The proportion of Scottish-domiciled full-time first degree qualifiers responding to the Graduate Outcomes survey employed at 'Professional' level or above				55.3%	61.4%	60.6%			
H	Number of Scottish-domiciled Undergraduate Qualifiers	967	853	782	771	757	743	880	TBC	

Please note that 2018-19 and 2019-20 figures for measures G1 and G2, 2019-20 figures for measures F and H and all 2020-21 figures were impacted by the COVID-19 pandemic and may not be directly comparable to other years.

ANNEX B: Abertay University: University Innovation Fund Report – 2022/23

Abertay is well placed to contribute to Scotland's priority economic sectors and the national programme (innovation improvement agenda) of structural change, process improvement and or university cultural change which have been framed for the period 2017-21.

Our 2022/23 plan represents continued proactive engagement with the UIF agenda and should be read with our comprehensive plans for previous years (available as appendices to our previous Outcome Agreements) as a logical development of our services in the spirit of continuous improvement, enhancement, and collaboration.

We have built upon our strengths and given the funding framework, have focused our engagement with some, rather than all of the outcomes. Abertay match funds the UIF Platform Grant from the Scottish Funding Council to maintain and develop its core knowledge exchange and innovation support services and activities. For example, UIF supported infrastructure had been essential in helping to secure our Tay City Deal (the *cyberQuarter*). We work collaboratively across the sector, sharing our experiences and learning from other institutions.

We continue to support the Sustainable Development Goals and National Outcomes identified in relation to the Outcome Grant. A key element in our strategy going forward is support for the net zero economy, which algins strongly with several of our areas of research expertise. For example, the initiative *Transform Net-Zero*, funded by Scottish Enterprise, brings together academics from across the University to stimulate and improve SME innovation to help reduce carbon emissions in the Scottish food and drink industry, and to prepare for new market opportunities arising from the climate emergency. The Low Carbon Challenge fund has been matched by Abertay University to give Scottish Food SMEs free support over 2 years.

Abertay has signed up to the eight guiding principles contained in the UK-wide Knowledge Exchange Concordat which provides a framework for effective knowledge exchange and supports institutions to develop clear and ambitious strategic objectives for their Knowledge Exchange (KE) activities. Our Knowledge Exchange Concordat Policy is currently being developed and will be launched in 2022-23.

Abertay completes the HESA HE-Business and Community Interaction survey annually and the SFC KE metric return.

In discussion with Scottish Funding Council, we have agreed to work at a sector level to deliver the National Outcomes by working together to:
- Analyse current activity and identify best practice.
- On the basis of this, where appropriate, devise and execute a pilot programme.
- If successful, develop/initiate a sector-wide programme.

Through the Research and Commercialisation Directors' Group, each institution has agreed to contribute to specific outcomes. Each institution notes and acknowledges the importance of each of the outcomes but for the best use of resource each institution is involved with a different combination of work. As an institution we have signed up to participate in the groups for outcomes 1 and 4 and will engage with the learning and outputs of the other three groups (outcomes 5-7) going forward.

1.   Demand Stimulation

To help increase the demand and quality of engagement from business and the public sector for university services.

We will continue to focus on:
- Working with key stakeholders in the business/public sector/third sector communities through events, speaker opportunities and company engagement in key sectors. This engagement has been informed by our experience of working with front line services (e.g., nursing during lockdown) and as a result we are better able to understand the needs of the end users of our research during the recovery.
- Supporting academic colleagues with new course development through identification of sector trends/skills gaps/synergies with industry bodies.

- Supporting financial and business development bids (e.g., Tay City Deal, UK Government Community Renewal Fund and emerging Shared Prosperity Fund).
- Driving enterprise initiatives to support student employability.

Our drivers are:
- Abertay becoming the first port of call for private, public and third sector partners in key industry areas including sectors identified in the UK Industrial Strategy, Scotland's Economic Strategy, and the Tay Cities Regional Economic Strategy 2019-2039.
- Our students and graduates being known to possess the right mix of skills, confidence, and attributes for their employers, now and in the future.

2. Simplification / Commercialisation

To simplify business access to the knowledge and expertise in Scottish universities.

Our consultancy framework encourages our staff to use their knowledge and expertise to solve real-world problems and to make a positive impact on the world around us. This will support entrepreneurial activity by our staff and build on our strong track record in this area, which is demonstrated by, for example, our success in securing RSE Enterprise Fellowships (four of which have been awarded to Abertay staff).

Our dedicated Business, Facilities and Services webpages aim to support businesses to better understand the innovation opportunities which can be realised in collaboration with Abertay. We have clear information about our services and facilities, single points of contact and examples/case studies in different categories to illustrate what is possible.

The One Stop Shop approach has allowed commercial businesses to engage efficiently and quickly with the University, particularly within restricted timeframes. For example, companies wishing to bid for public sector contracts through the formal procurement process have a simple route to request input and/or expertise, with a single point of contact responsible for routing the request.

3. Simplification / Greater Innovation

To make strategic use of sectoral knowledge to promote greater innovation in the economy.

To complement support provided by the Research, Enterprise, and Innovation Service at Abertay, the Business Development Unit provide a valuable additional layer of expertise which can be applied to filter ad hoc opportunities or ideas and support those which progress to the next stage.

The Abertay cyberQuarter

Abertay cyberQuarter is an academic-industrial partnership designed to establish the Tay Cities region as a centre of best practise in applied research, development, and knowledge exchange in cybersecurity. It will exploit Abertay University's distinctive ethical hacking and offensive cybersecurity knowledge in order to enable the region to innovate and internationalise.

The Abertay cyberQuarter will deliver:
- collaborative research and development with the cybersecurity industry to develop solutions that will improve cybersecurity amongst small and medium sized businesses
- develop ethical hacking and offensive security activities to upskill workers and tackle local and national skills shortages
- support businesses to raise awareness of cybersecurity risks and increase the adoption of new products and services to become more cyber resilient
- deliver jobs growth in cybersecurity firms, from start-ups to large corporations, as new products and services are developed and commercialised; and
- provide opportunities for students to work with cyber businesses and develop skills to improve their employability.

The full business case for the project was approved by the Tay Cities Region Deal Joint Committee in June 2021, with additional revenue funding secured from Scottish Enterprise and the Scottish Government Cyber Resilience to support business development activity for the cyberQuarter.

Abertay cyberQuarter was officially opened within the Annie Lamont Building by Abertay University Principal, Professor Liz Bacon, alongside UK Government Scotland Office Minister, Iain Stewart MP, Scottish Government Minister for Just Transition, Employment and Fair Work, Richard Lochhead MSP and Dundee City Councillor Mark Flynn of the Tay Cities Region Joint Committee, on 15th June 2022.

Abertay University is a UK leader in cybersecurity education and is the only institution in Scotland to have received gold-level recognition as an Academic Centre for Excellence in Cyber Security Education from the National Cyber Security Centre (part of GCHQ).

NHS National Services Scotland were confirmed as the first resident in the cyberQuarter, bringing a cyber security operations centre of excellence to the campus. This places Abertay at the heart of securing the health of Scotland's citizens and attracting 30 jobs to the area. The Scottish Business Resilience Centre has also signed up and provided internships for 30 students, while NCR has held a recruitment fair, hosted mock interviews, and provided a careers presentation. Lastly the cyberQuarter hosted the cyber9/12 competition for students – held for the first time in Scotland. 20 student teams from across Scotland took part in the 2-day event, with one of the three Abertay teams coming second.

We will continue to lobby for more flexible Scottish interventions for innovation led growth that don't assume one size fits all, and we will encourage traction in high growth sectors such as Food and Drink, where R&D spend has historically been low, but sector growth projections are high.

Scientists 'kelp' to recycle marine waste from inactive oil platforms
- *Seaweed and algae brought to shore during decommissioning used for fish and animal feeds*

In a global first, marine growth found on the legs, known as jackets, of decommissioned oil and gas platforms could form the basis of new novel livestock and aquaculture feeds, as researchers look at ways to reuse the material, which can include seaweed, mussels, and corals.

Environmentally responsible decommissioning company, CessCon Decom, has teamed up with researchers at Abertay University to explore how marine growth – a waste by-product of the decommissioning process – can be recycled and reused. In line with forecasts from Offshore Energies UK (OEUK) the feasibility study, which is supported by the Industrial Biotechnology Innovation Centre (IBioIC), could result in up to 40,000 tonnes of marine growth found on platform jackets being recycled over the next decade[1].

Current European regulations prohibit energy companies from leaving behind any part of a disused platform, stating that operators must return sites to a clean seabed[2]. CessCon's decommissioning model already sees over 99% of decommissioned materials recycled, but the company is working towards 100%.

At the end of a platform's lifecycle, various types of marine species are found on the underwater jacket. Algae, seaweed, mussels, anemones, and hard and soft coral can be found at different depths, depending on environmental conditions in the water. One of the aims of the project is to gain

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[1] Source: https://stories.oeuk.org.uk/DecommissioningInsightReport2021/index.html CessCon estimates 10% marine waste per decommissioned installation by weight. 10% of 400,000 tonnes decommissioning pipeline equals 40,000 tonnes marine waste.

[2] OSPAR Decision 98/3 on the Disposal of Disused Offshore Installations

a better understanding of the matter that is typically found, including the composition of fatty acids and proteins which could be turned into feed ingredients for other sectors.

Karen Seath, environment and regulatory affairs director at CessCon, said: *"As the North Sea oil and gas sector matures, the decommissioning sector has an incredibly important role to play in making sure that the parts of those installations which are no longer in use and are required to be brought to shore are disposed of safely and responsibly.*

"Our process is built around circular economy principles and we have set an ambitious target to reach the point where 100% of the decommissioned materials brought onshore are reused, reconditioned, refurbished or recycled. At the moment, marine growth is typically sent to landfill or incinerated, but we recognise the opportunity to do more and use this waste to support the supply chains of other sectors.

"There is also ongoing debate as to whether the clean seabed policy is in fact the best way forward, environmentally and financially. In other global markets, for instance, we have seen decommissioned infrastructure converted to artificial reefs and left in the sea, thereby maintaining the underwater ecosystem that is created over the course of the platform's life. At this point in time, however, unless given dispensation, infrastructure in European waters at the end of its life must come out, and we aim to reuse and recycle the material in the most environmentally conscious way."

The study follows a 2018 collaboration between Abertay University and Scottish fishing net manufacturer W&J Knox Ltd, which saw waste material collected on nets turned into livestock feed.

Dr Boon-Seang Chu, lecturer in food science at Abertay University, said: *"Our previous research has shown that the proteins and fatty acids, such as Omega-3, contained in aquaculture waste can become valuable feed ingredients for agriculture and aquaculture. This study is about understanding the nutritional composition of the marine growth retrieved from decommissioned rigs, whether onshore or offshore, and the feasibility of recovering proteins and fatty acids from the waste materials. The results of this work will help advise follow-on steps of the project.*

"Abertay University has previously worked with the Scottish aquaculture industry, including a fishing net servicing company, W&J Knox Ltd, through an Interface Innovation Voucher and then a Knowledge Transfer Partnership (KTP), on valorisation of aquaculture waste. Our experience and research capability has been important for the success of the project.

"Karen and the rest of the CessCon team were signposted through Transform Net-Zero, Abertay University's leading Food and Drink project, where we were able to provide support for businesses to reach net zero goals. Transform Net-Zero has worked with over 40 companies from food and drink manufactures and this support is provided through the EU European Regional Development Fund (ERDF) and Scottish Government funding through Scottish Enterprise."

Liz Fletcher, director of business engagement at IBioIC, added: *"The collaboration between CessCon and Abertay University is a great example of an initiative that could see the waste from one industry turned into a valuable resource for another. Marine biomass is one of many inputs that can be used by the biotechnology sector to produce a range of products and materials that will ultimately help Scotland to reach its net zero goals."*

Food and drink are a key element of our support for net zero (including our Scottish Enterprise funded initiative *Transform Net-Zero*); for example through development of climate positive supply chains for the brewing industry, where our research resulted in the world's first Climate Positive pea-based gin being introduced to the marketplace by Scottish breweries and distilleries.

4.   Entrepreneurialism

To make a significant and positive change in the way that entrepreneurial opportunities are promoted and delivered to students, HEI staff and business.

One of the most important contributions that universities can make to Scottish businesses is to refresh the pool of talent by developing business-literate and enterprising graduates and postgraduates with a strong educational grounding. We are proud of our industry focus and links to business. We will encourage the development of enterprise skills and entrepreneurial behaviour among our students through a range of activities across 4 priority themes.

Many of our students will be self-employed, freelance, contractors or take a portfolio approach to work and career. As a city, and as part of the Tay Cities region, Dundee faces major challenges in terms of employment, business start-up and economic growth. With some 75% of our students coming from the local area and so many choosing to stay here after graduation, Abertay can play a major role in developing the right skills to support employability and the creation of high value jobs locally, nationally and globally.

Our enterprise activities span:

- Entrepreneurial mindsets, skills, and behaviours.
- Commercial awareness.
- Company creation and business start-up.
- Self-employment options and new ways of working.

Priority 1 - A place for enterprise – we have:

- Established a hub for student enterprise in the heart of the Abertay campus – Bell Street Ventures.
- Provided a mix of dedicated office accommodation for staff, student and graduate entrepreneurs plus hot-desking facilities, meeting space and a collaboration space for team development activities.

Priority 2 - Skills and learning for enterprise – we will:

- Engage with our teaching staff to identify opportunities to introduce and embed enterprise skills and expertise to students through a range of activities.
- Curate a year-round programme of virtual and in person workshops and drop-in sessions for students.
- Host relevant and useful resources for student enterprise.
- Offer enterprise activity as viable student placement and internship opportunities.

Priority 3 - Access to enterprise support

We are improving signposting for students to sources of finance and business support to help them to understand the options available to them.

We will prioritise engagement with high profile national and specialist sector programmes to facilitate the increased visibility of enterprise activity among our students and within the business community. Through our work in this area, we continue to support student applications and success stories for initiatives such as Converge Challenge and we will also continue to increase our involvement with Scottish EDGE.

Priority 4 - "Social first" enterprise

We will support Scottish Government's Social Enterprise Strategy by:

- Providing inspiration on campus **-** to stimulate social entrepreneurship through teaching, knowledge transfer and business incubation.
- Working with the Scottish Government backed support programme 'Social Shifters', delivered by CEIS, to promote and support social enterprise in HEIs.
- Deliver a microcredential that covers social enterprises.
- Offer social enterprise specific enterprise grants through the support of McLaughlin & Harvey.

A key component of our relationship with the Santander Universities programme is focused on student enterprise. Abertay start-up Konglomerate Games won the Santander X Entrepreneurship Awards in 2020, against competition from across the UK.

We have increased our engagement with student and graduate led start-ups through the introduction of microfinance and bursary funding. Using philanthropic funding from Santander Universities, McLaughlin and Harvey, and the Northwood Charitable Trust, we support individuals with awards ranging from £500 to £3000.

5. International

To pool knowledge, networks & shared good practice to promote and engage Scotland internationally.

InGAME International

Building from our relationship with Perfect World, Abertay University secured £463k funding from AHRC for the Creative China programme project, InGAME International. Working with industry and academic collaborators in both the UK and China, this project aims to
  i)   develop UK-China games industry insight through interview and desk research into policy, commercialisation, and production
  ii)   develop a range of playable demonstrators that test different aspects of UK-China games product opportunities; and
  iii)   produce a programme of academic and professional outcomes, events, and training materials that support UK-China working and future research.

To date InGAME International has delivered a number of academic and practical outcomes, including:
  a)   2 x published academic research papers that explore UK-China games culture and UK-China co-production of games products
  b)   a series of information and scoping events on topics including EDI in games, recruitment, and publishing on platforms such as Steam China
  c)   3 x UK investment forums for China audiences, delivered online and in Germany in partnership with our collaborators Ukie and Scottish Development International
  d)   a series of playable prototypes as case studies involving industry partners Perfect World (subsidiary Steam China), Outplay, and Beano Studios
  e)   a production case study involving UK studio Pocket Sized Hands developing an original game product for the China market; and
  f)   2 x 2-day international academic conferences (April 2022, September 2022) involving academic speakers from China, the UK and internationally.

The project team are currently curating a special issue of academic research on China and developing a Pathway to Partnership for UK-China industry/academia that will include a document outlining lessons learned from the research and interactive training materials. This work is likely to have impact with the games industry in both nations, through training and insight.

6. <u>Inclusive Growth and Social Impact</u>

Contribute to society through public engagement with a research base with impact beyond pure economic terms.

Our City Deal proposals specifically address the inclusive growth agenda. For example, the cyberQuarter project has a specific focus on upskilling people in the local area, 'unblocking' the pipeline for the low and middle level jobs within the digital economy by offering opportunities to gain a 'cyber premium' in terms of skills, salary, and employability prospects, and facilitating new entrants into the industry from disadvantaged and under-represented groups.

7. <u>Equality and Diversity</u>

Positive promotion in staff and all who are affected by the use of the UIF.

Our strategic plan confirms our intention to mainstream equality and diversity across all our activities. Our Equality Action Plan, which contains detailed actions related to student applications, admissions, and student achievement, is routinely monitored and updated. We hold an Athena SWAN Institutional Bronze award and were the first Scottish university to achieve the Race Equality Charter Mark.

![Scottish Funding Council / Comhairle Maoineachaidh na h-Alba logo]

Outcome Agreement between Abertay University and the Scottish Funding Council for AY 2022-23

On behalf of Abertay University:

Signed: *EBacon*

Print name: Liz BACON

Position: Principal and Vice-Chancellor

Date: 12/5/23

Signed: *[signature]*

Print name: MURRAY SHAW

Position: Chair

Date: 15/5/23

On behalf of the Scottish Funding Council:

Signed: *K Watt*

Print name: Karen Watt

Position: Chief Executive

Date: 26 July 2023