

<b>Institution:</b> University of Greenwich
<b>Unit of Assessment:</b> 17 - Business and Management
<p><b>1. Unit context and structure, research and impact strategy</b></p> <p><b>a. Overview</b></p> <p>The Business and Management research environment at the University of Greenwich has undergone a step-change since the last REF period ending in 2014. We have significantly increased the recruitment and development of research-active staff, tripling numbers to 84 FTES. We have strengthened research leadership with 14 professorial appointments and promotions and made large investments in research support through our School Research Investment scheme (internally funded research time equivalent to approximately 19 FTES each year as detailed in section 2). We have recruited approximately 15 members of academic staff each year, the great majority of whom now have significant responsibility for research. We have increased research outputs 2.5-fold, those published in Scopus Q1 journals three-fold, doctoral completions four-fold (from 15 to 59), and external research income five-fold (from £1m to £4.7m),</p> <p>Research activity has been reconfigured by the consolidation of 8 research groups into 3 large Centres of Excellence, with three remaining smaller research groups, two of which we plan to grow into a fourth Centre of Excellence. We have found that greater critical mass has led to a more productive research environment, especially to more effective leadership and mentoring of Early Career Researchers (ECRs).</p> <p>We make a contribution to Business and Management research that is distinctive, critical, firmly socially engaged and policy-oriented. This is focused on i) employment and work; ii) political economy, finance and accountability; iii) networks and urban systems; and iv) tourism and marketing. These areas are each organised in School-funded research centres and groups with professorial leadership. In addition, our dedicated 'Generator' supports enterprise amongst students, graduates and local SMEs, engaging our active research staff in doing so.</p> <p><b>b. Research strategy</b></p> <p>Research within the scope of UoA 17 is co-terminus with the Business School. Many of the structures and policies put in place to foster research are therefore Business School structures and policies and are referred to as such in this statement.</p> <p>As one of the most diverse universities in the UK, we aim to ensure that our research reflects our student population's interests and the local and international communities from which they come – this is part of our aspiration for research-informed teaching that is socially relevant.</p> <p>The Business School strategy for 2017-22 reiterated its mission to transform lives through inspiring teaching and research, including developing areas of world-class research. We set aims to:</p> <ul style="list-style-type: none"> <li>• continue the recruitment and development of research-active staff;</li> <li>• provide a supportive and inter-disciplinary environment for them in Centres of Excellence with critical mass, focussing on specific research areas;</li> <li>• increase external research funding;</li> <li>• grow the number of research students;</li> </ul>

- increase the quantity and quality of research outputs;
- increase and track the societal impact of our research.

### Research group structure

The Business School reorganised its research group structure in 2018, with the eight pre-existing research groups being largely consolidated into three Centres of Excellence (CoE):

- The Centre for Research on Employment and Work ([CREW](#))
- The Networks and Urban Systems Centre ([NUSC](#))
- The Institute for Political Economy, Governance, Finance and Accountability ([PEGFA](#))

The consolidation process was researcher-led, not imposed from above. The School made available enhanced funding (from QR funds) for Centres of Excellence which met a critical mass test (at least 20 researchers) and set out clear and credible plans for supporting Early Career Researchers (ECRs) and research students; improving the quantity and quality of research outputs; raising their profile and building research networks, and; and generating societal impact. The CoE configuration arrived at was the product of discussions between researchers from the predecessor groups, identifying areas of mutual interest and potential inter-disciplinary collaboration.

The focus of the three CoEs is as follows:

- **CREW** (Director MOORE): is an internationally recognised Centre of Excellence on work and employment and its organisational and societal contexts. It focuses on four cross-cutting themes: work quality; re-municipalisation of public services; equality, diversity and democratic governance at work; and relationships at work. Key areas of expertise are whistleblowing and wider democratic governance; public service provision, including health and social care work; quality and experience of work, including precarity; and the roles of race, ethnicity, disability, gender and age in shaping employment and work relationships. CREW houses the Public Services International Research Unit (PSIRU), which researches the privatisation and restructuring of public services globally.
- **NUSC** (Directors CRONIN and IEROMONACHOU): Seeks to discover, apply and share knowledge on networks and urban systems to help communities connect and prosper effectively and sustainably. It produces applied research to support effective and sustainable distributed and overlapping production systems, global value chains, healthy urban ecosystems and business models for technologically transformed social systems.
- **PEGFA** (Directors ONARAN and STOJANOVIC): Promotes development, sustainability and fairness in economic and financial systems. The Institute embraces both theoretical and methodological pluralism, including positivistic and critical approaches. Its orientation is interdisciplinary, international, impactful and innovative.

The School also supports the development of research in areas that do not yet have sufficient critical mass to warrant the setting up of a CoE. Accordingly, it has recognised three smaller groupings and provided support in the form of some funding and online presence:

- Tourism Research Centre (Director MACLEOD)
- Marketing Research Group (Director De Domenici)
- Diversity Interest Group (Director WILLIAM)

The first two are growing, thanks in large part to a key professorial appointment (MORRISON). We envisage that they will consolidate into a fourth Centre of Excellence in 21/22, once additional research-active staff have been recruited to meet critical mass. These groups encompass consumer behaviour in marketing and communications, consumer well-being and quality of life, digital marketing and information communication technologies, event and festival research, public policy in tourism and urban tourism research and tourism cities.

The Diversity Interest Group has a pan-university focus, bringing together researchers from different disciplines and faculties interested in this area. Within the Business School it is affiliated to CREW.

CoEs and research groups are self-organised by staff. Senior researchers within CoEs, generally 2-3 Professors and 2-3 Associate Professors, have time allocated within their workloads for their leadership responsibilities, and specifically for mentoring ECRs. CoEs and groups:

- Challenge orthodoxy and create a vibrant and critical research culture within the Faculty and departments that directly informs teaching;
- Promote internal and external profile at academic and practitioner level, nationally and internationally;
- Provide a supportive environment for developing research projects, putting together funding bids and discussing individual research outputs. Members meet regularly to discuss their work, for instance through "paper jams", writing retreats, and 'meet-the-editor' sessions;
- Represent an academic home for research students, ensuring that they have a network extending beyond their supervisors;
- Develop research networks by arranging seminars and workshops with external researchers (26 such workshops were held by the 3 CoEs in the academic year 19/20) and hosting visiting scholars, fellows and professors that bring recognised academic and practitioner expertise;
- Build profile, and pathways to societal impact, engaging external participants from think tanks, NGOs, business, the public sector, and the world of politics. For example, CREW's annual public sector pay symposium brings together a range of decision-makers, including the ONS, employer and trade union representatives; NUSC's Sustainable Urban Futures workshops engage local government transport policymakers from across Europe; PEGFA's Transforming Finance Conference had speakers from Positive Money, openDemocracy, Cooperative London and the Independent Workers GB Union;
- Forge international links. For example CREW has relationships with ADAPT (Associazione per gli Studi Internazionali e Comparati sul Diritto del Lavoro e sulle Relazioni Industriali) and CELSI (Stredoeurópsky inštitút pre výskum práce/ Central European Labour Studies Institute). NUSC participates centrally in the International Network for Social Network Analysis (INSNA) and the NetSci conferences. PEGFA's conference on the effects of income, gender and wealth inequalities included speakers from the UN/ILO and the OECD and works closely with major European political economic networks such as the Foundation for European Progressive Studies (FEPS).

The CoEs receive core funding and are free to spend it as they think most effective, within a range of authorised purposes. (This funding was £60,000 per CoE in 19/20, reduced amidst the pandemic, but to be restored 21/22). While patterns of use vary between CoEs, the funding tends mainly to be spent on staging workshops and visiting speakers, seed funding for proof of concept, development of external funding bids, small-scale data collection and transcription,

specialised training, funding research students to attend conferences, and employing research assistants.

Each CoE is also allocated one VC's PhD Studentship each year and arranges its own selection process in terms of research topics and students. In addition, the University funded a set of Research Fellowships in 2019; and each of the CoEs was awarded one. The Research Fellowships have supported intensive development of key research themes, substantive contribution to scholarship and academic development.

The size of the CoEs and the breadth of interests of the members opens the opportunity for inter-disciplinary and methodically diverse research. Indeed, this was one of the drivers for consolidating research activity into fewer, larger groups. The disciplinary range and methodological diversity within the CoEs is summarised here:

- **CREW:** draws on management, sociology, political economy, philosophy, psychology, history and politics, employing predominantly qualitative or multiple methods, including narrative research and oral history. The main research themes: work quality; re-municipalisation; equality, diversity, and democratic governance at work; and relationships at work.
- **NUSC:** draws on sociology, economics, mathematics, physics, operations research, management and logistics, employing multiple and mixed methods including social network analysis, network science, complexity theory, linear programming, systems dynamics and case study approaches. The main research themes are: distributed and overlapping production systems; healthy and high-quality urban ecosystems; business models for technologically transformed social systems; and global value chains.
- **PEGFA:** draws on economics, accounting, finance, business and management studies, sociology, politics and history, employing predominantly quantitative, econometric methods but also multiple methods, including case studies. Principal research areas include inequalities, ecological sustainability, financial stability, innovation, and governance.

### **Governance of research activity**

Research within the scope of UoA 17 is governed by UoG-wide policies and procedures, which are overseen by the university's Research & Enterprise Committee. At the Business School level, research activity is overseen by the School Research & Enterprise Committee, which includes all CoE and research group leaders. The Committee makes decisions on the allocation of QR and HEIF funding and reviews progress against strategic objectives. The Committee reports to the School Board (i.e. the academic governance body within the School).

The School Research & Enterprise Committee approaches these issues in a strategic rather than managerial spirit. Resources are allocated to increase the vitality of the research environment, and to do so in a sustainable manner- specifically by ring-fencing some funds to invest in ECRs, with the objective of building a more productive research environment in the longer term.

### **Review of progress since REF 2014**

In the period since REF 2014, the Business School sought to grow its research capacity from the 28.7 FTE staff submitted to REF 2014. Since then, there has been progress in breadth and depth of research. Research capabilities have been established as critical criteria in staff recruitment and staff now routinely target Scopus Q1 and high-ranking CABS AJG journals as publication outlets in order to engage with the forefront of business and management research.

The School's research capacity has tripled to 84 FTES. Our institutional repository holds 2,100 items in the business and management subject area, with 450,000 downloads since 2014. Compared to the previous REF period, we have increased research outputs 2.5-fold, those published in Scopus Q1 journals three-fold, doctoral completions four-fold (from 15 to 59), and external research income five-fold (from £1m to £4.7m),

As explained in more detail in section (b) below, this growth in outputs and funding has been founded on significant change in the staff base, with targeted recruitment of significant numbers of research active staff, especially ECRs. We have sought to support researchers through a new research career pathway, with clear criteria for promotion on the basis of excellent research and societal impact; by allocating specific time for research, notably through the School Research Investment scheme (described in section (b) below); by improving researcher training and development, both through the university-wide Research and Enterprise Training Institute (RETI) and provision within the School; and by developing CoEs as supportive environments for research.

The School has been supported by £1.9m QR and HEIF funding alongside large University investments in research leadership, doctoral scholarships, enhanced training and administrative support, and physical infrastructure to underpin the research strategy and these investments will carry the research strategy forward beyond the current REF period. Professors (MOORE, ONARAN, ADEBANJO, GRAY, MORRISON) and senior research fellows (MALEKPOOR, BENNETT, CALVERT JUMP) have been appointed to each CoE to build capabilities, alongside professorial promotions of existing staff. The University provides funding for 3-5 doctoral scholarships annually. Study spaces for doctoral students have been established in the new Stockwell Street library and refurbished Dreadnought and Queen Mary buildings. Research staff and students within the School make use of the University's High Performance Computing facility. An enterprise facility serving students, graduates and staff, the Generator, provides a focus for industry engagement and site for social network research. The Generator is co-located with the Powerhouse, the location for consolidated Greenwich Research and Enterprise administrative support and training.

### Future strategy

The Business School strategy for 2017-22 reiterated its mission to transform lives through inspired teaching and research, including developing areas of world class research.

Within an overall staff base which is likely to grow by around 5 per year in net terms we aim to **increase by 20 the number of research-active staff** regularly producing outputs of internationally excellent or world leading quality. Specifically, we aim by 2022 to increase the proportion of academic staff with significant responsibility for research on our research career pathway and publishing at this standard from 53% to 65% (100). The increased profile of the CoEs has already paid dividends in terms of attracting ERCs from internationally recognised universities. 75% of staff with responsibility for research currently belong to one of the three CoEs. We will continue to support the existing CoEs (through QR funding, PhD Studentships, and allocated time for leadership) while aiming to grow the critical mass of researchers in the area of tourism and marketing to warrant the formation of a CoE in this area too. This will involve the continuing recruitment of ECRs in these areas, support for mid-career researchers, and selective recruitment of senior researchers to provide leadership (see section (b) below on staffing).

Further development will require external funding on top of internal funding support from the School. The Business School starts from a relatively high base: according to the 2019 survey of research income for Business and Management carried out by CABS for the period 2013/14 – 2017/18 using HESA data. The total income for the University of Greenwich relating to UoA 17 was £3m over this period, 35<sup>th</sup> out of 124 institutions surveyed. We aim to **increase the annual rate of external funding by 50%** over the next REF period. This will be achieved by targeted external bidding, staff training, providing mentors for less experienced staff, strengthening

bidding infrastructure and developing international networks. This is explained in more detail in section (d) below.

As the size of the research-active staff base grows, we aim to increase the number of research students. With greater supervisory capacity and more research projects suitable for research students, the target is **to increase the number of registered research students to 120** by 2022, while maintaining our improved rates for timely completion. We aim to build on our experience in attracting industry funding for scholarships and University Alliance Doctoral Training Centre scholarships.

Hitherto, the development of societal impact from research was historically driven by the impending REF exercises, especially REF 2014. While this REF focus has helped generate valuable societal impacts, we have (as explained below) sought to mature our approach to generating and tracking impact, so that it becomes more integrated into the role of CoEs and the careers of individual researchers. We have started to document social impact in the normal course of research activity, rather than undertaking a special exercise and intend to build future impact case studies from this information base. **Specifically, we aim to generate at least 8 impact case studies of internationally excellent or world leading quality over the next REF period.**

### Enabling impact

The generation of impact case studies for REF 2014 was largely a reactive process, driven by REF requirements. As mentioned above, we have sought to learn from this exercise, and integrate the generation and tracking of societal impact into the research process. This maturing of the approach to impact has involved the following steps:

- **Taking account of contribution to societal impact when selecting new staff.** Our selection processes explore contribution to impact, recognising that in the case of most ECRs this will amount to the potential for generating impact.
- **Educating staff** as to what impact means in this context, in particular distinguishing it from academic impact within the discipline (as measured by, for instance, citation metrics) and from dissemination and communication of research findings to non-academic audiences. The education process has taken the form of experience-sharing sessions at Business School and CoE level, formal training provided by RETI, multiple one-to-one conversations with researchers and mentoring within our early career research development programme.
- **Signalling to staff the importance of societal impact** and the value we place on it. This has been incorporated into the criteria for allocating SRI (see section (b)) as well as into the promotion criteria on the university's research career pathway. Where appropriate the objectives agreed in the annual appraisal round include objectives related to impact.
- **Incorporating impact within the objectives of CoEs.** All CoEs include within their plans objectives relating to the number of impact case studies they will seek to generate, and how they will support the authors concerned.
- **Encouraging grant funding applications or consultancy bids to sources which might facilitate impact.** Whereas UKRI funding sources are targeted for fundamental research, funding from commercial or professional sources can facilitate projects which give researchers access to decision makers and influencers. For example, small grants from Transparency International, the Council of Europe and the UK Department of Health allowed VANDEKERCKHOVE to investigate emerging whistleblowing legislation in different countries helping him advise on legislative changes across Europe. Similarly, ONARAN was commissioned by International Trade Union Confederation and Unions21

to prepare policy briefs from her modelling of wage-led growth, which influenced G20 Union policy positions and led to invitations to brief officials of the South Korean government.

- **Advanced training and coaching for impact case study authors.** The impact case studies prepared for REF 2021 have been through many iterations and the authors have benefited from expert training provided by Vertigo Ventures and one-to-one coaching from the university's Impact Manager and other senior colleagues with prior professional experience of UK and international policy processes. This help has been positively received by researchers. "The workshop was very beneficial in understanding the finer details of developing an Impact Case Study ... helped very significantly in shaping and improving the case study I am developing."; "Feedback received was excellent". An indirect benefit of this training and coaching is that it is creating a cadre of researchers with impact experience who will be able to coach and support other colleagues in future.
- **Dedicated funding to support the development of impact.** Grants of up to £5,000 have been made by the university to researchers to develop their impact case studies. Such support for example has been used to survey users of a commercial product and to fund travel and research assistance to collect testimonies from policymakers.

### Interdisciplinary research

As explained above, the size and breadth of the CoEs provides an environment in which interdisciplinary and multiple methods research can develop. For example, the NUSC includes staff from the disciplines of management, economics, engineering, physics, politics and sociology. The regular internal Centre/Group meetings provide a natural forum for interdisciplinary themes and projects to be discussed. We find this organic approach to be more effective than artificially prompting inter-disciplinary projects. So far we have seen some interesting examples:

- Expertise in ethnography (JONES) and social media network analysis (ZHU) was combined in a Peabody-funded project to study resident attitudes to urban regeneration efforts in Thamesmead.
- A project on the intergenerational legacy of Windrush Generation combined expertise in applied sociology (REYNOLDS) and work and employment (Emmanuel and Henry).
- CAI combines ethnographic expertise with information systems experts in published work on the influence of information systems on tourist experiences, and with logistics and psychology on remote working experiences (with PAPAIX, PASCHEK and STROLENY).
- Expertise in entrepreneurship (PAPAIX and IEROMONACHOU) and tourism product positioning (COCA-STEFANIAK) were combined in a €5.4-million EU-funded 'Go Trade' project to develop the Visitor Economy in England and France.
- An ESRC-funded project macroeconomics and gender studies (ONARAN and OYVAT)
- NIKOLAIDI combines climate science data with finance and macroeconomic modelling
- CALVERT JUMP's combines economic geography and behavioural economics
- A British Council funded project on BAME career progression combines HR expertise with Education (Henry, LINTON)

- Expertise in social network analysis (CRONIN, SMITH) and data science (PERRA) complemented geographic information systems and fine and performing arts experts in an AHRC-funded University Alliance project on the Creative Economy.

### **Open research environment**

The COEs contribute to the opening of the research environment in hand with international academic collaboration and policy-maker engagement. For two decades, CREW members have regularly, publicly released research reports and policy briefings on its PSIRU website. GPERC similarly publishes a regular series of publicly available working papers and policy briefings. NUSC members make use of and contribute to open datasets and coding depositories and e-print archives. In published work, CRONIN has advocated this practice to advance the agenda of big corporate data research.

### **Research ethics and integrity**

The CoE infrastructure supports research quality and integrity. Mentors read and comment on the papers and funding bids of ECRs. CoEs hold paper- and bid- development workshops where staff present drafts for supportive comment, writing retreats and 'paper hacks' to develop collaborative projects. These open collegial interactions contribute to a culture of research of high quality and integrity. This is reinforced by University codes of practice for integrity in research, training in research integrity, data management and data protection and the regulation of research projects by the School and University Research Ethics Committees. VANDEKERCKHOVE, GRAY and CRONIN have published on specific ethical challenges of business and management research.

## **2. People**

### **Staff recruitment**

The School has prioritised recruitment of ECRs with potential to contribute to one of the School's core research strengths. Typically, these have recently completed their doctorate or who are coming to the end of a post-doctoral position and normally have at least one high quality published output indicative of research potential. While recruitment focuses primarily on ECRs, University investment has allowed the appointment of professors and research fellows to provide leadership and strengthen the critical mass of researchers in these areas. The success of the recruitment strategy is reflected in the growth in the overall number of staff with responsibility for research and the increased size of specialised research centres from 5-10 to 20-30.

We recognise that staff need stability in order to build research careers. The policy of the Business School is to make appointments on a permanent basis and the proportion of staff on fixed term contracts is negligible. As well as being the right way to behave as an employer we consider that this policy is a competitive advantage in recruiting high quality staff: staff previously employed on a succession of short term contracts at prestigious institutions have joined Greenwich, and flourished here, because employment security allowed them to make longer term research decisions and they could not manage family responsibilities on the basis of more precarious employment terms. Anecdotally, our policy of offering permanent positions is particularly important to some female applicants. Our recruitment process is based on a selection model, normally spread over two days. On Day 1 applicants have series of one-to-one interviews and give a presentation to staff on their research. There is then a further short-listing at the end of Day 1. Those invited back for Day 2 do a teaching exercise and three written exercises (marking a sample of assessments; interpreting performance data for a module; and giving an outline design for a module of their choice) as well as having a formal panel interview. Applicants give positive feedback on this process. They typically say that, while demanding, it gives them a good insight into the Business School and their potential future colleagues; and demonstrates that we take the appointment of good staff seriously.



The staff involved in the selection and recruitment process are diverse and all have EDI training; we seek to ensure that we recruit a diverse set of new staff. Of the total academic staff recruited since 1 January 2014 52% have been female, and 62% have identified as other than white.

We consider that the value of this rigorous approach to recruitment is borne out by the fact that 52 (62%) of the staff with significant responsibility for research included in the REF submission for UoA 17 were recruited since 1 January 2014; and that, of these, 33 staff (39% of the total of REF UoA 17 staff) took up the first permanent academic post with us.

### ***Research career development***

Career development for researchers takes place within the framework of the University's career development policies and processes. The heart of this is the Career Pathway framework. All academic staff elect for one of three Career Pathways: Teaching and Scholarship; Research; and Enterprise. While all academic staff are expected to incorporate all three of these strands into their academic activity the balance between the three varies between pathways. All staff with significant responsibilities for research are on the Research Career Pathway.

All staff have an annual appraisal, where they review with their appraiser progress over the past year; agree objectives for the year ahead; and identify development needs and agree ways in which they can be met.

Appraisals also provide an opportunity for discussion of longer-term career development, including promotion. There is an annual promotion round, for promotion to Senior Lecturer, Associate Professor and Professor. There are clear criteria for promotion to these levels for each of the three Career Pathways. Any staff member may apply for promotion. Applications are first considered by a Faculty-level panel (the Business School is a Faculty in its own right, so organises its own panels); and then, if successful at this stage, by a university-level panel. All panels are diverse in membership; and the Faculty-level panel includes staff of different levels, including ECRs. Over the past 3 years 22 staff have been promoted on the Research Pathway, 12 to Senior Lecturer, 7 to Associate Professor and 2 to Professor. Of the 22 promotions, 14 have been women and 8 have been men.

The University is a signatory to the Concordat to Support the Career Development of Researchers developed by *Vitae* and has created a comprehensive Researcher Development Framework (RDF). The University has extended this work and was given the HR Excellence in Research Award of the European Commission (<http://gre.ac.uk/hr/concordat>). The University has a dedicated equality and diversity champion who leads on initiatives in this area for the Human Resources Department.

Within the Researcher Development Framework, new academic staff are supported by a four-year Early Career Academic Development Plan, aligned with the *Vitae* Researcher Development Framework. This typically involves not only research output objectives but also engagement with colleagues in funded research projects and joining doctoral supervision teams. The University Research and Enterprise Training Institute (RETI) provides standardised training for new researchers and new doctoral supervisors. Early career academics are individually mentored to meet their plans by CoE/research group leaders and deputies, normally Professors and Associate Professors.

Specific researcher training and development needs are identified through the annual appraisal process described above. Common and ongoing needs are fed through to the University Research and Enterprise Training Institute, where they are incorporated into the central research development programme. Examples of meeting emergent development are writing retreats and the commissioning of specialised training in new Social Network Analytics, Data Science, Structural Equation Modelling, and Qualitative Comparative Analytic techniques.

The benefit of CoEs is that they provide customised training to members to support particular research projects, as well as dedicated support for pilot research projects.

### ***Development programmes***

The University Research and Enterprise Institute (RETI) provides a systematic training offer for researchers from early to established careers. Unit members have engaged extensively with regular RETI workshops on Undertaking and Managing Research; Recruitment and selection of PGR students; Supervising PGR students; Research Data Management; Impactful Academic Writing; Powerful Presentations; Publishing; The Digital Researcher; Planning, Developing and Demonstrating Research Impact; Managing Research Budgets; Outstanding Supervisors; The Research Degree Examiner; Preparing to be Chair of an Examination Panel; High Quality Public Engagement; The Knowledge Transfer Partnership Scheme; Preparing for Leadership; Professional Skills for Research Leaders; Research Ethics; Research Integrity; Research Leadership

### ***Workload allocation for research***

We strive to ensure that staff have sufficient time for their research. All staff on teaching and research contracts (whether or not on the Research pathway) automatically have 11% of their time reserved for what is termed "Research and Scholarly Activity" (RSA) in the employment contract used nationally in most post-1992 HEIs.

In addition, we support research progress via a "School Research Investment" (SRI) scheme on the basis of individual track record and plans, under the headings of: research outputs; research funding; contribution to a research-informed curriculum, contribution to research environment; and profile/impact. This can result in the allocation of 9%, 18% or 27% research time, on top of the 11% RSA mentioned above. Applications are reviewed by two independent assessors, with a moderation panel in the case of disagreement. Staff may also draw attention to what they consider to be exceptional circumstances, and these cases are considered by a panel constituted for that purpose. The criteria related to track record are relaxed in the case of staff applying within two years of completing their doctorate. Overall, the time allocated under the SRI scheme each year amounts to approximately 19 FTES, approximately 10% of the overall staff resource base of the Business School. Taking RSA and SRI together staff can be allocated up to almost 40% of their time for research, before taking account of any externally funded time. ECRs typically have approximately 30% of their time thus allocated. There is an annual review to check for equity in allocation in terms of ethnicity and gender.

Finally, staff who generate external research funding are allocated time to carry it out, with the funding applied to free up time on a cost-reflective basis.

On average in the academic year 19/20, outside externally generated revenue, staff with responsibilities for research had 40% of their workload allocated to research and/or research leadership.

In balancing research with other duties, the School attempts to partition time cleanly, so that teaching and other duties are confined to specific days of the week or a particular term in a given year.

The university also operates a sabbatical programme which enables staff to take periods of time to concentrate on particular research projects or to develop their research experience by working at other institutions (ARRIETA-PARADES, MADDEN).

### ***Academic conferences***

Staff with responsibility for research are supported and encouraged to engage with the leading international conferences in their field. We see this as a strategic use of time and cash resources, as it enables staff to present, and get feedback on, their research outputs while they

are at a formative stage. It also enables them to build their research networks. The School supports this activity to the tune of approximately £130,000 per year.

Through this support, staff have taken up major responsibilities within the Academy of Management, Academy of International Business (UKI), EGOS, International Network for Social Network Analysis, MAER-Net, NetScience, European Social Networks Conference, Association for Heterodox Economics, Post Keynesian Economics Society, UK Association for Studies in Innovation, Science and Technology, World Economics Association.

### **Staff exchanges**

The Business School has 14 Visiting Professors and Visiting Fellows who contribute in various ways to research and enterprise. These have included Professor Alessandro Lomi (University of Italian Switzerland, Lugano); Professor Martin Everett (University of Manchester); Professor Rob Cross (Babson College); Dr Paolo Tubaro (CRNS); Dr Amanda Shantz (Trinity College Dublin); Professor John Burgess (RMIT Melbourne); Professor Duncan Brown (Institute of Employment Studies, London); Professor Sonia McKay (UWE); Dr Birgit Paukzstat (Uppsala University), Alistair Hatchett (Incomes Data Services), Chris Ball, Roger Kline (NHS); Heather Wakefield (UNISON), Dr Kyle Ingram (Kings College London); Sue Corby, Geoff White and David Hall (Greenwich retirees).

While holders of these visiting positions tend to come to the Business School for particular events, we also host a number of researchers who stay with us for longer periods. Recent examples include: Dr Furlotti Katia, University of Parma, to work with RUSSO on corporate social responsibility and socio-environmental and sustainability reporting (PEGFA); Dr Eva Tsahuridu, RMIT Melbourne, to work with VANDEKERCKHOVE on whistleblowing (CREW); Dr Claudia Wagner, GESIS, to work with PERRA on mobility network tracking (NUSC).

Equally, we encourage and enable staff from the Business School to take up visiting positions at other institutions (e.g. MARR; Pontifical Catholic University of Peru; ADEBANJO, Chulalongkorn University, Thailand; VANDEKERCKHOVE, Griffiths University, Australia; SAMALUK University of Ljubljana).

### **Reward and recognition**

The most tangible reward for research excellence is via the promotion system. The promotion criteria for staff on the Research pathway cover not only individual research achievements but also contribution to the research environment at Greenwich and contribution to the discipline nationally and internationally. Over the period 17/18- 19/20 22 staff have been promoted on the research pathway, approximately 10% of the overall academic staff in the School.

Outside the promotion system, excellence in research is recognised by:

- Annual University awards. In 2019 three members of Business School staff (UGUR, MUNDY and BENBOUZID) won awards.
- Annual Business School staff awards (with nominations for awards made by staff) one of which is for Researcher of the Year (NIKOLAIDI, BOTTA).

In general, we do not, as a matter of principle, give monetary recognition to research excellence (other than indirectly, via the promotion system) though there is a Professorial Merit Pay award scheme, under which staff of professorial rank may apply for additional spine points, on the basis of their track record of personal achievement and contribution to the institution and discipline

The progression of 7 staff from the 2014 REF submission to positions at Aalborg, Concordia, Cornell, CNRS, Leeds, Queen Mary and UCL indicate the unit's ability to support and develop academic careers.

### **Research students**

Led by a dedicated Doctoral Programme Director (CONALDI), the Business School has a growing MPhil/PhD programme closely integrated with its research groups. Registered doctoral students have grown 65% 2014-2020, from 62 to 102, with completions during the current REF period increasing four-fold over the previous period (from 15 to 59). Student research is aligned with CoEs/research groups by attaching all research students to one or other of them and the allocation of Vice Chancellor's and School scholarships to CoEs/research groups, attracting highly capable students with interests close to our main capabilities; we have awarded 42 of these during the current REF period. The activity of the CoEs/research groups also attracts students funded by home government scholarships and other means such as external funding e.g. from the ERC, the University Alliance Doctoral Training Centre, the Institute of New Economic Thinking, and the Peabody Trust.

Most of the School's research students are either self-funded or are in receipt of home-government scholarships. Applicants are required to develop a preliminary research proposal in dialogue with a potential supervisor within the School. This is reviewed by the Department Research Lead and the Programme Director; on their recommendation an applicant is invited for interview by a panel comprising the proposed Supervisor, the Programme Director, and a Professor, normally the School Director of Research. All panel members are required to undertake periodic Equality, Diversity and Inclusion training. 49% of research students are female and 67% identify as other than white.

Students enter the programme on a cohort basis, with two entry points each year, and are roomed by cohort, to facilitate formal training and to foster a supportive cohort identity. There is an active doctoral students' society, providing social opportunities for students to mix with their peers. Research students are supported by a supervisory team with at least three completions among them, typically one or two experienced supervisors and one junior. All research active staff are engaged in doctoral supervision.

Each student is allocated to one or more of the School's CoEs/research groups. Alongside weekly supervision meetings, research students participate and help organise the seminars, meetings and workshops held by their group. This provides opportunities to normalise their experiences with those of other students and the wider Faculty in their specialist area. Students regularly present their work to their research group and to annual School and University poster competitions.

In their first year of study, all research students undertake a common set of block courses, the core provided by RETI, supplemented by School provision. The courses encompass project and self-management skills and introductions to research design, research methods, teaching, and software packages such as NVivo and SPSS. The RETI courses are supplemented by provision within the Business School tailored to specialist topic areas, such as advanced econometrics, social network analysis, post-Keynesian economics, mixed methods design, and critical realism. Specialist workshops are also organised periodically on topics such as the academic job market, publishing in journals, impactful research. Students also audit advanced specialised courses in research intensive taught post-graduate programmes as needed.

Each student is funded to support presentation of their work at national or international conferences on three occasions during their studies. They also have opportunities to teach to broaden their academic skills. The School's peer-reviewed working paper series provides an accessible outlet for initial dissemination by PhD students, and also to give them experience in reviewing. 192 papers have been published in this series since 2014.

Beyond the immediate support of the supervisory team, student progress is supported by the oversight of the Faculty Research Degrees Committee (FRDC). This reviews and provides feedback on research proposals after the first two months of joining the University. Students maintain an online reflective logbook of objectives set by supervision meetings and progress towards this, which is reviewed annually by the FRDC. Should difficulties in progress arise, the FRDC typically requests the Faculty Director of Research to meet with the students and supervisors to determine a remedial plan of action. After the first 18 months of registration, work to date is assessed in an internal examination. The final, external examination follows by the end of the fourth year. The results of both examinations are reviewed by the FRDC before any recommendation of award to the University Research and Enterprise Committee and the University Academic Committee.

We support our completing PhD students to gain roles in professional research occupations and in higher education institutions. Since 2014 our PhD graduates have taken up postdoc and lecturing roles at institutions including Oxford, UCL, Edinburgh, Birmingham, Birkbeck, Brunel, Queen Mary, Goldsmiths, SOAS, Heriot-Watt, De Montfort, Middlesex, Hertfordshire, the Open University, SURC, Nottingham-Ningbo, Aalborg, Fribourg, and Greenwich (5), as well as research and professional positions at the ODI, SAP, Centrica and KPMG New York.

Student satisfaction with the programme, as measured by 'definitely or 'mostly' responses in the last Postgraduate Research Experience Survey undertaken in 2019 was 82%, equal to the sector and ahead of comparator institutions (University Alliance members) and London Universities.

### ***Equality and diversity***

The Business School seeks to promote equality and diversity in all decisions relating to research leadership, staff appointment and promotion and resource allocation.

Starting with research leadership:

- Two of the three Centres of Excellence are led or co-led by women;
- Two of the three other research groups are led by women;
- Of the twelve Professors currently on the research career pathway, seven are women.

In terms of staff selection and appointment:

- All selection panels are diverse and all members are required to have had EDI training;
- All posts are made available to applicants who would require a Tier 2 visa if appointed, thus ensuring no indirect discrimination against applicants without a current right to work in the UK
- Virtually all posts advertised are permanent rather than fixed term;
- Of the staff with significant responsibilities for research appointed since 2014, 64% were female and 43% identified as other than white.

On appointment all staff are provided with mentors. One of the key factors enabling the development of ECRs is the provision of sufficient time for their research; and the SRI scheme is fundamental to this. Each year in which allocations are reviewed we check for equity on the basis of gender and ethnicity. Taking the past five years the cumulative data shows no statistically significant difference in time allocation by gender or ethnicity.

Promotion panels are also required to be diverse. Over the past three years of the staff on the research pathway who have been promoted 64% have been female and 27% have identified as other than white.

Of the staff identified as having significant responsibility for research at the REF census date:

- 53% were female

- 54% identified as other than white

Of the seven Impact Case Studies submitted, three were authored by women and two by staff identifying as other than white.

The School's values in respect of equality and diversity are reflected in its support for the Diversity Interest Group (DIG), a unique collaboration of academics across the University of Greenwich who are interested in researching and understanding equality and diversity and securing funding for such work. DIG is housed in CREW but has a wider impact. WILLIAM organised a disability stream in the 2019 EURAM conference. TSAY has undertaken funded projects on inclusion in the workplace and in Higher Education.

In CREW research reflecting equality and diversity includes a BA/Leverhulme funded study of investigates the Voluntary Recruitment Code (VRC), a new positive action measure for English football, intended to address the under-representation of Black, Asian and Minority Ethnic (BAME) staff in managerial positions. A further project explores the intergenerational legacies of Windrush nurses. A recent EU funded project looks at the impact of austerity policies on gender pay gap in public services across Europe.

An ESRC project of PEGFA analysed the impact of gender equality and care work on productivity and employment. Much of the work of PEGFA and CREW addresses low pay and the impact of income inequality.

### 3. Income, infrastructure and facilities

According to research carried out by the Chartered Association of Business Schools, the Business School ranked 26<sup>th</sup> in the UK for research and enterprise income for the 2014-18 period. External research income five-fold since the last REF period (from £1m to £4.7m). An additional £1.2 million enterprise income was contracted during the period, reflecting the applied research focus of the University.

Research centres engage with a wide range of external partners, primarily the European Commission, ESRC, the Leverhulme Trust and the British Academy, but also businesses, NGOs, trades unions, government departments, international organisations, think-tanks, and professional bodies.

We encourage ECRs to make their first external bids as part of the ECR career development programme. Examples include small grants from the British Council (RUMYANTSEVA), the British Academy (OYVAT, CLARKE, WILLIAM) and the Leverhulme Trust (HEWITT, SAMALUK) and a Leverhulme early career fellowship (SAMALUK)

Mid-career and senior staff have won a variety of UKRI and EU grants. CREW members have been funded by the ESRC (VANDEKERCKHOVE), UKRI (MOORE) and EU (SYMON, LETHBRIDGE, MOORE). The NUSC has been funded by AHRC (CRONIN), ESRC (CHAN), EPSRC (MENG) and EU (IERMONACHOU, CHAN). PEGFA members have received funding from the ESRC (MARR, UGUR, ONARAN), ESRC-DFID (UGUR), Innovate UK (MUNDY). TRC members have received some large EU grants (COCA-STEFANIAK, KENNEL).

Most project funding, however, comes from industry, professional bodies, trade unions and think tanks/ NGOs. As discussed in section 4, the purpose of seeking grants for such bodies is that, as well as money, we open up access to research sites and data; and get access to opinion formers and influencers, thus opening up opportunities for social impact. For example, CREW's work on public services is funded by Public Services International and the European Public Services Union (LETHBRIDGE, WEGHMANN, LOBINA, VANDEKERCKHOVE) with whom the Centre has formal links. Shorter-term research has been funded by the Low Pay Commission (MOORE), ACAS

(Corby), the Trades Union Congress, Fire Brigades Union, UNISON (MOORE), CIPD (SHANTZ), GlaxoSmithKline, Hans Böckler Foundation (Corby), Kingston Smith (GRAY), and the Financial Conduct Authority (VANDEKERCKHOVE). PEGFA members have received funding from the Chartered Institute of Management Accountants (MUNDY), the Foundation for European Progressive Studies (ONARAN, WILDAUER), New Economics Foundation (NIKOLAIDI, ONARAN), the Institute of New Economic Thinking (ONARAN), Network for Social Change (NIKOLAIDI), Austrian Chamber of Labour (ONARAN, WILDAUER), Hewlett Foundation (ONARAN, OYVAT) and the European Public Service Union (YURCHENKO). NUSC members have been funded by Nesta (CRONIN, CONALDI), Ernst & Young (CRONIN), Volkswagen Foundation (PERRA), US Army Labs (PERRA). TRC members have been funded by and various local authorities (KENNELL) and the Peabody Trust (JONES).

### **Infrastructure supporting research and impact**

Operational support for research and research impact is provided primarily by the University's Greenwich Research and Enterprise (GRE) department and the Research and Enterprise Training Institute (RETI). A 0.5 Business Development Manager and 0.5 Research Development Officer are embedded with the Unit in the Business School, identifying funding opportunities, providing support for external funding bids, and supporting collaborative efforts with other faculties. These two post-holders are well known faces to staff in the School and are seen as responsive and helpful colleagues. They provide particular support to ECRs making their first bids. Bids are peer-reviewed within the Unit and then by the University's Peer Review College.

An Impact Development Manager assists researchers in considering potential for social impact at the early stages of the development of research projects, provides support for documenting evidence of impact as projects proceed, and training in impact development. In concrete terms, the postholder has had several rounds of discussion with each of the Impact case study authors providing feedback, advice and guidance.

The new £81 million Stockwell Street library has ample reference and study space for research staff and students, including dedicated office space and bookable small meeting rooms for PGR students. There are two dedicated Business School librarians providing research support and training in the use of electronic databases. An adjacent building holds amphitheatre, small group, video conferencing and display facilities suitable for hosting large conferences. The unit's record of published outputs, including full text of journal papers and many other outputs are maintained within the University's digital archive, GALA.

RETI trains staff in external fundraising, while within the CoE structure senior researchers engage junior colleagues in bid-development teams and review bids before the formal review by the University's peer review college. CoE leaders are tasked to give particular attention to the equality, diversity and inclusion in fundraising training activity and the composition of project teams; this is supported by an annual EDI review by the School Research and Enterprise Committee.

In addition to the support with bid development referred to above, GRE staff assist with post-award contracting and reporting. GRE and RETI are physically located in the Greenwich Powerhouse, a £1.2 million refurbished listed building, home also to the University's student, graduate and staff enterprise space, the Generator. The Powerhouse contains small meeting and social spaces, facilitating training, seminars, writing retreats, and engagement with external partners. This recent development aims to considerably enhance researchers' capacity to develop industry and other social impact.

University IT facilities are world-class and includes a High-Performance Computing Facility, used by NUSC researchers. The Business School funds a large range of specialist business databases, including Thompson Reuters EIKON, ORBIS, FAME, MINTEL, and FDI Markets. Research teams have access agreements to work with ONS microdata and the LinkedIn and Yahoo databases.

## Unit-level environment template (REF5b)

The School's staff are ordinarily housed alongside research students within the Queen Mary and Queen Anne buildings on the UNESCO World Heritage site. At the centre of the campus, the £30 million refurbished Dreadnought Building provides modern, comfortable social and catering facilities and gym, well utilised by research staff and students. The Campus is located within the lively Greenwich township and well connected by public transport to central London.

With the advent of 2020 pandemic, the University quickly reoriented its teaching and meeting activity to the Microsoft Teams platform, supported by an extensive staff development programme in the use of the tools. CoEs and Research groups moved their meeting, seminar and workshop programmes successfully onto this platform, in many cases finding this facilitated much wider participation than face-to-face activities had; audiences at the School's fortnightly 'Big Picture' lecture series more than doubled, for example. Research students were supported to reorientate their data collection plans to adopt online tools. The Business School invested in additional hardware and software, including new School-wide Qualtrics and Stata licenses, to ensure staff and students could access the same IT tools as they had been able to on campus. The 'EventsAir' platform was adopted to support large events online, including the forthcoming Academy of International Business – UKI and Labour Process conferences being hosted by the School.

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

##### Research collaborations, networks and partnerships

The School's research strategy emphasises the development of international and interdisciplinary collaborations. While these tend to initiate with individual collaborations, the concentration of research activity facilitates overlapping collaborations among groups of researchers. 88% of School outputs are co-authored, 55% of outputs with international and 19% with national collaborators.

*Co-authored outputs 2014-20 by research centre and collaboration type*

	<i>International</i>	<i>National</i>	<i>Institutional</i>
CREW	35.0%	35.0%	9.7%
MRG	50.0%	13.2%	13.2%
NUSC	68.5%	10.4%	19.3%
PEGFA	48.2%	23.2%	13.1%
TRC	49.2%	18.5%	13.7%

Source: SciVal

Principal collaborating universities are:

**CREW:** Edinburgh, Leeds, Leicester, Lincoln, Middlesex, Newcastle, Sheffield, Strathclyde, Sussex, UCL, Cornell, Griffith, Harvard, La Trobe, Modena and Reggio Emilia, Monash, RMIT, Trinity College Dublin, Victoria (Australia), Strasbourg, Tallinn UT, Tokyo, Uppsala, Versailles, Vrije.

**MRG:** Bedfordshire, North West (South Africa), Hong Kong Polytechnic.

**NUSC:** Cambridge, City, Exeter, Heriot-Watt, Hull, Liverpool, Manchester, Oxford, Southampton, the Turing Centre, UCL, Amsterdam, Beijing Jiaotong, CNRS, Groningen, Harvard, Helsinki, LUIC, IMT Lucca, Leuven, Massey, Monash, Munich UT, Nanyang Technological, Northeastern (US), Pisa, South China UT, Stockholm School of Economics, Swiss Italian (Lugano), Thammasat.

**PEGFA:** Durham, Essex, Goldsmiths, KCL, Kingston, Leeds, LSE, Open University, Queen Mary, SOAS, Southampton, UWE, UC Berkeley, Cornell, Erasmus, Monash, RMIT, UI Urbana-Champaign.



TRC: East Anglia, Auckland UT, Beijing Forestry, Hong Kong Polytechnic, Hubei, Ljubljana, Peking, Purdue.

Beyond University-focused networks, the Centres of Excellence are supported by important long-term relationships with NGOs. CREW has long-term formal relationships with the Public Services International and the European Public Services Union (LETHBRIDGE, WEGHMANN, LOBINA, VANDEKERCKHOVE). GPERC has a range of relationships with the Foundation for European Progressive Studies (ONARAN, WILDAUER), New Economics Foundation (NIKOLAIDI, ONARAN), the Institute of New Economic Thinking (ONARAN). NUSC has many interactions with members of the International Network for Social Network Analysis and the Institute for Scientific Interchange (ISI) Foundation. TRC provides institutional support for the International Tourism Studies Association.

CREW is hosting the International Labour Process Conference 2021, NUSC the Academy of International Business (UK) Conference 2021 and the European Social Networks Conference 2022.

### **Relationships with key research users, beneficiaries or audiences**

CREW promotes the societal impact of its research through strong relations with social partners, in particular European and national trade unions and government bodies (ACAS, Low Pay Commission, Home Office). It has influenced debate on the ownership and provision of public services, the impact of non-standard employment contracts and representation of interest at work, primarily the rights of whistle-blowers. VANDEKERCKHOVE and WILLIAM were commissioned by the All-Party Parliamentary Group for Whistleblowing to report on protection for whistleblowers. MOORE's research for the Low Pay Commission on non-standard contracts was cited extensively in its Response to Government on 'One-sided Flexibility' following the Taylor Review of Modern Working Practices (2018).

PEGFA has ongoing research collaborations with institutions such as ONS, policy makers at various departments in the UK such as BIS and Cabinet Office (Behavioural Insight Team-BIT), UN institutions such as UNCTAD and ILO. Members collaborate with professional bodies/organisations such as Chartered Institute of Management Accountants, Institute of Chartered Accountants of England and Wales and academic collaborations such as Cochrane and Campbell Collaborations Economics Method Group. They work with think-tanks such as Women's Budget Group, Foundation for European Progressive Studies, New Economics Foundation, Centre for Labour and Social Studies, Fabian Society, Hans Boeckler Foundation, European Trade Union Institute, Chatham House, Social Performance Task Force, Development Finance Network, International Enterprise Impact Network and trade unions such as TUC, Prospect, ITUC, ETUC, TUAC helping improve dissemination and impact of research.

NUSC members organise regular computational social science forums in London, such as 'Databeers', bringing together data scientists from academia and industry showcasing big data applications to social problems. Annual Summer and Winter schools in social network analysis, frequently with an applied focus such as 'networks in health', attract industry practitioners alongside academics. The Centre's annual Sustainable Urban Futures conference brings together urban and transport policy makers from across Europe. The €5.4-million EU-funded 'Go Trade' project to develop the Visitor Economy in England and France engages 15 town councils and agencies on both sides of the Channel. The €3.9 million EU 'FACET' project helps entrepreneurs in the tourism and leisure sector gain practical knowledge and experience in the transition from linear to circular practices.

The TRC undertakes a range of consultancy projects with local authorities around the UK, developing tourism and town centres. COCA-STEFANIAK is lead advisor on a €1.4 million EU-funded 'SHARE' project developing Sustainable Approaches to Cultural Heritage for Urban Areas in Europe, engaging 6 regional governments across Europe.

**Wider activity and contributions to the research base, economy and society**

As well as providing a steady stream of 3\* and 4\* contributions to academic discussion in the field of employment and work, CREW members edit *Philosophy of Management*, coedit *Work in the Global Economy* and have served on the editorial boards of *Work, Employment and Society*, *Management Learning*, *Journal of Business Ethics*, *Human Relations* and the *Industrial Relations Journal*. Members have led various streams at academic conferences, shaping academic agendas as well as being invited to speak at a range of national and international events. Members serve as peer reviewers for the ESRC Digital Innovation Fund and British Council Newton Fund. SAMALUK is a Leverhulme Trust Early Career Fellow. LOBINA was an [Independent Social Research Foundation Fellow](#).

PEGFA members hold executive positions in the Post-Keynesian Economics Society (PKES), edit the *Journal of Applied Accounting Research* and are active on the editorial boards of the *European Journal of Economics and Economic Policies* and *Competition and Change*. Members organised the Post-Keynesian Economics Society 2018 conference and 2019-20 summer schools. Members assess the quality of bids for the ESRC and the Leverhulme Trust.

NUSC members serve on the editorial boards of *PLoS One*, *Forum for Social Economics and Connections*, the executive committees of the UK Social Networks Association, the European Social Networks Conference, the Complex Systems Society, the Association of Heterodox Economics, the World Economics Association, and lead the EGOS standing group on networks. Members have organised major international conferences including the International Network for Social Network Analysis Conference in Brighton in 2015, the Association for Heterodox Economics in 2014, the Academy of International Business UKI conference 2021 and co-organising the European Social Networks Conference in Zurich 2019. Members have been peer reviewers for the ESRC, Royal Society and British Academy, the Swiss National Science Foundation, the Netherlands Organisation for Scientific Research, the German Academic Exchange Service and various Universities. PERRA is an Institute for Scientific Interchange ([ISI Foundation Fellow](#)).

Since 2016 the TRC has become a recognised leader in urban tourism research and tourism cities. The Centre manages the London office of the International Tourism Studies Association; members edit the *International Journal of Tourism Cities* and serve on the editorial boards of *Sustainability*, the *Journal of Place Management and Development*, and the *Journal of Urban Regeneration and Renewal*. MORRISON and COCA-STEFANIAK edited the (2020) *Routledge Handbook of Tourism Cities*.

*Exemplars of leadership:* Members of the unit provide leadership in the international academic community as summarised in the following table:

Fellowship of professional bodies	14
Committee membership in learned or professional bodies	31
Conferences organised or chaired	21
Workshops, mini-symposium, special sessions organised	239
Plenary lectures	10
Invited or keynote lectures	315
Editorship of journals (chief or joint)	6
Member of journal advisory editorial board	52
National or international advisory board committees	16
Research prizes and similar honours	21

UoA17 members responded quickly to the Covid-19 global pandemic with a range of applied research initiatives:

- PERRA's work with Northeastern University using network analytic techniques to track the unseen spread of the virus in the US from social media traces featured in the New York Times and informs his interactive [Covid News Tracker](#) website.
- CREW Visiting Professor David Hall published *Privatised and Unprepared: The NHS Supply Chain on the NHS response to Covid-19*, jointly with John Lister, Visiting Senior Lecturer at Coventry University, and the NGO We Own It.
- MOORE won UKRI funding to study the impact of health and safety representatives in Covid-19, involving partners from the Health and Safety Executive and key trade unions.
- TRC members (LI, NGUYEN, MORRISON and COCA-STEFANIAK) published several papers on Covid-19 impacts and crisis management in tourism and hospitality enterprises, their staff and stakeholders.
- CALVERT JUMP produced an interactive [website](#) and policy brief on public debt effects of the pandemic for the think-tank Institute for Public Policy Research (IPPR) and a report for the think-tank Autonomy on income support for the self-employed.
- NIKOLAIDI completed a New Economics Foundation-funded assessment of the climate impact of the pandemic quantitative easing policies of the Bank of England.
- BOTTA published a policy brief for FEPS on recovery bonds in the EU to finance COVID-19 emergency spending.
- ONARAN gave public speeches for the Care Work and Economy Network on the importance of health and social care, childcare and education for rebuilding in the aftermath of the crisis.
- PEGFA held a series of 10 online public webinars on Economic Policy Responses to Covid-19 May-July 2020, attracting an international audience of researchers, civil servants and the broader public.

#### *Contributions to the Business and Management curriculum*

CREW's research on work and employment in its organisational and societal contexts is widely reflected across the human resources and organisational behaviour curriculum in the School. Centre members build on the synthesis between our student's experiences of work and CREW's cross-cutting themes, such as the managerial challenges of Covid-19, climate change, automation and artificial intelligence.

NUSC brings advanced mathematical modelling into business and management curriculum at undergraduate and postgraduate levels. Greenwich's BA and MA international business degrees uniquely engage students in social network analysis of multinational firms and innovation systems. Transport and urban systems modelling underpin the logistics and entrepreneurship curricula in business studies.

PEGFA is recognised internationally for extending the analysis and understanding of economic stability by synthesising social, ecological and financial stability using rigorous formal modelling as well as institutional interdisciplinary analysis and a plurality of theories. This distinctive feature of pluralism in economics and finance expressed through research feeding into curriculum has been recognised by the involvement of staff and PG students in the conferences and activities of the Rethinking Economics societies across the world.

TRC embraces a heterodoxy of methods, providing a diversity of perspectives in the curriculum, reflecting the multi-disciplinary nature of tourism studies.

MRG reinforces the research-led teaching in contemporary issues in digital marketing and social media in our curriculum at undergraduate and postgraduate levels. These include diversity marketing, aging society in digital era, using social media to identify customer insights, and introduction to the digital-led market research such as videography. Such practice has also been

recognised by the professional bodies such as Data Marketing Association (DMA) and Korean Culture Centre (KCC).

All these contributions feedback into the vitality of the research environment within the School. For example, the editorial board and other positions held by senior researchers enriches the guidance they give to ECRs and allows them to involve colleagues in their organisations of conferences and journal special issues.