

Shaping our

FUTURE

# RESEARCH AND INNOVATION STRATEGY 2020-2025

## INTRODUCTION & SCOPE

We currently live in a world that is driven by massive ongoing change and uncertainty. The current pandemic and forthcoming Brexit are creating a long-term external environment with a unique blend of challenges and opportunities for universities. The ongoing review of the coherence and sustainability of academic provision in Scotland is already developing a framework of potentially significant changes in the way universities are funded and collaborate. The accelerating deployment of emerging powerful technologies, underpinned by Artificial Intelligence and Big Data, is bringing about substantial changes in the way that we work, communicate, collaborate and live. All of the above further result in significant changes to professional careers and add further impetus to bridging the gap between academia and business through collaborative training and upskilling of the workforce.

From a research and innovation (R&I) viewpoint, such an environment leads to a number of emerging learning points that are useful guiding principles for strategy formation: 1) the growing importance of R&I for the reputational and financial sustainability and growth of the University; 2) the rising expectation to work much more collaboratively and across academic disciplines with both other educational institutions as well as the industry; 3) the need to have a clearer alignment with key long-standing Government priorities and the Value for Money (VfM) that we provide in terms of research and knowledge exchange outcomes versus the investment that we receive; and 4) the consideration and increase of our broader impact and contribution as a civic institution in the region.

## STRATEGIC AIM & OUTCOMES

Research and Innovation plays a crucial role in the holistic academic development of the University and, as such, it strongly underpins our growth, reputation, and ability to deliver positive socio-economic impact. R&I success requires the rapid development of a critical mass of high calibre academic expertise in key governmental, societal, industry, regional and international priority areas and challenges. The sustainability of our R&I processes and outcomes relies on an unbreakable

bond with our approach to learning and teaching, the curriculum that we offer, effective inter-disciplinary academic communities and our international development strategy.

Therefore, the broad and long-standing aim of our R&I strategy is to foster a sustainable and interdisciplinary research environment that inspires and brings together our academic staff, researchers, students and external stakeholders, to solve real world problems as well as influence professional practice and policy nationally and internationally, driving key societal, economic and environmental impacts.

Our ethos to R&I will be driven by our shared values of respect, openness and inclusivity. Our approach will be driven by a culture of integrity, a focus on the career development of our research community and an eagerness to engage beyond the academy through our Knowledge Exchange and Public Engagement activities. We will be committed to the principles held within sector concordats, such as the Researcher Development Concordat and Research Integrity Concordat and will adopt the KE Concordat during this strategy. Our research practices will be open, transparent and FAIR (Findable, accessible, interoperable and reusable) and will promote the work of the University and the individuals conducting research activities.

Achieving this aim and ethos will place the University as one of the top modern academic institutions nationally and internationally.

## STRATEGIC CONTEXT & ALIGNMENT

This aim is well aligned to the three pillars of the University Strategy, ‘**Shaping our Future: Driving Distinctiveness**’;

- a. **advancing knowledge** through the production of high-quality research and knowledge exchange outcomes that address key challenges in business, industry and the broader society;
- b. **growing networks** through the development of national and international strategic partnerships with businesses and organisations that sustainably deliver socio-economic impact and bring additional value and investment into the region; and
- c. **building careers** through the growth and success of our research students, the upskilling of the regional workforce through collaborative training and the professional development of our staff and students through systematic and inclusive opportunities for engagement with research, knowledge exchange and professional practice.

## ENABLING OBJECTIVES

To reach the above stated aim over the next 5-7 years, the following objectives will need to be achieved:

1. Achievement of minimum 3\* overall quality profile for REF 2027 with minimum 400 FTE academic staff submitted;
2. Sustainable growth of our research and knowledge exchange income to 15% of our total annual University income;
3. Growth of our research student community by at least 50% compared to 2020;
4. Development of a significant number of strategic and impactful research and knowledge exchange external partnerships, spinouts and student start-ups;
5. Achievement of an overall research quality profile, including citations, to position ENU in the top quartile of modern Universities in the UK and top 500 institutions in global rankings.

These objectives are stretching, specific and easily measurable. They represent both a very substantial improvement compared to our current position as well as a realistic goal for an institution of our size and ambition.

## APPROACH

1. Rapidly increase our capability and capacity to deliver high quality and volume of research outcomes and income, through a comprehensive framework of academic staff support (articulated in pillar 2 below) and targeted investment in areas where we already have critical mass of research that align well to external funding opportunities. The investment will be focused on new Professorial appointments supported by new Early Career posts and a number of funded PGR studentships. This approach will strengthen our research environment for REF 2027 and provide clear evidence of the University's commitment to support and substantially grow research & innovation. (***Shaping our Future***, Transformational Action 6)
2. Grow our research student and early career academic communities and provide consistent and effective support mechanisms for all our academic staff, to ensure they realise their full academic potential. This pillar recognises that at the heart of R&I is people and their talents. Its implementation will require significant actions around multiple dimensions. Firstly, it will require School specific action plans for growing our PGR student numbers and ensuring that our admissions are

effective and timely. We will also need to have a direct link between School plans and the resources/infrastructure our PGR community needs to thrive and succeed. Secondly, we will review the consistency and effectiveness of the support we put in place to help academic staff and in particular early career academics in terms of mentorship, accessibility to school REG funding and workload allocation. The University Professoriate has a clear role to play in mentoring and supporting early career academics across all four academic pathways. Thirdly, we will focus on building clear personal development plans for our academic staff that feed into the Schools and RIE plans. Finally, we will review our approach to allocating research funds to academics to ensure that we are fully inclusive, robust and transparent in all our processes. (Linked to **Shaping our Future**, Transformational Action 2)

3. Create an academic culture that has external engagement and knowledge exchange at its heart, supported through the new University Innovation Hub, that will deliver strategic external partnerships and sustainable increases in our R&I income stream. The new Hub, which we are planning to soft launch in January 2021, will be our key mechanism to: a) build an engaging Web presence that showcases our expertise and impact through research and innovation; b) develop a strategic approach to proactively and systematically engage with key external sectors to create opportunities for our academic expertise and better understand the challenges that businesses and industry face; c) develop and offer a portfolio of short courses that link to our curriculum and are driven by our research expertise; d) create a systematic and consistent approach in developing, managing and learning from key external relationships; e) provide our students with clear opportunities to engage in externally engaged research and innovation activities to strengthen their skillsets and graduate opportunities and finally; f) strengthen our public engagement approach to deliver on our civic mission as a public University. The Hub will be supported through a central innovation fund which will be ring fenced from our REG and UIF funding to enable short term financial support of ideas for IP and commercialisation. (**Shaping our Future**, Transformational Action 3)
4. Develop a strategic research focus on key challenge-led academic themes that will foster an inter-disciplinary approach to delivering internationally excellent research and impact in tandem with a research-informed gold curriculum. Having reviewed our comprehensive REF data and impact case studies and through open consultation, it is clear that the University as a whole has a significant and long-term focus on **wellbeing & sustainability**. These represent key societal, business and Government goals that will remain key priorities going forward further supported by the consequences of the pandemic. They provide a clear indication of our goals as an academic and civic institution and clearly span across the academic

disciplines that we offer. Furthermore, they represent a set of values that is fully aligned to our ethos as a university and are very much understood and adopted by both our academic and professional services communities. Embedding a strong focus on wellbeing and sustainability in our University Strategy is also going to be assuring to the Scottish Government in terms of our ability to listen and adapt to our external environment and emerging priorities. From this analysis we have also identified four ENU angles through which we contribute to wellbeing and sustainability and these are the themes of **Health, Environment, AI & Technologies and Culture & Communities**. These four themes are characterised by research critical mass, strong alignment with external funding opportunities, substantial presence in our curriculum and a high index of inter-disciplinarity. The Environment theme, in particular, will be strongly connected to and further enabled through the Environmental Sustainability Strategy Group in the University. The key priorities in realising this pillar will involve: a) creating effective communities of practice involving both staff and students in each of these themes through which we will identify opportunities for curriculum enhancement and inter-disciplinary funding proposals; b) supporting these themes through a central fund to enable academics to deliver on inter-disciplinary activities; c) sharing the outcomes of these communities of practice with the broader region in order to facilitate further meaningful public engagement; and d) reviewing our school research structures to ensure alignment with the themes and an increased focus on inter-disciplinary research. (**Shaping our Future**, Transformational Action 5)

5. Build strategic international research partnerships to enrich our research environment, accelerate the growth of our research capabilities and establish the University as an internationally excellent academic institution. This pillar aims to strengthen the University's visibility and R&I networks with international institutions and the key dimensions to be explored are: a) the augmentation of our current TNE partnerships for R&I; and b) the development of joint, and potentially virtual, research centres where our expertise is complemented by other institutions and help us explore opportunities in terms of joint PGR supervision, staff exchanges and joint research bids. Through the above activities, we aim to provide further opportunities for our academic staff to raise their external esteem and increase international awareness of their work through citations. Activities to deliver on this pillar will be aligned to our broader international strategy and ambitions. (Linked to **Shaping our Future**, Transformational Action 4)



## MEASURING SUCCESS

The University Leadership Team is currently debating the University-level KPIs for the strategy beyond 2020. For Research & Innovation, the draft top level KPIs are as follows:

- Number of academic staff FTE with one or more outputs at 3\* for REF 2027. The target for next REF is 400FTE staff to be included in the submission. RIE will run annual output evaluation rounds to support metric based on external expert reviews.
- Percentage of academic staff engaged in external research and knowledge exchange grants. Target is to achieve minimum 60% in 5 years.
- Research Income annual income spend. Target dependent upon deployment of investment for pillar 1 of the strategy.
- Knowledge Exchange annual income spend. Target dependent upon deployment of investment for pillar 1 of the strategy.

## ACCOUNTABILITY, GOVERNANCE & REPORTING

The University Research & Innovation Committee (RIC) together with its sub-committees on research integrity and research programmes as well as the RIC group on the implementation of the Researchers' Concordat are well placed to oversee most of the key activities emerging from the above section.

The Innovation Hub will be managed through a steering board and its outcomes and operations will be reported into the RIC. Our established Public Engagement Forum will continue to oversee all PE activities and will be connected formally and report to RIC.

The implementation of the four research themes will require a Professorial lead for each to act as coordinator and the inclusion of all four coordinators in the RIC will be beneficial. Approval of any academic time commitment in developing external funding opportunities will require agreement from the relevant line manager and Dean of school.

Work on pillar 5 will also require debate and potential approval of key relationships in CPC. Finally, activities proposing curriculum enhancement through pillar 4 will require engagement with DLTE and to follow our normal route of quality assurance.

