

University of Aberdeen
University Innovation Fund (UIF) AY
2018-2019 (amended Sept
2018¹)

¹ Supplementary text provided in response to the July 2018 announcement of additional funding for research and innovation in AY2018-19 is italicised.

Introduction

The University of Aberdeen's Outcome Agreement with the Scottish Funding Council (SFC) has already set out the University's commitment to deliver its strategic objectives in line with the Scottish Government priorities detailed in the Scottish Economic Strategy and annual Programme for Governments in return for public investment. The process is intended to complement and support the University's strategic ambitions.

We confirm our ability to utilise and match the Platform Grant (PG) to support our programmes of:

- Commercialisation and business incubation;
- Knowledge exchange;
- Regional economic development and industrial engagement;
- Student Enterprise;
- Entrepreneurship education and training;
- Public engagement;
- Culture and societal engagement.

The details of the activities we will deliver through our support in these areas are included within our draft Outcome Agreement for 2018-19.

UIF Outcome Grant

The University of Aberdeen will continue to contribute to the development of the UIF Outcomes Grant and its priorities in collaboration with the HEI sector in Scotland and other stakeholders. We have participated in the national workshops over the course of the last year to engage, contribute and lead on the development of the collaborative programmes and evaluation of the UIF.

Commitment to Collaboration Across the Sector via Universities Scotland RCDG

In discussion with SFC, Universities Scotland has agreed that the best mechanism to work at a sector level to deliver the national outcomes is to undertake to work together to:

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

Through Universities Scotland Research and Commercialisation Directors' Group (RCDG) each institution has agreed to contribute to various outcomes. Each institution notes and acknowledges the importance of each of the outcomes but for the best use of resource each institution will be involved with a different combination of work. It should be noted that the University welcomes the SFC's support for a UIF manager to work with those institutions leading the Outcome Actions, to help facilitate the collaborative activities and workshops. Aberdeen has committed to contributing to all outcomes, and has specific responsibility for leading Outcome 2. Key activities associated with Priority Actions 1 to 12 (PA1 – PA12) are flagged in the text.

A summary of progress made or key developments against each outcome is given below.

Outcome 1 - Demand Stimulation: "Working with enterprise agencies, SG, Business networks, Interface and others... help increase the demand and quality of engagement from businesses and the public sector for university services".

The University is a founding partner of the Aberdeen Region City Deal (ARCD). In collaboration with all the partners of the ARCD (Aberdeen City and Aberdeenshire Councils, the Robert Gordon University, Scottish Enterprise and Opportunity North East (ONE) (providing sector industry leadership)), the implementation strategy has been developed in response to the industry demand. The ARCD is providing opportunities for industrial engagement through projects that address industry needs and seeks to contribute to the economic development of the region through new job and company creation, particularly within the Innovation Theme of ARCD. The four strands of Innovation include Oil and Gas, Life Sciences, Food, Drink and Agriculture, and Tourism, with a further strand for Digital being created. Each strand includes activities around promoting and supporting entrepreneurship through accelerator programmes, which the University of Aberdeen is contributing to at various levels through the institution. City deal structures provides models of good practice for regional development, and where innovation is key to the strategy close cooperation amongst the academic, public and industry partners is essential. The Oil and Gas Technology Centre (OGTC) is now working across the sector to identify projects to advance its priorities. Aberdeen is actively involved in submitting proposals for industry-led projects, with one project funded and others in development. The OGTC board has approved the Strategic

Business Case of a Centre of Excellence in Decommissioning and Late Life, which is led by the University of Aberdeen. We will work with OGTC to ensure a full range of stakeholder engagement from both industry and other HEIs to contribute to demand stimulation of the energy sector.

In 2017/18, Aberdeen launched its MRC Proximity to Discovery pilot to promote ideas and people exchange between industry and researchers. The pilot was initially limited to Aberdeen's MRC Centre for Medical Mycology but it has now been opened to all eligible researchers. Aberdeen will continue to work with ARCD during the development of their business support programme for the regional life science community, leading on activities such as the bespoke boot-camps and accelerators for life scientists, as run in 2017/18.

As a member of the Santander Universities Network, we are able to offer opportunities for businesses through our SME Internship Programme. On the back of its success over the last 3 years, we have built up a network of SMEs accessing interns who previously may not have collaborated with universities. In collaboration with Santander and the wider network we are able to access, we use the examples of the Internships to showcase the opportunities to access academic expertise and our highly skilled graduates.

We will continue our partnership approach with the Innovation Centres, Interface, and Knowledge Transfer Partnerships to enhance the demand from industry. Aberdeen's Institute for Energy already provides a "one stop shop" for the energy industry, including access to experts from a range of disciplines and training solutions (PA4). Working closely with OGTC and RGU, it will facilitate the interface between the industry and researchers to provide an enhanced service to industry for research and consultancy expertise.

We will also contribute to the University of Glasgow led workshops for 18/19 and contribute to the agreed programmes being developed.

A key priority in stimulating demand for innovation services and simplifying access to University capabilities is taking a more collaborative approach to delivering a programme of Innovation Challenge events aimed at understanding and addressing key industrial challenges which can be developed into expressions of interest and used to influence future Waves of the ISCF. A key aspect of these demand led workshops will be a focus on SME participation, supply chain development and leveraging the UK and international industry networks of all partners. The University of Aberdeen intends to be an active participant and in particular has key strengths and potential to lead consortia development in the areas such as agri-tech, health and energy.

*Increased support under UIF will be used here through a number of mechanisms to increase productive industry engagement. We will create an **ISCF Industry Collaboration Officer** post with a view to building relationships between industry and academics with expertise in the ISCF Grand Challenge areas. This will be a short-term post, supported by a **consultant** with industry experience in one of the Grand Challenge areas. We will also create a further post in **Industry Engagement focussed on building industry links for graduate apprenticeship** programmes, in key priority areas for the university and supporting regional economic development. Together these postholders and the consultant will work to create new links between the University and industry with a view to increasing our numbers of Innovate UK applications (ISCF and other funding, particularly KTPs) and providing a graduate apprenticeship programme.*

Aberdeen is leading on the Innovation cluster of collaborative activities which includes "ISCF capacity building across Scotland" and will host a series of Innovation events aimed at SMEs (developed from Outcome 2). As part of that leadership, we will encourage our ISCF Industry Collaboration Officer to engage with counterparts in similar roles at other Scottish universities in order that opportunities for ISCF bids of scale are realised. To complement this activity and subject to sufficient funding support from other participating universities, we will co-fund a new Industry Challenge Innovation Manager post to work at the national level across Scottish HEIs to form part of the new UIF collaboration framework led by RCDG. This will provide sector-wide capacity to help build a community of practice focused on ISCF, deliver the Innovation Challenge events, broker new relationships in response to ISCF opportunities and industry led-challenges and act as a central point of contact for Innovate UK/UKRI and provide support to consortia in emerging challenge areas with potential to influence subsequent waves of ISCF funding.

Outcome 2 - Simplification / Commercialisation: “In partnership with enterprise agencies and Interface...demonstrably simplified business access to the knowledge and expertise in Scottish universities”.

Aberdeen is leading in this area of the UIF Outcome Agreement, and the first of the collaborative workshops was held in 17/18. A number of key themes arose to guide the priorities for 18/19, including use of single points of contacts for industry engagement, implementation of post-project referral procedures in collaboration with Interface (PA8), stimulating more strategic relationships with industry, developing more case studies to encourage businesses to innovate with universities, and developing programmes to increase the skills for researchers in working with industry. Further collaborative workshops will take place to include the other agencies ensuring programmes are delivered at a regional level and which complement existing activities.

By developing more strategic relationships with industry with shared goals, shifting from a transactional nature starts to demonstrate to businesses and HEIs the long term benefits of partnership (PA6). As part of our commitment to collaboration, the University of Aberdeen, Robert Gordon University and North East Scotland College have launched a joint platform dedicated to promoting to the industry our combined talent, track record and technology for Oil and Gas research training and study. We would envisage the partnership exploring further ways to enhance post project referral protocol and to provide a model for regional collaboration. Expanding this activity, we will provide a programme of training aimed at researchers focused on the collaborative competencies to enhance engagement with businesses.

Aberdeen has been a strong supporter of simplifying processes and promoting efficient commercialisation, as demonstrated by our commitment to using standard templates wherever possible and our track record in commercialisation. Aberdeen is a member of Universities Scotland RCDG Contracts Sub-Group and a member of the working group to agree the protocols of the post project referral. Both initiatives are aimed at ensuring the simplification and harmonising of the process for businesses to access knowledge within all universities. The Contracts Sub-Group has already provided a range of commonly used contracts (PA7), which are promoted on Interface's website. We will promote the good practice and knowledge within our partnership with the ARCD and other multi party collaborations.

As a member of RCDG's sub-group to support and promote good practice for spin-outs, we have promoted the recently agreed common principles and embedded within our institutional policies.

*As part of ensuring that our research expertise is visible to industry and public sector organisations, we will use a portion of the increased UIF support to conduct an **audit of technology and expertise** in areas that align to the ACRD sectors of oil & gas, life sciences and food and drink with digital as an underlying theme throughout these sectors and as a theme by itself. The key aims will be to develop information about our expertise that is tailored to the needs of industry and to explore areas with untapped potential. We anticipate that we will use the technology and expertise audit information as a basis for applications for regional-based funding such as UKRI's Strength in Places programme, and it will also be of use under Outcomes 1 and 3.*

In addition 'Enhancing researcher skills for business engagement' will be another key focus in AY 2018-19: working collaboratively through the UIF framework we will build on our existing strengths in providing training for academic colleagues (including early career researchers (post-graduate students (PGRs) and post-doctoral researchers) on key aspects of engaging with industry with the aim of building more productive engagement and collaborative partnerships. By participate in this collaborative activity we will share good practice and explore new mechanisms for opening up training opportunities to partner Universities on a reciprocal basis.

*To complement training, a further element under this Outcome will be to provide early career researchers coming to the end of their projects the opportunity to work in industry for a short period of time (1 – 2 months). These **Industry Fellowships** provide a further opportunity of building links between University research groups and industry, potentially leading to further engagement, whilst building skills and capacity within the ECR community.*

Outcome 3 - Simplification/ Greater Innovation: “In partnership with Enterprise Agencies and Interface... at a national level made use of their sectoral knowledge to promote greater innovation in the economy (including beyond non-STEM)”.

Aberdeen contributed to the collaborative workshop held in 17/18 led by the University of St Andrews. A number of key themes arose including increasing the number of innovation events held at regional levels to build networks, increase common goals and understanding within sectors, and enable challenge based workshops.

The University is currently refreshing its Industrial Engagement Strategy ensuring that it meets the needs of all of its researchers and of industry, responding to the UK Government's Industrial Strategy and the collaborative programme within the UIF. We expect the revised strategy to be launched in AY18/19.

Aberdeen has evidenced our commitment to engaging and collaborating with other universities and the enterprise agencies through our partnership approach in ARCD, but also our ongoing commitment to the long standing partnership of the North East of Scotland Knowledge Transfer Partnership (KTP) centre and the renewed commitment in the Offshore Renewal Institute (ORI). The KTP centre which is hosted between Aberdeen and RGU now includes the James Hutton Institute, Abertay University, University of Highlands and Islands and SRUC. As the numbers have seen a decline in some industries (e.g. Oil and Gas), there has been an increase in business, management and food and drink associated with the centre.

An MRC Proximity to Discovery award supports people exchange in 2017/18 to support our engagement with the life science industrial sector and cluster development as part of ARCD (PA3). We will continue our staff development activities, providing in-house training to staff and extending to external training and conferences as required (PA4).

We will use the increased UIF support to trial a programme of 'Industry Professorships', offered to key leaders in industry to enhance engagement and experiences with our students and staff. This will be trialled in our School of engineering initially which has good engagement with local industry and therefore will be able to move quickly to establish these positions. Industry Professors will be asked to contribute towards the University through teaching students or through engagement with staff. We will look to roll this model out to other Schools if the trial proves successful.

In addition to Industry Professorships, we will also use the increase in UIF to support the Deans with remits including Knowledge Exchange Employability to increase engagement following on from the technology and expertise audit carried out as part of our Outcome 2 targets.

Outcome 4 - Entrepreneurialism: "(The) sector will have made significant positive change in the way entrepreneurial opportunities are promoted and delivered to students, HEI staff and businesses".

Aberdeen has provided leadership for the North Hub of Enterprise Campus (ECN), working with Edinburgh and Strathclyde to deliver the EC project, and engaging well with the University of Dundee, UHI, RGU, Abertay University to tailor the EC support available to meet the needs of their postgraduate student entrepreneurs. This has resulted in enhanced student entrepreneurial activity over the last 3 years with ECN supporting the incorporation of 12 student business out of a total of 56 across Scotland, in line with the proportion of postgraduate students in ECN. We are keen to provide national and regional leadership to continue entrepreneurial support to students (PA1) through an extension of the Enterprise Campus project, working with our other HEI partners for its delivery.

Aberdeen is an active and successful participant in the Converge Challenge competition, with student entrepreneurs winning the social enterprise awards in the Converge Challenge competition in 2015 and 2016. Aberdeen has agreed to provide further support for Converge Challenge from 2018 – 2021. We will run internal business plan competitions to raise awareness, encourage entrepreneurship and provide support for promising early-stage start-ups (PA2). Aberdeen will continue to support its ABVenture Zone incubator for entrepreneurs pre-incorporation and for micro-SMEs. We will continue to host carefully selected non-student start-ups to ensure a creative mix of entrepreneurs in the incubator. We will also provide a hosting opportunity for student entrepreneurs applying for RSE Enterprise Fellowships. We have already supported two such opportunities within ABVenture Zone.

We will continue with our Festival of Ideas project (the Lightbulb competition) with the aim of expanding it year on year, supported by an Intern funded by the University to encourage enterprising students to develop ideas to influence the social, economic and cultural life in Aberdeen. Focussed on developing early stage ideas and supported by student entrepreneurs, Lightbulb promotes entrepreneurial thinking. The University will work with Elevator and other accelerator programmes to channel entrepreneurial students into its accelerator programmes.

We will work with the University of Strathclyde who leads this Outcome to ensure that all the programmes will create a cohesive single system for support to entrepreneurs. Aberdeen will contribute to the ongoing development of Scottish Enterprise's High Growth Spin out Programme, promoting to our spin-outs where appropriate.

*With increased support under UIF in AY2018/19, we will provide additional support for spin out and start up businesses from students and staff. Part of the funding will provide **pump-priming funding** for businesses pre- or post-incorporation, with the funding earmarked for increasing the investor-readiness of these new businesses, for example through IP protection, start up capital to match grants, customer engagement etc. Further support for start ups will be provided by engaging a consultant to provide business start up advice to student start ups. The university is a significant contributors to the start up activity within the region, and the ACRD anticipates a strong growth pipeline of opportunities to feed into the company growth and accelerator programmes.*

In order to increase our pipeline of start up and spin out opportunities, we will use part of the increase in UIF to provide 'ideation' workshops for staff and students (levering the support provided through our collaboration with Santander Universities). This effort will be focussed on staff and students working in life sciences initially with a view to further development of these ideas through support (including an accelerator programme) offered by Opportunity North East.

In addition, we will look to resource collaborative activity arising from the Entrepreneurship Cluster of collaborative activities planned under UIF.

Outcome 5 - International: "in partnership with SDI, Connected Scotland others...pooled knowledge and networks and shared good practice to promote and engaged Scotland internationally".

Linked to our internationalisation strategy, new networks are being created to enhance the collaborative opportunities for our researchers. A few examples include our status as a founding member of the new European Network, AURORA, our renewed commitment to the Confucius Centre, a global Alliance with Curtin University and the multiple partnerships supported by the Newton Fund and Global Challenge Research Fund. We will use the newly formed AURORA Network to provide a platform for enhanced collaboration and to seek new opportunities for research and knowledge exchange across Europe, and building on the success of the European Commission funded project "Explorathon". We have shared our experiences and good practice in Responsible Research and Innovation arising from the Network across the sector and with business (PA11); underway with European partners, funded by the NUCLEUS award.

We are progressing with the projects funded through Global Challenges Research Fund (GCRF): Impact Acceleration Account (GCRF-IAA) and have developed mechanisms through sharing of best practice with other institutions funded under GCRF-IAA to assist knowledge exchange through embryonic enterprises and commercial opportunities resulting from previous projects in Africa, Asia and specific DAC listed countries. We will promote the UK Science and Innovation Network to our researchers and business contacts and enhance our use of Research management information to promote the sharing of networks.

We are undertaking a range of collaborative approaches in international projects, (i) our collaboration with Edinburgh, Strathclyde and Heriot- Watt on the Marketing Initiative run by SDI's US East Coast office (ii) the alliance with Curtin University which will enhance our approach to collaborating with the oil and gas industry (iii) the opportunities arising from the Transnational Education initiative based in Qatar and (iv) *enhanced collaboration relating to the opportunities for capacity building training and research in oil and gas related areas in Mexico.*

We will use the resources described under other Outcomes in this update to deliver our objectives under this outcome; working in collaboration with other Universities in the Internationalisation Cluster of collaborative activities.

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".

Public engagement remains a priority – the University of Aberdeen's Public Engagement with Research Unit (PERU) maintains a calendar of popular events which include Explorathon, British Science Week and the successful lecture series Café Scientifique. The team's successful model of collaboration and promoting public engagement was recognised in 2016 through the national ARMA awards. The

Aberdeen-led *EXPLORATHON (European Researchers' Night, Scotland)* project, in collaboration with the universities of Glasgow, Strathclyde, St Andrews and the Edinburgh Beltane Public Engagement Network, picked up the Outstanding Collaboration award and the partners are seeking further funding to continue this project. In addition, PERU won the Public Engagement and Advocacy award for its strategy to support academic-led public engagement. Many of the tools and approaches are now being used across other collaborative training networks funded by the EC. To build on this success, we delivered a new public research portal in 2017 and an enhanced approach to digital communication of our public engagement activities. The portal provides continued access to the institutional repository of publications and, in addition, will deliver researcher fingerprinting technology which will enable identification of expertise. It also allows researchers, research users and members of the public to explore expertise and publications across all research areas within the University of Aberdeen.

The renewal of the Wellcome Trusts' Institutional Strategic Support Fund and the newly launched MRC Centre for Medical Mycology provides enhanced opportunities for collaborative public engagement. We will be delivering new training programmes for researchers in 2017 as part of these initiatives and our new *Grants Academy* to support impact and working with industry (PA10). We aim to work with Elevator to deliver a pilot accelerator for student entrepreneurs over a 4 week period, with bursaries for participants to support inclusive growth and social enterprises as part of our ABVenture Zone facility.

The pump priming funding described under Outcome 4 will also be available to social enterprises, providing key early stage funding for these businesses. The technology audit described under Outcome 2 above will further our aim of making our research available to business and other organisations through our research portal.

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 the use of the UIF".

We will continue to ensure positive promotion of equality and diversity in staff and all who are affected by the use of UIF. We contributed to the Heriot-Watt led workshop on supporting this outcome and have agreed to contribute to a wider learning group focussed on best practice, sharing of data and information to inform projects. Our pilot programme mentioned above has the added aim of ensuring widening access to entrepreneurial opportunities.

We will use best practice with regard to equality and diversity in undertaking the activities described above, ensuring that the opportunities for staff, students and external employees are promoted as widely as possible and are open to all.

Leverage from increased UIF support in AY 18/19

Given the requirement to commit the increase in funding towards collaborations with industry, the public and third sectors, and our proposed programme focuses on increasing the volume and productivity of engagement with the intention of increasing both the numbers of engagement and income. Our activities are also planned to deliver outcomes that will result in change beyond the period of funding.

In order that we have a baseline to determine the effect of this investment and other activities carried out under the UIF and other funding sources, the University will commission a report on the economic impact of its activities.

We expect that the increase in UIF support will allow the University to leverage in funding of up to five-times the UIF increase over the next three years. Our key targets for increasing income are increasing the numbers of Innovate UK applications across ISCF, KTP and other calls. Success in delivering a graduate apprenticeship programme will result in further income. Opportunities available through the ACRD will also be enhanced through our programme of opportunities.

Clearly, success in a major funding stream (such as UKRI's Strength in Places) could result in leverage of up to about 20-fold and our ambition is to aim for collaborations and funding that could result in leverage at this level. The University will continue to seek opportunities for major collaborations with industry, such as the recently announced National Centre for Decommissioning.