

Institution: Newcastle University

Unit of Assessment: UoA17

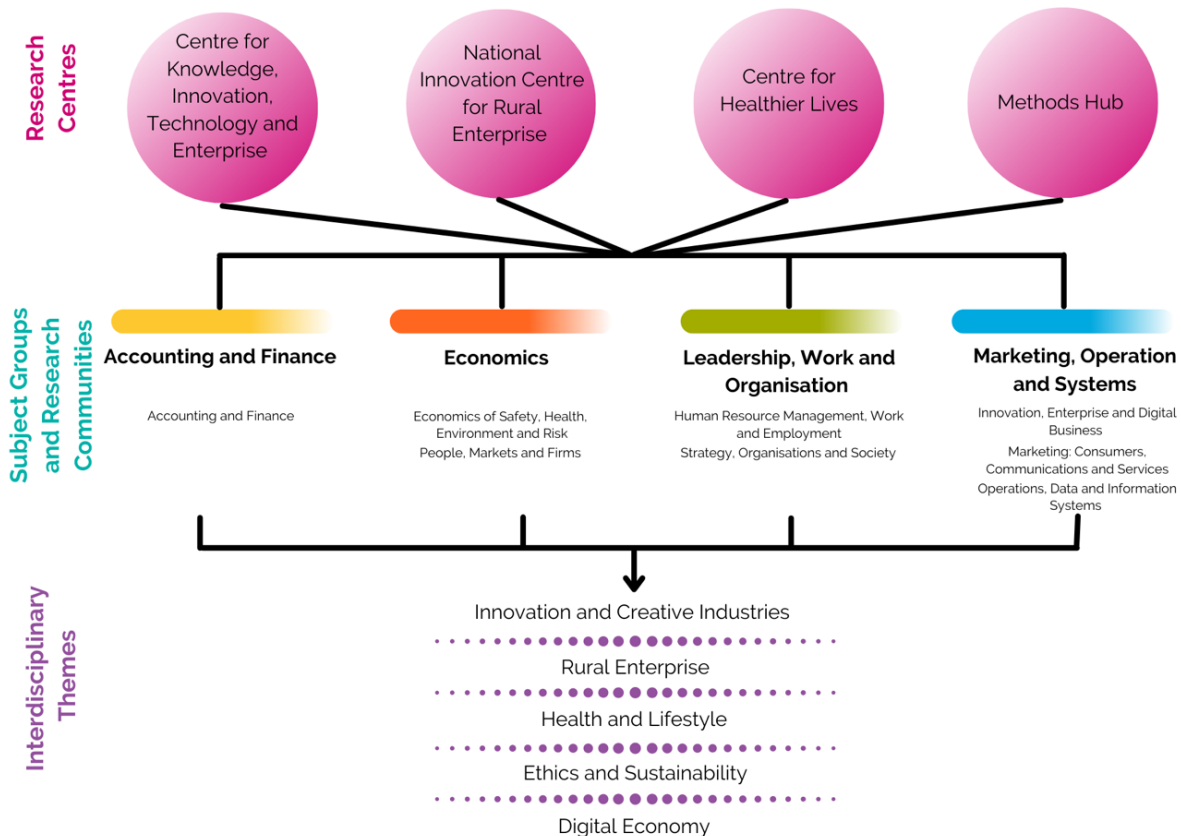
1. Unit context and structure, research and impact strategy

1.1 Overview

Newcastle University Business School (NUBS) is a research-led, multidisciplinary, triple-accredited, Russell Group Business School. Our mission is to produce excellent impactful research that will make a difference regionally, nationally and internationally. We advance discipline-based and challenge-led interdisciplinary research grounded in theoretical and methodological pluralism and innovation. We publish our research in leading academic outlets and disseminate it widely beyond the academy. We generate impact across a range of sectors, communities and geographies ranging from local to global. These activities are underpinned by an inclusive and collegial culture that values the diverse and collective contributions of all colleagues in achieving research excellence. We are embedding gender equality across our activities and using the School’s Athena Swan Bronze awarded in 2018 as a springboard for advancing intersectional equality and diversity. A key priority has been increasing the diversity of staff including in senior leadership roles.

1.2 Unit structure

Diagram 1: NUBS Structure



NUBS is the largest of nine Schools within the Faculty of Humanities and Social Sciences (HaSS), the biggest of three faculties at Newcastle University (NU). The School brings together 194 academic staff, of whom 122 are Category A researchers returned in REF2021, and 134 research students. All staff and research students are members of one of four subject groups, each housing one or more research communities, reflecting disciplinary specialisms (Diagram 1).

Staff advance research in their disciplines and in interdisciplinary areas, including themes that have emerged as strategic priorities for the School since REF2014: Innovation and Creative Industries; Rural Enterprise; Health and Lifestyle; Ethics and Sustainability; and Digital Economy. Our research is additionally supported by four cross-disciplinary centres that we lead or co-lead with other units at Newcastle: The Centre for Knowledge, Innovation, Technology and Enterprise (KITE); the National Innovation Centre for Rural Enterprise (NIC-RE, Institutional Level Environment Statement (ILES) 2.2.4); the Centre for Healthier Lives, a Newcastle University Centre of Research Excellence (NUCoRE, ILES 2.2.1); and the Methods Hub (Diagram 1). Interdisciplinary research is further stimulated through staff involvement with the three HaSS Research Institutes for Social Science, Humanities, and Creative Arts Practice.

Staff and research students are mainly housed within a dedicated NUBS building, sitting at the gateway of the new £350m Newcastle Helix site (ILES 4.2.1). Newcastle University London (NUL) is also home to fourteen teaching and research business school staff (ILES 1.3). Since REF2014, NUBS has benefited from University investment in capital projects on the Helix site, including the £34m Frederick Douglass Centre, which NUBS shares with the School of Computing and the £44.4m Catalyst building where NIC-RE is co-located with the National Innovation Centres for Ageing and Data. These infrastructure developments provide modern spaces for staff and students and have greatly expanded opportunities for interdisciplinary collaboration and research-user partnerships.

1.3 Research and impact strategy

Our research and impact strategy has been informed by our strategic priorities outlined in REF2014 to: produce excellent research to influence academic debates; use this knowledge to inform the work of policymakers and practitioners regionally, nationally and internationally; and foster an inclusive and cross-disciplinary research culture and environment. Two further developments in 2018 have shaped our strategic direction. First, the School was awarded Athena Swan Bronze. This has added impetus to our determination to build an inclusive culture that values all staff and to embed equality and diversity at the core of our strategies, structures and processes. Second, the University launched a new research strategy with priority actions including multidisciplinary, diversity and internationalisation (ILES 2.1.2). These combined drivers have framed our strategic focus on six priorities: (1) to foster research excellence, (2) to make a difference in the world, (3) to conduct multi- and interdisciplinary research, (4) to expand our international research networks, (5) to create an inclusive culture and (6) to increase staff diversity. These are developed below.

First, we have fostered the development of individual and collective research excellence by expanding the size of the School. We have recruited outstanding researchers across career stages and subject groups with increased focus on research impact and grant capture in making new appointments. Teaching and research (T&R) staff numbers have increased from 90 (REF2014) to 122 (121.6 FTE). This has enabled a step change in the breadth and depth of our research, underpinned by increased investments in research administration and enhanced research budgets. Our external grant income has grown from £2.2m (REF2014) to £3.9m (REF2021). We have extended the significance and reach of our impactful research to include broader beneficiaries and geographies. We have produced in excess of 3,700 research outputs during the review period. These include publications in prestigious journals including *Academy of Management Journal*; *Academy of Management Review*; *Accounting, Auditing and Accountability Journal*; *Accounting, Organisations and Society*; *British Journal of Management*; *Critical Perspectives on Accounting*; *Gender, Work and Organisation*; *Human Relations*; *International Economic Review*; *International Journal of Operations and Production*

Management; Journal of Business Ethics; Journal of Business Venturing; Journal of Management; Journal of Marketing; Journal of Services Research; Management Science; Organization Science; Organization Studies; Social Science and Medicine; Strategic Management Journal; Research Policy; and Work, Employment and Society.

Second, we have used our research to make a difference regionally, nationally and internationally. Since REF2014 we have delivered impact from research across all our disciplines for a wide range of stakeholders in business, non-profit sector, policy, society, culture and the broader economy. We have achieved this by building longstanding relationships with non-academic partners, often co-producing research with them, and by significantly increasing internal investment for impact and winning substantial external funding for impact and innovation activities including through Creative Fuse North East (ILES 2.4.3) and NIC-RE (ILES 2.2.4).

Our impact strategy is to build capacity among staff to maximise engagement and impact opportunities; to support staff and students to generate and demonstrate impact from their research; and to continue to invest in, and win funding for, impact activities. Engagement and impact training is provided and the outcomes of engagement and impact feed into promotion decisions. Since REF2014, significant resource, incentives and mechanisms have been deployed to catalyse engagement, knowledge exchange and impact in diverse ways (2.1.2 and 3.2). Our nine impact case studies (ICSs) illustrate our approach to research and impact. All cases involve sustained engagement with non-academic partners, and several involve international academic partners. The beneficiaries of our research are global and diverse, ranging from individuals in the UK, Western Balkans, Asia and Chile to regional micro-businesses, national policymakers, and multi-lateral organisations including the International Labour Organisation. Many of the cases have a focus on under-represented or marginalised constituencies reflecting our Ethics and Sustainability theme, and one relates to our Rural Enterprise theme. Inclusivity is evident in the ICS leads, including senior, mid-career and early career researchers, with four ICSs led by women and five by men. All cases have benefited from internal investment to generate and evidence impact and four have received ESRC Impact Accelerator Account (IAA) funding.

Third, we have engendered a step change in interdisciplinary research. We have created School-level multidisciplinary teams working together with other units at NU and other institutions (4.1), aligned with the University's new research strategy. NUBS-based/led teams have stimulated the development of our interdisciplinary themes, which build on longstanding and emerging research strengths at Newcastle including Culture & Creative Arts, the Rural Economy, Ageing & Health, and Sustainability (ILES 1.1 and 1.5). Our teams have contributed to large cross-University bids and awards (e.g. UKRI/GCRF *Living Deltas* Global Research Hub, ILES 2.2.5) and we have created three new centres to supplement KITE. Our increased focus on interdisciplinary research and multidisciplinary teams has played a key part in enhancing our research environment and culture, and growing our external research income and impact (3.1 and 4.1).

Fourth, we have proactively used the University's strategic partnerships and our own international advisory boards to grow our international research networks to further enhance our research environment. We work with academic and non-academic partners across six continents to create networks that are deliberately mutually beneficial in fostering two-way knowledge exchange while also raising visibility of expertise and opportunities, leading to increased capacity, and an enriched and sustainable global contribution to the discipline (Sections 3 and 4).

Fifth, building an inclusive research culture has been a critical priority within the context of a School that has increased in size and complexity. We have sought to embed inclusivity through two major initiatives:

i) We have reorganised our research structures. In REF2014 research activity was clustered within six research groups: Accounting, Governance and Accountability; Economics; Human Resource Management, Work and Employment; Innovation Systems; Services Marketing; and Strategy, Organisations and Society. Since then, we have created a nested structure organised around subject groups, each housing one or more research communities. This organisation is

designed to be inclusive, with *all* staff and research students affiliated with a subject group and an associated primary research community. Researchers are also encouraged and supported to engage with other research communities, as well as with our centres, to foster interdisciplinarity. This structure further enables inclusivity by accommodating diverse research identities and agendas.

ii) We have strengthened research leadership and enhanced transparent governance structures. Research leadership in the School is provided by the Director of School and Director of Research working with the Director of Impact, Deputy Director of Research, Director of Postgraduate Research (PGR) and a Deputy Director of Research at NUL. The Director of Research sits on the School Executive Board, reports to the Faculty Dean for Research and Innovation, and represents the School on the Faculty Research and Innovation Committee. In addition, we have created the role of Research and Impact (RI) Lead for each subject group to develop research and impact capacity and oversee mentoring. RI Leads work closely with the Directors of Research and Impact, and with Research Community Leads, who are responsible for organising seminars and workshops. The RI Leads represent their subject groups on the School's Research, Impact and Innovation Committee. The Director of Postgraduate Research works closely with subject group PGR Convenors, who represent their subject groups on the School's Postgraduate Research Committee. These tiers of leadership are collectively responsible for stimulating, enhancing and overseeing the development and delivery of the School's research strategy.

Sixth, we have increased staff diversity including in senior leadership roles. Our commitment to diversity and inclusivity is evidenced by the School's Athena Swan Bronze status. Since REF2014 we have made progress in embedding gender equality across our activities, with a strategic priority of increasing the gender balance of our staff. We have: recruited 40 women including 5 at professorial level; had equal numbers of promotions amongst men and women; and shifted the gender profile of the School from 71% men 29% women (REF2014) to its current profile of 54% men 46% women. Significantly, we have appointed several women – including BAME – to senior leadership roles within the School (2.1.1).

These six priorities are further expanded and evidenced in the remainder of our environment statement.

1.4 Research contributions and achievements during the review period

We present our research contributions and achievements in terms of our subject groups, and their associated research communities, followed by our five interdisciplinary themes.

1.4.1 Discipline-based research excellence

Accounting and Finance (A&F) (Abdelrehim, Ahmed, Al-Shaer, Crawford, Davie, Duxbury, Efreteui, Elnahass, Gabbioneta, Gibbon, Higgins, Hussain, Kanungo, Li(T), Li(X), Liu(L), Liu(P), McCollum-Oldroyd, McLaren, Sewraj, Song, Su, Tahir, Trinh, Wu)

A&F has one research community encompassing clusters of research activity across five main areas. Experimental and behavioural finance focuses on financial behaviour and decisions of individuals, households and companies including research on: the future use of cash (NatWest 2018–20); the predictive power of business narratives on corporate decisions; mechanisms through which business sentiment influences shareholder wealth; investor behaviour and sentiment alongside contagion in financial crises; and links between macroeconomic activity and corporate financing. Capital market research focuses on developed and emerging markets including work on: determining the significance of abnormal stock returns; economic benefits arising under Chinese domestic takeovers; portfolio performance evaluation; examining the performance of financial analysts; and understanding the influence of corporate disclosures on firm valuation and board-level compensation. Since the 1990s A&F has pioneered accounting history archival research, retaining and strengthening capacity in this area. Work focuses on: the twentieth-century development of the American financial analysis profession; plantation management in the Caribbean and American South during the transition from slavery to a free economy; the use of accounting technologies to control indigenous populations, including their

gender identities, in the British Empire in the Victorian period; evolution and protection of trademarks and brands; and post-colonial history of the oil industry's development in Iran, Burma and Malaysia. Accounting and accountability research uses critical accounting theories and qualitative methods to explore corporate social responsibility and disclosures within published accounts, and social accounting and social impact measurement (ICS17-1). Further research explores the accounting profession by using institutional and organisational theories to examine notions of professional identity and reputation and by investigating the accounting profession in Syria at the margins of global order.

Economics (Anderson, Barlow, Bonilla Trejos, Braakmann, Chilton, Dietrich, Eberth, Evgenidis, Fazio, Gebka, Ghoshray, Jones, Kiraly, Lorusso, Maioli, Metcalf, Nguyen, Seested Nielsen, Parravano Baro, Paul, Sessions, Sharma, Shin, Smrkolj, Sollis, Vermeulen, Weber, Whitehouse, Wildman, Wren)

Economics of Safety, Health, Environment and Risk (ESHER): Economics at Newcastle has been world-leading on the economics of safety, health, the environment and risk since the 1980s. This research underpins ICS17-2 and a related REF2014 ICS on the value of human life that 'was assessed as outstanding' (according to feedback from the sub-panel). Our economists use sophisticated quantitative methodologies to estimate people's values of safety based on willingness to pay and this research informs UK Government guidance on cost benefit analysis in project appraisal where health and safety is a major concern (see HM Treasury Green Book). We led the UK Government-commissioned scoping study (funded by the Health and Safety Executive 2018–19), which informed the Government's decision to undertake a new primary study to provide direct, empirical evidence to update its values for life-expectancy gains.

People, Markets and Firms (PMF) encompasses our behavioural and experimental economists who co-direct the Behavioural and Experimental Northeast Cluster with Durham University Business School to promote and facilitate experimental and behavioural research in academia, policy and business. Applied time series econometrics, finance, financial economics and financial econometrics investigates the econometric detection of asset price bubbles, econometric analysis of the persistence and adjustment of primary commodity prices, and the econometric analysis of financial anomalies and financial contagion. Labour, health and education economics was strengthened through new appointments including to the Sir David Dale Chair and investigates the links between the labour market and demographic-societal outcomes, including inequalities related to the effects of automation and globalisation, gender in India's labour force, and health. Macroeconomics and applied microeconomics examines macroeconomic modelling, applied macroeconomics, applied macro-econometrics, the modelling of microeconomic behaviour with macroeconomic implications, and the origin and functioning of national and international institutions. Applied microeconomics research on the theme of spatial, urban, regional, international and industrial economics investigates firm strategy and market structure, economic integration, the location of foreign direct investment, innovation and R&D, urban structures and spatial spillovers, the housing market, the airline industry and online markets.

Leadership, Work and Organisation (LWO) (Alexander, Baddar Alhusan, Bader, Brannan, Butler, Edward, Harvey, Hughes, Jacob, Jha, Kirk, Lain, Lopes, Mauthner, Mavin, McGovern, McKinlay, Munro, Neesham, Pagan, Patel, Pesch, Procter, Reissner, Scurry, Sperber, Vigneau, Vincent, Whittle, Yakovleva, Zaeemdar, Zhu)

Human Resource Management, Work and Employment (HRMWE) focuses on three cross-cutting areas: Diversity at work investigates race, class, gender and refugee status in the workplace in different sectors (engineering, entrepreneurship, higher education, legal profession). Our research on ageing advances our understanding of employee and employer perspectives on an ageing workforce; the management of older workers in the UK and Norway (Norwegian Research Council 2017–18); the role of grandparents in childcare (with Grandparents Plus); active ageing through Social Partnership (EU 2016–19); and managing an older social care workforce (British Academy 2017). The politics and organisation of work

develops theoretical understandings of the labour process and the micropolitics of management, organisation and self-regulation at work; the political economy of HRM; teamwork and changing patterns of work organisation; employee voice and the restructuring of work organisation and skills; the organisation of self-employment and front-line services work; trade unions in the workplace and the wider political economy; the rise of emerging forms of precarious work; and regulation of work and employment (ESRC 2013–16). People, management and global organisation is a new and growing focus since REF2014 and investigates: China's engagement in the global market; professional services in China; Chinese acquisitions in the UK (British Academy 2017–19); expatriation, including the challenges faced by globally mobile female employees; managing people in hostile environments; organisations' duty of care around global mobility; the changing nature and experience of graduate employment in the UK and India; skilled migrant women's careers in Qatar; and research on the International Labour Organisation (ILO), which has informed the mainstreaming of the 'decent work' agenda in UN organisations (ICS17-3).

Strategy, Organisation and Society (SOS) uses and develops social theory to understand strategy as a cultural, organisational and political phenomenon. Our research on business ethics, corporate social responsibility and governance examines the role of whistleblowers in bringing misconduct to the public's attention; governance of pension funds (ICS17-4); the use of non-disclosure agreements in organisations; employee volunteering; entrepreneurial philanthropy (ICS17-5); and the social and environmental implications of mining. We are pioneering historical organisation studies as a distinctive epistemological and methodological approach that develops business history as a key lens for examining contemporary organisational challenges and we founded the European Group for Organizational Studies (EGOS) stream on historical organisation studies during the review period. SOS and HRMWE researchers make significant contributions to methodological innovation, including work on discourse analysis, posthumanist methodologies and methods, critical realist research methods, Bourdieusian methods and feminist methods.

Marketing, Operations and Systems (MOS) (W. Ahmed, Alamanos, Alderman, Bahemia, Bhattacharya, Casey, De, Dong, Elliott, Forbes, Giazitzoglu, Go Jefferies, Gorton, Gregory-Smith, Gupta, Hicks, Javornik, Keshvarifard, Kimmitt, Licsandru, Lindridge, Mountford-Brown, Palamida, Papagiannidis, Richter, Sapsed, Scheurenbrand, Schoefer, Tajvidi, Tan, Vega, Whitehurst, Yang, Yannopoulou, Yu)

Innovation, Enterprise and Digital Business (IEDB) has grown its international reputation since REF2014 for its interdisciplinary impactful research on innovation and creative industries and agri-food markets and rural enterprise, which we describe below in our interdisciplinary themes on Innovation and Creative Industries and Rural Enterprise. Research on innovation includes innovation in complex projects and open innovation. The community has advanced understanding of the role of social innovation in shaping the design of public services (EU 2017–18); and how communities of practice in the UK, comprising public sector commissioners, charitable funders and service providers, might operate to deliver social interventions (Tudor Trust 2018). Work on entrepreneurship includes research on the structure and dynamics of social entrepreneurship in Chile; the role of social enterprise networks in supplying essential agriproducts to smallholder farmer communities in Kenya (Comic Relief UK 2014–18); and entrepreneurial masculinity. A further strand of research explores entrepreneurial learning and work on digital business is reported below in our Digital Economy theme. This community's work underpins ICS17-6, ICS17-7 and ICS17-8.

Marketing: Consumers, Communications and Services (MCCS) has expertise in three main areas. Our consumer behaviour research examines: how marketing and behaviour change can support health, wellbeing and sustainability at individual, organisational and environmental levels; the role of loyalty loops in understanding the customer experience journey; the use of Big Data and neural network methodology to predict the influence of online product sales on supply chain management; customer participation in service co-development; the effects of augmented reality on consumer behaviour; and the effectiveness of celebrity product endorsement in India. Marketing communication has a particular focus on digital marketing, e-commerce, e-business

and e-government. Services marketing research continues to explore service innovation through increased user participation. The community has engaged in extensive knowledge transfer projects with regional organisations (4.3).

Operations, Data and Information Systems (ODIS) has extended research on Lean principles and transformational change reported in REF2014 in respect of manufacturing and has expanded its application to the health sector and automotive dealerships (ICS17-9). Operations research approaches have been applied to container shipping (British Council 2017–20), sustainable logistics, vehicle routing/hub location, inventory management and scheduling. The community has expertise in game theory, nature-inspired algorithms and mathematical modelling. Operations and supply chain management research focuses on behavioural supply chain management, supply chain management in the emerging regenerative medicine industry and agricultural supply chains. Soft systems research has used action research and multimethodologies to enable the participative specification and design of new systems in the NHS and engineering sector.

1.4.2 Interdisciplinary thematic priorities

The following five themes have emerged as strategic priorities for the School since REF2014 and bring together NUBS researchers across subject groups.

Innovation and Creative Industries

This theme builds on innovation systems work reported in REF2014 and is supported by the Centre for Knowledge, Innovation, Technology and Enterprise, which provides research expertise in innovation, entrepreneurship and information systems. We have secured two phases of funding from AHRC, Arts Council and European Regional Development Fund (ERDF) (2016–22) for Creative Fuse North East (CFNE), a multidisciplinary action research project. CFNE brings together researchers and businesses in the creative, digital and IT (CDIT) sector to develop innovative ways of combining creative art and design skills with technology expertise to support businesses to grow staff, products and sustainability. CFNE mapped much of the CDIT sector in North East England and used pilot initiatives to link that sector to other sectors in the region. We are part of the Creative Industries Policy and Evidence Centre (ILES 2.4.4), led by the National Endowment for Science, Technology and the Arts (Nesta), which is developing evidence-based policies for the UK's creative industries (AHRC/ISCF 2018–23). NUBS leads the work strand on the international competitiveness of the creative industries, with a focus on trade, investment, migration and Brexit. Our research on innovation and creative industries is also helping to develop enterprise skills and the creative economy in Azerbaijan, Sub-Saharan Africa and China.

Rural Enterprise

Building on work on agri-food markets reported in REF2014, we continue to lead significant European Union-funded projects (3.1) relating to the competitiveness of rural small- and medium-sized enterprises (SMEs); sustainability and resilience of food-supply chains; and strategies to improve returns to small-scale producers (ICS17-6). Further UK-based research has included explorations of the urban vs rural spatial tensions for productivity (ESRC 2018–19, Department for Business, Energy and Industrial Strategy (BEIS) 2016 and 2018–19). By working with academic and non-academic partners worldwide, this research is informing agri-business, entrepreneurship and rural development policy nationally and internationally. Building on this expertise we co-lead the National Innovation Centre for Rural Enterprise (NIC-RE), funded by Research England (2020–23), to undertake research and knowledge exchange to inform policy, foster the innovation and resilience of rural businesses, and unlock the potential of rural economies.

Health and Lifestyle

The Health and Lifestyle theme includes research on health economics, health service design and delivery, and lifestyle behaviour change. Funded work explores the role of societal preferences in NHS dentistry (National Institute for Health Research (NIHR) 2015–20); the impact of social prescribing interventions on people with Type II diabetes (NIHR 2018–21); public perceptions of the health risks of climate change (NIHR 2020–21); public and practitioner perspectives on the delivery and cost of dental care (NIHR 2020–23); and the role of NHS managers in innovation (NHS Newcastle Gateshead Clinical Commissioning Group 2017). Building on our expertise, in 2019 one of our professors in Economics co-established, and co-leads, the Centre for Healthier Lives NUCoRE with professors in human nutrition and human-computer interaction. The Centre is the first in the UK seeking to design interventions to change ‘connected’ behaviours, including those that threaten the wider environment. Our behavioural economists are providing expertise in analysis of interrelations between socio-environmental factors and individual choices and the development of interventions to support behavioural change (3.2.5).

Ethics and Sustainability

We have expanded our research on ethics and sustainability during the review period, reflecting the growing importance of organisational ethics and sustainable development. Our research tackles regional, national and international challenges spanning research into consumer and workplace behaviours, the circular economy, alternative accounting models, sustainable supply chains and the impact of the ‘Business Benchmark on Farm Animal Welfare’. A key strand of research relates to the extractive industries including: research co-created with civil society organisations on the politics of accounting standard setting, which is used to hold governments and extractive companies to account; work on corporate-community relations between the extractive industries and indigenous communities; and the social and environmental implications of mining in Argentina, Ghana and Russia (ESRC IAA 2017–19). We have been an Advanced Signatory to the Principles for Responsible Management Education (PRME) since 2010 and have submitted four reports since REF2014, detailing our research relating to ethics, sustainability and responsible management under Principle 4.

Digital Economy

Our work on the digital economy investigates the use of digital technologies (including algorithms, blockchain, mobile and cloud computing) in different areas (financial services, manufacturing, healthcare, local government, marketing, and domestic and workplace settings) and associated ethical issues. We are a partner in the EPSRC-funded Digital Economy Research Centre (2015–21), contributing expertise in digital business, and experimental and behavioural economics. The Centre develops new digitally mediated models of citizen participation that engage communities, the third sector, local government and the commercial digital economy in developing the future of local service provision and local democracy. Our research also explores end-user trust in financial technologies (EPSRC 2018–21) and cloud computing services (EPSRC 2018–21); barriers and drivers of diffusion associated with permissionless and permissioned blockchains; the effects of augmented reality on consumer behaviour; e-voting systems (Innovate UK 2018–19); open-source innovation in the NHS; the co-creation of value in digital healthcare; Big-Data and business analytics in the context of detecting industrial clusters (Office for National Statistics 2019–20); digital innovation in maritime consumer supply chains; and the implications of digital transformations in China and Germany for ageing societies. Under this theme we are also developing a body of research on the changing nature and future of work within a digital economy with studies of new forms of organisation and work practices in the mobile technology industry; youth, enterprise and precarity in the gig economy; professionalism within distributed ICT-enabled workplaces; the negotiation of work-life boundaries by technology-enabled mobile, agile and flexible work (British

Academy 2016–18); the surveillance of new work practices; and theoretical ways of conceptualising the relationship between technological and social change.

1.5 Ethics, research integrity and open research

NUBS research is subject to ethical review through the University's Ethical Approval Process. Colleagues also utilise appropriate professional frameworks (e.g. British Academy of Management (BAM), British Sociological Association, ESRC) and ensure their research conforms with legal regulations (e.g. General Data Protection Regulations). Research ethics, governance and integrity frameworks are covered at staff induction, through taught modules and other training. We use our own research on ethics and sustainability to stimulate ethical thinking and debate across all School activities through workshops, seminars, and publications under the leadership of our NUBS Ethics Convenor and a newly appointed NUBS Director of Business Ethics and Corporate Social Responsibility (CSR). We are committed to the *Concordat on Research Integrity* (2019) and are adopting the recommendations coming from Wellcome's *Reimagine Research Culture* campaign.

We support a culture of open research for its potential to widen access to research by academic and non-academic audiences, enhance the reproducibility of research, and catalyse knowledge exchange and impact. NU's MyImpact research information service facilitates uploading of outputs to NU's e-prints database, and we provide funds for staff to make publications 'gold' open access. NU's Research Data Service provides staff with training, software packages (DMP Online), and support to meet funder requirements for data management. Staff are encouraged to make use of NU's Research Data Depository and other appropriate repositories. We run workshops to raise awareness of data-sharing opportunities and challenges, and recognise that sharing data entails a significant shift in academic culture and practice.

1.6 Strategic priorities for the next review period

Over the next review period we will continue to strengthen our discipline-based and interdisciplinary research and impact by growing, investing in, and supporting a diverse community of outstanding staff and research students. We will continue to resource knowledge exchange and impact especially related to our interdisciplinary themes. We will extend our collaborations, with a particular focus on international partners, which will help grow and diversify our research income streams. Specific staff, PGR and EDI priorities are outlined in Section 2.4.

2. People

Our achievements have been made possible by the Unit's excellent and diverse community of staff and research students and by an inclusive and supportive culture that values different types of outputs and varied career pathways.

2.1 Staff

2.1.1 Staffing strategy

Our teaching and research staff (T&R) have increased from 90 to 122. Table 1 details staff composition by subject group and stratified by gender at the census date. New permanent appointments have been made at all career stages and across all subject groups. The majority of T&R staff are on permanent contracts with just 3% fixed-term. At census, the T&R composition is: 48% early career; 25% mid-career (SL and Reader); 27% professors; 28% BAME; 46% women; and 54% men. Five T&R staff disclosed a disability. The Unit has grown its community of postdoctoral research associates (PDRAs) from three (REF2014) to thirteen. All PDRAs are initially appointed on fixed-term contracts. Our staffing strategy seeks to create a

diverse community of researchers to ensure disciplinary expertise and sustainability; critical mass in our interdisciplinary themes; expertise in generating impactful research; experience in securing competitive grant income; and succession planning. We have prioritised addressing the School's gender imbalance. Relative to REF2014 the percentage representation of women has increased in all senior grades (Senior Lecturer 46% to 65%, Reader 0% to 75%, Professor 17% to 21%) and representation among Lecturers is more balanced than previously (79% to 49%). Promotions and recruitment of women in the next review period will help address the under-representation of women professors. Significantly, we have enhanced women - including BAME - leaders through a combination of external and internal appointments at Director/Deputy levels (Director of School, Director of Research, Director of Impact, Deputy Director of Research, Deputy Director of Research NUL).

Table 1: T&R, PDRA and PGR headcount on 31 July 2020 by subject group and stratified by gender

	Accounting and Finance		Economics		Leadership, Work and Organisation		Marketing, Operations and Systems		Total		
	Men	Women	Men	Women	Men	Women	Men	Women	Men	Women	Total
T&R Staff:											
Professors	4	1	8	1	8	3	6	2	26	7	33
Readers	0	0	0	0	0	2	1	1	1	3	4
Senior Lecturers	1	6	2	2	3	5	3	4	9	17	26
Lecturers	6	7	13	4	4	7	7	11	30	29	59
PDRAs	0	0	3	0	0	2	4	4	7	6	13

2.1.2 Research support, training and development

The School has a comprehensive network of research support structures at research community, subject group, School, Faculty and University levels.

All new staff undergo a comprehensive research induction led by senior School and Faculty staff covering: NUBS and NU research and impact strategy; research support, systems, policies, funding and infrastructure; support for research grant applications; REF2021 guidelines and School-level processes. New staff are invited to give a research seminar in their first year to build their academic connections within the School and the wider University.

In 2018, responding to feedback from the Athena Swan panel on our successful Bronze award application, we formalised the School's mentoring scheme to give all staff access to a mentor, including impact mentoring provided by current and past REF ICS leads. The mentoring scheme supports the annual Personal Research Planning (PRP) for T&R staff and guides mentees in: career development, progression and promotion; research, innovation and impact training and development; research strategies including grant capture; international collaborations and visits; development of sabbatical/knowledge exchange leave applications; training and development needs. We also use the PRP process to identify impactful research and potential ICSs for targeted support and resource. NUBS implements the 'Concordat to Support the Career Development of Researchers' principles within the broader context of NU's approach, including the annual ten days pro rata for professional development.

Early career researchers (ECRs) are developed through mentoring and dialogue with peers and senior staff. We organise regular internal workshops where ECRs present their work and we guide them towards relevant face-to-face and online conferences and similar opportunities for feedback and networking. Additional School workshops support ECRs, PDRAs and PGRs in crafting high-quality outputs, writing competitive funding applications, and developing good research questions. A highly effective NUBS ECR-led writing group was established in 2017 with sixteen journal articles/book chapters published to date. Team working

is promoted through collaboration on research grants, co-supervision of students and co-authorship. PDRAs are included in all staff training and development, and PGRs benefit from all capacity-building activities. Both are encouraged to engage in teaching and administration to help familiarise them with the activities involved in an academic career.

NUBS supports staff through a 40% workload allowance for research and a wide range of research support funds. Those leading significant impact activities, and developing ICSs, are supported through additional workload allowance. Externally funded research activity is allocated further workload allowance through teaching buy-out. We also give staff on F-Grade contracts a lighter teaching workload in the first year. All staff have access to School and Faculty research support funds including personal research allowances (3).

All staff employed by the University for at least three years can apply for research sabbaticals (one semester after six teaching semesters) to advance their research, prepare large bids, or develop impact. We have introduced a more strategic and inclusive approach to sabbatical leave by using mentoring, PRP and Performance and Development Review (see below) processes to identify and encourage eligible staff members to apply. The School's Sabbatical Committee approves applications conditional on a clear research plan and scrutinises end-of-leave reports. Year-long sabbaticals are provided for staff who have had significant management roles. We encourage and support staff to apply to a new Faculty-funded Innovation and Knowledge Exchange sabbatical scheme for secondments to non-HEIs (paused in 2019/20 due to the impact of COVID-19 on workloads).

NU has a formal Performance and Development Review (PDR) process through which the performance, development needs and career aspirations of all members of staff are reviewed. We use the PDR process to proactively support promotions by identifying relevant career development opportunities and needs, ensuring an inclusive approach to encouraging promotion applications particularly from women and minority groups. Since REF2014, sixteen women (44% UK, 56% non-UK) and fifteen men (35% UK, 65% non-UK) have been promoted. NU and NUBS promotions policy recognises the importance of diverse contributions to research including research outputs, research grant income, knowledge exchange and impact activities. NU also has a mechanism for accelerated increments for excellence, and provision for discretionary payments. NUBS follows the general recommendation of the San Francisco Declaration on Research Assessment, to which the University is a signatory. We do not use journal-based metrics or journal lists as measures of the quality of research articles or scholarly contributions for the purposes of recruitment and promotion. Further, in accordance with NU's REF2021 Code of Practice, peer-assessed output scores used for selecting outputs for our submission are not used for promotion or other performance management practices. We provide dedicated support for career development and opportunity, including progression of our own PDRAs and PGRs into lectureships at NUBS. For example, a Santander Universities-sponsored PhD student (2012–15) was appointed as a Lecturer in 2015 and promoted to Senior Lecturer in 2020.

We proactively manage succession planning and support leadership development through one-to-one Leadership Coaching for senior leaders (supported by NU Organisational Development Unit) and by funding external training provided by organisations such as the Chartered Association of Business Schools (CABS), BAM and the Advance HE Aurora Leadership programme. Among many promotions in the period, we are proud that five senior women leaders, three mid-career women academics and two professional services women have participated in these initiatives, which have facilitated progression into more senior roles.

We have instituted new ways of more visibly celebrating and learning from research successes, including a NUBS Annual Research Day. In 2020, due to the COVID-19 pandemic, we held a week-long digital Research Festival with eighteen separate events. These bring together all academic staff and research students to discuss research and award School and subject group prizes for: interdisciplinary research; impact; research citizenship; and PGR, early career and established researcher achievements. Prizes celebrate the Unit's inclusive research culture and reward diverse ways of contributing to the research environment.

Following the outbreak of the COVID-19 pandemic, all NU colleagues on fixed-term contracts due to end before the end of July 2020 had their contracts extended to 31 July 2020, and PGRs were given COVID-19 Impact Scholarships for up to three months. Academic staff were asked to prioritise business critical activity. Increased time preparing and delivering online teaching, combined with caring commitments and home schooling for some, has impacted on research. NU introduced 'quiet Fridays' (reduced meetings and emails) to free up time for research, among other activities. NUBS honoured budgetary commitments to research and impact activities where these were permitted under COVID-19 regulations and guidance. Sabbaticals went ahead, although staff could choose to defer them. The research environment (mentoring, research events and workshops) has moved to online provision. The NUBS-led Methods Hub, a pan-University initiative funded by the three HaSS Research Institutes to lead on critical interdisciplinary methodological advances and debates, ran webinars (attended by over 300 staff and PGRs from across NU) on online research methods, digital ethics, and use of archives and secondary data. NUBS surveyed staff and PGRs on the impacts of COVID-19 on research activity and researcher-identified support needs. Our response has included recognition of the uneven and gendered impacts of the pandemic, which will feed into our ongoing research support processes, as well as introduction of online social events and wellbeing initiatives including Zoom 'cook-alongs', where staff shared recipes from different cultures.

2.2 Postgraduate researchers

2.2.1 PGR community

Our research students are central to sustaining the research vitality of the School. We have grown our PGR numbers from 125 in REF2014 to 134 students at the census date. Our community is diverse with 74% international, 20% home UK and 6% EU, with a total of 35 nationalities. The gender ratio of our student population is 54% women and 46% men. Overall, 75% of our PGR students identified as BAME and 25% as White. Two per cent have declared a disability. Our student cohort is divided among our subject groups as follows: Accounting and Finance (21%), Economics (15%), Leadership, Work and Organisations (19%) and Marketing, Operations and Systems (45%).

The School encourages cross-disciplinary supervisory teams to support interdisciplinary projects and training, with a focus on strategically significant research areas. Thirteen PGRs have been supervised with colleagues in other NU units including School of Arts and Cultures; Centre for Rural Economy; Dental School; School of Computing Science and Digital Civics/Open Lab. Staff have co-supervised thirty-eight doctoral students across twenty-one different institutions (UK, Europe, Australia). The British Council-funded NUBS PGR exchange programme with the Indian Institute for Technology Delhi (IITD) has supported two PGR visits to IITD and four IITD visits to NUBS during 2017–20.

The quality of our PhD programme is enhanced through competitive funding schemes.

Since REF2014 NUBS has won several external studentships through the ESRC Northern Ireland and North East (NINE) Doctoral Training Partnership (DTP) and AHRC Northern Bridge (NB) Consortium DTP. We have invested in further studentships to improve the quality of our PGR intake, including seven in economics and finance funded through the Peter and Norah Lomas endowment and six across all subject groups through the David Goldman endowment.

2.2.2 PGR completions

To enhance student experience, we have focused on improving timely PhD completions during the review period by: utilising School and Faculty resources to enhance supervisor training; introducing supervisory teams with experienced supervisors mentoring less-experienced staff; ensuring rigorous progression procedures; and using student induction events to communicate completion expectations. This had led to a doubling of PhD awards during the review period from 48 (REF2014) to 94, including seven Doctors of Business Administration (DBAs) (Table 2).

Unit-level environment template (REF5b)

Table 2: Doctoral award allocation summary stratified by year and degree type [PhD and Professional Research Doctorate].

Degree type	2013	2014	2015	2016	2017	2018	2019
PhD	12.63	8.94	12.63	10.29	9.16	20.56	12.55
DBA	0.00	2.72	2.25	1.00	1.01	0.00	0.00
Total	12.63	11.66	14.88	11.29	10.17	20.56	12.55

2.2.3 PGR research support and training

Recruitment, selection, induction, research skills development and employability training of PGRs is coordinated by the Director of Postgraduate Research working closely with four subject group PGR Convenors and a PGR Administrator. This leadership team oversees continuous improvement of the programme; ensures timely completions; ensures quality assurance of supervision (max. eight students per staff); and supports the future employability of PGRs by developing their transferable skills in programming, big data analytics, use of databases (including twenty Bloomberg terminals), data analysis, writing and teaching. HaSS Faculty has a Higher Education Academy award-winning ESRC and AHRC-recognised Postgraduate Researcher Development Programme that provides the philosophical and methodological research skills to support PhD completions.

This programme is complemented by School-level compulsory credit-bearing discipline-specific training. These courses influence progression into second year. Students are encouraged to attend training courses and events run through the ESRC NINE DTP and AHRC NB DTP. NUBS is a member of the Northern Advanced Research Training Initiative (NARTI), a network of leading research-based business and management schools in the north of England. NARTI offers advanced training and symposia for PGRs, enabling them to network across institutions. PGRs are integrated in NUBS research through: membership of relevant subject group and research communities; a PhD thesis-writing group; provision of workspaces and computing facilities; and an annual PGR Conference complementing the Faculty Conference. These provide a professional work environment and opportunities to develop networks and peer support.

A dedicated PGR budget has invested £320K since REF2014 to support PGR training, attendance at national and international conferences and network building. NUBS offers PGRs opportunities for paid research assistant work, building their experience and sustaining and developing the Unit's research and impact skills base. NUBS also encourages and supports PGRs working with non-academic stakeholders to co-produce research, engage in knowledge exchange and create impact. For example, our research students have worked with public, private and charitable organisations (e.g. NHS, City of Sanctuary UK, BALTIC Centre for Contemporary Art), and have held internships in non-HEIs, to co-create research and impact. We are using the new ESRC 'Accelerating Business Collaboration' scheme to build the capacity and capability of our doctoral students and early career researchers to engage with business. Through this scheme one of our research students is working with Northumbria University and Indigo Multimedia digital agency to understand the relationship between gender, digital wellbeing and work-life management. These initiatives, along with support from NU Careers Service, have helped students secure academic posts in Newcastle University and other universities in the UK and abroad (e.g. University of Warwick, Hong Kong Polytechnic University); win competitive fellowships (e.g. Leverhulme Trust); and secure employment in the public (e.g. HM Revenue and Customs), private (e.g. Oxford University Press) and third sector (e.g. Angelou Centre).

2.2.4 PGR supervision, progression and monitoring

PGR students are guided by supervisory teams of two (or more) staff who are experts in their fields and recognised as qualified supervisors according to NU's Code of Practice for Research Degree Programmes. Since REF2014, NUBS governance and quality assurance of supervision has been strengthened and further formalised requiring: an initial assessment of student training

needs by the supervisory team and student; a minimum of ten supervisory meetings a year; and progress recording on NU's e-portfolio system. Student progress is monitored through the Annual Progress Review (APR) process. Students are required to present their work in written and oral forms to an APR panel that comprises two independent academic staff members. APRs identify any concerns and inform progression decisions. Students are encouraged to co-author outputs with their supervisors. In the 2019 Postgraduate Research Experience Survey 97% of NUBS PGRs were happy with their supervisors' skills and subject knowledge (Q2.1), 94% with contact hours (Q2.2) and 96% with feedback received on their work (Q2.3) (PRES March–May 2019, response rate 53.1%, unit of assessment Business School). HaSS Faculty's Quality and Enhancement Framework 2019 review (which takes place every 6–7 years) praised the quality of the supervisory relationships in NUBS and one of our supervisors was awarded the 2019 NU Research Supervisor of the Year. During the COVID-19 pandemic, research supervision has continued online. The pandemic has impacted on student progression, with two-thirds applying for an extension to their APR, extension of their submission date, or requesting interruption of studies. We are monitoring the impact of the pandemic on our students' wellbeing, and are working with our PGR students involved in [PGR Wellbeing4All](#), one of the seventeen HEFCE Catalyst-funded projects investigating the mental health and wellbeing of PGR students at Newcastle University.

2.3 Equality, diversity and inclusion (EDI)

Increasing staff and student diversity is a School priority as it widens the Unit's talent pool, introduces new perspectives and fosters innovative thinking. We have developed a strategic focus on EDI and social justice drawing on the Unit's research expertise in this area. This is reflected in our organisational practices and culture. Our commitment to EDI is evidenced by our Athena Swan Bronze award, which we are using as a springboard for advancing broader intersectional equality and diversity among staff (including professional services colleagues) and students. We emphasise the use of respectful dialogue and inclusive language across all functions, and we have reviewed our website and marketing materials to avoid biased language and images. We are proactively working with the University to address EDI issues by working with Rainbow@ncl to support LGBTQ+ and transgender staff and students; helping to develop BAME policies at University level; and contributing to the NU Parents' Network and Carers' Network. Unit staff also have leadership roles in the NU Disability Interest Group. NUBS academics attend and contribute to events organised by NU Women and NU BAME staff support networks.

Since REF2014 we have introduced a more inclusive approach to recruitment, selection and promotion. Job advertisements use inclusive language. All staff are encouraged to share job opportunities through their networks. We have engaged recruitment consultants to broaden applicant pools and informal discussions are held with potential candidates. All NUBS interview panel members have received unconscious bias training and interview panels are gender balanced.

We support flexible and part-time working. Adjustments are made to the Workload Allocation Model (WAM) to reflect part-time hours, with WAM transparent and accessible to all NUBS staff. All research events avoid shorter school holiday periods (e.g. half-terms).

NUBS actively encourages staff to take maternity, paternity, adoption and parental leave, which all count towards the semesters required to be accumulated for research leave. NU launched its flagship [Returners' Support Programme](#) in 2017, providing a flexible package of financial support (up to £10k) to enable academic and research staff to regain momentum following an extended period of caring, sick or disability leave. NUBS HR directly contact all those eligible. Two NUBS lecturers have benefited from this scheme.

NUBS staff lead nationally and internationally on EDI agendas, particularly in relation to gender, and this informs the School's EDI strategy and approach. This involves: participating in the BAM Gender in Management Special Interest Group; chairing the CABS Diversity Committee; publishing in high-quality gender, diversity and management journals; founding the *Gender Issues in Business Schools Network* in 2018, which was commended by the Athena

Swan panel that reviewed our application; and running a workshop on *Publishing Research on Gender and Diversity in Management Journals* in 2019/20. NUBS staff are also involved in civic, political and executive roles in relation to EDI: serving on the International Leadership Association Executive Leader Team of the Women's Council; the University and College Union (UCU) National Executive Committee with a responsibility for equality for women; membership of the *Show Racism the Red Card Management Committee*, promoting anti-racist education to young people via the football industry; and board member of the Gender Relations in the Labour Market and the Welfare State research network of the European Sociological Association.

2.4 Future priorities

Over the next review period our 'people' priorities will be to continue to increase the diversity of staff particularly at senior levels through promotions and recruitment; work with the University to ensure promotion and performance reviews take account of the uneven impacts of COVID-19 on research careers; appoint an EDI Director to embed intersectional EDI across functions including monitoring research activity (authorship, co-authorship, PI/Co-I on grants, ICS leads) according to staff protected characteristics; and grow our community of research students and increase the number of competitive PGR studentships to increase the quality of our intake.

3. Income, infrastructure and facilities

3.1 Income

We have actively sought to enhance our research income levels and diversify funding sources. We have brought in *research income* totalling over £3.9m, compared to income totalling £2.2m in REF2014. We are in receipt of 126 successful awards with a combined *award value* of over £80m, with £6.2m award value coming to NUBS (compared to £2.8m in REF2014). UKRI awards account for £40.8m, with £3.2m award value to NUBS. NUBS leads eighty-two of these awards. Additional streams of income include £200k of awards associated with consultancy, Continuing Professional Development and teaching projects, and our work has also been supported by in excess of £260k of funding from HaSS for research and impact activity.

The School encourages and supports researchers in securing competitive research grant income. Our external grant capture has helped to: foster research activity across all research communities through discipline-based, and smaller-scale interdisciplinary, research; develop our five interdisciplinary themes including through larger-scale multidisciplinary, often multi-institutional, awards; train and develop our early career researchers; create academic collaborations regionally, nationally and internationally; deliver high-quality outputs; disseminate our findings; create knowledge exchange partnerships with non-academic stakeholders; and generate impact. Research income is also important for career development and applications for promotion and, given this, we are beginning to monitor and address the gender imbalance in PI density through targeted support.

The Director of School and Director of Research have annual meetings with the HaSS Faculty Dean of Research and Innovation in which we review the School's research income-generation performance over the previous year, compare it to our performance over the previous five years, and set income objectives for the coming five years. These are aspirational figures, and no targets are set for individuals, subject groups or research communities. These meetings provide an opportunity to review the School's strengths, weaknesses, opportunities and challenges, and identify areas where we need to invest targeted resource and support. For example, our most recent analysis of 2019/20 figures suggests that: cross-faculty and cross-university projects generate more research income to NUBS than those projects driven solely by NUBS; our success in income generation derives mainly from large interdisciplinary grants (e.g. in 2019/20 ten projects accounted for 69% of all research income); and most of the research income is generated by longstanding staff (in place more than five years at the time of the award). This analysis is informing our strategy moving forward and our

plans to grow research income by using our centres and interdisciplinary themes as focal points for bid development for large grants and by including colleagues at different career stages.

Our interdisciplinary themes have attracted significant levels of research income and collectively comprise a large proportion of research awards. Our research on the **creative industries** has led to several awards, particularly from the AHRC. Two phases of funding from AHRC and ERDF (totalling £3.6m, 2016–22) support work on the sustainability of the creative, digital and IT firms in North East England, and we are part of the £6.1m Creative Industries Policy and Evidence Centre led by Nesta (2018–23), funded by AHRC and ISCF to inform policy development for the UK creative industry. Further smaller grants have enabled us to work with international partners on research and knowledge exchange projects to develop enterprise skills and the creative economy in Azerbaijan (£80k British Council Creative Spark Programme, 2018–21), and to co-design practical interventions to support artists in Kenya, Uganda and Rwanda (£87k AHRC 2018–20).

Our second theme, **rural enterprise**, accounts for the most significant portion of our funding awards with a focus on EU grants. With the NU Centre for Rural Economy, we have secured £3.7m funding from Research England (2020–23) to establish a National Innovation Centre for Rural Enterprise to support the rural economy. Our contribution to NIC-RE draws on further multidisciplinary grants totalling over £12.5m, spanning 2016 to 2021, funded by the European Commission. Strength2Food (£6m 2016–21) implements and evaluates organisational and innovative market strategies to improve returns to small-scale producers in mainstream food-supply chains (ICS17-6); VALUMICS (£5.2m 2017–21) advances understanding of the sustainability and resilience of food-supply chains; and INNOGROW (£1.3m 2016–21) seeks to promote the adoption of technology and business model innovations by rural SMEs to boost their competitiveness. Further research funded by DEFRA/ESRC/BEIS (totalling £22k 2016–19) investigates the urban vs rural spatial tensions for SME productivity. One of our researchers was PI on a project that received funding from Comic Relief (£1.2m 2014–18) to set up a social enterprise network of franchised retail outlets in Kenya to ensure farmers could purchase agricultural supplies at a fair price, thereby improving their competitiveness.

Collaborative awards between our health economists and colleagues in the Faculty of Medical Sciences have yielded significant funding to support our research on **health and lifestyle**. This includes substantial grants totalling over £1.9m from the National Institute for Health Research to investigate the role of societal preferences in NHS dentistry (2015–20), the impact of social prescribing interventions on people with Type II diabetes (2018–21) and public and practitioner perspectives on the delivery and cost of dental care (2020–23).

Our work on **ethics and sustainability** has been enhanced by our involvement in the £15.2m UKRI/GCRF *Living Deltas* Global Research Hub (2019–24), an interdisciplinary research project studying the sustainability of communities living on river deltas in Asia. Further funding from Innovate UK/GCRF (£93k 2020) is supporting a multidisciplinary project led by Procter & Gamble (P&G) on reuse/reduction of water in India. We are providing consumer behaviour expertise to this project that involves colleagues from the NU Schools of Engineering and Chemistry and IIT Gandhinagar, India.

Our work on the **digital economy**, in collaboration with the School of Computing, has attracted significant EPSRC funding. We are partners in the £10.4m Digital Economy Research Centre (DERC), supported by a £4m EPSRC award (2015–21). EPSRC grants are also funding our research on end-user trust in financial services (£1.2m 2018–22) and user trust in cloud computing services in collaboration with Cardiff University and UCL (£1.15m, 2018–21).

3.2 Infrastructure supporting research and impact

3.2.1 Research and impact capacity-building

We organise capacity-building events at research community, subject group and School levels for researchers at all career stages. These focus on writing and publishing, funding opportunities, applying for research fellowships, crafting a competitive application, and developing impact. For example, since REF2014 we have initiated a new series of

interdisciplinary workshops called *Research Connections* to stimulate collaborations, provide opportunities for our staff to contribute their disciplinary expertise to larger-scale grants, and increase PI density. The *Research Connections* innovation was commended by AACSB at our 2020 re-accreditation exercise and the workshops bring together researchers from across NU around specific themes (e.g. big data, digital transformations, ageing, energy) and funding opportunities (e.g. Industrial Strategy Challenge Fund, Knowledge Transfer Partnerships (KTPs), Arrow ERDF programme to support collaboration with SMEs, ILES 2.4.3). This innovation has delivered some early wins, including seven Arrow projects (4.3).

Research centres act as important vehicles for bringing researchers together from across the University (and beyond) around key areas of interest and potential collaboration. We use our own centres for this purpose, including KITE, NIC-RE, the Centre for Healthier Lives and the NUBS-led Methods Hub. Participation in NUCoREs (on Ageing Inequalities, Data, Energy, Climate and Environmental Resilience, and Cancer) and in HaSS Research Institutes activities creates further opportunities for interdisciplinary collaborations.

Our researchers take part in, and contribute to, Faculty-run capacity-building events.

These include Principal Investigator Training, Getting Those Grants residential workshops, KTP sessions, UK and EU funding workshops, Pathways to Impact workshops, and 'Unpacking Your Chair', an award-winning development programme designed to provide new professors with skills and knowledge to fulfil their responsibilities. The Faculty also runs monthly research and innovation drop-in sessions in different locations in the University to provide support, guidance, and peer review in the development of research grant applications including ECR Fellowship applications. For example, we supported an ECR in her successful application for the 2020 ESRC-funded postdoctoral fellowship competition and she will be working on inclusion in multilingual workplaces.

3.2.2 School and Faculty professional services support

We have expanded our dedicated professional services (PS) support for research to five FTEs. We also draw on wider PS support within the School with specialist input from the marketing and engagement teams. Together, these colleagues support all aspects of research administration including: identifying funding; costing applications; open access; MyImpact; knowledge exchange and impact; events marketing and coordination; research dissemination, communication and information sharing; and REF preparations. We also invest in research assistance to help curate and collate evidence for our ICSs. Our technicians and IT specialists support our computer clusters, database terminals and lab. All staff and research students have access to library-liaison staff to help access resources for their research.

The School receives additional extensive support from the Faculty Research Professional Services team of eight FTEs: Faculty Research Funding Development Managers provide one-to-one support for all staff, with a particular emphasis on ECRs and new staff. They highlight research funding opportunities in a targeted and proactive way and work with applicants to produce high-quality applications. The Faculty Business Development Managers (part of the wider NU Business Development and Enterprise Team) work closely with our researchers to initiate and develop innovation and enterprise projects (including KTPs and ISCF projects) and link researchers with relevant non-academic stakeholders. The Impact Officers support staff to generate impact, advertise impact opportunities, and advise on applications to Newcastle's ESRC IAA. They also support our Director of Impact and ICS Leads. There is specialised pre- and post-award support at NU level from the Grants and Contracts Team.

3.2.3 School and Faculty funding for research and impact

The School supports research, innovation and impact activities through dedicated budgets (figures below are for 2019/20). All staff have individual research allocations (£1.5k per person) to support research, scholarship and impact. Subject groups and research communities each have dedicated budgets to support discipline-based activities including capacity-building workshops, funding for conferences, seminars and other research events. Budgets are

calculated on a per capita allocation (£251k total allocation). Additional School funds are available to support incoming and outgoing international staff mobility and research visits, including visits undertaken as part of a sabbatical (£50k total allocation). The Director of Research has discretionary monies (£33.5k) to mobilise strategic activities at School, subject group, research community and individual researcher levels (for example, annual research day/festival; conference hosting; seed-corn funding for pilot projects; pump-priming for networking, development of partnerships; writing retreats; journal submission fees). This includes the Research Fund (up to £2.5k per project). The Director of Impact also has a dedicated budget, which has seen the most significant growth from £10k in 2013/14 to £176k in 2019/20, with a total investment of £377k during the review period. It includes our Impact Fund (up to £5k per project). Budgets are reviewed annually to ensure our investments match our strategic priorities and support and development needs identified by staff through the PRP process.

We use two generous endowments to further support the sustainability and vitality of the research environment. The David Goldman endowment supports our David Goldman Professor of Innovation and Enterprise and an annual David Goldman Visiting Professor of Innovation and Enterprise, who is an influential regional leader (Section 4). It also provides funding for doctoral studentships. The Peter and Norah Lomas endowment provides funding to support PhD students in economics and finance.

We secure further internal resource to support research, innovation and impact through Faculty funding schemes. These include: the Research Fund (up to £4k) supporting pilot projects, publications and other outputs, with a focus on ECRs; the Bid Preparation Fund to support large funding applications (up to £10k); the Faculty Impact Fund (FIF) (up to £5k); and interdisciplinary projects funded through the Faculty Research Institutes schemes (up to £10k). NU also provides funding for knowledge exchange and engagement activities through the Higher Education Innovation Fund (HEIF), ESRC and EPSRC Impact Acceleration Accounts (IAA), and ESRC Accelerating Business Collaboration (ABC) schemes. We have secured over £260k from FIF, HEIF, IAA and ABC to support over twenty distinctive projects (including to research the experiences and work-life challenges of in-work poverty; to enhance the support offered to young social entrepreneurs from disadvantaged backgrounds; and to explore how entrepreneurship education can achieve poverty alleviation and economic development in East Africa).

3.2.4 Physical infrastructure

As detailed in Section 1.2, NUBS has benefited from substantial investment from the University in capital projects, which have provided state-of-the-art teaching, research and collaboration facilities. This expansion and upgrading of the Unit's physical infrastructure, and its multi-site location, have accommodated growth in the size of the School and facilitated interdisciplinary collaborations and research-user partnerships.

3.2.5 Research facilities

The School has continued to invest in our Experimental and Behavioural Economics Laboratory, which is equipped with thirty-six workstations and advanced technical facilities. The lab facilitates the experiments that underpin our cutting-edge research on preference-based values (PBVs) for preventing premature fatalities (ICS17-2). The lab is being used for the design stages of our contribution to the UKRI/GCRF *Living Deltas* Global Research Hub, which seeks to establish the economic value of delta improvement actions and risk mitigations. The lab also provides the tools and techniques we use to develop new interventions to change lifestyle-related behaviours as part of our interdisciplinary work with the Centre for Healthier Lives. Other NU units have access to the lab. For example, we have worked with staff in the Centre for Behaviour and Evolution to carry out experiments on the effects of hunger on social cooperation. Our researchers have access to an equivalent facility at the Australian National University (Canberra) for the purposes of comparative research.

Research income has enabled School investment of over £1.5m in international databases during the review period to support research and publications in Accounting, Finance, Economics and Management. Examples of these databases are: Datastream, Thomson One, Wharton Research Data Services including CRSP, Compustat, CSMAR and OptionMetrics. Access to these high-quality databases enables publications in high-ranking journals such as *Management Science*; *British Journal of Management*; *Journal of Corporate Finance*; and *Journal of Business, Finance and Accounting*. The School has also invested in high-performance desk computers for big data processing for use by staff and research students, which is additional to the institution-wide high-performance computing service (Rocket). The School benefits from the NU award-winning Library, including access to further databases (e.g. FAME, Amadeus, Oriana, Mintel, Statista, Passport and ONS data) as well as academic journals and books. During the COVID-19 pandemic, the Library invested significant resources in expanding digital access. Our IT service provides a wide range of general and specialist software and hardware for staff and students.

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

4.1 Academic collaborations, networks and partnerships

In addition to collaborating with colleagues across NU, we develop regional, national and international research collaborations with partner institutions. Our collaborative approach is evident in the profile of our academic outputs during the review period, with 89% co-authored with Newcastle, national and/or international collaborators. Similarly, 54 of our 126 externally funded projects awarded during the review period are in collaboration with colleagues at Newcastle and/or external partners regionally, nationally and/or internationally. We collaborate across six continents (Australia, Europe, Africa, North America, South America and Asia) and capitalise on NU's strategic institutional partnerships including with Monash University and the Indian Institute of Technology-Delhi (IIT-D) (ILES 2.4.5).

Significant examples of our approach to, and support for, research collaborations include:

- Our EU-funded projects on the agri-food sector are consortia of international partners: VALUMICS is a Horizon 2020 project with nineteen European and two Asian institutions coordinated by the University of Iceland. NUBS coordinates the Horizon 2020 funded Strength2Food project. VALUMICS and Strength2Food emerged out of our FP7 project, COMPETE (2012-2015), a sixteen-partner consortium from ten European countries, which researched the determinants of competitiveness in food industries (ICS17-6). This exemplifies how the School and its researchers develop sustained relationships that carry forward into further projects. There is institutional support for securing and managing EU and international projects.
- The UKRI/GCRF *Living Deltas* Global Research Hub comprises thirty-four partner institutions in ten countries. It is run from Newcastle with leadership based in the School of Geography, Politics and Sociology and involves researchers from the Business School and the Schools of History, Classics and Archaeology; Architecture, Planning and Landscape; and Engineering, together with leading universities in Asia, Europe and North America. NU has a Global Challenges Academy, which facilitates the collaborations that can lead to these large research bids.
- We have successfully targeted a series of British Council (BC) funding opportunities (c. £176k) to develop collaborations in operations research, rural enterprise, and creative enterprises and entrepreneurship, with academic partners in India, China, Vietnam and Azerbaijan. These smaller pots of funding are seen as an effective way of forging international relationships that can lead to sustainable partnerships and further bids. E.g. a BC-funded rural enterprise project in Azerbaijan established relationships that led to a successful bid for BC's Creative Spark programme.

- Our proactive approach to partnerships with regional universities is exemplified by the Creative Fuse North East project, which is a research and impact collaboration led by the Business School with Newcastle colleagues from the School of Arts and Cultures, School of Computing and Culture Lab, and from the Universities of Durham, Northumbria, Sunderland and Teesside. The project is recognised as unique in the region because of the extent and strength of the collaboration.
- The Creative Industries Policy and Evidence Centre, led by Nesta, involves a consortium of ten leading UK universities (Birmingham, Cardiff, Edinburgh, Glasgow, Lancaster, LSE, Manchester, Newcastle, Sussex, Ulster), working with a broad and inclusive group of partners from across the creative industries.
- We have secured funding targeted specifically at building networks of academic and non-academic users to advance research agendas. Examples include two ESRC seminar series on *Regulation of Work and Employment* with Strathclyde and Monash Universities (2013–15) and on *Information Sharing in Policy and Practice* (2014–17) with the Centre of Excellence for Information Sharing.

During the review period we have engaged proactively and strategically with our international advisory boards to extend our research collaborations. With support from our North America Advisory Board we became a founding member of the Academic Collaboration Network (ACN) under the auspices of the Susilo Institute for Ethics at Boston University. The ACN has held annual symposia attended by NUBS staff providing opportunities for collaboration. Building on this experience, our Director of Business Ethics and CSR (appointed 2018) is developing an International Network for Education and Research in Systemic Ethics, Responsibility and Sustainability (SERS) to support education, research and engagement relating to our interdisciplinary theme of ethics and sustainability. We used our India Advisory Board and NU's strategic partnership to develop a research collaboration with IIT-D. This led to a British Council grant (£84k 2017–20) exploring collaborative decision-making on container supply chains and the appointment of staff from each institution as Visiting Professors in the partner institution.

The School supports staff to become visiting professors and hosts visiting scholars to stimulate and sustain international collaborations. In the review period, in addition to the IIT-D visiting professorships, NUBS staff have held visiting positions and fellowships at over twenty-one overseas universities including Cornell and Monash.

4.2 Contribution to the sustainability of the business and management research base

Our researchers are prominent contributors to the development of their respective disciplines and related professional associations. The following examples are indicative of the breadth and depth of our contributions:

- Staff have held editorial roles on at least twenty peer-reviewed journals in the field of business and management including: *Journal of Business Ethics*; *Gender, Work & Organisation*; *Work, Employment & Society*; *Organization*; *Organization Studies*; *Journal of Marketing Management*; and *Journal of Organisational Ethnography*. In addition, NUBS staff are founding editors of the *Journal of Professions and Organization*.
- Staff are editorial board members of at least fifteen peer-reviewed journals including *Human Relations*; *Journal of Management Studies*; and *Journal of Marketing Management*.
- Staff sit on editorial boards of international research monograph series, e.g. *Rethinking Work, Ageing and Retirement* by Bristol University Press; *Frontiers of Accounting and Financial History* by World Scientific Publishing.
- Staff serve on national grant funding committees including ESRC, GCRF, Cancer Research UK, Society for Research in Higher Education, and Institute of Chartered Accountants of Scotland. We review for at least twenty-six national and international grant awarding bodies (including all UKRI funders, the EU, US National Science

Foundation, and a range of Charitable Trusts). There is also extensive staff involvement in refereeing for a wide range of disciplinary and interdisciplinary, national and international journals.

- Staff hold leadership and service roles – as chairs or committee members – in prestigious national and international professional bodies and associations including: *CABS; Chartered Management Institute; Academy of Marketing; BAM; Royal Statistical Society; Economic History Society; British Accounting and Finance Association; British Universities Industrial Relations Association; University Forum for Human Resources and Development; US Academy of Accounting Historians; and US Academy of Management.*
- We have hosted six prestigious conferences during the review period, including the BAM in 2016 and Institute for Small Business and Entrepreneurship in 2019. Our staff organise and chair conference tracks, give keynotes, and participate extensively in all the major national and international conferences in our disciplines.
- We have secured funding from the Society for Advancement of Management Studies to run the *Gender Issues in Business Schools Network* (2018–19); a workshop on *Publishing Research on Gender and Diversity in Management Journals* (2019–20); and events on data science, e-business and e-government (2019–20). These benefit the global management studies community, with a particular focus on the development of doctoral students and early career academics.

NUBS staff have been the recipients of prestigious awards during the review period:

- Senior staff have been awarded fellowships of Learned Societies in recognition of research excellence and intellectual contribution to the research base: *Fellowship of the Academy of Social Science* (Mauthner, Mavin), *Fellow of the Royal Society for the Arts* (Higgins, Mavin). In addition, one of our Emeritus Professors was awarded the Society for Benefit Cost Analysis Outstanding Achievement Award (Jones-Lee, who sadly died in 2021).
- Staff have been awarded ‘best published article’ prizes in leading journals: e.g. *European Journal of Finance* (Li 2015); British Accounting and Finance Association Most Outstanding Accounting Paper (McLaren 2016); *Journal of Business Venturing* (Giazitzoglu 2016); *Journal of Service Research* (Schoefer 2017); *Accounting History* (McCullum-Oldroyd 2017); *Organisation Studies* Best Historical Paper in twenty years (McKinlay 2018).

4.3 Wider contributions to the economy and society

Since REF2014 the School has both sustained research relationships with existing key stakeholders, and initiated new collaborations to develop impact from our research. We build relationships with beneficiaries to ensure that our research is co-produced with stakeholders or informed by their needs. These relationships enrich our research environment by: enabling us to ask research questions relevant to our research users and audiences; giving us access to research participants; supporting our dissemination activities; and partnering with us on grant applications. These partnerships are developed at individual, School and University levels. Our impact, including our ICSs, exemplifies this approach.

At an **individual level**, since 2013 one of our academics has engaged at a strategic level with the RES Forum, a large independent community for international human resources and global mobility professionals. Access to this network ensures his research is informed by user needs and enables him to recruit research participants and secure funding. Another has developed trusted relationships with prominent whistleblowers and their lawyers. This has led to publications in leading journals and high-profile public events (2019–20). These events have fostered important links with practitioner communities and the work has resulted in the establishment of the new ‘Acting Up’ section of the journal *Organization* on the theme of academic activism. Secondments to external organisations have also been used to develop relationships. In 2020, one of our economists took up a secondment to the OECD to analyse the

impact of COVID-19 on regional labour markets and policy responses, and an ECR was awarded an ESRC IAA Innovation Fellowship in 2017 with the Association of Project Management to further her PhD research on realising benefits from investment in IT projects.

At a **School level** we have longstanding regional relationships with the North East Local Enterprise Partnership (NELEP) and FSB (Federation of Small Businesses). NELEP have funded our research and sit on steering groups for our projects; FSB have partnered with us on projects; and both have provided letters of support for grant applications. The relationships we build with influential regional business leaders through the annual David Goldman Visiting Professorship also bring research benefits. One example is our EPSRC-funded project on end-user trust in financial services, which is in collaboration with Atom Bank. This partnership resulted from our relationship with the 2017/18 incumbent, Anthony Thompson, co-founder of Atom Bank, the first digital-only challenger bank to be granted a full UK regulatory licence.

We also benefit from longstanding corporate relationships at **University level**, including with P&G. For example, the School is part of NU's contribution to the £2.7m Advancing Circular Economy (ACE) Research and Development Demonstrator project, led by P&G, which is seeking to develop new technologies to make households, businesses and industry more environmentally sustainable and less wasteful of water (ILES 2.4.6).

We create strong knowledge exchange partnerships by capitalising on funding opportunities to support growth and innovation in the economy. We have delivered five KTP awards (total value £570k) since REF2014. We worked with Benfield Motor Group to develop 'lean' techniques for their aftersales service (ICS17-9). Our partnership with Royston Limited, a diesel engine specialist, delivered a digital marketing strategy for the company. We collaborated with the Byker Community Trust Housing Association to develop a customer engagement and change management capability to facilitate an improved housing product offering. We worked with Northern Stage, the largest producing theatre company in North East England, in collaboration with our School of Arts and Cultures to optimise the use of digital technology in their stagecraft. Working with the School of Mathematics and Statistics we collaborated with ADL Smartcare to build their capacity to exploit existing big data and to extend their offering to new markets.

Given the significance of small businesses in the regional economy, we have proactively targeted funding from the Arrow ERDF programme to develop collaborations with SMEs including a wig company, technology CPD provider, virtual reality start-up, museum, accountancy firm, digital wellbeing platform provider and a biotech research company.

Since REF2014 we have had further success in accessing EU Interreg funding for interregional cooperation projects. The INNOGROW project (2016–21) brings together nine partners from eight countries, to improve competitiveness of rural SMEs across Europe.

Internationally, funding from AHRC saw researchers from NUBS and the School of Arts and Cultures travel to China in 2019 with representatives from our region's performing arts and technology development sectors to scope out possibilities for collaboration with Chinese partners, including the Shanghai Theatre Academy and Shanghai International Arts Festival. The partners will continue discussions to explore the application of immersive technology to theatrical experiences.

Our ICSs are selected from a broader cohort of impact activity. The following provide examples of other regional, national and international impacts:

- Regionally, a pilot exercise conducted with the NHS using the Lean 3P process to produce design briefs informed the design process for the award-winning endoscopy unit at the Sunderland Royal Hospital.
- Nationally, research on behavioural finance informed Aviva's 2016 Save Smarter campaign.
- Collaborative work funded by the ESRC with UWE Bristol and the Royal Aeronautical Society, Airbus and the Royal Air Force culminated in the development of a mentoring scheme for women in aviation and aerospace. This unique mentoring scheme, called

'[alta](#)', was launched in 2015 and an online platform was introduced on International Women's Day in 2019.

- An example of our impact on national policy is the Law Commission's Scoping Report on [Data Sharing between Public Bodies](#) (2014), which references our research extensively.
- Internationally, the reach of our research is illustrated by the citation by Philip Alston (UN Special Rapporteur on extreme poverty and human rights) of the concept of the 'ethical poverty line', developed by a NUBS researcher, as a credible alternative to the World Bank's measure of extreme poverty in his [report](#) to the UN's Human Rights Council in Geneva in 2020.

We engage with diverse communities and publics by disseminating our research and impact through: our website; social media; blogs; YouTube; and our annual *REACH* magazine, which showcases NUBS research for a lay audience. Researchers regularly write pieces for practitioner outlets and fifteen articles have been published in *The Conversation* during the review period. A notable example was a piece on the conspicuous absence of women in India's labour force, which was republished by four further outlets including the *Independent* in the UK and *The Business Standard* in India. The School hosted over 100 research events for non-academic audiences in the review period. The most novel of these, '*The Austerity Playbook*', took the research of Newcastle and Durham accounting researchers and turned it into a jazz musical about austerity, first performed at the Northern Stage Theatre in 2017. Following the vote to leave the EU we held a well-attended 'Brexit' Public Lecture series. The ten lectures were mainly delivered by experts from the School and covered issues such as immigration, employment relations and how the negotiations would be handled.

The School has created an agile research environment that is able to respond to national and international priorities and initiatives as they arise. We are helping to understand how the creative industries can have a sustainable future regionally, nationally and internationally. This includes building capacity in the creative industries in East Africa, an international development priority. Our research is examining how to support productivity, innovation and resilience in rural areas which, according to figures from NIC-RE, cover over half a million enterprises and 3.5m employees in diverse economic sectors. Our research is helping to understand how to achieve transparency in financial technologies, a major growth industry in the UK that increasingly relies on artificial intelligence.

Our staff are also contributing directly to research related to COVID-19. Highlights include: **publications** in *Health Economics; Sustainability; Gender, Work & Organisation; and Journal of Medical Internet Research*; providing evidence to a **Parliament Select Committee** on the impact of COVID-19 on businesses and workers; and providing **online support** to regional micro-businesses and practitioners in the creative and cultural industries. The **Creative Fuse North East** research team, in partnership with Creative England, has won a bid to **allocate and manage a £3.25m Recovery Fund** (from North of Tyne Combined Authority) for the cultural and creative industries in the region. Creative Fuse will deliver wraparound support for businesses planning to apply for the fund and post award to complement the finance received. NIC-RE is already working with the Department for International Trade regarding aiding SME Exports and DEFRA on the recovery of rural economies from the pandemic. A newly appointed NUBS Chair in Future of Work (who took up her post after the census date) is leading ESRC research on the experience of home working under COVID-19 across the UK. Further ESRC funding obtained through the UKRI COVID-19 call is supporting our research on UK small businesses' understanding of and response to COVID-19 regulation and governance.

Since REF2014 the School has seen transformational change with an expansion in size, a step change in interdisciplinary research, the establishment of three new research centres, growth and diversification of research and knowledge exchange income, broadened international collaborations, and increased reach and significance of our research for society and the economy. These achievements have been enabled by enhanced research and impact structures, leadership and governance; significant investments in people and in our physical and scholarly infrastructure; and by the creation of an inclusive research environment that embeds equality and diversity, and gives all colleagues the freedom and opportunity to succeed. The

Unit-level environment template (REF5b)

Covid-19 pandemic has brought opportunities as well as challenges. The shift to online working has generated benefits for research staff and students, providing increased access and inclusion in relation to international conferences, research training and collaborations. Our research community has proven itself to be especially adaptive: in forging new ways of working; in formulating new research questions associated with the consequences of the pandemic; and in strengthening linkages with academic and non-academic partners. This positive experience of recent innovation will be sustained through the creation of a 'blended' research environment as we emerge from the pandemic, which will further foster a vibrant, diverse and inclusive research community to deliver high-quality research and impact.