

Institution: City, University of London
Unit of Assessment: C17, Business and Management
<p>Section 1. Unit context and structure, research and impact strategy</p> <p>1.1 Overview</p> <p>Cass Business School¹, part of City, University of London, has an international reputation for producing excellent research that makes a productive impact on business and the wider community. The School attracts staff, visiting scholars, business partners and graduate research students from across the globe. In REF 2014, the School was rated sixth in the country for business and management research, with 84% of our research classified as world-leading or internationally excellent. Since then, we have made great strides in strengthening our research and enriching our research environment. New staff have been recruited in targeted areas at both junior and senior levels. Our training of PhD students has been strengthened by instituting a mandatory coursework programme. We have also developed a sophisticated approach to achieving impact through our research centres as a result of collaborative initiatives with business and other end users of our research. A combination of incentives and research training workshops has improved our performance in winning UK Research Council grants and in increasing the number of our major research collaborations with external stakeholders, including business, the professions and the public sector. This has been facilitated by a University-wide initiative to create interdisciplinary research centres.</p> <p>The commitment of City, University of London, to academic excellence for business and the professions is reflected in the importance placed by the Business School on external engagement and impactful research. Our location in the City of London – one of the world’s leading financial centres and the home of local and central government agencies, policymaking bodies, professional and trade bodies, and Tech City – and our close proximity to Europe’s leading financial and professional services centres provide a significant competitive advantage, helping us to engage with end users of our research and generate impact.</p> <p>1.2 Summary of achievements</p> <p>The Business School is an intellectual hub for the financial and professional services sectors based in the City of London, where we stimulate research and debate on the key issues facing business and society. The ambition of the Business School is to be a research-led business school ranked within the top ten business schools in Europe by 2030.</p> <p>We have met the goals we set in REF 2014 and have made considerable progress in consolidating our position as a world-class research institution. Specifically, we have achieved these goals by:</p> <ul style="list-style-type: none"> • Consolidating our position as a world-leading, research-driven business school through academic recruitment and internal staff development. We have nearly doubled the number of our staff producing research that is world-leading or internationally excellent. • Publishing a total of 1,457 papers since REF 2014². Of these papers, 156 were published in ‘journals of distinction’ ranked 4* by the <i>Academic Journal Guide</i> published by the Chartered Association of Business Schools (CABS) (which can be used as a proxy of journal quality); 304 in the <i>Financial Times</i> ranking of the top 50 journals used in business school research; 42 in the top-ranked finance and economics journals (<i>Journal of Finance</i>, <i>Journal of Financial and Quantitative Analysis</i>, <i>Journal of Financial</i>

¹ In July 2020, the University Council decided to remove the Cass name after reports of Sir John Cass’s involvement with the slave trade. A consultation to find a new name is currently underway.

² <https://openaccess.city.ac.uk>.

Economics, and Review of Financial Studies); 20 in the leading marketing journals (*Journal of Consumer Research, Journal of Marketing, Marketing Science, Journal of the Academy of Marketing Science and Journal of Consumer Psychology*); 20 in the top operations management and operations research journals (*Journal of Operations Management, Production and Operations Management and Management Science*); and 63 in the top management journals (*Academy of Management Review, Academy of Management Journal, Administrative Science Quarterly, Information Systems Research, Journal of International Business Studies, Journal of Management, Organization Science and Strategic Management Journal*). We have significantly enhanced both the quality and the intensity of our research during this REF period.

- **Significantly improving the diversity of our research income**, targeting non-traditional funders alongside research councils. Funders include Arts Council England, the British Academy, the Institute and Faculty of Actuaries, and the National Council for Voluntary Organisations, Our funded research covers a wide range of fields, including artificial intelligence, cyber security, corporate governance, digital creativity and innovation, and insurance.
- **Strengthening our PhD programme** by creating a mandatory 12-month research training programme and increasing investment in scholarships. We consider our PhD programme to be outstanding, judged against international standards, and regard the programme as central to achieving our research goals. In 2018, the School was ranked 10th in the UK and 16th in Europe based on PhD completions and 1st in the UK and 2nd in Europe for the number of PhD graduates hired by the top 50 business schools³. We graduated 106 PhD students between 2014 and 2020 (up from 89 in REF 2014) with 60% of PhD completions occurring within four years and an average completion time of 4.5 years.
- **Consolidating and growing our Executive PhD programme** by recruiting seven cohorts since the programme was launched in 2014. Our Executive PhD (four years part time) offers all the academic rigour of a traditional PhD but is tailored to an executive audience. To date, the programme has produced five graduates, all of whom completed the programme within four years.
- **Further strengthening the impact of our research** pertaining to business and the wider economy, as outlined in our nine impact case studies (see REF3). These case studies show that our research has provided strategic tools for the insurance industry, influenced the investment strategies of financial institutions, informed government policies to increase disability employment, changed leadership practices in the healthcare industry, and influenced practices around demographic data collection and the management of longevity and mortality risks. In addition, numerous other studies that could not be submitted have had substantial impact, such as providing new approaches to corporate governance, developing investment strategies for improving retirement outcomes, and fostering innovation in journalism by enabling creativity and artificial intelligence.

Independent evaluations point to the success of our strategy: we are ranked 4th in the UK, 10th in Europe and 73rd among the world's top 100 business schools based on research contributions⁴. Our actuarial research is ranked 2nd in the world⁵, our finance research is ranked 25th in the world⁶ and we are ranked in the top five schools in Europe for banking research⁷. Thirteen staff appear in the Web of Science's latest *Essential Science Indicators*, which ranks the world's 1,400 most influential scholars in business and economics by citation score. Twelve of our

³ <http://rankings.ft.com/businessschoolrankings/global-mba-ranking-2018>.

⁴ <https://jindal.utdallas.edu/the-utd-top-100-business-school-research-rankings/worldRankings#20152019>.

⁵ <https://business.unl.edu/academic-programs/departments/finance/actuarial-science/research-rankings/?views=370>.

⁶ <http://www.shanghairanking.com/Shanghairanking-Subject-Rankings/finance.html>.

⁷ <https://ideas.repec.org/top/top.ban.html>.

management academics are listed among the top 2% of the world's most highly cited authors⁸, the most among any business school in Europe.

1.3 School research structure

The School is structured into three large discipline-based faculties: Actuarial Science and Insurance (17.8 full-time employees (FTEs)), Finance (42.65 FTEs) and Management (64.1 FTEs). Each faculty has its own subject groups (which include postdoctoral staff and doctoral students) and organises seminar series, discussion groups and research workshops. Relevant faculty heads lead the recruitment, mentoring and development of academic staff, assisted by the Associate Dean (Research and Enterprise).

Research across the three faculties is organised around six broad subject groupings: Actuarial Science and Insurance; Asset Pricing and Financial Econometrics; Corporate Finance, Accounting and Banking; Marketing and Operations Management; Organisational Behaviour, Human Resource Management and Corporate Social Responsibility; and Strategy, Entrepreneurship and Innovation. In addition, the School's research centres play a key role in knowledge exchange, dissemination and impact. The research performance of the groups is summarised in Table 1.

Subject group	FTEs	Publications*	Research income	No. of grant applications	PhD completions	PhD candidates currently enrolled
Actuarial Science and Insurance	17	174	£674,022	16	11	12
Asset Pricing and Financial Econometrics	19	136	£274,688	8	18	19
Corporate Finance, Accounting and Banking	25	176	£2,825,353	27	17	21
Marketing and Operations Management	22	140	£88,255	7	21	10
Organisational Behaviour, Human Resource Management and Corporate Social Responsibility	17	161	£1,605,890	42	16	12
Strategy, Entrepreneurship and Innovation	25	200	£3,966,627	51	23	26

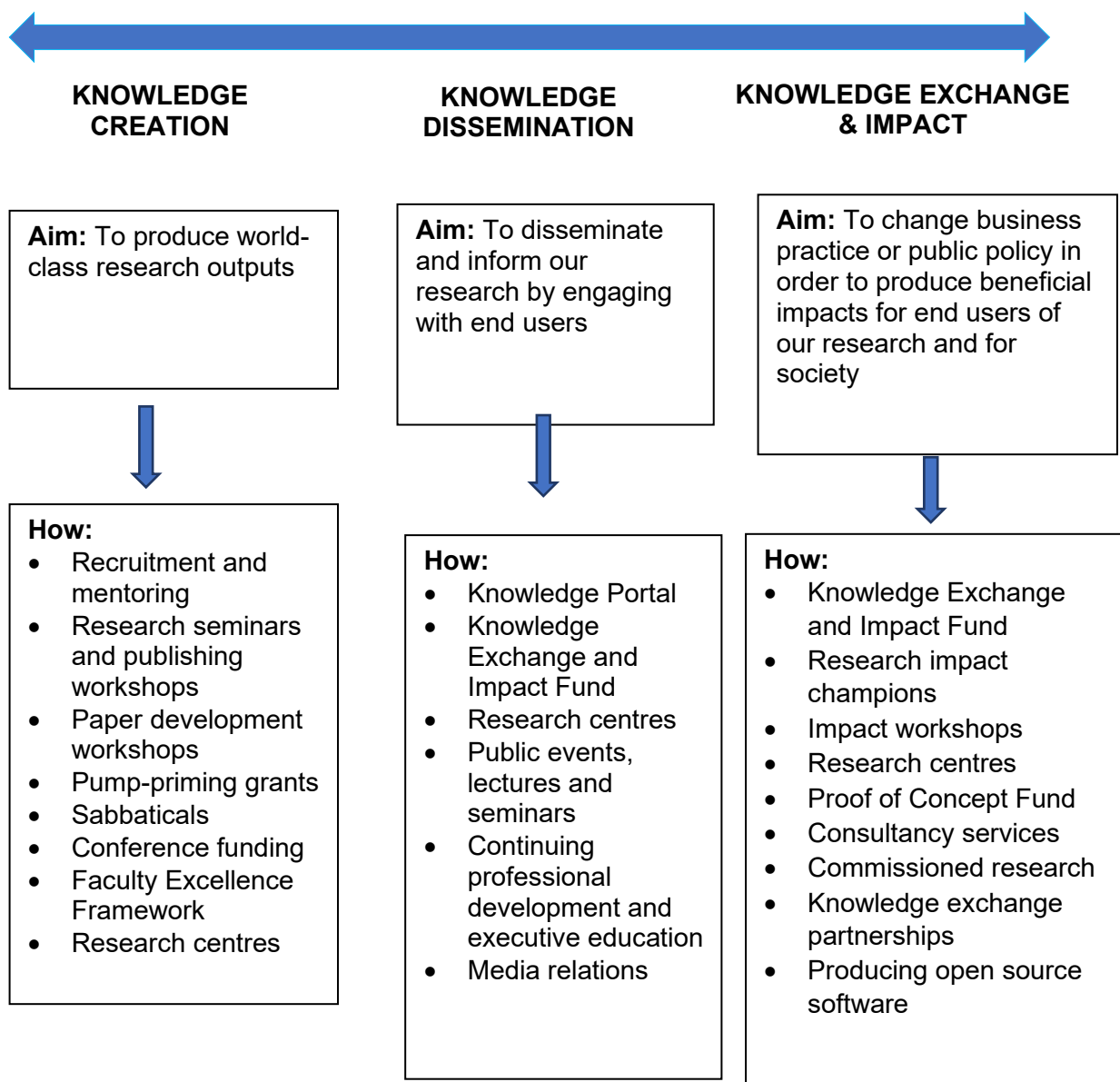
* Includes only 3* and 4* ranked research outputs based on the School's Annual Research Quality Monitoring exercise.

⁸ <https://data.mendeley.com/datasets/btchxktzyw/2>.

1.4 Research and impact strategy

The School has a clear strategy that reflects the University’s mission of producing world-class impactful research. Our broad and systematic approach to research and engagement is summarised in Figure 1. While we realise that research is not necessarily produced in this linear fashion, the figure is intended to highlight our specific practices for enabling world-class impactful research.

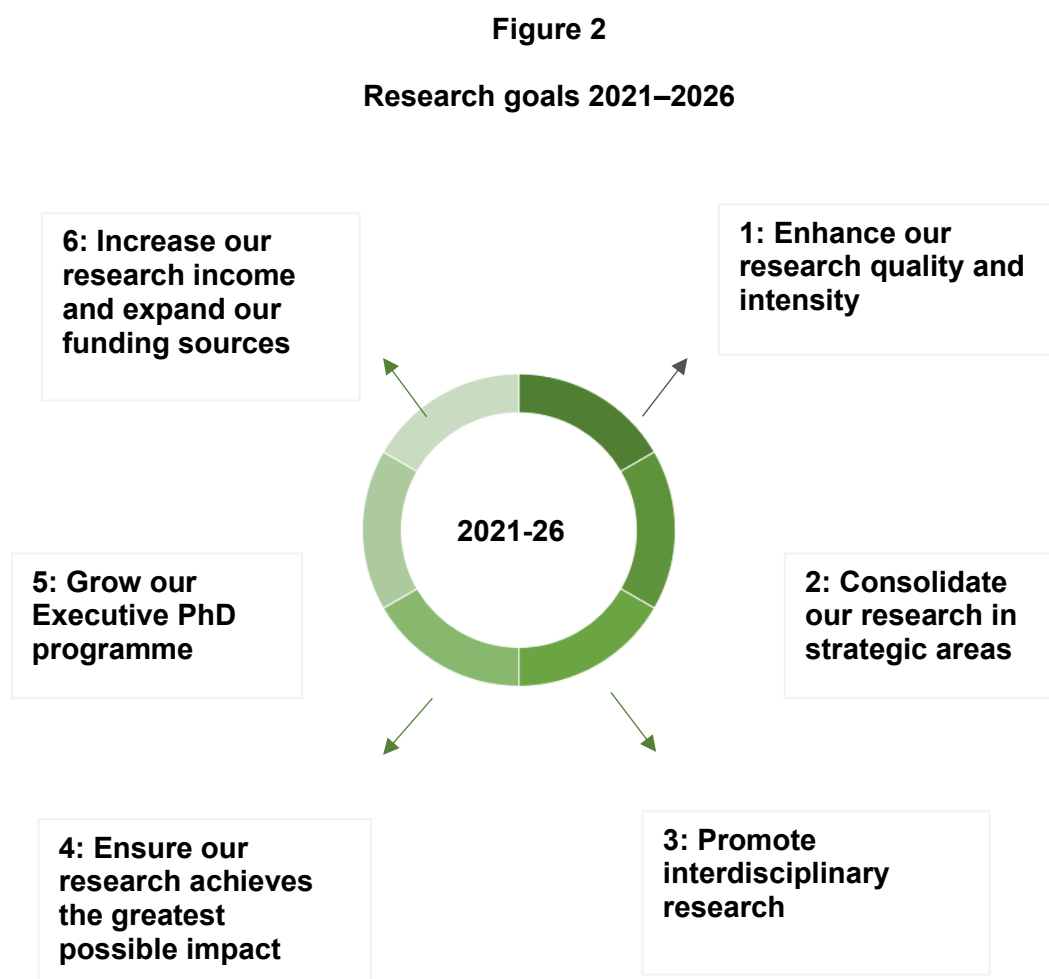
**Figure 1
School Research Framework**



The School has met the goals set in REF 2014. These included enhancing our research quality and intensity in our priority areas of research, further developing and implementing our strategies to ensure that our best research achieves the greatest possible impact, encouraging and enabling staff to publish their work in the most influential journals, and growing our research income.

1.4.1 Research goals

Our research goals for 2021–2026 are summarised in Figure 2.



Our goals over the next REF period are to:

1. **Grow our research** in terms of both quality and intensity, aiming for all of our research outputs to be ranked as world-leading or internationally excellent. We have created our own ranking of top journals, benchmarked against other evaluations such as those of the *Financial Times* and the CABS.
2. Further **consolidate our research** on important emerging issues that cut across all areas of business and society, including CSR and sustainability, enterprise risk management, business models for the digital era, digital consumer behaviour, financial crises and stability, creating a capital market for longevity risk transfers, and leadership in professional service organisations.
3. Promote **interdisciplinary research** through the new **Centre for Healthcare Innovation Research**, which brings together researchers from different disciplines across the Business School and the School of Health Sciences. We will also grow our interdisciplinary research through the work of the **Centre for Creativity in Professional Practice**, which is a University-wide interdisciplinary research hub hosted by the Business School.
4. Enhance the **impact of our research** by growing our commissioned research

projects with business and the public sector as well as increasing our commercial collaborations supported by Innovate UK funding.

5. **Grow our Executive PhD programme** and, through collaborative research with our graduates, develop high-quality research outputs and impact case studies.
6. **Grow our research income** from a wide variety of funders (including UK research councils and the EU) and explore corporate sources of income, especially in areas where we have strong research.

Executing our research strategy will continue to be the joint responsibility of the Dean and the Associate Dean (Research and Enterprise) working with the three Faculty Heads, the School Research and Enterprise Committee, and Research Centre Directors.

The sections below outline the incentives, supporting processes and structures we have in place to ensure that we provide an optimal environment to implement our research and impact strategy. Since 2014 we have engaged in a process of continuous enhancement of our research environment, and in the coming years we are committed to further improvement.

Our strategies to enhance our research quality and intensity (Goal 1) are described in the staff development section of this document (see section 2.2). Our Executive PhD programme has grown steadily since its launch in 2014 and we plan to increase our promotional efforts as we produce more graduates (Goal 5). Our Executive PhD graduates are enthusiastic ambassadors for the programme and, based on their recommendations, we have recruited several outstanding applicants.

1.4.2 Research impact strategy (Goal 4)

Our goal for the next period is to increase the School's research impact (rated as world-leading in REF 2014) from 60% to 80%. Pathways to impact include co-creating research projects with end users and beneficiaries of the research, public and policy engagement through knowledge exchange, industry collaboration and commercialisation of intellectual property.

Our strategies to enhance the impact of our research include:

- (a) Expanding knowledge exchange and impact activities of our **research centres** with key beneficiaries and end users of our research. These centres play a key role in our knowledge exchange activities by hosting practitioner-focused conferences, public events and workshops to showcase our research. The centres are reviewed every five years to ensure that they facilitate interactions between business school academics and practitioners with a view to generating impact case studies and attracting external funding.
- (b) Developing **new partnerships for knowledge exchange** that aim to sustain client relationships resulting from specific research projects beyond each project's lifespan. The School operates a Knowledge Exchange and Impact Fund to facilitate projects with industry, government and civil society partners.
- (c) Providing a **rewards and incentives scheme** for staff engaging in impact activities. We have incorporated impact as a performance indicator in our Faculty Excellence Framework, which is used as the basis for all promotion decisions. Impact and knowledge exchange activities are also recognised in the School's workload allocation plan.
- (d) Encouraging and facilitating staff to **develop the skills needed for successful knowledge exchange and impact**. We provide workshops and training for faculty on how to communicate their research to non-academic users, how to engage with audiences and partners, understanding consultancy tools and developing project evaluation skills. Our aim is to help reorient senior staff (encouraging engagement in the short term) and help junior staff to understand the importance of developing skills that can enable collaborative projects with end users.

- (e) Increasing our **consultancy activities** by identifying new commercialisation opportunities, thereby generating more income to support academic research. The School has made a strategic decision to promote closer integration between its consultancy, executive education, alumni relations and business development office functions, in recognition of the fact that impact and engagement are not the sole preserve of academic staff.
- (f) Leveraging research outcomes and relationships from the **Executive PhD programme**. Research conducted by our Executive PhD candidates focuses on practice and policy, providing excellent opportunities for supervisors and their doctoral students to work with end users of their research.

We have several initiatives and structures in place to implement our engagement and impact strategy, as described in the following section. Our research centres play a key role in implementing our research strategy.

1.4.3 Research centres (Goals 1, 2, 3, 4 and 6)

Research centres are a crucial link between theory and practice. This knowledge exchange is facilitated through seminars, events and conferences that bring together practitioners, academics and students. Research centres also play a key role in implementing our impact strategy. Seven of the nine impact case studies submitted to REF 2021 emerged from collaborative research projects in our research centres. Our research centres are reviewed every five years based on performance indicators that reflect their sustainability and vitality, which are (1) knowledge exchange with external stakeholders and end users of our research, (2) collaborative research projects with practitioners, (3) grant applications and external research income, and (4) professional development and executive education. A summary of the activities of our key research centres during this REF period is provided in Table 2.

Research centres				
Research centre	Core staff	Knowledge dissemination, exchange and impact activities	Research income	Impact case study*
Centre for Healthcare Innovation Research	8	4	£425,000	Submitted
Mergers & Acquisitions Research Centre	12	33	£1,711,000	Submitted
Centre for Creativity in Professional Practice	10	14	£2,406,614	Submitted
Centre for Professional Service Firms	12	27	£415,027	Submitted
The Pensions Institute	7	39	£49,636	Submitted

ETHOS: The Centre for Responsible Enterprise	7	24	£425,136	Submitted
Real Estate Research Centre	6	22	£648,000	Ongoing
Centre for Charity Effectiveness	9	43	£6,32,8775	Ongoing

*Includes impact case studies that were shortlisted for the REF 2021 submission.

To address the challenges of undertaking interdisciplinary research, the School launched the **Centre for Healthcare Innovation Research (CHIR)** in 2019 with seed funding of £450,000 provided by the University. Led by Prof Scarbrough from the Business School and Prof Stavropoulou from the School of Health Sciences, the CHIR aims to mobilise expertise and people from a range of academic and professional disciplines to address the challenge of embedding innovation in healthcare systems, thereby helping to improve the organisation and delivery of healthcare services. It builds on the internationally leading research of faculty in the Business School and the School of Health Sciences to provide a ground-breaking, interdisciplinary approach to this challenge. The CHIR has quickly established strong collaborative relationships with a range of relevant partners in the NHS. Current projects include a collaborative study with the Academic Health Science Network (which is the major body tasked with spreading innovation in the NHS) and co-funding for a PhD studentship from the National Institute for Health Research's North Thames Applied Research Collaboration. Research on expert leadership in the healthcare sector (Goodall) is also the basis of an **impact case study** submitted to the current REF.

The **Mergers & Acquisitions Research Centre** led by Prof Moeller focuses on developing and disseminating research on the global mergers and acquisitions (M&A) industry by leveraging the School's strong links to the investment banking, consulting, legal and other industries. Participating organisations as sponsors during this REF period include: Ardian (AXA Private Equity), BP, Credit Suisse, EY, Mergermarket Group, the Institute of Chartered Accountants of England & Wales, Bureau van Dyke, and White & Case. The Centre's annual academic conference is the world's leading conference focused on research in the M&A field. The Centre's practitioner focused events involving panel discussions, workshops, seminars, and masterclasses also attract a wide international audience⁹. An ongoing project researching the speed at which M&A activity takes place after an initial public offering (IPO) of stock has influenced the decision-making processes and preparedness for upcoming M&A activity amongst members of the practitioner community. This project will form the basis of an impact case study for the next REF submission. Beyond the private sector, regulators from the UK Department for Business, Innovation and Skills have also approached the Centre to undertake independent studies, as has the London Stock Exchange. The Centre is also a key income generator for the School and during this REF period it generated £1.7 million from corporate sources. The team delivers contract research for companies such as PwC, Intralinks, Acuris, and law firm Royds Withy King, amongst others.

The **Centre for Creativity in Professional Practice**, led by Prof Maiden, is a key University-wide interdisciplinary research centre hosted by the Business School. It has been conducting annual Research Meets Practice conferences since 2015 with 120–150 participants at each event. The Centre has won grants from Arts Council England, the Engineering and Physical Sciences Research Council (EPSRC) and the EU totalling about £2M for interdisciplinary research projects. For example, Maiden's £1.3 million grant from the EPSRC and industry

⁹ <https://www.cass.city.ac.uk/faculties-and-research/centres/marc>

partners involved collaborative research between computer scientists in the Department of Computer Science and researchers from the School of Health Sciences at City, University of London. This project resulted in the development of a new form of digitised toolkit that allows someone with a chronic condition, living in their own home, to self-manage their care in novel and creative ways. An EU-funded €1m project focusing on innovation at the intersection of business, computer science and journalism is supporting innovation in journalism by introducing creativity, artificial intelligence and new business opportunities to enable news businesses to be more competitive. Dr Jones was appointed as an interdisciplinary champion for the University and is the Principal Investigator for the Boosting Resilience project which received funding of £462,000 from Arts Council England. The Centre has been at the forefront of the application of innovative methods in business education and has twice been selected by the Association to Advance Collegiate Schools of Business (AACSB) to run one-week intensive development programmes for senior leaders in Europe (in June 2015 and June 2017)¹⁰.

The **Centre for Professional Service Firms**, led by Prof Empson, brings together a powerful combination of academics and practitioners to develop research in an area that is at the heart of the Business School's and the University's strategy – that is, professionals and professional service firms. Since REF 2014, the Centre has organised numerous workshops and panel discussions. Events have included a workshop organised in 2017 titled 'Leading Professionals: Power and Politics'¹¹ and a day-long workshop titled 'Leadership, Professionals and Power', organised in association with Allen & Overy in 2016. The latter event featured presentations by 15 distinguished academics and practitioners and was attended by more than 100 practitioners and academics¹². Another workshop in 2016, titled 'Improving Political Leadership', was attended by 80 practitioners and academics¹³ and a 2015 workshop titled 'Responsible Leadership' featured presentations by 16 academics and practitioners. A public event on insurance and climate action held in June 2020, organised by Prof Jarzabkowski based on her research with industry partners, attracted 261 participants from all over the world¹⁴. In 2019 the Centre formed a research collaboration with Harvard Law School's Center on the Legal Profession, aimed at expanding and disseminating knowledge about the global legal, professional and financial services sectors. These centres work together to create partnerships across areas of common interest, such as leadership dynamics and the role of innovation in professional and financial services. Research on disruption in insurance markets in the aftermath of disasters (Jarzabkowski), partly funded by grants from the Leverhulme Trust and UK Research and Innovation (UKRI), resulted in an **impact case study** for REF 2021.

The Pensions Institute, led by Prof Blake, continues to organise the annual International Longevity Risk conference, where leading international industry and academic representatives and policymakers discuss longevity risk and consider the responses of pension funds, insurance companies and governments. Since 2014, the conferences have been held in Santiago (Chile), Lyon, Chicago, Taipei, Amsterdam, and Washington, DC, and Singapore. Using the solutions that have been designed and discussed at the conferences – namely, buy-ins, buy-outs and longevity swaps – more than \$450bn of longevity risk has been transferred from pension plans to the insurance industry and to the capital markets since 2007. A collaborative research project with industry partners Swiss RE, J.P. Morgan and Prudential Financial resulted in the design of the first longevity bond and reinsurance sidecars, which is the basis for an **impact case study** for REF 2021 (Blake). Other activities during this REF period included presentations and

¹⁰ <https://www.aacsb.edu/newsroom/2017/7/cross-continental-bridges-form-connections-between-business-and-the-business-school-classroom>.

¹¹ <https://www.youtube.com/watch?v=FaVCp58FWCQ>.

¹² http://www.cass.city.ac.uk/data/assets/pdf_file/0008/332729/leadership-professionals-power-summary-report.pdf.

¹³ <http://www.cassknowledge.com/sites/default/files/article-attachments/power-personalities-principles-impact-report.pdf>.

¹⁴ <https://www.cass.city.ac.uk/faculties-and-research/centres/cpsf/resources/events>

seminars at practitioner and academic conferences and provision of expert evidence to a host of private and government organisations including the Department for Work and Pensions (DWP) on the disclosure of the costs of investment management; the Financial Conduct Authority on the disclosure of the costs of investment management; the Minister for the Civil Service, Taiwan, on reforming the Taiwan Public Service Pension Fund; the Treasury, Australian Government, on the UK's 'Freedom and Choice' reforms; oral evidence to House of Commons Select Committees on the Treasury and international trade; and written evidence to the Work and Pensions Select Committee's Pension Freedom and Choice Inquiry among others.

The Business School also hosts **ETHOS: The Centre for Responsible Enterprise**, led by Prof Gond. Research at ETHOS is characterised by its critical focus on business and society. ETHOS provides a vibrant research culture through its monthly seminars and it has become a beacon for PhD students and early career researchers across the UK and Europe undertaking heterodox management research, as attested by its roster of visiting scholars¹⁵. ETHOS's researchers undertake research, teaching and engagement on areas of responsibility, sustainability and governance covering a wide range of topics, such as CSR standards and responsible investment (Banerjee, Gond, Mena, Spicer); climate change and sustainability (Banerjee, Mena); corporate governance (Willmott, Veldman); ESG (environmental, social and governance) (Gond, Willmott); disability employment (Bacon); and business ethics (Fleming, Willmott). ETHOS's events have welcomed environmental activists protesting mining expansion in Chile and India, as well as representatives from environmental activist organisations and human rights groups such as Extinction Rebellion and MiningWatch. A workshop on decolonising the Business School held in July 2020 attracted 439 participants from 247 business schools across 39 countries¹⁶. ETHOS members have been commissioned to write reports by Bank of England, Barclays, UK Houses of Parliament (Spicer), and the International Labour Organization (Gond). ETHOS has also developed a strategic partnership with the UN Principles for Responsible Investment, which resulted in grant funding and an **impact case study** for REF 2021 (Gond). Another **impact case study** (Bacon) on influencing government policies to increase disability employment involved research users such as Disability Rights UK, the DWP and the Cabinet Office. ETHOS has also been successful in winning two Marie Skłodowska-Curie Marie Fellowships and both fellows have gone on to hold permanent academic positions in UK universities.

The Real Estate Research Centre, established in 2018, has unique access to industry data and specialises in producing reports that address developments and constraints in the real estate sector. Members of the Centre have engaged with key partners such as the Investment Property Form which has commissioned major reports into the size and structure of the UK property market and the role of ESG factors in real estate investment performance. Similar commissions have come from Berkeley Capital Group interested in the UK hotel market. The Centre houses the Commercial Real Estate Lending Survey which produces, on a quarterly and annual basis, a unique analysis of real estate lending in the UK based on data provided directly by key lenders¹⁷. Sponsors of this project include Royal Bank of Scotland, Savills, Allen & Overy and Fitch Ratings and has generated income in excess of £461,000.

The **Centre for Charity Effectiveness** is the School's longest running research centre delivering professional development programs, charities masters programs, business and consultancy services to the non-profit sector for over 30 years¹⁸. The Centre makes a significant contribution to the enterprise goals of the School and has generated more than £6.3 million income during the REF period through contract research, consultancies, and workshops. The

¹⁵ <https://www.cass.city.ac.uk/faculties-and-research/centres/cre/our-purpose/testimonials-from-visiting-scholars>.

¹⁶ <https://www.cass.city.ac.uk/faculties-and-research/centres/cre>.

¹⁷ <https://www.cass.city.ac.uk/faculties-and-research/centres/real-estate/research2>

¹⁸ <https://www.cass.city.ac.uk/faculties-and-research/centres/cce>

Centre's Schools Engagement project matches student mentors with pupils in inner-city schools to help raise educational attainment and aspirations. The project was central to the Business School's successful application to the UN Principles of Responsible Management Education for Championship status recognition.

1.4.4 Key initiatives

In addition to the research centres, the School has several key initiatives designed to meet our research goals.

Knowledge Portal (Goal 4)

The School's Knowledge Portal is an essential online research resource for business and the professions. Enhancing the Portal is a key strategy related to disseminating our research and demonstrates the University's and the School's commitment to an open research environment, as outlined in REF5a. The Portal showcases our practical research, making it available to academics and practitioners everywhere. It was revamped in 2017 and receives over 40,000 unique visitors annually. Research papers on retail, stock market listings, digital technologies, M&A and business models are especially popular. The Portal is supported by a Twitter account with nearly 5,000 followers and has several thousand subscribers to its newsletter.

Knowledge Exchange and Impact Fund (Goals 2 and 4)

The Knowledge Exchange and Impact Fund is dedicated to enabling the transformation of research outputs into products, services, models and tools for the benefit of non-academic users. It exists to pump-prime or accelerate purposeful knowledge exchange activities. Awards are granted on a competitive basis and we invite staff to submit proposals for funding for projects that facilitate and accelerate engagement with businesses. The annual allocation for this fund increased from £55,000 in 2014 to £125,000 in 2020. During this REF period we funded 78 projects, 6 of which resulted in **impact case studies**.

Proof of Concept Fund (Goals 4 and 6)

We also provide proof-of-concept funding to our academics to accelerate the development of software systems for commercial applications. For example, this fund was used by some of our management faculty to develop INJECT¹⁹, a digital creativity tool intended to help journalists and media content providers to create original content efficiently. Proof-of-concept funding has also been used to create a prototype for a Museum of Entrepreneurship²⁰ (a world first), which gathers, and makes available on an online platform, the stories of entrepreneurs' experience of setting up, running and selling their business.

Research Impact Champions and Impact Workshops (Goal 4)

Following REF 2014, we appointed three research impact champions (Jarzabkowski, Kaishev, Thomas) across the faculties. Their main responsibility is staff development for impact. Activities include one-on-one sessions as well as group workshops on how to identify and engage with end users. We also organised two workshops where staff worked with an external expert to develop their impact case studies.

Consulting Portal (Goal 6)

The Business School has a web-based vehicle that promotes the expertise of our academics to help businesses that may not have in-house expertise to solve problems and gain insights into their business. Faculty have engaged in consultancy projects during this REF period, working for organisations such as AXA Insurance, Bacs, the Cabinet Office, Colgate-Palmolive, the European Foundation for the Improvement of Living and Working Conditions (Eurofound), the Financial Conduct Authority, Intrinsic Financial Services, Invesco Perpetual, Lloyd's of London, Ofgem, the train company Southeastern and Tullett Prebon.

¹⁹ <https://media-innovation.news/media-lab/inject-a-european-journalism-and-technology-project-building-creativity-tools-for-journalists/>

²⁰ <http://museumofentrepreneurship.com>.

Public events and seminars (Goal 4)

Through our research centres, we regularly hold public events and seminars aimed at a non-academic audience. Since 2014, staff have attended approximately 350 practitioner and policy-based events involving organisations such as the American Bureau of Shipping, the Baltic Exchange, the Bank of England, the Financial Conduct Authority, the Law Commission, Lloyd's List, the Organisation for Economic Co-operation and Development, the Pension Investment Academy and the UK Parliament.

Section 2. People**2.1 Staff recruitment**

Since REF 2014, the Business School has consolidated and strengthened its research position. We have recruited 55 academic staff from leading institutions in Europe, the UK and the US during this period – both accomplished researchers and early career researchers with excellent potential to undertake world-class research. There have been fewer leavers during this assessment period than the last; 58% of the staff returned in REF 2014 are included in REF 2021. Most of the professors who left did so because they retired, moved for family reasons or received significant academic promotions, including some with endowed chairs at top-ranked institutions. With University investment of several million pounds, we have grown by 46 FTEs since REF 2014, including the addition of eight professors whom we recruited during the current REF period.

Our staffing strategy is to hire and retain the very best based upon a three-pronged approach. We leverage existing staff networks to make appointments in areas close to the research interests of existing staff, thereby reinforcing these areas; we make fast-track appointments with the aim of promoting new vigour into the School; and we make strategic investments to build research capacity in new areas. Research achievement and potential are key criteria for hiring junior academic staff. The inclusion of 12 early career researchers in this submission is evidence of the success of this policy. Junior academic staff have been recruited from the world's top institutions, including Stanford University, the University of Cambridge, HEC Paris, ESSEC Business School, ESCP Business School, King's College London, Utrecht University, and Shanghai University of Finance and Economics. In keeping with the increasing importance of research impact, it is now a requirement for all candidates interviewed for academic positions to describe their research impact strategy at job presentations.

2.2 Staff development

We have continued to enhance our research environment in the School, which was assessed as internationally excellent and/or world-leading in REF 2014. We also pay particular attention to supporting early career researchers and other staff in enabling them to produce top-quality impactful research. We emphasise equality, diversity and inclusion (see section 2.4) and ensure that everyone can contribute to our research strategy and impact. Our strategy to produce world-leading research is implemented in a number of ways, as outlined in the following sections.

2.2.1 Mentoring

The School has a formal academic mentoring policy that is implemented within the faculties. All lecturer-level staff are assigned academic mentors, who are generally at the reader or professor level. They meet at least once per term. Mentoring takes place within the scope of the School's Faculty Excellence Framework, which sets out the criteria for promotion. Formal mentorship continues until the mentee is promoted to senior lecturer. Heads of faculties host a lunch meeting with all lecturers twice per year to foster cross-group collaboration. Mentors receive a workload allowance for their support. All staff undergo a formal research induction in the School where clear guidance is provided on our research goals and processes and on expected performance in education and research. The School organises a research induction event at which new staff meet the Pro-Vice Chancellor (Research and Enterprise), the Dean of the

School, the Associate Dean (Research and Enterprise) and research support staff.

2.2.2 Promotions

Subject group leaders support faculty heads in promotion and recruitment decisions, provide academic leadership and mentor junior academic staff. Research performance is the major criterion for promotion, with proven ability to publish internationally recognised research as the key criterion for promotion to professorship. Performance evaluation is by cumulative assessment of research outputs over the past five years. Knowledge exchange, public engagement and research impact are also important elements of the School's professorial promotion policy. Quality standards and fairness are maintained by the Dean or Deputy Deans, who sit on all senior promotion panels.

A total of 46 staff were promoted during this REF period in recognition of their research achievements: 10 to professor, 17 to reader, 14 to senior lecturer and 5 to lecturer. The success rate of promotions was 64% for both males and females. In terms of ethnicity, the success rate of promotions was 63% for BAME staff and 56% for white staff.

We also developed talent internally, as evidenced by the submission of 23 staff who obtained their doctorates from the School (up from 18 in REF 2014).

2.2.3 Sabbaticals

We provide research sabbaticals of up to one year in seven to reinvigorate research by our staff. During this REF period, 40 faculty members (18 female and 22 male) across all faculties were granted sabbaticals. Outcomes of sabbaticals have included publications in top-ranked journals, books, research grants and collaborative research projects.

2.2.4 Workloads

An important part of our culture for sustaining research and impact comes from a clear and established workload system. It is based on an annual research performance exercise conducted by the School Research Committee. This uses the REF scale descriptors, calibrated to the School's strategic aims relating to research and enterprise. We allocate 25% of workload time to research regardless of publication success, and we also provide short-term relief from teaching duties and teaching assistant support. We additionally provide special mentoring by senior staff to help junior staff develop their publications. Early career researchers receive an additional 10% workload allowance to facilitate their research. The University's employment contract allows academics to work for one day per week providing private consultancy and advisory services to industry. Many staff channel their consultancy work through the University, thus contributing to institutional goals relating to knowledge exchange and enterprise. The School operates an annual research and knowledge exchange performance exercise whereby staff are given credit in the workload model for income from business and government sources, contributions to the Knowledge Portal (see section 1.4.4), publications in leading practitioner journals and other contributions to business development.

2.2.5 Research funding

All academic staff have access to a research pump-priming fund (annually £100,000 at School level plus £80,000 at University level and a further £125,000 from the Higher Education Innovation Fund for projects with business) and an annual conference allowance of £2,500 per annum per person. Junior staff and those newly appointed or returning to research receive preferential treatment in the pump-priming fund. The School returns a large proportion of research grants to principal investigators, enabling them to provide bridging salaries to research staff equivalent to one year for every three years' employment. This ensures continuity in research activity and improved career security for research staff.

2.2.6 Research seminars

We conduct three parallel weekly research seminars across our faculties where world-leading scholars present their research and provide ongoing stimulus to new thinking. Early career

researchers and PhD students also have the opportunity to meet international scholars and discuss their research on an individual basis after these seminars.

2.2.7 Paper development workshops

We provide support to our academics to enable them to publish their research in the world's top-ranked journals. To enhance our research intensity and the quality of our publications, in 2015 we started a paper development workshop called I-share, where staff circulate their working papers or papers under revision to colleagues, who provide feedback and advice on revising and resubmitting manuscripts. Junior staff also have the opportunity to discuss their research at these workshops, obtaining feedback before a journal submission or at revision stage. Similarly, major grant requests undergo rigorous internal review by the Associate Dean (Research and Enterprise) and academic peers. We have also organised publishing workshops conducted by senior editors from *Academy of Management Journal*, the *Journal of Management Studies*, *Organizational Studies* and other top-ranked journals. Research centres and subject groups regularly organise writing retreats and reading groups with colleagues and PhD students.

2.2.8 Research ethics and integrity

We conduct research ethics and integrity workshops for our staff and PhD students. Research ethics is monitored by the School Ethics Panel, overseen by the University's Senate Ethics Committee. Specialist advice is available on the ethical implications of research proposals.

2.2.9 Celebrating achievements

We continually celebrate our research achievements through events and prizes. These include annual research days to promulgate our successes, discuss School-wide issues and encourage strategic thinking about research; annual research prizes awarded to both 'rising stars' and senior academics for high-quality publications, grant successes, boosts to our external reputation and impact; and prizes for publishing in the *Financial Times* list of top journals. All of these prizes are awarded by the School. During this REF period, the School awarded 181 such prizes.

2.3 Research students

We consider PhD students to be the engine of our research. Our vision for our PhD programme is to produce outstanding researchers who are ready to take up academic positions in leading business schools or in key roles outside academia. We deliver a rigorous PhD programme that is international in scope and provide a stimulating intellectual environment for students. Our PhD student body is diverse and our graduates during this REF period represented 34 nationalities. Our PhD students also have strong working relationships with our staff and regularly publish co-authored papers with them. This is demonstrated in our REF 2021 submission, where 20 of the submitted publications were co-authored with PhD students at the School.

Admission to our PhD programme is extremely competitive: we accept about 15 students each year from a qualified pool of about 250 applicants. The current male to female ratio is 60:40. We have awarded 106 PhDs since 2014, with 60% of PhD completions occurring within four years and an average completion time of 4.5 years. In addition, the Executive PhD programme (launched in 2014) produced five graduates during this period.

Following a comprehensive review of the programme in 2017 we developed research training activities that reflect the four core areas of Vitae's Researcher Development Framework²¹.

- A. Knowledge and Intellectual Abilities:** The first-year modules offer a combination of a core course and electives, providing students with first-class content knowledge across subject areas and cutting-edge methodological training.

²¹ <https://www.vitae.ac.uk/researchers-professional-development/about-the-vitae-researcher-development-framework>.

- B. Personal Effectiveness:** The development of this set of skills is facilitated via various activities, including the Meet the Seminar Speaker Series, where PhD students are given the chance to meet and engage in a one-to-one conversation with internationally renowned scholars. We also conduct workshops on 'Increasing Your Productivity while Managing Work-Life Balance'.
- C. Research Governance and Organisation:** Workshops in this area include 'Ethics in Research', 'Writing Literature Reviews', 'Publishing Your Research' and 'Writing Up Research Findings'.
- D. Engagement, Influence and Impact:** We have organised a series of workshops for the PhD Workshop Series on knowledge exchange and research Impact.

The provision of scholarships is an important factor in attracting top-calibre students. The School invests £500,000 per year in the PhD program enabling us to offer 15 fully funded places each year. In this REF period, the Economic and Social Research Council (ESRC) provided one scholarship. A further four were provided by corporate sponsorship, one by government sponsorship and one by foundation-based sponsorship. Additionally, 90% of students receive a scholarship from Research Councils UK. From 2021, the School will be offering an annual scholarship for Black British candidates with a view to increasing minority enrolment.

Successful applicants are assigned at least two supervisors, one of whom must be a senior academic with a strong publication record and experience in supervising PhD candidates to completion. The second supervisor tends to be an early career or mid-career researcher. This supervisory arrangement provides opportunities for supervisor training and expands our pool of eligible supervisors.

In their first year, students follow a comprehensive training programme taught mostly by senior academic staff along with leading scholars from top academic institutions around the world. The programme involves 240 hours of lectures and seminars making it more comprehensive than comparative courses at other institutions. On successful completion of the programme, students progress initially to MPhil status. At the end of their second year, they prepare a comprehensive research proposal for evaluation by a transfer panel consisting of two senior academic staff to determine progression to PhD status. Subsequent progress is monitored through annual reports by the main supervisor and via an online Research and Progress system. From their second year, students attend advanced training courses and doctoral seminars and also present papers at international conferences. The School provides funding up to £1,000 per annum per student to attend conferences. The School also hosts a PhD Research Conference every July where students present their research. Prizes for best paper (£1,000) and best poster (£750) are awarded at the conference.

We offer extensive support to PhD candidates who are preparing for the job market. We advise them on preparing CVs, research papers, personal webpages and job market presentations; offer job market information sessions; and organise mock interviews with faculty members. Our PhD students achieve considerable distinction both within and outside academia. Since 2009, 60% of our graduates have joined academia, 6% have joined central banks (or equivalent), and the remainder have gone into finance or industry. Of the 61 graduates who went into academia, 18 were recruited by universities among the top 200 in the world and a further 12 joined a business school ranked in the top 50 by the *Financial Times*.

The School provides students with dedicated state-of-the-art quiet study office space and communal areas to facilitate socialisation among students across the three faculties. The PhD Programme Office has an open-door policy, offering pastoral and administrative support to students.

In 2014 the School launched an Executive PhD programme, which is a part-time full-fee-paying programme designed for middle- to senior-level executives. The programme contributes to our

research impact strategy, given that research that emerges from the Executive PhD has a strong practitioner focus. We admit about 15 candidates per year and the programme produced its first cohort (five graduates) in 2018. The supervisory arrangements, thesis requirements and examination processes are identical to those of the traditional PhD programme to ensure we maintain the rigour that is expected of doctoral programmes.

2.4 Equality, diversity and inclusion

The School is aligned with the University's equality, diversity and inclusion (EDI) policies. We believe in creating an environment that respects the diversity of staff and enables them to derive maximum benefit and enjoyment from their involvement in the life of the School. Staff are encouraged to take advantage of University-wide self-organised support groups such as the Black, Asian and Minority Ethnic Staff Network, CityUniWomen, the Disability Staff Network, the LGBT+ Network, and Religion and Belief. The School has an Associate Dean for People and Culture, who is a member of the School Executive Committee and is responsible for ensuring that EDI factors are taken into account in decision-making processes, such as research performance evaluation and academic promotion panels.

Table 3 summarises our staff demographics. Our academic profile is diverse, comprising staff of 26 nationalities. Around 32% of our staff members are female, up from 26% in 2014 and 19% in RAE 2008. Two of the five impact case study leads are female. The selection of the output portfolio was done in a transparent manner: each academic was asked to rank their outputs and this information was then integrated with the assessments made by the School's REF strategy group.

Academic staff profile	
Gender	Percentage
Female	32%
Male	68%
Ethnicity	Percentage
BAME	17.5%
Refused/not known	3.2%
White	79.4%
Disability	Percentage
None/not known	96.3%
Yes	3.7%

While the gender balance of the Business School is on par with that of our competitors, there is considerable scope for improvement, which we are committed to doing. Women occupy senior research and leadership positions in the School, including as Dean (2015–2019), Associate Dean (Research and Enterprise) (2015–2019), Associate Dean (MBA Programmes) (2014–2018), and directors of the full-time and Executive PhD programmes (2015 to present). Around 18% of our staff identify as Black, Asian or Minority Ethnic (BAME), up from 16% in 2014. The Marketing and Operations Management group is gender-balanced, as is the Corporate Finance, Accounting and Banking group. In addition, research on EDI is a feature of our publications on entrepreneurship, corporate governance, professional service firms and organisational behaviour. This is important as staff research filters into teaching and School committee processes. Part-time staff and those on fixed-term contracts enjoy equal access to facilities, staff appraisal and training opportunities, and conference attendance budgets.

We make every effort to accommodate the needs of staff with special circumstances. Their workloads and promotions criteria are suitably adjusted based on those circumstances. We recognise that retaining experienced staff is an important factor in enabling the School and the University to achieve its strategic aims. City, University of London provides its employees with a range of benefits and flexible working practices. The University offers paid maternity and paternity leave as well as parental and shared parental leave, adoption leave and dependent's leave. Since 2014, seven staff members have taken advantage of maternity leave and two went on paternity leave. Staff who return from maternity leave are also given a reduced teaching load for one term. Workloads for staff returning from long-term illness or managing chronic conditions are adjusted on a case-by-case basis to reflect their special circumstances.

EDI considerations are taken into account in providing support for funding applications and access to internal research funds. Mentors encourage early career researchers to participate in grant-writing workshops and apply for internal funding. Female academics comprised 39% of applicants who were awarded pump-priming grants during the REF period. In addition, 32% of all principal investigators in external grant submissions were female. The proportion of female academics funded through our Knowledge Exchange and Impact Fund ranged from 20% to 42% in REF 2021, averaging 34% over the seven-year period. In addition, two of the School's research grant and research impact champions are female academics.

In 2016, the Business School launched the Global Women's Leadership Programme, which seeks to inspire, equip and connect women who are – or want to become – resilient, inclusive, ambitious, brave, confident, responsible, authentic and thriving leaders. A key pillar of this programme is the dissemination of our research to establish the School as a leader in the conversation on gender-balanced leadership. Members of the programme presented their work at the Financial Times Women at the Top summit (Goodall, Hughes) and conducted commissioned research that was included in the 2019 Hampton–Alexander Review to improve the representation of women on boards and in leadership positions at FTSE 350 companies (Falconieri).

2.4.1 The COVID-19 pandemic

The pandemic and subsequent lockdowns caused major disruptions across the UK and posed several challenges to our research environment. Our rapid and comprehensive response to the crisis is a testament to the collegiality and vibrant research culture in the School. Our approach to minimise disruption was to focus on the more vulnerable research communities in the School – research students and early career researchers. From March 2020, all PhD coursework modules were taught online. Weekly research seminars and supervisory meetings were also shifted to online delivery.

At the beginning of the pandemic, the PhD directors organised meetings with research students across all cohorts to understand their specific concerns. A number of concerns were identified, including delays in PhD progress; disruption and delays in data collection and fieldwork; disruptions in the job market; access to online resources and risk of losing their institutional affiliation for graduating PhD students unable to find employment; lack of social interaction and disruption to the PhD student community; and constructing and maintaining a research presence in the online world. Our PhD team also organised online meetings with their counterparts in business schools in the UK and Europe and participated in the townhall meeting of the Consortium on Competitiveness and Cooperation for Doctoral Student Research to discuss responses to the pandemic.

Our actions to minimise disruption included:

- extending PhD funding;
- organising a workshop on conducting fieldwork in the time of COVID-19 and remote interviewing techniques;

- conducting a workshop on writing theory papers, assuming that field research would continue to be disrupted in the near future;
- conducting a virtual job market workshop;
- organising Virtual Research Days in partnership with colleagues at Imperial College London, University College London, King's College London, the universities of Cambridge and Oxford, and the London Business School, giving PhD students the opportunity to present their research and network with faculty and peers;
- creating the position of Junior Research Fellow to allow graduating PhD students to maintain their institutional affiliation and access to research resources;
- conducting two workshops titled 'Building a Social Media Presence'.

In addition, supervisors were requested to provide extra pastoral care during this difficult period and we organised regular social Zoom meetings during the summer of 2020.

City Doctoral College conducted a survey on the impact of the pandemic on doctoral students. While students reported that the pandemic had had a 'limited to significant impact' on their progress, most were satisfied with the School's response and their supervisory arrangements and felt they would recover from the impacts of the pandemic on their research.

In addition to the actions taken by our research team, there were several organic initiatives that emerged which is another testament to the School's vibrant research culture: PhD students and early career researchers created online reading groups that met fortnightly; research centres organised paper development workshops around specific themes; and early career researchers created their own social and research network. We also welcomed two new PhD cohorts virtually – 21 candidates in the full-time PhD programme and 20 candidates in the Executive PhD programme (our largest cohort since the programme commenced in 2014). The research induction for new academic staff who joined the School in September 2020 was also conducted online.

We also directed our research efforts at addressing the disruptions caused by the pandemic. Our faculty submitted 18 grant applications to several funding bodies, including the British Academy, the Health Foundation, the Medical Research Council and UKRI. Topics included organisational resilience during COVID-19, design of contact-tracing apps, building online platforms for public health resilience, and remote health monitoring.

2.4.2 Implications of the School's name change

The Black Lives Matter movement and revelations of links to the slave trade of several UK institutions had a direct effect on the School. Following media reports of Sir John Cass's active involvement in the slave trade, in July 2020 the University Council decided to remove the Cass name. The University also launched a review into historical sources of funding to determine whether there are any further links to slavery. The decision to remove the name was made because the continued use of Sir John Cass's name would be seen as condoning someone whose wealth in part derived from the exploitation of slavery, which is incompatible with our EDI values.

The decision to drop the name evoked strong reactions, especially among students and alumni, with various petitions both supporting and opposing the decision. We have started the process of finding a new name through extensive stakeholder engagement. The School is also committed to changing more than the name and we have started an internal consultation process to build an identity as a business school with social purpose, where we can demonstrate our commitment to EDI in our teaching and research. As an initial commitment, the School has announced one PhD scholarship for disadvantaged Black British students.

Section 3. Income, infrastructure and facilities

3.1 Research income

The Business School was ranked 13th in the UK for business school research income in a 2018 CABS report²². As indicated in section 1.4.1, one of our goals is to substantially increase our income from external sources.

While many faculty do not require substantial grants to undertake research and produce high-quality research outputs, we encourage our academics to apply for research grants. Our strategies to generate research income and diversify our funding sources include:

- appointing research grant champions (Jarzabkowski, Maiden, Novelli), who work with early and middle career researchers to develop grant applications;
- conducting grant-writing workshops at the School and University levels;
- awarding internal research funding of up to £180,000 per year to incentivise external grant applications;
- providing support through full-time research development staff at the School and the University Research Office, who help our academics to produce grant proposals that meet all funder or partner requirements;
- providing opportunities to generate contract research income through our Press Office, a Knowledge Transfer Manager, a Knowledge Editor and active research centres that work together to promote our research to end users.

In addition, we promote funding opportunities through our bi-monthly newsletter.

These strategies appear to be working: our total research income for the current REF period was £9.35 million (up from £5.66 million in REF 2014, an increase of 65%). Income generated from sources other than UK and EU research councils increased from £187,154 in REF 2014 to £331,329 in REF 2021. The total number of grant applications made by staff also increased, from 182 applications in REF 2014 to 304 applications in REF 2021. Our success rate for winning grants is 38%.

Notable grant successes during this REF period include a £4.2 million award from Research England to create a National Centre for Creativity Enabled by Artificial Intelligence. Led by Prof Maiden, the Centre will provide new types of service to augment the creative capabilities of UK businesses. These services will combine artificial intelligence algorithms, interactive tools, creativity consulting practices and leadership training into new offerings for business partners. It is intended that business partners will use these new services to amplify their existing creativity consulting, training and leadership services, in order to maximise the value of these services to business clients.

Maiden also won a £1.3 million grant from the EPSRC and industry partners for his project involving the design and development of a digitised toolkit that enables people living with chronic conditions to self-manage both their care of their condition and their daily lives. Other notable grants include a £590,000 EPSRC award to Li for his digital creativity hub project and a £541,678 EPSRC grant to Radice to develop a risk analysis model of different types of medical expenditure, health outcomes and insurance coverage.

During the current REF period, the Business School funded 76 pump-priming projects totalling £349,486. These investments enabled a variety of research outcomes, including internationally recognised publications, impact case studies and external grant funding. For example, Radice's pump priming award of £5,000 for her project on data analytics models for analysing insurance data enabled her to apply for and win the EPSRC grant mentioned above. Novel's £5,000 pump-priming grant enabled her to submit a successful bid for £414,490 to Innovate UK. The Business

²² <https://charteredabs.org/wp-content/uploads/2019/04/75287-CABS-Research-Income-Report-2019-1.pdf>.

School also funded PhD workshops, conferences, paper development workshops and impact case studies that resulted in high-quality research outputs, knowledge exchange and dissemination, as well as collaborative research projects with end users.

In addition, during the current REF period, the School funded 78 knowledge exchange and impact projects. Seven impact case studies submitted for REF 2021 resulted from this initial funding (two by Bacon and one each by Gond, Goodall, Jarzabkowski, Maiden, Mayhew).

3.2 Infrastructure and facilities

The School is located in a purpose-built £71.5M building in the City of London, London's main financial district. A comprehensive refurbishment of this building, costing £40.5M, will commence in 2023 with a view to expanding the teaching and research space. We also have a second building for our executive education and consultancy programmes. Both buildings are designed to promote high-quality social science research and opportunities for informal contact. They have state-of-the-art facilities including electronic and IT infrastructure, several lecture/seminar rooms and a large auditorium. In order to provide additional high-quality space and opportunities for expansion, we leased a further building in late 2020. This building, also located in the City of London, will allow us to consolidate our estate into two high-quality buildings near to each other. As part of this initiative, we will relinquish the building currently housing our executive education and consultancy programmes.

The School's proximity to the City of London allows academic and research staff to be accessible to the marketplace and to work in close association with commerce and industry. Many of our visiting lecturers, guest speakers, executive clients and research partners in a wide variety of business disciplines come from the large City financial services corporations. As one of the oldest UK business schools (established in 1966), we have an impressive range of alumni, located across the world, who remain an important part of the School's community. We also have an extremely diverse international body of staff, advisory board members and students. This fosters a stimulating environment for our student body and our academic and research staff.

We have a world-class business library with leading collections in finance and actuarial science, and our research is supported through library collections and resources in print and online. Researchers have access to a portfolio of over 50 specialist business databases, which provide a vital source of information and expert analysis. These resources are supplemented by over 250 University-wide databases that support education and research, as outlined in our institutional environment statement. The Business School has access to collections covering the fields of actuarial science, finance, and management, maintained by an annual budget of over £800,000 for specialist resources. Additionally, over £650,000 worth of content is received through corporate partnerships and a further £1.6 million is spent on cross-School and cross-Department content in the form of journal and e-book bundles as well as reference materials.

The research experience at the Business School is enhanced by our positive engagement with corporate sponsors, which gives us access to a number of high-quality, high-cost resources. Representatives from our corporate suppliers also run training sessions for staff and students. In addition to our online resources, researchers have access to a dedicated Financial Resources Zone and two simulated Trading Rooms plus a Financial Resources Suite at our library.

Library Services invests significantly in e-books to support research and education. Researchers also have access to approximately 25,000 print books in our library. This is supplemented by extensive collections held in the libraries on the main campus. We have a dedicated Research Librarian (Business), who is a member of the University Library Services Research Service Group and the Cass Research and Enterprise Committee. The Research Librarian offers one-on-one support for researchers in addition to running workshops in key areas (such as literature searching, citing and referencing) and providing specialist database support. A dedicated

research hub and specialist online library guides have been created to support researchers, and Library Services delivers a termly newsletter and runs a dedicated research blog and Twitter feed.

Library Services has a Digital Repository team, which manages our institutional repository, City Research Online (CRO). CRO underpins our open access strategy and researcher profiles. It contains over 10,000 research outputs and a growing collection of over 1,500 doctoral theses. The repository team proactively engages with researchers via a number of channels, advocating open access principles and benefits and also ensuring conformity with copyright and any other rights relating to research outputs. This service develops continuously in line with the rapidly changing open access landscape.

One of the metrics recommended by the Forum for Responsible Research Metrics to encourage the effective sharing and management of research data is ORCID registration, and 91% of our academics are registered. The Business School is ranked tenth in the SSRN's list of the top 1,000 international business schools for total number of downloaded pre-prints and working papers²³, demonstrating our commitment to open scholarship.

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

4.1 Research collaborations, networks and partnerships

Our academics have extensive national and international research collaborations with some of the world's best universities as well as with industry, government and non-governmental organisations. During this REF period, our academics collaborated with 132 institutions across 19 countries, some of which are listed in Table 4. All of these research collaborations have resulted in internationally recognised publications, research projects with industry and government partners, or research grants from national and international funding bodies.

Table 4	
Selected research collaborations	
Country	Institution
Australia	Australian National University University of New South Wales University of Queensland University of Sydney
Canada	HEC Montreal Ivey Business School Schulich School of Business University of Alberta
France	EM Lyon HEC Paris IÉSEG School of Management Sciences Po
Germany	Freie Universität Berlin Heidelberg University University of Cologne University of Göttingen
Italy	Bocconi University University of Milan University of Naples Federico II

Netherlands	Erasmus University Rotterdam Tilburg University University of Amsterdam
Sweden	Lund University Stockholm School of Economics
UK	Imperial College King's College London London Business School London School of Economics University College London University of Cambridge University of Oxford
US	Columbia Business School Harvard Business School Kellogg School of Management MIT Sloan School of Management New York University Princeton University Stanford University The Wharton School University of Chicago University of Massachusetts, Amherst University of Michigan University of Pennsylvania

4.2 Relationships with key research users, beneficiaries and audiences

The **Actuarial Science and Insurance** group has extensive research partnerships with business, government and the actuarial profession through the Institute and Faculty of Actuaries (IFoA), supported by research grants and other forms of funding. For example, Chronopoulos is a partner investigator in a major project on cyber security simulation and training funded by the EU Framework Programme for Research and Innovation (€7,476,908.75) and executed jointly by a research consortium of 18 major EU institutions and the telecommunications companies Ericsson and Telefonica.

The Life and Longevity Markets Association and the IFoA commissioned our actuarial science academics Haberman, Kaishev and Millossovich to develop a methodology for assessing basis risk within the framework of managing longevity risk, which is the basis of an impact case study for REF 2021. Findings from this project had an impact on the actuarial profession by informing decision-making on transferring longevity risks from the private pensions sector to capital markets using index-based solutions developed by our researchers. Several open source R packages developed by actuarial science academics have had thousands of downloads by end users.²⁴

Members of the **Asset Pricing and Financial Econometrics** group are involved in collaborative research with academics from the US and Europe as well as with policymakers and businesses. Sarno has extensive research links with the International Monetary Fund (IMF), the European Central Bank, the Federal Reserve Bank and the Bank for International Settlements, among other institutions.

The **Corporate Finance, Accounting and Banking** group has strong links with international institutions (the World Bank; the Bank for International Settlements in Basel, Switzerland; the European Bank for Reconstruction and Development; De Nederlandsche Bank; the Centre for Studies in Economics and Finance, Italy; and the Central Bank of Chile). Group members provided consultancy services to several institutions including the IMF, the European Commission and the German Development Corporation (Beck), and received research funding

²⁴ <https://github.com/ramondtsr/KSgeneral> and <https://github.com/alattuada/GeDS>.

from institutions such as the 6th Marie Curie Framework Programme and the Siv and Carl Malmsten Memorial Foundation.

The **Marketing and Operations Management** group's relationships with end users include organisations such as Pirelli, one of the largest tyre manufacturers in the world, for a project on inspectors' visual patterns during quality assurance (Estes); InnoCentive, a crowdsourcing company, for a project on crowdsourcing innovation (Acar); Premium Cola for a project on strategic planning (Luedicke); and St Martin-in-the-Fields Charity, which is a large UK charity that supports homeless and vulnerably housed people, for a project on interactive marketing strategy (Wiertz). Group members also collaborate with colleagues in other subject areas within the School and the University, and with a variety of organisations including the European Foundation for the Improvement of Living and Working Conditions (de Menezes), Islington Council (Radnor), Leicester Hospital Trust (Radnor) and Royal Surrey County Hospital (Izady).

From the **Organisational Behaviour, Human Resource Management and Corporate Social Responsibility** group, Empson served for three years on the Board of KPMG UK as Independent Non-executive Director and served as an expert advisor to the UK Competition and Markets Authority's Review of the Audit Sector. She was also Chair of the Public Interest Committee, working with the Financial Reporting Council, and advised PwC's Supervisory Board on its governance review and restructuring of the firm's senior leadership. Bacon's research on disability employment involves relationships with end users such as Her Majesty's Government of the United Kingdom; the UK Parliament; the All-Party Parliamentary Group for Disability; the Cabinet Office; the DWP; the Department for Business, Energy and Industrial Strategy (BEIS); Disability Rights UK; NHS England's Workforce Disability Equality Standard; employers signed up to the Disability Confident scheme; firms competing for public sector contracts; and disabled people's organisations and unions. These initiatives seek to benefit the 7.9 million working-age disabled people in the UK. Forth's research on wages, benefits, management practices and productivity involves end users such as the DWP; the Low Pay Commission; the Chartered Institute of Personnel and Development; the Health Foundation; BEIS; the Advisory, Conciliation and Arbitration Service; the Joseph Rowntree Foundation; Eurofound; and the European Commission.

Willmott led 'The Modern Corporation Project', an impact-oriented and interdisciplinary project that engages with academics and practitioners worldwide – including academics, companies, investors, standard setters, regulators and politicians – to identify and disseminate theory and best practices that support long-term value creation. The project received the 2019 International Impactful Collaboration Award from the Academy of Management Practice Theme Committee.

Other collaborations and relationships with end users include a new corporate governance model project with Frank Bold (Willmott); corporate sustainability disclosures under the EU's Non-financial Reporting Directive with DG FISMA, Novo Nordisk and Vodafone, systemic risk and corporate governance workshops with the Financial Reporting Council (Willmott), and ESG engagement with the UN Principles for Responsible Investment (Gond).

In the **Strategy, Entrepreneurship and Innovation** group relationships with end users of our research have been supported by significant research funding from the EPSRC, Innovate UK and UKRI. Novelli leads a Strategy Insight Lab project in partnership with the University of Oxford and Bocconi University, with funding of £414,409 from Innovate UK and industry partners. The project provides free training, mentorship and networking for one year to 200 UK micro-businesses with the purpose of keeping them at the forefront of knowledge and closely monitoring their progress, allowing us to have a direct impact and conduct cutting-edge research on firms' decision-making.

Our academics have also been commissioned to undertake research for a wide range of organisations. These include the Communication Workers Union (Casu), the Institute of

Directors and Insight Investment (Clare, Volpin), the Civil Aviation Authority (Spicer), Slack (Li), the Trades Union Congress (Forth), the UN Principles for Responsible Investment (Gond) and PwC (Jarzabkowski).

Maiden leads a new National Centre for Creativity Enabled by Artificial Intelligence, launched in October 2020 with funding of £3.6 million from UKRI and Research England. Industry partners include Grant Thornton, SAGE Publishing and CERN, which have committed over £1.5 million to support the Centre's knowledge exchange mission and activities. Maiden also collaborated with a small firm, Evalucom Consulting, to develop CarePulse – a web-based, intelligent reporting system devised using novel user-centred design techniques. CarePulse has been rolled out to over 300 care homes and 80 domiciliary care services, enabling care home managers to provide data required by NHS commissioners more quickly, accurately and reliably. The project was rated as 'outstanding' by Innovate UK.

Another project, led by Li, focused on bridging the innovation–execution gap with industry partners Imagen, a leading global player in video storage based in Oxford, and VMWare, a global leader in multi-cloud environments in Silicon Valley and its business partner, Amazon Web Services.

4.3 Wider activities and contributions to the research base, economy and society

The main contributions of the **Actuarial Science and Insurance** group are in developing novel quantitative methodologies using stochastic actuarial modelling techniques that are then successfully applied to solve practical problems for the financial services industry and other sectors. Examples include research on actuarial and stochastic models and methods in general insurance, risk analysis and risk management, statistics, data analysis and operations research (Asimit, Bryce, Chronopoulos, Dimitrova, Gerrard, Glass, Kaishev, Millossovich, Nielsen, Radice, Spreeuw, Tsanakas, Verrall, Zhu); mortality, life and health insurance, and long-term healthcare and pensions (Dimitrova, Haberman, Mayhew, Kaishev, Millossovich, Nielsen, Rickayzen, Smith, Verrall, Wright); and finance and insurance (Asimit, Dimitrova, Kaishev, Kyriakou, Millossovich).

The high academic standing of group members is also reflected by their membership in editorial boards of prestigious international journals and in international research funding advisory bodies and professional associations. Asimit is advisor to the Royal Flemish Academy of Belgium for Science and Arts; Kaishev is advisor to the Swiss National Science Foundation; and Tsanakas is advisor to Israel Science Foundation, Research Foundation – Flanders (Belgium), and Natural Sciences and Engineering Research Council of Canada. Best paper awards have been received by Millossovich and Tsanakas (Peter Clark best paper prize of the Institute and Faculty of Actuaries) and Millossovich (International Congress of Actuaries 2018).

The **Asset Pricing and Financial Econometrics** group is particularly strong on empirical international finance (Sarno, Schmeling, Hayley); capital markets in emerging economies (Phylaktis); fund management (Blake, Keswani, Clare); market microstructure (Cespa); financial econometrics and mathematical finance (Cerny, Urga, Tapani); and shipping finance (Alizadeh-Masoodian, Nomikos, Papapostolou, Poulialis). Group members are involved in collaborative research with academics from the US and Europe as well as with policymakers and business firms. Sarno is recognised as a world authority on international finance and his research has made significant contributions to the understanding of exchange rate movements. Sarno's paper 'Business Cycles and the Cross-Section of Currency Returns' (co-authored with Steven Riddiough) won the CFA Institute's Best Paper Prize 2017 and the Wealth Innovation, Neuro- and Entrepreneurial Results Best Paper Award 2019. Blake received the Robert I. Mehr Award

in 2016 for his paper on stochastic mortality and was named among Pensions Insight's top 50 most influential people between 2014 and 2017²⁵.

The **Corporate Finance, Accounting and Banking** group's strength lies in various issues relating to the link between corporates and the financial markets, including auditing, corporate disclosure, information intermediaries, financial regulations, securities valuations, and the intersection of financial reporting and corporate finance (Bilinski, Huang, Konstantinidi, Yim); relationships between finance and economic development, effective financial systems, financial regulation and structured finance (Beck, Casu, Fabbri); and corporate governance, raising capital and corporate restructuring (Golubov, Lasfer, Tran, Volpin). Beck is a world-leading authority in the field and his research has made substantial contributions to financial intermediation and the impact of financial development on growth.

Concerning the **Marketing and Operations Management** group, research in marketing is concentrated around digital marketing (Acar, Gottschalk, Wiertz), consumer psychology (Scopelliti, Steinmetz), consumer culture theory (Bardhi, Luedicke, Mimoun, Robinson) and international marketing (Balabanis).

Contributions to operations management research include work on the topics of innovation and the development of strategic buyer–supplier relationships (Kocabasoglu-Hillmer, Son); management practices and the interface of operations management and human resource management (de Menezes); quality management (de Menezes, Kocabasoglu-Hillmer); supply chain risk (Lücker, Ries, Sodhi); sustainability (Sodhi); transportation and city logistics (Paraskevopoulos); pricing (Ceryan); and service delivery (de Menezes, Izady, Paraskevopoulos, Radnor, Sodhi). This research contributes to knowledge and practice in various sectors of the economy, most noticeably public services, healthcare, manufacturing and energy.

Radnor holds fellowships of the Academy of Social Sciences and the British Academy of Management. Sodhi holds fellowships of the Institute of Mathematics and its Applications and the Operational Research Society; is Deputy Editor of the journal *Production and Operations Management*; and has been recognised as a leading operations management professor in the world based on publications in the top four operations management journals between 2001 and 2015²⁶. Group members are also regularly involved in acting as session or track chairs at leading operations conferences (e.g. EUROMA, INFORMS and POMS) and they frequently review for *Financial Times*-listed journals.

Since 2016, the group has organised a bi-annual research conference on a selected theme, with the main goal of showcasing faculty members' research and increasing the visibility of the group in the academic community. The last two events, the Story Consumption Symposium (2018) and the Digital Consumption Symposium (2016), attracted speakers and over 100 attendees from top universities around the globe. Members of the group regularly serve as track co-chairs in international conferences – such as EMAC 2019 (Acar, Wiertz), EMAC 2017 (Wiertz), SJDM 2019–2022 (Scopelliti), and ACR 2018 (Bardhi) – and in conference programme committees: ACR (Bardhi, Luedicke, Scopelliti, Wiertz) and SCP (Scopelliti).

Marketing researchers have received prestigious international research awards, including the Sheth Foundation Best Paper Award (2015) from *Journal of the Academy of Marketing Science* (Wiertz); the Consumer Culture Theory Conference (2015) Best Special Session Award (Bardhi and Luedicke); and the Academy of Management (2016) Best Paper Proceedings (Scopelliti).

²⁵ <https://www.pensions-institute.org/wp-content/uploads/2019/press/50%20most%20influential%20people%20in%20pensions.pdf>.

²⁶ <https://onlinelibrary.wiley.com/doi/abs/10.1111/deci.12452>.

In REF 2021, the **Organisational Behaviour, Human Resource Management and Corporate Social Responsibility** group has raised its profile considerably in terms of size, breadth of research range and quality of outputs. What differentiates this community of scholars in the School is the use of broader social science disciplines as a heuristic lens to investigate and explain interactions between people, groups, decision-making and human resources practices. The group has made significant contributions to the study of leadership in scientific and highly technical organisations (Goodall) and in professional service firms (Empson). Other scholars have contributed to research on routines and institutional logics (Nigam); organisational control (Chung); critical discourse analysis and organisational theorising (Oswick); social movements (Augustine); the changing nature of work and employment (Kaynak); employee wellbeing and productivity (Forth); and paradox in management science (Lewis).

The group was expanded to include CSR researchers in 2013 after targeted recruitment. Key research themes include corporate governance (Spicer, Willmott); CSR and irresponsibility (Banerjee, Fleming, Gond, Mena, Spicer, Willmott); power (Banerjee, Fleming, Spicer); responsible investment (Beunza, Gond); critical performativity (Banerjee, Fleming, Gond, Spicer); and governance in global production networks (Banerjee, Willmott). This group is unique in bringing a critical perspective to research on CSR, questioning the assumptions underlying current research, and asks the 'big questions' about topics such as climate change, sustainability, emancipation, poverty, inequality and global governance. Members of the group have held numerous workshops and conferences on a variety of themes, including responsible investment, conflicts in the extractives industries, CSR for practitioners and economies of worth. With funding from the Society for the Advancement of Management Studies, in 2019 the group organised a paper development workshop on the topic of degrowth for a special issue of *Organization* with participants from Australia, Europe and the UK.

Members have also won best paper prizes awarded by journals such as *Business & Society* (Banerjee), *California Management Review* (Gond) and *Human Relations* (Banerjee), as well as in AoM, EURAM, EGOS and IABS conferences (Buenza, Gond, Willmott). Willmott holds fellowships of the Academy of Social Sciences, the British Academy and the British Academy of Management. Banerjee is a Research Fellow of the British Academy's Future of the Corporation research programme. Buenza was Chair of the Steering Committee of the Academic Network of the UN Principles for Responsible Investment from 2014 to 2017. He has also provided ethnographic training for bank executives at the UK Banking Standards Board.

The **Strategy, Entrepreneurship and Innovation** group has depth, breadth and longevity, making it one of the most prominent and influential research groups in Europe. Built up over many years (see RAE 2008 and REF 2014), its breadth reflects many of the core themes in the underlying fields of strategy, entrepreneurship and innovation. The group's contribution to innovation research is a major theme, covering both digital and non-digital sectors, with strengths in technology and innovation strategy generally and biotechnology in particular (Aversa, Baden-Fuller, Cacciato, Frankort, Guidici, Kamuriwo, Novelli). Faculty have made significant contributions to our understanding of digital innovation strategy (Haefliger, Hervas-Drane, Lanzolla, Feng Li, Maiden, Scarbrough). The study of strategy process from a strategy-as-practice perspective is another major theme, based on Jarzabkowski's leading research in the field. Her work has been supported by external research grants from the Leverhulme Trust, the EU 7th Framework Programme, the ESRC and collaborations with the Australian Reinsurance Pool Corporation, Flood Re (a UK flood reinsurance pool), Pool Reinsurance Ltd and the Bank of England.

This group also makes significant contributions to the field of entrepreneurship, particularly in the areas of entrepreneurial rhetoric, pitching and mentoring (VanWerven); paradoxes of innovation (Andriopoulos); founder exit (Souitaris, Zerbinati); corporate venture capital (Hill, Souitaris, Zerbinati), independent venture capital (Filatotchev, Souitaris); academic entrepreneurship (Huyghe, Souitaris); entrepreneurial emotions (Huyghe, Souitaris, Zerbinati); entrepreneurial

identity (Huyghe); and entrepreneurial inspiration (Souitaris, Zerbinati). Group members also put their research into practice: for example, Zerbinati created a Museum of Entrepreneurship, which exhibits video-stories of entrepreneurs aiming to inspire young people.

Baden-Fuller and Jarzabkowski were elected as Fellows of the British Academy in 2020. Baden-Fuller and Li also hold fellowships at the Academy of Social Sciences and the British Academy of Management. Furnari received the best paper award from the *Academy of Management Review* in 2014. Li received the best paper award from the British Academy of Management in 2020.

4.4 Editorships and media exposure

Our academics across all groups hold over 250 positions on editorial boards of the premier journals in the business disciplines, including *Academy of Management Journal*, *Academy of Management Review*, the *Journal of International Business Studies*, the *Journal of Marketing*, the *Journal of Consumer Research*, the *Journal of Consumer Psychology*, *Organization Science*, *Strategic Management Journal*, the *Journal of Management*, *Information Systems Research*, the *Journal of Business Venturing*, *MIS Quarterly* and the *Journal of Finance*.

Our academics have also served as senior/associate editors of leading journals – Asimit for *Insurance Mathematics and Economics*; Banerjee for *Organization Studies*; Beck for *Journal of Financial Intermediation and Review of Finance*; Filatotchev, Ravasi, and Spicer for *Journal of Management Studies*; Gond for *Human Relations*; Haberman for *Journal of Pension Economics and Finance*; Haefliger for *Information Systems Research* and *MIS Quarterly*; Kaishev for *Stochastics and Quality Control*; Soutaris for *Journal of Business Venturing*; and Willmott for *Academy of Management Review*. Empson and Willmott are also members of the Strategic Advisory Board for *Journal of Management Studies*.

Our research has been widely reported in domestic and international media and our academics are regularly called on by print, television and online media for expert comment: 104 academics from the Business School were mentioned in the media during 2019 and 2020, up from 51 in 2015. Since 2015 there have been 10,647 media mentions of the Business School in a variety of media outlets across 57 countries²⁷. Our Press Office works closely with academics to develop and implement comprehensive media and stakeholder outreach plans for each piece of published research. Our academics also regularly disseminate their research through articles in popular outlets. For example, during this REF period, 25 faculty published pieces in *The Conversation*²⁸.

To conclude, the research culture and environment at the Business School is collegial, inclusive, supportive and collaborative. The School's AACSB and EQUIS accreditations were renewed in 2020 for another five years with both panels commended the stimulating and supportive research culture at the Business School.

²⁷ <https://www.cass.city.ac.uk/annual-media-report>.

²⁸ <https://analytics.theconversation.com/uk/institutions/city-university-of-london-1047/56/articles/dates/20201120/20201220>.