Institution: University of West London

1. Context and mission

The University of West London (UWL) is located on two campuses in Ealing and Brentford; which along with the Berkshire Institute of Health in Reading, and the Drama Studio London, make up the Group Holdings. UWL is structured into nine academic Schools and Colleges which bring together cognate subject areas. As a progressive university with a student population of c14,000 and c800 permanent staff, its origins can be traced back the Lady Byron School of 1859 which was founded to provide education for poor and disadvantaged children. Building on that heritage, the University's mission is to give all students access to three fundamental and transformative rights - the rights to participation, inclusion, and enhancement.

UWL is situated at the heart of one of the most prosperous regions in the UK. West London has a GDP value of over £73billion with more than 120,000 businesses including Cisco, GSK, Heathrow Airport, Sky, and many more. This dynamic economy is served by a complex web of international transport and infrastructure systems that forms a hub for investment and migration. This makes it culturally and ethnically diverse with 46% of its inhabitants being born outside the UK. This, combined with its relatively young demographic, creates a region of great dynamism. We have capitalised on this highly diverse and vibrant socio-economic context to build strong partnerships with industry, government organisations, and local stakeholders.

In terms of reputation, UWL has consistently been ranked as the best modern university in London with the best NSS scores in the capital for the last two years. It is consistently ranked in the top 50 in the *Guardian* and the *Times/Sunday Times* and its financial performance is regularly in the top quartile; it also continues to be in the top 20 institutions for social and ethnic inclusion. It has one of the most diverse student populations in the country with 53% the first in their family to attend university, 63% mature on entry, 56% BAME, and 98% state school educated. Its staff establishment, at census date, boasted the highest number of BAME and black professors per head in the country (26% compared to 17% nationally of which 9% are black compared to 2% for the UK as a whole.

2. Strategy

2.1 Research and impact strategy post-REF2014

Historically, the University's research strengths were focused on limited areas of excellence; originally Nursing and History in RAE 2001, and later predominantly Nursing as History was disbanded (RAE 2008). The University's successive strategic plans (*Ambition* 2013-2018 and *Achievement* 2018-2023) built on these original research strengths whilst responding to the demands of the London and national economy; and the submission reflects this. We are submitting to seven units of assessment with 81 staff (75 FTE) which is double the 35.7 FTE across five units of assessment (UOAs) submitted in REF 2014. Our submission covers Allied Health; Computer Science; Engineering; Social Policy; Leisure and Tourism; Music; and Communication, Cultural and Media studies. Our research areas, and engagement with local partners, are directly relevant to bringing solutions to our own region's economy. By way of an illustration, a recent report by Oxford Economics shows that the West London area has been particularly affected by COVID-19 because of high degree of exposure in sectors where it has a large part of the market shares in London (e.g., transport, wholesale, retail and manufacturing, health and social work, and scientific and technical professions); all areas in which we carry out research.

The review of our REF14 entry highlighted challenges related to inadequate research infrastructure; limited investment; low numbers of research active staff and doctoral students; inadequate research training and imperceptible career pathways; with very little strategic oversight. As a result, the 2015-2020 research strategy set-out a clear strategy with key

performance indicators and metrics. The overall aim was to deliver useful knowledge with impact by focussing on the following objectives:

1. Identify and invest in selective inter-disciplinary research centres and connect high performing staff to them
2. Expand research base and build capacity and infrastructure by concentrating on inter-institutional partnerships, the construction of specialist space and dissemination opportunities
3. Engage with regional and national priorities, and make a significant contribution to the wider economy and society
4. Link research to internal and external enterprise, innovation, and knowledge exchange; improve impact volume and value, and open research
5. Develop and enhance staff capability by talent spotting, providing expert training programmes, clear career pathways, and support within a supportive, diverse and inclusive culture; and improved doctoral recruitment and completion
6. Drive civic engagement, innovation, and knowledge exchange.

1. Seven inter-disciplinary research centres/institutes were established alongside the longstanding Richard Wells Centre with an international reputation for research into infection control; and the West London Centre for Evidence-based Healthcare (specialising in Healthcare Systematic Reviews) located within Richard Wells. The new centres are: the European Institute for Person-Centred Healthcare; the Centre for Cybersecurity and Criminology; the National Centre for Gang Research; the Policy and Practice Research Institute for Screen and Music (PRISM); the Geller Institute for Ageing and Memory (IAM); the International Centre for Hospitality and Aviation Resilience Management (ICHARM) which includes the Centre for the Study of Human Trafficking; and the Faringdon Centre for Non-Destructive Testing. We opened the School of Biomedical Sciences, with a research portfolio congruent with our allied health work, and representing a £2.5m investment. We anticipate the opening of a medical school within the next 5 years.

2. Infrastructure investment in research and laboratory facilities have been extended significantly (see above, and details in section 4). An impact infrastructure has been created including an Impact Group led by the Head of Research and Engagement to provide advice and reviews; and facilitate interactions with research users. This growth resulted in a c£6m recurrent spend per annum on research staff, and c£1m on doctoral scholarships. At census date, we had 46 full Professors (20 in 2014) and 26 Associate Professors. 54% of permanent academic staff had a doctorate compared to 22% in 2014. In addition, we supplemented the Research and Enterprise Operations team with mentors, advisers, and reviewers. We have also established two commercial entities to stimulate research and knowledge exchange: the Westmont Enterprise Hub (£1.2m donation) and the West London Food Innovation Centre (a match-funded £1.46m ERDF-funded laboratory for food product development).

3. We have been successful in generating research addressing a range of international, national and regional priorities:

   - In allied health, I-Hydrate is an innovative project, helping care homes across the country address dehydration amongst their residents; our epic3 guidelines on healthcare-associated infection control have underpinned national standards; a large-scale systematic review was carried out on the contribution of nurses to improving the health and well-being of people with learning disabilities; a pilot trial took place of Energy5 for patients with diabetes; National Institute for Health Research (NIHR), Wellcome Trust, and UKRI funding was obtained. The Geller Institute for Ageing and Memory gained significant AHRC grants

to explore a 'multisensory' approach to promote public health guidance and support the wellbeing of people with dementia in care homes

- In tourism, our research investigates the 2012 Olympics legacy in relation to regional housing regeneration; we also run an international research project to combat Human Trafficking in the European hotel sector

- In social policy, our research impacted on the Metropolitan Police, many local forces, and the Mayor's Office for Policing and Crime (MOPAC) in relation to rape investigation, and county lines drug networks

- In the creative sphere, we produced pioneering work on record production techniques, and created an app affecting the way the public listens to music; PRISM, with the British Film Institute, worked on cultural preservation of under-recognised 'genres'; our culture and media research is investigating the relationship between gender, work, and technology. We have recently been awarded a small British Academy grant (£9k) for a diachronic study of media supports in the advertising industry.

- In engineering and built-environment, we produced research on thermal measures to enhance building performance; and the use non-destructive engineering methods.

- In computer science, ground-breaking work was conducted into the value of human-centred systems design, and in cybersecurity.

4. The University has provided strong and sustained support (see section 3) to academics bidding for external funding, resulting in increased volume and value in externally funded research; as well as commercial income from enterprise activities. The University presently works with some 6000 local businesses and an extensive range of industry partners, international collaborators and networks, government agencies; advocacy and policy networks; and key sector stakeholders. These activities and their outcomes are threaded throughout our units of assessment submissions. Our research shows impact on major corporations, policy bodies, sector organisations, and SMEs, in areas critical to society and the economy.

Engagement with the open access agenda, supported by our Open Access Policy, provides a framework for funder and government open access compliance structured and monitored through regular reports to the University Research, Scholarship and Enterprise Committee (URSEC). Staff engagement was facilitated by providing bespoke training, and promoting a culture of openness in research. Repository operations are now at a steady pace, and two dedicated professional posts were created to support these activities. Just over 10% of the deposits are available with a Creative Commons license. This has been achieved without funding for paid Gold Open Access via Article Processing Charges (APCs), which will be an objective of the next strategy. The University journal *New Vistas* was founded in 2015 to encourage junior researchers and PGRs to disseminate their work and is now part of the Open Access UWL Press (2019). The University plans to expand its portfolio of UWL Press open publications in the future. The University has signed the San Francisco Declaration of Research Assessment (SF- DORA) in support of discipline-specific conventions in the assessment of research outputs, particularly in the humanities and creative disciplines.

5. We introduced the Academic Employment Framework (AEF) in 2015 to enhance clarity and diversity in our employment framework; giving the opportunity for all academic staff to excel in their chosen area of expertise. The AEF gives equal value to research, scholarship and knowledge exchange (see section 3). This strategy has enabled us to increase the number of academic staff with doctorates; and the number of professors and associate professors (see objective 2), partly through the development of internal talent, and partly through judicious

external recruitment. Staff who have demonstrated a promising research trajectory are identified as 'next generation' researchers and provided with support and mentorship to develop their potential (see section 3). Our REF submission (e.g. UoAs03, 11 and 34) showcases examples of the successful transition of staff from their early careers to independent researchers. The annual QR funding has been used for sabbaticals and study leave, Research Office support, PhD support and bursaries, and to support *New Vistas*. The Graduate School was setup in 2015 (renamed Graduate Centre in late 2020) to deliver crucial support functions. It carries out administrative oversight of progress and progression; provides a comprehensive programme of training for doctoral students; runs a mandatory programme of supervisory training, and acts as an advisor to students and supervisors (see section 3).

6. We engaged in a number of activities to drive innovation and knowledge exchange. This includes start-up support; backing to freelancers; the professional development of a skilled creative workforce across our constituencies; and knowledge creation and transfer into the technology market through our Westmont Enterprise Hub. We also generate activities to support SMEs in product innovation through our West London Food Innovation Centre (WLFIC), funded through a £1.4 million ERDF grant, match-funded by the University; this is an interdisciplinary centre working closely with the ICHARM Research Centre, and with colleagues in hospitality and allied health. In terms of logistics and transport, we have strong links with Heathrow Airport (as holders of the Heathrow archive, and a permanent public exhibition of its contents).

2.2 Five-year research and impact plans
The main objectives for the next five years focus on:

- Securing more industry-based research collaborations and networks; growing our intellectual property base and maximising use and revenue via knowledge exchange
- Promoting equality and diversity in all aspects of our research activities
- Continuing to create a talent pipeline, recruiting high performing staff, and developing academic staff, supported by expert training and sabbatical systems
- Building capacity and infrastructure through partnerships, specialist space; and increasing our doctoral capacity to 400+ students
- Promoting equality and diversity in all aspects of our research activities
- Aligning Research and Knowledge Exchange Strategies, with clear target communities for impact
- Supporting the Open Research agenda including research data, and gold publishing.

3. People

3.1 Staffing strategy
The AEF was introduced to create a framework for nurturing and managing academic staff expertise; it was deployed through an investment in people, facilities, and support. In addition to teaching responsibilities, academic staff are required to engage with research, scholarship (e.g. curriculum development, pedagogic innovation and dissemination) and/or knowledge exchange activities. The AEF enabled Heads of School to tailor their staffing requirements to the needs of students and the curriculum, generating a diverse pool of expertise. It allows them to be agile with work loading (within given parameters); it also provides staff with the flexibility to review their focus at different stages of their careers.

3.2 Staff development
Research is supported through a strong central support infrastructure, complemented by Schools/Colleges' own research activities. **Research and Enterprise Operations (REOps)** supports all research funding applications and impact development. It provides advice on topics

including brokerage of contacts; KTP identification; patents and commercialization; managing research budgets; industry and user engagement. The **Human Resources** department offers training on equality and diversity, well-being, appraisals, promotion, working with external collaborators, developing leadership skills. It manages sabbaticals, study leave, and seed-funds applications (supporting both research and impact activities); and holds funds for conference, CPD, and internal and external courses, including MAs and PhDs. For example, in 2019-20, c£60k was spent on CPD, courses leading to qualifications, and conferences. The **Library** offers training and one-to-one support for open research; and has trained all staff on compliance. The **Communications** department offers advice on working with the media; public engagement; engaging with diverse audiences; using social media to influence; and lobbying strategies. The **Graduate School** provides training for doctoral **supervisors**, ensuring dissemination of good practice, understanding regulations and the VITAE framework, as well as UWL's priorities and regulations, EDI, research integrity, and the University's *Code of Practice for Research Students and Supervisors*. This policy defines the roles of supervisors and supervisees, and provides a framework for 'research in an atmosphere of scholarship and collegiality enabling students to complete their degrees successfully within the time limits' (p.1). Formal access, progression and graduation requirements are stipulated in the University's Research Degree regulations. The University has insisted that this training be mandatory for all supervisors, recognising the crucial role supervisors play in ensuring quality and timely completion. The Graduate School runs the central programme of research training for **PGR students** throughout the entire period of their registration. This includes discussions of the doctoral milestones and regulations; and a programme including initial understanding of research methods, and advanced research methods in the different discipline paradigms, research ethics and integrity, the VITAE framework, managing a research project, doctoral writing, writing for publication; with many opportunities for students to present their research in progress. An important priority has been to ensure completion within 3 to 3.5 years; the Graduate School monitors doctoral students' progress. PGRs also get opportunities to teach (maximum 6 hours a week), under the mentorship of their supervisors.

The University runs three annual research days, including a Research Conference. This is led by the PVC (Academic) and provides dissemination forums, and networking opportunities. For REF, it has provided REF guidance sessions open to all; review opportunities; and discussions on the Code of Practice. All UoA Leads have undertaken unconscious bias training.

3.3 Equality and diversity

The University has an ethnically and gender diverse workforce, with 34% of staff from black and minority ethnic backgrounds (significantly above the national average). 29% of academic staff are from BAME backgrounds in contrast to 17% across the sector. Staff from BAME backgrounds can succeed at all levels of the University as seen from the composition of our professoriate (see section 1). Our ethnicity median pay gap at census date stood at 2.57%. Our gender pay gap median is 0%; 50% of our academic staff are female (vs 49% sector average); 37% of our professors are female (vs. a sector average of 27%), and 42% of the senior staff are female.

Our sickness procedures enable staff to remain on full pay for 6 months and half pay for another six months. This can be extended when necessary. We support 'Better Gyms' and provide access to an Employee Assistance Programme at discounted rates. Our Health and Wellbeing framework includes advice and support on mental health awareness. We operate flexible working support for remote working where needed, including for staff with parental and caring responsibilities, or other specific circumstances. During COVID-19, we introduced regular briefings on health and well-being, and good practice when working remotely.

We have a substantive EDI infrastructure (including the Equality, and Diversity Advisory Group – EDAG - chaired by the University Secretary). We provide mandatory training covering all aspects of EDI including *inter alia* 'Dignity at Work' and 'Transgender' rights. UWL subscribes to *Advance*

HE and works with *Stonewall* (a LGBT equalities rights charity) to raise awareness of gender issues. We are working towards the *Athena Swan Gender Equality Chartermark.* We are presently working on a UKRI/OfS bid to improve access to doctoral education by Black students.

In terms of REF, we have followed the protocols described in our Code of Practice. The REF Task Group, and all REF Leads, have received equality and unconscious-bias training. Three formative equality impact assessments took place. These have been reported to EDAG and URSEC. Staff with protected characteristics were shown to suffer no obvious disadvantage. The research development opportunities available – e.g., research funding, sabbaticals, conference funding - always state the conditions and criteria applied. There is a transparent process and clear briefs for all applications. Access to HR-managed research support described in 3.2 follow established procedures and are open to all staff meeting the relevant criteria. In terms of doctoral students, recruitment is based on regulations that specify entry requirements, and interviews are held by a panel including supervisors and the Graduate School to ensure consistency across the institution. Final registration to PhD status (transfer) is overseen by the University Research Degrees Sub-Committee

4. Income, infrastructure and facilities

There has been significant investment to support research income and impact. The appointment of a Head of Research and Engagement, and the expansion of the REOps team have been important factors. Notably the appointments/promotions of 26 Professors and 20 Associate Professors and the opening of seven new research centres signals the ground covered.

4.1 Research income

Our income generation strategy is based on mechanisms including: training, monitoring, peer-review, study leave, sabbaticals, 'cradle to grave' support for bid applications; incentives to collaborate internally and externally; and investment in laboratories and other research facilities. We support in equal measure applications to research councils, government departments, private organisations, and charitable foundations, regardless of the volume of grant applied for.

The number of grant applications has grown significantly over the REF period, and included submissions to UKRI (EPSRC; ESRC; AHRC; Innovate UK); Strength in Places; NIHR; Leverhulme; Wellcome Trust; British Academy; Alzheimer's Society; British Heart Foundation and Horizon 2020. The University also supported staff in responding to the urgent needs arising from COVID-19. Thirteen bids were submitted by the end of period, including major proposals to the NIHR on infection prevention and control (£380k), to the Natural Environment Research Council (NERC) on respiratory health, and to UKRI on promoting the wellbeing of people with dementia in care homes (£417k). This was in addition to smaller bids; e.g. assessing impact on 'county lines' drug crime.

4.2 Examples of donations and grants from foundations to support research infrastructure

Leisure and Tourism (2016-17): £120K and £100K to appoint two professorial chairs in Hospitality

Heathrow Archive and Exhibition (2016-19): £200K from Heathrow airport and HLF to preserve the archives and create a permanent public exhibition

Dementia and Art (2017-19): £89,337 from trusts and foundations, charities, care homes, galleries, museums and individuals for collaborative research on living with dementia

Ground Penetrating Radar in Arborology (2017-20): c£430K to develop methodologies applying ground penetrating radar in the assessment of the health of ancient trees at risk of disease.

Westmont Enterprise Hub (2016-20): £1.2m from two donors to establish a Hub to support start-ups

Geller Institute of Ageing and Memory (2018): £1m from a single donor to set up the Institute

Healthcare: Health Institute Society Grant (2019): £65K for research on minimising the risk of hospital patients developing non-ventilator acquired pneumonia.

Addiction: Tackling social isolation to aid the recovery of people of with dual diagnoses (2019): £26,300

Social policy: UK and Japanese collaboration (2018)**:** £7K from Daiwa Foundation for research on victims of violent crime in the Japanese and English justice systems.

4.3 Support for research impact

We have developed our impact infrastructure through support to staff (see impact group in section 2) and by establishing facilities that provide public access to our expertise for research and development. The *Westmont Enterprise Hub,* supporting and incubating innovative new start-ups and spin-outs, maximizes commercial value and impact. Over the past 2 years it has supported 50 start-ups, with 450+ members and connections to 500+ businesses. The *West London Food Innovation Centre* is used to test and reformulate food products with research on sustainable 'green food'. It has engaged 95 SMEs over the past 2 years, of which 58 were start-ups. This led to the creation of 58 new products and a projection of 150+ prospective jobs.

As described in section 2, the Communications department supports staff in promoting research findings, and generating access to research users through bespoke events, press releases and social media. School/College staff ensure that information about research findings promotes external and public engagement. Examples include locally-focused activity, and high-profile events such as the 2019 launch of our National Centre for Gang Research at the House of Commons, the national promotion of our I-Hydrate project, or the Human Trafficking seminars (the Ceserani series) at the Institute of Directors over a period of two years.

We engage with the public, including local communities, and are signatories to National Co-ordinating Centre for Public Engagement (NCCPE) Manifesto for Public Engagement. This forms part of our civic mission, as stated in our Public Benefit Statement, and clearly signaled in our KEF narrative for Community and Public Engagement.

4.4 Infrastructure and facilities

Our Estates and Facilities investment programme (over £170m over the period) has enabled us to create social and open learning spaces and advanced simulation spaces for research; a library without boundaries; a 300-seat flexible performance auditorium; a Sports Centre and a postgraduate building for doctoral students (the Rami Ranger House). Sponsored by Lord Ranger £0.5m), it was opened in 2019 and is a fully resourced space exclusively for the use of research students. It offers spaces for collaborative working, socialising, supervision and mentoring on the ground floor. The first floor provides individual workspaces and the second floor is used for teaching and studying.

Over the period, we have opened a concrete laboratory for construction research; a ground-penetrating radar laboratory; twelve computer laboratories; a built-environment studio; two allied health simulation centres used in research on patient behaviour; four biomedical science laboratories; two forensic investigation laboratories; a Virtual Reality laboratory; and numerous performance and music studios. We have invested in a 'Flight Pad' – a Boeing 737-800 Flight Simulator – which is used in feasibility studies for research on risk management.

The University has invested in ensuring that infrastructures are kept in top working order. Equipment and facilities are assessed regularly for health and safety under our formal directives and protocols; and rigorously inspected and tested by technicians to ensure they meet the required technical standards.