

<b>Institution: University of Nottingham</b>
<b>Unit of Assessment: 17 Business and Management</b>
<b>1. Unit context and structure, research and impact strategy</b>

### 1.1. Overview

Nottingham University Business School (hereafter NUBS) is one of the largest comprehensive Business Schools in the U.K. offering a dynamic research environment with a primary mission to make a positive impact on society through responsible management and business. NUBS' research and knowledge exchange strategy has been refined since 2014 to focus on strengthening research intensity and performance, and to reflect three core values illustrative of the work we do: our research is transformative, collaborative and responsible. NUBS' strategy has evolved synergistically with those of the University of Nottingham (UoN) *to create a world-leading, inclusive environment that facilitates the achievements of researchers at all career stages, which enables interdisciplinary and mission-led research with far-reaching societal impact* (see UoN Institutional Environment Statement, section 2.1).

NUBS has been on a growth trajectory, leading to investment in people, a reorganised and expanded unit structure providing strength and flexibility to respond to emerging business research opportunities and global challenges, whilst consolidating core distinctive research capabilities. The COVID-19 crisis has presented continuity challenges and risks, placing pressure on internally funded research time, with potential effects on specific groups of researchers. At a strategic level, we continue to monitor these challenges to our research community. The Schools' financial sustainability ensures stability of resources to support researchers and groups to maintain the health of research and knowledge exchange. Indeed, NUBS' ability to produce high-quality research, grant capture and impact has not been compromised, since our researchers are leading projects that will contribute to a better understanding of the effects of the pandemic on work, employment and impacts on businesses and the economy. Our commitment to fostering an inclusive research culture based on diversity and comprehensiveness, outlined in our REF 2014 statement, is embedded throughout our research strategy to generate relevant research for practitioners, policy-makers and society.

### 1.2. Review of REF 2014 research priorities and highlights of achievements

REF 2014 objectives and planned activities (in italics) have been met as follows:

*Recognising, promoting and continuing to invest in those research areas for which the School has earned an international reputation, whilst remaining alert and responsive to emergent research themes and agendas.*

NUBS' research has been reorganised around a triple-helix research structure comprising academic departments, research centres and clusters to enable connectivity and collaboration, and to optimise support structures for research and knowledge exchange in cognate research themes (see section 1.4). NUBS has continued to invest in its research centres as primary drivers of research grant income and impact. The Haydn Green Institute (HGI) has consolidated its reputation as the U.K.'s leading research and education hub for entrepreneurship and innovation, delivering real-world impact through support for the creation of hundreds of entrepreneurial new start-up businesses, and through its Ingenuity and Yes! programmes. The latest Higher Education Business and Community Interaction Survey figures (for 2018/19) placed UoN as first nationally for the number of social enterprises established and third nationally for the total turnover of active graduate start-ups, totalling £83.5 million of economic impact.

A significant area of investment in new research capacity has been the establishment of the Neo-Demographic Lab (N/LAB), an interdisciplinary centre of excellence in data analytics, led by Professor Andrew Smith. This centre provides a dedicated lab resource space and staff to conduct research on behavioural summarisation, and descriptive and predictive modelling techniques via

**Unit-level environment template (REF5b)**

novel computational methods. This team's work has informed consumer insight in the U.K., transport and infrastructure policy and development in Tanzania, produced rich data on and insight into modern slavery, and led to a step-change in our understanding of food poverty and waste reduction in the U.K.

Further to renewed investment in research and teaching staff in banking and financial services leading to a new department, NUBS launched the Global Centre for Banking and Financial Innovation (GCBFI) led by Professor Meryem Duygen to leverage the international reach of the research and reputation emerging in innovation in Fintech across our campuses in the U.K., China and Malaysia.

*Growing talent and developing capacity across the range of business and management disciplines by refining and increasing our scholarship provision and portfolio of staff development support.*

NUBS has significantly developed its research capacity over the assessment period by investing in people across the full breadth of business and management disciplines. The School has promoted 24 research and teaching (R&T) staff over the REF period, and the unit has expanded its R&T faculty base to 137 staff (134.7 FTE, from 89 returned in REF 2014, including 15 new hires since 2018. 54% of staff returned to this unit are senior researchers, including 32% at full Professor level. The School has recruited teaching and learning academics (T&L) for the first time (including nine Professors of Practice), taking its total academic staff number to 189. Yet, with 76.5% staff on R&T or research contracts, NUBS retains a strong research focus. T&L staff may apply for contract change to an R&T track and receive support through allocated research time and financial support. This growth strategy has enabled NUBS to maintain and enhance the comprehensiveness and diversity of research and impact. The School is financially very stable, which allows NUBS to continually invest in its research capacity and support.

*Offering a dynamic, stimulating and supportive environment for research.*

Section 2 and 3 outlines how NUBS' research culture has embedded inclusivity, ambition, openness, fairness and respect, in line with UoN's values (<https://www.nottingham.ac.uk/strategy/values.aspx>) to enable everyone to maximise their individual and collective potential. NUBS has made important improvements to its Doctoral training programme over recent years, enhancing the quality of training, increasing the range of opportunities, and securing a higher number of prestigious scholarships and awards through various Doctoral Training Partnerships. The School has continued to provide tailored support to its early-career researchers (ECRs), in line with the University's certification in HR Excellence in Research and full commitment to the implementation of the Concordat to Support the Career Development of Researchers (see Institutional Statement section 3.1).

*Actively promoting the importance of interdisciplinarity and sharing good practice in the development and delivery of cross-disciplinary research.*

The School has consolidated its reputation for interdisciplinary research and a spirit of collaboration in line with the UoN strategy (see Institutional Statement 4.c). Researchers make active inputs to other disciplines through contributions to challenge-led, transdisciplinary models of the university (see Institutional Statement 2.1.a). For example, a group of seven researchers working in sustainable development with a focus on China contribute to a new submission for UoN to UoA 22, Anthropology and Development Studies. NUBS' origins in finance and business economics continue to yield collaboration and, therefore, seven researchers undertaking work in industrial economics, banking and behavioural economics within the School of Economics contribute to the Business and Management submission. NUBS provides an enabling environment for staff to develop interdisciplinary research and to promote the accessibility of their research findings (section 3). Researchers contributed 295 interdisciplinary outputs during the assessment period, and of the 337 outputs submitted for consideration, 72 (21%) are interdisciplinary (section 1.4).

## Unit-level environment template (REF5b)

*Generating and disseminating research which is academically excellent, and which is informed by and relevant to communities beyond the purely academic. Ensuring that researchers are fully informed of the evolving impact agenda and supported in responding to its requirements.*

The unit has submitted 336 outputs (total includes one double-weighted), as required, representing research produced by 155 people. Figure 1 shows the numbers of outputs submitted by gender and department for 137 researchers (309 outputs, the remaining 28 attributed to researchers who generated output during their employment at NUBS).

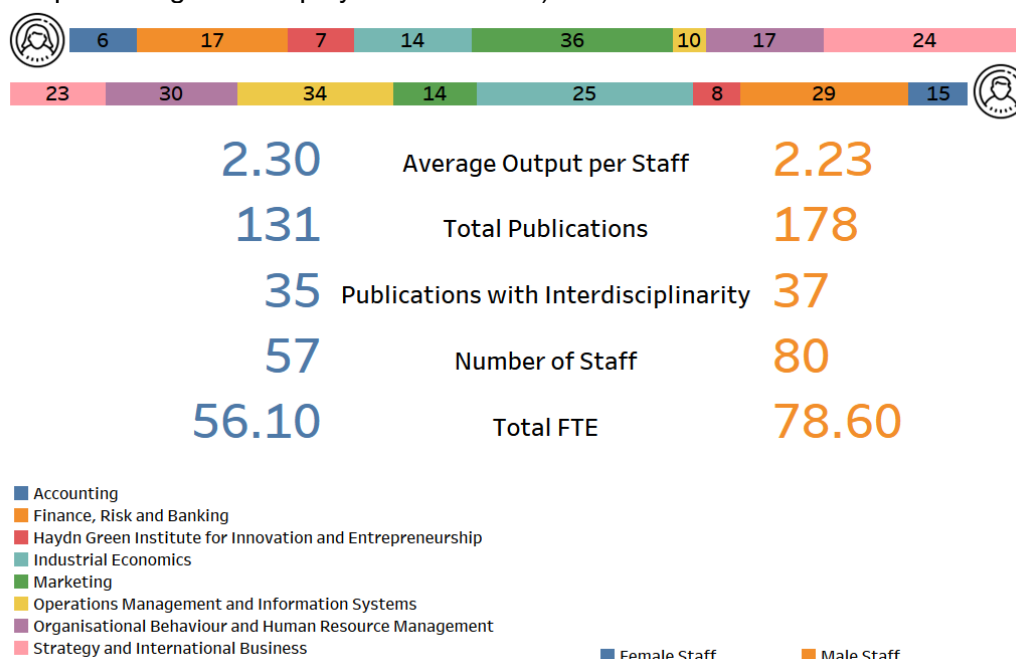


Figure 1: Composition of returned outputs by gender, interdisciplinary and department.

However, this represents a small proportion of the output produced during the assessment period, which comprises 1,233 items (see Figure 2, which also indicates 121 co-authored pieces amongst NUBS researchers). This does not include outputs produced by people who were employed but left during the period. NUBS makes major contributions to academic research in entrepreneurship, innovation, corporate responsibility and governance, management, marketing and consumer behaviour, operations, logistics and supply chain management, and tourism (see Figure 19, page 31).

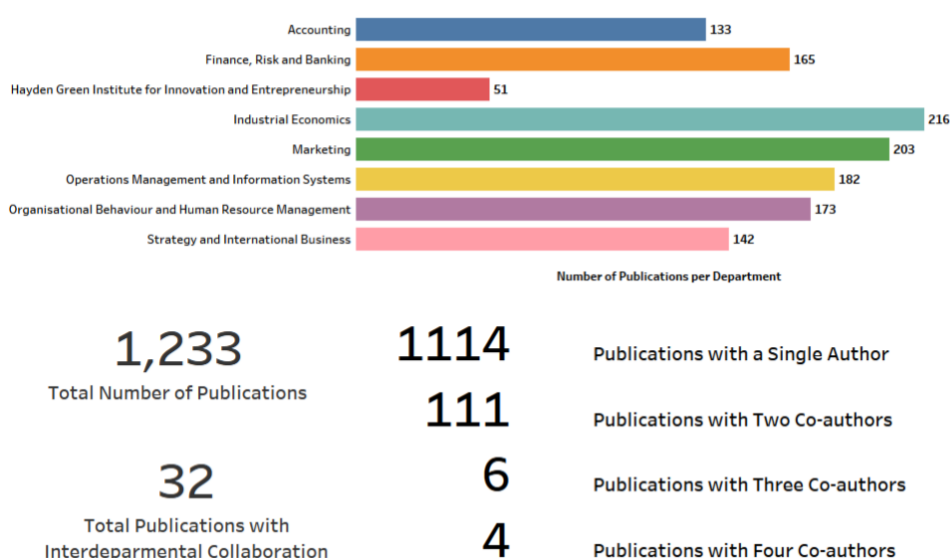


Figure 2: Total outputs produced by current researchers in NUBS

NUBS has continued to support the generation and dissemination of research through the most appropriate channels and fora. We are committed to principles of Open Research. 96% of submitted outputs are compliant with Open Access requirements, and authors have lodged eight items of open data.

In an era of emerging debate about adaptations required to mitigate future climate change, it is no longer acceptable to promote dissemination solely through international academic conferences. NUBS has provided academics with greater flexibility in deciding how best to utilise their research funding support, which can now be spent on data collection and research itself, including research assistants, in addition to conference attendance (to which it was previously limited). Over the REF period, the School has invested over £1.25m in research and conference funding (see section 3) and has increased the annual allowance for research development and conference funding to £3000 per person.

NUBS research strives for relevance to a wide range of stakeholders. Research administration was restructured to include 'Knowledge Exchange' during this accreditation period, with the aim of increasing the impact of the School's research (see section 3).

The unit submits nine Impact Case Studies:

1. Inspiring Science and Engineering Researchers: Entrepreneurial Career Development and Economic Impact from the YES! Programme (Professor Mosey, HGI)
2. Informing the Policy and Practice of Safer Hospital Discharge (Dr Bishop, Professor Waring, Organisational Behaviour/CHILL)
3. Neodemographics – Informing UN Sustainable Development Goals via “Big” Consumer Data and AI Techniques (Dr Goulding, Marketing/N/LAB)
4. Reducing the Risk of Labour Exploitation in High-Risk UK Sectors (Dr Trautrim, Professor Chesney, Rights Lab/OMIS)
5. Informing Policy Development to Promote Employee Well-being and Organisational Performance, in Europe and Beyond (Dr Jain, OB/HRM)
6. Improving Medicines Adherence in Chronic Illness (Professor Waring, Organisational Behaviour/CHILL)
7. Improving Governmental Responses to Modern Slavery Risk in Supply Chains (Dr Trautrim, Rights Lab/OMIS)
8. Advancing Trade Facilitation: Informing Policy, Developing Understanding and Facilitating International Trade (Dr Grainger, OMIS)
9. Reducing Food Waste and Food Insecurity Through Computational Social Science (Dr Harvey, Professor Smith, Marketing/N/LAB)

In addition to these specific cases, researchers across NUBS have been very active in ensuring their research has societal and economic impact. To enhance gender diversity in our impact activities, and to more effectively realise world-leading impact, in 2018 NUBS revised its impact strategy, appointed a full-time Impact Officer to support a more interventionist approach to impact development. This appointment, together with IAA funding, has nurtured and supported impact activity, which will also bear fruit for REF 2028. Section 2, 3 and 4 outlines how this strategy has made progress towards the development of a more diverse cohort of researchers poised to deliver transformative impact over the coming years.

### 1.3. NUBS' research and knowledge exchange strategy 2018-2021

The School's vision is “...to shape the future of responsible business and management in an increasingly inter-connected world”. Our goal is to conduct rigorous and relevant research that influences the discipline and practice of business and management. This is central to the School's current research strategy (2018-2021) which aims “to foster the realisation of **transformative, world class research and knowledge exchange that promotes innovative, responsible and sustainable approaches to global management, business and finance. This is achieved by a**

## Unit-level environment template (REF5b)

*commitment to developing and nurturing a research culture based on excellence, inclusion and diversity, and through support for **collaborative**, transdisciplinary research and a partnership approach...*

NUBS research is **transformative** in that it makes a positive contribution to management practices, policy and society, often in conjunction with the achievement of Sustainable Development Goals (SDGs). For example, research drawing on 'big' consumer and citizen data and innovations in statistical modelling applied in East Africa has contributed to perinatal mortality assessment in Zanzibar, transport infrastructure and CO<sub>2</sub> reduction in Tanzania. Research on organisational communication and collaboration strategies in healthcare management settings has underpinned National Institute for Health and Care Excellence (NICE) guidelines and improved safety in hospital patient discharge, regionally and nationally.

NUBS research is **responsible** where it tackles challenge-led social and environmental issues facing business and management nationally and internationally. Responsible management issues are central to the International Centre for Corporate Social Responsibility (ICCSR), where research has examined human rights and labour exploitation, sustainable finance and supply chains as well as corporate responsibility and governance. However, responsible business research extends across the business school community. For example, Dr Alex Trautrim has been supported through a 70% secondment (2018-22) to the UoN Rights Lab Beacon, enabling him to lead multinational research that has shaped private and public sector responses to the problem of modern slavery in supply chains.

NUBS research is **collaborative**, built on interdisciplinary partnerships. The School's strategy is based on aligning priorities with national and international funding opportunities, supporting engagement with the UoN ecosystem and leveraging our global footprint. NUBS researchers engage in cross-disciplinary projects that integrate innovative and responsible approaches in a wide range of contexts. For example, Dr Muthuri's multidisciplinary project to enable sustainable, small-scale artisanal mining in Kenya involves collaboration with local partners in industry and education. The project is funded by the GCRF (£217,000) to develop policy, create local strategies and build capacity through action workshops and an exhibition. Dr Muthuri was supported with study leave to lead this project. NUBS' impact strategy is based on building partnerships with industry, the public sector and other civil society stakeholders, engaging with interdisciplinary groups to ensure research makes a positive and sustained contribution to major challenges facing business, economy and society.

### 1.4. Unit structure

The School's expanded provision now comprises seven Departments and one Research Institute (Figure 3, dotted lines are for illustration purposes). Departments were reorganised in 2018 around cognate domains constituting research communities of discipline-based specialists. The previous Management Division was split to differentiate a growing Organisational Behaviour and Human Resource Management grouping with those working in Strategy and International Business research. Industrial Economics was divided to create a separate Finance, Risk and Banking department. Five Research Centres are now administratively organised within Departments, primarily relating to disciplinary areas, although staff may affiliate with Research Centres independently of their departmental role.

In addition, there are two geographically based informal groupings of researchers (China and Africa), working on development and sustainability management research in these regions. Staff are encouraged to contribute to UoN's interdisciplinary research ecosystem in the five 'Beacons of Excellence' and numerous Interdisciplinary Research Clusters. This revised structure allows for greater coherence amongst researchers but also provides the necessary flexibility to facilitate cross-disciplinary interaction and collaboration.

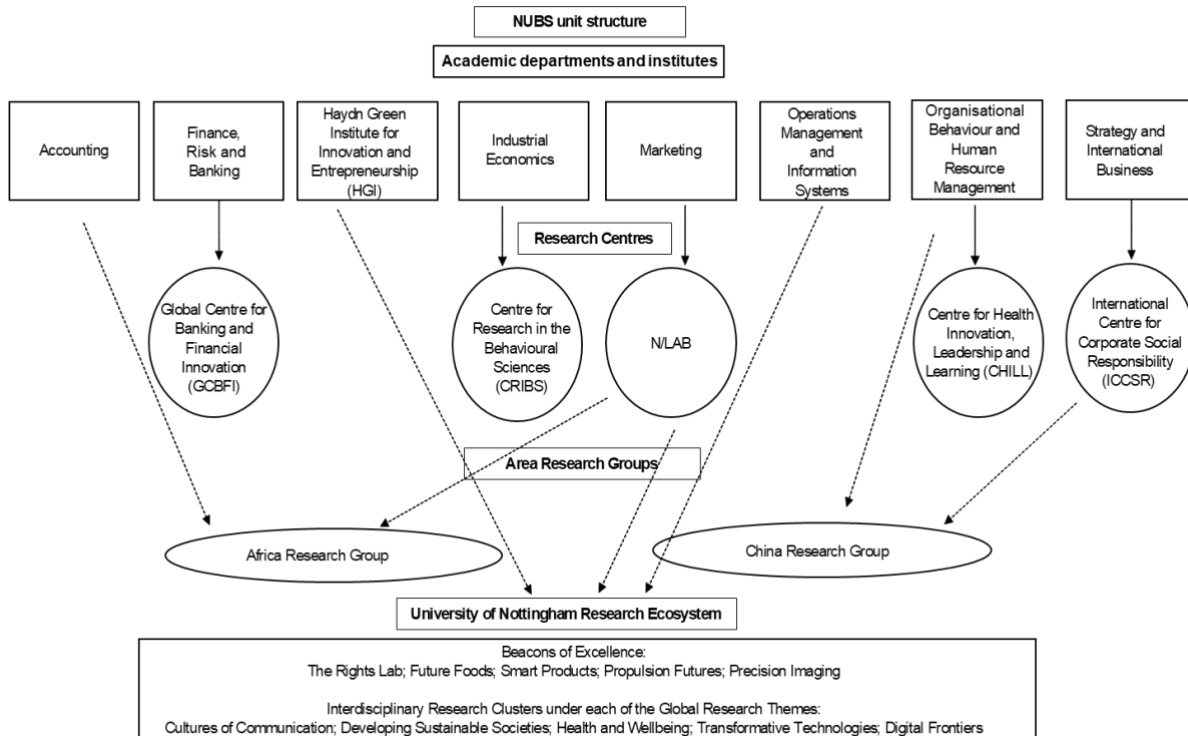


Figure 3: NUBS unit structure.

### 1.4.1. Accounting

- Leading research group working in corporate accountability, taxation and market-based accounting (see Figure 4).
- Produced influential work on corporate governance, corporate social responsibility and business ethics.

Research is largely organised around three themes: firstly, corporate governance and accountability, where research has focused on the drivers of good corporate governance in weak institutional settings (Professor Adegbite’s award winning paper based on Nigeria for example). Secondly, market-based accounting, for example managerial compensation, ownership and boards of directors. Thirdly, business law and taxation, including transfer pricing, tax treaties and tax avoidance, where, for example, research produced by Professor Frecknall-Hughes is shaping the tax narrative within accounting discourse, and has been cited in the Office of Tax Simplification report *Taxation and life events: simplifying tax for individuals*.

Significant achievements include Professor Adegbite’s research on ‘Africapitalism’ as co-investigator through the Tony Elemelu Foundation (£310,000), featured in the *Financial Times*, and Professor Frecknall-Hughes’ work as evaluator on the ‘Digital Tax Financial Capability’ project (£163,400). Frecknall-Hughes also produced a report on the tax implications of Scottish Independence or Further Devolution for the Institute of Chartered Accountants of Scotland and on the tax problems of older people, and until 2018 chaired the Tax Research Network, the U.K.’s leading multidisciplinary tax research organisation.

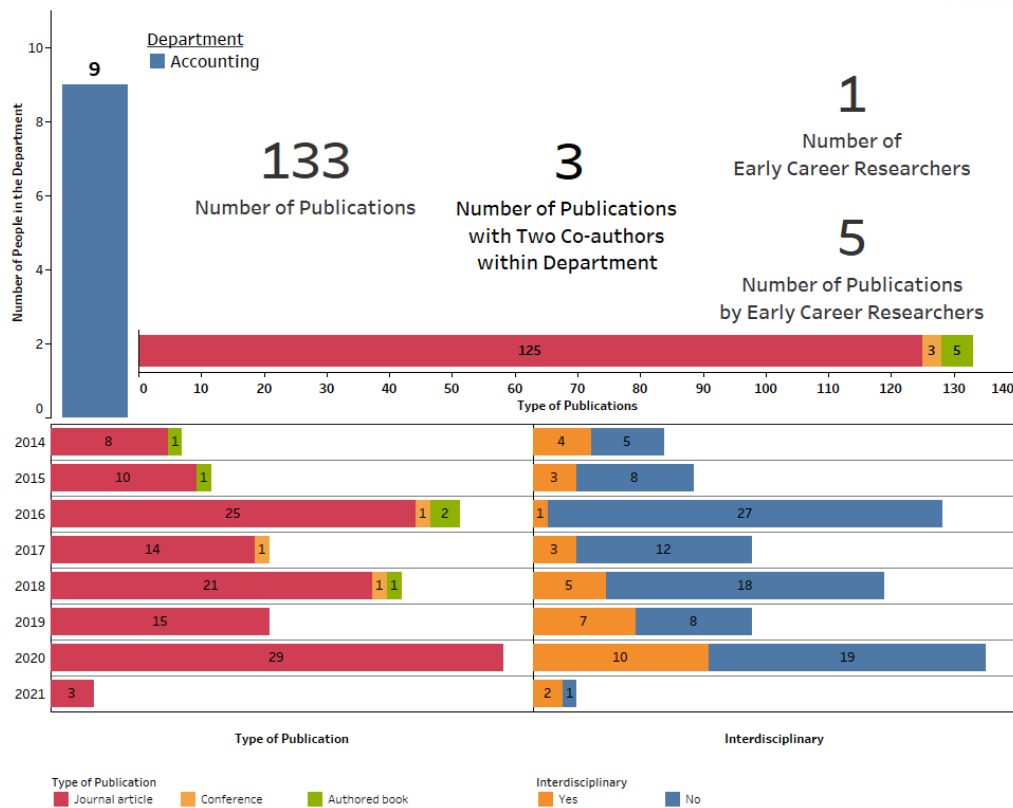


Figure 4: Outputs produced - Accounting.

1.4.2. Finance, Risk and Banking

- New Departmental grouping of researchers working in banking and financial innovation, including two members of the School of Economics (see Figure 5).
- Contributing to the emerging agendas around financial technology innovation.

Research is concentrated in the areas of banking, financial regulation, risk management and financial econometrics, with notable contributions on banking regulation and supervision, efficiency and productivity in banking, corporate governance, and financial econometrics. The team has strong links with central banks and policy-makers.

Significant contributions include Professor Banerji’s systemic study on the process and impact of financial market reforms in India funded by the International Growth Centre. Professor Duygun leads the ESRC IAA-funded UoN Fintech Research Network. She is also founding president of the International Finance and Banking Society (IFABS) and a leading researcher on banking, Fintech and Islamic finance. Professor Benos joined in 2019 from his previous position as a senior economist in the Markets Infrastructure Directorate at the Bank of England. His highly influential paper “Centralized Trading, Transparency and Interest Rate Swap Market Liquidity: Evidence from the Implementation of the Dodd-Frank Act” in the Journal of Financial and Quantitative Analysis has been cited in Congressional testimony in the United States, as well as by the Financial Stability Board, the European Securities and Markets Authority and the Bank of England.

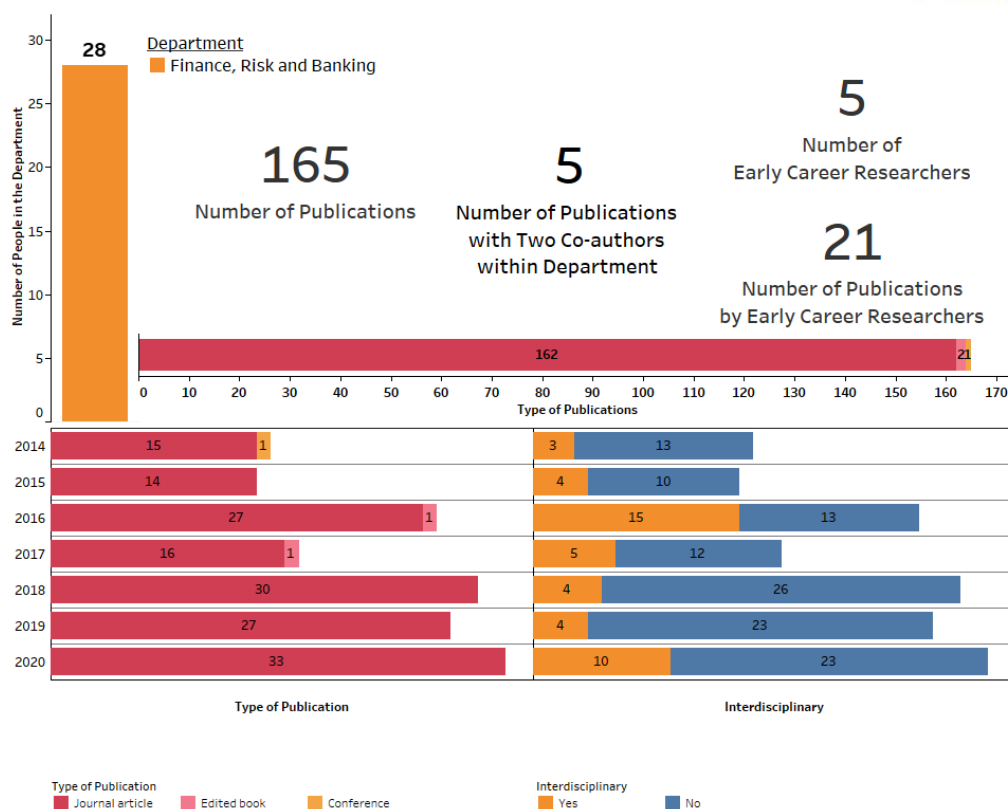


Figure 5: Outputs produced - FRB.

**Global Centre for Banking and Financial Innovation (GCBFI)**

The GCBFI (formerly the Centre for Risk, Banking and Financial Services) is a global research centre of excellence, established in November 2019, with links between NUBS’ campuses in China and Malaysia and the U.K. The Centre’s vision is to deliver long-term impact through engagement with private-sector and public-sector stakeholders with a global reach and an interdisciplinary approach in the areas of risk, banking and financial innovation. The Centre comprises more than 20 researchers who have led research in modelling banks, financial industries and markets, primarily related to Asian countries, including Indonesia, South Korea, Hong Kong and Vietnam (Professor Simper). However, the Centre nurtures emerging leaders in research on finance and financial innovation, game theory and behavioural finance (e.g. Drs Bitar, Barakat and Fiaschetti). The Centre has attracted collaborative Newton and BEIS funding (Professor Duygun and Professor Xu of Fudan University) in ‘Insurtech’ innovation (£64,000).

**1.4.3. The Haydn Green Institute for Innovation and Entrepreneurship (HGI)**

- World-leading centre of entrepreneurship education and research in entrepreneurship and innovation, comprising nine researchers (see Figure 6).
- Develops talent, employing Drs Carter, Lamb, O’Neill and Treanor after their PhDs with the Institute.

Significant achievements include research on developing entrepreneurial competences among STEMM ECRs to support career and economic development (see YES! impact case) with over 2,000 ECRs having participated and developing impact-based student entrepreneurship across faculties to solve societal problems. Professor Marlow’s research on empowering micro-entrepreneurship amongst Middle Eastern women refugees has also been funded by the ESRC (£78,000 from 2016-2019). Notable emerging impactful research includes Dr Treanor’s work with the Women’s Enterprise Policy Group.



## Unit-level environment template (REF5b)

Important contributions to policy and practice have been made by Professor Marlow as a Parliamentary Committee member, and a new appointee, Dr Wapshott, as a panellist on the Better Regulation Executive. Dr Treanor is a board member of the Institute for Small Business and Entrepreneurship, a learned society.

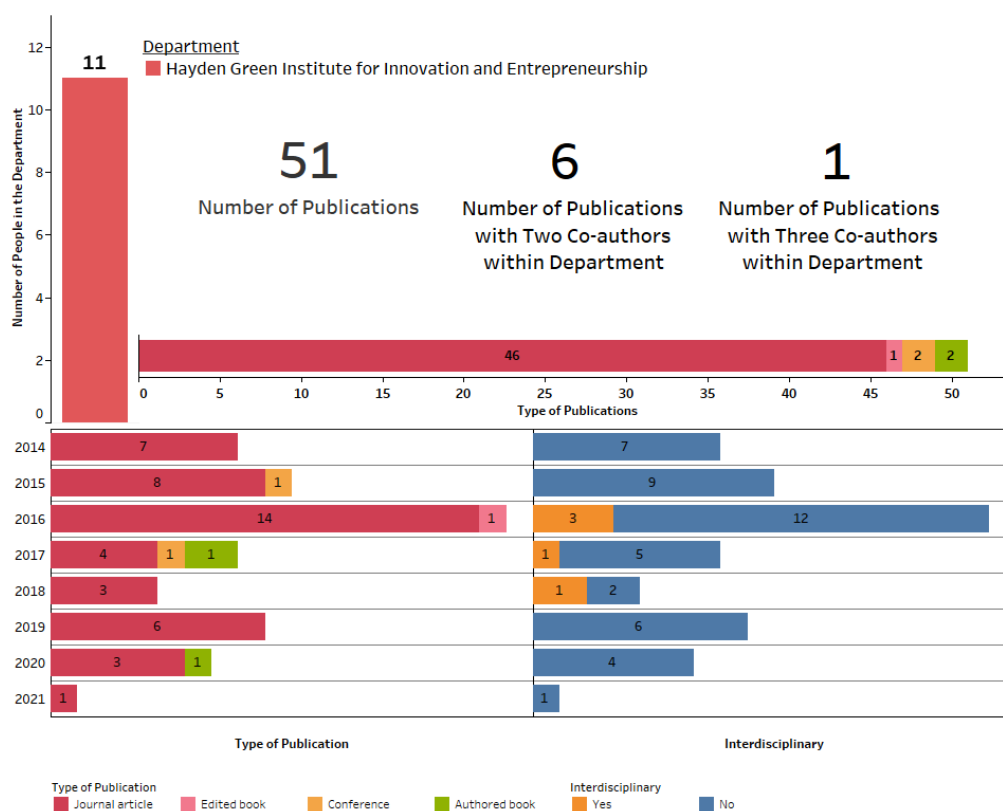


Figure 6: Outputs produced - HGI.

### 1.4.4. Industrial Economics

- One of the largest groups of researchers in industrial, labour and financial economics, including five staff from the School of Economics (see Figure 7).
- Internationally important research on development and labour economics in the developing world has influenced policy and practice.

The Industrial Economics group comprises a mix of leading economists and early- to mid-career researchers working largely in the following sub-disciplines: (1) Industrial economics; (2) Development (including Labour) economics; (3) Financial or business economics. There is a strong culture of collaboration in research outputs, grant capture and outreach activities between senior and junior colleagues. This has yielded high-quality output in areas such as competition and innovation (Professor Mukherjee, Dr Jiang and Dr Basak) and development economics (Professor Song, Dr Zhang, Dr Gaggero and Dr Liu). The Department is home to the China Research Group, an international community of scholars undertaking evidence-based research on sustainable development, Chinese business and economics.

Significant interdisciplinary collaboration includes Professor Song's ESRC project on local government, economic growth and human development undertaken in conjunction with the Department of Economics, Oxford University; the Centre for the Study of African Economies, Oxford University; the Department of Global Health and Population at the Harvard, Peking and Renmin Universities; and the School of Economics, Makerere University, Uganda (£700,000). The project has already generated early policy impacts, which include the adjustment of Uganda's

## Unit-level environment template (REF5b)

policy on poverty alleviation and advice to China's National Health Commission on the on-going healthcare reform in China.

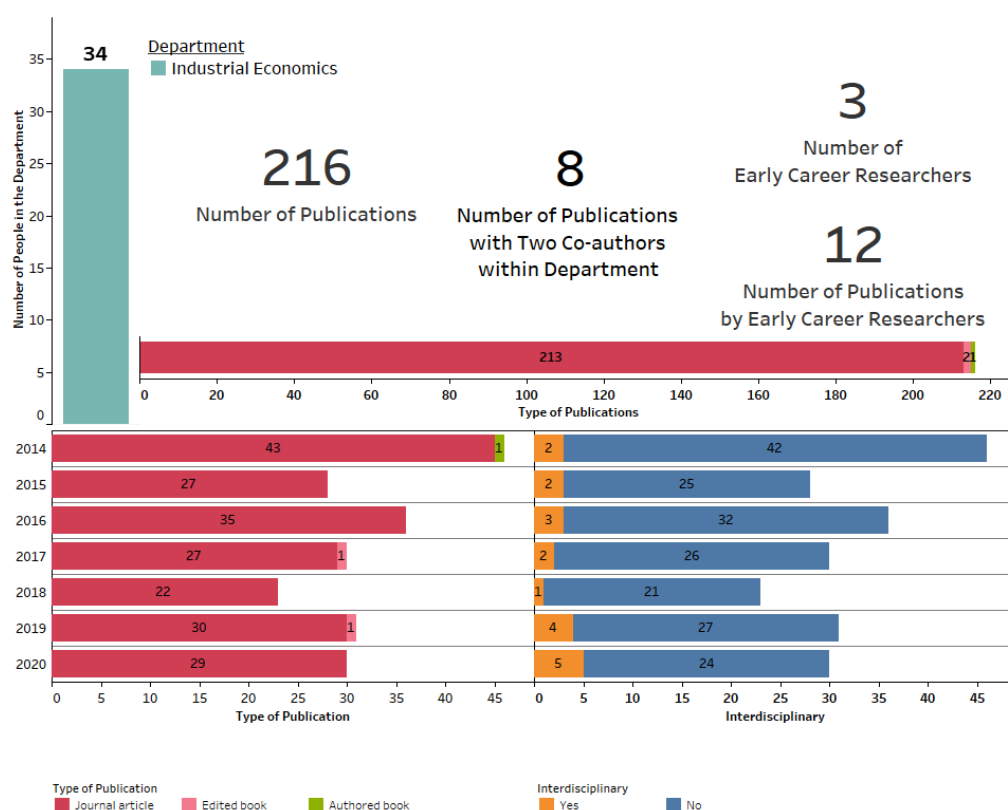


Figure 7: Outputs produced - Industrial Economics.

### Centre for Research in the Behavioural Sciences (CRIBS)

CRIBS connects researchers who share an interest in understanding behavioural issues in management, economics, and business. The newly appointed director is Professor Kelsey (June 2020). Areas of expertise include, inter alia, risk and uncertainty, strategic decision-making and cultural influences on business behaviour. The Centre draws its expertise from different disciplines at UoN's three campuses in the U.K., China and Malaysia. This international reach provides rich opportunities to study business phenomena and collect data in different cultural contexts.

CRIBS hosts a fully supported lab to conduct experimental studies. It is jointly managed with the internationally renowned CeDex centre for decision research and experimental economics in the School of Economics (two members contribute to this return, Professors Sefton and Seidmann). The management boards have representation from each Centre and researchers collaborate on research grants and outputs. The CRIBS lab is run on a commercial basis and is staffed by a lab manager, co-funded by NUBS and the School of Economics.

#### 1.4.5. Marketing

- Renowned and interdisciplinary group of researchers working in analytics, experience, innovation and insights (see Figure 8).
- Research has impacted service digitisation in health, policy to embed innovation in SMEs and transport and tourism policy for people with vision impairment.

The Marketing Department demonstrates research excellence across four clusters: analytics, experience, innovation and insights. The *analytics* cluster is championed by the N/LAB, detailed below. The *experience* cluster includes work in social and accessible tourism. Professor Rickly has

**Unit-level environment template (REF5b)**

recently received several ESRC Impact Accelerator funding awards to support research with Guide Dogs for the Blind, which has uncovered systemic barriers to transport accessibility for people with vision impairment, informing Guide Dogs’ training programmes and awareness campaign. The *innovation* cluster focuses on research with SMEs. Dr Toth’s research on digital innovation has led to a partnership with Relate Nottinghamshire to incorporate digital innovation into its counselling services in response to Covid-19 demand, with funding from DEAS+ (Digitally Enhanced Service) Network and ESRC Impact funding of £20,000. The *insights* cluster is exemplified by Professor Hibbert’s work in the transformative service research field. This research involves collaboration with the UoN’s Medical School, School of Biosciences and School of Physics and Astronomy, and the Population Health Research Institute, Kerala, India, in a project funded by the Global Challenges Research Fund (GCRF) (£248,321).

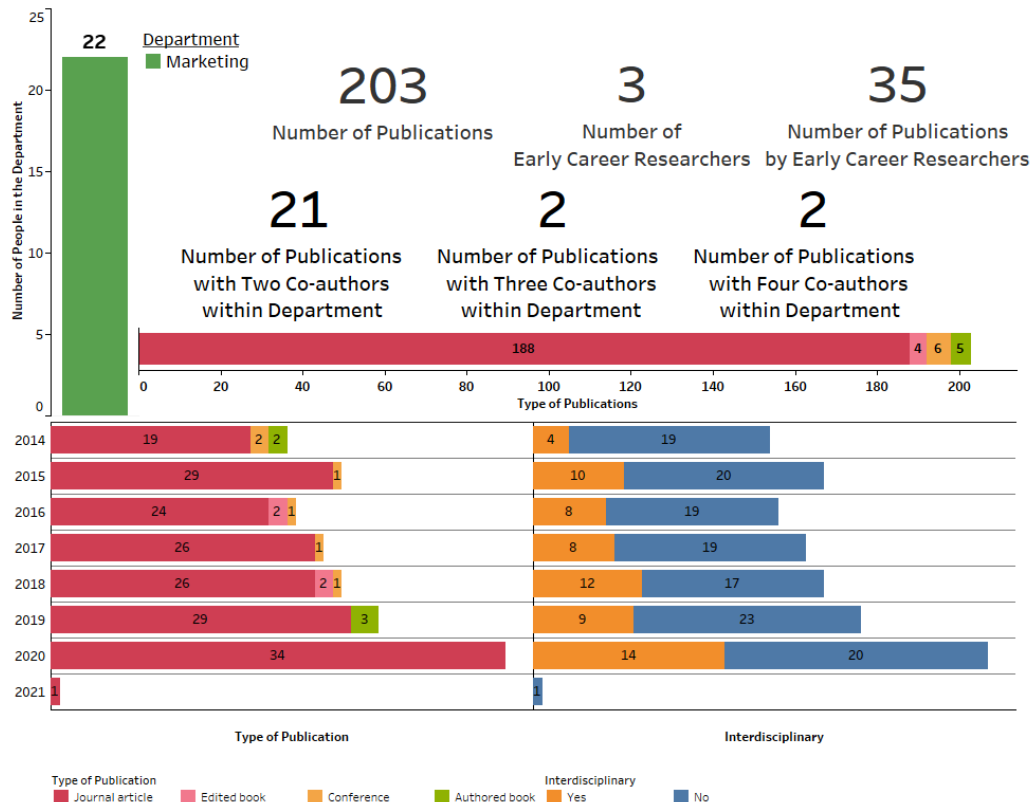


Figure 8: Outputs produced - Marketing.

**N/LAB – computational consumer and citizen research**

The N/LAB is a new, unique, cross-disciplinary data-driven analytics research centre established in 2016 by Professor Andrew Smith following a major EPSRC/ESRC project. NUBS supported Smith to leverage substantial university investment in people and infrastructure. N/LAB has unprecedented access to transactional and behavioural data through collaboration with Tesco, Olio, IPSOS, Walgreen Boots Alliance, Co-Op, 7-11 and Tigo Mobile (among others). Research is strongly grounded within social science, amalgamated with expertise in data science, made possible by the unique combination of skills within the team and an outward-facing approach to collaboration with impressive international reach. This highly interdisciplinary team now embraces 5 permanent researchers, representing computer science, geospatial science, organisation studies and consumer behaviour (1 ECR, 2 Assistant Professors, 1 Associate Professor and 1 Professor), 7 contract researchers and 7 PhD candidates.

The N/LAB has achieved major successes in grant acquisition with team members involved as Co-Investigators on major interdisciplinary projects (see section 3.1), delivering transformative impact exemplified by the two Impact Cases submitted.

Unit-level environment template (REF5b)

1.4.6. Operations Management and Information Systems

- One of the largest U.K. groups of specialists leading the field of innovation in logistics and supply chain management (see Figure 9).
- Influencing policy and practice on trade facilitation, modern slavery and port resilience.

Research in the department sits in two related camps. The first involves mathematical modelling and computational simulation aimed at improving decision-making and system optimisation. The second supplements the modelling research by building qualitative understanding of these areas. Researchers have a wide range of research interests, but are particularly well known for work on sustainable, ethical supply, mass customisation, modelling and simulation, collaborative design and new product innovation, optimisation and scheduling.

Professor McCarthy has been a Co-Investigator on a project (with £1 million in funding from the EPSRC) on modelling risk, resilience and robustness of supply chains, and McCarthy and Professor Pawar have been Co-Investigators on a project (with £2.3 million in funding from the EPSRC) on cloud manufacturing in collaboration with the UoN's Faculty of Engineering. The Department participates in interdisciplinary Rights Lab Beacon research on modern slavery. In addition, it plays a central role in the newly established International Academy of Marine Economy & Technology (IAMET) at UoN's campus in Ningbo, China. The Department has strong partnerships with research users in business and industry, including Astra Zeneca, BAE Systems, Bombardier, Experian, Rolls-Royce, Motorola, SAP, Bosch and the U.K. government's Department for Transport.

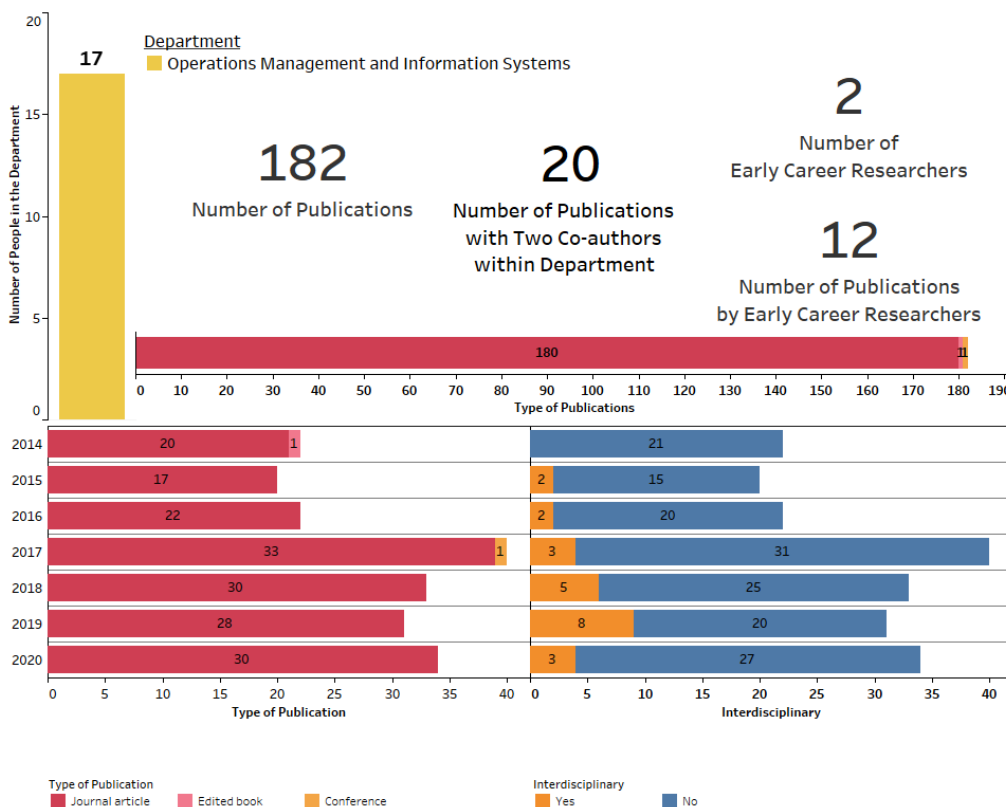


Figure 9: Outputs produced - OMIS.

1.4.7. Organisational Behaviour and Human Resource Management

- Leading group of researchers on the sociology of work and healthcare management (see Figure 10).
- Research has had important impacts on workplace health and safety, safer patient discharge and prescribing practices.

Researchers contribute international leadership in impactful research areas including the sociology of service work and public policy; gender, working life and careers; international business and human resource management (HRM), particularly in an African context. Research is characterised by a distinctive, critical, interdisciplinary outlook, on healthcare policy/organisation, workplace discrimination/intersectionality, organisational justice/ethics, power/control and migration/collective organising.

Notable is Korczynski’s highly cited original research on the social history of music in the workplace. Members of the Department contribute to research and policy-making in workplace health and wellbeing. Dr Jain is a Member of the International Standardization Organization Technical Committee and of the Planning Committee of the World Health Organization. The Department is enriched by the active contribution of post-graduate researchers (PGRs) involved in research. Professor Kamoche is Director of the Africa Research Group, an international interdisciplinary community of scholars interested in managerial, socio-economic and entrepreneurial issues involving African countries.

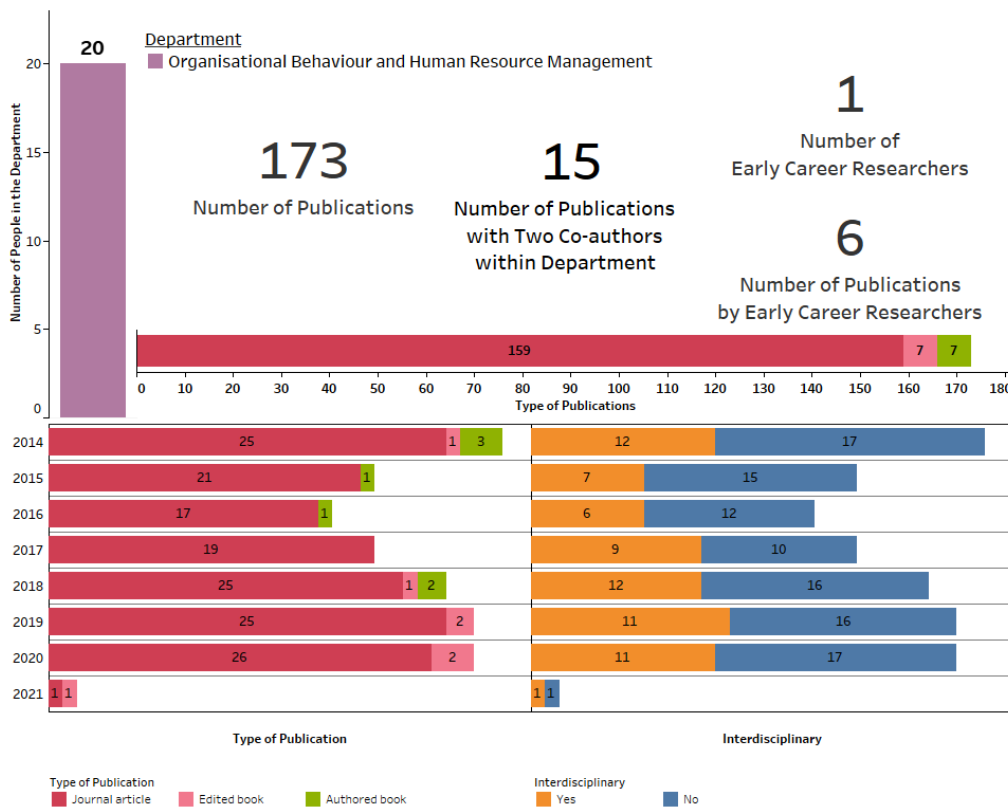


Figure 10: Outputs produced - OB/HRM.

**The Centre for Health Innovation, Leadership and Learning (CHILL)**

CHILL is a community of applied social science researchers, studying real-world problems in the management of healthcare, while retaining a theoretically rigorous approach. Priority areas include: quality and safety; commissioning and integration; and innovation and change. Collaboration and knowledge exchange are thus central to the ethos of CHILL, reflected in the strong interdisciplinary relationships developed across departments such as medicine, nursing, engineering and pharmacy, as well as with regional (e.g. Nottingham University Hospitals NHS Trust), national (e.g. the Health Foundation) and international healthcare organisations (e.g. University of Sao Paulo). CHILL led the implementation research theme within the National Institute for Health Research (NIHR) East Midlands Collaboration for Leadership in Applied Health Research and Care (CLARHC, £12 million 2014-2019); academics are currently Principal Investigators on the two implementation themes within the East Midlands Applied Research Centre (ARC, £9 million, 2019-2024).

CHILL has a large and vibrant community of 17 PhD researchers, most externally funded and is currently host to an ESRC Postdoctoral Fellow. In addition to the Impact Case studies CHILL has contributed, researchers have advised various NHS organisations, including NHS Improvement and NHS Health Education England. Timmons is Chair of the NHS East Midlands Advisory Committee on Clinical Excellence Awards, which allocates £4 million annually.

**1.4.8. Strategy and International Business**

- Leading group of researchers in the fields of strategy and international business (see Figure 11).
- Research has been influential in the areas of corporate social responsibility and management research policy.

Research in the group covers core areas of strategy and international business with particular emphasis on; international business strategy including internationalisation, entry modes, ownership, FDI and Chinese economic history. Secondly, strategy and strategic leadership with particular emphasis on mergers and acquisitions, alliances, corporate restructuring, business turnarounds and the interface between strategy and business history. Finally, strategy in the public sector and public policy, with a particular focus on the NHS and the management of higher education, including the development of business schools.

Professor Starkey was recently awarded a Lifetime Achievement Award from the British Academy of Management (BAM). Professor Wang's work on internationalisation was ranked 11th in the world in research on multinational firms from emerging markets by the Journal of International Management (2016).

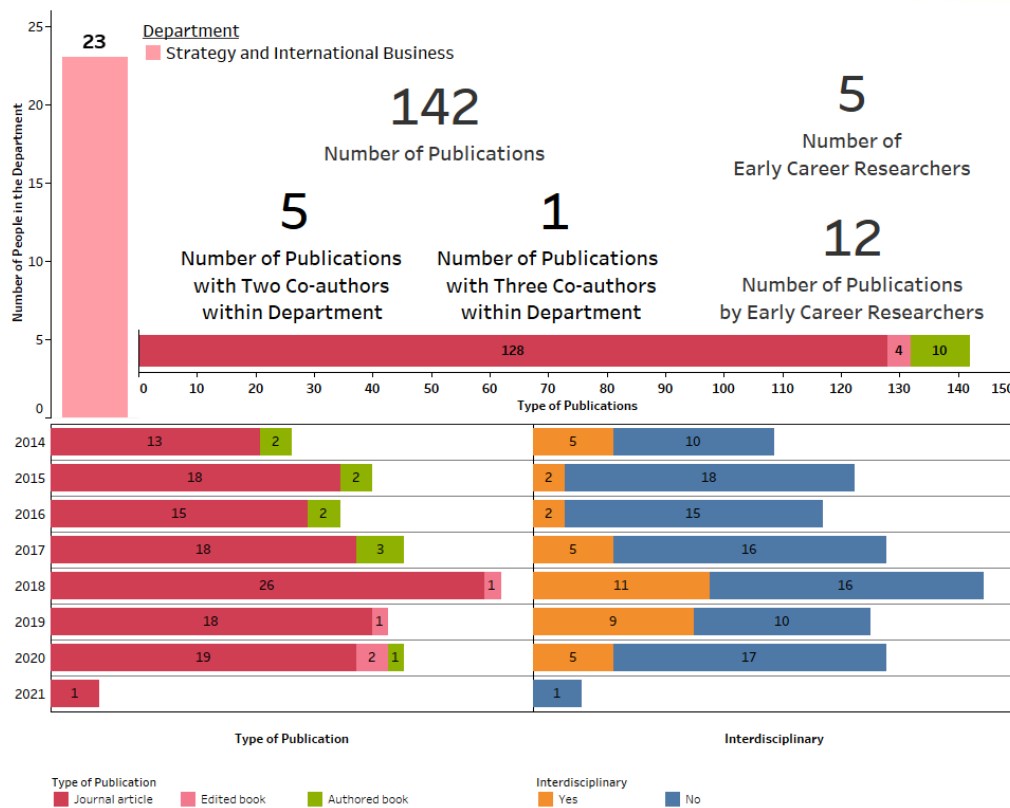


Figure 11: Outputs produced - SIB.

**The International Centre for Corporate Social Responsibility (ICCSR)**

The ICCSR is a globally influential centre for scholarship in responsible business and society, with a strong and nurturing research environment for Doctoral researcher supervision, ECR mentoring, and an established research seminar series. The Centre, which is one of the largest of its kind in the U.K. and globally, has a strong focus on research collaborations between internal and external networks, such as the Rights Lab and Future Foods Beacons of Excellence as well as its affiliated tri-campus centres.

Professor Caruana took over the directorship in 2018, and other new appointments include ECR Dr Ingram at Assistant Professor, following her PhD with the Centre. Professor Keleman joined in 2019, bringing her international reputation in research on cultural animation to address market-based exclusion, food poverty and disaster reconstruction.

**1.5. NUBS research and impact strategy 2021-2028**

The School has developed the following strategic ambitions:

- a. Support the attainment of transformative research in responsible business and management, by empowering researchers through our policies, reward systems, internal support and internal communications for Research and Knowledge Exchange (RKE). NUBS has developed a new three-year research strategy cycle (current version 2018-2021). A new post of Deputy Research Director (Prof Kim Tan) was created in 2019 and the role profile of the Departmental Research Director was redesigned to enhance and direct research and impact leadership in the School.
- b. Increase the diversity of sources of research grant income, the overall value of research grants obtained, and the number of grant applications submitted, across all job levels. NUBS has created a competitive ‘Strategic Grant Capture Fund’ (budget £30,000 p.a.)

**Unit-level environment template (REF5b)**

- which will further support stakeholder engagement and collaboration with businesses and policy.
- c. Continue to support a culture of collaborative, internationally focused interdisciplinary research and knowledge exchange that contributes to local, national priorities and global sustainability challenges. Enhance engagement further with the University's research ecosystem, especially its Beacons of Excellence, GRTs and IRCs (Figure 2), which drive opportunities for translational, interdisciplinary research and impact.
  - d. Maintain and enhance a research environment based on excellence through a supportive, collegial and developmental culture; instil shared values, provide clear leadership and integrate Equality, Diversity and Inclusivity (EDI) in alignment with the UoN strategy set out in section 3.5 of the Institutional Statement.
  - e. Strengthen capacity for PGR supervision and enhance the attractiveness of NUBS as a high-quality environment for PhD studies; increase support for ECRs careers and research leadership; recognise, celebrate and reward success.
  - f. Implement the Concordat on Open Research Data, DORA and Plan S; widely promote Open Access and Open Research/Data; ensure research integrity is embedded into all policies and strategic decisions. This is to be achieved by ensuring representation on the Research Directorate Committee, at whose meetings there will be a standing item on Ethics and Integrity.

Initially, we will determine the impact of the pandemic on research environment, informed by the UoN Recovery Group, the research planning process and monitoring of PGR progress. The UoN Institutional Covid-19 Annex statement outlines the impact of the pandemic on UoN as well as funding extensions provided to PGRs. The School will seek to target support to those most affected, specifically focusing on EDI.

<b>2. People</b>
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**2.1. Strategy and development**

Recruiting, developing and retaining excellent researchers is central to our research strategy. Since July 2018, NUBS has recruited 15 new staff (i.e., additional to replacement staff), including, three Professors (among them new Dean, Professor Angwin), four Associate Professors and eight Assistant Professors adding research strength to seven of the School's Departments.

Of these, seven were women, eight had BAME backgrounds and five were ECRs. Our commitment to equality of opportunity is embedded in UoN's recruitment and staff development policies and processes (see Institutional Statement 3.1.). At School level, all staff benefit from the same conditions and are allocated equal workloads for research. There are also allowances against the teaching workload for those staff who have administrative responsibilities. These provisions are made as part of the School's commitment to producing a context of equality and support for all research-active staff at any stage of their career. NUBS has resourced and implemented an EDI committee, with RKE representation (and cross-representation into Research Directorate and the REF Task Group), to ensure best practice in supporting staff and that EDI perspectives are considered in every aspect of research strategy. The School has been working towards Athena Swan recognition over recent years, leading to Bronze award achieved in 2020.

All research and teaching (R&T) staff are employed on permanent contracts (100% of 137 FTE). Of R&T staff employed on the REF census date and returned to this unit, 32.1% are Professors, 21.9% Associate Professors and 46.0% assistant professors (see Figure 12).



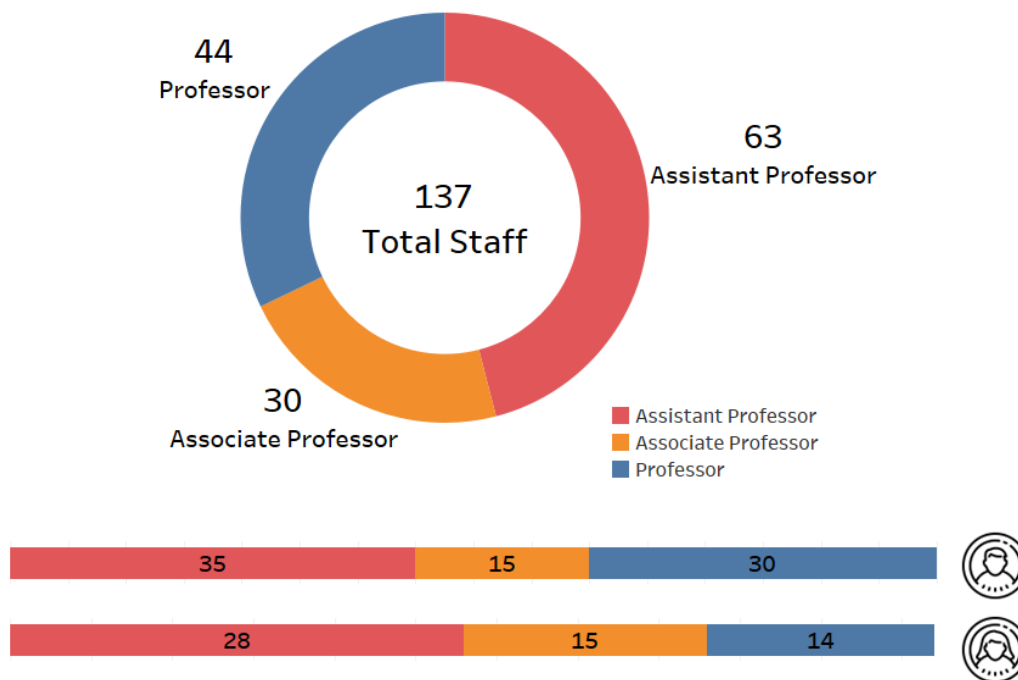


Figure 12: R&T staff by gender and level.

In terms of EDI, 41.6% of R&T staff are women, 3.6% identify as having a disability, and 35% identify as coming from a BAME background. Overall, the proportion of women at professor level is lower, at 31.8%, but equal at Associate Professor level (see Figure 12, which provides numbers of people). Of the 48 staff from BAME backgrounds, 25% are Professors, 33% are Associate Professors and 43% Assistant Professors.

Of those that declared, five people identified as having some form of disability. Regarding intersectionality for women and BAME, the proportion is 13.9%, but the majority in this group are at Assistant or Associate level, with only one Professor. While these figures compare very favourably with the top 100 European business schools, and already exceeds UoNs EDI strategic targets for the future (see Institutional Statement section 2.5.), NUBS recognises further work is needed and (as UoN generally) is committed to continued improvement in our policies and processes for EDI (Institutional Statement 3.5.).

Training is essential to high standards in research. The School has a long-standing commitment to the support and development of staff at all stages of their career. NUBS implements the principles of the Concordat to Support the Career Development of Researchers, part of an integrated approach promoted by UoN (Institutional Statement section 3.1-3.3). The School’s approach is to complement the service offered by UoN’s central department and to offer bespoke training based on people’s needs.

Our professional practice portfolio coordinates and integrates individual and collective aspirations and provides appropriate training for people positioned differently in a variety of career trajectories. The School organises a professional practice team that offers a wide range of training opportunities to academics at all levels. Our training is structured in terms of ‘getting in’, ‘getting on’, and ‘getting up’, citizenship and well-being. It is recognised that different colleagues will engage with professional development in different ways. Two examples of these alternatives include an early career programme designed specifically for postdoctoral researchers and assistant professors, and an EDI-focused workshop on navigating the promotion process.

Staff are kept up to date with training opportunities at University, Faculty and School levels via emails and targeted, personalised encouragement from line managers and mentors. Additionally, training for research is an integral part of the annual Personal Research Planning process. Staff wishing to work flexibly and/or remotely, take sickness absence, maternity leave, parental support

## Unit-level environment template (REF5b)

(including paternity leave), special leave to deal with unplanned and urgent domestic personal/family circumstances, and retirement are all supported by institutional policies. These are being currently reviewed considering specific issues arising from the Covid-19 pandemic.

### 2.2. Promotion, development and mentoring

NUBS' staff development strategy is aligned with UoN's competency framework as detailed in the Institutional Statement (Section 3.1). Academic R&T staff are reviewed by a member of the School's professoriate, and research only staff are reviewed by their line manager. Appraisers and appraisees meet (using a framework of goals according to academic level and role) to discuss progress towards goal achievement and ongoing professional development. NUBS's Athena Swan preparatory research found that men are more likely than women to seek professorial positions, and that women are more satisfied with their current position. As a result, we have sought to ensure that appraisal processes are free from unconscious bias, and that leadership positions are attractive to all potential role-holders. Of the nine Departmental Research Directors in the School (in one department, HGI, the role is shared), five are women. During the assessment period, NUBS has promoted 24 R&T staff (10 women, 14 men) to Associate or Professor. Of the nine promoted to professorial level, four were women. These appointments were all after 2016, which indicates the positive trajectory resulting from the School's proactive EDI strategies, policies and processes.

Supplementing the appraisal process, we introduced Personal Research Planning (PRP) in 2016, designed to help colleagues plan their research and identify the support they will need. PRP is a developmental tool to support individuals' research priorities and identify resources required to help develop researchers' careers, and in 2019/20 it was redesigned to embrace a broader focus on grant capture and impact, as well as to incorporate longer-term goals, recognising the timeframes and resources required to achieve truly impactful research.

The School promotes a culture of continuous personal learning throughout a researcher's career. Hence, training is central to the development of our staff. The initiatives and support for the career progression of academic staff include:

1. UoN has established programmes for career and leadership development via its Leadership and Management Academy, and NUBS as well as the Faculty of Social Sciences offer promotion workshops targeted at staff at different levels, bespoke for specific cohorts and including women-only provision, and EDI strategies. For example, in spring 2018 we ran a promotion workshop specifically for BAME colleagues. Over the REF period, NUBS has organised 14 Professional Practice events oriented towards research. Topics have included; impact (optimising research outcomes); grant writing; supervising PhD students; responding to reviewer comments; getting published in top-ranked journals; writing (led by a published novelist); REF; and pathways to publication. Many of these events are attended by and specifically target ECRs. Four NUBS colleagues took part in the Nottingham Research Leaders Programme (2013-2020), including the current Associate Dean for RKE and Deputy Research Director.
2. In 2017, we launched a programme for ECRs that consisted of four 4-hour workshops over a year. The programme includes material on navigating academic careers, building a research portfolio, writing academic papers and making the most of conferences. Overall, ECRs training needs are met through a combination of initiatives led by the University, School or external bodies (e.g. the ESRC). Although participation data were not systematically collected throughout the REF period, women were well-represented proportionately where records were kept in later years.
3. iShare paper writing workshops provide an opportunity for colleagues to receive friendly and informal feedback from peers, and to give something back by helping others develop their work.
4. Other forms of research support include a visiting scholar scheme, conference and research development fund, study leave programme, extensive guidance and support for funding bids, and Departmental research seminar series (see section 3).

Recognising that research grant income was concentrated amongst a small number of high-performing male professors in a few subject areas, the School devised and trialled a bespoke training and development programme in 2019 called 'Advance: Business Research Fellowship Scheme'. This competitive scheme attracted eight mid-career academics (five women). Consisting of high-level workshops, tailored, individual mentoring and research support, and additional funding, the programme was due to be completed in June 2020 with a writing retreat, which had to be cancelled due to Covid-19 restrictions.

### ***Mentoring***

NUBS operates a mentoring scheme for all new academic staff, other staff if desired, and in instances where research performance indicates that support is required. Mentoring is an important vehicle for colleagues' socialisation within NUBS, helping them to develop a sense of belonging, to establish professional and personal networks, and develop a sense of how their careers might develop within the School. Beyond NUBS' provision, mentoring can also be accessed through the UoN Leadership and Management Academy.

The School recognises that mentoring can be beneficial in a range of ways, from enabling the most talented colleagues to achieve their ambitious aspirations, to supporting colleagues who need an extra boost. For those staff who are under-performing in research contribution, NUBS introduced the Personal Research Enhancement Plan (PREP) programme. This is a structured mentoring programme designed to lead to a step change in performance through targeted support.

### **2.3. Postgraduate Research**

PhD and postdoctoral researchers (PGRs) are central to the achievement of NUBS' research culture and strategy. During the assessment period, 191 PGRs were awarded their doctorate degree. NUBS provides a supportive interdisciplinary, multidisciplinary and specialist research training environment for doctoral students. The programmes attract high-quality applicants from leading universities, including our own postgraduates many of whom have work experience in the government, business and charity sectors. Entry is highly competitive: on average we receive over 14 applications for every enrolment. Our PGRs have diverse academic backgrounds, ranging from business and management, psychology and geography to maths, physics and computer science. Working towards EDI is central in our work. Of the 191 PGRs awarded their degrees during the REF period, 49.23% were women (50.76% men); 53.77% identified as coming from a non-white background; 5.5% identified as having some form of disability; and 5.65% identified with a Bisexual/Gay sexual orientation.

Many NUBS PGRs received funding through competitive scholarship schemes, including UoN Vice-Chancellor Research Excellence Scholarships, ESRC and Horizon Centre for Doctoral Training (CDT) studentships. NUBS is part of the ESRC's Midlands Graduate School Doctoral Training Partnership (DTP), which is one of the 14 DTPs nationally. NUBS plays a leading role in this partnership. Professor Timmons is Head of Training provision for the Nottingham DTC and so leads on the day-to-day academic running and management of the DTC research training. In 2019, Professor Korczynski was appointed Director of the DTC and Deputy Director of the DTP. During the assessment period, nine studentships were awarded to PGRs at NUBS with one so far achieving a doctoral degree award. Three current ESRC studentships are collaborative, where industry partners include charities, companies and government departments (Family Holiday Association, Smith-Nephew, NHS East Midlands Patient Safety Collaborative, East Midlands Collaboration for Leadership in Applied Health Research and Care, Health Foundation).

NUBS is also part of the Horizon Centre for Doctoral Training (Professor Smith Co-Investigator – see section 3), which is supported by a multimillion-pound investment from UKRI, UoN and over 40 industry partners and wider stakeholders, including Digital Catapult and Transport Systems Catapult and British Geological Survey. These strong collaborative links provide opportunities for

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our PGRs to engage with external partners in various activities such as fieldwork, placements and dissemination of research outputs to non-academic audiences.

The NUBS doctoral scholarships scheme represents a significant internal strategic investment, amounting to approximately £350,000 for a single cohort. The scheme aims to attract the best trainee researchers to work on cutting-edge research projects for which academic supervisory teams compete to win. We actively encourage inter-disciplinary projects and/or projects where ECRs are part of an experienced supervision team. Currently, nine ECRs are involved in 17 supervisory teams (on three of the teams as first supervisor, on 12 as second supervisor and on two as third supervisor).

Our doctoral researchers are an integral part of the vibrant research community at NUBS. They actively participate in research seminar series both as audience members and as presenters. The annual NUBS doctoral conferences, which are organised by students and academics, provide the opportunity for PGRs to present their work and gain feedback from academics and editors of leading journals. Doctoral researchers receive a generous individual research allowance (in total £3,000 during the period of study) to fund research activities such as presenting at leading conferences and colloquia in the U.K. and abroad. They frequently represent NUBS at important conferences (including; British Academy of Management, Production and Operations Management Society (POMS), Academy of Marketing as well as provide strong representation at Midland Doctoral Conferences). During the pandemic NUBS planned PhD/ECA Webinars to replace conference engagement for 2020. We encourage our PGRs to share their conference experience by writing blogposts on the PhD website (<https://www.nottingham.ac.uk/business/programmes/phd/news-and-events.aspx>). The doctoral society, run by PGRs, receives budget to organise events specifically designed to meet their evolving research needs. We also provide excellent pastoral care through a peer-mentoring scheme.

Each PGR has at least two supervisors with expertise in the relevant research area. We encourage interdisciplinary and multidisciplinary supervision within and between schools and across DTPs. Examples include co-supervision with the School of Medicine (Professor Hibbert) and School of Health Sciences (Professor Timmons). Supervisors attend training workshops for supervising and examining, which are organised regularly by UoN and the School. Doctoral study progress is monitored carefully. All PGRs are required to have at least 10 recorded supervision meetings annually. Progress is monitored and confirmed via an annual review process, consisting of a report and presentation to an expert panel. This process is designed as developmental and is reviewed regularly. Research training is vital in developing students into world-class researchers. Training and development for PGRs is reviewed on an annual basis (via the Annual Monitoring Review). The School's in-house research training programmes have undergone a major review and restructuring during this assessment period. They provide carefully designed training in research philosophy, advanced quantitative methods, advanced qualitative methods and discipline-specific research.

Additionally, PGRs can access an excellent range of research skills training opportunities through two main avenues. The first involves the Social Science Faculty Researcher Skills Programme, which combines core and optional training courses delivered by the UoN Researcher Academy (see Institutional Statement section 3.3.). These cover a range of topics, from managing research projects to research governance and ethics, and skills training such as quantitative and qualitative research, working with focus groups and writing, networking and communication skills (in 2018/19, 46 such courses were listed). The second avenue is through the different DTPs and associated pathways. For the ESRC, students are offered a Nottingham-based training in core (ESRC specified) and advanced research methods. DTP students also have access to training provided at the partner institutions of Warwick, Birmingham, Leicester, Loughborough and Aston.

NUBS provides masterclasses and supplementary training workshops run by leading experts from both inside and outside the School. Methods training workshops, for example on NVivo, Python and Panel Data Econometrics, are organised on a regular basis. NUBS hosts workshops such as

## Unit-level environment template (REF5b)

'conference presentation skills' and 'how to respond to reviewers' to encourage PGRs to disseminate and publish their research. A notable example was the 'Paper Development' workshop with an associate editor from the *International Journal of Management Reviews*, where students received detailed and constructive feedback on papers that they intended to submit to the journal. In the REF period, 21 joint supervisor/student papers or thesis-based papers were published, some in top journals, such as *Organization Studies*, *Journal of Management Studies*, *Journal of Financial and Quantitative Analysis* and *Annals of Tourism Research*. Given the nature of PhD study, our main engagement with Doctoral students is through one-to-one support bolstered by skills-based workshops. Of the 51 Doctoral students who have engaged with the activities of the Postgraduate Careers Team (i.e., attended career consultation/workshops), 69% have been women.

NUBS dedicates resources to enhancing Doctoral graduate employability in academia and industry. Many graduates have attained academic positions at U.K. institutions and abroad (e.g., Aston, Bath, Birmingham, Bristol, Cambridge, Lancaster, Liverpool, Leicester, Newcastle, Queen's Belfast, Royal Holloway, Southampton) while others take up positions outside academia (e.g. the Health Foundation, Imani Development), influencing policy and creating impacts with their research (e.g. improving the retention of nurses in the NHS). Some PGRs undertake placements with leading institutions such as the IMF, Bank of England and Deutsche Bank, which greatly enhances their employability.

PGRs also have access to a range of career and professional development workshops provided by the Researcher Academy and the Careers and Employability Service, face-to-face and via Moodle. The Researcher Academy also manages a Postgraduate Placement Scheme, which is open to all postgraduate students. Doctoral researchers are represented on the EDI committee.

### **Support given to PGRs for academic career progression**

All NUBS Doctoral researchers have access to:

- individual careers consultations through the School's Postgraduate Careers Team
- PhD Careers Moodle pages with links to resources such as career planning tools and vacancy websites
- careers networking events on and off campus
- psychometric assessments to support self-awareness and personal development.

## **3. Income, infrastructure and facilities**

### **3.1. Research income**

NUBS has sustained its strategy for external grant income over the assessment period, which has yielded considerable impact on responsible management and business practices. Research awards totalling £7.862m (income = £7,102m) have been achieved, with the largest share attributable to U.K. Research Councils, at 38%, followed by U.K. central government bodies, local authorities, health and hospital authorities at 31% (see Figure 13). U.K. charities contributed 8.4% of the awards, at £663,000, with the E.U. funding agencies awarding only 5%, a large decrease on previous REF performance. The decline in awards from E.U. sources is attributable to the impact of the U.K.'s changing relationship with Europe. However, as part of our strategy to reorient our grant portfolio, a low proportion of bids were accepted in 2014 and 2015. In recognition of the challenging funding environment, the School further refocused its research income strategy, backed up with an entirely new research support team in 2018/19, which is beginning to achieve positive results. Indeed, 2019/20 saw a return to almost £1m per annum in awards, with over 60% attributable to U.K. Research Councils, the highest proportion NUBS has reached in its history.

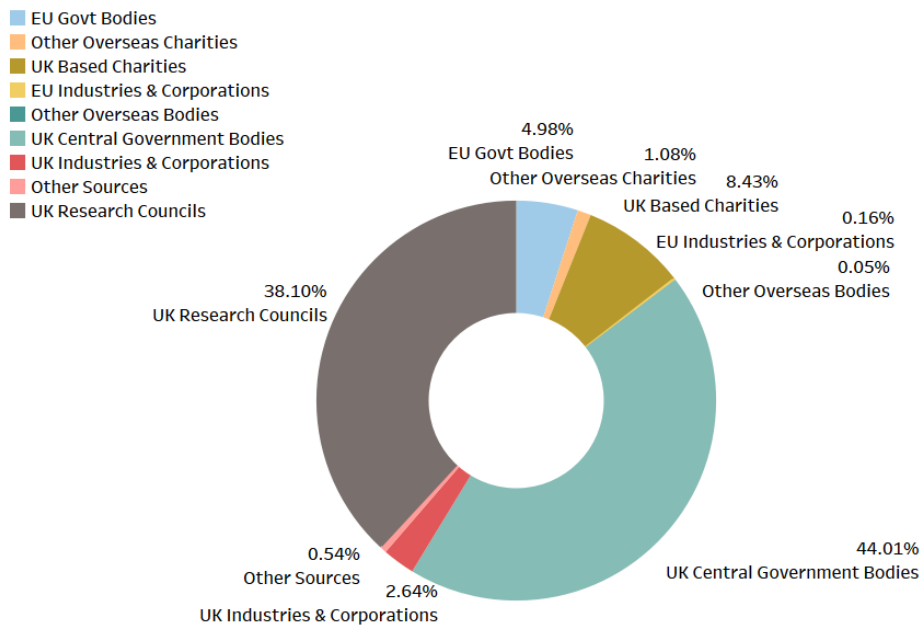


Figure 13: Sources of NUBS' research awards over the assessment period.

A total of seventy-one researchers have worked as named investigators on 130 projects over the REF period. In terms of EDI in research awards (Figure 14), the proportion of women leading externally funded research as PIs was relatively strong at 44%, yet they were less frequently involved as Co-Is, and in their representation on the numbers of projects overall. However, the most recent data indicates that in 2019/20, women won a greater share of award value than men (£542,000 compared to £446,000) demonstrating positive improvement resulting from the strategy.

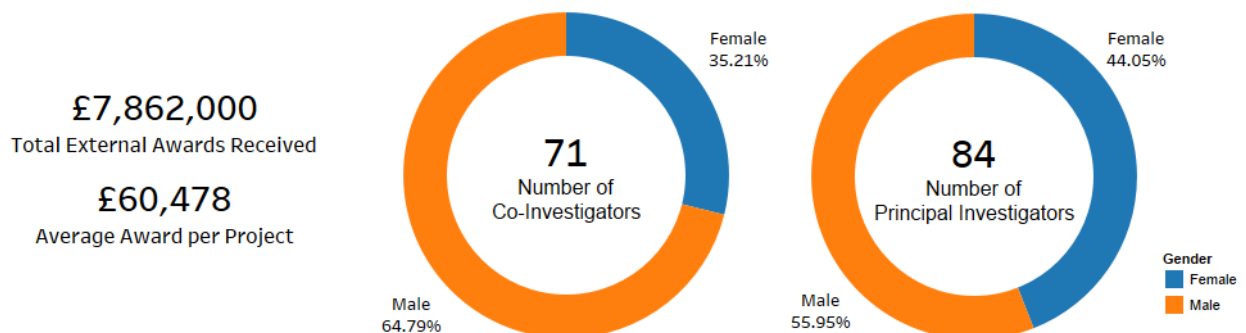


Figure 14: Research awards by gender, role and year.

Additionally, NUBS researchers have contributed significantly to collaborative and cross-disciplinary research awards. Almost 20% of NUBS' awards (value) was achieved in collaboration with the Faculty of Medicine, 10.5% with the School of Computer Science and 6.3% with the School of Economics. Alongside the University's strategy to realise the benefits of team-based research geared towards ambitious and challenge-led programmes of research and impact, the School has encouraged engagement with the internal research ecosystem (Institutional Statement section 2.1.). A testament to this is that in 2019 NUBS awards were produced in collaboration with 12 units of assessment, more than any previous year and a 33% increase on 2018.

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Notable collaborations in addition to those mentioned in section 1 include:

- Professor Smith, Dr Smith and Dr Goulding (N/LAB) are co-investigators on the £4m EPSRC Next Stage Digital Economy Programme: From Human Data to Personal Experience (2016). They are also co-investigators on two CDTs: the £3.38m EPSRC Centre for Doctoral Training in Geospatial Systems (partnership between University of Nottingham and University of Newcastle, 2018), and the £1.9m EPSRC Centre for Doctoral Training in Digital Economy, in conjunction with the School of Computer Science Horizon Centre (2018). Dr Goulding is co-investigator on the EPSRC project Risk Prediction for Women's Health and Rights in Tanzania: Novel Statistical Methodology to Target Effective Interventions (almost £700,000).
- An addition to their role in the CLARHC (£12m 2014-19), researchers in CHILL have been key collaborators with the NHS East Midlands Patient Safety Collaborative. Dr Bishop is a co-investigator on four current National Institute for Health Research (NIHR) projects worth £2.5m. Professor Timmons is part of a £130,000 Health Education England project to evaluate the Advanced Clinical Practitioners Programme.
- In the Haydn Green Institute, Professor Mosey is co-investigator on a £14m EPSRC funded DTC called Atoms-2, "An Integrated Approach to Sustainable Chemistry", and Professor Marlow was a co-investigator on the ESRC/DFID project Poverty Alleviation and Women Refugees in the Middle East: Empowerment through Grassroots Micro-entrepreneurship?

### 3.2. Strategies to seek and manage funding to support research and impact

NUBS staff are empowered to achieve the RKE strategy to make a positive contribution to society through responsible management and business research through the provision of a wide-ranging and inclusive environment designed to support researchers to achieve our ambitions.

Staff were supported by over £1.25m in internal School funding during the assessment period through a range of schemes that are constantly reviewed to ensure they meet strategic aims and targets. These are geared towards increasing the quality of research outputs and ensuring greater diversity (in terms of career stage, gender and other protected characteristics) in engagement with research income- and impact-generating activities.

Annual financial support of £3000 per person can be used to pump-prime research projects, to disseminate research findings at national or international conferences, or to fund Research Assistants or transcription costs. NUBS investment through this scheme totals £1.19m over the REF period. This annual allowance replaced the previous less generous fund and the 'SPARK' seed-corn scheme that was in place from 2014 through to 2016. The new mechanism increased the overall level of funding and widened access. Additionally, each member of R&T staff is provided with a Personal Research Account upon joining NUBS, credited with £750. This is topped up when external research funding is attained, via an attractive incentive formula.

The School also supports enhanced collaboration opportunities via financial support to inward and outward visiting scholars. This is complemented by University central funding to support research collaboration, both generally and in specific schemes, such as the International Collaboration Fund (ICF), and strategic partnerships with the University of Birmingham and Lund University in Sweden.

We also invest in research through our study leave scheme. Academic staff are eligible to apply for a full semester of study leave after six full semesters of service. During the assessment period, NUBS had invested in almost 50 people, representing 400 person-months of study leave, a significant financial investment. In total 28 women received study leave support, compared with 21 men. Study leave policy is geared towards the achievement of NUBS' strategic priorities and supports researchers with their career goals. The scheme is designed to lead to high-quality outcomes, including training and staff development, creating new research consortia or networks, strategic grant applications and research outputs.

Linked to NUBS' aims to enhancement the visibility of our leadership in the field of management research, the School initiated a new scheme in 2018 to provide financial support for research groups to host international conferences at UoN. This has led to NUBS hosting five conferences between 2019 and 2020, at a total investment of almost £10,000.

To help support our strategy to increase the numbers of outputs in the top 10% of cited journals, in 2019 a new competitive funding scheme was launched: the 4\* outputs boost fund. Two rounds of funding were allocated in 2019/20, totalling over £17,000. Take-up of the scheme included 16 projects. This scheme will continue to run given the positive outcomes on output submissions and acceptances.

Support also includes a range of bespoke, local professional practice provision (to enhance wide-ranging provision available from the University central department) to support the development of research skills, journal publication and writing bids for research grants (outlined in section 2). The Advance: Business Fellowship Scheme represents an investment of £28,500, receiving excellent feedback from fellows, and positive early returns in research grant activity and outcomes.

### **3.3. Development of organisational structures to support research and impact**

Support for all aspects of RKE is embedded within the organisation. At the University level, the Pro VC for RKE is involved in setting the institutional strategic research objectives and for overseeing the architecture of research support and management. At the Faculty level, these functions are supported by the APVC for RKE in the Social Sciences augmented by the Centre for Advanced Studies in the Arts and Social Sciences (CAS), which provides expertise in identifying funding opportunities, developing grant applications, supporting academics in research project planning and knowledge exchange at all career stages. The CAS also fosters collaborations between disciplines and with non-academic partners, supports consortium development, and provides an academic peer-review mentoring scheme for funding applications. The CAS team delivers support through ECR events advice on crafting funding applications and details of support available, connecting training opportunities available through the Researcher Academy. Additional events include workshops on writing fellowship and grant applications and interdisciplinary network meetings.

At the School level, research is organised by the Associate Dean for Research (ADR), who is responsible for drawing up the research strategy, fostering a research culture based on excellence and managing the research budget. The ADR is a member of the School Executive and ensures that research strategy is fully aligned with the School's strategic vision and goals. Since 2019, the ADR has been supported by a Deputy Research Director, who has specific areas of responsibility including, personal research planning, mentoring, oversight of the PhD programme and liaison with the University's international campuses. The ADR chairs the School's Research Directorate, which comprises Departmental Research Directors and Heads of Research Centres and institutes and groups, the Impact Coordinator, Research Ethics and Integrity Officer, the Director of the PhD programme and an EDI representative. Departmental Research Directors and Centre Heads have responsibility for determining the nature and direction of research within each organisational unit. They contribute to the development and implementation of the School's research strategy, monitoring the research performance and 'health' of their sub-units and organising support for the achievement of strategic goals, hosting research events and seminars, managing the annual review process for PGRs, and approving the use of research funds for strategic activities. Departments and Centres are allocated administrative support for the organisation of research seminars, workshops and network events, hosting conferences and knowledge exchange activities.

NUBS has reorganised its administrative systems to provide a full architecture of research support. There is now a dedicated team comprising a (50% FTE) Research Development Manager (RDM), the recently appointed Impact Officer, a senior research administrative manager and 4.5 administrators to support project costings, administration of RKE functions and management, and



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to provide support to all research and impact activities. This team augments the provision offered at the University and Faculty levels with more specialist and local resource to support bid development, sharing of intelligence relating to funding opportunities, administration of study leave, visiting scholar schemes and School-level research funding allocations (see Figure 15).

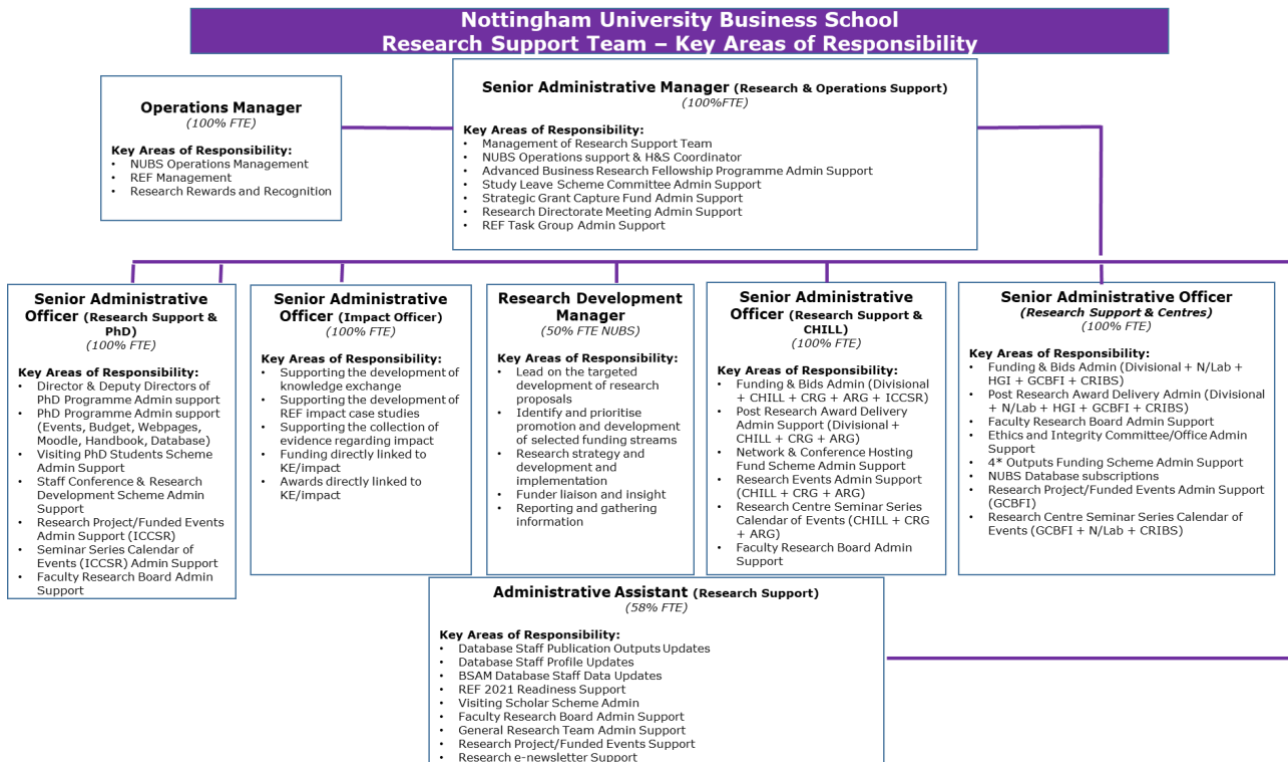


Figure 15: NUBS RKE support structure.

NUBS has its own Research Ethics and Integrity Committee, which provides oversight to ensure that all research developed by researchers in the School satisfies the high ethical and integrity standards set by the subject area and the University. The Committee comprises eight academic Reviewers from the Schools' Departments and Institute, and a Chairperson, and is run by the Research Ethics and Integrity Officer (REIO) with the support of a senior Ethics Administrator. Typically, the NUBS ethical approval process comprises two stages for staff and three for PGRs, who need their supervisor's approval before applying for ethical clearance. The Committee typically meets once a year. The REIO, through the Committee, maintains the School's pages containing the latest policy documents, forms and information, including GDPR and training. The REIO represents NUBS on the Faculty of Social Sciences Research Ethics and Integrity Committee and liaises with the ADR where necessary.

In order to ensure a comprehensive and up-to-date understanding of research performance and to monitor progress towards KPIs, the School maintains a management information database where all research activity is recorded. This includes details of all outputs, examples of impact, collaborative research, research funding and various esteem indicators, for example keynote conference speeches, journal editorships and positions in learned societies.

### 3.4. Support for impact and knowledge exchange

Supporting the translation of research into transformative impact and knowledge exchange is vital the achievement of NUBS' strategy. The School's Research and Knowledge Exchange (RKE) strategy, outlined in section 1.2, has involved professional development workshops, highlighting best practices and emerging cases in its new quarterly newsletter, raising awareness of funding opportunities, providing workload recognition to those involved in developing KE and embedding impact into the research planning and career development process.

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The Faculty of Social Sciences has held an ESRC Impact Acceleration Account (IAA) since 2014, first securing £860,000 to support the development of social science-led KE and impact through to March 2019 and subsequently £1.3M has been secured for the period April 2019 – March 2023. Additional ESRC IAA awards of £263,000 were also secured in this period to support KE in GCRF contexts and in relation to the Industrial Strategy.

Through CAS, support is channelled to enable research and KE/impact, whereby each UoA in the Faculty of Social Sciences has access to wide range of internal funds on an ongoing annual basis. During the current assessment period, NUBS staff have won a total of £106,075 in funding from the IAA with an additional £19,828 won by NUBS researchers seconded to the Rights Lab beacon. This includes projects associated with the holders of Impact Leaders Programme awards, 'Business Boost' funding or IAA responsive mode funds. Since 2015, seven NUBS researchers have won places on the Impact Leaders Programme, of whom five are women and one is from a BAME background.

Additional, related funding schemes include; International Collaboration Fund (ICF) to support the development of networks and collaboration, of which NUBS has secured £21,763 in projects, HERMES Fellowships (NUBS has three projects, with a value of £40,000), and the Nottingham Strategy for Development-Focused Research (GCRF – since 2018). NUBS has won £217,000 in UoN GCRF funding for Dr Muthuri's project on Artisanal mining.

This funding has supported a broad array of projects. In addition to those already mentioned the projects have included; Competition, IP and Open Technology, in partnership with Northwestern University's Searle Center on Law, Regulation, and Economic Growth and the U.K. Intellectual Property Office (Dr Q.C. [Cher] Li); and improving retention amongst NHS workers around retirement (Professor Timmons) in association with Nottinghamshire County Council.

### 3.5. Support for those applying for research grants

Support for research grant applications and information/guidance about funding opportunities are provided through the Faculty structure as outlined above (CAS) and by the School's dedicated RDM and Research Support Team. Generic opportunities are publicised, while more niche topic calls are distributed on a targeted basis. The possibility of implicit bias in terms of who is contacted in relation to particular calls, has been considered by the School, and mitigated by actively thinking about which researchers might be interested in details of the call. In line with the School's strategy to diversify the range of sources of funding and increase the numbers of people applying for research grants, close cooperation between the RDM, the Associate Dean and Departmental Research Directors has ensured that ECRs are not placed under undue pressure but instead receive targeted encouragement and appropriate support.

Assistance with costing, application and compliance with funder requirements is provided by the Research Support Team. There is a system of peer review at Faculty level for all ESRC applications and for special prestigious calls or that require 'demand management' coordination. At School level, there is an internal peer review for some types of application. Training workshops on grant applications are organised in most years by the RDM, in addition to events organised at Faculty level for Fellowships and for ECRs.

Until 2016/17, gender was not explicitly considered in the targeting of calls or for training and yet take-up by women of all types of internal funding support is traditionally high. Research undertaken by the School to inform Athena Swan accreditation found that between 2016-19, women researchers performed strongly in accessing and securing internal research funding opportunities, with higher numbers of applications (19 compared to 18 men) and higher success rates than men (73% compared to 50%). Whilst the number of women applying for external grants was significantly lower over the period examined (46 compared to 94 for men), success rates were equivalent (40% compared to 42%). This has led the School to redouble its efforts to support greater representation of women on research grant applications, and on impact-related funding schemes.

All research grant applicants are encouraged to think creatively and inclusively about whom to include as co-investigators on grant applications, and the University's research development network offers a match-making and introduction service.

### 3.6. Physical infrastructure

The Business School is located on the University's Jubilee Campus, opened in 1999, which has significantly expanded during this evaluation period. The majority of the School's staff continue to be located in the Business School's North and South Buildings, and the newer Yang Fujia and Si Yuan Buildings. All locations are equipped with state-of-the-art ICT facilities, and updated in the last 3 years. The Business School library occupies the one floor of the South Building and offers comprehensive online access to research materials as well as a substantial collection of books, journals and other materials in hard copy.

The School subscribes to a wide range of databases relevant to business and management research and has site licences for a similarly broad set of software tools. NUBS directly supports the production of excellent research and scholarship through its purchase of databases such as: FitchConnect, SNL Financials, BoardEx, I/B/E/S, Wharton Research Data Service (WRDS) and Thomson Reuters 13F. The School's total investment in these research databases over the REF period is over £3million.

The School incorporates the CRIBS behavioural sciences laboratory to support the development of cutting-edge experimental studies. New investment has been made in state-of-the-art facilities to support the development of capability in programming and data analytics for the establishment of the N/LAB, which is housed in the Yang Fujia Building.

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

### 4.1. Contribution to the research base and collaboration

NUBS academics undertake high quality research with an appetite for collaboration and an international outlook. Data extracted from SciVal highlights some of our key strengths. The data is based on all outputs NUBS produced (Figure 2 page 4) for which an exact match could be made in the SciVal database, yielding a total, robust sample of 389 (31.5% of all output produced). Figure 16 shows that these outputs reached 6,421 citations, 16.5 citations per output, and a Field Weighted Citation Impact of 2.153 over the assessment period.

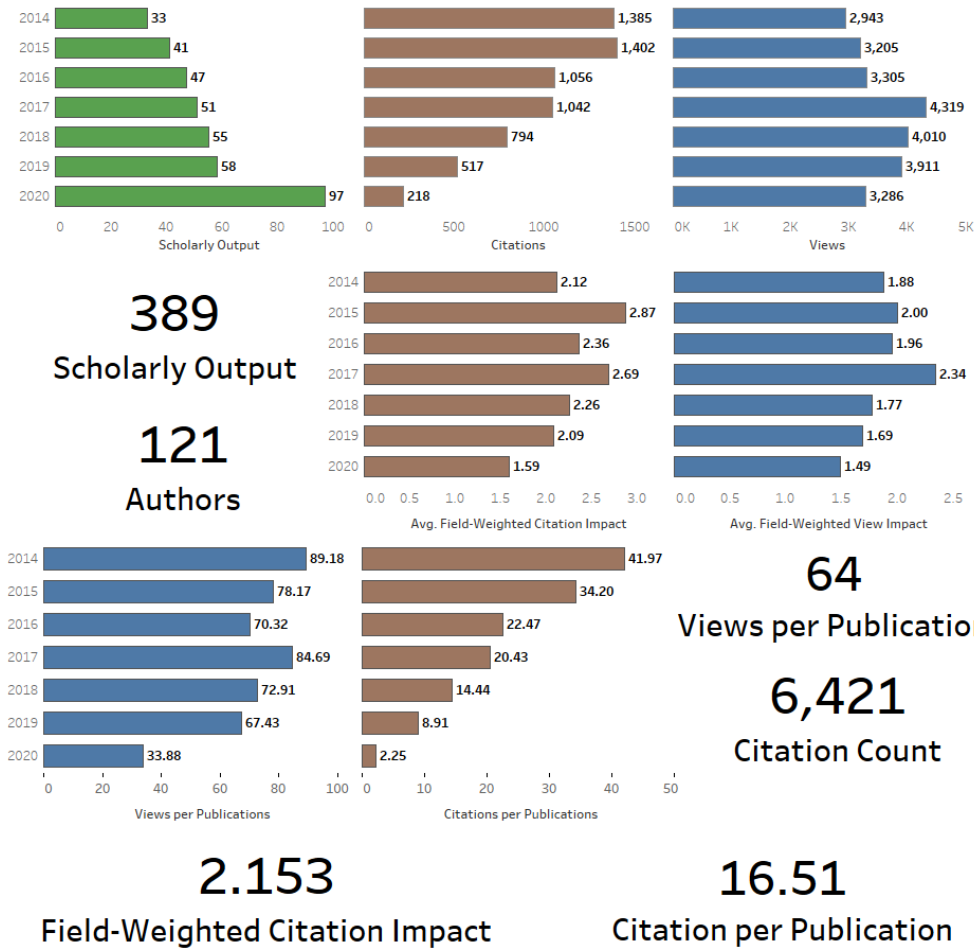
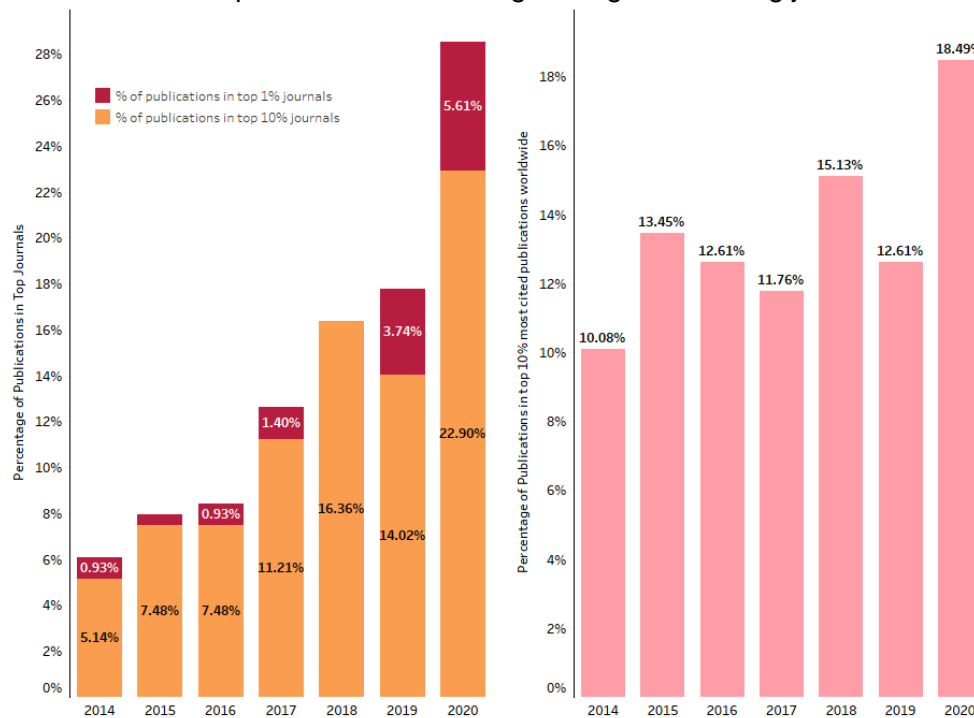


Figure 16: Impact of scholarly output in a sample of 389 outputs over the REF period.

Additionally, NUBS researchers feature in the most prestigious and high profile outlets in our field. Figure 17 shows continual improvement in reaching the highest-ranking journals.



**Unit-level environment template (REF5b)**

Figure 17: Proportions of outputs in the top 1% and 10% of journals and in the top 10% most cited publications worldwide.

Regarding collaboration, NUBS has a high degree of international collaboration in the sample of 389 outputs, at over 60%, yielding a FWCI of 2.39 (see table 1). A further 30% comprises national level collaboration, and 12% (47) of outputs involve non-academic collaboration, although these tend to have lower citation impact.

	Collaboration %	Scholarly Output	Citations	Citations per Publications	Field-Weighted Citation Impact
Single Authorship (no collaboration)	4.63%	18	142	8	1.92
National Collaboration	31.11%	121	2,137	18	1.88
International Collaboration	60.67%	236	3,926	17	2.39
Institutional Collaboration	3.60%	14	216	15	1.54

	% Collaboration	Scholarly Output	Citations	Citations per Publications	Field-Weighted Citation Impact
Academic-corporate collaboration	12.08%	47	745	16	1.74
No academic-corporate collaboration	87.92%	342	5,676	17	2.21

Table 1: Collaborations by category and impact.

Figure 18 presents a dendrogram of the research collaborations and their impact for each department. Marketing (121 outputs) and Industrial Economics (47) have the largest range, for example with six different combinations of collaboration. Marketing, OMIS and FRB have almost equal numbers of international academic collaborations (~58), and Marketing produced the highest volume of citations, over 2000.

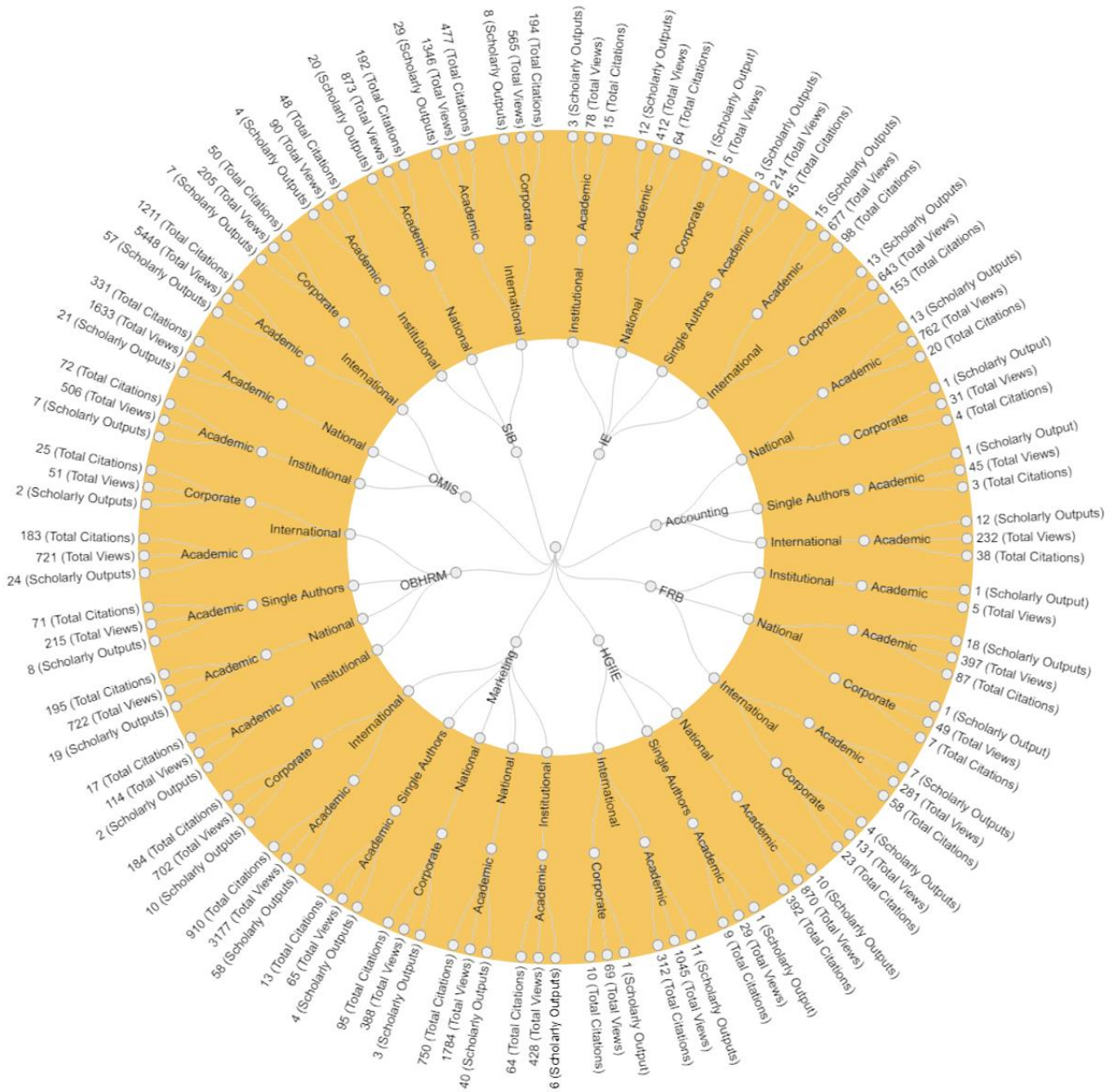


Figure 18: Dendrogram of research collaborations by department.

In terms of prominent research themes, NUBS researchers contribute significantly to literature in entrepreneurship, innovation, CSR, marketing, supply chain management and tourism, with work and organisation, and monetary policy also being well represented, consistent with our strategic areas of activity (shown in Figure 19). NUBS researchers have published over 110 outputs in the top 1% of the highest momentum topics in Business, Management and Accounting, based on SciVal analysis. Leading topics include alliance portfolios, open innovation, product service systems, service economy, value co-creation, institutional work, green supply chain management, environmentally preferable purchasing, green practices, brand community, and consumer culture.

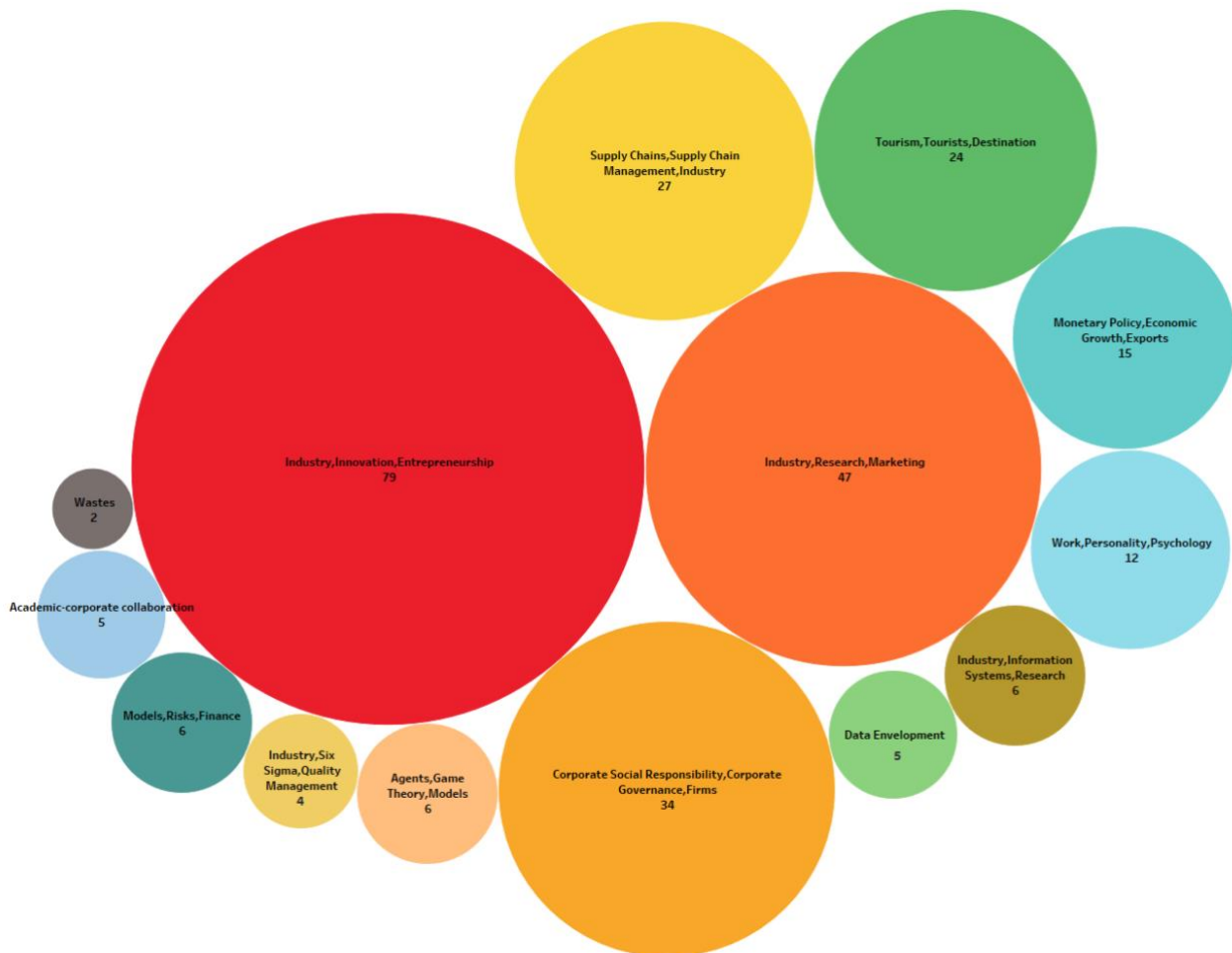


Figure 19: Prominent themes of NUBS research

#### 4.2. Contributions to the academic base

Consistent with an aim of shaping the future of business and management in an increasingly interconnected world, NUBS researchers make important contributions to the full range of management and business disciplines and fields, taking leadership positions that have global as well as regional influence.

For example, Professor Starkey is a Fellow of the British Academy of Management, and of the Academy of Social Sciences, as well as a member of the EFMD Research Committee, the C-ABS Academic Journal Guide Scientific Committee, and has recently received a Lifetime Achievement Award from the British Academy of Management. Professor Lee is also a Fellow of the Academy of Social Sciences and the National Institute of Economic and Social Research. Professor Tynan is President of the Academy of Marketing and Professor Perks sits on the Board and Scientific Committee of EIASM IPDM and of the Product Development and Management Association (PDMA) ([www.pdma.org](http://www.pdma.org)) academic committee, based in the U.S. Professor Petrovic was a Vice-President of the U.K. Operational Research Society (2013-18) and has been Chair of the Committee of Professors of Operational Research in the U.K. (COPIOR) since 2018. Professor McCarthy has recently been elected onto the board of the Decision Sciences Institute as Vice-President for Europe, and a Co-ordinator of the EURO (European Association of Operational Research Societies). Professor McCabe is a Vice-President of the International Sociological Association Research Committee 50 on International Tourism and an elected fellow of the International Academy for the Study of Tourism. Professor Wang's research on foreign direct investment and international business is widely recognised internationally. He holds visiting positions in City University of Hong Kong and several leading universities in China such as Renmin University of China, and Huazhong University of Science & Technology.

## Unit-level environment template (REF5b)

Researchers also lead their fields of expertise and shape the research agendas of management disciplines. NUBS hosts international conferences and networking events. Professor McCarthy was responsible for organising the 10th Annual European Decision Sciences conference at NUBS' Jubilee Campus in 2019, which attracted over 150 delegates. The Organisational Management and Information Systems Department hosted the 7th EurOMA Sustainable Operations & Supply Chain Forum. Professor Duygun is a leading international expert on banking and finance and holds the Aviva Chair in Risk and Insurance, specialising in financial technologies and Insurtech. She directs the ESRC IAA funded University of Nottingham Fintech Research Network and is the current President of the International Finance and Banking Society (IFABS), a leading global research society, which she founded and which has over 5,000 members in 64 countries. Professor Korczynski was co-investigator on an ESRC Seminar Series on Migrants, Workplace and Community: Learning from Innovation in Civil Society (2016-18), and is Director of the UoN ESRC Doctoral Training Centre/Partnership.

NUBS researchers' work has received recognition from academic colleagues. Dr Karafyllia and colleagues won the Albert L. Page Award for their article 'Leveraging Open Innovation through Paradox' in the *Journal of Product Innovation and Management*. Dr Nixon's paper 'Politicising the Study of Sustainable Living Practices' was awarded Best Paper in Consumption, Markets and Culture, 2018. Dr Peter's research paper 'The Co-ordinative Practices of Temporary Organisations', published in the *Journal of Business & Industrial Marketing*, was Highly Commended in the 2017 Emerald Literati Network Awards for Excellence. Dr Jain was awarded an Early Career Achievement Award at the Work, Stress and Health Conference in Philadelphia in 2019, which was jointly awarded by the American Psychological Association, Society for Occupational Health Psychology and the US National Institute for Occupational Safety and Health. Dr Pouryousefi's article 'The Problem of Unilateralism in Agency Theory: Towards a Bilateral Formulation' was chosen by a committee of *Business Ethics Quarterly* as one of the top three articles the journal published in 2017.

NUBS' researchers also make important contributions to society through their research. For example, Professor Paton was a witness for the Oral Evidence Session of House of Commons Education Committee Inquiry into Personal, Social, Health and Economic Education (PSHE)/Sex and Relationships Education (SRE) in 2014 following his research on teenage pregnancy in the U.K. Professor Adegbite's research has been recognised through his receipt of the, 'Celebrated Nigerian Award' in 2016. Professor Cohen's 2014 research monograph *Imagining Women's Careers*, published by Oxford University Press and submitted in this return, has led to many media appearances, for example on BBC Radio 4's *Woman's Hour*. Professor Mosey chairs the award-winning Young Entrepreneurs Schemes that have developed the entrepreneurial skills of over 5,000 people.

Finally, NUBS researchers influence their fields through leadership positions on influential journals. Current NUBS R&T staff have held 49 senior positions on editorial boards over the REF period. For example, Professor Starkey, who is widely respected for his work on the relevance of business schools to higher education and to society, sits on the editorial boards of *Academy of Management Review*, *Academy of Management Learning & Education* and *Human Relations and Organization Studies*. Professor McCabe is co-Editor-in-Chief of the *Annals of Tourism Research*, the leading journal in the field with an interdisciplinary social science focus. Professor Adegbite is an Associate Editor of the *Business Ethics: A European Review (BEER)*. Professor Cohen sits on the boards of the *Journal of Vocational Behavior*, *Management Learning*, *Journal of Professions and Organization* and *Management Inquiry*. Professor Duygun sits on the boards of the *Journal of International Financial Markets, Institutions & Money* and is Associate Editor of *Frontiers in Artificial Intelligence - Artificial Intelligence in Finance*. She has served as a guest editor for the *Journal of Corporate Finance* and the *Journal of Banking & Finance*. Professor McCarthy is European Editor for the *International Journal of Production Economics* and Consulting Editor for the *International Journal of Operations and Production Management*. Professor Petrovic has been a guest co-editor for special issues of the *European Journal of Operational Research (EJOR)*, *Journal of Scheduling* and *Annals of Operations Research*. She is an Associate Editor of the *Journal of Scheduling*. Professor Tynan holds positions on the boards of the *European Journal of Marketing*, the *Journal of Marketing Management*, the *Journal of Consumer Behaviour: An International Review* and the



## Unit-level environment template (REF5b)

*Marketing Review* and is also the Founding Editor of the *Marketing Review*. Professor Winklhofer is an Associate Editor for the *Journal of Services Marketing*.

### 4.3. NUBS' networks, partnerships and impact

Collaboration with relevant stakeholders, including research users, is a key underpinning value and takes place at local, regional, national and international level. Researchers in the School draw on a wide network of collaborators and partnerships, supported by a policy of ensuring our research engages with, and is available to, key research beneficiaries and the widest possible audience (as per Figure 18). Our goal is to ensure our research base generates knowledge that is rigorous, of the highest academic standard, and relevant, useful in addressing major challenges facing economies and societies and emphasising outcomes that make real differences to society.

NUBS' research has had significant impacts upon organisations, both nationally and internationally. For example, the HGI has developed links with global organisations including P&G, biotechnology company Syngenta and international business network BDO, as well as national (U.K.) companies such as GlaxoSmithKline and Santander through its entrepreneur development programmes and research. Similarly, CHILL works closely with NHS England, Health Education England, the NHS East Midlands Patient Safety Collaborative and the independent charity the Health Foundation. The GCBFI's research led to affiliations with the Royal Bank of Scotland, *Which?*, Citizens Advice, the Nationwide Building Society, Aviva and many other U.K. based organisations.

Additionally, N/LAB has developed an extensive network of stakeholders who benefit from its research, including Boots, Tesco, Marks & Spencer and Experian. Researchers within NUBS work closely with the University Rights Lab within the Business and Economies Programme, which is led by Dr Trautrim, Rights Lab Associate Director, who currently holds a British Academy/DFID grant to research modern slavery in the meat and timber industries of Brazil. Additionally, the Rights Lab's Data and Measurement Programme involves academics from NUBS' N/LAB research group, the Department of Marketing and the Department of Finance, Risk and Banking. Other collaborations include work with the Smart Products Beacon; for example, Professor Winklhofer researches how smart products are enhancing user experiences and facilitating changes that lead to wellbeing.

Our research and collaborations have generated impacts in a range of different areas such as international and national guidance, as well as practical approaches within individual organisations, for example, to tackle the negative impact of psychosocial risks and work-related stress and to promote mental health in the workplace. Here we have developed important relationships with the World Health Organization (WHO), the International Labour Organization, European Employers' Associations and trade unions. Entrepreneurship and innovation has led to the successful development of the Ingenuity and the YES! Schemes, has led to impacts across businesses and social enterprises.

Research produced by CHILL has had demonstrable impacts on national policy, NHS systems and specific hospitals. For example, research into medicine adherence directly influenced the NHS to commission the delivery of the New Medicine Service (NMS), which has improved patient outcomes, impacted pharmacy practice and delivered NHS cost savings. CHILL research has led to the MBA module 'Commissioning and Service Redesign' educating NHS managers in the complexity of patient discharge pathways in relation to system complexity and coordinated working. This research has also shaped national and regional policies to improve the organisation and planning of hospital discharge through supporting better inter-professional communication. It included the co-design of an online toolkit and resources hosted by NHS England, informed the formation of a national priority group for care transition, influenced NICE guidelines and informed the recommendations of a House of Commons Select Committee.

Alongside the Impact Case Studies submitted by NUBS, there are many other ongoing partnerships stemming from the School with emerging impacts. In 2019, NUBS hosted an

**Unit-level environment template (REF5b)**

occupational health and safety event with the British Standards Institution (BSI) reflecting the collaborative research being driven by the School, which focuses on important topics surrounding business performance and business productivity. To this end, Dr Q.C. [Cher] Li recently won the BSI Standards Makers Award for Education about Standardisation, in recognition of her teaching incorporating standards-related topics on undergraduate and executive MBA courses at NUBS, and her research on standards, innovation, productivity and business performance. Dr Li also won a full ESRC Doctoral Joint Studentship (Midlands Graduate School) with the BSI as partner and mentor, which commenced in October 2019, and intends to yield policy implications for designing effective standards, which expedite the diffusion of technologies to boost firm performance. Dr Li's research in collaboration with Professor Kneller (School of Economics, returned to UoA 17) builds on work started in 2019 within the ESRC ProPEL Hub on productivity and involves further project funding through the UKRI QR Strategic Priorities Fund, the HEIF and the ESRC IAA (total across 4 projects: £171,000). This work includes several policy and industry partners (BSI, Innovate U.K., CIPD and regional LEPs).

These projects will contribute evidence to inform policy-making on productivity and to co-produce interventions targeting companies to help accelerate their adoption of digital technologies. This has already led to Dr Li being invited to contribute as a member of BEIS's Expert Peer Review Group, advising on policy evaluation, and as a member of BEIS's Covid-19 Recovery Working Group (Local and National Growth ARI), contributing to two government reports on Covid-19 economic recovery.

Additionally, Dr Shaw's research looking at how networks of organisations can be orchestrated to help each other led to the development of an innovative data-sharing system. This tool has been shared with the Department for Transport, which has the potential to benefit government departments, port operators, ship operators, importers, agents and logistics firms, as well as local residents and communities. Dr Touboulis received funding from the Independent Social Research Foundation and the Institute for Small Business and Entrepreneurship to undertake research exploring how researchers and practitioners can collaborate to address how small business owners make sense of their emotional experiences in changing their business practices to become more sustainable.

Research led by Professor Rickly involved close collaboration with Assistance Dogs U.K. and Guide Dogs for the Blind Association, examining barriers and challenges to travelling with an assistance dog. It has revealed systematic points of discrimination and the need for staff training across the travel, tourism and transport sectors, which is informing the organisations' training programmes and awareness campaigns. This research was supported by a number of grants from the ESRC IAA, totalling £11,000. Professor Hibbert conducted collaborative, interdisciplinary research on a GCRF-funded project to build local expertise to deliver interventions to improve liver and metabolic health in India in association with the Population Health Research Institute in Kerala.

Interdisciplinary ECR Dr Perrat is collaborating on a current project (January 2020-July 2021), funded by the GCRF (£94,232) and led by the School of Geography, to optimise a research and impact platform to address labour exploitation in Asia, working with a range of NGOs to 'fight slavery from space'. The platform will integrate an up-to-date mapping of brick kilns in South Asia alongside a survey of key indicators for labour exploitation to support the work of NGOs on the ground on issues ranging from environmental concerns to exploitative labour.

Beyond national and international collaborations, research within NUBS has also been co-produced with local and regional organisations. Research undertaken by Dr Toth in the Marketing Department on business to business branding and networking has informed the planning and content of SME websites and the development of an 'SME attractiveness toolkit', which is being shared across the East Midlands through a partnership with a regional business network.

Much of the impactful research emerging in the recent years in NUBS is being led by women and BAME R&T staff. This is being supported by the School's RKE strategy to engage with the University's EDI Strategic Plan as a priority and to ensure that all staff members are given support

## **Unit-level environment template (REF5b)**

and encouragement. Whilst this has always been the case, the School has directed additional support in line with the Strategic Plan. One product of this is research undertaken by Dr O'Neil, who was supported through the ESRC Impact Accelerator Account (IAA) with training on the Impact Leaders' Programme, the NUBS Advance Business Research Fellowship programme, and with IAA funding to extend her research on women entrepreneurs, which uncovered insights into business founders' entrepreneurial legitimacy. This led to a collaboration with local women entrepreneurs and the creation of a toolkit, 'My Business, My Way', which has been made available to the public and is leading to a wider network of women entrepreneurs working in collaboration with researchers.

### ***Interdisciplinarity***

NUBS research approach is closely aligned with the University's policy of supporting interdisciplinary beacons of research excellence, an important component of which is the fostering of collaboration and engagement between disciplines in addressing major economic and societal challenges, as well as the wider availability of research funding opportunities which are opened up by developing interdisciplinary teams. For example, HGI involvement in the EPSRC Centre for Doctoral Training in Sustainable Chemistry provides a successful template for how a higher-education research group can foster local and national entrepreneurship and innovation in collaboration with STEM discipline groups, developed in collaboration with industry and a partnership of several disciplines.

Additionally, the School has made significant appointments that integrate researchers from other disciplines within the fields of business and management research: Sociology of Work and Employment (Professors Warren, Korczynski and Dr Pero, in OB/HRM), Computer Science in N/LAB (Drs Goulding and Gavin Smith); HGI (Dr Carter); Sociology of Health and Medicine (Professor Timmons, Dr Verydis); Geospatial Sciences (Dr Perrat); Psychology (Dr Jain); Behavioural Economics (Professor Kelsey); and applied fields such as Banking (Professor Benos, formerly of the Bank of England). We also have significant interdisciplinary strength in key applied interdisciplinary fields of research, such as Tourism (Human Geography, Professor Rickly; and Sociology, Dr Zhang). As such, the outputs we have produced include substantial contributions to tourism, computer science, health and primary care management, sociology, risk and psychology.

### ***Dissemination***

Critical to NUBS' RKE strategy is to ensure relevance to society, an important aspect of which is communication of its research to a wider audience. Dissemination is also central to funded research project work. The School employs a media relations manager who works with both the UoN central media team and an external media consultant to communicate newsworthy School achievements and develop press releases and targeted opinion pieces for publicity. The University team maintains a searchable Media Guide to Expertise for journalists and works with School staff to encourage and develop spokespeople for media comment and publicity. Research-related news pieces are shared across a range of Business School and University online and social media channels, including the School's dedicated alumni channels. To capitalise on and promote its expertise in specific fields, such as entrepreneurial skills development and education, the School targets specialist channels. The Small Business Charter, for example, offers expert insight and advice from U.K. business schools to owners of SMEs, and staff from the HGI regularly contribute articles about business topics and challenges faced by the owners of small businesses. Additionally, to promote its expertise in organisational behaviour and human resource management, the School is a regular contributor to the People Development Network. Finally, NUBS' impressive research and impact are often featured in the UoN alumni blog. For example, a post in 2019 focused on the future of Fintech to draw attention to the launch of the Nottingham Fintech Research Network, led by Professor Duygun.