

Institution: University of the West of England, Bristol

1. Context and mission

1.1 Context

The University of the West of England, Bristol (UWE) is a modern, comprehensive university with 32,000 students and 2,050 academic staff. We have an outstanding record for teaching quality along with a significant and growing mass of high-quality research with real-world impact. Our mission looking ahead is:

'To address future challenges through outstanding learning, research with impact and a culture of enterprise' (UWE Strategy 2030: Transforming Futures).

We take pride in our outstanding student experience, delivered through practice-led, research-informed programmes. We secured TEF Gold in 2018, 7th in the UK nationally for overall student satisfaction in the NSS, 2020, 21st in the UK in the 2021 Guardian League Table, and 18th in the UK Graduate Outcomes Survey.

We have also achieved sustained growth in the scale, quality and impact of our research. Research income grew by almost fifty percent over the current REF period and the number of staff whose work is included in our REF 2021 submission has increased by 25% compared with 2014.

Over the previous REF period, internationally excellent and world-leading research increased from 37% to 61%, with 79% of our research impact judged to be at least internationally excellent. We are confident, going forwards, that our strategic priorities and investment will ensure that we continue to build on this success, driving excellent, challenge-based, impactful research.

Contextually, UWE sits in the thriving and dynamic Bristol city-region with a population of 1.1 million. This is a leading European centre for aerospace and high value manufacturing, home to an internationally significant, high-growth cluster of digital and creative industries, and a major focus for next-generation, tech-enabled financial, legal and business services, health, education and media industries.

This rich ecosystem has provided the University with wide-ranging opportunities for collaborative research and knowledge exchange, with major businesses, SMEs, NHS and civic partners, and a wealth of community organisations.

1.2 Institutional focus

Structurally, the University has four faculties: Arts, Creative Industries and Education; Business and Law; Environment and Technology; Health and Applied Sciences. There are thirteen subject-based academic departments and fifteen cross-disciplinary University Research Centres.

Faculty Research and Knowledge Exchange Committees report to a University-level RKE Committee which reports in turn to Academic Board and the Board of Governors. Operationally, research is driven by the University Research Strategy Implementation Group, chaired by the PVC Research and Enterprise.

Our REF 2021 submission includes the work of 400 academic staff compared with 319 staff submitted in 2014. This increase does result to an extent from the more inclusive criteria set following the Stern Review but it mainly reflects the growing numbers of staff generating high quality research, thereby gaining roles and workload that confirm their status as having 'significant responsibility for research' as set out in our Code of Practice.

External research income over the REF period totalled £89m. Income rose year on year from £10.7m in 2013/14 to £15.7m by 2019/20 (REF 4b). Comprehensive in disciplinary terms, our submission spans thirteen Units of Assessment across all four Main Panels.

2. Strategy

2.1 Strategic goals

Institutional strategy over the assessment period was set by *UWE Strategy 2020*. This included 'Research with Impact' as one of four key priorities. The overall aim was that UWE would combine: *'outstanding research with real world impact, a high quality student experience with excellent employment outcomes, and active and successful community and business engagement, and enterprise support.'*

Research Strategy over the assessment period was:

'to deliver world class performance in selected areas of research that meets the needs of a sustainable economy and society, and feeds the scholarship and enquiry underpinning our learning and teaching.' UWE Research Strategy 2020

Our objectives for research were to:

- advance knowledge, support sustainable economic growth and development, and enhance health, well-being and the environment.
- achieve outstanding and far-reaching research impacts on business, government, the NHS and other stakeholders, communities and society.
- enhance the recognition and profile of UWE nationally and internationally.
- integrate research, learning and teaching in order to attract students, enrich the student experience, support student retention and enhance graduate employability.
- drive business and public engagement, innovation and enterprise support, and the role of UWE as an 'anchor institution' in the city-region and beyond.
- enhance our capacity to recruit and retain high quality staff, and to promote employee engagement, career opportunities and job satisfaction.

Achievement against these objectives is set out in the unit-level submissions. Over the assessment period, we have:

- Grown external grant income by almost 50% over the last REF period to £15.7m in 2019/20.
- Increased the number of academic staff whose work is submitted to the REF from 319 in 2014 to, now, 400.
- Enhanced the quality and profile of PGR activity, including membership of DTPs across four Research Councils.
- Invested some £200m in facilities for research and teaching including science labs, simulation and clinical suites for applied health, new buildings for Business and Law, Art and Design, and Engineering, new studios and facilities for creative and media disciplines (section 4.2 below).
- Secured one of four University Enterprise Zones set up nationally by the Government, along with match funding from the Local Enterprise Partnership, and supporting collaborative research.
- Developed capacity for research leadership through strategic recruitment and enhanced progression routes to Associate Professor and Professor.
- Invested in development programmes for early career researcher, mid-career research acceleration and inter-disciplinary research initiatives.
- Achieved TEF Gold and outstanding student satisfaction ratings through research-informed learning and curriculum design.
- Secured collaborative research with HEIs, business and other partners nationally and internationally including through UKRI Strength in Places; an AHRC Creative Industry Hub;

Research England Expanding Excellence funding; the Leverhulme and Wellcome Trusts; Cancer UK; the EU; and the Gates Foundation.

2.2 Future research strategy: the next five years

Our goal over the next five years set out in *UWE Strategy 2030: Transforming Futures*, is: *‘Solving future challenges through outstanding learning, research and a culture of enterprise.’*

Our focus will be on:

‘Internationally excellent research with real-world impact, building on our strengths, prioritising challenge-based research and enhancing the student experience’.

Objectives in our 2020-2030 Research Strategy are to:

- Shape the ambition and reputation of the University around thematic Research Beacons - Digital Futures, Health and Wellbeing, Creative Industries and Technologies, Sustainability and Climate Change Resilience.
- Prioritise challenge-based interdisciplinary approaches with far-reaching research impact.
- Develop research which drives outstanding, research-enabled, practice-based learning and skills.
- Combine local focus and global reach across research activities and impacts.
- Promote collaboration to drive knowledge exchange, innovation and enterprise.
- Support and develop opportunities for research career development.
- Promote and support development of post-graduate research.
- Address the need for inclusion of groups and individuals under-represented across our research activities.

Our thematic Beacons are based on current and emerging research strengths, future challenges and opportunities. Alongside targeted investment, our ambition is to secure significant, continued growth in external research income to drive high quality research, along with substantial expansion in numbers of research-active staff.

2.3 Research Impact

Impact has been at the heart of our research strategy and activity over the course of the assessment period, aiming to ‘enhance our reputation for excellent research that has a positive impact on economy and society’. *Research Strategy 2020* was reinforced through a published *Impact Strategy 2020* designed to promote impact across the University. We developed training and professional support for researchers to deliver impact, and worked with them to develop and evidence this.

Details of impact are exemplified by the forty-one impact cases studies included in our submission and in unit-level environment statements. Collaborative research with business, the NHS, and community-based organizations has led to wide-ranging economic, health, social and environmental benefits detailed in the submissions. The University has invested strategically to enhance the scale and reach of research impact. UWE also co-hosts, with the University of Bristol, the National Coordinating Centre for Public Engagement and works with the Centre to promote research engagement nationally.

2.4 Open research

The University has a well-developed strategy, policies and support for open research which is compliant with the Concordat on Open Research Data:

UWE Bristol is committed to the aims and principles of open research. We encourage our research community to explore the benefits of using open practices in their research. We will seek to increase the quality, integrity and accessibility of our research by supporting a growing culture and practice of open research (Statement on Open Research).

Measures have included:

- Making all research outputs freely discoverable through investment in a new, external-facing, UWE Research Repository
- Providing training, advice, financial resources and administrative support through Library Services and the Research, Business and Innovation service
- Establishing a data repository to enable staff and PGR students to make data openly available
- Implementing ORCID ID for all researchers and SHERPA compliance.

2.5 Alignment with regional and national priorities

Research has been strongly aligned with priorities set by funding bodies including UKRI, major charities, UK Government and the EU. This has included a strong focus on opportunities for policy-focused, challenge-based research commissioned by government, the NHS and other agencies in line with their priorities. The University's Research, Business and Innovation service has actively supported researchers and research groups to identify and capitalize on opportunities in line with these priorities.

Regionally, the University has built on the work of the South West and Wales Science and Innovation Audit, and has worked closely with the LEP and Mayoral Combined Authority, the Academic Health Science Network and a wide range of business partners to establish priorities and realise opportunities for place-based research clusters. These have included the Centre for Fine Print Research, funded through Expanding Excellence in England (£7.7m), South West Creative Technology Network (£6.6m), and the MyWorld creative hub funded through Strength in Places (£36m, led by University of Bristol, £1.1m to UWE).

2.6 Interdisciplinary research

Our fifteen University Research Centres drive interdisciplinary, challenge-based research. The Centre for Appearance Research, for example, brings together clinical studies, health and well-being, psychology and media studies; the Digital Cultures Research Centre combines media studies, cultural studies, digital technologies and creative product design; Bristol Robotics Lab, a joint initiative with the University of Bristol, brings together engineering, biosciences and computer science. Interdisciplinary research has been explicitly promoted through an annual Vice-Chancellor's Challenge Fund to support early stage cross-disciplinary research.

2.7 Research integrity

A strong culture of research integrity has been developed through robust policies and procedures, training and support, monitoring and audit. The University established a new Research Governance Team in 2015 to provide advice, guidance and to develop provision compliant with the *Concordat to Support Research Integrity*. A revised *Code of Good Research Conduct* and *Research Misconduct Procedure* were introduced in 2016.

All research involving human participants is considered by Faculty Research Ethics Committees and may be referred to the University Research Ethics Committee for full approval. Projects involving animal welfare or human tissue require submission to specialist sub-committees. All staff are required to complete on-line governance training as a condition of submitting bids, receiving internal funding or supervising PGRs.

A *Data Protection Standard for Research* defines how personal data processed for research purposes must be treated, and the relevant data protection requirements. Training in Information Security and Data Protection is mandatory for all staff. All research involving the collection or use of data, including PGR, requires completion of a data management plan.

2.8 Research collaboration and wider engagement

Research has been funded nationally by Research Councils and Innovate UK, Research England, charities including Leverhulme Trust, Wellcome Trust, and Cancer Research UK; and internationally by the EU and the Gates Foundation, among many others. Details of our extensive collaborative research across all research areas with HEIs and wide-ranging other partners is set out in the unit-level statements.

From a strong research base, the University has built an extensive portfolio of knowledge exchange, enterprise support, community and business engagement. Eight EU-funded innovation and enterprise projects secured since 2016 have generated nearly £10m for the economy, supported over 650 SMEs and created 370 jobs. The scale and scope of enterprise activities reflects the profile and relevance of UWE research, providing wide-ranging partnership opportunities for researchers, postgraduates and students. For example, the University secured 39 Knowledge Transfer Partnerships over the assessment period; is a lead sponsor of the Bristol Cultural Development Partnership and year-round Festival of Ideas; and has strategic partnerships with NHS partners, the Academic Health Science Network, SW Nuclear Hub, the West of England LEP and Mayoral Combined Authority, Bristol One-City Office and Bristol Green Capital Partnership.

3. People

3.1 Staffing strategy and development

Our staffing strategy is underpinned by a commitment to recruiting and retaining high quality staff, providing career progression and development opportunities and support for all our staff to realise their research potential.

Academic staff include a total of 1,492 Category A eligible staff of which 400 staff have significant responsibility for research (SRR), as defined for REF purposes by the institutional Code of Practice. Academic staff include 173 on research grade contracts, 37 permanent and 136 fixed term. Indicative of the vitality and sustainability of the research base, 150 of the staff with SRR (38%) joined UWE over the course of the REF period and 17% were Early Career Researchers (as defined by REF).

We have developed a comprehensive range of initiatives to support research activity and career development. Our academic workload model provides for research time to be explicitly allocated and recognised in workloads at an individual level. Measures include:

- Research and scholarship time allocated contractually to all academic staff, research time for newly appointed staff, and opportunities for staff to secure additional research time based on achievement and proposed activities going forwards
- Vice Chancellor's Early Career Researcher Awards providing research time, resources, coaching and support for an annual cohort of ECRs on a competitive basis - this saw investment of more than £2m over this REF assessment period, supporting 140 Early Career Researchers with 50% of awards to women and 19% to BAME staff (see section 3.4 below)
- A Vice-Chancellor's Accelerator Programme, from 2018, to provide tailored support and development for selected mid-career academic staff to build confidence, collaboration, and grow the pool of PIs delivering successful projects
- Research capacity building to recruit over 40 new academic staff with their time allocated on a 50:50 basis to research and teaching for an initial three-year period with an open-ended academic teaching and research contract following this.

Additional measures for staff support and development include: Annual Performance and Development Reviews; a Flexible Working Policy; enhanced maternity and paternity provision; a comprehensive programme of skills and professional development activities; a pioneering Mental Wealth First strategy; and a 24-hour Employee Assistance Programme.

3.2 Research staff

UWE has supported early career and research grade staff in line with its commitment to the *Concordat to Support the Career Development of Researchers*. This was endorsed by the granting of the *HR Excellence in Research Award* in 2012, renewed biennially up to 2020.

Measures to support early career researchers have included:

- The VC's Early Career Researcher Awards, open to staff on research contracts as well as early career research/teaching staff

- A Researchers' Forum for staff on research contracts to support career development activities and provide a platform for staff across the University to meet and address relevant issues
- Allocation of time within the academic workload planning system for career development for all staff on research contracts
- Investment to provide bridging funds, contract extension and continuity of employment
- A Researcher Training and Development Programme aligned to the Vitae Researcher Development Framework
- Opportunities to develop teaching skills through a PG Certificate in Teaching in HE
- Progression pathways from fixed-term to permanent contracts and from research contracts to teaching/research contracts.

The 2018 CROS survey showed an increase of 8% in staff on research contracts who were on open-ended contracts compared with 2016, and an 11% increase (to 83%) in staff on research contracts who had completed annual Performance Development Reviews. The 2019 UWE Staff Survey showed staff on research contracts to be more positive than other academic staff in relation to job role and working environment.

3.3 Support for Postgraduate Research

Comprehensive support for all aspects of PGR is provided through the University Graduate School. Progression is monitored on an annual basis for all PGR students and subject to confirmation by the Research Degrees Awards Board, chaired by the PVC Research. All vivas are managed by an independent chair. Training is compulsory for all supervisors, internal examiners and independent chairs.

PhD awards include a minimum of 60 taught M-level credits to provide relevant training, skills development and specialist knowledge. Research-based Professional Doctorates combine M-level study with a shorter research-based thesis.

The UWE Researcher Development Programme promotes skills development, progression, professional and career development for PGR students. University Research Centres provide a research-intensive culture, local training and development activities, seminars and centre-based networking and support.

With an emphasis on financial sustainability and timely completion, the University has successfully expanded PGR provision, aligned with research priorities, across the assessment period. The 2019 PRES survey showed 82% of UWE PGR students were satisfied overall with their degree programme experience and 85% were confident they would finish within the time expected.

We have successfully engaged with Doctoral Training Partnerships to expand opportunities and enhance excellence through collaborative provision. Over the assessment period, UWE has; led an AHRC CDT in Digital Design, Media and Art with the Universities of Plymouth and Falmouth; partnered with the University of Bristol on an EPSRC Robotics DTP; partnered in the AHRC SW and Wales DTP with eight universities and other partners; joined the ESRC SW DTP with Bath, Bristol and Exeter Universities; and the BBSRC SW Biosciences DTP with Bristol, Bath, Cardiff and Exeter Universities. Institution-funded investment has also secured match funding for collaborative PhDs from business, NHS and other partners, to the value of £2m in the two years to 2019/20.

3.4 Equality, diversity and inclusivity

We have an overarching ambition: *'to make UWE Bristol a supportive and inspiring place to learn and work - somewhere where diversity of experience and perspective is encouraged, and learning and research is shared and accessible'*.

The *UWE Single Equality Scheme* seeks to ensure that equality and diversity is embedded across all University activities and partnership working. It brings together a range of policies and

initiatives that have been developed over the REF period. Implementation is overseen by an Equality, Diversity and Inclusion Committee, reporting to Academic Board and chaired by a Pro Vice-Chancellor - Equalities and Civic Engagement.

In terms of policies and initiatives, the University:

- is a *Race Equality Charter Member*, a *Disability Confident Employer*, a *Stonewall Diversity Champion* and a *Mindful Employer*.
- secured an Athena SWAN bronze award in 2013, renewed in 2017, five departments hold bronze award holders and one, silver. Priorities in the Institutional Action Plan include monitoring and supporting research career development including through internal investment and award schemes.
- has operated a University-wide Women in Research Mentoring Scheme throughout the REF period and provides coaching and support for research career development at all levels.
- requires all staff to undertake a mandatory training module focused on Equality, Diversity and Inclusion. Recruitment panel chairs and members undertake mandatory recruitment and selection training on a regular basis and criteria for panel composition and candidate selection are designed to ensure diversity.
- is committed to fully recognizing technicians as contributors to research projects and outputs as a founding signatory to the Technician Commitment.
- set out its commitment to equality, diversity and inclusivity in the development of our REF submission through our Code of Practice developed in collaboration with our EDI unit and drawing on extensive consultation with staff including EDI networks.
- set out processes to ensure the transparent and consistent application of independent criteria for the selection of REF outputs based on quality. All staff involved in the REF process undertook specific EDI training based on a model designed by Advance HE.

Key indicators

Key indicators demonstrate that we have made considerable progress – but also that there is some distance still to travel:

- The Mean Gender Pay Gap for the University as a whole was 11.7% in 2019, down from 12.4% in 2018 and 13.2% in 2017 – this compares favourably with the national gender pay gap of 17% in 2019.
- The top quartile gender pay distribution was 50:50 in 2019 - compared with 48:52 in favour of men in 2017. Women represented 44% of the top 5% of earners in the University in 2019 up from 37% in 2014.
- Women represented 45% of professorial staff in 2019 compared with 51% of all academic staff, up from 38% in 2014. BAME staff represented 11% of professorial staff in 2019 compared with 13% of all academic staff, up from 6% in 2014.
- In REF 2021 women represent 50.4% of all Category A staff *eligible* for inclusion but a *lower* proportion, 39%, of those defined as having SRR according to the criteria set out in the Code of Practice. BAME staff represented 16% of those eligible for inclusion and also 16% of those with SRR.
- Monitoring of the Vice-Chancellor's Early Career Researcher Awards over the last 7 years shows that on average women comprised 51% of academic staff and 50% of awards. BAME staff comprised 13% of staff and secured 19% of awards on average over the period – BAME success fell away however in the last two years and is being addressed through targeted support.
- Monitoring of the more recent Vice-Chancellor's Challenge Awards for interdisciplinary research shows that for 2019/20 BAME staff accounted for 13% of applicants but 20% of awards made. Women accounted for 38% of applicants and 41% of awards made.
- Of professorial staff awarded criteria-based merit pay increments in 2019, 43% were female and 14% from BAME groups.

4. Income, infrastructure and facilities

4.1 Research income

As noted, external research income is strong and growing. External income was £88.6m over the REF period, and rose year on year from £10.7m in 2013/14 to £15.7m in 2019/20, an increase of nearly 50% (REF 4b).

Demonstrating diversity of funding by source, 25% of external income was secured from research councils, 11% from UK charities, 7% from industry, 19% from the EU and 38% from the UK government and other sources.

Research investment from all sources including external grants, QR funding and internally-funded research investment as a whole totalled £42.4m in 2019/20, 12.5% of total University expenditure (TRAC).

UWE is in Benchmark Group C for TRAC purposes, HEIs with research income 5%-15% of total income, and was ranked second overall in Group C for external research income in 2019/20.

Internally-funded research investment includes significant support for PGR, early career and more established researchers, totalling £8.2m in 2019/20.

Strategies for research and research income generation across the University include:

- External research income set as a headline KPI to focus activities and support for high quality research secured through peer review and competitive tender and to drive quality outputs and impact.
- Investing directly to support research career development, high quality outputs and bidding for external research funds.
- Investment of capital in renewal of research facilities and equipment including labs, IT, fabrication, creative and digital facilities.
- Annual investment in research time allocated by faculties in our academic workload model – equivalent to around £4m pa at the start of the period rising to £6m in 2019/20, and £35m over the REF period as a whole (based on TRAC valuation of time).
- Targeted investment in forty 'new blood' research leadership appointments in priority areas through internal funding and a linked investment trust.
- Annual investment in PGR bursaries (a rolling fund of c £500k) plus fee waivers, internal funding, and, increasingly, co-funding with external partners.
- Investment, annually, in Research Establishment awards for new staff, Early Career Research awards, and a Mid-career Research Accelerator, focussed on career development, quality outputs and securing externally funded research.
- Inclusion of external research income generation as a KPI in Personal Development Reviews and in the criteria for Professorial Merit Pay.

4.2 Infrastructure and facilities

Professional support for research, impact and income generation is provided by the University's Research, Business and Innovation (RBI) service, Finance and Human Resources and includes:

- Funding information and intelligence
- Supporting cross-University research networks
- Bid development and support including peer review
- Project management
- IP, technology transfer and commercialisation
- PGR support and management through the Graduate School
- Research governance and integrity
- Research impact.

RBI also works closely with a wide range of business, health and community partners and facilitates opportunities for collaborative research, knowledge transfer and exchange, business

advice and support. Targeted investment of HEIF funding also supports collaborative research, knowledge exchange and impact.

Significant investment over the assessment period has included:

- £7m University investment in a new and enhanced 'Lab Zone' in the Faculty of Health and Applied Sciences providing research facilities and support for PGR research in biological, biomedical and environmental science
- Major investment in new buildings for Business and Law (£55m), and Engineering (£33m) including significant research facilities
- Investment in collaboration with the University of Bristol, and with investment from the West of England LEP, to create the Bristol Virtual Reality Lab (BVRL) providing dedicated space, equipment and facilities to support research, training and business collaboration. The Lab recently contributed to securing the £36m 'MyWorld' Strength in Places project referred to above, building on UWE investment in the Pervasive Media Studio, a joint venture with University of Bristol and Watershed Media Centre.
- A £6m expansion and refurbishment of facilities for the Bristol Robotics Laboratory (BRL), a major joint facility with the University of Bristol on UWE's main campus in a former Hewlett Packard manufacturing facility. This provided additional space for research on bioenergy, autonomous vehicles, human-robot interaction and machine vision.
- Investment in a new end-to-end Worktribe Project Information and Management system supporting research bidding, project management, financial management, outputs and impact.
- Investment of £16.5m in a University Enterprise Zone, co-located with the BRL, including £4m secured from central government as one of four UEZs funded nationally with match funding from the LEP and the University. This provides workspace and labs for some 50 small technology businesses and a graduate incubator set up with EU funding to promote collaborative working between UWE researchers and business, spin-outs and tech transfer.
- £2.5m support for dedicated facilities for the expansion of the Centre for Fine Print Research which secured £7.7m Research England *Expanding Excellence in England* funding. This supports 30 researchers engaged in leading edge research and industrial collaboration across innovative print, colour and design processes.

We are confident that this level of investment will be reflected in the continued growth of research excellence and impact into the future.