

Institutional level environment template (REF5a)

Institution: University of Glasgow (UofG)

1. Context and mission

The University of Glasgow is an ancient and civic university, a member of the Russell Group, a founding member of Universitas 21, and a founding member of the Guild of European Research Intensive Universities.

Our research has made a significant and wide-ranging contribution to knowledge, society and the economy, and demonstrates our strong social responsibility and our commitment to tackling major challenges. Notable achievements include:

- Leading the UK contribution to the international effort in the detection of **Gravitational Waves**, work which led to the Nobel Prize for Physics in 2017.
- Publishing the first **Historical Thesaurus of English**, which was awarded the Queen's Anniversary Prize for Higher Education in 2017.
- Demonstrating the feasibility of **eliminating rabies** in East Africa and leading research that underpins the World Health Organisation's global strategic plan for rabies elimination.
- Being the first UK University to research and act upon its **historical links with slavery**, committing to undertake a programme of reparative justice aimed at raising over £20m for collaborative research, an example now followed by other UK HEIs.
- **Leading landmark clinical trials** that proved the value of new drug-based therapies in treating heart failure.

From the beginning of the pandemic, our **MRC–UofG Centre for Virus Research** has worked on many vital COVID-19 projects, including sequencing, vaccine testing, disease manifestation and treatment, virus behaviour, and the wider effects of the pandemic on society.

1.1 Our Mission

The University's "*Inspiring People: Changing the World*" strategy for 2015–2020 established the institutional framework for our progress over most of the REF period, with an ambition:

To bring inspiring people together and create a world-class environment for learning and research, empowering staff and students alike to discover and share knowledge that can change the world.

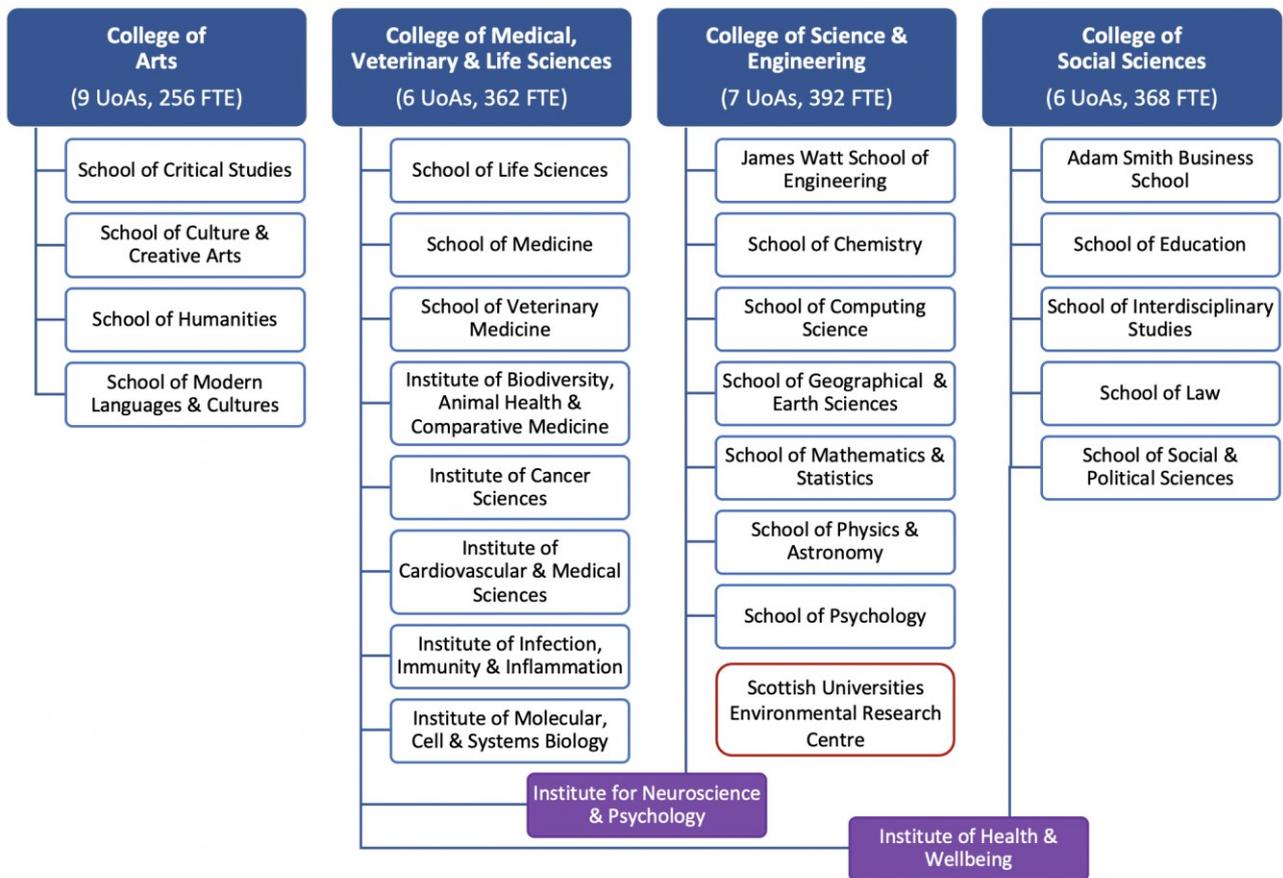
The new strategy "*World Changers Together – World Changing Glasgow 2025*" builds on the 2015–2020 plan and sets out our determination to make Glasgow synonymous with transforming lives through knowledge and action, bringing our people together culturally, physically and organisationally.

The last 10 years have been a period of sustained growth and change. The restructuring in 2010 into the College structure (shown below) was designed to retain disciplinary identity while facilitating cross-disciplinary interactions.

1.2 Our Size and Structure

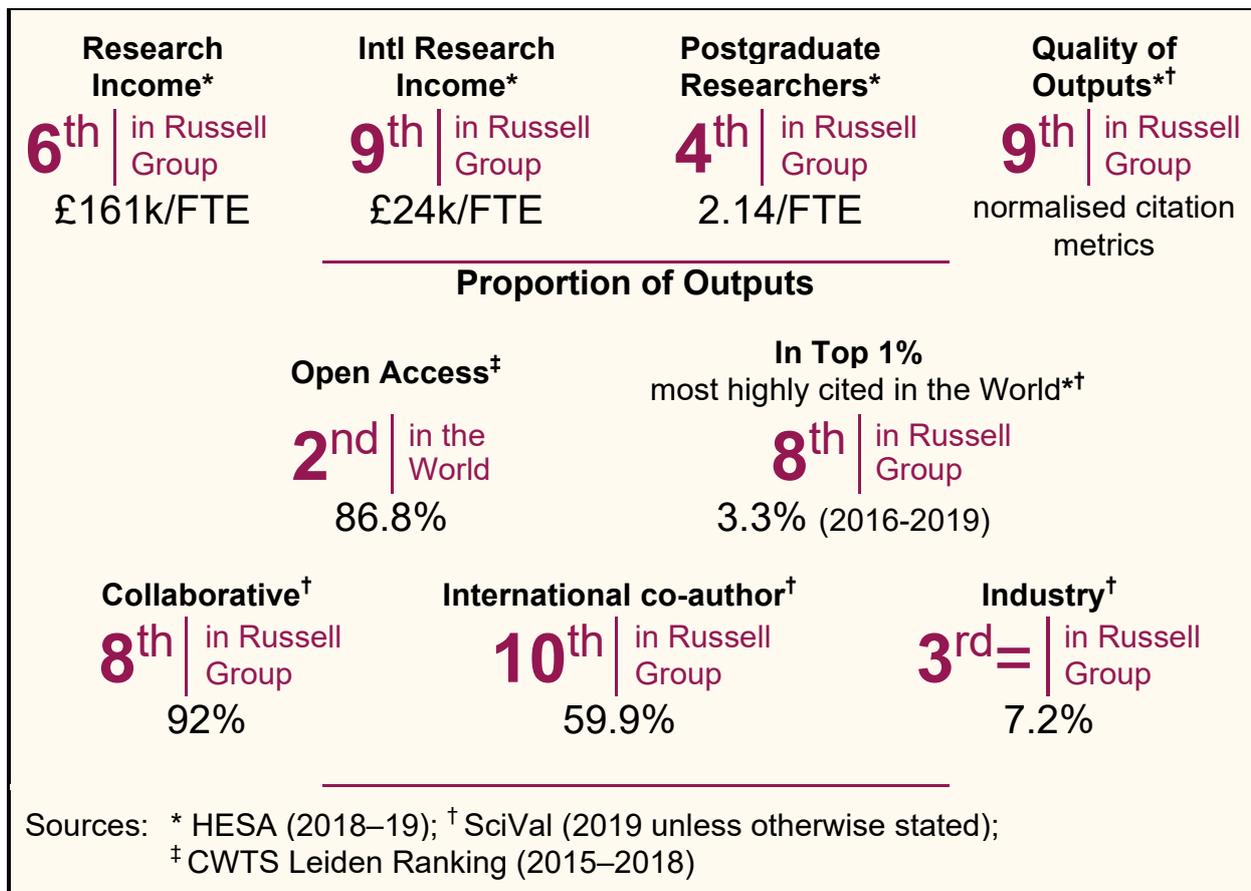
The University has 6,479 FTE staff and 27,905 FTE students. Our research base comprises 5,283 FTEs: 2,457 FTE research staff and 2,826 FTE PGRs. We are returning 1,378 FTE researchers, an increase of 25% from REF 2014, within 28 UoAs.

The University's Principal and Vice Chancellor, Professor Sir Anton Muscatelli, leads the Senior Executive Team. The University comprises 4 academic Colleges, with several networks and centres and two inter-disciplinary research institutes that sit across the *College structure*.



2. Strategy

Over this REF period, we have continued to improve our research performance:



The *research and impact* elements of our strategic plan have been implemented through an institutional framework, under the leadership of the Vice Principal for Research, incorporating both policies and processes for research, impact and best practice, and a programme of institutional investment and activities.

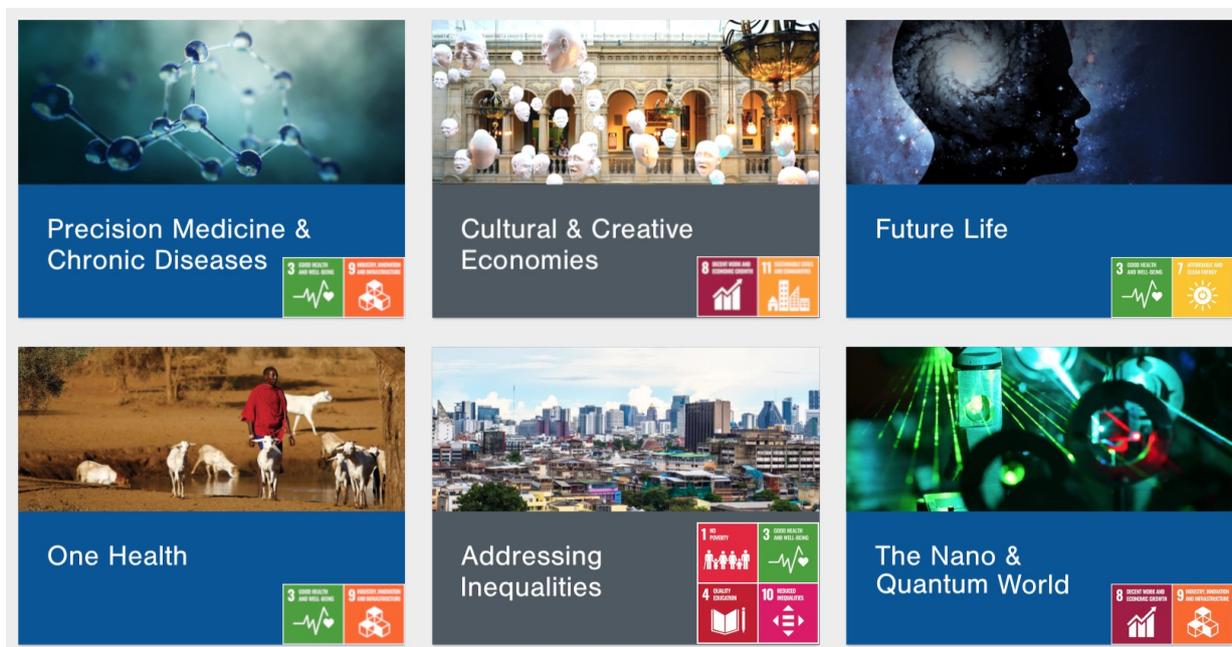
In addition, we have undertaken a managed process of developing unit-level strategies aligned to this framework. This approach has preserved and respected disciplinary context and local autonomy (in agreement with the [Leiden Manifesto](#)). These strategies were externally reviewed in 2016 and 2018 and form the basis of our units' Environment statements.

The main components of this institutional framework include:

Research & Impact Reviews:	External reviews of every academic unit, covering environment, outputs and impact, with a focus on sharing best-practice, and developing unit-level strategies.
Research management:	Transformed our approach, investing £3.4M in staff, training and IT system, and introduced a new end-to-end process – Section 4.1.
Support for impact:	Programme of support aimed at further embedding impact in our activities and research culture – Section 2.2.
Strategic recruitment:	Our centrally resourced <i>Lord Kelvin / Adam Smith</i> (LKAS) recruitment schemes attracts talent to the University. Invested >£20M in 62 PGR studentships, 67 independent research fellowships and 8 Senior Professors since 2014.

Institutional level environment template (REF5a)

Research culture:	New policies, training provisions and leadership structures for research integrity and open research and a broader research culture action plan – Section 2.1
Research Beacons:	Launched six areas of cross-disciplinary research excellence, addressing global goals, to raise awareness and participation in these key areas, stimulate collaboration, and communicate our achievements and future aims: https://www.gla.ac.uk/research/ .



We recently published our new five year **Research Strategy for 2020–2025**, with a clear message to our research community that:

by working in teams, building on each other's ideas and making Glasgow the best place to develop a career, our research transforms lives and changes the world.

It sets out our aspirations for research and research impact, and for developing a fair, collaborative environment in which talented researchers can further knowledge and benefit society.

The strategy focuses on three priorities:

Collaboration	Creativity	Careers
----------------------	-------------------	----------------



Institutional level environment template (REF5a)

2.1 Research Culture

Enhancement of our *research culture* — supporting, rewarding and celebrating it — has been and will continue to be a major focus.

We coordinated and hosted sector-wide events that brought together researchers, funders, policy makers and research managers to share practical actions that promote a positive research culture. The outcomes informed our own **five-year plan** that commits us to [actions](#) centred around five themes:

Research integrity	Open research	Research recognition	Career development	Collegiality
--------------------	---------------	----------------------	--------------------	--------------

Progress includes:

- Updating [academic promotion criteria](#) to reward collegiality and open research.
- Formal signatory in 2020 to the Concordat to Support the Career Development of Researchers and published a 3-year action plan.
- [Formal signatory](#) to the Leiden Manifesto, since 2017, and introduced a policy for the [responsible use of metrics](#).
- Institutional membership of the UK Reproducibility Network (UKRN).
- Annual [Research Culture Awards](#) to showcase and celebrate examples of good practice.
- Publishing an annual statement on Research Culture.
- Launching a [Lab for Academic Culture](#) to advance our culture, support integrity, and create a forum through which to shape new initiatives with the sector.

Research Integrity - new policies, training provisions, [webpages](#) and leadership structures were put in place in 2015 to ensure that the ethos of research integrity and the four core aspects of the Concordat to Support Research Integrity are firmly embedded in our institution:

- Created a network of 28 Research Integrity Champions and Advisors, embedded in our academic units.
- Established a dedicated Research Data Management Team to manage the institutional repository for storing/sharing research data and provide training and support.
- Research integrity training is available for staff (including technicians) and students, and mandatory for new staff.
- Embedded the CRediT taxonomy into our Code of Good Research Practice to encourage colleagues to put their author contribution on the public record; we have also enabled researchers to record their author contribution(s) in our institutional outputs repository.
- Published an annual statement on Research Integrity since 2014/15.

Our provision has earned us external recognition as examples of good practice, e.g. in 2018 from the [Royal Society](#) and [Universities UK](#).

Open research environment – Our commitment to open research data supports high-quality research, enables scrutiny and reuse, drives innovation and increases public trust in research. In addition to being a signatory to the Concordat on Open Research Data, we have put comprehensive resources in place to support researchers in managing their publications and data and to maximise open access outputs.

Starting from 35% in 2014, we now have the second highest proportion of open access outputs worldwide (86.6%) among institutions with >10,000 publications (2014–2018; Source: CWTS Leiden Ranking).

Institutional level environment template (REF5a)

Our Research Data Management Team maintain our data repository and registry. Since 2016 the team have engaged staff and PGRs with over 130 internal events and meetings. 96% of those staff being returned to REF2021 have an ORCID.

2.2 Enabling and facilitating the achievement of impact

Following REF 2014, we undertook a review of our impact and reflected on our experience of preparing for the formal assessment. We subsequently developed and adopted a strategy to evolve our research culture so that impact practice became fully embedded in our research community. We further created a new role in the Senior Executive Team — Vice Principal for Corporate Engagement and Innovation — to provide leadership in this area.

Operationally, we created 6 dedicated impact support staff, embedded centrally and in Colleges; we expanded resources and training to support impact planning and research-based public engagement with impact; we developed an online repository to record external engagement activity and impact, enabling the institution and researchers to build their impact profile.

To signal our approach, our [promotion criteria](#) were adapted in 2019 to give research impact parity of credit to research outputs.

Impact through policy and practice has been achieved by supporting our researchers to work within partner organisations, taking our research findings and expertise to key stakeholders and partners (including secondments to Scottish Government and UK Parliament). We also work with public sector bodies to help shape national policy and/or its implementation in health, education, social welfare and the prison system.

Impact through business engagement has been strengthened through targeted support of existing and new relationships with businesses and industry, locally, nationally and globally. We have seen an increase in our Innovate UK funding by 500% (now £3.1M) since 2016 (now 5th in the Russell Group, from 17th in 2015).

We continue to be the lead institution for two of the Scottish Innovation Centres: *CENSIS* (Sensors and imaging systems) and *PMS-IC* (Precision Medicine). Through targeted support we are attracting major grants which have partner engagement at their core, e.g.:

The EPSRC-funded **Quantum Technology Hub** for Imaging, [QuantIC](#), is led by UofG. Its £3.7M Partnership Resource Fund was designed to embed industry into QuantIC from the start and has leveraged £2.3M of industrial contribution towards acceleration of its technology across 37 industry-led projects.

Economic impact through entrepreneurship and innovation has been achieved by enabling both staff and students to pursue the delivery of economic impact from the innovations they create and to realise their entrepreneurial ambitions.

We have continued to invest resources through our College Business Development functions, Technology Transfer Office and Student Enterprise services. These deliver training, IP audits and direct support through filing patents (~£350k p.a.), securing translational grant funding, brokering business/investor engagement and negotiation of commercial terms.

Internal translational funds (IAAs, CIC) are deployed to de-risk innovations, both commercial and technical, towards readiness for engagement with potential licensees or investors.

We have continued to deepen our relationships with investors such as IP Group plc and have invested in funds managed by early-stage life science investor Epidarex Capital. Since 2014 we have created 19 new spin-out ventures and our pipeline is now typically in double figures.

Our student Business Start-up Workshop Programme has in excess of 300 participants per year and our annual Santander-sponsored accelerator program is over-subscribed. Since 2014 more than 100 ventures have received University support.

In the next 5 years we will evolve our environment to include physical infrastructure for campus co-location of companies and an entrepreneurial community around the institution aimed at driving economic impact for the local, regional and national economy.

Institutional level environment template (REF5a)

Alignment to the UN Sustainable Development Goals (SDGs) continues to be monitored, with all our Impact Case Studies aligned to at least one of the three SDG themes. Of these, 59 map to at least 1 specific target, with 8 mapping to 2 or more. Our strongest alignment, reflecting our Research Beacons, is SDG 3 (Good Health & Wellbeing), SDG 10 (Reduced Inequalities) and SDG 11 (Sustainable Cities & Communities).

2.3 Engaging with regional and national research priorities

Our engagement with regional and national priorities has shaped a significant proportion of our research and its impact. Our Beacons demonstrate the range of activities: from chronic diseases and public health, through to national technology programmes.

Chronic diseases, such as cancer, cardiovascular disease, diabetes, arthritis and stroke, disproportionately affect the population of Glasgow, as well as affecting millions of people worldwide. Our biomedical researchers are at the forefront of developing new treatments and diagnostics - from “molecular to clinical”. The MRC-UofG Centre for Virus Research, the Social and Public Health Sciences Unit (co-funded by MRC and the Scottish Chief Scientist Office), CRUK Glasgow Centre and BHF Centre of Excellence are all examples of our long-term commitment and investment.

We created a [Clinical Innovation Zone](#) at the Queen Elizabeth University Hospital, comprising 1,000sqm of space dedicated to industry collaboration, co-located with our [Imaging Centre of Excellence](#). This is home to the £16M ISCF-funded Industrial Centre for *AI Research in Digital Diagnostics* ([iCAIRD](#)) with partners from NHS, academia and industry. It also underpins the recently announced £38M UKRI Strength in Places *Precision Medicine Living Lab*, that will translate our science and innovation into a real-world clinical setting.



We have worked closely with the Scottish Government to demonstrate the importance and impact of enhanced digital connectivity. Following the launch of the Scottish Government’s 5G strategy at the University by the First Minister in 2019, we have partnered with the University of Strathclyde and Scottish Futures Trust to secure £9.3m to establish [The Scotland 5G Centre](#) and regional innovation hubs, in order to deliver economic and social benefit.

The University has played a leading and strategic role in the *UK National Quantum Technologies Programme* (NQTP), which brings the UK’s research base and industry together. Funding for phase 2 of the QuantIC Imaging Hub was granted in 2019, following the UK Government Blackett review, to which we contributed. We are now partners in all four Quantum Technology Hubs.

2.4 Support for interdisciplinary research

The strong interdisciplinary nature of so much of our research is the result of long-standing mechanisms that we have put in place to support and encourage our staff’s innate desire to work across and between disciplines, and will continue to be a core theme in the delivery of our 2020–2025 research strategy.

Institutional level environment template (REF5a)

Interdisciplinary groups, networks and centres are organised research structures sit across the College structure to support and encourage collaborative research activities.

Research Networks brings together a range of researchers and are characterised by being cross-disciplinary, with clear and extensive cross-college interactions.

The Glasgow Refugee, Asylum and Migration Network (GRAMNet) brings together researchers, practitioners, NGOs and policy makers working with migrants, refugees and asylum. Academic research is complemented by numerous initiatives such as artists-in-residence; a film series; co-production of theatrical pieces; media dissemination; community cafés; policy influence; the award of the UNESCO Chair in Refugee Integration.

Research Centres create an identity and shared environment for specialist thematic, normally multi-disciplinary, research bringing together people working together on common interests. Each Centre is led by a Director and undergoes an annual review.

The Centre for Textile Conservation and Technical Art History combines expertise from art historians, conservators and scientists, and from disciplines such as philosophy, economic and social history, to explore the materials, methods, provenance and state of preservation of cultural heritage, and to bring innovate technologies and methodologies to understanding, appreciating and conserving cultural heritage artefacts.

Arts Lab was established to support interdisciplinary collaboration within and beyond the College of Arts and promotes links with our museum, art and research collections. It is also plays a key role in the University's Smithsonian Institution Strategic Partnership.

PGR Scholarships. Our LKAS scholarships have supported outstanding research students from around the world to participate in some of our most exciting areas of collaborative and interdisciplinary research. Since 2014, 62 scholarships have been awarded (47% male; 53% female).

Global Challenges. Our Glasgow Centre for International Development (GCID) is a pan-institutional network that supports and showcases our international development activity. GCID is home to over 400 research and teaching staff, plus additional PGR students and professional staff. GCID provides leadership and coordination of our institutional approach to international development funding.

As of 2018, the **University was 7th in the UK for GCRF income** and as of 2020, we lead or collaborate on a portfolio of GCRF projects worth £66.3M. Through our allocation of Scottish Funding Council Global Challenges funding, we have funded 132 projects since 2016, with 38% led by early career researchers and 48% led by female PIs. Work funded through this initiative has progressed to successful full-scale funding proposals, innovation of new methodologies, and new partnerships between the University of Glasgow and the global south.

The UKRI GCRF *Centre for Sustainable, Healthy and Learning Cities and Neighbourhoods* is an international consortium of nine research partners, led by UofG, addressing the challenges caused by large-scale rural to urban migration, working across Africa, Asia and Europe.

2.5 Engagement with diverse communities through our research

We have deployed a network of specialists and embedded support in central research services to support researchers across the institution with inclusive public and community engagement. Through this network we mobilised activity, provide training, and support for planning and evaluating the impact of public engagement. A particular focus is to maximise the inclusivity of our engagement practice by focusing on socioeconomically disadvantaged communities.

The Glasgow Centre for Population Health is a partnership with the Scottish Government that generates evidence, and informs and influences action to improve health and tackle inequality. Our team is based at the Olympia Social Research Hub, in the East End of Glasgow, one of the most deprived areas of Scotland.

The exemplar Children's Neighbourhood Scotland community engagement project brings together multiple sectors to improve the lives of children and young people.

Institutional level environment template (REF5a)

The University supports diverse forms of public engagement, including exhibitions at The Glasgow Science Centre, exhibitions in the Hunterian museum on our campus, Science Slam, Pint of Science and Café Scientifique. The Glasgow Science Festival, hosted by UofG, continues to grow as one of the largest science festivals in the UK, taking memorable events to non-traditional venues across the City where it engages with up to 50,000 people, from all ages and backgrounds, through the annual festival and tens of thousands more through our community projects.

In 2019, engagement was explicitly included in our promotion criteria.

2.6 International strategy

Our global connectivity reflects the creative and vibrant partnerships that we have established across the world. We are also taking our collaborative research models and applying these worldwide, benefiting from the insights and lived experiences of people and partners in areas such as Central and South America, Africa, Southeast Asia and Europe, to affect social justice outcomes, professional practice, human and animal health outcomes, national government and international policies and guidelines. GCRF (Section 2.4) has also been important in our international strategy.

Our work in [One Health](#) is truly global, from eliminating rabies and the surveillance of anthrax in Africa, to research on Lyme disease in the Outer Hebrides, bringing together ideas, research and policies from multiple sectors to achieve better health outcomes for all.

We have also focused support on the development of research collaborations with our strategic partners: Columbia University, Nankai University, McGill University, Smithsonian Institution, University of Electronic Science and Technology of China (UESTC), University of Hong Kong (HKU) and University of Sydney, plus our partners in our international networks: Universitas-21 and Guild of European Research-Intensive Universities.

Following the University's ground-breaking report into our links to [historical slavery](#), a joint research centre has been established with the University of West Indies, with an initial focus on cross-disciplinary research, including the historical, social and medical implications of diabetes, the ecological impact of plantations and an online museum of slavery.

In 2013, we established a dedicated EU Funding Team to promote and support access to EU funding. In 2014–2019, we have received 37 ERC awards (€51.8M), placing us 10th in the Russell Group by number of awards/FTE. H2020 funding has consistently represented ~9% of UofG's research income. Post Brexit, this team is further evolving its remit to support all international funding, engaging with the strong international collaboration thread in the UK Government's 2020 R&D Roadmap.

3. People

We reward what we value through our recruitment and promotion criteria. We recognise that academic life is multi-dimensional and excellence derives from focus. In 2018, in recognition of our commitment and approach, we retained our [HR Excellence in Research Award](#).

In 2019, we refined our academic job descriptors to reflect our aspirations and institutional priorities. This included the need to evidence excellence and collegiality across each of the criteria on all academic career tracks. In addition to bringing parity of credit between outputs and impact, we changed the focus to the achievement of impact itself, not just the underpinning activities. We also recognise the importance of open research and author contributions.

Acknowledging that many of today's discoveries rely on *team science*, we created formal career tracks for research scientists and technologists in 2017, from junior scientist level upwards and recently extended to the professorial equivalent level. We have 33 staff appointed on this basis, recognising that their specialist skills provide and develop core underpinning scientific and analytical expertise, e.g. bioinformatics, nanofabrication, statistical analysis and research facility managers. This career framework has been recognised by the Royal Society, the Academy of Medical Sciences and we have shared our experiences with other institutions across the sector.

Our strategic *Lord Kelvin / Adam Smith* staffing scheme represents an investment >£20m since 2014, attracting excellent scholars at Professorial, Fellow and PGR levels.

The new research strategy places significant focus on our people, in how we collaborate, on how we support each other to succeed and in valuing and recognising varied contributions to research.

3.1 Early Career Researchers (ECRs)

Over the past few years we have aimed to be the best institution in the UK at which to develop a research career. Our activities for development are focussed on both independent researchers and research assistants/associates.

Our Early Career Development Programme (ECDP) is aimed at newly appointed independent academic staff at grades 7 and 8 (lecturer/research fellow) and designed to progress them to Grade 9 (senior lecturer or equivalent). It provides learning and development opportunities in all aspects of the academic role and includes allocation of a mentor to provide support and advice. The programme has contributed to our ability to attract exceptional academics to the University and provided a structure by which to invest in their professional development. As a result, our staff are better supported and are advancing faster in their careers.

The Glasgow Crucible is an annual four-day leadership and development programme that has been operating since 2015. It is designed to support ECRs in taking the next step in their career; helping them to be bolder and more ambitious in their funding applications and publications; helping them get to grips with the knowledge exchange agenda and develop meaningful collaborations within and outside the Institution.

Lord Kelvin / Adam Smith (LKAS) Fellowship Scheme was established in 2012 to support outstanding researchers in the early stages of their careers to establish, or further develop, an independent research career. Since 2014, 67 research fellows (53% male, 47% female) have joined the University from across the world, with 42 securing their own additional fellowships from UK-wide sources.

Our commitment to the **Concordat to Support the Career Development of Researchers** has been demonstrated by publishing a [3-year action plan](#) with 5 priorities: provide clarity of career expectation; provide opportunities to undertake CPD; enable and equip research staff to pursue a variety of career destinations; track the destination of research staff; provide support for PI/managers.

Institutional level environment template (REF5a)

3.2 Research students (PGRs)

We currently have 2,826 FTE PGRs, up 38% from 2014/15. 44% are from the UK, 23% from the EU and 33% are international. 52% female and 48% are male. The percentage of PGRs who declared as BAME has increased from 26.0% in 2014/15 to 31.4%.

Each College has a dedicated Graduate School to provide a comprehensive range of training and development opportunities that are tailored to their disciplinary areas, alongside social and wellbeing initiatives.

We organise >200 PGR workshops a year, ranging from research integrity and data management to writing, presentation and project management skills and public engagement. 58% of PGRs participate in at least one course each year. Despite adverse circumstances in 2019/20, the pivot to online delivery was successful. Completion rates for year 1 mandatory training continues to improve, with 88% of required cohorts attending data management and 89% attending research integrity. A survey of those attending in 2020 (response rate 32%) indicated that 83% of respondents were satisfied or very satisfied with their course.

We have a dedicated PGR writing adviser who provides workshop and one-to-one support for researchers. We also place significant emphasis on building the PGR community, with numerous social and academic events throughout the year.

From PRES, 93% (2019) of PGRs agree their supervisor(s) have the skills and knowledge to support their research (92% average across the UK). 85% of our PGRs (2019) are satisfied with their overall experience (81% average across the UK).

3.3 Technical staff

Our 722 FTE highly trained technicians represent ~8% of our staff and are key contributors to our research success. In 2019 we published our [Technician Commitment Action Plan](#), as part of our pledge to the UK-wide Technician Commitment initiative. Our action plan focuses on support for technicians to gain recognition through professional registration, career development (including clear, documented career pathways) and sustainability of technical skills across the organisation.

3.4 Equality and diversity

The University of Glasgow is committed to promoting equality in all its activities and aims to provide an environment free from discrimination and unfair treatment. The Vice Chancellor is the overall Equality Champion with a further eight Equality Champions (all members of the Senior Executive Team) who take responsibility for one or more protected characteristics. Three of these champions are for Race Equality, Mental Health and Refugee and Asylum Seekers, as we recognised specific requirements in these areas.

Equality and Diversity Essentials training is mandatory for all staff and *Unconscious Bias* training course is mandatory for all staff involved in recruitment and promotions. *Implementing Reasonable Adjustment* training is mandatory for those in management roles. We also have a pool of Respect Advisors who support staff or students who think they may have been subject to harassment or bullying with confidential support to address this informally.

Gender Balance - Across the whole workforce, there is a gender imbalance in favour of women (60%;40%). Across our REF-returned staff, there is a gender imbalance in favour of men (65%;35%). At Grade 10 (professorial and equivalent), women constitute 32% (up from 21% in 2013). In promotions, the success rate of male and female applicants is in proportion to the numbers applying. Within the **Senior Executive Team** 53% are female and three of the four Heads of College are female. 40% of Heads of School are female.

Up to Grade 9, there is a **gender pay gap** in favour of women. However, at Grade 10 the gap is 16% in favour of men. One key action to address is our senior level gender pay gap is to encourage the upward trajectory of females and to have greater diversity in roles which attract additional pay. In 2016 we established our *Gender Pay Action Plan*, and since then we have increased the proportion of female professors by 3% and decreased the pay gap by 1.2%. We acknowledge there is still substantial progress to be made in this regard.

Institutional level environment template (REF5a)

Athena SWAN - we achieved our institutional Athena SWAN Bronze award in 2013, renewed in 2016. Many of our academic units have active equality committees and overall hold 22 awards: one Gold, eight Silver and thirteen Bronze.

We have supported 140 female staff (academic and professional services) to participate in the Advance HE Aurora programme, aimed at supporting with leadership ambition.

All job families are seeing continued increases in the percentage of Black, Asian and Minority Ethnic (BAME) staff; 11.5% of Research and Teaching staff identify as BAME. The proportion of international (non-UK, non-EU) staff continues to grow; 49.6% of international staff are BAME.

Since REF2014, we instigated a number of measures aimed at supporting individuals to maintain their research momentum during periods of, for example, significant caring responsibilities. This includes an *Academic Returners Research Fund* that allows staff returning from parental leave to apply for up to £10K to support their research activity.

Mental Health – In addition to our Mental Health Strategy and Action Plan, we have over 400 trained Mental Health First Aiders and support staff, plus access to free online counselling and advice.

Disability – We hold Disability Confident Level 2 accreditation from DWP, ensuring accessible and inclusive recruitment processes and ongoing support for disabled staff. We recognise that our University can be a challenging environment for accessibility, and we strive to support staff in all aspects.

Sexual Orientation – We are a Stonewall Diversity Champion and have an active LGBT+ Staff Network which supports events on campus. This includes profiling LGBT+ relevant research at all levels. In 2020 we were placed 148 out of 500 in the Stonewall Workplace Equality Index.

We host a wide range of events to celebrate equality for staff and students, including Black History Month, LGBT History Month and International Women's Day.

4. Income, infrastructure and facilities

4.1 Strategies and supporting activities for generating research income.

In 2011 we embarked on a transformation of our approach to research management, investing £3.4M in staff, staff training and IT system, and a new end-to-end process. This led to project coordinators embedded within academic units, to support researchers in the scoping, the application and the delivery of research projects. The framework is centrally managed, to ensure consistency and effectiveness, but delivered locally. It has been active since 2015 and our research income KPI has improved by 9% over the period to £161K/FTE in 2019.

4.2 Infrastructure supporting research and impact

The University hosts an extensive range of infrastructure and facilities to support its research. Most of our research is located on our campus in the Glasgow West End. Medical research also takes place on the Queen Elizabeth University Hospital Campus, hosting the University's Imaging Centre of Excellence and Clinical Innovation Zone. Our School of Veterinary Medicine, Small Animal Hospital, MRC-UoG Centre for Virus Research and Institute for Cancer Studies are located on a separate estate 5km away. Our School of Interdisciplinary Studies is located on our rural campus in Dumfries in south-west Scotland. We are also co-located in Singapore and China with our transnational education partners.

The UoA Environment statements provide a full description relevant to their unit and discipline. Below, a few key facilities are briefly described to illustrate the richness of the provision and our support of them.

The University Library - is one of the oldest and largest libraries in Europe. It holds more than 3 million books and journals, as well as providing access to an extensive range of electronic resources including over 51,900 electronic journals. It also houses sections for periodicals, microfilms, special collections and rare materials.

The Hunterian - The Hunterian Museum and Art Gallery is one of the leading university museums in the world; its entire collection of 1.5 million objects and specimens is one of the foremost resources in Scotland for academic research and teaching, and recognised as a Nationally Significant Collection. In 2016, we transformed access via the creation of a new and bespoke facility at Kelvin Hall (adjacent to the University), helping to generate new research ideas, cultural insights and learning opportunities.

The **James Watt Nanofabrication Centre** is a world-leading facility, comprising >£37M of nanofabrication tools in an 1800sqm clean room. This has expanded by 1000sqm since REF2014 with support of £4.4M University estate investment. The centre supports >£53M active research grants, as well as national programmes such as the National Quantum Technology Programme. Kelvin Nanotechnology Ltd (University owned) delivers commercial access to the centre, working with more than 300 global companies and 100 academic institution customers.

Campus Development - since 2016, we have been taking forward one of the single largest educational infrastructure projects in Scotland's history. This includes a 10-year capital plan and £1Bn investment to develop our estate, including the creation of new, innovative, and exciting new facilities and infrastructure, with early projects including a Learning Hub, a new building for our Institute of Health & Wellbeing and an Advanced Research Centre.

The Advanced Research Centre (ARC) will open in 2022 and will be a unique, state-of-the-art facility for collaborative research. It will have 17,000sqm of floor space and house 600 researchers largely in support of our Research Beacons. In addition, it is designed to advance our research culture, bring researchers from different disciplines together to foster new collaborations, and inspire new challenge-led projects. The ground floor will be open to the public, embedding the building within the wider cultural quarter of the city.

Institutional level environment template (REF5a)



The ARC provides a natural conclusion to this description of our research environment. It encapsulates our approach: supporting our ambition to work in teams and build on each other's ideas to further knowledge and benefit society, within a collaborative environment in which our talented researchers can thrive.