Institution: University of Derby

1. Institutional context and mission

The University of Derby (UoD) is the only Higher Education Institution (HEI) in Derbyshire. Over three campuses in Derby, Chesterfield and Buxton, there are 24,854 students and 3,478 staff. Our annual turnover is over £194M, with income predominantly derived from tuition fees. Buxton and Leek College is also part of the University. Twenty-one percent of our full-time undergraduates are from the lowest HE participation neighbourhoods and BAME students make up 20.8% of undergraduates. Delivery is through a college structure led by PVC Deans (Colleges of: Arts, Humanities and Education (AHE), Business, Law and Social Science (BLSS), Health and Social Care (H&SC), Life and Natural Sciences (LNS) and Engineering and Technology (E&T), supported by UDOL, UoD's online provision).

UoD is a champion of social mobility, our Vice-Chancellor, Chairs the Derby City Opportunity Area Board and we rank second in the country for Fair Access (HEPI). In 2020, we were awarded University of the Year (UK Social Mobility Awards) and NEON HEI of the Year. As an anchor institution we have worked to deliver a powerful regional university agenda that addresses the needs of its students and regional stakeholders with curriculum developments such as our FdSc Nursing Associate and the first UK Police Constable Degree Apprenticeship. We have a long-standing reputation for teaching excellence: TEF Gold; Top 10 for Postgraduate Student Experience (2020) and above sector average for the proportion of staff with AdvanceHE Fellowship.

UoD has significantly changed since 2014, moving from a focus on learning and teaching to one with a broader academic and civic mission. In 2018 UoD launched its 2018-2030 Strategic Framework identifying itself as an 'applied University' predicated on delivering excellence and opportunities for our students, staff and region. The Framework acknowledged that UoD needed to build more focused and integrated applied research strengths across its disciplinary base. This increased focus and support for research is evidenced in our REF2021 submission (Table 1).

Our applied research strengths in our 10 UoAs play a key role in impacting on the vibrancy and regeneration of the region. Derby City Council's Economic Growth Strategy 2018-22 prioritises a 'University Quarter' as part of a vibrant, learning city. Derbyshire is geographically, economically and socially diverse and is part of the D2N2 LEP area. Collaboration is key to our strategic approach with active engagement with a range of stakeholder groups. We provide specialist support and expertise to key employment sectors e.g. transport equipment manufacturing; health and social care; education; supply chain and logistics. Our UoAs provide focused direction into new areas of expertise as we move into our next research development phase (Section 2).

UoD has co-invested its own resources to deliver an ambitious programme of business support (Section 4). Our funded local growth programmes have enabled us to introduce SMEs to collaborative research and innovation, enabling them to build their capacity, in support of the Industrial Strategy target to increase business R&D spend.

The synergistic nature of our regional needs, student body, curriculum and research can be seen in the development and rebalancing of our research, teaching and enterprise activities from RAE2008 to REF2021.

2. Institutional research and impact strategy

2.1 Research strategy
Following REF2014, UoD implemented an ambitious Research Strategy 2014-2020. The aims of this Strategy and their indicators of success are briefly summarised below (Table 1).

Table 1: Summary of UoD Research Strategy 2014-2020 and success indicators.

Research Strategy 2014-2020	Indicators of success
a) Achieve an improved REF submission	Significant increases in volume of all REF2021 metrics, supported by a dedicated research and knowledge exchange office and enhanced research governance processes.
b) Increase research student numbers	A **38% increase in research students** (394 in 2020 compared to 285 in 2014) and a **40% increase in completions** (126 compared to 64 in REF2014) when both calculated over a five-year period.
c) Support more staff to engage with research	An **increase of 147% in the number of FTEs** submitted to REF2021 (264.2) compared to REF2014 (106.8).
d) Increase research income	An average **increase of 347% annual income** in REF2021 compared to REF2014 when both calculated over a five-year period. Total research income reported to REF2014: £1.87M vs REF2021: £11.73M.

Realising these aims was predicated on significantly improving the research environment. The Strategy was supported by a £1.8M average annual research investment, which funded appointments to research leadership roles in Colleges and a central research and knowledge exchange unit **(URKEO)** to lead on enhanced research governance. Substantial investment was made in the establishment of new professor led research institutes and centres, across our disciplinary areas. The 2014-2020 Strategy built upon REF2014 and had at its foundation not only the ambition to create distinctive research but that the benefits of the investments would extend beyond academia to our impact beneficiaries, a key principle of the University's Strategic Framework. The strategic investment cycles have resulted in improved performance aligned with the 2014-2020 Strategy.

URKEO was established to support the implementation of our Research Strategy. Led by the Provost (Innovation and Research), it has 19 staff, including academics and professional service staff. **URKEO** has been key to our cultural transformation by embedding a vibrant and dynamic research and knowledge exchange culture through its lead on governance, researcher development, impact, grant capture and delivery, funding compliance and postgraduate student support. **URKEO's** key achievements include:

- *Strengthening research governance structures.* Operating through a 'hub and spoke' model with the University Research Committee (**URC**) and the College Research Committees (**CRC**). URC's wider remit includes: a) governance; b) monitoring, engagement with and enhancement of student experience, including PRES; c) strategy development; d) researcher development (Section 3); e) assuring doctoral provision; f) leverage and monitoring of research income and preparations for KEF; g) the management of research constituencies (University Professorial Council, **UPC**); h) sub-committees, which include: i) University Research Ethics Committee (**UREC**) which is aligned to the UK Concordat to Support Research Integrity and the San Francisco Declaration on Research Assessment (metrics); ii) REF Steering Committee, key to the delivery of our Research Strategy.
- *Supporting successful research funding and knowledge exchange.* Performance across both research and knowledge exchange has increased significantly (Table 1). Knowledge exchange activity has increased HE-BCI year-on-year.
- *Strengthening intellectual property (IP) and commercialisation opportunities.* An IP Policy was introduced in 2018 which has enabled the formation of our first community interest company (CIC), S.H.E.D, an accessible pop-up art space, facilitating creative public dialogue.

Our **Open Research Environment** is demonstrated by our adoption of 'Green' Open Access as the default option, implementation of green and gold access policies and funding to support APCs. We ensure compliance with funder policies on Open Access and Open Data with our **Research**

Data Management Policy, which allies with and supports the **Concordat on Open Research Data** principles. There is a realistic timeframe (up to 2023) for phased implementation of the Policy allowing for investment in resource/ infrastructure.

2.1.1 Strategic performance
UoD has achieved all the objectives of the 2014-2020 Research Strategy (Table 1), the overall aim of which was to achieve an improved REF score across all subjects and to further embed research within the University. Table 2 illustrates significant increases across all REF metrics. Through targeted investment, including the establishment of **URKEO,** we have been able to create and develop areas of research expertise. There has been a significant uplift in research appointments across career levels: professors, associate professors and ECRs, supporting all 3 REF metrics. Our professorial numbers have grown from 11 in 2014, to an establishment of 64 professors and 34 associate professors. Mirroring this growth in expertise and aligning doctoral opportunities with our research strengths, PGR student numbers and completions have significantly increased. We have taken a holistic, inclusive view of transforming our research culture, benefitting from alignment with the University's Strategic Framework. Enhanced governance processes, infrastructure support and development opportunities have been led centrally and embedded in our Colleges and UoA structures.

Table 2: Summary of REF progress 2014-2020

	Units of Assessment	Staff FTEs	Volume of outputs	Impact Case Studies
REF2014 Submission	10	106	408	21
REF2021 Submission	10	264.21	661	27

2.2 Impact strategy
UoD's Strategic Framework 2018-30 is predicated on its strategic vision of 'Being a Force for Positive Impact' and 'Opening Doors for Everyone'. At the heart of our Strategy is to positively impact local communities and people within our region and beyond, through publicly and community engaged research, innovation and knowledge exchange. Our Strategic Framework resonates with the REF impact agenda and our strategic research ambition.

In 2014, **URKEO** appointed an Impact Officer to work across UoD to make impact planning, capture and training available to all, as well as monitoring Institutional impact KPIs. Strategic investments resulted in some Colleges making impact focussed appointments too, which has shown the benefits of such roles and which the Innovation and Research Strategic Priorities 2020-2026 will build upon to further develop a hub and spoke model for impact. The URKEO Impact Officer is a member of **NCCPE** and their PEP Insights research group; we aim to sign the NCCPE Watermark in 2022. Our engagement is underpinned by the Civic University Agreement. HEB-CI data (2018-2019) evidences that our researchers have delivered free public lectures to 16,816 people, free exhibitions to 13,621 visitors and free performances to 2,712 viewers.

URKEO have been working with the Colleges to support 27 REF2021 Impact Case Studies, many of which evidence best practice in research informed public engagement benefitting Derbyshire and beyond. Influenced by working with Chesterfield Royal Hospital, H&SC has created national online capacity building networks for clinical nurse educators (CNEnet), and with LNS through its Nature Connectedness research has shaped the public engagement strategy of The Wildlife Trust and the National Trust. Collaborating with Derby Theatre, BLSS has worked on arts projects (Plus One, #ThisisDerbyProject) that engage young people in care and/or in social mobility cold spots, building essential skills/cultural confidence (*The Guardian* 2020 award for social and community impact). SET's Audio-Engineering expertise has engaged the public at world leading music events (Glastonbury Festival) and has influenced World Health Organisation public regulatory frameworks for safe listening. AHE has supported the civic agenda regionally from co-curating the international biennial FORMAT photography festival (delivered in Derby with QUAD) to public engagement with history in the Being Human Festivals 2019 and 2020.

2.3 Future Research and Impact Strategic Goals

UoD now wants to ensure there is continuity and growth through a balance of strategic investment and "business as usual" as it builds upon the significant improvements evidenced in our REF2021 submission. The Innovation and Research Strategic Priorities (2020-2026) set the direction of travel as we consolidate our academic areas, focusing on research strengths and the UK R&D roadmap priorities to ensure a sustained and vibrant research culture.

Innovation and Research Strategic Priorities 2020-2026
1. Investing in Talent: Expanding our capability to create knowledge and deliver innovation.
2. Growing Innovation: Advancing our knowledge, through our public, private and third sector partners, to enable innovation and create impact.
3. Regional Impact: Working with local partners and stakeholders to tackle social, environmental and economic challenges.
4. Empowering Graduates: Enabling our students to engage in impact driven research and knowledge exchange.
5. Stimulating Business: Creating an ecosystem for the University and its partners to commercialise ideas.
6. Delivering Assurance: Improve performance, efficiency and effectiveness of processes and management of risk.

Our REF2021 submission has identified interdisciplinary areas of current impact strength and potential future growth e.g., nature and wellbeing and social policy and arts. Whilst research will continue to support the curriculum, divestment from non-priority areas will support an efficient and effective portfolio, driving forward the sectors of the future: Data Science; Clean Growth and Innovation; Bio-sciences; Creative Industries; Public Sector and Health and Wellbeing.

'Opening Doors' applies not only to our student population but also our business community. We work actively with D2N2 on the Local Industrial Strategy, engage with the Midlands Engine partnership predominantly through the Midlands Enterprise Universities group, and are a member of the Derbyshire Economic Partnership which brings together economic development agencies and other organisations to strengthen the economy and tackle deprivation.

3. People

3.1 The University context

The University's Strategic Framework is a significant cultural change piece which embeds EDI considerations in all aspects of our work and informed our 2019 People Strategy, with its' themes of Talent and Success, Leadership and Management, Equality, Diversity, Inclusion & Wellbeing and Collaboration. We have committed to developing a high performing and inclusive culture aligned with Athena Swan principles. Our Gender Equality Network is dedicated to raising awareness of gender equality. Since REF2014 there has been a significant increase (11%) in the number of women submitted to REF2021 (Figure 1), which demonstrates the effectiveness of our commitment.
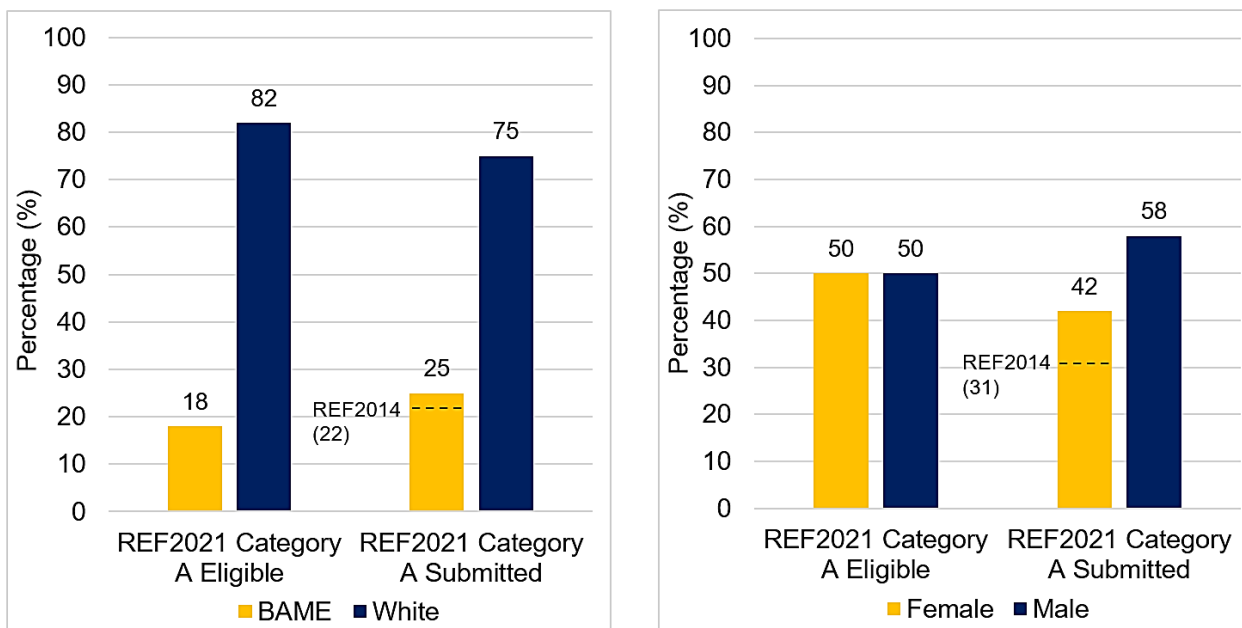
Figure 1: REF2021 Eligible and Submitted BAME and White Researchers (%) (Left) and Female and Male Researchers (%) (Right) (Staff HESA Return, 2019/20)

Our **Gender pay gap** is one of the lowest in the sector, with a gap of 10.5% (Mean) and 9.2% (Median). We also report our ethnicity pay-gap, recognising intersectional barriers in achieving our goals. Our leaders visibly exemplify inclusion and promote gender equality; in 2019 the VC was awarded Stonewall's Regional Leader. In 2020 our position in the Stonewall Equality Index is 226/500+. We aim to sign the Race Equality Charter in 2022. It is encouraging that our BAME return at 25% is higher than the 18% eligible BAME in the Category A population, and our REF2014 submission (Figure 1). Three percent have a declared disability compared to 6% of the eligible Category A population. The percentage of eligible researchers on a fixed-term contract (6%) is similar to the percentage of fixed term researchers submitted to the REF (7%). Table 3 illustrates the protected characteristics data of senior staff, and Table 4 our recruitment of Category A staff by age profile.

Table 3: Professors and Senior Staff by Protected Characteristic (%)

Ethnicity Group		Sexual Orientation	
Asian	5.3	Gay Man	<1.0
Black	4.0	Gay Woman/Lesbian	<1.0
Chinese	4.6	Heterosexual	78.2
White	84.1	Prefer not to Say	20.5
Not Known/Refused	2.0	**Religion**	
Gender		Buddhist	2.0
Female	37.7	Christian	40.4
Male	62.3	Hindu	2.7
Disability Group		Refused	17.9
Disabled	2.7	Muslim	2.0
Not Disabled	97.3	Sikh	<1.0
		No Religion	34.4

Table 4: Recruitment by Age Group (%)

Age Group	
<25	1.4
26-35	21.3
36-45	31.1
46-55	31.1
56-65	14.1
>65	1.0

3.2 Building a research engaged community

Achieving our strategic ambitions has required a significant transformation of our current and future staff base towards research and knowledge exchange. We are committed to nurturing and encouraging research excellence across all our disciplines and career stages, recognising the strong link between excellent research and an excellent student experience. Harnessing and aligning our staff and students' energies, creativity and talent is the foundation of our thriving research environment and significant investment has been made into research support **(URKEO)**, actively seeking to encourage and support those at differing stages of their research journey (e.g. **ECR Forum)**. Our approach to engendering a research culture has been through a mix of new appointments, particularly at professorial level and the development of our existing staff. Annually 6 staff on average have been awarded doctorates and 59 are currently studying UoD doctoral qualifications. To supervise doctorates staff must undertake our supervisory training course. Our People Strategy has led to a new appraisal scheme and a digitised HR system. In addition to the EDI Committee, there are six staff networks: Disability Coordinators' Group; Race Equality Group; LGBT+ALLIES Group; Aurora Leadership and the Academic Equality and Inclusivity Group, which have made significant contributions to our policies on recruitment procedures, carer leave and flexible working and staff wellbeing.

The development of a researcher career family as a career pathway in 2015, has been further enhanced by an internal professorial conferment opportunity. Reward and recognition through the workload planning process of those engaged in 'significant responsibility for research' (**SRR**) is a key enabler in enhancing both our research capability as well as the retention of key research staff. Individual Research Plans (IRPs) have been piloted during this REF period to give a framework for assuring research time is effective, supported and delivers the expected outcomes. An objective of the Innovation and Research Strategic Priorities is to adopt IRPs for all Category A staff.

Values of inclusivity can be evidenced throughout this REF cycle. In the Mock REF exercises (2018 and 2019), colleagues were encouraged to self-assess their outputs. A REF2021 communications plan has included multiple formats for enabling staff to remain informed throughout our preparations. Every effort has been made to ensure that absent staff are informed of REF policies and processes.

3.3 Determining SRR

The transformational journey UoD has been on, means that a 100% Category A staff submission was not appropriate. Moving forward, the Innovation and Research Strategic Priorities aim to uplift our submission of Category A staff from 30% to 50%, by enabling a greater number of staff to fulfil their academic contract with targeted development opportunities.

The development of our Code of Practice was inclusive and engaged representatives from differing career stages, professional services, union colleagues and academic disciplines. The PVC Deans, with advice from UoA Leads, have made the final determination of SRR, in consultation with individuals. All staff involved in determining SRR have undertaken our unconscious bias training. In addition, Advance HE equality and diversity training tailored to the REF process was delivered in 2019 and 2020. All eligible staff who have not been deemed to have SRR are informed in writing of the decision and the reasons for it and are offered a supportive meeting with the relevant PVC Dean or nominee.

3.4 Researcher development
3.4.1 Internal conferment

An annual professorial conferment round began in 2017/18, linked with our ongoing strategic aim to increase capability and capacity. This development has supported a number of aspects of the Strategic Framework, namely 'positive impact', 'opening doors', 'future-focussed' and 'valuing people.' Workshops delivered by the **University Professorial Council (UPC)** and HR support prospective applicants. An Equality Impact Assessment (EIA) is undertaken for each round. To

mitigate disparities in career progression, the applicant workshops present an opportunity to role model supported by a 1:1 mentoring scheme for both potential and successful applicants.

3.4.2 Mentoring
Our mentoring scheme provides a means of supporting the research objectives of staff, developing their own and UoD's research capacity. The Scheme enables researchers to drive their own research development, under the guidance of **UPC** mentors. A 6-month ECR pilot mentoring scheme garnered overwhelmingly positive feedback and balanced representation from across the colleges. It is now a key strand of our researcher development. Associate professor mentoring was launched in 2019 and we have 29 active mentees in all schemes split across 25 different mentors.

3.4.3 Stakeholder groups
UPC provides strategic support for the implementation of policy and practice to enhance the research environment. Each College nominates members. An inaugural professorial lecture series and annual social event has been established, which invites all conferred professors (establishment, emeritus and visiting) and showcases recent successes and presentations from our ECRs and PGRs. Visiting professors/fellows positions have grown to over 100. ECRs from each College are **UPC** members. **UPC** also leads on our response to UN Global Challenges. In 2019, Health and Wellbeing, Smart Cities and Communities and Social and Education Policy weeks were held drawing on our research expertise.

The ECR Forum crosses College and disciplinary boundaries, acting as a catalyst for shared learning and stimulating collaboration. The effectiveness of our ECR support is evidenced by 18% of our REF2021 submission comprising ECRs. Targeted development training is delivered to the Forum, supported by an annual internal ECR competitive support fund of £30k. ECR representation on UPC supports career aspirations and ensures UPC decision making is informed by ECR interests. The ECR Forum has 92 registered members, who are representative of the college, gender and ethnicity breakdown of our academic staff base and who meet formally four times per year.

3.4.4 Researcher Development Programme (RDP)
URKEO organises an annual **Researcher Development Programme (RDP)** to raise awareness and develop research and knowledge exchange skills, to support career development and achievement of the Research Strategy. Our RDP is aligned with the Vitae Researcher Development Framework (RDF) and adopts an inclusive approach. Events have targeted development priority areas identified by colleagues in Colleges, stakeholder groups and professional services e.g. communicating research, identifying and writing bids, writing for publication, impact planning. An annual Research and Knowledge Exchange Conference is integral to the RDP. Monthly Research Cafes have provided excellent opportunities for staff and students to showcase research, develop skills and discuss research issues in a relaxed environment. Panopto recordings of sessions are shared on the URKEO intranet page. The implementation of our annual RDP has enabled us to make significant inroads in engagement and diversity. The RDP will be enhanced by the inclusion of further career development for post-doctoral staff.

3.4.5 Postgraduate research support
We have invested in studentships, including GTAs and to support the growth in our PGR Community we have invested in dedicated **URKEO** staff, who ensure the RDP is supported by a PGR Calendar of Events. This includes a student co-produced PGR Conference and 3MT participation. In addition to MPhil/PhD students, we have professional doctorates in Education, Health & Social Care and Business Administration. These reflect our regional stakeholder needs and research expertise. As a member of UKGCE and the East Midlands Doctoral Network (EMDoc) our training opportunities reflect sector initiatives and include co-produced training events with EMDoc partners. We have also partnered with Kings College London and Student Minds on an OfS/Research England project resulting in a national, open-access online resource

(Wellbeing Thesis). PRES 2020 identified that 82% of our students were satisfied with their supervisory support. In comparison to the sector, as evidenced by PRES 2020, our PGR population tends to have a higher proportion of part-time students (77%, sector figure 23%), is older (>31years, 62%, sector figure 47%) and more female (60%, sector figure 54%), representative of the feminisation of the target professions. In terms of ethnicity, UoD is broadly similar to the sector (13% BAME, sector figure 15%), with 27.4% of the total PGR awards being from BAME students. We are escalating our engagement with industry partner MPhil/PhD, including awards co-funded by ERDF and local bio tech SMEs. These are reflective of the enhancement of our applied research environment. MPhil/PhD recruitment is the responsibility of Colleges, who ensure the applicant is embarking on a viable research programme which relates to our existing research expertise. The PGR student journey is governed via CRCs and URC.

4. Income, infrastructure and facilities

4.1 Income
UoD's research income has significantly grown since REF2014, total research income returned is £11.73M, a 526% increase from the total research income returned in 2014 (£1.87M). The significant growth in HE-BCI is mainly due to increased Innovate UK and Regional Growth Funding. KTP income has grown significantly (2015-2020), and we have the highest KTP income of all the KEF Cluster J institutions. We are actively involved in 135 long-term knowledge exchange collaborations, including KTPs and we have awarded £26.5M of capital investment to East Midlands businesses through our Invest to Grow Programme. Contract research with business is a strength and an indicator of our healthy KTP activity.

Capital investment in local growth projects has been focused on increasing research and innovation capacity in sectors aligned to our Region. UoD has committed £5.6M of its own resources to secure co-investment from regional funding sources. Income from Local Growth Funding and European Structural and Investment Funds has led to capital projects critical to long-term research development such as St Helena, Rail Research Innovation Centre (RRIC), OMICS research facility and the Derby Manufacturing Research Centre (with Nuclear AMRC) and revenue projects such as Enabling Innovation, EnScite and De-Carbonise. UoD's strong public sector partnerships (police, health, education) are used to leverage stakeholder engagement in innovation and research activities. We have a strong track record for delivering consultancy and tendered projects, especially in the public sector. Our collaborative approach to unlocking regional development funding has enabled us to deliver a holistic package of local growth projects and enabled new collaborations with a range of HE and non-HE partners. GCRF funding has supported researchers including PGRs.

4.2. Infrastructure and Facilities
'*Being a Force for Positive Impact*' is driven by our approach to investment in key research areas. Our Research Strategy has been supported by ambitious capital investments, with more than £200M invested in cutting edge facilities. Significant capital projects since 2014 include: a) One Friar Gate Square, a £3M investment to support our social science, legal and public sector research; b) a dedicated Bloomberg room (£440k) to support business and enterprise activity; c) Aquatic Facility (£250k) to support our coral reef conservation research; d) the new STEM building has provided progressive facilities to support our engineering and computer teaching and research, including computer labs (£582k) and audio consoles; e) Clinical suites to support our allied health researchers; f) Institute for Innovation in Sustainable Engineering (IISE), developed by a £2M initial investment. IISE provides research, innovation and expertise in advanced manufacturing, computational modelling and data science.

Digitisation of processes has been a key investment priority, to drive efficiency and effectiveness. In 2017, the University implemented a postgraduate management system, PhD Manager which has been enhanced by the addition of Ethics Monitor. The success of these systems has led to the purchase of a research information system, which will identify staff grant activity, profile externally staff expertise and act as a repository for outputs, open access compliance, impact evidence and engagement. This implementation will mark a step-change in the use of data to drive

our research performance and combined with enhancements to our CRM system, will reduce transactional activity, ensuring that **URKEO** staff continue to be engaged in frontline support for academics and business partners. Earlier digitisation investment resulted in the development of **UDORA** (University of Derby Research Archive), our 'system of record' for research output metadata and impact case study evidence. A dedicated research library team works closely with **URKEO** and now has 24/7 opening, extra study spaces, new databases including Scopus and extra journal provision. The research librarians have been key in raising awareness of and providing training in copyright and IP, research skills, open access, showcasing outputs, ORCID and responsible metrics.

Our income and infrastructure developments over the REF period reflect the transformation UoD has undergone. Research income growth has been enabled by an increasingly research active staff base, supported by governance enhancements and **URKEO**. Targeted investments in infrastructure, staff appointments and doctoral studentships have built a strong platform that is able to successfully meet regional agendas appropriate to an anchor institution. Our Innovation and Strategic Priorities (2020-2026) build upon a REF2021 submission that has provided a sustainable and vibrant research environment.