

Institution: Ulster University**1. Context and mission**

Ulster University, a multi-campus institution founded in 1984, is Northern Ireland's (NI) largest university. With 2,644 staff, approximately 27,000 students and a regional footprint across NI, we are recognised as a *THE Top 200 Young University (2020)*, with core business activities focused in a balanced way on teaching and learning, research and innovation, and technology and knowledge transfer. In both teaching and research, our strength lies in our partnerships with business and industry and knowledge transfer between them. Ulster is No.1 for knowledge exchange on the island of Ireland and created more jobs through knowledge exchange than any other UK university in 2019.

Our physical footprint has promoted growth throughout NI and across the broader UK economy. This is captured by the direct, indirect, and induced impact associated with Ulster's expenditure, as well as the expenditures of its students, on the regional and national economy. A recent assessment by London Economics of the total economic impact associated with Ulster's activities across the UK was estimated to be £1,384.6M. Compared to the University's total operational costs of £199.3M at the time, the total economic contribution of the University's activities to the UK corresponds to a benefit to cost ratio of 7:1, which is higher than the Russell group average cost ratio of 5.5:1.

We are led by our Five & Fifty Strategy, which includes a five-year strategic plan (2016-2021) and a fiftieth-year strategic vision to chart our course. Our mission is to transform lives, stretch minds, develop skills, and raise ambitions; deliver globally significant research with local relevance; encourage a diverse university community; and make a lasting contribution to society.

Our institutional research focus is tightly aligned to our mission, with four thematic research priorities - Social Renewal; Sustainability; Healthy Communities; and Creativity and Culture. These priorities are pursued in a purposefully interdisciplinary way across 17 Units of Assessment (UoA) spanning all REF main panels, ensuring a strong link between our research and teaching while addressing issues of global relevance with meaningful impact locally, nationally, and globally.

Our four Faculties - Life and Health Science; Computing, Engineering, and the Built Environment; the Ulster Business School; and Arts, Humanities and Social Sciences - were established in 2015 following an institutional restructure, allowing for synergies between our cognate disciplines to flourish, and the union of various research groupings to work across the disciplinary boundaries of their fields in a naturally, interdisciplinary way. While our REF returned disciplines at Ulster are mature and have been returned in all previous national research exercises, we have worked hard to maintain their sustainability and vitality bringing some disciplines closer together with each other and with industry and external partners to allow for greater scalability and impact. This inclusive and collaborative approach has driven our suite of new research and innovation projects as part of the new City and Growth Deals in NI discussed below.

2. Strategy

Our institutional Research & Impact Strategy's (2017-22) **strategic goals** have been achieved, exceeded or are on course for delivery by 2022. We committed to:

- Increase overall research grant awards by 50% - this has increased from a baseline of £16.2M in 2015/16 to £30M in our latest actual figures (+85%).
- Increase Research Council UK grant awards by 100% - this has increased from a baseline of £1.2M in 15/16 to £10.4M in our latest actual figures (+ 767%).
- Increase number of PhD students by 30% by 2022 - this has increased from a baseline of 489 in 15/16 to latest actual of 549 (+ 12%).
- Increase value of our business partnerships - this has increased from a baseline of £26.3M in 15/16 to £33.3M in our latest figures (+26.6% increase)

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- Increase knowledge exchange income by 20% - this has increased from a baseline of £1.375M in 15/16 to £3.9M in our latest actual figures (+184%).
- Develop an Equality, Diversity, and Inclusion (EDI) Strategy and dedicated EDI team – this strategy was launched in 2019 and a Steering Group established to oversee its implementation.
- Increase the number of Athena SWAN (AS) awards – we renewed our Bronze AS award in 2017 and ten schools have achieved AS awards.

Achieving these goals required a significant and sustained commitment to our researchers and to specific supporting actions outlined in our strategy. All key commitments have been delivered. Structurally, we appointed four Associate Deans for Research & Impact (one per Faculty) and built an institutional Doctoral College. We introduced a Strategic Investment Fund to appoint a suite of new researchers; agreed faculty start-up research funding packages; developed and implemented a university-wide sabbatical policy. a formalised mentoring system and a suite of training and development programmes; reviewed our promotions pathways to ensure that impact was further recognised and incentivised; and introduced a series of impact and research partner recognition awards schemes.

Our **future strategic goals** will further develop our work in our four thematic research priorities. We will create **five new Centres of Excellence**, working with industry partners and using the City and Growth Deals for NI alongside our own investment. The Belfast Region City Deal (BRCD) represents an £850M investment and the Derry/Strabane City Deal (DCSCRD) represents a £250M investment package. Ulster involved projects estimate to create 4,000+ new jobs and an increase of £600M+ Gross Value Added (GVA) to the region. We will build (1) a *Centre for Digital Healthcare Technology* and living labs in the areas of cardiology, diabetes, respiratory and stroke, ensuring integration with the private sector; (2) a *Screen and Media Innovation Lab* providing the Belfast region with a world-leading research and innovation centre to accelerate the growth of the sector; (3) bring sustainability and innovation to NI's advanced manufacturing capacity through the delivery of our new *Centre for Industrial Digitalisation, Robotics and Automation*; (4) scale up our existing *Cognitive Analytics Research Lab* through which we are uniquely placed to support NI industry to become a global leader in Artificial Intelligence (AI) and; (5) open a Post Graduate Entry School of Medicine in September 2021 and establish a *Healthcare Research Institute* – fostering world-class medical research to help prevent disease and address global challenges. Using the new centres alongside our existing infrastructure and research environment, we will continue to stretch ourselves including further growth in staff returning to REF; further growth in grant awards and knowledge exchange; and maintaining our Research Student satisfaction and further improving PhD completion rates.

As an institution, **we enable and facilitate impact through our partnership approach**. Our pioneering innovative technologies and solutions support some of the biggest global challenges, including heart disease, cancer, diabetes, mental health, access to clean water, renewable energy, increasing crop demand, access to justice, emerging technologies and a range of societal issues such as free legal access, abuse, fragility, violence, and conflict. Our commercial consultancy has over 5,200 consultancy contracts (£20M value) in the last 6 years. Through our knowledge exchange activity, we have created more jobs than any other UK university with over 36,000 jobs linked to Ulster's spin-outs (2019). We are No.1 on the island of Ireland for knowledge exchange and are a top knowledge provider in the UK having delivered over 200 Knowledge Transfer Partnership projects. **This work also demonstrates our wider contribution to the economy and society.**

Our **interdisciplinary research themes** are fully embedded within our research environment and a focal point for Ulster's own investment in research development. Four interdisciplinary Thematic Champions were appointed to promote opportunities for greater interdisciplinary research collaborations across the UoAs, as well as with external partners and international collaborators. Significant investment has been made in creating three interdisciplinary centres of excellence that support these themes and brings together academics from across UoAs and schools. These include the Cognitive Analytics Research Lab (£4M); Institute of Mental Health Sciences (£1M);

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and the Creative Industries Institute (£20M). Researchers are incentivised to work across these themes and supported through regular sandpits and town hall meetings across all campuses. The internal Research Challenge Fund (over £1.2M since 2014) supports academics in the collaborative partnership development to secure prestigious external interdisciplinary grant income and PhD studentship awards. We support bespoke interdisciplinary PhD studentships each year.

We are at the forefront in **engaging with regional and national research priorities** and have helped establish a 'Levelling Up' working group in NI to advise on the UK's R&D roadmap proposals and BEIS and NI stakeholders. Our Deputy Vice-Chancellor was a member of the Government's High Level stakeholder working group on EU Exit, Universities, Research, and Innovation from 2017-2021; a member of JISC Research Strategy Forum; and a recently appointed Board member of Research England.

We are **creating an open research environment** and working towards compliance with the UK Concordat on Open Research Data. We have established an Open Data Working Group who review compliance and facilitate the **reproducibility** of our research; a Practice-Based Research Outputs Working Group; and a PlanS Working Group. In 2016 we invested in PURE, a new central research information system, to better manage REF 2021 outputs and meet Open Access (OA) and research data management (RDM) requirements. We produced a Citation Strategy which includes guidance on RCUK/UKRI block grants for OA and APC/other discounts and citation online resources and training. A Responsible Metrics Working Group has been established and we have signed the San Francisco Declaration on Research Assessment and developed a university-wide responsible metrics statement that reflects these principles as well as the Leiden Manifesto and the Metric Tide. Following a review of our academic promotions process in 2019, we no longer recognise any metrics in our review of applications.

Led by our Research Governance team, **our culture of research integrity** is underpinned by our Code of Practice for Professional Integrity, our subscription to the UK Research Integrity Office as well as the principles of the Concordat to Support Research Integrity with clear and accessible policies, procedures, and guidance. We publish an annual statement describing activities which include: regular and mandatory online research integrity and ethics training for all research-active staff and PhD researchers (with a 100% PhD completion rate and 96% staff completion); a network of Research Integrity Co-ordinators who advise on discipline-specific activities and refer queries to Research Governance for action; robust internal review processes; and regular training, workshops and audits to ensure compliance. Those working in regulated areas including human data, human tissue, animal, and radiation research are required to be trained prior to commencing unsupervised activity. The University has a robust system of peer and ethical review for all human research, including a University Research Ethics Committee for higher risk human research studies and delegated responsibility to a network of 16 filter committees for review of all human research studies.

Spearheaded by our Research Development team, we provide a wrap-around support service for all researchers in pursuit of research **collaborations, networks, funding, and partnerships** through identifying opportunities, facilitating interdisciplinary cross-faculty bids, provision of seed funding and the co-ordination of applications led by Ulster and as part of external consortia. Our dedicated Global Grants Manager and Strategic Research Development Managers help develop local and international partnerships to secure global funding and build international research networks leading to global community impact. Our collaborative research, international co-authorship, and internationally cited research outputs provide critical leverage in international markets and contribute to Ulster's internationalisation research strategy. Since 2014, we have collaborated with 2,199 international institutions – academic, corporate, governmental, and medical – across 103 countries (Scopus).

Engagement with the wider community through our research is supported through an extensive range of media partnerships including regular videos and editorials in the Irish Times and RTE Brainstorm (an online research public information and debate platform hosted by

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Ireland's national public service broadcaster RTE). We routinely sponsor and co-host events and festivals to engage and interact with our target communities such as the annual ESRC Festival of Social Science (20+ events across NI); NI Science Festival - 180+ events; Imagine Belfast festival - series of political/cultural discussions; and a series of other events and festivals including the Walled City Music Festival; City of Derry Jazz Festival; IMBOLC international music festival; RNCM Chamber Music Festival; City of Derry Choral Festival; and Culture Night events (Belfast and Derry/Londonderry).

3. People

Achieving Excellence Together (2019-2022), our first **People and Culture Strategy**, has been developed following the creation of a new People and Culture Directorate bringing together colleagues from previously separate teams including Equality, Diversity, and Inclusion (EDI); Staff Development; Health, Safety and Wellbeing; and Human Resources. Having an integrated directorate creates the conditions, frameworks, and approaches, to enable our people to achieve and exceed both their own career aspirations and the University's ambitions. We have built a culture underpinned by brave thinking. The *BRAVE framework* has been designed to support the embedding of five key attributes - Bold, Resilient, Authentic, Versatile & Empowering - into the leadership culture across Ulster. To complement this, we have co-created with colleagues from across the institution a series of value statements which set the tone for our university and provide an indication of the culture within our university – one in which values-led behaviour emphasises collaboration, inclusion, integrity and enhancing potential above all else, and aligns with the implementation of one of the key principles in the **Concordat for the Career Development of Researchers** in terms of its supportive and inclusive research environment.

Aligned to the second Concordat principle, our researchers are recruited, employed, and managed under conditions that recognise and value their contributions. Ulster's *Policy on Recruiting and Selecting Employees* sets the standard to promote best practice in staff recruitment - all recruitment panel members undergo recruitment and selection training with refresher courses every 5 years. Since January 2017, 100% of recruitment panel members underwent recruitment training to ensure that the right panel compositions and fair selection methods are used throughout the recruitment process. Our Academic Promotions Scheme was extensively reviewed in 2018. Early engagement with the academic community and subsequent engagement through UCU was at the core of the review. The revised scheme enables and supports our academic staff to develop their careers, optimise their potential and fully achieve their ambitions. The development of the promotion scheme has been guided by 4 Ps, namely promotion is a recognition based on Peer esteem/academic performance and for an academic member of staff is a framework for *Probation, Performance expectations and Promotion* throughout the academic career. Each Head of School has regular one-to-one meetings with their staff, and at formal appraisal meetings, they discuss career aspirations and offer appropriate support and guidance. These conversations begin at induction, continue through probation and are a regular feature of performance discussions throughout the researcher's career.

In delivering against the 3rd Concordat principle in respect of professional and career development, the University is committed to ensuring that the quality of research training at Ulster is at the highest international level – developing everyone to their fullest potential. Our approach to early career researcher (ECR)/contract research staff (CRS) support has been underpinned by our institutional value of inclusivity. Our professional development programme is available for ALL staff including ECR/CRS, fixed or part-time, and they are key programmes in the Concordat implementation plan with some activities targeted at ECR/CRS specifically. For example, our university-wide **Research Mentoring Programme** matches experienced research staff with less experienced colleagues to provide one-to-one mentoring to help build their research capacity and capability and to enable new staff members to become research-active. Since its launch in 2019, 140 mentors and 170 mentees (33% ECR/CRS) have participated.

Since our last REF submission, we have introduced a new university-wide **Research Sabbatical Leave** policy to ensure that all staff can apply for sabbatical leave to focus on their research and

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personal development, consciously moving away from bespoke faculty-based approaches to improve equality and diversion of uptake and include ECRs. In the same spirit, we have amended our annual Distinguished Research Awards Scheme which traditionally recognised the outstanding contribution of Ulster staff members in research, across two categories – Senior and Distinguished Research Fellowship Awards to now include an award in Early Career Research Excellence. A series of training programmes has been developed to support ALL academic staff but are targeted to ECR/CRS. **The Research Income and Grant Opportunities for Ulster's Researchers (RIGOUR) programme** provides training/events to improve success rates of grant applications. The **Significance and Originality of Academic Research (SOARING) programme** provides training/events on the quality of research outputs and publications. The **Impact Development Series workshops and training** focusses on enhancing the impact of research; tracking and evidencing; and generating pathways to impact. Since 2016 there have been 100+ events; the majority of SRR staff have participated in 3+ events; 14% were CRS/ECRs.

Our institutional *Employee Wellbeing Strategy 2019-22* promotes and supports staff health and wellbeing and sets out and implements a series of actions to deliver an environment where staff wellbeing is integrated into day-to-day practices and individuals can be supported to develop their own ideal work/life balance. The 2017 Staff Survey, in which 70% of our staff participated, showed that 83% of staff feel proud to work for the University; 91% of staff generally enjoy their work; and 83% feel the University is a good place to work.

The **support mechanisms for research students** at Ulster had a step change in 2017 with the establishment of a Doctoral College to oversee our postgraduate research degree provision, ensuring a rich, vibrant environment with a particular emphasis on cultivating innovative interdisciplinary research and internationalisation. We have PhD researchers from 35 countries across 5 continents. Our PhD researchers are embedded in our staff community and culture not just in terms of the training and support but also in terms of title – PhD researchers rather than PhD students. Since establishment, post-graduate researcher satisfaction has increased year-on-year from 83% in 2017 to 85.4% (Postgraduate Researcher Experience Survey 2019) and in the PRES 2019 *Ulster was ranked 8th out of 103 UK universities for postgraduate researcher satisfaction and 3rd out of 103 for our Research Culture*. PhD Hubs on each campus provide interdisciplinary social spaces for our PhD community to engage and attend events as well as host their own peer-organised events and activities. The active Ulster PhD researcher Twitter page (@UlsterUniPhD) has over 2,900 followers.

Annually, circa 130 PhD studentships are awarded by Ulster. These include tuition fees, a stipend (£15,100 p.a.) and a research training grant (£900 p.a.). Studentships are funded primarily from the devolved Department for the Economy, and through our Vice-Chancellor's Research Scholarship Programme. PhD research projects are proposed by supervisors and funded on a competitive basis with Research Directors considering the strategic fit of the research to their UoA and ensuring that appropriate supervision is in place. Each PhD researcher, in consultation with their supervisors, undertakes a Training Needs Analysis (TNA), which is structured around the Vitae Researcher Development Framework leading to a bespoke training plan. Our Researcher Development Programme provides a suite of workshops, specialist skills sessions, online courses and personal development planning activities including, writing skills, communication skills, research methods, employability and careers, and research governance and ethics (since 2017, 700+ PhD researchers have attended 600+ events). Mandatory workshops are provided for new and experienced PhD supervisors to support them on being an effective supervisor, the supervisor-PhD Researcher relationship, and common challenges and effective solutions. Annually, Ulster's 'Festival of PhD Research' provides opportunities for PhD Researchers to present their work (via keynotes, posters, and oral presentation) in a supportive multidisciplinary environment. PhD researchers are encouraged to enter the Three Minute Thesis (3MT®) competition as part of their communications training with 2018 seeing an Ulster PhD researcher selected for the UK final; in 2019 an Ulster PhD researcher winning the UK People's Choice Award; and in 2020 an Ulster PhD researcher reaching the UK semi-finals. In 2018 a new 'PhD Researchers Pool' was created - allowing PIs to hire PhD researchers from this pool,

bridging the gap between submission and postdoctoral employment, while at the same time providing short term quick turnaround research resource for PIs and others in Ulster.

Ulster's **Equality, Diversity, and Inclusion (EDI)** Strategy provides a framework for the delivery of EDI, in support of the University's Five & Fifty Strategic Plan 2016-2021, the Research and Impact Strategy (2017-2022), the wider People and Culture Strategy and the University's Equality Scheme. We believe EDI is everyone's responsibility and all staff must complete the University's online '*Equality and Diversity*' and '*Disability Awareness*' training course. Our **commitment to equality and diversity in recruitment** is evidenced through our Policy on Recruiting and Selecting Employees which sets standards to help promote best practice and compliance with relevant legislation. This Policy was developed following an Equality Impact Assessment in compliance with the University's Equality Scheme under the provisions of Section 75 of the Northern Ireland Act.

Our **strategies, activities, and collaborations to support EDI** are continuously reviewed through our dynamic equality action plans overseen by our EDI Steering Group chaired by our Deputy Vice-Chancellor (Research and Impact). These actions include: developing guidance for line managers to raise awareness of paternity and shared parental leave, and Keeping in Touch (KIT) days; establishing of Returning Carers' Scheme to offer grants (up to £2.5k) to assist those returning from leave due to caring responsibilities to establish their research profiles and career development; an adjusted workload is assigned where possible to returning members of staff following leave due to caring responsibilities; developing research potential by putting in place appropriate support for staff members starting their research career or resuming research activities on return from long periods away; equality profile monitoring throughout the REF process; equality screening of sabbatical leave; "Preparing for Promotions" workshops; promoting gender equality of PhD researchers and reviewing PhD gender balance as part of their **Athena SWAN** engagement; the formation of Ulster's Wo/men's Network events and mentoring; the formation of Ulster's BAME Network events and mentoring; EDI Training for all key REF decision makers; inclusion in the Stonewall Diversity Champions NI Programme; and in implementing our third Disability Action Plan in May 2019.

Ulster's Equal Pay Policy and action plan are mitigating pay differences across gender, ethnicity, disability, and community background groups; our Article 55 Affirmative Action programme is ensuring fair participation in relation to community background; and Disability Action Plan - promotes positive attitudes towards disabled people and encouraging their participation in public life.

In terms of **relevant accreditations**, our institutional policies underpinning our staffing strategy and staff development initiatives have been recognised through our receipt of the *HR Excellence in Research Award in 2012* (successfully retained in 2014, 2017 and 2019). This award recognises the positive actions taken by Ulster to support the career development of researchers, the implementation of the *Concordat to Support the Development of Researchers* and our alignment with the principles of the *European Charter for Researchers and Code of Conduct for their Recruitment*. We are committed to the principles of the Athena SWAN Charter, holding an Institutional SWAN Bronze Award (2014 & 2017) with plans to submit a Silver application in 2021. Ten schools hold Athena SWAN awards, 8 Bronze and 2 Silver. Each year we actively promote and fund staff to participate in the Aurora Leadership Development Programme, a programme specifically designed to encourage women to think of themselves as future leaders, with 67 staff participating over the REF period (25% REF eligible staff). Ulster is a member of Advance HE's Race Equality Charter. The proportion of BME research staff has increased at Ulster from 13.33% in February 2013 to 24.67% in February 2020. These figures are also significantly higher than the last NI census (2011) which suggested that 1.8% of the NI population is BME.

In **constructing our REF submission**, we used our REF2021 Code of Practice (CoP) as our roadmap. Our CoP actively promotes equality of opportunity in all our REF processes to ensure that ALL eligible members of staff are given the opportunity to participate in REF2021. As we

committed to in the CoP, we engaged Advance HE to deliver several practitioner workshops on EDI and REF2021 for those staff involved in the REF2021 decision-making processes. We established a REF2021 Equality Working Group (REF2021 EWG) to monitor the implementation of the CoP through regular Equality Impact Assessment (EIAs) and to determine the extent of any impact upon the Section 75 (NI) categories. We conducted EIAs at every stage of our submission process not because we are required to but, because it aligns with our proactive approach to equality. The use of EIAs have improved our processes and ensured that we protected the need and rights of our diverse community of researchers.

4. Income, infrastructure, and facilities

Generating research income has been a key strategic goal, with a commitment to increase the level of our overall research grant awarded by 50%. Our latest figures show that we have increased *research awards* by *85% during this REF period*. We established a new university-wide Research Development Team in 2017 to identify funding opportunities and to develop large-scale, high-quality, and interdisciplinary applications, and with the Research Management Team provide a continuous and effective pre- and post-award service to Ulster researchers. A hub and spoke model embedded key appointments (Faculty Research Managers, a Global Manager, and a strategic Research Development Manager) within the Faculties to identify funding opportunities, and provide practical support to scope, develop and draft funding applications. Supporting activities have included: the provision of a regular, open, and competitive opportunity to secure seed funding and pump-priming for developing projects and bids through an internal Research Development Strategy Fund, a Collaborative Research Fund and a GCRF Pump-Priming Fund; expert review services; and institutional PhD match funding to strengthen strategic, prestigious, and interdisciplinary funding applications. **Equality, Diversity, and Inclusion** are valued, actively promoted, and embedded in all our research income support processes and accessing facilities. All funding opportunities are open, inclusive, and competitive in line with funding eligibility criteria. Researchers are advised in advance of restricted calls regarding any applicable assessment criteria and ranking process. Selection panel members are appointed to ensure a balanced and inclusive panel.

Infrastructure and facilities

Ulster has made significant investment in facilities and infrastructure to provide a rich, sustainable, and vibrant environment. Our **new 75,000m2 Belfast Campus** expansion programme, opening in September 2021, is a **£365M+** investment bringing over 15,000 students and staff into the heart of the city centre, ensuring that our research is even closer to industry and business, and allowing us to develop innovative ideas and exploit global connections. It is designed to be an engine for creativity, building Belfast's social, cultural, creative, and scientific profile and driving innovation regionally, nationally, and globally. With a focus on ground-breaking research, the new campus will house **bespoke research translation spaces** supported by leading technology to maximise the interfaces between disciplines and facilitate collaboration with industry. This has been complemented by a new £11M state-of-the-art research and collaborative learning space built on our Magee campus in 2018. The Ulster University **Doctoral College** established in 2017 provides a focal point for doctoral training and researcher development. **Dedicated social and workspaces (the Docs)** provide a bespoke physical presence on each campus. The centrality of its location on each campus creates an inclusive environment to promote interdisciplinary conversations and collaboration among our PhD researcher community.

Examples of newly established facilities in the REF cycle include the £5.3M **Northern Ireland Functional Brain Mapping Building** for computational and cognitive neuroscience, neurotechnology and rehabilitation research (2018); the **BT Ireland Innovation Centre** (£9M investment) providing a research and computer science Centre of Excellence (2017); as well as our **Food and Drink Business Development Centre** (£1M investment) established in 2018 as a response to the need to strengthen the NI regional economy in key priority areas.

Our **Higher Education Research Capital (HERC)** fund further provides us with an essential platform to facilitate excellent research and innovation. In the current REF cycle, Ulster has received £5.9M HERC funding that has leveraged a further £1M of financial support from within Ulster, and has been utilised in the provision of equipment, facilities, analytical services, data and underpinning infrastructure within the faculties and professional services. For example, Ulster has invested significantly in 2015 in a new **research information management system (PURE)** to facilitate the effective collection, management, and open access of research and impact data and to ensure requirements of external funders are met, with regards to REF, Open Access, and Research Data Management. In 2020, Ulster began the roll out of a **new Research Management system, Worktribe**, following a £300k institutional investment, to provide the infrastructure to support research grants and contracts to provide an end-to-end research management tool.

Ulster's award-winning wholly owned knowledge and technology venturing company, **Innovation Ulster Limited (IUL)**, is generating economic value and enabling research and civic impact from Ulster's knowledge base through its spin-outs, licensing opportunities, graduate start-ups and partnered spin-in companies. Within the current REF cycle, Ulster's IP portfolio has delivered more than £13M to Ulster; cash contributions and gift aid to Ulster from IUL was approximately £2.5M; and maintenance costs of the IP portfolio were c.£1M. Since 2013, IUL has invested £2,620k into its portfolio of spin-out companies borne from the exciting research that takes place at Ulster. With a collective annual turnover in excess of £51M, and with over 36,000 jobs linked to Ulster spin-outs (HEBCI, 2019), **as at 31st July 2019, Ulster was creating more jobs through its spin-out activity than any other UK University in the UK.** Ulster partners with early seed and Venture Capital investors Invest NI, TechStart, Clarendon Fund Managers and Imprimatur Capital. In 2019, Ulster established the first private Venture Capital fund on the Island of Ireland, Énbarr, which had placed £2.4m of investment into Ulster spin-out activity by early 2020.

Ulster participates in a range of other knowledge exchange initiatives - Invest NI's Innovation Voucher initiative, Innovate UK's Knowledge Transfer Partnership programme, Intertrade Ireland's Fusion programme and the European INTERREG IVA Programme Co-Innovate programme. We now undertake in excess of £5M of consultancy per annum (HEBCI, 2019), **making us the number one provider of HE knowledge exchange services on the island of Ireland,** culminating with our other successes as evidence of institutional step-change.