REF2021

Institution: University of Wolverhampton

1. Context and mission

The University of Wolverhampton (hereafter UoW) is an anchor institution for, and of, the Black Country and the wider West Midlands. We were founded in 1827 as a mechanics' institute to educate the local workforce, and were granted University status in 1992. We are proud to call ourselves the 'University of Opportunity' with priorities driven and influenced by our location in the heart of one of the most economically and socially deprived regions in the UK. The Black Country has the lowest proportion of jobs relative to the working age population (a density of 0.69 compared to a national average of 0.83) and the second highest proportion of the population that are unemployed (6.8% versus a national average of 4.6%). Consequently, our mission is to 'maximise opportunity through generating knowledge, innovation and enterprise'.

UoW has 18,875 students, 965 academic and 1,565 non-academic staff working across 18 schools organised into 3 Faculties (Faculty of Science and Engineering; Faculty of Education, Health and Wellbeing; and Faculty of Arts, Business and Social Sciences). Research underpins our Strategic Plan, which focused in the assessment period on supporting learning of students, transforming lives and impacting research beneficiaries and fostering global knowledge exchange and collaborations. We have a minority of academic staff on research-only contracts (34 staff), and circa 40% of staff on Teaching and Research Contracts had significant responsibility for research (average % during assessment period).

Research is organised in two types of units. Research Institutes are self-funding, cross-faculty, interdisciplinary units with a critical mass of staff and research students. Research Centres sit within faculties, are typically smaller in size and bring together researchers in cognate subject areas, typically aligned to a Unit of Assessment (UoA). We have three Research Institutes and 15 Research Centres that span all main REF panels, but with a greater prevalence of subjects aligned to panels C and D. This builds on our historic research strengths in library and information management, modern languages and linguistics, history as well as more recent investments to strengthen research in health and education. New to REF2021 are submissions in Psychology, Computing, Social Work & Social Policy, and Performing Arts and Film Studies, supported by internal research investments.

2. Strategy

UoW's Research Strategy 2012-16 focused on 4 main areas: 1) Developing research staff (by providing structured career paths, developing staff at all stages of research careers), 2) Improving the quality of research and impact (through mentoring, peer review processes, strengthening of collaborations) and 3) Supporting and growing our research student community (through the setting up of a Doctoral College DC), 4) Enhancing research governance and research integrity (through the University's Research Policy Unit RPU). Evidence of the success of the strategy was already seen in REF2014 where we increased the number of UoAs (+2) and staff submitted (+30), and increased the proportion of world-leading and internationally excellent research. This trajectory is also evident in our REF2021 submission where we submit 4 new UoAs, and have grown the number of staff submitted by 70%.

In 2016, UoW developed a new strategic plan focusing on 3 pillars: 1) Students First, 2) Skills and Knowledge for Economic and Social Transformation and 3) Significant Influence and Impact. Research underpinned the 3 pillars. In 2019, we reviewed and refreshed our research strategy to focus on three priorities for the next 5 years. The first priority, Addressing Societal Challenges through Research, seeks to align research and impact in our institutes and centres with the UN Sustainable Development Goals and/or Industrial Strategy challenges, promote inter-disciplinary research and sustainable partnerships in research. Vibrant Research Communities is our second priority with a focus on development of staff and research students, equitable partnerships and infrastructure to support research. The third priority, Research-inspired Learning, focuses on embedding research and impact across all learning activities and

continuously developing a research culture that promotes rigour, integrity and responsible research. The delivery of our research strategy is supported by an institutional Research Investment Fund (RIF), with a GBP6 million investment in each three-year round, and institutional early career development schemes. RIF2 (2014-2017) focused on developing our own staff and students by funding 25 PhD studentships, 16 sabbaticals and/or enhanced research time, and over 10 research leadership appointments. RIF3 (2017-2020) focused on strategic investments in new areas of research (UoAs 11 and 20), growing existing areas of excellence (UoAs 3, 26, and 34), and supporting subject-related pedagogic research through the creation of an Education Observatory (UoA23). RIF4 (2020-2023) will focus on institutional research infrastructure and new areas of research, including interdisciplinary research to address societal challenges.

UoW's motto is 'Innovation and Opportunity' and impact underpins all three strategic research priorities. Our 2019 Impact Strategy brought together and aligned hitherto parallel impact strategies for research, teaching, knowledge exchange, business and community engagement in order to strategically exploit synergies. The objectives include: i) building awareness of impact; ii) developing participation in impact-related activities by academic and professional staff; iii) continuous learning, recognition and embedding of best practice on impact; iv) assessment of impact; and v) influence policy and practice. 3 Impact Officers in the central Research Hub, each aligned to a set of Centres and Institutes, support this work directly, along with business development staff in the External Engagement Directorate and faculties. We created a new promotion pathway to recognise applied research, and impact is included in the criteria for workload allocation.

UoW has three broad impact audiences: 1) learners at all levels, in recognition that education, training and re-usable learning resources are major pathways to impact; 2) regional public, voluntary and private sector organisations, reflecting our mission to use research to create opportunities and improve the lives of people in our locality; 3) policy-making and policy-influencing institutions to promote longer-term systemic change. Equality, diversity and inclusion is a cross-cutting theme, and submitted Impact Case Studies feature impacts related to gender (UoAs17,27,28,34), people with disabilities (UoAs 4,11,23,26,32), ethnic minorities (UoA3,25,33), LGBTQ+ (UoA33), and other vulnerable groups including children (UoAs 12,20,24). Our wider contributions to economy and society are facilitated through place-based investments and leadership, recognised through the inclusion of Wolverhampton in the UNESCO Global Network of Learning Cities; the award of a UNESCO chair, and placing 10th in HEPI's English Social Mobility Index.

Three Research Institutes are the linchpin for developing inter-disciplinary research. The Research Institute for Healthcare Science (RIHS) brings together researchers in oncology, chronic diseases, microbiology and infection, drug development and delivery, global health and epidemiology, mental health, and innovations in patient care and pharmacy practice to address global health challenges. Of strategic importance is our long-standing partnership with the Royal Wolverhampton NHS Trust through which we created 7 joint professorial appointments, co-funded post-docs and PhD students, and conducted collaborative projects. In 2018 we signed an MOU with the West Midlands Ambulance Service and joint research is developing beyond healthcare projects to encompass cyber-security, workforce planning and transport modelling. The Research Institute in Information and Language Processing (RIILP) brings together researchers from mathematics, computing and linguistics that are renowned internationally for their inter-disciplinary work in statistical cybermetrics and computational linguistics. Strategic collaborations include work with the US Board of Medical Examiners on devising tests for medical professionals; and JISC and the United Nations on research data evaluation. In 2017, the Institute of Community Research and Development was founded, bringing together researchers in social policy, criminology, psychology, public health, and deaf studies to address social challenges in the Black Country and wider West Midlands region. Strategic collaborations include those with local councils, the West Midlands Combined Authority, the WM Police and Crime Commissioners Office, and local and national NGOs.

The promotion of large-scale collaborative projects formed the second strand to promoting inter-disciplinarity. We have strategically targeted Horizon 2020 (see section 4) to build and/or strengthen international research collaborations addressing societal challenges. Successes included projects on transport modelling (UoA13), designing for people with dementia (UoA32), and the democratic role of socially engaged art in Europe (UoA32). To pump-prime such projects, we created an International Research and Innovation Scheme (IRIS) funded from RIF3, which supports a research team (including early career staff) to join an existing H2020 project. We used a GBP180,000 donation from our Chancellor to create 18 early-career fellowships that have an inter-disciplinary dimension.

Finally, Research Centres are supported in developing inter-disciplinary research through shared infrastructure, such as faculty research committees, sandpits or conferences and seminar series published in the University Research Almanac. Examples of successful inter-disciplinary collaborations include the AHRC-funded project 'On behalf of the people: Work, Community and Class in the British Coal Industry 1947-1994' (UoA28 and 17) and work between psychology, health and sports science on emotional regulation and rehabilitation from non-communicable diseases through exercise.

As signatories to the UK's Concordat to Support Research Integrity, the Declaration on Research Assessment (DORA signed 2020) and as members of the UK's Reproducibility Network, we strive to continuously enhance our practices and processes to promote responsible research. Research integrity is an underlying principle of UoW's Research Strategy. To that end, we have in place a comprehensive suite of institutional policies and procedures to support research integrity and open research including a Code of Good Research Practice, Responsible Use of Research Indicators (Metrics) Policy, an Ethics Handbook, Academic Authorship Policy, Procedures for Dealing with Allegations of Misconduct in Research, and Research Data Management Policy (including open data). A Research Integrity Manager in the RPU supports the development and implementation of responsible research. Each Faculty maintains its own Ethics Committee, reporting to the University Ethics Committee. The University Ethics Committee regularly reviews existing policies and develops new ones in line with sector best practice and external reference points such as the UK's Research Integrity Concordat and the European Code of Conduct for Research Integrity. Training on research integrity and responsible research is provided through the Staff Development Programme, the Postgraduate Researchers' Development Programme (for research students), and forms part of the Early Career Researchers Development Programme. Training is available face-to-face, online and supported with materials through UoW's virtual learning platform CANVAS. Our 2018 Annual Research Conference was themed 'Responsible Research' to share good practice on research integrity in our research community and with our partners. Thelwall (UoA34) was a contributor to *The Metric Tide* report and serves on the UK Forum for Responsible Research Metrics.

Since 2011, we used the institutional repository WIRE to make research outputs openly accessible within 3 months of acceptance via the green Open Access (OA) Route. We actively encourage researchers to make research data and software OA, and we plan to invest in the JISC Open Research Hub to better support research data management policy and open research data. Work on OA is supported by the library's scholarly communications team (3 staff), and the University Librarian sits on the University Research Committee and the REF Strategy Panel to provide specialist advice on all OA matters.

3. People

<u>Our staff community</u>

In recognition of our achievement in promoting staff at all levels, we hold the HR Excellence in Research Award since 2012. Progress against the action plan is monitored, and new initiatives launched, by the Researcher Development Sub-Committee of the University Research Committee, which includes a balance of early, mid-career, experienced staff on different contracts, HR, RPU and Career Services. UoW is signatory to the revised (2019) Researcher Development Concordat, and we have a transparent and merit-based recruitment process. Since 2019, shortlisting is anonymous and panels are gender and ethnically diverse. Between

January 2019 and March 2020, the period for which we have the latest data, 29% of recruited staff were aged 18-29; 41% 30-44; 26% 45-59, and 4% over 60.

In 2017/18, we introduced the Wolverhampton Academic Framework to enable staff whose primary employment function is to undertake teaching and research to position themselves within a career pathway that best matches their career aspirations. Academic staff were invited to identify themselves with one of two role profiles and job descriptions: 1) Teaching and Research (significant responsibility for research, SRR) and 2) Teaching, Scholarship and Professional Practice (TSPP). Staff on the Teaching and Research role profile, and staff on research-only contracts, can seek promotion through the internal conferment process to Reader/ Associate Professor and Professor via research or a new knowledge exchange route (KE), in recognition of excellence in research and impact. Staff on TSPP profiles can seek promotion to Associate Professor and Professor through the new Learning and Teaching route. Since its implementation, 10 staff were promoted via the new Learning and Teaching route (5 Professors, 5 Associate Professors, 8F/2M, 10 White), and 5 through the new KE route (1 Professor, 4 Associate Professors, 2F/3M, 3 Black, Asian and minority ethnic (BAME)/ 2 White). In the assessment period, 17 staff were promoted to Professor (6F/11M; 5 BAME/ 12 White), and 23 to Reader (11F/12M; 5 BAME/18 White) through the research route. Staff with SRR typically have between 20-50% of their time allocated to research, or more where they are engaged in externally funded projects. All academic staff contribute to teaching. In line with our commitments to DORA and our Policy on the Responsible Use of Research Indicators, assessments for promotion and research evaluations include a range of criteria including internal citizenship and service, a narrative case for support and a development plan, and we rely on peer review and not journal-based metrics to assess quality of research. In 2019, UoW introduced a confidential process for voluntary declarations of individual circumstances, which are taken into account in promotion decisions.

Career development of all staff with SRR, including research-only, part-time and fixed-term contract staff, is supported through a number of institutional policies and processes:

- A research-leave (sabbaticals) policy, for up to one semester available to all staff after 3 years of service
- An institution-wide mentoring scheme, supplemented by local mentoring arrangements in centres and institutes
- Keeping-in-touch days for staff on parental and other leave
- Return from career break or leave processes involving dedicated mentoring support, career and research plans, phased returns and workload adjustments as needed
- An annual appraisal scheme with dedicated input on research development (where the line manager does not have SRR) and annual development plans
- General and research-specific staff development and online resources through the virtual learning environment CANVAS (312 staff, including honorary and professional service staff, subscribed)
- RIF2 dedicated to 'growing our own staff' (section 1)
- Recognition for research achievement via an annual Vice Chancellor's Award for Research Excellence, open to individuals and teams from academic departments and professional services
- a Staff Wellbeing Hub which provides comprehensive occupational and mental health support

UoW has support mechanisms for staff at different stages of their career and/or under-represented. Since 2006, we run an Early Research Award Scheme (ERAS), which annually awards up to 10 grants of up to GBP5,000 alongside a tailored mentoring and action learning programme to facilitate research career development. We use a wider definition of Early Career Researchers (ECRs) compared to the REF definition for ERAS eligibility, to support staff that had career breaks or who transit from TSPP to research, as is common in our practice-based subjects. 67 ERAS Fellows (37M/30F; 22 BAME/45 White) were awarded in the assessment period. Of the ERAS fellows since 2006, 18 received internal promotions and others secured

promotions elsewhere including at Aston, Bristol, Leicester and Surrey. In 2019, we launched the Lord Paul Fellowship (LPF) programme, to support ECRs in leading an inter-disciplinary research project and team, we awarded 6 of the total 18 Fellowships in the REF period.

ERAS and LPF run alongside an ECR Development Programme open to all early stage career staff which annually provides 30 workshops and drop-in sessions to support ECRs with the preparation, delivery and dissemination of research. The content of the programme is aligned with the VITAE researcher development framework (and staff and research students have access to the Vitae RDF Planner). 34 staff (in addition to the ERAS and LPF fellows) have attended the workshops and feedback has been used to refine the workshop content and delivery.

An Experienced Researchers' Development Programme offers the opportunity to grow and enhance staff research profiles and prepare for promotion. The programme focuses on: i) developing skills as research supervisors, research degree examiners and research degree chairs; ii) research impact, including influencing policy, working with the media, using social media and Intellectual Property Rights; and iii) developing leadership skills. 121 staff have attended the events.

Since 2017, we run an annual Grants Academy Programme focusing on skills development for research funding (bidding, project management and understanding the funding landscape). In collaboration with UoW's Brussels Office (section 4), half of the programme takes place in Brussels and includes visits and networking events with European-based funding organisations. We also invested in support to tackle the under-representation of women and BAME staff in senior research positions through Leadership programmes for historically excluded groups. We sponsor women to attend the *Leadership Foundation's Aurora* programme and over the last 5 years UoW has funded up to 7 women annually to attend the programme. The *BME Steps to Leadership* programme was delivered internally in collaboration with consultants from the *Black Leadership Initiative,* and we won the Guardian Higher Education Award for Equality and Diversity in 2017 for this initiative.

We use PIRLS (Principal Investigators and Research Leaders Survey) and CROS (Careers in Research Online Survey) to benchmark performance in relation to research staff development and to inform interventions. For example, PIRLS 2015 and 2017 results showed that research leaders were becoming more confident at managing other staff but needed more support themselves. Consequently, we provided a further 150 sessions of the 'Managers Toolkit', created an online mentoring platform to match mentees with mentors, and put in place the above development programme for research leaders.

<div align="center">Our Postgraduate Research Student (PGR) Community</div>

In 2014, we set up the Doctoral College (DC) to enhance the PGR experience, encourage a vibrant research student community, and provide comprehensive and holistic development opportunities for PGRs. All PGRs, including MPhil, PhD and Professional Doctorate Students, are members of the DC. The DC is headed by a Director, supported by an Associate Professor in Learning and Teaching and a research administrator. The DC works in collaboration with other corporate services, including Careers and Employability, the Library (both have dedicated PGR Advisors), the Students' Union and Registry to offer services to PGRs. These include:
- The PGR Development Programme provides face-to-face and online workshops. It is mapped to the Vitae Researcher Development Framework and PGRs have full access to the Vitae Researcher Development planner that supports Annual Progress Review.
- Start Right workshops targeted at support and development in the early stages of research.
- Writing-up and Accessing Professions supports doctoral completion and transition to the world of work, and Prepare-to-Teach sessions.
- Annual PGR Employability Week, includes job fairs, workshops on preparing applications and mock interviews.

- DC Social Events encourage PGRs from different disciplines to meet, get to know each other and seek informal advice.
- Annual Researchers' Week, includes 2 days annual research conference, public lectures and themed research support session. We award 8 prizes for research posters (in different categories) and 3 photograph competition prizes where PGR students enter a photograph that depicts their doctoral research journey.

The above events, in addition to those organised by the research centres and institutes, are captured annually in a Research Almanac, which is distributed in hard and soft copy to all PGRs, PGR applicants and research staff. In a typical year, we feature over 250 events.

The DC also develops policies and processes to support PGRs via the DC Advisory Board, a sub-committee of URC. PGR admission, progression and completion is monitored through the Research Award Sub-committee, also reporting to URC. All PGRs are supervised by a team of researchers who are often chosen for their different supervisory expertise and sets of research skills in order to optimise support for PGR. Mandatory training is required to act as a research supervisor, research degree examiner, Chair of research degree examinations, as is regular CPD.

We monitor the effectiveness of PGR development through a number of mechanisms. First, PGRs are members of URC and Faculty Research Committees and thus have direct input into action plans. Second, we have a Research Student Forum with PGR representatives from all faculties and institutes, which meets 4 times per annum. Suggestions and comments are fed back into working groups and committees. Third, we monitor admissions, progression and completion in an annual report. Finally, we encourage PGRs to participate in the Postgraduate Research Student Experience Survey (PRES), and develop action plans based on the results, monitored through URC. We saw a significant increase in the response rate to PRES (from 29% in 2015 to 77% in 2019) and PGR satisfaction. In 2019, we achieved 83% overall satisfaction (up from 77% in 2015), which placed us in 28th place nationally (out of 103 institutions), with rankings of 11th place for quality of supervision and 22nd place for research culture. Doctoral completions increased from 126 in REF2014 to 248 in REF2021.

<div align="center">Equality, Diversity and Inclusion (EDI)</div>

EDI is at the heart of what we try to achieve as an employer and an educator. We work closely with national organisations such as Advance HE and Stonewall, local community groups and staff networks to be inclusive. UoW holds an Athena SWAN Bronze award (first 2013, re-accredited 2019), a Race Equality Charter (REC) award (2020), and we ranked 62 out of 434 employers in the Stonewall Workplace Equality Index 2018. We won the Midlands Stonewall Award 2017 when our LGBT staff network was recognised as the West Midlands Public Sector Staff Network of the Year, and the 2017 Guardian award for BME leadership mentioned above. We employ trained British Sign Language interpreters who translate at public events for wider audiences and support deaf staff and students.

We regularly evaluate EDI dimensions of research and researcher development initiatives. For example, an evaluation of the first 10 years of the ERAS programme showed that it supports career development, but more women than men achieved promotions. ERAS is open to full and part-time staff, but funding and time adjustments are made as needed for PT staff. To develop the REF2021 Code of Practice (CoP), we consulted all staff, held meetings with staff networks and received input from Advance HE. This resulted in measures such as written (and on request verbal) feedback on reviewed outputs and an option for confidential HR support in individual circumstance declarations. We paid attention to being inclusive in developing impact with 66% of our case studies having female authors, in addition to addressing EDI topics. We managed staff individual circumstances within the flexibility that the Guidance on outputs offered in all but UoA4, where the combination of it being a new submission and the scale of circumstances (37% of submitted staff had one or more) led to an approved REF6b.

There has been substantial progress on making research more inclusive. We submit a greater proportion of younger staff <age 35 (9% of submitted compared to 5% in REF2014), more staff

who declared a disability (20 or 6% compared to 5 or 3% in REF2014), and 23% of submitted staff identified as BAME compared to 21% in REF2014. The proportion of women submitted has also grown from 27% to 39%. However, fewer women chose research compared to a TSPP profile, and the institutional gender pay gap is 28.5% for the median hourly wage gap and 14.9% for the mean hourly wage gap. The professoriate and senior staff teams' protected characteristics show a predominance of staff aged 45 or older (89%) with 20% of the professoriate aged 65 and over. 42% identify as female (26% of professors and 57% of senior staff), and 8% declared a disability (7% of professors and 10% of senior staff). Only 18% identify as BAME (25% of professors and 12% of senior staff).

Because of this, we made gender in research a focus of activities as detailed in our REF2021 CoP and Athena SWAN action plan, and prioritised efforts to have greater ethnic diversity in senior posts as detailed in the REC.

4. Income, infrastructure and facilities

Research support services are provided by three departments: Project Support Office (PSO) which focuses on pre- and post-award project support and management; the RPU for research strategy and policy, research ethics and integrity, and research data management; and the DC for PGRs (section 3). All are based in a central University Research Hub located on UoW's Wulfruna Campus. The Finance Department provides financial and project costing support.

RPU and PSO jointly develop strategies and support for external research funding. We targeted Horizon2020 and other EU funders in line with our research strategy to address societal challenges through inter-disciplinary and international collaborative research. To that end, we set up a Brussels Office, which provides intelligence and advance warning of EU policy and funding developments; facilitates training on EU funding, proposal development and bid writing; delivers partner searches; and engages in networking and profile-raising activities. Subsequently, our income from EU sources has grown to GBP12 million in REF2021 compared to GBP4.2 million in REF2014, and we made strides in developing large-scale inter-disciplinary research projects (section 2).

The PSO's pre-award service supports grant applications through proposal quality assurance and proposal submission functions. The Project Management and Governance Team focuses on post-award services and monitoring of funded grants and contracts, ensuring compliance with funder rules. The work is supported by a Project Costings and Bidding System (PCB) and associated processes to provide bid quality assurance and effective and accurate costings. Partly due to the dedicated support for external funding, we increased our external research income to GBP25 million compared to GBP14.5 million in REF2014.

RPU is responsible for research strategy, research policy and has oversight of the University's Current Research Information System *Symplectic Elements*. It also has oversight of the University's Impact Strategy and employs 3 Impact Officers (section 1). Other corporate service departments provide dedicated professional support for research, including HR (EDI, staff development, staffing strategy, policies); Finance (external funding); Library (open access and scholarly communications); Registry (research student data); and External Relations (research impact and publicity). In total, over 40 central professional staff directly support research activities.

As part of our Strategic Plan 2016-21, we delivered the GBP250 million 'Our Vision, Your Opportunity' investment programme, which included investment in research facilities in the science labs in the Rosalind Franklin Building; a new Business School; built environment and civil engineering labs and equipment at a reclaimed brownfield site on Springfield Campus; state-of-the-art sports and healthcare facilities; and a centre for cybersecurity in Hereford. These research facilities are co-located with our teaching and knowledge exchange activities to facilitate sharing and collaboration. All are used by our non-academic collaborators, and our campuses are open to the public.

Facilities provide access for disabled users, and disabled staff and students are supported with specialist equipment and services as needed. Our Vice-Chancellor leads the national Disabled Students' Commission. In 2020, we piloted a peer review process for funding bids, which monitors protected characteristics and will be rolled out from 2021.