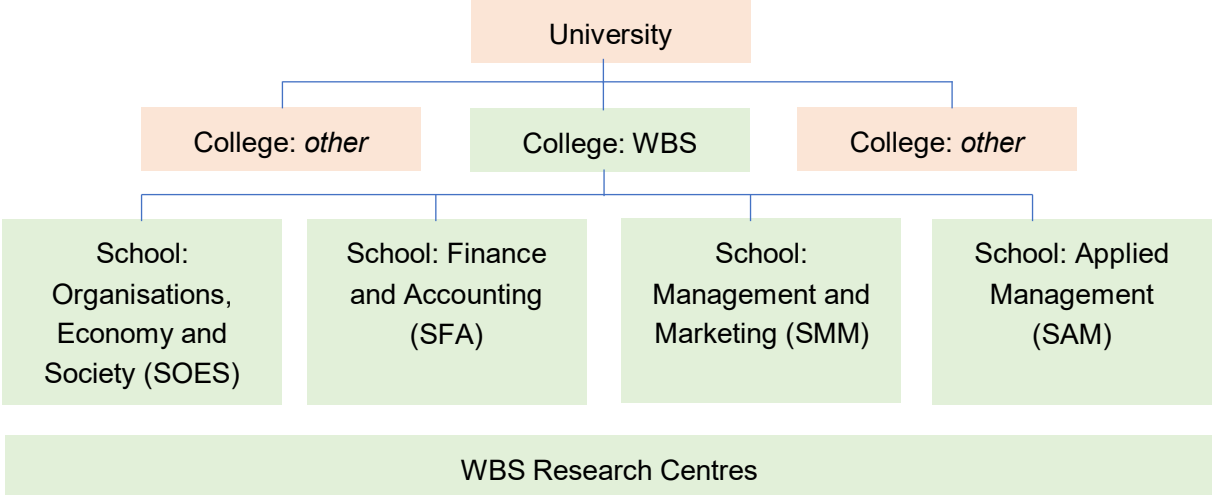


Institution: University of Westminster
Unit of Assessment: 17 Business and Management Studies
<p>1. Unit context and structure, research and impact strategy</p> <p>The Unit's Structure</p> <p>The Unit is fully contained within the Westminster Business School (WBS), one of three Colleges that make up the University of Westminster. WBS is further divided into four academic schools and three cross-school research centres.</p> <p style="text-align: center;">Organisational Structure of Unit within University</p>  <pre> graph TD University[University] --> CollegeOther1[College: other] University --> CollegeWBS[College: WBS] University --> CollegeOther2[College: other] CollegeWBS --> SchoolSOES[School: Organisations, Economy and Society (SOES)] CollegeWBS --> SchoolSFA[School: Finance and Accounting (SFA)] CollegeWBS --> SchoolSMM[School: Management and Marketing (SMM)] CollegeWBS --> SchoolSAM[School: Applied Management (SAM)] </pre> <p style="text-align: center;">WBS Research Centres</p> <p>The Unit constitutes one of the largest units of assessment (UoA) within the institution. In July 2020, the college comprised a total of 218 permanent staff (198 FTE) including 35 Lecturers, 121 Senior Lecturers, 25 Principal Lecturers, 7 Readers, 7 Professors and 5 researchers. As with other Business Schools, a large number of staff have a teaching and practice-based focus. 51 staff (47.35 FTE) have significant responsibility for research as defined by the institutional code of practice, representing a substantial increase over our previous submission in 2014 (21.20 FTE).</p> <p>Reflecting the varied mix of business and allied subjects within the College, the Unit has built a diverse and collegial research culture spanning a wide range of business research activities. All research within the Unit is supported, including research cross-referred to other units, such as economics, political science, social policy, education or allied health. We promote a strong ethos of care for our staff and student welfare and place great emphasis on fair and equitable support across the gamut of research activity. Diversity, inclusivity and fairness are operationally ingrained across the Unit.</p> <p>The Unit has made considerable gains in research strength since REF2008 and REF2014. A consistently applied research strategy focused on incrementally improving all aspects of our research environment has led to significant improvements in output quality, income generation, doctoral students and more. Key to our success are consistent year-on-year operational processes that give staff long-term stability and opportunity to achieve their chosen research goals.</p> <p>Research in the Unit is focused in seven primary areas that are located in the four schools that comprise WBS:</p> <ul style="list-style-type: none"> • Economics and Quantitative Methods (SOES) • Human Resource Management (SOES) • Entrepreneurship (SOES) • Finance and Accounting (SFA)

- Marketing and Business Strategy (SMM)
- Digital Business and Information & Operations Management (SAM)
- Construction and Property (SAM)

The Unit is host to three strategically important interdisciplinary research centres, whose membership spans multiple Schools and which attract significant support from a central research budget.

- The **Centre for Employment Research (CER)**, led by **Urwin**, is a 15-year-old centre, focused on labour markets and programme evaluation, employment relations, and equality and diversity. It has 14 core members including three Professors, a Reader and three full-time researchers. The CER has attracted over 15 funded projects this REF period, totalling £1.5m in income.
- The **Centre for the Study of the Production of the Built Environment (PRoBE)**, led by **Clarke**, is a 10-year-old centre that also spans Schools in other Colleges (the School of Architecture and Cities). It focuses on zero energy construction, the history of producing the built environment, labour in construction, vocational education and training (VET) and qualification systems, and climate change and work. It has a core membership of 10 academics including two Professors and one full-time researcher and has attracted over £0.2m in income within the Unit through 5 external projects in this REF period.
- The **Centre for Digital Business Research (CDBR)**, led by **De Cesare**, was established in 2018. Its aim is to conduct interdisciplinary research into the theory, methods and technologies underpinning the digital transformation of modern 21st-century enterprises. The centre has 19 academic members including three Professors, two Readers and one full-time researcher. It has attracted over £0.1m of income through 3 external projects since its inception.

Research is managed through several formal roles (which have remained stable during the REF period): A **College Research Director (CRD, Buscha)** who oversees all research activities within the Unit and is responsible for strategic planning, KPIs and the relevant risk register entries. The CRD is supported by **four School Research Leaders (SRLs, Dotsika, Michielsens, Sivaprasad, Ruiz-Alba)**, tasked with implementing College research policy, providing subject-specific expertise and leading researcher development in their Schools (including mentoring for early career researchers). This primary leadership team is complemented by the **College Research Ethics Chair (CRECh, Sudar)**, responsible for all research ethics issues and supported by the **Student Ethics Coordinator (Hussien)**. The **College PhD Director (PhDDir, Vasileva)** manages all doctoral related issues and is supported by a **College PhD Admissions Coordinator (Michielsens)**, who manages all doctoral applications, and a **College PhD DRDP Coordinator (Vasileva, temporary)**, who manages doctoral training and development. The Unit is supported in research income generation activity by a full-time **Research Development Partner (RDP)** from the Research and Knowledge Exchange Office (RKEO) who supports bid writing activity. Post-award support is provided by a full-time **Post-Award Support Officer (PSO)**.

To operationalise the Unit's research strategy and plans the following processes exist. Overall research planning and strategy is implemented by the **College Research Committee (CRC)**, led by the College Research Director and including all the aforementioned roles. A University **Research Committee (RC)** brings together representatives and research issues from all Colleges. Wider strategic matters are reported to/and operationalised by the **College Executive Group (CEG)**, chaired by the Head of College and Pro-Vice Chancellor. **College Research Ethics Committee (CREC)**, led by the College Research Ethics Chair, addresses research ethics issues within the Unit. Local School research issues are addressed at **School Executive Groups (SEG)** via School Research Leaders and Heads of Schools. The University-wide **Graduate School (GS)** is the central administrative hub for all doctoral students. Doctoral matters in the Unit are represented at both CRC and the **Graduate School Board (GSB)**, which is the primary committee of the University's GS. Finally, a **Professors and Readers forum**, held twice per year

and chaired by the CRD, acts as an informal way for the senior researchers to input into current research developments across the Unit.

A **Virtual Research Environment** has moved many administrative research processes on-line, including self-management of web-pages, doctoral progress, ethics reviews and funding applications (see REF5a).

Research Strategy 2014-2020

The Unit's strategic vision and research culture expand on that referenced in REF 2014. The Unit follows a **long-term research strategy** that supports and facilitates a collegial and multidisciplinary research culture to generate high-quality practice-informed research with global impact. As pledged in our *future strategy* statement in REF 2014, we have increased our doctoral researchers, developed strong international links and substantially increased our research council awards. Upon becoming clear that our objectives would be met, new and expanded milestones were developed in 2018.

Our strategy acknowledges that the Unit is comprised of diverse disciplines which between, *and* within, them experience different levels of research activity. The Unit explicitly supports the entire range of staff and their interests and has bespoke development plans for each of its major research disciplines.

In accordance with this, the Unit's strategy during 2014-2020 has focused on the following goals:

- **Increase the volume and quality of research output.** The Unit aimed to increase the proportion of staff submitted to REF2021 by focusing *appropriate* support at different levels of the research 'hierarchy'. There has been renewed, and considerable, emphasis on producing a 'base' research output for every early career and emerging researcher and the output profile of individual staff has been nurtured via mentoring, research hours, monetary resourcing, training and a relaunched working paper series. The success of this policy is evidenced by the Unit's *average* annual output increasing by 37% compared to the previous REF cycle, whilst *average* annual refereed journal output increased by 70%.
- **Further develop an integrated and vibrant suite of doctoral programmes.** The Unit's doctoral strategy has been given particular attention with increased inward investment in terms of monetary and estate resourcing, resulting in the number of active doctoral researchers increasing by over 100% in this REF period compared to the previous one, with completion rates improving from 60% to 85% annually. A revised doctoral management structure emphasising Annual Progress Reviews (APRs) and including a full four-year doctoral researcher development programme sits at the heart of a successful, re-invigorated, doctoral course of study. In this REF period, the Unit has provided 14 full or part scholarships, at an average cost of £75,000, a substantial increase on the 8 scholarships funded in the previous period.
- **Increase 'impactful' research and non-HEI engagement.** Research impact has become an explicit strategic Unit objective and substantial effort has gone into training and developing researchers on this. Staff consider potential impact of their research through discussions with line managers and research leaders and through mentoring and membership of research groups or centres. Key to our 'impactful' research strategy is the focus on 'elite' research centres, whose expert staff have a specific remit for delivering high-quality projects with clear and measurable societal impact. For those not part of these centres, impact is managed and supported via the School Research Leaders and the College Research Director. A dedicated external media consultancy was available until 2018 after which this capability was moved in-house to better support staff. Since the last REF, our Google News items have increased by 300%, the number of project reports increased from 29 to 81 and the number of technical reports increased from 20 to 33, evidencing our increasing engagement with external stakeholders.

- **Develop and maintain diverse research income streams.** To foster and encourage higher quality grant applications, regular writing workshops and writing retreats have been organised since 2014. Those seeking to become lead applicants are also funded to attend external workshops, whilst those working on their first grant applications are encouraged to test funding proposals using internal incubators, several of which exist, both within the College via the Unit's research funds and within the University via central funds. Award values vary but can range from £1,000 to £50,000 depending on the scheme. To further encourage and support development in bidding for external funding the Unit implemented a policy of rewarding bids (*irrespective of their success*) with research time of either 2%, 5% or 8% dependent on the total bid value. The success of these policies is evidenced by a considerable (1300%) increase in funding from research councils in this REF period.
- **Invest in, and grow, new areas of research activity whilst closing areas that do not perform.** The Unit has implemented policies to continuously monitor and evaluate its established and emerging research strengths, allowing support and resourcing to be channelled where most needed whilst also incorporating sustained development into its strategic plans. Where areas of research have naturally faded, or failed to deliver long-term KPIs, groups or centres are disbanded. This ensures a dynamic research culture that treats all sub-disciplines fairly. Examples of disbanded research units are the Centre for Finance and Financial Services (CFFS) and the Pensions Research Network (PRN), both highlighted in REF2014. Freed resources were used to underpin research in **digital business**, an area of future research excellence. Professor **De Cesare** was recruited in 2018 to set up a new research centre and draw upon the existing, untapped, research strengths across the Unit. Further emerging work is being recognised via new research groups such as the **Global Economic Policy Group**, led by **Jackson**, that has become an interdisciplinary strand of research across the Unit and brought together partner organisations from Germany and China.

Impact of COVID and Brexit

The impact of COVID-19 on research activities in 2020 was limited. Some funded projects requested, and received, no-cost extensions from funders. One ESRC project was cost-extended. Face-to-face interviews were suspended, impacting mainly qualitative research. In 2019 the University implemented a laptop-first policy that meant all staff already had mobile work capability. To complement this, the Unit invested over £30,000 in purchasing specialised electronic equipment to support distance research work. This included higher-spec laptops for those doing quantitative research and tablets for those doing qualitative research. The University introduced a general £150 allowance which allowed all staff to purchase keyboards, mice and monitors. Microsoft Teams enabled continued meetings, seminars and conferences whilst Panopto and Camtasia software enabled video sharing for staff. Individual requests for Zoom subscriptions or specialised audio/software equipment were authorised. Discretionary access to the Office for National Statistics Secure Research Service was approved, permitting research otherwise requiring a physical datalab visit to continue. Bidding activity increased as staff responded to COVID funding calls. For example, staff began working with the Office of National Statistics to contribute to understanding the impact of the pandemic on labour markets (see income section) and with London boroughs to examine issues around Key Worker housing.

At a budgetary level, the Unit made few changes in spite of uncertain financial outlooks. A restructuring in 2018 put the Unit, and University, on excellent financial footing, resulting in continued hiring of staff and researchers throughout the pandemic period. Individual **research budgets and time allocations** were not **impacted** and total research expenditure was budgeted to rise in 2020/21.

The impact of Brexit remains uncertain. The Unit's research income has already shifted away from EU funding towards UK and international research council funding and it is expected to maintain its current competitiveness in attracting research council funding whilst also expanding Knowledge Exchange activities and Central/Local government funding. Doctoral study from the EU is likely to

be impacted but strong research finances have allowed the Unit to increase overseas scholarship provision for three consecutive years starting September 2020.

Impact Strategy

The Unit's impact strategy involves catering to the diverse nature of its research and researcher base. The Unit supports and curates leading national and international research through its three research centres, which have extensive expertise in impact and receive priority access to the College research budget, whilst at the same time ensuring that an appropriate framework is in place to allow everyone to maximise and support their impact. This is accomplished via the following activities and support structures:

- All researchers have annual appraisals, including separate research appraisals, as part of which they discuss research impact plans. This process identifies and alerts the Unit's research leaders (and line managers) early to upcoming research outputs and allows time for a clearer impact narrative to be developed.
- Impact activities in the Unit are supported at University level by a dedicated Impact Officer and Research Development Partner, with responsibility for horizon scanning, impact support and further developing existing projects.
- The Unit organises events with policy and other stakeholders and supports these via appropriate events management which includes a dedicated College Events Manager. For instance, our Chartered Institute for Professional Development (CIPD) Evidence into Practice Workshops, Applied Research Conference and ProBE symposia specifically aim to bring together academics and practitioners to secure impact for our research.
- All researchers have access to the media consultancy, which supports research and researchers in the modern media environment by, for instance, publicising research via media outlets, supporting and curating blogs and pro-actively scouting for upcoming media opportunities.
- An annual University fund actively supports impact activities and the Unit has to date received £52,500 to support these.
- Our research centres have developed specific impact expertise in maximising the Unit's research on society, policy making and public understanding. They curate an extensive network of external individuals to publicize their output to a wide-ranging audience and regularly produce policy reports that shape and influence government policy.

The Unit had access to a wide variety of potential impact case studies, including **Hlupic's** industry award-winning research on management paradigms concerning people, processes, and technology and **Buscha's** work on returns to university degrees that informs the global selection into UK universities. Since 2017, promising impact case studies have been actively selected and curated on their ability to demonstrate strong economic, societal and attitudinal impact *and* to showcase how our diverse range of disciplines affects aspects of society. As our research centres are specifically tasked with creating high-impactful research, they drove the final four case studies. Two from the CER showcase 1) our ability to meaningfully impact diversity and inclusion practice in the UK and 2) significantly underpin government policy in the area of further education and social mobility, whilst two from PProBE exemplify our international impact on 3) how women are included in the construction industry and 4) how workers and unions play a vital role in the transition to green economies.

Future Research Strategy

The Unit is committed to achieving various research milestones by 2023, including doubling our annual research income, continuing to improve the quality of our research output and increasing the size of our doctoral cohort through:

- Increasing the number of Professors and Readers from 10% to 15% of all staff whilst doubling research-only staff numbers from 4 to 8. For example, Professor **Cui** joins us in the next REF period to bolster research in Management and Marketing, whilst staff pay budgets for research-only staff are confirmed to increase. To improve internal promotion to Readership/Professorship, a new mentoring scheme aimed at senior staff will be introduced.
- A call for new research groups taking place in 2021 and for new research centres in 2023. These will allow new areas of research to emerge and be formally supported, in turn influencing our hiring plans as we seek specialist researchers who can support these growing disciplines. The Unit plans to have 4 x high performing research centres and 5 x emerging research groups by 2025.
- The Unit's commitments to develop further its early career provision via innovative mentoring approaches (such as circle mentoring) and bespoke training opportunities, to implement the new (2019) Vitae Researcher Development Concordat and to increase its resource provision towards those starting their research career.
- The continued strengthening of the Unit's research links with international partners. Based on the successful bespoke doctoral training programme with Haaga-Helia University of Applied Science, the Unit will seek further research collaborations with international partners.
- Looking to introduce a more dynamic set of research KPIs to give the Unit the ability to monitor output and impact activities in a real-time fashion, replace lengthy audits and expand the range of available metrics. Such metrics will be used responsibly to inform high-level research planning as opposed to monitoring individual performance.
- Working on further integrating KEF and REF activities. New leadership appointments with a College KEF Director and 4 x School KEF Leads will bolster activities, leadership capacity and administrative support in this area. Whilst the current research reward system has worked extremely well, it will also seek to reward KEF activities that overlap with research.

Supporting Interdisciplinarity

The Unit exists in an interdisciplinary research space where many different academic sub-disciplines of business and management are co-located in a distinct College environment. The Unit's profile spans a wide variety of business subjects, including economics which is frequently considered a separate Unit of Assessment. The Unit also contains (or has contained) research areas not typically associated with business, such as tourism, communication, social policy, development, computer science, construction, design technology, conservation and built environment, history and law. To accommodate these disciplines, the Unit has developed infrastructure and support mechanisms allowing it to maximise synergies between them whilst at the same time supporting disciplinary strength. Staff whose research area falls outside business and management or economics continue to receive long-term research support and are either submitted to other Units or cross-referred in REF. To ensure full-spectrum coverage of disciplines, Schools act as anchor points for researchers whilst research centres and research groups span across the Unit to allow individuals to collaborate and focus on larger, more ambitious projects.

For example, the **CER** has a strong international reputation in evaluation and data analysis through its economists as well as a strong reputation in professional practice, diversity and equality through its human resource activities. Some research centres are inter-College research centres and collaborate closely with academics from other Colleges. **ProBE** researchers, for example, work with School of Architecture and Cities staff, who together are widely recognised internationally for research on construction history, VET, labour in construction, and climate change and work. Researchers in **CDBR** stem from all schools in the Unit and are clustered into four sub-fields,

allowing them to make disciplinary contributions whilst working in a fully interdisciplinary environment. Moreover, **four major interdisciplinary research communities** exist across the University, bringing together researchers from a wide range of different backgrounds and disciplines and specifically designed to work across boundaries (see REF5a for more information). Such strengths are unique to this Unit and are reflected in its diverse portfolio of research, income and impact. Examples of important interdisciplinary work include:

- **Clarke's** associate directorship of the Canadian research programme seeking to understand changing work practices in light of the changing climate and environment.
- **Buscha's** work on social mobility that marries econometrics and administrative data advances with sociology and social policy.
- **Georgiadou's** ISULabaNtu project that coproduces sustainable and integrated approaches for community-led upgrading by exploring construction, environmental management and urban governance in slum upgrading processes in South Africa.
- **De Cesare's** digital twins in construction work combining Ontology – a branch of philosophy – with business and management practice to better integrate digital twin models in the construction industry.

Support for Open Research

The Unit is committed to the University Open Access (OA) policy and all staff are required to submit any finalised research output to the institutional repository, easily accomplished via the VRE. Regular reminders, briefings and checks by research leaders continuously reinforce the Unit's compliance with HEFCE's open access policy. An institutional system exists whereby staff can bid for resources to open outputs via Gold OA. Additional funding is also available for this within the Unit and researchers can use their individual research allowances to support purchases of gold Open Access. Approximately 25% of in-scope output is Gold OA. In 2020, the University reached 'Read and Publish' agreements with Sage, Wiley, Taylor and Francis and some Springer publications that will increase the Unit's opportunity to publish Gold Access material. Overall, these policies have ensured that the vast majority of all Unit repository outputs are OA compliant.

2. People

Staffing Strategy

The Unit's staffing strategy is laid out in its College Strategic plans. We aim to recruit, develop and retain researchers of international excellence and embed research into all aspects of our organisation and practice, including teaching. To meet these objectives the Unit emphasises fair and transparent research resourcing, developing new researchers and recruiting or promoting senior researchers. The College Research Director, Heads of Schools, Research Centre Directors and local School Research Leaders communicate, formally and informally, to ensure a consistent, long-term approach.

Research Time

The Unit operates a support mechanism for research by allocating research time via the annual Research Support Allowance (RSA), through which staff bid for 17%, 25%, or 33% of their overall workload to be devoted to research. All staff (including those without significant research responsibility) also receive a universal scholarship allowance of 12% of their time. The system allows individuals to 'graduate up the research ladder' and senior researchers are expected to consistently attract the top allowance. In this way, research is incentivised via targeted rewards such as workload hours and budget allocations. All staff must apply annually to receive research allowances, including Professors and Readers. Transparency is achieved by clearly articulating the relevant criteria for each RSA category annually. Nine different research indicators are assessed ranging from outputs, income and impact to esteem, PhD supervision and culture. Importantly, to ensure long-term trust, these expectations have remained largely consistent over the REF period. The process is not resource capped. To ensure "bad luck" does not damage successful research development, the RSA process reviews the past 4 years of research activity, the contemporaneous year and future pipeline/project plans. Mitigating circumstances (MC), such as long-term sickness and maternity/paternity, are captured and contextually considered.

Allowances are never reduced for those on MC and kept on record for multiple years to ensure no adverse discrimination in future. The process runs every year from March to May, with a catch-up in September for new starters. To ensure fairness and transparency the process involves: application → School Research Leaders → Heads of School → College Research Director → and, finally, a special RSA Committee consisting of research leads, heads, centre leaders and union representatives. Decisions are communicated in June and updated into the Workload modeller for the next academic year. An annual report is written that is shared with the entire College. The report includes summary statistics and also equality measures (e.g. gender) to ensure staff receive detailed College feedback. All this ensures that the research award process is built around intra-Unit *and* inter-temporal fairness.

In this REF period, a total of 191,260 hours of individual research time were allocated, representing 127 person-years of research time. The funding for this is not drawn from the QR budget and represents a value of approximately £6.35m investment into research by the Unit.

Grant time

Where individuals successfully apply for external research funds, any funded time is allocated *in addition* to RSA, ensuring no “loss” in research allowance should individuals succeed in funding applications.

Individual Monetary Allowances

Funds of between £1,000 and £2,500 annually are attached to individual research allowances and can be spent at individuals’ discretion on conferences and research travel, expiring at the end of the financial year. The funds can also be used to support other research activities, such as data purchases, specialist software, specialist IT equipment, or transcription. All expenditure must be approved by the School Research Leader and the College Research Director. Notable is that spending rules were relaxed in 2016 so that staff could attend conferences without having academic papers accepted. Additional funds can be applied for on a case-by-case basis.

In this REF period, a total of £782,000 of individual research funding was made available to staff, primarily drawn from allocated QR budget:

<u>Unit Research Hours and Money Awarded during REF period</u>	
<u>RSA Category Awarded</u>	<u>2014-2020</u>
1 (17% time)	43%
2 (25% time)	22%
3 (33% time)	35%
Total Research Hours	191,260
Total Individual Monetary Awards	£782,000

Resourcing new researchers

Developing and fostering new researchers is a vital component of the Unit’s research staffing strategy. ECRs and those switching careers from industry are given an automatic researcher development allowance of 10% for two years after which they are expected to compete for research support allowance. Long-term members of staff who have never researched before are also eligible, subject to a credible development plan. Those awarded a researcher development allowance are expected to detail an achievable research plan that includes identification of suitable training courses, mentoring partners and the planned creation of research knowledge. £500 per annum is associated with this award to support conference attendance. In addition, Schools have specific staff development budgets for teaching and research-related development (often in the form of short courses). A Developing Researcher Funding Scheme (DRFS), designed to support those on lower research allowances, distributes between £4,000-£8,000 annually to School Research Leaders to support and fund research projects from early career research staff. Informal mentoring takes place continuously and a formal research mentoring scheme exists since 2016/17. In 2019/20 a bespoke circle mentoring system was added that further underscores our commitment to developing our researchers. Mentoring circles involve 2 senior Professors

mentoring 8 members of staff over 4 themed workshops organised over the course of the academic year. Advantages of this system are that it combines elements of coaching and action learning and allows mentees to overcome potential anxiety of 1-to-1 relationships.

In this REF period a total of 26,400 hours of researcher development and £88,000 of individual research support were distributed to eligible early career staff.

Unit Development Hours and Money Awarded during REF period	
Researcher development	2014-2020
Total Development Hours	26,400
Total Individual Monetary Awards	£88,000

Research-only staff

Throughout the REF period the Unit has maintained on average 4 FTE staff per annum on research-only contracts. As a matter of policy all research-only staff are members of one of the Unit's three research centres. All training, conference and research expenditure is paid for directly by the College research budget. To ensure long-term work prospects and successful career development, the policy of the Unit is *not* to attach research-only staff to individual research projects but to pay them instead via the Unit's central research budget into which research centres contribute income. This allows research centres to offer 2-year initial contracts after which research-only staff are normally made permanent. A key advantage of this policy is that it allows centres to plan staffing beyond current projects, with no sudden drop in research capacity when projects expire. The Unit employs/employed the following permanent research-only staff in this REF period: **Buscha** (Principal Research Fellow), **Cerqua** and **Gorman** (Senior Research Fellows), **Sahin-Dikem**, **Gould** and **Bowyer** (Research Fellows). One research fellow (**Dzandu**) is employed on a long-term contract.

Recruitment Strategy

Recruiting, developing and retaining staff at all levels are key strategic objectives of the Unit. Since 2017/18 all new appointments must have doctoral degrees to underpin initial research development. Where gaps have been identified, or to replace retirements, the Unit has appointed experienced researchers to provide research leadership. Key new appointments include Professor **Dorsett** and Professor **de Cesare**, both of whom have made immediate impact on income generation, mentoring and energetic research leadership. All recruitment takes place at School level, with the School Research Leader participating in, and supporting, the relevant recruitment committee. In addition, the Unit recruits research-only staff to its research centres to support areas of research excellence.

Staff Development

The Unit operates a multi-layered staff development strategy. At School level, all staff are subject to professional development review in terms of research and teaching. Specific School budgets are available to Heads of School to fund development and training activities including research. All four Schools have research leaders (**Michielsens**, **Sivaprasad**, **Dotsika**, **Ruiz-Alba**), who devote one day per week to School research management including researcher development and can access either School budgets or the Unit's research budget to fund research development. A conscious decision was made not to give these formal leadership responsibilities to Professors, allowing mid-career staff valuable opportunities to step into research management and freeing time for Professorial staff to mentor and lead research groups/centres. Success in these roles enables later promotion opportunities.

At Unit level, the annual research budget devotes circa £150,000 to ensure researchers have opportunity for professional development through attendance at national and international conferences, workshops and training courses. A significant portion (70%) is allocated to individuals receiving annual research support allowances or development allowances. The remainder is available to Research Centre Leaders, School Research Leaders or the PhD Director for early career support, workshops, conference organisation, specialised equipment, targeted

support, etc. Circa £5,000 is available to staff without formal research/development allowances, intended to provide a second chance for those who have lost their research allowance, conditional on credible plans to 'get back on track'.

The Unit hosts an annual 1-day research conference in May, giving emerging and established researchers the opportunity to disseminate their work and receive constructive feedback in a friendly environment. The recent linking with the doctoral colloquium further integrates emerging and established researchers throughout the Unit. An annual University-wide research conference is also organised by the Research Office during the summer. This give the Unit's staff opportunities to present their research to a wider University audience and allows for increased interdisciplinary opportunities. The Unit re-established a working paper series in 2017 as an initial outlet of outputs for staff, led by an editor (**Munoz-Torres**) and supported by School Research Leaders. The Unit also sponsors writing retreats supporting those in the process of finalising outputs and focused on staff who receive lower research allowances to facilitate a 'burst mode' of activity to complete conference papers, journal articles, book chapters and other outputs. The Unit hosts grant writing workshops delivered by research development partners from the research office. Each School has a regular seminar series, which invites external speakers to present to staff and students.

At the University level staff development is fostered through the University's commitment to plans associated with the European Commission HR Excellence in Research Award (HRERA), awarded in 2015 and successfully reviewed in 2017 and 2020, and the Researcher Concordat. See REF5a for more information.

Promotions

The success of our development strategy is evidenced in increasing numbers of staff promoted to Reader and Professor internally within the Unit. In this REF period four were promoted to Reader (**Ruiz-Alba, Niquez, Cacciolatti, Georgiadou**) and three to Professor (**Buscha, Barnes, Thapar**), comparing favourably with the previous REF period, where numbers were one and zero respectively, and attributable to our improved research culture and policy of mentoring staff for promotion.

Doctoral Researchers

The Unit has significantly increased its enrolment of doctoral researchers since REF2014, registering 74 compared to 36 in the previous period - a significant expansion - and currently hosting 55, 31 full-time and 24 part-time. The Unit actively supports doctoral studentships via internal and external funding, and circa 10% of doctoral students are in receipt of these in any year. Currently, seven doctoral researchers receive scholarships (five home and two overseas), all with full annual stipends worth £16,000 plus fee waivers. Over the entire REF period 14 scholarships with full stipends were made available, amounting to **a total investment of over £1,000,000**. Our doctoral cohort includes 12 part-time doctoral researchers from a collaborative long-distance doctoral programme set up in 2014 with the Haaga-Helia University of Applied Sciences (Helsinki, Finland). The first doctoral awards for this group occurred in 2020, showcasing our ability to successfully fast-track part-time doctoral students. Overall, there have been **30 doctoral completions in the REF period, constituting a 130% increase**, with our **completion rate rising** from 67% at the start **to over 80%** in the most recent three academic years. Until 2015 the Unit offered a DProf in Professional Practice via a part-time route and 4 DProfs remain active students whilst 3 have been awarded. Since 2015 only PhD qualifications are offered.

Doctoral completions by year

Year	13/14	14/15	15/16	16/17	17/18	18/19	19/20	Total
PhD doctorates	2	3	1	5	4	7	5	27
Professional doctorates				2			1	3
Total	2	3	1	7	4	7	6	30

Strategy

The Unit's doctoral strategy is to improve continuously all aspects of the doctoral experience and ensure satisfactory completion rates. A low base of doctoral students during the last REF period was a key concern and expanding student numbers was an initial priority with the goal of achieving a stable plateau at around 50-60 active doctoral researchers. This was achieved by 2018. To ensure quality, emphasis was placed on 1) continued rigorous academic selection and 2) ensuring the availability of local funding opportunities. At the same time significant numbers of staff have been trained in doctoral supervision whilst additional academic administrative posts have been created to support this expansion. By 2020, over 35% of *College* staff had completed doctoral supervisory training and/or completed a successful PhD supervision. Dedicated doctoral space was created (the 'PhD garden rooms') to provide an exclusive research environment and foster a common 'esprit de corps'. This is located in a green part of the Unit's campus and has capacity for circa 25 hot-desking students in a modern open glass office environment, which includes kitchen and washroom facilities. The Unit's future strategy seeks to evolve current practices and maintain an environment consistently outputting 10+ doctoral completions per year whilst also seeking further institutional collaborations with the ultimate goal of submitting a successful bid for a doctoral training partnership (DTP).

Training and Support

In 2012, Westminster established the university-wide Graduate School (GS) with an explicit mission to enhance student experience and progress, and provide doctoral training across the University. The GS coordinates the Doctoral Researcher Development Programme (DRDP) through a range of customised workshops, individual sessions and PDP activities based on the national Vitae Researcher Development Framework. This programme includes both University and Unit-bespoke training elements. The GS also plans regular symposia and workshops on postdoctoral careers and job applications, with speakers from academia, business, UKRI, Vitae and London First. Further details, including on annual progress stages, research ethics and integrity, and supervisory arrangements and expectations, are provided in REF5a

Administration

At *College* level, the Director of PhD Studies (**Vasileva**) leads all doctoral programmes and oversees all matters relating to doctoral study and strategy, supported by the Doctoral Admissions Co-ordinator (**Michielsens**) and the Doctoral Researcher Development Programme (DRDP) Co-ordinator (**Vasileva**, temporary). The expansion of dedicated roles overseeing doctoral study (1 x role in REF2014 and 3 x roles in REF2021) stems from our strategy of investing more dedicated resources to support doctoral researchers. The Unit implements all college-specific training elements from the wider DRDP programme, which is modelled on current practice in research council funded DTPs and involves general researcher training via the Graduate School and Unit specialist training via the *College*. Researchers are exposed to over 60 hours of development in topics ranging from 'strategic literature searching' or 'communicating as effective researchers' to term-long courses on quantitative/qualitative methods. The entire doctoral programme is further supported with £10,000 worth of discretionary spending that is used to fund conference attendance and outside workshops. The annual doctoral student colloquium, often considered one of the 'high points' of the academic year, provides further opportunity for students to meet and present their research. Additionally, all schools offer specific research events such as seminars, 'brown-bag' sessions or other social events that include doctoral researchers.

Equality, Diversity and Inclusion

The Unit strives for gender balance and inclusivity throughout; formal committees all have EDI objectives in their terms of reference and Schools provide a wide range of support measures for physical, emotional and intellectual well-being. Particular attention is paid to ensuring research resources and development are fairly distributed and appropriately communicated. For example, the outcome of the RSA is summarised in an annual statistical report, communicated to the entire *College* each year in June and containing information on awards per School and over time, monetary allocations and gender differences. Staff also receive personalised letters with appropriate feedback. Data are presented at *College* Research Committee and *College* Executive

Unit-level environment template (REF5b)

Group. This approach ensures stakeholders in the Unit receive personalised and high-level feedback on how resources are allocated and whether specific imbalances exist requiring action.

Since 2018 Union representatives (UCU) have been invited to act as observers during the annual RSA process so that an independent, non-management, account of annual resource allocation can be fed back to union members and recommendations for future improvements to our system put forward. For example, procedures for mitigating circumstances have been strengthened thanks to Union input.

Attention is also paid to the composition of the College Research Committee and other research leadership positions in the Unit to ensure an appropriate diversity balance is achieved. In 2017, of 19 academics occupying a research leadership position, 9 were women; by 2020, following management restructuring, the ratio was 8 women and 6 men.

Such gender ratios reflect a general trend of women participating strongly in research within the Unit. Year-on-year, more apply for research hours than men (between 55%-60% annually). Average allowances are equal and therefore more research hours are given in total to women than to men. The economics discipline in particular has a significant national gender gap, a 2016 Royal Economic Society survey of UK economics departments finding that women comprised only 28.1% of academic staff. However, within the Unit, women have consistently made up the majority of economists (50%+) and this is reflected in annual research allowances; throughout the REF cycle, women economists received more research hours than men.

Staff within the Unit also participate in a range of staff networks that represent staff with protected characteristics: the BME Network, LGBTQ+ Staff Network and Women of Westminster (WoW), all whom meet regularly during the academic year and have sub-groups dedicated to specific areas including research (see REF5a for more information). Representatives of these groups liaise with staff and managers on key issues around diversity and equality. For example, action from these groups has led to updated terms of reference for all committees, including College Research Committee, that elevated the importance of equality, diversity and inclusion.

In constructing its REF submission, the Unit took very careful note of EDI. The institutional code of practice clearly sets out that REF inclusion is based on awarded research hours (1 or more). The Unit has a long history of operating a fair and transparent research allocation system, one which is, importantly, annual and multi-stage, incorporating cross-checks for abnormal outcomes vis-à-vis equality characteristics. This has in turn resulted in a REF submission profile where staff characteristics of REF staff match staff characteristics of non-REF staff (including gender, ethnicity, disability, sexual orientation, religion and marriage).

3. Income, infrastructure and facilities

Income

The external research income generated by the Unit increased from £2.15m in REF 2014 to £2.40m in REF 2021. This was achieved across a range of funding sources: 33% from UK central government bodies and 16% from UK industry and public corporations. Notably, 32% of funding came from Research Councils (RC), particularly the Economic & Social Research Council (ESRC). This denotes a **significant shift** compared to REF 2014 where the RC funding component was only 3%.

These figures demonstrate the Unit's ability to secure funding across a range of sources and engage with key policy and industry stakeholders, including extremely competitive RC funding. A strategic policy of income diversification, moving away from over-reliance on UK central government funds towards a more balanced funding composition, was a clear success. Moreover, the most recent Chartered Association of Business Schools "Research Income for Business and Management" report (April 2020) shows that the size of the Unit's income is significant relative to other UK Business Schools, ranking 55/125. Additionally, our research income has resulted in publications and impact case studies that have influenced academic and policy agendas for

professional associations (e.g. CIPD and the Advisory, Conciliation and Arbitration Service (ACAS) and government departments (such as DFE, BIS and HMRC).

The Unit had considerable success in this REF period attracting funding from a range of prestigious funders, often with the Principal Investigator (PI) situated within the Unit. Notable research projects that were awarded during this REF period include:

- **Wright** (PI) *Establishing the business case for diversity in the scientific workforce*, **Royal Society**, diversity programme, £30,000 [2014]
- **Clarke** (PI) *Raising the bar for the representation of women in the construction workforce*, **Thames Tideway Tunnel** (TTT) project, £26,200 [2015]
- **Clarke** (CI) “Adapting Canadian Work and Workplaces to Respond to Climate Change: Canada in International Perspective”, **Canadian Social Sciences and Humanities Research Council** Partnership Grant, \$2,547,130 plus \$2.2m matched funding and partner contributions [2014-2022]
- **Urwin** (PI) “Early identification of young people at risk of poor labour market outcomes in later life - the role of educational institutions”, **ESRC**, £171,868 [2016-2018]
- **Georgiadou** (PI) “Community-led Upgrading for Self-reliance in South Africa: Integrated Construction and Environmental Management Systems in Informal Settlements”, **ESRC** £441,241 [2016-2020]
- **Georgiadou** (PI) “Building Urban Resilience for Self-Reliance in African cities”, **Royal Society** Newton Advanced Fellowship, £154,316 [2016-2020]
- **Clarke** (CI) “Inclusive Vocational Education and Training for Low Energy Construction”, construction social partner (European Construction Industry Federation (FIEC) and European Federation of Building and Woodworkers (EFBWW)), 10 country, **European Commission**, €405,020 [2017-2019]
- **De Cesare** (PI) “Digital Twins in Construction: Towards an Ontological Model Development and Integration Framework”, **UKRI** Transforming Construction Network Plus, £63,722 [2019-2020]
- **Buscha** (PI) “An Investigation of Social Mobility Using the ONS Longitudinal Study: sub-national variation and effects of selective education”, **ESRC**, £185,142 [2019-2021]
- **Urwin** (CI) “Managerial competences, engagement and productivity - developing positive relationships”, **ESRC**, £609,455 [2019-2021]
- **Dorsett** (PI) “Youth custody: educational influences and labour market consequences”, **Nuffield Foundation**, £231,761 [2019-2022]
- **Urwin** (PI) “Analysis of post-16 education pathways that entrench social segregation”, **Nuffield Foundation**, £296,513 awarded in principle [2020-2022]
- **Dorsett** (PI) “Using administrative data to improve labour market statistics”, “The impact of the impact of COVID19 on self-employment” and “Local labour markets during the pandemic” part of the **Economic Statistics Centre of Excellence (ESCoE)** programme of research, £116,123 [2020-2022]
- **Miles** (PI) “Piloting Health Interventions to advance the Sexual and Reproductive Health of Women Migrant Workers in Malaysia”, **British Council** Newton Fund Impact Scheme, £147,976 [2020-2022]
- **Dorsett** (CI) “Evaluation of the Tuition Partners and Academic Mentoring”, **Education Endowment Foundation**, £1.6m, [2020-2022]

However, the Unit’s philosophy is that research funding is not only an external measure; internal investment comes from the Unit itself to help sustain and continuously further develop its research culture, including. the following amounts in this REF period:

Approximate values of Unit inward research investment 2014-2020

Activity	2014-2020
Research Workload Allocation	£6.35m
Research Activity Support (travel, staff development, etc.)	£0.75m
Research Centre Support (including research-only staff pay)	£1.45m
PhD Scholarships	£1.05m
Total research investment	£9.60m

Whilst some external funding has been used to support these expenditures, total investment for research in the Unit is a significant multiple of its externally funded income. Moreover, strong finances mean it will continue to make significant internal investments to maintain a vibrant and sustainable research culture.

Infrastructure and facilities

The Unit is self-contained as a College within the University structure and occupies a significant portion of the Marylebone campus. It contains a Bloomberg Financial Markets Suite (FMS) with 24 terminals to support state of the art teaching and research in finance and economics and the 1,300m² Fabrication Lab, established in 2015 (at a cost of £1.5m) to give students and staff in applied management access to 3D printing, laser cutting and other advanced digital fabrication processes. The Unit contains a 24-hour access library and a contemplation and prayer room and fully caters for researchers and visitors with disabilities. All staff have access to their own desk space, usually in 2-3 person shared offices.

Depending on their size, research centres are allocated one or multiple rooms to conduct research and have access to High Performing Computer equipment, either via network or dedicated machines in their offices. Sensitive data and data analysis are secured in locked offices that include privacy screens and machines disconnected from the internet. In 2020, led by **Dorsett**, CER acquired accreditation for on-campus access to the Office for National Statistics Secure Research Service (SRS), the platform used for analysis of microdata. A subsequent application extended this to allow home access during the pandemic.

Shared meetings rooms with video conferencing technology are available throughout the campus. A revised IT policy in 2018 led to a laptop-first focus to enable remote working, however, desktops are still supported, especially for research areas working in 'big data' environments. Printing resources are available but de-emphasized through a green policy of moving towards electronic paperwork. Significant software and on-line resourcing are available to all staff in the Unit. Subscriptions to Google Apps, Office 365, Adobe Creative Cloud, NVivo, SPSS and Stata enable Unit staff to conduct research anywhere. Bespoke software is purchased on request from the research budget.

Research bidding is developed and supported within the wider University context. The University's Research and Knowledge Exchange Office develops and supports research from inception, horizon scanning, advising and supporting bids, managing contracts and post-award administration, and supporting institutional audits. The Unit has access to two dedicated award officers (Research and Knowledge Exchange) and an impact officer. All proposals are reviewed internally by at least two experienced academics. Sign-off is a function of the size of bids, those below £50,000 being signed off at School level, up to £200,000 by the College Research Director, to £1m by the Head of College and above that by PVC Research. This approach de-centralises administrative work and focuses responsibility where it matters. A college support team helps manage the Unit's research budget and supports staff and doctoral students in travel, conferences and other bookings. Additional support for events management is provided via the dedicated college events co-ordinator and the college support team. Finally, the University's innovative Virtual Research Environment has removed most paper-based administrative research processes (see REF5a).

4. Collaboration and contribution to the research base, economy and society

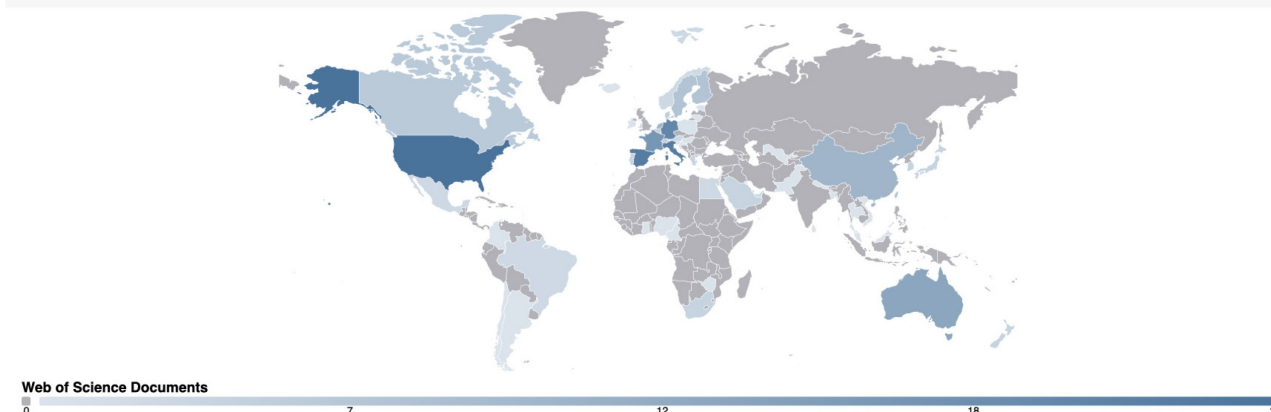
Collaborations within HE

National and international collaboration with other higher education institutions is a significant part of research activity. The Unit has considerably expanded its range of national and international collaborations through key projects and partnerships. An important priority has been strategic partnerships that seek to integrate research development beyond output collaboration. For instance, **Clarke** is an Associate Director of a 7-year international \$4.7m consortium adapting Canadian work and workplaces to respond to climate change involving 38 individual members and 19 partner institutions. Funded by a Canadian Social Sciences and Humanities Research Council Partnership Grant, this project is a major international research collaboration that has produced 22 reports, made over 45 international presentations and created a library of over 3000 documents. The establishment of a bespoke doctoral training programme with **Haaga-Helia University of Applied Sciences (HH)**, Finland, in 2014 also highlights the diversity of our collaborations. This unique doctoral partnership led to approximately 14 members of the HH faculty joining our doctoral cohorts, some of whom have now graduated, and resulted in increased output and funding submissions in both institutions. Moreover, there is commitment to further enhance our collaboration via staff exchanges, joint workshops and institutional bids. Joint strategic bids to Research England and NordForsk, worth over £1m each, were submitted in 2019 and 2020, seeking to fund further research collaboration. The University also has a 'sister' University, the **Westminster International University in Tashkent (WIUT)** in Uzbekistan. The Unit collaborates with WIUT staff via joint funding calls, joint research conferences, exchange visits and an academic journal, *Silk Road: A Journal of Eurasian Development* and is exploring a collaborative doctoral programme, similar to the HH programme.

Beyond such strategic links, all Unit members foster national and international research collaborations, often involving the preparation of new journal articles or funding submissions. A reflection of our wide-ranging international collaborations is shown graphically below. Our scientific collaborations have a strong focus on Europe and North America and a presence in South-East Asia, Australasia and Latin America. Moreover, compared to 2008-14, there has been strong growth in collaborations with Africa (13 vs 2 previously) and Scandinavia (25 vs 3 previously).

Web of Science: international collaborations (2014-2020)

Geographic

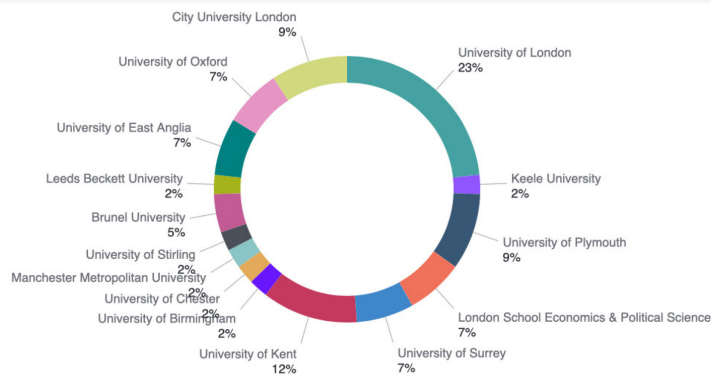


Number of collaborative Web of Science documents (outside UK), 2014-2020, business and management research areas, InCites Dataset

At national level the Unit collaborates with a wide variety of institutions, as partially presented graphically below. The top-15 most collaborated institutions include local London institutions and elite institutions across the UK.

Web of Science: national collaborations (2014-2020)

Pie Graph



Top-15 UK institutions with most collaborative Web of Science documents (inside UK), 2014-2020, business and management research areas, InCites Dataset

Collaborations outside HE

Multidisciplinary and transdisciplinary research is an important feature of our collaborations outside HE, as evidenced by the range of work undertaken with stakeholders in industry and government. Staff across the Unit have worked on a wide variety of projects with a diverse range of partners, including Low Pay Commission, HM Revenue and Customs (HMRC), Department for Education (DfE), ACAS, Federation of Small Businesses (FSB), European Construction Industry Federation (FIEC), European Federation of Building and Woodworkers (EFBWW), English Heritage, Thames Tideway Tunnel, numerous trade unions and large multinational companies such as Diageo or Ernst & Young.

Prominent examples underlining research into practice include **Urwin**, who completed a project (2014) for the Dolphin Square Foundation (DSF) that estimated the cost and benefit of supplying affordable housing in Central London, an increasingly topical theme. He has also led on projects with the CIPD, ACAS and the legal sector to inform employment, diversity and inclusion practice. **Clarke** is an expert for the European Commission Construction Vocational Education and Training Social Dialogue and President of the European Institute for Construction Labour Research, a network of 500+ members across Europe based in Brussels, which organises events and produces newsletters and book publications. Clarke also works extensively with national and international trade union and employer organisations to influence practice and culture. **Ruiz-Alba** has collaborated with Farmanova & Bidafarma, which represents 10,000 pharmacy stores in Spain, for research in the study of servitization in pharmaceutical industry.

Staff have significant experience working with government and parliament to educate, evidence and guide policy debate. For example, **Rieple** was Academic Director of the *House of Commons' Leadership Development Programme*, 'Leading for Parliament' (2012-2015). Work by **Buscha** on social mobility has been used in *Parliamentary Debate: Social Mobility and the Economy* (March 2018) and cited in numerous Social Mobility Commission reports. In addition, his work on the value of higher education degrees was significantly cited as evidence in the *Augar Review*. **Clarke** gave evidence at the fifth session of APPG for Excellence in the Built Environment Inquiry into the *Impact of Brexit on future skill needs in the construction industry and the built environment professions* (March 2017). **Urwin** has extensive experience working with numerous government departments to underpin spending reviews and policy changes in further education.

The Unit also regularly hosts events that bring together a wide range of external practitioners. Examples include the ProBE one-day symposia on Women in Construction (2015), Architecture and Building Labour (2016), Direct Labour (2017), A Green and Just Transition (2018), Transforming Construction into a Green Industry (2019). The Unit also hosts the Annual Westminster HRM Conference which invites students, their employer sponsors, and academics to debate current HRM issues with a range of HRM practitioner and researcher guest speakers.

Secondments

The Unit actively supports secondments with research at their heart. Examples include **Dorsett**, who is part-seconded to the Office of National Statistics and the Department for Education (2020-21) for high-secure data access; **Di Pietro**, who is fully seconded to Joint Research Centre (2019-2021), the European Commission's science and knowledge service, to support education research; and **Gifford**, who was seconded to Westminster from the CIPD (2018) to collaborate on research projects and workshops around evidence into practice.

Conference organisation and hosting

The Unit's increasing research reputation resulted in its hosting on its premises of the 2016, 2017, 2018 and 2019 Royal Economic Society (RES) PhD Meetings. This represents a global flagship doctoral conference and job market event that forms international opportunities for doctoral students in economics, finance and other allied disciplines to present their work, network and interview with recruiting institutions. The conference involved circa 350 job participants and over 30 recruiting institutions annually. Each conference was organised by **Buscha** (2016) and **Oppedisano** (2017-2019) and included keynotes from world leading economists such as Daniel Hamermesh (Royal Holloway), Alan Manning (LSE) and Peter Neary (Oxford).

The Unit regularly organises and hosts a variety of events, including meetings of learned societies, practitioner forums and national/international academic conferences with prominent speakers from across the globe, attracting an international audience profile. In this REF period the Unit hosted circa 85 workshops and 21 symposia/conferences. These included:

- The 2014 British Universities Industrial Relations Association (BUIRA) annual conference plus throughout the REF period regular monthly London BUIRA seminars and bimonthly BUIRA Industrial Relations History seminars, each with national and international expert speakers and the annual Britain@Work Oral Labour History Day (supported by BUIRA and the Oral History Society).
- The 2014 UK History of Economic Thought 46th conference.
- The 2016 CIPD Applied Research Conference, featuring as keynotes Kill Rubery (Manchester), Denise Rousseau (Carnegie Mellon) and Paul Sparrow (Lancaster).
- The 2019 Chartered Institute of Marketing (CIM) Levitt Conference, which included leading industry experts such as Karsten Drath (Leadership Choices) and Charlie Corbett (Plain Speaking Institute).
- The Westminster Development Studies Symposium (2018-2020), attracting a wide range of international speakers on development issues and including keynote presentations from Kunal Sen (UN University), Carlos Oya (SOAS) and Andy McKay (Sussex).

Memberships of peer review bodies, research committees, learned institutes

Rich (Head of SOES) is a member of the *Royal Economic Society CHUDE Group* and was elected to its Steering Committee. **Clarke** is on the Advisory Committee of the *Hans Böckler Stiftung* Project "Das Baugewerbe im Wandel" and is a member of the *Powering Past Coal Alliance (PPCA) Just Transition Taskforce* of BEIS. **Clarke, Urwin, Buscha, Pilkington** and **Jackson** regularly review for the ESRC. **Urwin** was a member of the ESRC Centre for Doctoral Training Peer Review College, is currently an Applied Micro econometrics expert on the Cabinet Office's Academic Advisory Panel, and a member of the DfE *Skills Policy Analysis Academic Panel*. **Pilkington** is a reviewer for the South African National Research Foundation and the Norwegian Research Council. **Granados** is the representant UK member on the management committee of COST (*European Cooperation in Science and Technology*) action "Empowering the next generation of social enterprise scholars".

Editorships of scholarly journals

The Unit has a number of staff with key roles in leading international journals and actively encourages emerging researchers to participate in peer reviewing. **Clarke** was on the editorial board of the journal *Work, Employment and Society* and is on the editorial board of *Construction History Journal*. **Buscha** was an Associate Editor for the journal *Work, Employment and Society*.

Stevens was an Associate Editor of the *Journal of Marketing Management* and on the Review Board of *Marketing Theory*. **Cacciolatti** is on the editorial board of *Technological Forecasting and Social Change*, the *Journal of Business Research* and *International Journal of Innovation Studies*. **De Cesare** was an Associate Editor of *Organizational Design and Enterprise Engineering* and served as Managing Editor of the *European Journal of Information Systems*. **Dotsika** is a member of the editorial board for the *International Journal of Sociotechnology and Knowledge Development*. **Mohamed** is on the editorial board for the *Journal of Healthcare Delivery Reform Initiatives* and *International Journal of Sociotechnology and Knowledge Development*. **Benamraoui** was a member of the editorial board of the *International Journal of Islamic and Middle Eastern Finance and Management*. **Ruiz-Alba** is a member of the editorial board for the *Journal of Business and Industrial Marketing*, *International Journal of Internet Marketing and Advertising* and *International Journal of Management Development*. **Pilkington** is an associate editor of the *International Journal of Innovation and Technology Management* and an editorial board member of *IEEE Transactions on Engineering Management*. **Barnes** is an editorial board member of *International Journal of Operations and Production Management* and *Supply Chain Management: an international journal*. **Urwin** is on the editorial board of the *Journal of Strategy and Management*.

Invited lectures/keynotes

Unit staff demonstrate significant expertise in a wide range of disciplines and are regularly invited to give keynotes and special lectures. Examples include:

- **Urwin** was invited to the 2014 OECD Conference in Paris on issues of Women's Leadership in Public Life 'Fostering Diversity of Inclusive Growth' and was keynote speaker at the 2015 Federation of Awarding Bodies conference.
- **Rieple** was invited panel discussant on the difficulties of funding interdisciplinary research at the Chartered Association of Business Schools Interdisciplinary Research Summit (2016).
- **De Cesare** was keynote speaker at the International Conference on Conceptual Models (2016).
- **Barnes** was keynote speaker at the Annual Conference of the UK Warehousing Association (2016).
- **Granados** gave the keynote presentation at the 3rd International Congress of Business Management "Administration in the Digital Era" at the National University of Colombia (2019).
- **Di Pietro** gave a keynote speech at the European Commission, Joint Research Centre, Annual Conference (2016)
- **Clarke** gave keynote addresses at the "Economic Inequality and the Housing Crisis" conference in Trinity College Dublin (2017), on women in construction at the EFBWW General Assembly in Vienna (2019), on climate change, labour and the built environment at the ILO *Future of Work*: conference in Sheffield (2019), and on a green and just transition at the UCU *From Cradle to Grave* annual conference (2020).

Visiting Scholars

The Unit has hosted 15 visiting scholars from our global network with stays ranging from 3 months to 3 years. These are not paid but provided with physical resources, such as computers and library access, and desk space next to our doctoral students, so allowing for networking for improved research and ideas exchange.

Media Appearances

Due to strong media and engagement support provided to staff via a bespoke team, a high proportion of staff have media experience. There has been a significant increase in media engagement from the Unit across this REF period and 24 of 51 staff submitted have had at least one engagement with either on-line, print, radio or TV media to publicize and communicate their work. Staff have published in all leading print newspapers and periodicals, including the *Guardian*, *Times*, *Wall Street Journal*, *Independent*, *Telegraph*, *Economist*, *Times Higher*, *Evening Standard*

and *Financial Times*. Staff have been interviewed and contributed to programmes on BBC News, Sky News and BBC Radio 4 among others. Also notable are a series of long-running podcasts on Share Radio: *Economist Questions* focuses on addressing contemporary issues in economics and society, whilst *Policy Matters* explores how recent academic research underpins government policy

Research-based awards and honours

Hlupic was voted one of the world's most 'Most Influential International HR Thinkers' in 2015, 2016 and 2017 by HR magazine. **Rieple** was awarded a Lifetime Achievement Award at the Design Management Academy 2017 International Conference for her championing of design management research. **Clarke** was invitee with other ACW directors to the SSHRC Partnership Impact Award 2018, presented by the Canadian Governor General in recognition of the important contribution of the 'Adapting Canadian Work and Workplaces' research programme. **Granados** was awarded best paper award at 5th EMES International Research Conference on Social Enterprise in 2015. **Ruiz-Alba** was awarded best paper prize at the Spring Servitization Conference in 2016. **De Cesare's** contribution to applied ontology was recognised by a prize for a paper published in the special 10-year anniversary issue in Applied Ontology in 2015. **Barnes** was awarded an 'Outstanding Reviewer Award' in 2015 by the *International Journal of Operations and Production Management*. **Shortland** was awarded an Emerald Literati Award in 2020, having produced "one of the most exceptional pieces of work" seen by editors of *Career Development International*.