

Research and Knowledge Exchange Sub-strategy 2022–30

This sub-strategy outlines how we plan to grow the university's impact-driven research and knowledge exchange (R&KE) to make a difference in the world. It will contribute to the University of Greenwich Strategy 2030, which sets out an ambitious agenda to be the best modern university in the UK.

Vision

Our vision is to be the best modern university for R&KE in the UK by 2030. To realise this, we will:

- Achieve significant and measurable societal, social, cultural and economic impact.
- Ensure academic excellence, growing the reputation of the institution.
- Inform our learning and teaching with our research, KE and practice contributing to student success.

We will know we have succeeded when we are top of our peer group in the Research Excellence Framework (REF) and the Knowledge Exchange Framework (KEF) and 20% of the university's total revenues are equally contributed by R&KE. These represent ambitious and challenging targets.

Our approach incorporates our values of being inclusive, collaborative and impactful and embraces three key principles outlined in the strategy:

- *Creating opportunities for individuals and society.* Our commitment to equality, diversity and inclusion is intrinsic to our approach.
- *Building partnerships.* As an outward-facing university, our collaborative partnerships are central to our approach and the delivery of our objectives.
- *Delivering impact.* A measure of our focus on local, national and international impact is our alignment with the UN Sustainable Development Goals (SDGs), responding to some of the world's biggest challenges by developing sustainable solutions.

This last point leads to our central commitment to sustainability which runs through this sub-strategy.

Key elements of our sub-strategy are:

- Developing cross-disciplinary and interdisciplinary communities through institutes and associated centres as a means of developing and delivering challenge-led, high-quality, collaborative and integrated R&KE activities.
- Developing the university's research culture to create a dynamic, diverse and inclusive R&KE environment, giving everyone the opportunity to participate and benefit.
- Making commitments to long-term local, national and international equitable partnerships, and decolonising R&KE.
- Growing R&KE revenues by adopting a more business-like approach to project acquisition, implementation and management.
- Focusing resources to enable growth in key world-leading R&KE activities.

Priorities

Our R&KE sub-strategy has three interrelated priorities:

1. World-leading, rigorous, and impactful/creative research.
2. Sector-leading knowledge exchange addressing local, national and international challenges.
3. Teaching and learning informed by research, practice and knowledge exchange.

The diagram below relates these priorities to our external challenges, outcomes and key performance indicators (KPIs) and our anticipated local, national, and international impact.

Our R&KE ambitions by 2030

2021 – Moving from	2030 – Moving to
World-leading, rigorous and impactful/creative research	
Research income is 7% of total revenues (£14.7m)	Research income is 10% of total revenues (£39m) GB-level KPI
Estimated REF power score = 1130 (386 staff, GPA 2.9)	REF power score = 2,000 (eg 640 staff, GPA 3.1) GB-level KPI
Ranked 3rd or 4th for REF University Alliance	Ranked top of University Alliance in REF2027
Fragmented research organisation	Research organised in challenge-led centres
Postgraduate research (PGR) population = 600	PGR population = 900
PGR student experience satisfaction (PRES) = 72%	PGR student experience satisfaction > 90%
Sector-leading KE addressing local, national and international challenges	
KE income is 2% of total revenues (£5.5m)	KE income is 10% of total revenues (£39m) GB-level KPI
Above average in three KEF perspectives, below average in three and average in one	Ranked in top 3 (top 10%) in five of seven KEF perspectives
Place-based strategies need elaborating	Prominent place-based agenda
Teaching and learning informed by research, practice and knowledge exchange	
50% of staff with significant responsibility for research, extent of KE/practice engagement unknown	All staff on teaching/research or research-only contracts engaged in measurable research (including pedagogical research), practice or KE activity
Variable levels of student access to R&KE opportunities	Centres/institutes provide opportunities for student R&KE
No clear institutional support for pedagogical research	>25% of staff engaged in pedagogical research

R&KE organisation and adoption of a business-like approach

The organisation of our R&KE into challenge-oriented centres and institutes, combined with the adoption of a business-like approach, will be essential to the achievement of Priorities 1 and 2. Lessons will be drawn from the successful operation of the Natural Resources Institute (NRI), which currently delivers 58% of total R&KE revenues, and the establishment of the Institute for Lifecourse Development. We will scope the potential for a coordinated approach to important areas with pockets of excellence (eg sustainability, and diversity and inclusion).

Adoption of a centres/institutes model allows for the integration of R&KE activities with a focus on quality and impact. We aim to create a structure that supports the university's faculty/school architecture while fostering cross-university/interdisciplinary collaboration to tackle major societal challenges, and so transcend typical siloed behaviours. This approach will facilitate excellence and academic and societal/economic/cultural impact.

The model supports growth of a healthy research and knowledge exchange culture, providing a supportive environment for postgraduate researchers/early career researchers (PGR/ECRs) and more established researchers. It also provides an environment in which undergraduate and postgraduate R&KE can be embedded to support student success.

The approach also consolidates our research environments in preparation for REF2027. The centres/institutes with their own strategic plans and targets will provide a mechanism for embedding our business-like approach to R&KE growth and provide opportunities to develop our R&KE leaders. The model will also provide opportunities for external profiling of our capabilities, supporting development of collaborations through our partnership unit. All staff will have the opportunity to be part of one centre or more, supporting wide engagement with and ownership of the R&KE agenda. Centres will also provide focal points for supporting best practice in terms of research ethics, research integrity and open access for data/outputs.

Centres and institutes are managed in a coherent manner to adopt a business-like approach and support our ambitious targets for R&KE revenue growth, building on recent advances in R&KE engagement and quality. Key elements of this business-like approach are to:

- Channel bidding through centres/institutes against agreed targets at appropriate levels, including those set through staff appraisals.
- Increase the pool of staff successfully engaged in R&KE, including as principal investigators.
- Recruit and retain staff with an R&KE track record of publications and income generation.
- Make a minimum support pledge to early career researchers (ECRs)/early career academics (ECAs), including the allocation of time through the workload allocation model.
- Support the development of mid-career academics to progress to research leaders.
- Develop a coordinated approach to supporting large grant submissions.
- Build new research collaborations and partnerships, including with funding partners.
- Ensure institutes/faculties have an effective external advisory board/liaison boards.
- Enhance the participation in and effectiveness of peer review
- Invest in the underpinning IT systems to support our business-like approach.
- Market our research capabilities/infrastructure for external use where feasible.
- Ensure all bids are transparently and sustainably costed/facilitated through the approval process.
- Invest in R&KE business development through the workload allocations model or quality-related (QR)/Higher Education Innovation Fund (HEIF).

Achieving our priorities

Priority 1: World-leading, rigorous, and impactful/creative research

Our ambition is to be the best modern university for R&KE in the UK and we will measure this through the REF. To achieve this by 2030, we aim to increase research income to 10% of university revenues; increase our REF power score to 2,000; increase our PGR population to 900, and increase our PRES score to >90% satisfaction.

To improve the quantity and quality of research, we are:

- Improving our research environment and culture using our centres/institutes model.
- Adopting our business-like approach to income generation, building increased volume on the back of previous gains in research quality.
- Undertaking annual assessment of research quality to focus REF submissions and build a culture of quality.
- Investing QR/research capital investment funds (RCIFs) proportional to REF2021 performance against centre operational plans.
- Fostering external partnerships to support quality and impact, including the co-design of knowledge.
- Optimising the role of the Research and Enterprise Training Institute (RETI) to support research excellence and impact, as well as investing in faculty/institute research offices where necessary.
- Focusing, where possible, on funding priorities of UK Research and Innovation and other high-quality funders by increasing bidding rates; strategically and systematically learning from successes and failures; undertaking timely internal peer review, and increasing the use of early career/fellowship schemes.
- Maintaining a diversified portfolio of funding sources to minimise the impact of external shocks.

Impact. The university has great potential to score well in the REF with its impact case studies. All centres will develop impact pathways (including data collection) for possible impact case studies. These impact pathways should themselves be stimuli for R&KE bidding activity for projects (eg co-design of activities with partners), promotional and engagement activities that will realise the intended impact. HEIF funds could be invested to facilitate the impact through KE in close partnership with Greenwich Research and Enterprise.

PGR student numbers and satisfaction. Specific activities include:

- Increasing participation in UKRI/EU funding doctoral training partnerships (DTPs)/centres for doctoral training (CDT) through strategic partnerships; develop our policy for, and increase our number of, dual/joint PhD awards and professional doctorates.
- Assessing the costs and benefits of creating a doctoral training/graduate school within RETI.
- Investing in an expanded vice-chancellor scholarship programme with the aim of increasing completions, building links (co-funding) with partners, and enhancing bidding for significant external programmes.

- Ensuring PGR completion times are less than four years.
- Reviewing training and support offered to supervisors to enhance student experience.
- Working with Greenwich Students' Union (GSU), to enhance the PGR experience with a specific focus on research culture, specifically their engagement in seminars and strategic careers advice, and to refresh training programmes offered through RETI.
- Making a commitment to health and wellbeing realised through on-campus facilities, processes and systems that proactively address the diversity of the lived experience of our PGR students.

Priority 2: Sector-leading KE addressing local, national and international challenges

We work with many different types of partners to ensure that our new knowledge is used for the benefit of the economy and society – this is the objective of KE. Partners range from individual members of the public to multinational companies. Activities include public events, applied research with industrial partners (allowing businesses to access specialist equipment or facilities), knowledge transfer partnerships, consultancy, undertaking development projects for international donors or licensing our intellectual property so others may use it.

The international development work of NRI contributes significantly to the KE portfolio, with a focus on co-creation of knowledge through involving stakeholders in project design and implementation to ensure the sustainability of the research outputs. Knowledge exchange activities are also important for contributing to REF impact case studies.

Our ambition is to be the best modern university for KE, recognised for its economic and societal impact. We will measure this by ensuring that KE represents 10% of total university revenues and that we are in the top 10% of our peer group in five of the seven perspectives in the KEF (see Figure 1.) The elements of our integrated approach to achieving the desired outcomes are:

- Working through our challenge-led centres and insti-

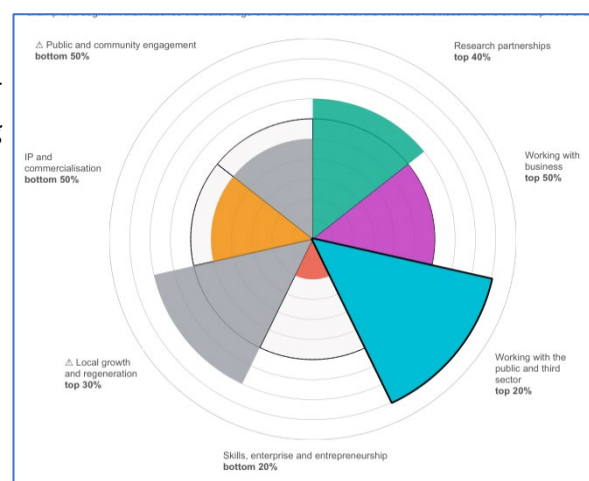


Figure 1. University of Greenwich Knowledge Exchange Framework Profile (2021).

tutes to match their skills, experience and research base with external needs and opportunities.

- Adopting our business-like approach to revenue generation and project management.
- Working through a central partnership hub (partnerships sub-strategy) to act as a front door to the external world, provide central oversight to identify existing and additional cross-functional opportunities and provide support.
- Utilising an institution-wide data and reporting system (partnerships sub-strategy) to ensure effective communication and cross-institution integration.
- Playing an important role in local growth and regeneration in the UK.
- Improving the effectiveness of data collection across the university to improve KEF submissions (mainly input measures) and gathering data on impacts (output, outcome measures) using qualitative and quantitative approaches. This will be strategically communicated.

The main activities are organised around the KEF perspectives.

Research partnerships

- Broaden engagement with external partners, driven through centres/institutes with over-arching research themes aligned with external challenges or drivers.
- Manage relationships of key stakeholders through central partnership hub/industrial liaison boards/institute steering boards.
- Deploy internal funds (QR and HEIF) to maximise KE and its impact and sustain strategic collaborations, allied to external drivers such as government policy/SDGs.

Place-based agenda

- Consolidate the sense of place and engagement with local communities/stakeholders, expressed through public-facing, co-created public and community engagement and local growth and regeneration road maps and action plans coupled to centre/institute strategic plans.
- Build on the UK Community Renewal Fund Project and other linkages to develop prosperity fund-supported initiatives with local partners, and regionally bearing in mind the levelling up agenda.

- Identification and development of macro-level opportunities/coordination of the interface between the university's knowledge base and the external landscape.

Skills, enterprise and entrepreneurship

- Critically evaluate the training needs of the region and offer appropriate provision; assess the market for a greater level of online activity and develop as appropriate.
- Develop a culture of entrepreneurship among staff and students.
- Grow a portfolio of skills development activities, including continuing professional development/short courses.

Working with business

- Derive maximum benefit from Small Business Charter/Help to Grow scheme; create an SME accelerator; Generator; work more closely with Innovate UK EDGE; local enterprise partnership (LEP) engagement; Strength in Places "Growing Kent and Medway" and develop new opportunities locally, nationally, and internationally.

Working with the public and third sectors

- Maintain and grow activities with major foundations/charities.
- Focus specifically on growing public sector-funded activities that support societal change/economic growth.

Priority 3: Teaching and learning informed by research, practice and knowledge exchange

Informing our teaching and learning with our research, practice and KE is fundamental to achieving student success and ensuring that we are the best modern university.

Our ambition is for all staff on teaching/research and research-only contracts to be engaged in measurable research (including pedagogical research), practice or KE. This means that staff are either engaged in the generation or application of knowledge and skills which they can bring to their teaching, or they are actively engaging in research that enhances the theoretical and/or conceptual understanding of teaching and learning processes, experiences, or outcomes in higher education.

Our approach is to:

- Encourage all academic staff to engage with at least one R&KE centre (irrespective of career pathway).
- Refresh the cross-university Greenwich Research in Innovative Pedagogy initiative or similar, with the objective of supporting and nurturing pedagogical research across the university.
- Refresh PGR teaching assistant engagement in taught programmes, enhancing programme delivery while developing academic skills in PGRs.
- Ensure that centres/institutes are open to student R&KE activities, considering the resources and modalities necessary to facilitate this, supported through the student success sub-strategy.
- Bring external R&KE partners into taught programmes, enabled by the partnership sub-strategy.

Enablers

Partnerships

Partnerships are critical to R&KE at the University of Greenwich. The partnerships sub-strategy presents the integration of partnership activity across the various activities of the university and provides key resources, such as a partnership hub and customer relationship manager system. These complement and support the partnership activities of the centres/institutes, and so contribute to successful KE.

People

People are the University of Greenwich, and their engagement with R&KE will provide the conduit for their work to benefit society, while also enhancing their skills and professional development. The delivery of this sub-strategy is dependent on building, leading and enhancing impactful and inclusive teams.

Through the people-enabling sub-strategy, we will develop excellent R&KE leadership and management; attract, develop, and retain high-performing people and teams; be a leader in equality, diversity and inclusion (as measured, for example, through Athena Swan, Race Equality Charter, Stonewall), and employee/PGR mental health and wellbeing. Using Vitae's Concordat for Researcher Development, RETI will support staff and PGR training needs.

Business principles and effective support systems

Our plan to adopt a business-like approach will need investment in effective IT systems to support revenue growth, business engagement, project delivery, knowledge management and research output management. We will also review the principles of charging and use of indirect costs to support growth in R&KE activity.

Research and knowledge exchange infrastructure

Our strategy will develop, support and refresh the necessary research, IT and facilities infrastructure. This will support the delivery of an increased volume of high-quality R&KE (digital sub-strategy and estates sub-strategy), taking into account our commitment to sustainability.

Visibility

We will ensure the external visibility of R&KE to support impact and growth. Centres/institutes will be supported by the Communications and Marketing Directorate, for example, to ensure high Altmetric scores for outputs, maintain a presence in mainstream and specialist media through strategic pieces, and create a focus on the impact of R&KE across communication platforms and channels.

We will know we have achieved our vision when we have:

- A high level of academic community engagement (both staff and students) in research, practice and knowledge exchange, and a culture of sharing and celebrating success.

- A healthy and inclusive environment where staff and postgraduate research students are supported, developed and inspired to achieve their R&KE potential.
- A reputation for disciplinary and interdisciplinary R&KE with significant, measurable societal impact.
- Decolonised R&KE.
- An external profile that eloquently expresses the university's strengths, priorities and commitments.
- Supportive infrastructure and facilitated outward-facing communities.
- Embedded our work in our communities with local, regional and global collaborations.
- Grown significant external collaborations and partnerships.
- Grown revenues to 20% of university total with equal contributions from R&KE.
- REF and KEF outcomes that are at the top of our peer group.

A vision for Research and Knowledge Exchange - Summary

Education without boundaries: We will develop and apply our knowledge capability and academic and professional expertise to seek growing influence by achieving social and academic impact, assisting economic growth and ensuring environmental sustainability.

External Challenges	Key strategy priority areas, implemented through: R&KE Institutes and Interdisciplinary Challenge-led Centres			Outcomes and KPIs	Impact	
Values: Inclusive, Collaborative, Impactful, Sustainable						
<ol style="list-style-type: none"> Societal, economic or cultural challenges or opportunities [to be addressed through 25-30 R&KE Centres]. Ensuring the academic excellence and reputation of the University. Supporting student success through: their direct engagement in R&KE; AND informing their teaching and learning with R&KE. 	Priority 1 World-leading, rigorous, impactful/creative research	Priority 2 Sector leading knowledge exchange addressing local, national and international challenges	Priority 3 Teaching and learning informed by research, practice and knowledge exchange	Research: <ul style="list-style-type: none"> 10% revenues by 2030. No of staff engaged in 3*/4* research doubles by REF2027. PGR population increases by 50% by REF2027. 	Best Modern University.	
	ENABLER 1: RESEARCH AND KNOWLEDGE EXCHANGE PARTNERSHIPS				Knowledge Exchange: <ul style="list-style-type: none"> KE 10% of revenues by 2030. UoG in top 10% of 5/7 KEF perspectives. 	Food & nutrition security/Poverty reduction.
	ENABLER 2: PEOPLE				Teaching and Learning: <ul style="list-style-type: none"> All staff on teaching/research and research only contracts engaged in measurable research (including Pedagogical research), practice or KE activity. 25% staff engaged in Pedagogic research. 	Lifelong good health and wellbeing, quality education, reduced inequalities, productivity, decent work and peace and justice for all.
	ENABLER 3: BUSINESS PRINCIPLES AND EFFECTIVE SUPPORT SYSTEMS					Economic and social benefits from responsible, innovative and sustainable policies, systems and practices.
	ENABLER 4: RESEARCH AND KNOWLEDGE EXCHANGE INFRASTRUCTURE					Science, engineering, technology, and manufacturing for an agile productive economy and a safe, secure, and sustainable future.
ENABLER 5: VISIBILITY: PROMOTION AND DISSEMINATION				Sustainable communities, creative futures, inclusive design, culture and justice.		