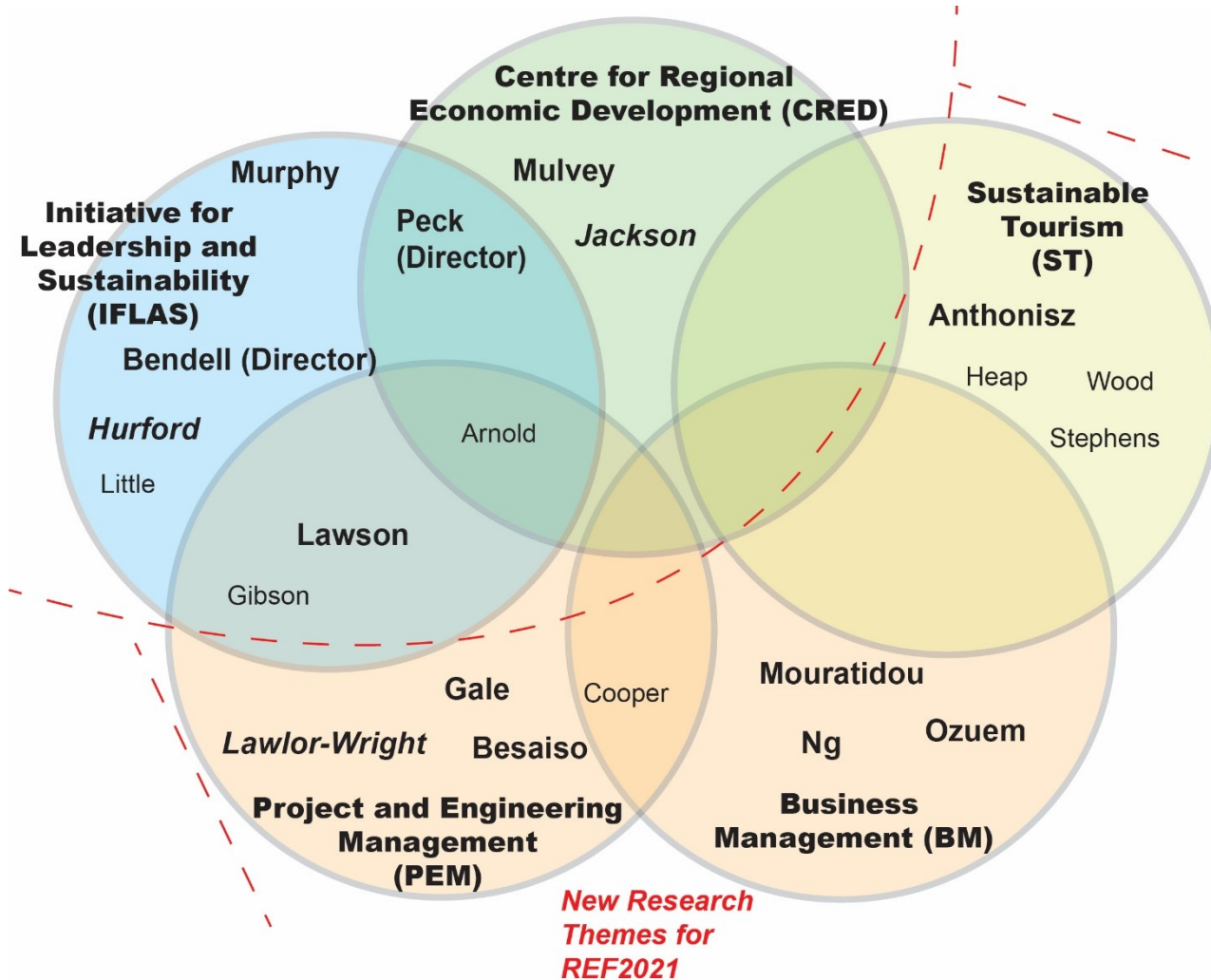


Institution: University of Cumbria
Unit of Assessment: UOA17: Business and Management Studies
<p><u>1. Unit context and structure, research and impact strategy</u></p> <p>1.1 Unit context and structure</p> <p>Research within this Unit of Assessment (UoA) has high significance for the development of the University of Cumbria (UoC). Created on 1 August 2007, UoC has headquarters in Carlisle, major campuses in Ambleside, Lancaster and London, and a formal presence in Workington and Barrow. Formed with active support from public and private sector partners throughout Cumbria and North Lancashire, it was regarded as a key instrument in the development of the local economy and its skills base. This informs this Unit's vision to: undertake research that contributes to creation of sustainable economies, regions, places and organisations, for the benefit of society.</p> <p>In its first REF submission in 2014, research strengths in Business and Management Studies focused on two very specific and distinct areas that had particular resonance with this vision.</p> <ul style="list-style-type: none"> • The first of these has involved research on regional development conducted within the Centre for Regional Economic Development (CRED). CRED was first created in 1996 within one of our legacy institutions and has been involved for over 20 years in conducting applied research and consultancy on regional and local development. • Secondly, UoC made a strategic decision to develop expertise in leadership and sustainability. The Institute for Leadership and Sustainability (IFLAS) was created in 2012 and established itself as a global hub of inquiry, teaching and dialogue on enabling the transition to fairer and more sustainable societies. Based in Ambleside, IFLAS activities include conducting action research and advocacy on processes of social, economic and organisational transformation. <p>Leading researchers in these two entities (CRED and IFLAS) formed the basis of UoCs REF 2014 submission in Business and Management Studies with 12% assessed at 4* and, and 85% at 2* and above, across 2.8FTE.</p> <p>In August 2019, the creation of an 'Institute of Business, Industry and Leadership' (IBIL) reflected significant portfolio expansion into Project Management, Leadership and Management, Engineering and Technology Management. CRED and IFLAS (the latter rebranded as the <i>Initiative for Leadership and Sustainability</i>) continued to operate within IBIL. An important benefit of portfolio expansion has been a broadening of the research base through new staff appointments and staff development. This has enabled this Unit to develop additional research themes in support of its vision, including:</p> <ul style="list-style-type: none"> • Project and Engineering Management (PEM) • Business Management (BM) • Sustainable Tourism (ST) <p>Researchers named in bold are Category A staff with 'significant responsibility for research' (SRR, see UoC REF2021 Code of Practice, 2.10) and those in bold and <i>italics</i> are individuals who left UoC during the REF assessment period. Individuals in plain are non-submitted UoC staff – including staff with 'emerging responsibility for research' (ERR, see UoC REF2021 Code of Practice, 2.12), Research Assistants (RA), Postgraduate Researchers (PGRs) and honorary/retired staff. Names followed by a number (e.g. Mulvey1) cross reference to REF2 outputs.</p>

Fig 1. demonstrates submitted research themes, and the focus of this Unit's Category A/SRR staff, former staff as well as emerging researchers, and visiting staff.



1.2 Expanding and broadening the research base

The research strategy since 2014 has focussed on broadening the research base within business and management. Opportunities to achieve this have been associated with curriculum development that has arisen (in many instances) from identified regional business needs, enhanced through our strong relationships with industrial and other stakeholders in the region and beyond, and aligned to our vision. This has contributed to the growth in research themes outlined in Fig 1. Evidence of this strategy's effectiveness includes:

- Growth of the **PEM** theme, linked to institutional delivery of the Project Academy for Sellafield, and an increasing number of industrial partners where UoC is delivering programmes in Project Management (Section 3.2).
- Establishment of the **ST** theme as a result of an institutional decision to offer a new curriculum in tourism and the visitor economy.
- Consolidation of other business related activity into the **BM** theme.

The strategic approach to build research capacity around regional business need has culminated in the launch of the **IBIL Research Strategy (2020)** (see 1.5) which seeks to maximise synergies between new fields of research, this Unit's vision, and IBIL's mission to meet the need for higher level skills development in Cumbria. This approach means that there is a focus on multi-disciplinary applied research that draws insight and understanding of the region's economy from wider engagement with regional partners.

1.3 Performance against REF2014 Objectives

SO1: Research on the analyses of regional innovation systems and strategies, and local knowledge networks (CRED).

Across the assessment period, CRED has been developed to focus on three major research strands, working with local knowledge networks:

- **Identification of “innovation divides” at various geographical scales**, including EU commissioned research on divides across EU member states and how use of certain innovation metrics is biased against rural areas with a high proportion of small and micro-businesses (such as Cumbria).
- **Reducing unevenness in economic and innovation performance**, working with Newcastle and Northumbria Universities on issues facing the regions straddling the Anglo-Scottish Border, challenging assumptions surrounding the significance of agglomeration economies and recognising the importance of balanced spatial development for sustainability (with elevated significance via Scottish independence and Brexit).
- **The role of small and medium-sized enterprises (SMEs) in local knowledge networks and local supply chains**, including an investigation on the impact of regulatory change on SME innovation and growth. This work concluded that while regulations can impose costs on small companies, some business owners make effective use of regulatory knowledge to gain competitive advantage, illustrated by several case studies.

SO2: Capitalising on new facilities to support research activity, primarily through the redevelopment of the Ambleside Campus and the new Business Interaction Centre in Carlisle

- **Ambleside campus** - Created “in and for Cumbria”, UoC’s development has been guided by its regional mission. A key consideration in meeting this challenge has been to find ways to maximise the benefits of distributed campuses; to identify their individual contributions to the distinctiveness of places; and to direct local resources to enhance research. The Ambleside campus in the Lake District National Park offers unique opportunities for research, curriculum development and public outreach related to the landscape, uplands environments, arts and culture, sustainable leadership and outdoor activities. The campus was successfully redeveloped across the assessment period (Section 3.5) and hosted a number of public facing events (Section 4.3).
- **Carlisle Business Interaction Centre** – UoC’s campuses in Carlisle (Cumbria’s largest settlement) share this city location with many of the County’s public and private sector organisations. In 2014, an opportunity to further embed UoC locally was created by the redevelopment of the Paternoster Row site adjacent to Carlisle Cathedral. The Carlisle Business Interaction Centre (CBIC) operated on this site from 2014-2018 and facilitated interactions between CRED staff, enterprise professional services, and SME tenants. This enabled CRED researchers to discuss research ideas informally with enterprise staff, local business owners and other stakeholders (Section 3.5). The facility was also used to engage with the public (Section 4.3).

SO3: The development of additional research themes, based on the work of new appointees and relating to international business, sustainable tourism and entrepreneurship

As noted in Section 1.1, a key part of the research strategy since 2014 has been to continue existing themes of regional development (**CRED**) and sustainability leadership (**IFLAS**), but to diversify the research base. Appointments have been made in support of this Unit’s new research themes, including **Anthonisz (ST)**, **Gale, Besaiso** and **Lawlor-Wright (PEM)** and **Ozuem, Mouratidou** and **Lawson (BM)**. As a consequence of this approach, the number of researchers submitted for REF has risen from 2.8FTE in 2014 to 8.25 FTE.

SO4: Strategically target collaboration with colleagues in other disciplines, specifically within the environmental sciences to drive an interdisciplinary and value-added approach to sustainability research

We have strategically developed interdisciplinary working within UoC to add value to sustainability research. IFLAS created a focus for research on sustainable development, but it was recognised that sustainability had application across many disciplines. In this regard, collaboration in hosting conferences and festivals has had significant benefit in encouraging cross-institution working and providing opportunities to build a research community in Cumbria that engages effectively with researchers and other experts internationally. Five collaborative research and engagement events were delivered across the assessment period, bringing together expertise in sustainability as applied to regional development, healthcare delivery, environmental management and business policy and practice (Section 4.2).

1.4 Research Strategy 2021-2024

As noted in Section 1, the forward Unit strategy is situated within the newly-formed Institute of Business, Industry and Leadership (IBIL). Our research will continue to build on this Unit's vision to **undertake research that contributes to creation of sustainable economies, regions, places and organisations, for the benefit of society**. It additionally reflects UoC's anchor role within Cumbria, and supports delivery of UoC's Strategic Plans (REF5a, 2). The IBIL Research Strategy 2020 identifies the following priorities 2021-24:

Research Environment - all academic staff and PGRs contribute to a vibrant critical academic environment where research is mainstream to our culture. Through external partner engagement, research will develop a strongly applied character with academic outputs originating from externally-funded research, consultancy and knowledge exchange (KE). Research will have a positive local and regional impact, with relevance for policy and practice. KPIs:

- Increase proportion of Category A staff submitted to future REF's
- Increase income returned to Higher Education Business & Community Interaction Survey
- Increase external and internal interaction with institutional repository
- Develop four impact case studies

Develop the PGR Portfolio - experimental, investigative and practice based doctoral work will be fundamental, recognising how a vibrant PGR community sustains research culture. As detailed in Section 2.2, there has been Unit PGR growth and the intention is to increase this. KPIs:

- Improved metrics via the Postgraduate Research Evaluation Survey
- Increase in number of PGRs
- Increase in fee income from PGRs

Research Capability, Capacity and Sustainability - IBIL will offer academic leadership and prioritise research, consultancy and KE relevant to academic communities and interests of business, public and third sectors. KPI's:

- Increase in doctoral supervision capacity and the proportion of staff supervisions
- Increase in collaborative research income
- Increase in research outputs

Collaboration, Partnership and External Engagement - Strategic partnerships with our key employer stakeholders and universities, including Local Enterprise Partnership's, Lancaster University, National Nuclear Laboratory, Rolls-Royce, BAE Systems, Sellafield Limited, NHS Trusts, Lake District National Park and Carlisle Partnerships, Constabularies, and County, District and Borough Councils. KPIs:

- Increase in income from collaborative and employer partnerships
- Increase in number of stakeholder events, media activity, conferences and workshops
- Increase in applied research and consultancy bidding, participation and income

1.5 Enabling Impact

Understanding impact is fundamental to the way in which research is conducted within this UOA. The process of research commonly involves collaboration with research users sometimes (though not always) as clients. As a consequence, the research process is highly interactive and non-linear. Impact is therefore not viewed as a “follow-on” process but it is embedded in the research process itself. In fact, impact often occurs before research is completed and certainly before it is published. This principle applies to research conducted within both **CRED** and **IFLAS** and our research strategy seek to extend this way of working to this Unit’s new research themes. Throughout the Unit, the high degree of user engagement (Section 4) in our research practice has generated impacts extending beyond the academy in three ways:

- **Collaborative frameworks for research** – providing opportunities to work with research users to embed impact in communities, organisations and environments. Research funding has facilitated collaborations with international bodies including the EU, the European Regional Development Fund and UNESCO. **Peck** and **Mulvey’s** report for the Association of North East Councils and the Institute for Local Governance underpinned the development of the Borderlands Inclusive Growth deal (Impact1702). **Gale** was commissioned in 2019 by the Health and Safety Executive (value £19,440, Lloyds Register Foundation) to design and undertake a study on loss of containment of non-radiological materials in the nuclear sector. This was the subject of a reserve ICS for this UOA.
- **Applying research in practice** – enabling staff to contribute research expertise through advisory committees, working groups and other public bodies. **Bendell’s** sabbatical on ‘Deep Adaptation’ (the implications of inevitable near-term social collapse due to climate change) resulted in a 2018 IFLAS occasional paper being published. This has been downloaded over one million times, with coverage in Bloomberg and New York Magazine. **Bendell** was subsequently invited (May 2019) to deliver a workshop on Deep Adaptation at the DG Connect (EU Commission). The research inspired some leaders in the Extinction Rebellion movement and was the subject of a reserve ICS.
- **Reaching and engaging with diverse communities and publics** – as a fundamental aspect of the Unit’s research, many of our projects are tied closely to authentic engagement, outreach and end-users. **Bendell’s** work on alternative currencies (Impact1701) has received institutional-support with UoC becoming the first public university to accept Bitcoin for fees, with **Bendell** further supported to offer a free online course at Masters-level - the Money and Society Massive Online Open Course.

1.6 Supporting Interdisciplinary Research

Interdisciplinary research underpins our research philosophy and this is particularly apparent through the work of IFLAS (1.4, SO4 and Section 4). The Research Strategy for IBIL clearly articulates the importance of cross-disciplinary working and collaborative working. The current research supervisory teams are designed to be cross-disciplinary, where possible. A spirit of interdisciplinarity is also prevalent through the current postgraduate supervision provided by academics at UoC, with UOA17 staff supervising with colleagues from four different UOAs.

1.7 Supporting an Open Access Environment

The Unit is supported by central resources for open access publishing (REF5a, 4.3), with a number of outputs produced by **CRED** and **IFLAS** made freely available. **Bendell’s** paper on ‘Deep Adaption’, and other occasional papers can be downloaded directly from the **IFLAS** blogsite as well as the institutional repository whilst a number of **CRED** reports are available directly online (including at Welsh Government, European Commission, and UK Government). Staff within the institution must submit research into peer reviewed journals that have at least green level of open access. The University’s policy that requires staff to submit research to open access journals is fully consistent with the strongly collaborative and applied nature of our research. Colleagues within the Research and Knowledge Exchange Office and those working within the institutional repository support staff with decisions about journals to ensure open access options.

1.8 Supporting Research Integrity

This Unit adheres to centralised policies regards integrity (REF5a, 3.1) and Unit staff contribute to a research culture which upholds the concordat principles. For example, **Hurford** served on the UoC Research Ethics Panel and five of this Unit's staff (and one PGR) have delivered sessions as part of the Graduate School organised 'Research Skills Development Programme', and 'Summer School'.

2. People**2.1 Staffing Strategy and Staff Development**

This Unit's overall staffing strategy is to:

2.1.1 Be strategic in recruiting staff with research and impact experience and interest that enable the further development of Unit research themes.

This Unit evidences a successful recruitment and promotion strategy. In **ST**, senior appointments included **Anthonisz** as Principal Lecturer in Tourism from University of Northampton (2018), and **Heap** as Senior Lecturer in Tourism (2019). The curriculum development in tourism is also supported by the recent appointment of a Professor of Practice (**Stephens** - former Director of Cumbria Tourism).

In **PEM**, a number of appointments have been made possible by collaboration with industrial employers to create the UoC Project Academy (Section 3.2) that delivers employer-led training and professional development in project management and related disciplines. This includes **Lawlor-Wright** as Principal Lecturer in Project Management, **Gale** as Director of Industrial Strategy (both from Manchester University), and **Besaiso** as Lecturer in Project Management from Liverpool John Moores University (2018).

In **IFLAS**, **Murphy** was recruited from private consultancy with the United Nations system as IFLAS Deputy Director, and in **BM**, UoC recruited **Ozuem** as Lecturer in Marketing, **Mouratidou** as Lecturer in HR Management from Manchester Metropolitan University (2016), and **Lawson** (2015) as Senior Lecturer in Coaching and Leadership from Sunderland University.

2.1.2 Support staff progression and promotion, linked to excellent research and impact, to further leverage researcher development.

Researcher development in this Unit is enhanced by recent appointments, as well as retained staff. All submitted staff are on permanent contracts, except **Ozuem** who has a fixed term contract until January 2022, though the expectation is that his role be made permanent across 2021. Unit staff have representation on UoC's Research and Knowledge Exchange Committee and the continuity (and in many cases promotion) since 2014 of **Peck**, **Bendell** and **Mulvey** demonstrates the success of this unit's support for staff development and retention. **Mulvey** (submitted in 2014) was promoted to Senior Research Fellow in 2019. This Unit has increased REF-eligible outputs by 237% across the assessment period.

Hurford was previously the Programme Lead for the Robert Kennedy College MBA and left the UOA across the assessment period to become the Director of the Mount Everest Foundation and **Lawlor-Wright** left UoC to become Head of Design and Engineering at Staffordshire University. **Jackson** left CRED to start a new business.

2.1.3 Offer a range of research development activities throughout the year and open to all, to support staff early in their research careers.

Early and mid-career researchers are effectively integrated into the research culture. **Mouratidou** received internal funding to publish **Mouratidou1** and **Besaiso** received an ECR grant of £2,500 to support research on Decision-Making in International Construction Arbitration resulting in **Besaiso1**. Five supervisors of IBIL-aligned PGRs are currently classed as ECR's against the UoC definition (achieving PhD in last three years), and UoC provides opportunities for staff to acquire supervision skills as third supervisor and through attending training events. Six staff in IBIL are being supported to achieve their PhD.

2.1.4 Utilise the Performance and Professional Development Review (PPDR) process, Mentorship Research Pathways, Research and Scholarly Leave (RASA) and Research Plans to encourage all staff to engage in research.

Staff within this unit are encouraged to sign up to research mentorship, organised centrally, and another mechanism for ensuring compliance to the Concordat principles (REF5a 3.1). Five unit staff are research mentors. A centralised PPDR system identifies opportunities for training and development, and staff are supported to consider applying for Professorial title at the bi-annual round, with **Lawlor-Wright** supported to do so, becoming Associate Professor in 2019.

The research pathways (UoC Code of Practice section 2.10) have enabled RASA plans to be submitted and appraised by the Institute Director. The RASA time available, will be allocated and managed to ensure tangible research benefits to the individual staff and their groups. Research leave and sabbatical leave are granted based on peer reviewed research business cases and measurable, verifiable objectives that align with the strategic aims and objectives of the Institute and the individual's career development needs.

2.1.5 Utilise a network of visiting and honorary staff, and Professors of Practice to embed work with practice and industry.

IBIL utilises a network of Research Fellows, Honorary Professors, Researchers and Professors of Practice to facilitate academic and business exchanges. Prof Sir Cary Cooper CBE (Professor of Practice) has delivered talks as part of UoC's Leadership Development programme, which includes emerging researchers. Richard Little (Co-Founder of Impact International) has delivered postgraduate teaching (and authored) with **Bendell** and **Murphy**. Prof David Gibson is a Professor of Practice in Entrepreneurship and Jackie Arnold MBE is a former Director of BAE, previously served on the Vice-Chancellor's Executive, and has helped to facilitate development of the Barrow University campus (REF5a, 1).

2.2 Research Students

2.2.1 High quality PGR training and supervision has developed and integrated a pipeline of active researchers.

In 2014, 6 PGRs were aligned to UOA17, compared to 21 in 2020 (July 2020), and this growing community has been integrated into the Unit's research culture by providing opportunities to present research, acquire external funding, to teach, and engage directly with stakeholders alongside supervisors and other academic staff members. UoC has funded two PGR studentships and two fees only bursaries, with one PhD funded by the European Regional Development Fund.

Across the **IFLAS** and **PEM** themes, PGRs have been supported to deliver seminars to the Peru government; British Medical Council regional group; Going Global, Berlin; India's State Higher Education Council and at Universities including Lancaster, Bristol UWE, Edinburgh, and SWPS Warsaw. Chaffer also led a delegation (with **Gale**) to Uzbekistan to deliver sessions on enterprise and entrepreneurship to 320 university vice-rectors responsible for scientific work, researchers and postgraduate students from 65 universities. This included round table discussions with Deputy Prime Minister Uzbekistan and senior HE leaders on Feminised Leadership.

In **IFLAS** and in relation to currency innovations, PGR Bindewald (**Bendell** as supervisor) co-hosted conference sessions at the Community Currencies in Action Research Symposium, and at the UN Research Institute for Social Development. This included reporting to an Interagency Taskforce on amending the Accord on Financing for Development, co-drafted by **Bendell**. Bindewald represented IFLAS at the annual SIBOS conference of the payment systems industry, co-taught the 'Certificate of Achievement in Sustainable Exchange' (one of the first university certified course on community currency) and supported delivery of the 'Money and Society' Massive Open Online Course, which engaged circa 600 monetary reformers, community activists, and students from different disciplines and political persuasions (Impacy1701). PGR Place and **Bendell** co-organised a PhD symposium at the UN (2018). **Murphy** hosted a Doctoral Symposium for eight PhD students and their supervisors in Ambleside (April 2016).

In **CRED**, staff PGR **Jackson** was employed as a Research Fellow (2007-2017) and undertook commissioned research for Carlisle City Council, Northumbria University, Lancaster University, Britain's Energy Coast, and Cumbria Local Enterprise Partnership. He published with **Peck** and **Mulvey** and spoke regularly in the media on retail, including for Cumberland News, BBC Radio Cumbria, In-Cumbria, Carlisle Evening News. CRED actively encouraged PGRs to attend the bi-monthly CRED Seminars (Section 4.3), providing opportunities to present research to key stakeholders and to network with industry and local authority partners.

In **BM**, **Ozuem** supervises four PGRs in the field of digital marketing, with two teaching undergraduate courses at the London campus. PGR Willis and **Ozuem** have conducted several projects in the field of digital marketing, leading to four journal articles. Papers have been presented internationally at the American Marketing Association and European Marketing Academy with PGRs supported to publish edited book chapters and articles. One PGR in this theme received a Rotary Global Scholarship (2016) for a fellowship at the University of Nigeria. Two previous PhD students secured lectureships at the University of Huddersfield and Portsmouth, and one has returned to UoC as Senior Lecturer in Business.

2.2.2 All PGRs are provided with opportunities to contribute to Unit vitality.

IBIL's recent approach to PGR recruitment has been to maximise opportunities from its portfolio of industrial higher education partnerships, including for Sellafield Limited, Rolls-Royce, BBC and BAE Systems, and to offer industry-based practice doctorates. UoC validated a suite of Professional Research Degrees in 2020 (DProf, MRes, DBA and EdD), supporting this strategy.

IBIL provides opportunities for PGR annual reviews where research is presented and formalised as part of the end of year review process. All candidates are invited and supported to present their research at Research Summer School and contribute to the organisation of IBIL events, CRED research seminars or IFLAS open lecture series, including as presenters. PhD completions over the REF period stand at 7, compared to 1 over the REF2014 period. The Unit proactively works with PGRs with protected characteristics to ensure that they are supported to undertake studies in a supportive environment. A high-level commentary on Equality, Diversity and Inclusion data for this Unit's PGRs has been provided below.

Table 1. EDI Data for UOA17 PGRs

Key consideration	Unit Considerations/Actions
60% under the age of 39.	Important to maintain skills training and opportunities for younger researchers whilst integrating the experiences of older PGRs.
Equal gender split.	Staff pool has higher number of males (see Table 2). All supervisors have completed unconscious bias training (UBT).
50% BAME	Higher proportion than staff pool, all supervisors completed UBT.
0% declared disability	Unit staff ensure PGRs are informed of institutional disability support, including signposting to Disability Officers.
5% LGB	Below staff pool, PGRs encouraged to engage in institutional networks.
29% part-time	Ensure that part-time PGRs are engaged with Unit activities, and if in practice, their experiences contribute to Unit vitality.

2.3 Equality and Diversity

The UOA adheres to centralised policies regarding EDI (REF5a, 3.3). These policies are applied in this Unit in the following ways:

- All Unit staff utilise PPDRs to request staff development or discuss wellbeing issues
- This Unit includes one Athena Swan Lead.
- Staff from under-represented groups are given additional encouragement and support to become research active.
- Flexible working arrangements are available for all staff, utilised by three Unit staff.
- A number of this Unit's staff are engaged in LGBTQ initiatives, including the University and College Union (UCU) LGBT+ Members Network and the UoC LGBTQ Staff Network.

More broadly, the Unit utilised data from the Equality Impact Assessment exercise on output distribution and eligible staff to identify EDI actions (see REF Code of Practice, 1.8 for schedule). Throughout submission preparation, Unit leads have worked directly with the UoC EDI Officer to understand and interpret the data and identify mitigating actions. These actions have been raised with the IBIL Director and also form part of our institutional approach to responding to this data (REF5a, 3.3). These considerations and actions are provided below (PNTS = Prefer not to say).

Table 2. EDI Data for Unit Staffing and Output Selection

Category	%	Considerations	Proposed Actions
Age			
<=39	10	Continuing challenge of staff <30 achieving SRR in teaching-led institution. More generally, age distribution positive. 50% of outputs attributable to <50.	Improve for next REF in younger age ranges and consider positive action statement.
40-49	36		
50-59	27		
>=60	27		
Gender			
Female	36	% of males reflective of sector (HESA shows more males in business studies. % of female's positive and identical figures reflected in output pool.	Small numbers but reasonable balance across gender.
Male	64		
Orientation			
LGB+	9	Reflective of UoC institutional figures. Slightly lower output pool (5%) for individuals declaring as LGB+.	Recommend to Director that UoC EDI initiatives are promoted more widely.
Heterosexual	82		
PNTS	9		
Religion			
Religious	73	No major considerations.	Cross reference with institutional network.
Non-Religious	18		
PNTS	9		
Ethnicity			
White	73	Positive percentage for staff. A higher proportion of Unit outputs (35%) are attributable to staff in BAME categories.	Continue positive trend and include positive action statement.
BAME	27		
Other	0		
Disability			
Declared	9	Slightly lower disability declared but small numbers.	Positive figures, demonstrating staff are made aware of support and can research productively.
None Declared	82		
PNTS	9		
Contract			
Full Time (f/t)	45	Consider how we support p/t researchers to research productively, this Unit is positive in this regard.	Only one member of staff as fixed term and high number p/t researchers.
Part Time (p/t)	55		

3. Income, infrastructure and facilities

Across the assessment period, this UOA has returned (to HESA) research income of **£337,847** compared to £54,000 for REF2014. This represents a significant increase, and has been underpinned by our strategy below:

3.1 Maximising expertise within the Unit (and external HEI networks) to drive externally funded or commissioned research

CRED has driven this Unit's research income, accessing funding from further education, county councils and local authorities, the EU, and UK Research Councils. HEI collaboration has been facilitated and CRED delivered a Knowledge Transfer Partnership with Books Cumbria Ltd and a consortium of businesses to identify online solutions for independent high street businesses. Part of the outputs of this work was a publication with the British Library (lead author **Jackson**). Modest research income across the other themes includes funding from the ESRC and Britain's Energy Coast. The table below outlines the income achieved, which has additionally contributed to a number of outputs (REF2) as well as this Unit's Impact1702.

Table 3. HESA Research Income

CRED		
£Amount	Funder	Project
£103,161	Innovate UK	Knowledge Transfer Partnership with Carlisle Retail
£36,000	Regional Studies Association	Editorial Services of Peck and Mulvey
£25,499	Copeland Borough Council	Copeland Work and Skills Partnership Programme Development
£21,450	Northumbria County Council and Institute for Local Governance (Durham University)	Developing the Framework for a Borderlands Strategy
£15,509	Carlisle College	Skills Scoping for Cumbria
£13,237	Britain's Energy Coast	R&D on SME's in Sellafield supply chain
£13,201	EU Commission DG Research & Innovation	Assessment and critique of indicators and methods used to measure research and innovation performance of member states
£12,329	Department for Business, Innovation and Skills	R&D on Better Regulation
£12,152	EU Commission DG Research & Innovation	Evaluation of COST Programme as part of EU Expert Group
£10,000	Solway Energy Gateway Project	R&D on regional renewable energy projects
£9,984	Carlisle College	Skills Scoping for Cumbria
£9,958	Copeland Borough Council	Support on the production of a Copeland Enterprise Development Programme
£7,522	Carlisle City Council	Review of the Carlisle Economy
£6,600	Britain's Energy Coast	SME's in Sellafield supply chain
£5,749	Carlisle College	Evaluation of European Social Fund Skills for the Workforce Programme
£5,050	Cognitive Cumbria Partnership	R&D on business innovation and health in Cumbria compared to other counties across England
£5,000	Royal College of Art	R&D on understanding socio-economic impact of makerspaces in the UK.
£4,721	ESRC via Northumbria University	Work with Heriot-Watt and Northumbria hosting a series of seminars on Brexit economic implications.

CRED continued.		
£4,167	EU Commission DG Research & Innovation	Evaluation of sector-based cross-national Knowledge Innovation Communities
£3,980	Furness Newspapers	Barrow Focus Groups
£3,956	AHRC via Lancaster University	Political Minecraft Project – analysis of socio-economic data for Carlisle
£3,657	Inspira	R&D on the Ready for Work Programme
£3,486	Cumbria County Council	R&D on Local Multiplier Effect
£1,920	FN Solutions	R&D for Wellbank Project (Housing Development)
£1,440	Lake District National Park Authority	Review and assessment of policy documents provided by the Lake District National Park
PEM and IFLAS		
£Amount	Funder	Project
£6,000	Britain's Energy Coast	Testing efficacy of a waterwheel at a Lake District Hotel, incubating expertise in engineering, leading to £75,000 from the Sir John Fisher Foundation for a PhD in Sustainable Engineering (returned as PGR fee income). This led to further engagement with the Foundation, see 3.3.
£5,000	ESRC	Murphy explored the Innovation Capabilities of SMEs in collaboration with the Universities of Exeter, Edinburgh, Essex.

3.2 Generating a mixture of consultancy and enterprise income to support research capacity in PEM and IFLAS

The Unit has utilised a blended model of enterprise and research income that aims to provide opportunities for staff to gain experience of working with industry and to increase skills in tendering, evaluations and commissioned knowledge exchange. IBIL's industry-facing approach results in a high number of knowledge exchange programmes, and this is utilised to enhance research environment through investment in staff, attracting staff to the institution, and creating networks to explore and deliver research projects.

Table 4. Enterprise income (non-HESA research income) supporting research environment

£Amount	Funder	Project
£4.5m	Sellafield (SL)	<p>A key driver of growth in research capacity in PEM has been the establishment of the Project Academy for Sellafield, secured (via tender) by a UoC-led consortium in April 2016 with a potential value of £13.7 million over an 8 year period. To date, the Academy has:</p> <ul style="list-style-type: none"> • Supported over 2000 individual Sellafield employees to access Project Management (PM) education not previously available locally, including c. 220 on higher education programmes • Provided PM education to employees of c. 50 other companies • Enabled the development of PM programme for BAE Submarines in Barrow (current value c. £1M, 200 learners). • Supported the development of the PM apprenticeship standard; with c150 students across 45 employers, notably Sellafield, BAE and Rolls Royce • Enabled growth of PM capacity and supporting functions by the creation of 17 jobs and the appointment of 9 associate tutors. This has supported research environment by leading to recruitment of a number of research active staff, including Gale, Besaiso Lawlor-Wright, and Kontzampiasis (UOA3).

£Amount	Funder	Project
£484,002	Brathay Hall Trust	The Aspiring Leaders Programme (ALP) has been delivered since 2011 with the Brathay Trust and Common Purpose. Now in its third iteration, UoC are contracted to deliver a substantial part of this programme which is aimed at Cumbria's young voluntary sector leaders, and involves a combination of lectures, seminars and mentorship culminating in a BSc in Social Enterprise Leadership.
£18,375	Arts Council England via Brathay	The Changing Culture Programme (CCP) develops the ALP partnership and concept further, securing funding in 2019 to train 20 students currently working or volunteering in the arts sector to achieve a Diploma in Social Enterprise Leadership. ALP and CCP are supported by staff within this Unit; enhancing research environment and culture within the IFLAS research theme.
£51,948	CPD Income	IFLAS short courses and CPD opportunities have generated income and also enabled the recruitment of Bendell and Murphy and provided opportunities for PGRs to deliver aspect of teaching and assessment.
£16,500	UNESCO	Murphy undertook consultancy for UNESCO on their Comprehensive Partnership Strategy, involving an appraisal and assessment of UNESCO's partnering approach and strategy.
£19,400	Lloyds Register Foundation	Gale worked with the Thomas Ashton Institute on loss of containment of non-radiological materials.

3.3 Utilising 'regeneration income' to build research capacity and capability.

Similarly, with 3.2, this Unit has used regeneration funding to deliver PhDs and other programmes which support staff development as well as regional benefits more widely.

Table 5. Regeneration income (non HESA research income) supporting research environment

£Amount	Funder	Project
£66,715	European Regional Development Funds	IBIL is Lead Institute for the ERDF-funded Cumbria Innovations Platform , a £4m project to boost economic growth in Cumbria supporting 60 SMEs with business innovation, led by Lancaster University. This income has been returned to HESA as 'enterprise income' but as it includes funding for PhD and MA programmes we have allocated a proportion of the overall income (£66,715) to this UOA based on the involvement of Unit staff.
£750,000	Sir John Fisher Foundation	This grant (2016-2019) funded a staff team to work on STEM outreach and coordination with partners. Funding enabled UoC to design a new industry leadership programme – the PGCert/MSc Industrial Leadership, with PhD progression routes. Funding also supported a research conference (2019) on laser applications in the nuclear industry at Energus, Workington. 60 participants attended the event attracting researchers from Manchester and Sheffield universities, Sellafield, and several companies from France, Germany and the UK who are innovating with laser technology. This UOA will continue to utilise funding in this way to enhance the research culture.

3.4 Income supporting Impact

Research income for Borderlands research, has directly supported **Peck, Mulvey** (Impact1702), including funding from Northumbria County Council via the Institute for Local Governance, and the ESRC for a series of Brexit seminars. **Murphy's** funding from UNESCO and his work on the MBA Sustainable Leadership directly contributed to his research around leadership and development, the subject of a reserve ICS. **Bendell's** involvement in the Eco Innovation Project (including funding for a PhD on alternative currencies, PGR Place) informed developments around his submitted Impact1701.

CRED's research has enabled **Jackson** and **Mulvey** to gain experience of externally funded research projects, supporting promotion for **Mulvey** and enabling **Jackson** to start his own business.

This Unit also supported by institutional structures, such as MS Teams and Impact software to support research infrastructure (REF5a, 4). For January-March 2020, UoC received an additional £50,000 from Research England, related to an allocation from the Strategic Priorities Fund, and this was invested in supporting impact generation for staff from this UOA, including **Mouratidou**, who was also provided with internal funding to undertake research on Covid-19.

3.5 Facilities for research and impact

Researchers and PGRs in **IFLAS** are based at Ambleside and since 2014, the University has invested in total ~£10.3M on facilities and infrastructure to support research undertaken by the Unit. Significant capital investment to update and expand the Ambleside Campus (~£6.6M since 2014) has included investment in developing and equipping a suite of four new laboratories, library facilities, dedicated PGR offices, as well as providing student social working spaces and residential accommodation.

The CBIC (2014-2018) was operated by Enterprise and Business Development Service, had seven business tenants and provided a virtual office package, a teaching base for the Sellafield Project Academy and a range of short courses and residential programmes. Office accommodation was let to SME, micro-enterprises and not-for-profit organisations. An interactional zone provided informal space for co-working and business engagement and hosting of meetings and events with bookings with key partners such as the County Council, Carlisle College, Chamber, Sellafield, CUFC, CBI and a range of SMEs. UoC achieved a Bronze Award from the Small Business Charter in 2015.

In 2018, a combination of circumstances relating to estates consolidation led to UoC relocating the Paternoster Row site and the university functions to the Brampton Road Campus, also in Carlisle, retaining the interactional benefits of the CBIC, but on a major campus.

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

4.1 Illustrative of this Unit's vision to undertake research that contributes to creation of sustainable economies, regions, places and organisations, for the benefit of society, UOA staff have been involved in research collaborations, networks and partnerships:

- **IFLAS** co-hosted a Researcher Symposium at the UN Research Institute for Social Development (Geneva, October 2018) looking at the broader implications for a sustainable society of a host of different monetary innovations, contributing to the development of Impact1701. **Bendell** was selected to join a group of world leaders in business and politics to study leadership approaches at Harvard University and is an Advisory Board Member, Grassroots Economics, Mombasa and has been an Advisor to the Office of the Leader of the Opposition, London. **Murphy** served on a Panel at an Institute of Directors Regional Conference (Manchester 2014) with Impact International, and on the Improvement Group of the Lake District National Park Partnership (LDNPP). In 2016, he was a judge for the Cumbria Tourism Sustainable Tourism Award Partnership.
- **PEM - Gale** was invited by the Rwandan Minister of Transport to deliver three Masterclasses to more than 30 senior Rwandan managers from government and industry, including the Head of the National Capacity Building Secretariat (2015-17). He served as Chairperson for the Higher Skills Exchange – an advisory group to Cumbria Local Enterprise Partnership Employment and Skills Group and has been a Member of the Nuclear Industry Council Trade & Investment Working Group (2014-16). In 2018, **Gale** provided training to help develop research and enterprise links in Uzbekistan for 320 Universities.
- **BM - Ozuem** is Chief Adviser (Africa) at RIMA Engineering, Kosovo, advising on issues relating to Africa projects and has collaborated with Arden University; Macromedia University, Germany; Indiana University, USA; American University in Beirut, Lebanon; University of Florence, Italy and La Rochelle Business School, France. **Ng** has been instrumental in formalising the institutions partnership with FAME International College in Malaysia, including shared teaching and research programmes and hosted four academics from Dalian Nationalities University China on academic exchange. **Mouratidou** has facilitated Grounded Theory seminars with Dr A. Lowe (Fellow of the Grounded Research Institute in California).
- **CRED** has facilitated a number of key collaborations, including with the Association of North East Councils and the Institute for Local Governance with Northumbria University, leading to a detailed Framework Document that underpinned the development of the Borderlands Inclusive Growth deal, and Impact1702.
- **ST** – UoC is a Strategic Partner of Cumbria Tourism (CT) and in 2020 amidst the pandemic, CT facilitated two new 50% scholarships for the new MBA in Tourism Management. UoC has an Observer seat on CT's Executive Board.

4.2 A strength of this UOA is the impact of research of staff in this UOA beyond academia, and collaborations with the public, key research users, beneficiaries and audiences.

IFLAS has convened a number of interdisciplinary events combining collaboration and public engagement, including:

- The **Leading Wellbeing International Research Festival (July 2015)** - 200 people from 20 countries engaged in a 3 day event with 40 research papers, and 30 speakers. Organised with Brathay Trust, and Chaired by **Bendell** and Brathay's CEO, sponsors included Futerra Sustainability Communications, Heart of the Lakes, Cumberland Building Society, and Reagent. **Peck, Mulvey, and Jackson** presented research as well as four colleagues from two other UOAs, evidencing IFLAS's interdisciplinary approach to sustainability research.

- The **Leading Wellbeing: From Theory to Practice (July 2016)** was an interim, reunion event at Ambleside, with staff across three UOAs delivering sessions in addition to contributors from Impact International, James Cropper, and Cambridge University. The event facilitated exploration the complex challenges of social, environmental and economic sustainability through 'sustainable leadership'.
- The **Leading Wellbeing in Rural Contexts (November 2016)** was hosted on campus and explored the unique challenges posed when leading wellbeing in rural contexts. The event involved panel members from Education, Cumbria Constabulary, and North Cumbria Hospital NHS Trust. This event also contributed to the *Journal of Corporate Citizenship* Special Issue: 'Leading Wellbeing in Rural Contexts' (No. 68, December 2017), with guest editors: Marshall (UOA20), and **Murphy**.
- The **Poetics of Leadership Conference (2018)** was aimed at stimulating creativity within leaders during challenging times, involving collaboration with the Crossfields Institute and the Institute of Philosophy and Aesthetics at Alanus University in Germany. Around 100 delegates from business, academia and research attended. Professor Jonathan Gosling (Exeter) and Visiting Professor Richard Little (Impact International) gave keynote presentations, with contributors from Educational Practice, Sussex University, Plymouth College of Art, University of West of Scotland, Kent University, and Amity University Delhi.

In **CRED**, **Peck** was undertaken evaluation programmes for EU-COST programmes, the European Institute for Technology, (EIT) Knowledge Innovation Communities, and a variety of Horizon 2020 programmes. **Peck** has been an advisor to PhD Programmes at the Waterford Institute for Technology, Waterford and has appeared on BBC Radio Cumbria, Radio 5 Live, BBC Coventry, and ITV Border. He has been an invited panel member for the Chartered Institute for Personnel Development (CIPD); and Invited Presenter for the Dept. for Business and Industrial Strategy; Britain's Energy Coast; Wales Labour Market Summit; Chester Forum, and for the ESRC Centre on Constitutional Change.

In **ST**, **Anthonisz** worked with Lincoln University, New Zealand and TFG Asset Management on benchmarking organisational social capital in the Dubai hotel industry (publishing a joint White Paper) and is extending this research to the UK. **Anthonisz** and Stephens regularly feature in local news, most recently on a new MBA in Sustainable Tourism and proposed regulation of AirBnB and impact of the Lake District hospitality sector.

In **BM**, **Mouratidou** has delivered regional events for the Institute of Directors, exploring unconscious bias and influences in the recruitment process.

4.3 As an indicator of wider activities and contributions to the research base, economy and society, staff have contributed to the sustainability of research through engagement with national initiatives and the public.

In **PEM**, **Besaiso's** research into arbitral decision-making in disputes arising from international construction projects won the Society of Construction Arbitrators' (SCA) Norman Royce Prize 2017 - a prestigious biannual prize that attracts international competitions between the world's best scholars and international lawyers. The SCA subsequently invited **Besaiso** to present his research findings to an audience of construction arbitrators and dispute resolvers at the annual general meeting (2018), and was also awarded a Travelling Scholarship from the Worshipful Company of Arbitrators enabling attendance at international arbitration proceedings (Dubai) to meet world-renowned figures in international arbitration.

In **ST**, staff have engaged with The Lake District Hoteliers Association (LDHA), championing a new Chartered Manager Degree Apprenticeship, designed and delivered by UoC. A number of Lake District-based employers have already signed up to the scheme, including Gilpin Hotel and Lakes House, Lakeland Arts, Lake District Country Hotels (Cragwood, Briery Wood, Merewood) and South Lakes Hotels (Damson Dene).

In **IFLAS**, a successful open lecture series to welcome over 30 speakers from organisations concerned with leadership and sustainability. This includes Sean Ansett (Chief Sustainability Officer, Fairphone), Ryan Heath (EU Digital Spokesperson and former speechwriter for Manuel Barroso), Mike Berners-Lee (climate change author and consultant), Mike Innerdale (Regional Director – North), Vivienne Westwood (iconic fashion designer and environmental activist), Paul Rose (adventurer and British television presenter), Aimee Leslie (WWF-Peru Marine Programme Director), and James Rebanks (author of 'The Shepherd's Life').

In **CRED**, research seminars have regularly been delivered in the Carlisle Business Interaction Centre, now at the Brampton Road Campus. Seminars featured invited guest speakers (17 between 2014-2018) including Roger Liddle (Lord Liddle of Carlisle), and representatives from the Crichton Institute Regional Observatory, BEIS, REACT Engineering, School of Advanced Social Studies (Slovenia), Irish Sea Rim and School of Geography & Geosciences Sustainable Development (University of St Andrews).

4.4 Across the Unit, staff are renowned international speakers in the discipline and many of these presentations reach key research users:

In **PEM**, **Gale** was a keynote speaker (2019) at the University of Business and Technology, Dahban Campus, Jeddah, Saudi Arabia, and has co-delivered seminars for the Association for Project Management, Institution of Civil Engineers and National Nuclear Laboratory (2017-2018).

In **CRED**, **Peck** provided the keynote address as part of an 'Inspiring Business Growth' event, hosted by Lancaster City Council in collaboration with NatWest, Lancaster University, Boost Business Lancashire and the Chamber of Commerce

Bendell, as part of **IFLAS**, has given keynotes on Climate Leadership, at Griffith University in Australia (2016), the UN Blockchains for Sustainable Development Session at the World Investment Forum 2018 (700 attendees), the Guild of Independent Currencies, the UK Council for Psychotherapy, and Connect University (European Commission). **Murphy** delivered a keynote at the Ibero-American Conference on Sustainable Development Goals at University of Salamanca (2018), in partnership with the Universidad Politécnica de Madrid and multinational electric utility company, Iberdrola, with some 600 participants from more than 20 countries.

4.5 Extensive key texts and journal editorship across the research themes:

In **CRED**, **Peck** was a Board Member and Editor of *Regions*, the journal of the Regional Studies Association until 2017. **Mulvey** also served as Editor (2016-2017). In November 2017, at the RSA Annual President's Dinner and Awards ceremony in London, **Peck** and **Mulvey** were presented with the "Award for Outstanding Contribution to the Regional Studies Association."

In **IFLAS**, **Bendell** has been guest editor of a Special Issue of the *Sustainability Accounting, Management and Policy Journal* and is a member of the editorial board of the *Journal of Corporate Citizenship*, and the *Journal of Politics and Governance*. **Murphy** and Marshall (UOA20) are co-editors of an interdisciplinary text - 'Citizenship and Sustainability in Organizations' – part of a new Routledge book series on innovative and critical scholarship in the fields of citizenship, social responsibility, sustainability, innovation, and place leadership in diverse organizational contexts, with contributions from authors from the US, Australia and Europe.

In **PEM**, **Lawlor-Wright** published 'Project Success and Quality: Balancing the Iron Triangle' (Routledge), aimed at Project Managers. **Besaiso** reviews for the *Journal of Legal Affairs and Dispute Resolution in Engineering and Construction*, *Construction and Architectural Management*, and the Royal Institution of Chartered Surveyors annual COBRA research conference.

In BM, Ozuem has guest edited Special issues (Digital Marketing) for the *Interdisciplinary Journal of Economics* and *Business and Sustainability Journal*. He has undertaken review work for the *Journal of Business Research*; the *Journal of Retailing and Consumer Services*; *Information Technology and People*; *Sustainability*; and the *Interdisciplinary Journal of Economics and Business Law*.

Conclusion

The evidence presented in this statement demonstrates that researchers submitted within the UOA have developed collaborations, networks and partnerships with external researchers, learned societies, research users and beneficiaries that are necessary to deliver our vision to undertake research for the benefit of society. This complements evidence presented in section 3 which shows significant growth in research funding from government departments and organisations working in public policy including public and private sector partners in the region. The Unit also brings together a larger number of researchers and PGRs, and a broader range of research themes compared to the 2014 submission. This growth and development of research capacity has been a feature of the period since 2014 and this has provided a platform for the ambitious objectives that form the basis of the IBIL Research Strategy 2020.