

Institution: Buckinghamshire New University**1. Context and mission**

- 1.1. Buckinghamshire New University (BNU) was founded in 1891 as the School of Science and Art and acquired University title in 2007.
- 1.2. We maintain a strong teaching focus, offering inspiring, employment- and profession-focused education, enabling people positively to impact society and their future.
- 1.3. Our principal campus is in High Wycombe, Buckinghamshire. We have three satellite campuses: in Buckinghamshire (Aylesbury; Pinewood Studios) and Hillingdon, London (Uxbridge).
- 1.4. In 2019/20, academic staff numbered 274, out of a total of 586 staff. Student enrolments numbered 5,353 FTE across arts, business, social science, health and technology subjects.
- 1.5. Since 2014, BNU has had three Vice-Chancellors and three University strategies. Each strategy consolidates and builds on its predecessor, placing increasing strategic importance on research and impact.
- 1.6. During 2016/17 to 2018/19 BNU reported successive annual deficits and a transformation programme was implemented. This included a voluntary severance programme which temporarily elevated levels of staff turnover, including the departure of some established researchers.
- 1.7. Prior to 2018 academic staff had been hierarchically organised into fourteen Departments, four Schools and two Faculties. To build sustainability and critical mass, and promote synergies between cognate subjects, these were reorganised into a flat structure of seven Schools:
 - Art, Design and Performance
 - Aviation and Security
 - Business, Law and Computing
 - Health Care and Social Work
 - Human and Social Sciences
 - Media and Creative Industries
 - Nursing and Allied Health
- 1.8. Technical staff were also reorganised during 2018 into a central directorate to better support staff development and enhance support for education, research and impact.
- 1.9. In 2018/19, BNU developed its current strategy, Impact 2022, to continue the work of transformation and establish the foundations for future growth. Oriented around two core purposes, Education and Research and Knowledge Exchange, it aims to ensure the continuing vitality and long-term sustainability of our research.
- 1.10. Under Impact 2022 we have grown our student intake and returned to surplus in 2019/20
- 1.11. We have newly established Professorial appointments and introduced infrastructure to support research, including the Bucks Academic Framework, an active Professoriate forum, and a new Institute of Health and Social Care.
- 1.12. Impact 2022 recognises that education will remain the University's principal income-generating activity, representing 83% of our income in the 2019/20 TRAC return with other income generation, including enterprise, 16%. Research represented 1% of income but 6% of cost, reflecting the strategic priority we attach to research and impact excellence. All academic staff engage with education; 30% are on a career pathway also defined by research; the remainder on pathways defined by professional practice.

- 1.13. We are members of UUK, GuildHE and the GuildHE Research consortium and actively contribute to and gain benefit from local and regional partnerships.
- 1.14. In 2019 we co-founded the innovative multi-partner Bucks Health and Social Care Academy and created a new LEP-funded partnership with Pinewood Studios. We are actively engaged with Buckinghamshire LEP, South East Midlands LEP, Heathrow Skills Partnership, and the Buckinghamshire Council.
- 1.15. In 2019 BNU joined with other Universities in founding the Oxford-Cambridge Arc Universities Group (AUG), intended to support economic growth through learning, research and innovation, and are actively engaged with the AUG's Environment and Sustainable Aviation Partnership Boards.
- 1.16. We are actively engaged in the Oxford Academic Health Sciences Network (OAHSN) and Imperial College Health Partners (IHP) leading to initiatives such as our ERDF-funded Health and Social Care Ventures programme and the MedTech SuperConnector programme
- 1.17. Since REF 2014, we have increased the number of researchers included in the submission by c. 25% and increased the number of UoA submissions from 4 to 6.
- 1.18. We have continued to develop strength in previous UoA submissions: Allied Health Professions, Dentistry, Nursing and Pharmacy (3), Sport and Exercise Sciences, Leisure and Tourism (24), and Art and Design: History, Practice and Theory (32).
- 1.19. We have drawn on these strengths to successfully incubate additional clusters of research and impact, leading to new submissions under Earth Systems and Environmental Sciences (7), Social Work and Social Policy (20), and Education (23).
- 1.20. Given the relatively small size of our research group in Business and Management Studies (17), the departure of three researchers means we are not submitting under this UoA.

2. Strategy

- 2.1 Our strategy has been to develop excellence in research and impact across our disciplines, incubate nascent themes, and ensure research and enterprise support our educational focus.
- 2.2 For this REF period, the University has pursued four key strategic goals to:
- a) increase the volume and quality of research and impact;
 - b) maintain research and enterprise income;
 - c) ensure research and enterprise activity enriches the student experience; and
 - d) secure improved external recognition for the impact of our research and enterprise.
- 2.3 We believe we have been successful in pursuing these goals:
- a) In REF 2014, c. 7% of academic staff were submitted in four UoAs. Following an incubation strategy supported by staff development, we are now submitting c. 14% of academic staff in six UoAs. Our assessment of the quality of our research has also markedly increased; indicative reviewer ratings of outputs for submission in 2021 achieved 89% at 3* or 4*, compared to 39% in REF2014.
 - b) We have maintained our level of research income in the region of £0.5-£1.0m pa across the REF period, while focused on initiatives that we believe will lead to increased income in the next 5 years, including ECR development, internal seed funding and staff recruitment.
 - c) Our commitment to support professional workforce development and widening participation in HE has directly impacted students, both at BNU and beyond, and underpins a new submission in Education (23). Our support for this area will grow, reflecting its prioritisation by many of our ECRs and new researchers.

- d) A key example of impact achieved is the selection of the Birth-Satisfaction-Scale-Revised (BSS-R) as the 'gold standard' measure of birth experience by the International Consortium for Health Outcome Measures (ICHOM) Standard Set for Pregnancy and Childbirth. Widely translated and in use in over 30 countries, the BSS-R has been utilised by both researchers and clinicians alike in over 100 investigations worldwide.

2.4 For the next 5 years the University's strategy is to pursue research and innovation that impacts and enhances lives and society, enriches our inclusive learning community, and helps us reach out to the public, our communities, and key strategic partners.

2.5 We aim to

- Establish impact centres to provide critical mass, develop senior research leadership, promote interdisciplinarity, focus institutional support, and enhance alignment with target communities, and local, national and global priorities
- Increase the volume and quality of our research and impact through support for existing areas of excellence, and incubating nascent themes, including under UoA 17 and UoA 33
- Develop numbers of and support for research students
- Increase research and enterprise income
- Secure Research Degree Awarding Powers
- Build public and stakeholder engagement with our research and impact
- Develop the number and significance of external research and enterprise partnerships to maximise access to funding, support knowledge exchange and research
- Develop synergies between research, curriculum and teaching to support future TEF, KEF and REF submissions

2.6 Staff are supported financially and with allocated time to disseminate research within both academic and professional practice forums.

2.7 The professional focus of BNU research means that a wider contribution to the economy and to society is often inherent in the research process. For example, NHS-funded nursing research has enabled immediate uptake of outcomes for service delivery improvement, e.g., our evaluation of the Whole systems integrated care model in NW London, funded by the West London CCG. BNU has significant impact on regional disability sports providers, underpinned by our expertise and research in elite sport and our status as a Talented Athletes Scholarship Scheme (TASS) provider since 2017, funded by the government Sport Aid programme.

2.8 Our engagement with professions and employers such as Thames Valley Police, Thames Water, NHS Trusts and others, has enabled BNU to be among the first Universities to develop higher and degree apprenticeships in 2015, supporting regional economic skills, productivity and growth.

2.9 BNU hosts archives of national and international importance. The digital High Wycombe Furniture Archive, developed with AHRC funding in 2006, provides an international research resource containing photographic and print material relating to Buckinghamshire's unique heritage within furniture-design and manufacture. Our National Disability Arts Collection and Archive (NDACA) is a unique UK and possibly global research resource.

Open research

2.10 BNU has held a research repository since 2006, and our open access policy (2015) outlines our commitment to:

- Provide greater visibility for BNU research, benefitting audiences of researchers, practitioners, and the public;

- Ensure long term preservation of outputs;
- Stimulate new research opportunities and collaborations;
- Enable compliance with funders' requirements; and
- Enable the University to submit to future REFs.

2.11 The University has adopted the Green route to open access as a sustainable approach. Staff are encouraged to upload all outputs including conference presentations, videos and original performance pieces to the repository to enhance public access for their research and improve impact.

2.12 BNU participated in the JISC open-data pilot project through GuildHE Research and will explore options to enable sustainable open data sharing through this affiliation.

Regional and national research priorities

2.13 We engage with regional and national priorities for economic regeneration, productivity and growth through the Buckinghamshire and South East Midlands LEPs. Our innovative partnership with Pinewood Studios in support of the creative industries aligns directly with the Buckinghamshire Local Industrial Strategy, as does our LEP-supported Bucks Health and Social Care Academy. Our research and impact on the environment and sustainable aviation align closely with the work of the AUG.

2.14 Consistent with our values, we also align our research and impact with the UN Sustainable Development Goals (SDGs), specifically:

- SDG 4 (Quality Education).
- SDG 3 (Good Health and Wellbeing).
- SDG 6 (Clean Water and Sanitation).
- SDG 10 (Reduced Inequalities)
- SDG 13 (Climate Action)

Interdisciplinary research

2.15 BNU's focus on employment and professions naturally supports synergies between different disciplinary research areas, facilitated by centralised research support services.

2.16 Activities undertaken during the period have included cross-disciplinary innovative teaching initiatives (e.g., linking performing arts and nursing; computing and art and design funded by HEFCE). BNU is also part of an OfS-funded multi-partner project regarding student mental health delivered by a multi-disciplinary team.

Research integrity

2.17 The University's Research and Enterprise committee, a Senate sub-committee, has oversight of all institutional research activity, including research degrees. It has responsibility for ensuring adherence with our Code of Good Research Practice and Research Ethics policies.

2.18 The Committee collates data annually for our compliance statement on the Concordat to Support Research Integrity and investigates any reports of research misconduct. The University Research Ethics Panel has a wide membership from across the university, with oversight of school sub-committees which review student research. BNU subscribes to the UK Research Integrity Office (UKRIO) and has completed the UKRIO self-assessment exercise during the REF period.

Collaborations, networks, partnerships and community engagement

2.19 BNU actively supports the development of research collaborations, networks and partnerships. During the REF period, we have supported three joint Professorial appointments, two with Imperial College NHS Foundation Trust and one with West London Mental Health NHS Trust. These were instrumental in developing collaborative research

between BNU and the NHS, for example, leading to development of the birth satisfaction scale and enhancing dignity in acute care.

- 2.20 Staff are supported to engage with academic and professional networks and can use BNU facilities to host events and meetings. BNU’s partnerships, such as the OAHSN, ICHP, GuildHE and the AUG, facilitate participation in collaborative networks and access to funding, e.g., Research England Development Fund.
- 2.21 The newly established Professoriate will play a leading role in the intellectual life of the University and in building public and community engagement. Initial events are planned for researchers and stakeholders on aviation sustainability and public lectures on health and wellbeing, aligned with the new Institute of Health and Social Care.
- 2.22 During the REF period, heritage initiatives have engaged the local community through a National Lottery Heritage funding partnership with the Chilterns Conservation Board.
- 2.23 Stakeholder engagement is at the core of our action research, exploring healthcare improvements and experiences of marginalised communities. For example, research undertaken regarding the health and wellbeing of GRT communities’ proceeds in partnership with charities and NGOs, ensuring populations are an integral part of the research process.

3. People

- 3.1 Our strategy, Impact 2022, aims to create a high-performance workplace culture, built around diversity and staff development, building strength and sustainability through developing staff who are, or aspire to be, research active.
- 3.2 Of the 34 staff returned in REF 2021, 23 were employed by BNU at the REF 2014 census date. Only 7 of these were returned under REF 2014. The inclusion of the remaining 16 in REF 2021 demonstrates their effective development in the intervening period.
- 3.3 In 2019 we introduced the Bucks Academic Framework (BAF) in part to create a sustainable research culture (Figure 1) by giving greater recognition of and clarity to the diversity of academic roles. The BAF identifies four career pathways, articulating movement between them, and progression from Lecturer to Professor for each:
 - Education with Research
 - Research with Education
 - Education with Professional Practice
 - Professional Practice with Education



Figure 1: Defining the theme of Research and Enterprise within the BAF.

- 3.4 The BAF underpins our definition of staff with significant responsibility for research, as outlined in our Code of Practice, and was used to make professorial promotions in 2020, creating three full professors in aviation, sport psychology and art and design, and four associate professors in psychology, computing, engineering and media.

Staff Development

- 3.5 BNU uses the principles of the Concordat to Support the Career Development of Researchers to underpin staff development for all academic staff. Our commitment to staff development is reflected in our Learning and Development Policy and supported by centralised funding.
- 3.6 Over 30 academic staff have been supported, financially and with adjusted workload, to undertake a research degree during the REF period.
- 3.7 University career break and sabbatical policies are in place, for staff to manage personal circumstances or for dedicated scholarly activity.
- 3.8 All staff undergo annual Professional Development Reviews with their line manager, where achievements can be recognised and learning needs identified, mapped to their academic framework track.
- 3.9 BNU offers staff a Professional Academic apprenticeship, designed to develop the knowledge, skills and behaviours of academic professionals working within higher education.
- 3.10 Many of our staff are early in their research careers having moved from professional practice roles. Approximately 25% of staff have a doctoral level qualification and 9% of academic staff are designated as ECRs in the 19-20 HESA return, in their first academic research post since achieving their doctorate.
- 3.11 All researcher development opportunities available to research students (see below) are available to staff. Additional ECR-focused activities include research funding, grant camps, project management, getting published and being an entrepreneurial academic. Staff are supported to attend external sector events (e.g., UKRIO).
- 3.12 Staff have access to research supervisor training through Staffordshire University and Epigeum's online suite, and workshops led by the UK Council for Graduate Education.
- 3.13 Staff on fixed-term, research-only contracts ($n \leq 5$ during the REF period) are eligible for all development opportunities open to other staff and PGR students, including funding for professional development and conference attendance.

Research Students

- 3.14 Our cohort of research students is diverse: compared to sector averages in PRES 2020, 88% of BNU students are over 31 (vs 47%) and more study part-time (80% vs 23%).
- 3.15 Enhancing the research culture for PGR students has been a key focus during the REF period, with student satisfaction rising as evidenced in PRES2020: 85% of BNU students are satisfied with their programme, 5% above benchmark.
- 3.16 All students have access to a range of online learning. This includes Epigeum's online research toolkit (with modules on methods, transferable skills, ethics and integrity) and from 2019, the UEA PGR online programme, covering methods, academic writing, teaching skills and completing a Doctorate. Monthly newsheets are disseminated, summarising local and external events and opportunities.
- 3.17 Students are encouraged to disseminate their research with dedicated conferences held several times annually. During the REF period students have presented at national and International conferences funded by BNU, e.g., the European College of Sport Science

and the International Nursing Research Conference. Students are also encouraged to publish in conference proceedings, journals and our Research notes newsletter.

- 3.18 GuildHE Research provides additional development and networking opportunities for both students and staff, including a 2-day annual summer school, academic writing month and a Virtual Doctoral Training Network.
- 3.19 Students are required to use the Vitae Researcher Development framework planner and given individual support for their researcher development plan.
- 3.20 Coventry University awarded our research degrees until 2014 and Staffordshire University has been our awarding partner from 2016. The period of 18 months without an awarding partner impacted student and completion numbers during the REF period. We are undertaking initiatives to grow our cohort of research students (29 as of July 2020) to encourage recruitment and increase supervisory capacity through staff development and joint supervision teams with Staffordshire University.
- 3.21 During the REF period, the University funded three research studentships in sport sociology, nursing, and exercise science; Horizon-2020 funding supported two further studentships in product design. A newly created Vice-Chancellor's studentship scheme will fully fund up to two studentships per year from 2020-21.
- 3.22 We have undertaken work to scope a Graduate School which will be operational from 2021-22.

Equality and Diversity

- 3.23 BNU is a vibrant, inclusive learning community that strives to create an environment free from discrimination, actively celebrating and valuing diversity, committed to the fullest equal opportunity. Equality, diversity and inclusion (EDI) underpins our values and influences everything we do, with annual action plans led by an EDI working group, reporting to a new University-wide EDI committee chaired by the Vice-Chancellor.
- 3.24 All staff are required to undertake training on equality and diversity, including unconscious bias.
- 3.25 BNU is working to develop further accreditations for its EDI work, which include:
- Disability Confident Employer accreditation from Jobcentre Plus
 - Mindful Employer charter signatory
 - Commitment to Race Equality Charter
 - Time to Change pledge
 - "GTRSBintoHE" created by BNU as a sector-wide pledge to support students from Gypsy, Traveller, Roma, Showpeople, and Boater communities
 - HR Excellence in Research
 - Member of Advance HE, running the Aurora programme for women's leadership development in HE
 - Technician Commitment
- 3.26 Our Gender Pay Gap Action Plan continuously seeks improvement. BNU's gender pay gap improved between 2018 and 2019, the mean decreasing 0.3% to 10.3% (vs 14.9% for the HE sector), and the median decreasing 6.1% to 4.7%.
- 3.27 Research support and facilities are open equally to all staff, irrespective of circumstances, contract hours and periods of absence. Our provision of flexible development resources widens access to part-time staff and staff who cannot always be on-site. Accessing of such resources has increased during COVID-19.
- 3.28 We aim to make reasonable adjustments and supply additional support for staff whose circumstances may impact their research productivity. In preparing for REF, staff were asked confidentially to submit details of any such equality-related circumstances during the REF period. No equality-related circumstances requiring consideration were declared.

4. Income, infrastructure and facilities

- 4.1 BNU supplements QR (c. £225k pa during the REF period) with its own resources to fund a centralised Research and Enterprise Development unit (RED), staff research activity, and development and dissemination initiatives.
- 4.2 Led by the Director of Enterprise and Research, 3.5 FTE staff provide centralised support for all University Research and Enterprise activity. RED has institutional responsibility for researcher development, the institutional repository, ethical review processes, project management and funding bid support, institutional data collection, reporting, governance, REF, KEF, business engagement and knowledge exchange.
- 4.3 The University has recently appointed a Knowledge Transfer Manager to establish KTPs across the University and further enhance research impact.
- 4.4 In 2020, BNU created a Professoriate forum to provide a leading role in the intellectual life of the University, including building public and community engagement, supporting academic and ECR development, and providing leadership for the Graduate School.
- 4.5 Academic staff contracts provide dedicated time to undertake research, scholarly, enterprise or professional practice activity of up to 550 hours per year. The activities undertaken and expected depend on the BAF career pathway.
- 4.6 Additional resources and facilities are available through BNU's membership of the GuildHE Research consortium. This provides access to training opportunities, networking and partnerships with access to resources through framework agreements (eg e-prints repository, Vitae).
- 4.7 During the REF period, staff were able to apply for competitive internal funding, to seed projects or to support completion of a research degree. Over 4 years, a total of 46 staff were supported across all disciplines with a total investment of £319k.
- 4.8 To enhance impact from 2017, we introduced centralised funding to support dissemination. Thirty-five staff have been supported, for both UK and International events, representing an investment of £24.7k. Example include events led by the Association for Applied Sport Psychology, Air Transport Research Society and British Psychological Society, in addition to professional events such as the Transport Practitioners meeting, World Class Business Virtual Reality 2018 and UK Sport Development Network and events led by the Royal College of Nursing and Advance HE.
- 4.9 In 2019 staff were able to bid for our Strategic Priorities Fund (SPF) allocation. Over half of the £50k allocation was used to support impact, e.g., adoption of low-carbon initiatives by SMEs, and the GTRSBinoHE pledge.
- 4.10 Staff can request support from our Global Challenges Research Fund allocation (c. £12k pa). During the REF period, two additional visits were supported to India and Africa, enabling doctoral students funded by the H2020 solar water disinfection projects to engage product users.
- 4.11 Support is also provided through use of facilities and resources for on-site BNU dissemination events, including performances and exhibitions. For example, by hosting a webinar for providers of disability sport.
- 4.12 Established processes are in place to ensure BNU research is rigorous, adheres to our Code of Good Research Practice and complies with ethical best practice. Ethical review processes and senior research staff also provide a peer-review role in developing research protocols, to ensure they are completed with rigour and are reproducible.
- 4.13 During the REF period, support for generating research income has focussed on staff development along with institutional support to enable staff to apply for schemes which are not fully funded, developing their academic profiles. For example, this enabled successful participation in a £2.8m bid to the National Lottery Heritage Lottery.

- 4.14 Over the past 10 years, BNU has invested c. £100m in developing its infrastructure and facilities, including our RIBA-award winning Gateway building, housing state-of-the-art media production studios, flight simulator, library, sports facilities and a gym. Our performance and art exhibition spaces enable public dissemination of practice-based outputs, and our audio-visual support team enables creation of digital media.
- 4.15 The £1.7m Human Performance, Exercise and Wellbeing Centre, opened in 2016, has a three-lane running track with 3D-motion-capture technology, along with a sports injury and physiotherapy clinic. It has already become a hub for sports conditioning and treatment in the area and is an enabler for impact from performance sport research through links with TASS (Talented Athlete Scholarship Scheme), WSL Academy (Women's Super League) and Swim England Performance Centres.
- 4.16 BNU has c.4,000m² of specialist art and design facilities including prototype labs, 3D-scanning and printing, in addition to dedicated workshops for wood, metal, ceramics, mixed media and printmaking supported by expert technical staff. In 2018 we developed an industry-based learning environment at Pinewood Studios as a result of a successful £1.65m LEP bid.
- 4.17 We share resources with other institutions, e.g., our partnership with Queensland University of Technology enables access to state-of-the-art Unmanned Aerial Vehicle survey technologies and facilities for processing large UAV datasets. Our links with NHS Trusts and health partner networks enables access to patient groups and key professionals for service improvement and action research.