

<b>Institution: University of Central Lancashire</b>
<b>Unit of Assessment: 17</b>
<b>1. Unit context and structure, research and impact strategy</b>

## Overview

Business and Management (B&M) research at the University of Central Lancashire (UCLan) has a growing and dynamic profile. Since 2014, we have steadily strengthened the research base, with FTE staff submission rising by 48.5%, doctoral student numbers doubling and research degree awards almost trebling over the census period, whilst external research income capture grew by 66%, representing an average increase of 18.6% per annum over the REF cycle and an 11.9% increase in per FTE staff submitted. Table One provides a brief overview of some quantitative evidence of increasing capacity and sustainable progress.

*Table One: Key REF2021 Indicators*

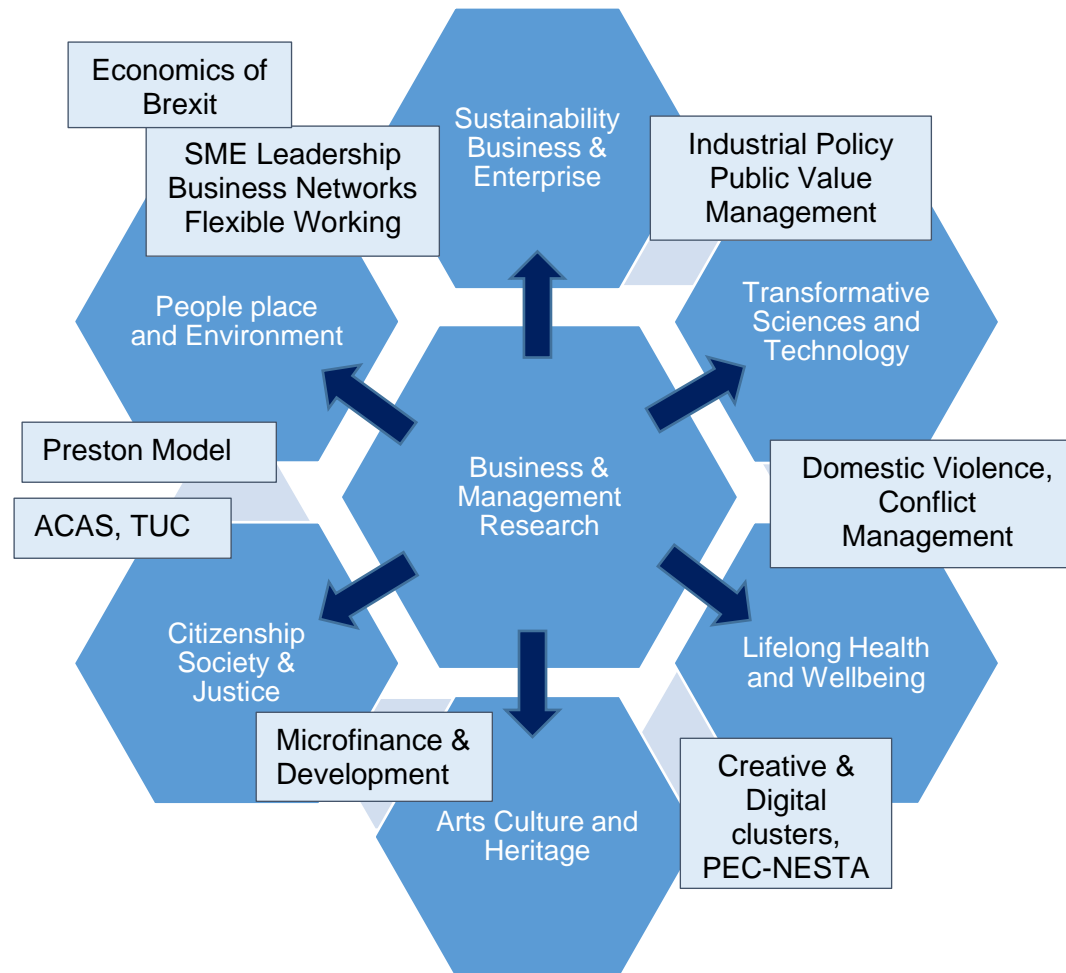
Indicators	REF2014	REF2021
Staff submission (FTE)	11.45	17
Research Income (£)	689,000	1,144,429
Research Income per capita (£)	60,175	67,319
Average Research Income Generated per annum (£)	137,800	163,490
Doctoral Students Registered (MPhil/PhD, PhD and DBA)	48	99
Doctoral Degree Awards	13	50.25
Average Doctoral Degree Awards per annum	2.2	7.2

Our focus is on creation of high quality, impactful research. As a civic university, our engaged research is driving change within the regional community and responding to critical needs. According to the 2019 ONS Index of Multiple Deprivation, Preston is amongst the 15% most deprived local authority areas in England and B&M research is at the centre of its socio-economic transformation. Notable examples include partnerships with regional policymakers, such as Preston City Council, Lancashire County Council and Lancashire Enterprise Partnership (**Whyman, Smith, Wright, Waite** [nee Petrescu]) and involvement in, and evaluation of, the internationally recognised 'Preston Model' (**Manley, Whyman**). National and international research impact includes public value management work undertaken with the aerospace and nuclear sectors, together with the European Space Agency (**Wylie**), business development in Sub-Saharan Africa (**Bottomley** [nee Nwachukwu]) and research into the economic impact of Brexit (**Whyman**). Moreover, as the profile of UoA17 has developed, so too has the range of research collaborations with other universities at both national and international levels.

## Structure

Situated within the Faculty of Business and Justice (FBJ), B&M is multi-disciplinary, encompassing researchers ranging between economics and business psychology, marketing and international business development. Hence, multidisciplinary and interdisciplinary research are natural extensions to inter-UoA collaboration. UoA17 researchers are active across all six of the University research themes, working with disciplines outside the School, including history, politics, psychology and sociology, law, social policy and health, the built environment, digital, creative and cultural industries (art, design, media) (see Figure One).

Figure One: UoA17 Research Projects Relating to University Research Themes



**Unit-level environment template (REF5b)**

The majority of research strength for UoA17 derives from the Lancashire School for Business and Enterprise (LSBE), the Executive Education and Leadership Hub (EELH) and the Centre for SME Development (CSME), all situated within the FBJ. UoA17 additionally encompasses researchers working within the Applied Policy Science Unit (APSU), located at the University's Westlakes (Cumbria) campus. Inter-disciplinary research is facilitated via collaboration with research groups within other faculties, including the UCLan Research Institute of Citizenship, Society and Change (URICSC). As a consequence of our multidisciplinaryity, and as a result of REF subject area boundaries, colleagues from the LSBE Tourism, Leisure and Hospitality subject group are submitted in UoA24 (Sport and Exercise Sciences, Leisure and Tourism), whilst another colleague's outputs are entered within UoA20 (Social Work and Policy), even though he forms an integral part of one of the UoA17 Impact Case Studies. The inter-relationships between research teams across the institution is illustrated in Figure Two.

To ensure equity for all researchers, the University policy is for Faculty Directors of Research to support the work of those individuals who may ultimately be submitted to the REF irrespective of UoA. UoA17 has sought to go beyond this, through the establishment of the UCLan Research Centre for Business, Management and Enterprise (URCBME). This acts as the primary means of coordinating and facilitating both research and research impact activity within UoA17, whilst simultaneously promoting cross-disciplinary research interaction and providing the support required for those researchers who will be entered into UoA20 and 24. All active researchers within LSBE, the Leadership Hub, CSME, APSU and CEDAR are full or associate members of the research centre, whose organisational structure and key areas of particular research strength are illustrated in Figure Three.

Interaction between researchers located on the University's varied campuses (Preston, Burnley, Westlakes-Cumbria and Cyprus) provides opportunities for research development and learning. Researchers associated with CSME have a close relationship with the Centre for Entrepreneurial Development, Alliance and Research (CEDAR) based on the UCLan-Cyprus Campus, and there are a growing number of joint doctoral supervision (currently 6) and joint publications; one being submitted in this REF exercise in *Business Ethics Quarterly*. Collaboration during the next REF period will involve joint funding submissions, with particular emphasis upon accessing European Union research funding programmes (e.g. *Preliminary Horizon Europe - Global Challenges and European Industrial Competitiveness*).

Figure Two: Research Management Structure of UoA17

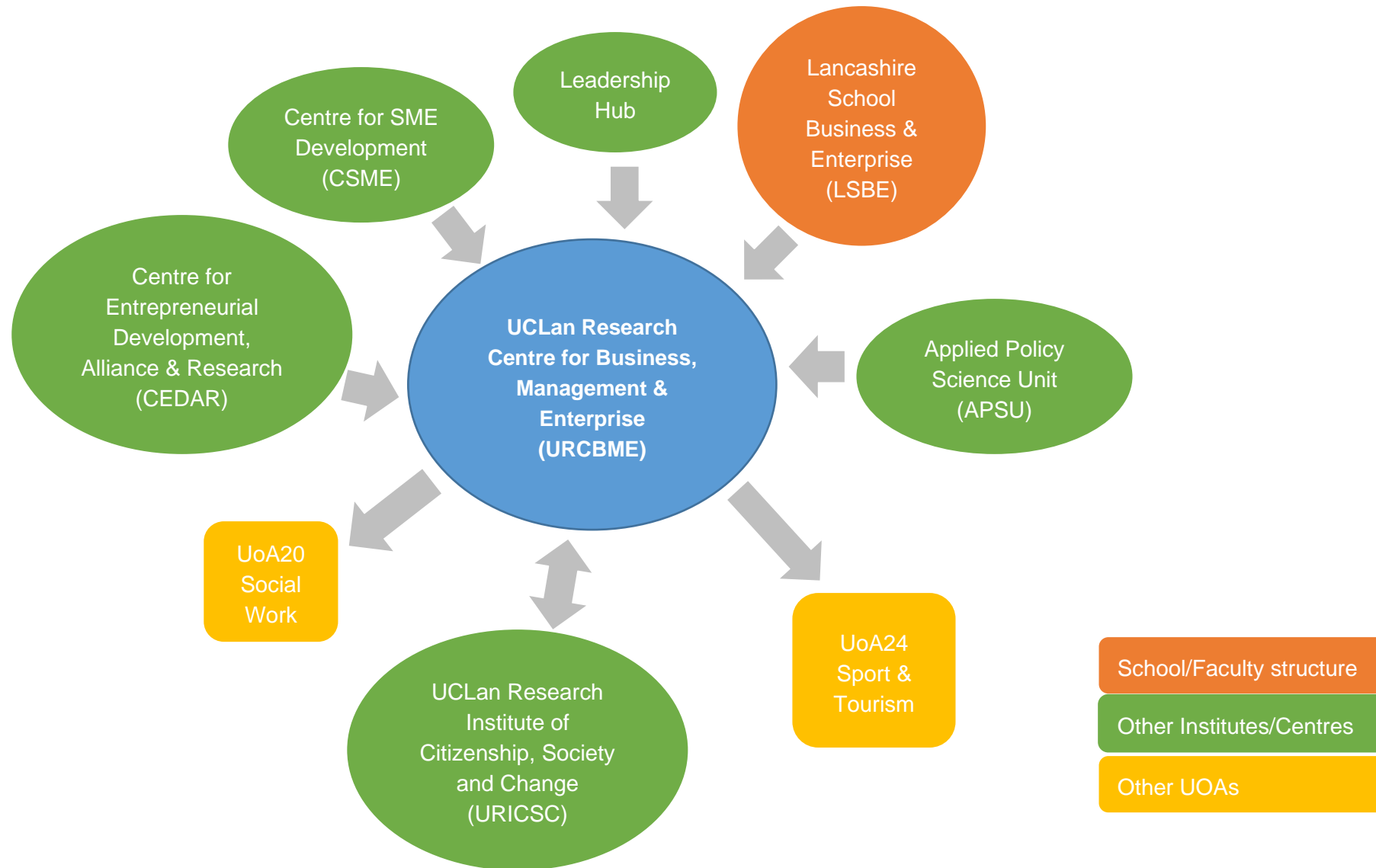
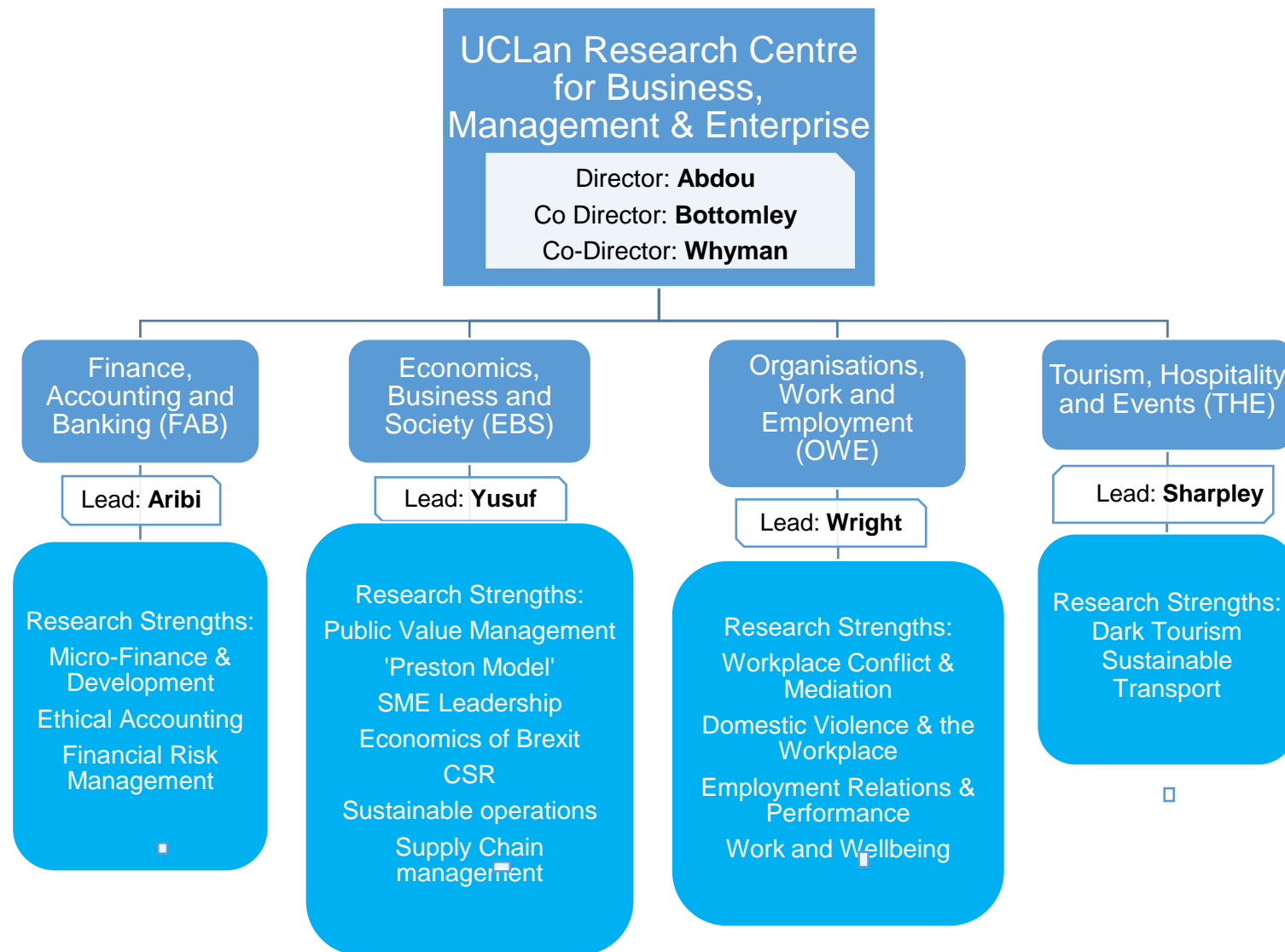


Figure Three: UCLan Research Centre for Business, Management and Enterprise (URCBME) Organisational Structure and Research Themes



## Research Strategy

As the Lancashire School for Business and Enterprise (LSBE) forms the core of the UoA, it is the School's research strategy which will be discussed in this environment document. The Faculty Director of Research (DoR) provides research leadership, coordinates research committees and line manages the professoriate. Coordination is undertaken between Directors of Research (DoR) in other faculties where Business and Management researchers reside, to ensure reciprocal access to funding and research support for all active researchers.

## Aims and Vision

As defined in our REF2014 submission, we aim to generate *significant and impactful research*, which deepens understanding of questions related to business and management, the economy and society. Research informs and underpins all aspects of our activities, through extending knowledge and broadening the academic literature, using findings to improve organisational practice, creating future research capacity and/or supplying the creative element for research-informed teaching. Emphasis is placed upon applied research, capable of delivering significant impact for society and the economy - delivering cutting edge work that makes a practical difference. Accordingly, the research strategy includes a research impact plan.

Delivery of this vision requires a supportive research environment, providing sufficient support in terms of time, resources and mentoring/advice for colleagues who wish to engage in research. There is sufficient flexibility within this approach to meet development needs of newly recruited colleagues and early career researchers (ECRs) (see *People* section).

## Objectives

The research strategy has five key objectives.

1. Enhancing research capacity and strengthening core areas of research.
2. Expand collaborative and interdisciplinary research, at international and national levels.
3. Realising impact from research and enriching engagement with external stakeholders (businesses, employees, communities, policymakers).
4. Ensuring doctoral students (PhD, DBA) have sufficient resources and experienced supervision team capacity to draw upon to complete their programmes successfully and in a timely manner.
5. Use Association to Advance Collegiate Schools of Business (AACSB) accreditation process to focus attention on continuous improvement in research and research management.

## Realising the Research Strategy (2014-2021)

### 1. Enhancing Research Capacity and Strengthening Core Areas of Research

Since REF2014, we have used a combination of recruitment, retention and staff development to strengthen key areas of research excellence, for example in finance and banking (**Bottomley, Abdou**) and socio-economic development (Manley). However, renewal of the academic community is a long-term programme and hence *development of the existing academic talent pool* is crucial to achievement of research strategy goals in the immediate timeframe; a point emphasised in the institutional environment statement in the context of 'generating home grown talent'. We continually seek to enhance our collegiate, multidisciplinary and innovative research environment and provide

differentiated support to colleagues across a range of research trajectories and at various career stages. We use an integrated mentoring programme for new members of staff and ECRs, thereby creating a progressive 'pathway to excellence'. During this REF cycle, the internal institutional promotions procedure has enabled promotion of three members of UoA17 to readership and professorial roles (**Aribi**, Morgan, Willcocks). Our *workload allocation model* is used to fairly allocate teaching, administrative and research responsibilities, enabling the creative (time) space needed to develop strong ideas and undertake sustained research.

To ensure sustainability of research activity, support is provided to *facilitate external funding* applications, including School peer review prior to bid submission. A *fair and transparent mechanism* is utilised to allocate internal resources to aid research, with competitive bidding encouraged on the basis of set criteria.

*Research governance* and management structures have been revised since REF2014, with new institutional committee structure (e.g. Research, Innovation and Ethics Committee - RIEC; University Ethics Committee for Ethics and Integrity; PVC Research Strategy Group), sub-committees (e.g. Business, Arts, Humanities and Social Science sub-committees for ethics and research degree student progression), Faculty RIEC and School research management (LSBE Research Executive Group). LSBE representatives on the institutional committees and advisory groups include **Pyke**, **Abdou**, **Whyman** and **Larson**. School and faculty committees are chaired by the Faculty Director of Research (**Abdou**) - membership comprises the professoriate, readers, leads in research clusters and subject area (division) leads – with responsibility for overseeing the identification of priorities for investment in research and associated support for researchers.

Creation and maintenance of an *inclusive research culture* is facilitated through a research seminar programme open to members of the Faculty and colleagues within URCBME, including PGRs (frequency varies – weekly via Microsoft Teams during term time during 2020) and informal drop-in sessions (particularly important during the COVID period), thus providing potential collaboration opportunities. A mentoring programme offers additional support. Other informal support networks also operate within the School, providing support to members and promoting equality and diversity within the School, institution and wider society. For example, the [Enterprising Women's Group](#) enhances networking between LSBE academics, postgraduate students, Propeller (business start-up) alumni and thereby facilitates connections for researchers with industry. Members hold monthly meetings and the group has hosted three Inspiring Women Events, with keynote presentations by prominent female business leaders. The group sponsored the Inspiring Women's awards in Manchester in 2018 and 2019.

## 2. Research Collaboration and Interdisciplinary Research

The Centre has facilitated consolidation of multiple research themes within a single research grouping, thereby encouraging cross-fertilisation of ideas across the School and across the wider institution. It also enhances sustainability of research activity which could otherwise be weakened when senior researchers leave. It currently has 17 full and 27 associate members. All full members have been submitted to REF2021.

Interdisciplinary research is facilitated by the University's two Research Institutes and UoA17 researchers have led, or participated in, projects coordinated by the URICSC. Projects have included intersections between health and social well-being research. Interdisciplinary work coordinated by URCBME and CSME, draws upon researchers from business and management, economics, history,



## Unit-level environment template (REF5b)

politics, sociology and social-psychology disciplines, whether related to entrepreneurship or leadership projects (**Smith**) or the 'Preston Model' (**Manley, Whyman**); the latter refers to how Preston City Council, the University and other city anchor institutions are implementing the principles of Community Wealth Building within Preston and wider Lancashire area. UoA17 research has played a key role in this approach, as outlined in REF Impact Case Study - *The Preston Model: Driving wealth generation, community investment and national policy*.

### 3. Realising Research Impact and Engagement

Wherever possible, we seek to ensure that research findings are utilised to create *societal impact*. This can be on the micro level, for example enhancing performance of an individual organisation. It could also be at the meso level, for instance supplying a research generated evidence base to local stakeholders seeking to review and enhance institutional support for businesses within the local economy. Furthermore, it could be at the macro level, such as working with national and international policy makers to enhance policy effectiveness in important issues facing our economy and society. The LSBE research impact plan seeks to identify (via KPIs) those aspects of its research activity which have greatest potential to deliver research impact and then use its tools – i.e. resources, workload, advice/mentoring – to encourage realisation of impact. One example concerns appointment of a CSME Social Innovation Manager (**Manley**) to coordinate 'Preston Model' activity.

The work of CSME highlights a key feature of LSBE's impact strategy. Firstly, CSME acts as the catalyst for engagement with the regional SME business community, whilst simultaneously providing a 'bridge' between the School and business-related activities carried out elsewhere in the institution relating to SME development. Engagement facilitates knowledge exchange (KE) and consultancy, which in turn have potential to lead to greater research opportunities and generation of external grant income. For example, one example of KE (i.e. ESF skills development amongst SMEs) led to research work identifying drivers of productivity in the Lancashire economy; this is included in a REF Impact Case Study (**Smith, Whyman, Wright, Waite**).

UoA17's two Impact Case Studies showcase examples of impactful research. The first demonstrates how research findings were used to help design, and subsequently evaluate, the community wealth building approach to local socio-economic development, often described as the 'Preston Model' (**Manley, Whyman**). The second indicates how research findings can be used to inform (through KE) business networks and facilitate research-informed policy, with particular respect to skills and productivity aspects of regional implementation of HM Government's Industrial Strategy (**Smith, Whyman, Wright and Waite**). In addition, members of UoA17 have made important contributions to debates on Brexit, including presenting research findings to a Brexit Conference organised by the Houses of Parliament (POST), providing Brexit advice to the shadow front bench in the House of Commons, producing a report for CIVITAS and being interviewed in various media outlets, including *The Today Programme*, *The Wall Street Journal* and *The Guardian* (**Whyman**). The research programmes related to public value management (**Wylie**), business sustainability and development (**Kuznetsov, Bottomley**), workplace dispute management (**Wright, Wibberley**) and supporting survivors of domestic violence (**Wibberley**), are described in more detail in Section 4 of this document.

### 4. Enhancing PGR Support

*Research supervision capacity* has been extended, through training and mentoring junior staff members. This, in turn, enabled establishment of a DBA in 2014, with 34 students currently registered on the programme. The DBA enables the School to further extend the work of CSME and



## Unit-level environment template (REF5b)

the EELH, in supporting and developing leadership capacity within the local (Lancashire) business community, whilst emphasising the practical impact of research through application within a professional context. Joint supervision of six current doctoral students (Eccleston, Markou, Tahir, Karayianni, Patel and Moyseos), with two already graduated (Tekelas and Karpasitis), between Preston and Cyprus campuses, has expanded research supervision capacity and enabled development of Cypriot doctoral programmes (two current registrations).

Doctoral students are automatically awarded associate membership of the Centre and encouraged to present their research findings through its research seminar programme, an annual doctoral student research conference and 'three minute thesis' competition. A *Research Governance Panel*, with research student representation, has been established to monitor and enhance research student experience. Student progress is facilitated by use of Research Degree Tutors. Annual Progression Review for all PhD students (Preston and Cyprus) is monitored by the Governance Panel to ensure and maintain quality assurance. These efforts have made a significant improvement in successful and timely PhD completions (see *People – Research Students* section).

Doctoral students potentially represent future research capacity and the School has utilised this 'grow your own' approach by appointing six of our former PhD students as full members of staff; colleagues in Cyprus have taken similar advantage of their doctoral pool. The combination of providing research students with their first academic post, when combined with mentoring and encouragement to work with their former supervisors, has enabled four of our former doctoral students (Geyi, Ogbuke, Iatridis, Raj), together with their supervisors, to publish in leading journals in their field (see *People – Research Students* section).

Doctoral students have access to dedicated (hot desk) work areas and the usual array of datasets and IT equipment necessary to facilitate business research. During this REF period, the URCBME and Library services have increased investment in datasets (e.g. Fitch Connect, Thomson Reuters Eikon) and software (e.g. Stata upgrade) which have facilitated individual PhD programmes.

### 5. Supporting Continuous Improvement Via Accreditation

We have sought to use the Association to Advance Collegiate Schools of Business (AACSB) accreditation procedure (started in 2018) as a means to identify and celebrate good practice within the School, more readily identify areas in need of improvement and as a motivating catalyst to enhance performance. The pathway to accreditation has already drawn greater internal recognition to some of the successes we have enjoyed, such as *promotion of women and with measures of achievement by traditionally under-represented groups in higher education* (see *People – Equality and Diversity* section). To achieve accreditation, we have embedded the necessary enhancements firmly into the School structure and the process has proved motivational for all members of staff in aspiring toward best practice in research.

## REF 2021-2028

Research strategy for the next REF period will be guided by development of the new institutional research strategy, which is subject to final consultation before completion. Nevertheless, there are key elements of UoA17 research strategy that seek to build upon the approach adopted during REF2021. The primary focus will remain upon enhancing research capacity and strengthening core areas of research. Long-term sustainability requires further growth in research capacity, achieved through a combination of targeted research-active staff recruitment, retention and continuation of the 'grow your

own' strategy associated with expanded doctoral research programmes. This, in turn, requires continuous enhancement to the research environment. Regional engagement and emphasis upon research impact are already key features of UoA17 research activity and will receive even greater emphasis during the next census period. UoA17 research is well placed to enhance regional socio-economic development, via the 'Preston Model' and responding to the industrial strategy agenda. Finally, strengthening of collaborative links, with researchers in other institutions (UK and globally) and with our sister campuses (Cumbria, Burnley, Cyprus), extends the range of research engagement opportunities for colleagues, and creates potential for research spill-overs.

## 2. People

### Staffing Strategy and Staff Development

This REF cycle has witnessed a significant degree of staff turnover, with 50% of previous REF participants (including three professors and a reader), having left LSBE due to retirement, promotion and/or relocation to other institutions (Liverpool, Essex, MMU, Derby). Hence, strategic replacement of talent has involved recruitment of four new professors (**Abdou, Bottomley, Pyke, Smith**), together with three research assistants (Ball, Kuti, Lawler), thus strengthening research leadership in banking, finance and development, accounting and enterprise.

The School has adopted a 'grow your own' approach to develop future research capacity and maintain a balance between early career (ECR), intermediate and senior research active staff. Emphasis is placed upon recruiting, developing and retaining staff with a strong research profile and/or those demonstrating clear future research potential. For example, three senior lecturers and one principal lecturer (**Aribi**, Gammon, Morgan, Willcocks) were promoted to Readerships during this REF cycle, whilst two members of staff were awarded University sabbaticals which led to outputs submitted to the REF (**McClelland** - *Journal of Occupational and Organizational Psychology*; **Wright** - *New Technology, Work and Employment*).

Research culture was embedded through mechanisms such as research seminars (with internal and external speakers), bid writing forum, co-authoring of papers with senior colleagues, together with encouraging development of external networks and collaborations. In line with the Concordat for Researcher Development, colleagues have opportunities to engage in and give feedback on the research agenda (including REF developments). Discussions are held at subject team (divisional) meetings and research is integral to monthly Dean briefing sessions. All members of LSBE are therefore able to engage with the research agenda. This reflects the University's Code of Practice which aims for REF being both transparent and inclusive.

### Research Staff Management

The nature of LSBE is that there are many colleagues who specialise in teaching and/or knowledge transfer activities rather than engaging in research. Therefore, it is crucial to ensure that support is available to identify and facilitate transition of those colleagues in this category who have the aptitude and aspiration to engage more fully in research in future. Appraisals are held once a year, with interim appraisal at the mid-year point. Any member of academic staff with a desire to do research, and can demonstrate that they can meet appraisal objectives, receives a workload allowance for research. Those with research career aspirations can develop a personal development plan and progression can be facilitated through mentoring.

The University workload model allocates all 'independent' research-active members of staff a 20% minimum baseline research allocation. ECRs and new members of staff receive a reduced teaching load for two years to provide a strong foundation for research and all receive a research allowance, ranging between 200-320hrs; the higher end of this range is broadly comparable with active researchers (SL/PL) entered into REF2021.

The University was awarded the HR Excellence in Research Award in 2010 (retained in 2020) and is committed to the principles of the Concordat for Researcher Development. New members of staff participate in an Academic Research Induction Programme, and ECRs are encouraged to participate in the School research mentoring scheme. URCBME offers pump-priming funding (via a competitive process) to support the early stages of promising research projects, whilst a Personal Professional Development (PPD) staff development fund can be drawn upon to support staff presenting their research at conferences both nationally and internationally. Open Access is secured through central institutional funding (gold), 'green' channel and institutional repository (CLOK).

All staff have a dedicated Academic Lead with whom they work closely to ensure wellbeing and support for personal circumstances. The University promotes flexible working, thus enabling colleagues to work from home if more conducive to bid formation or writing-up research findings. The Faculty DoR and REF co-ordinators have had unconscious bias training, and outputs considered for submission to REF2021 were reviewed internally and by external referees, to ensure fairness and transparency. Individuals were provided feedback on all reviewed outputs.

### Research students

To embed research degree students within LSBE research culture, URCBME offers B&M PhD students automatic associate membership, thereby affording the opportunity to participate in its research seminar series and receive (circa £250 average) financial support to attend conferences, training workshops and submission to journals. This resulted in students co-authoring papers in the *International Journal of Production Economics* (Geyi), *Production Planning and Control* (Ogbuke), *Business Ethics Quarterly* (Iatridis) and *Thunderbird International Business Review* (Raj).

Development of the School's pool of experienced supervisory team is vital to ensuring strength and sustainability. All staff returned in RE2021 contribute (or have contributed) to the School's doctoral programmes, and senior researchers are encouraged to jointly supervise doctoral students, with this 'learning by doing' growing the pool of experienced supervisors, thereby enabling introduction of a new seven-year part-time DBA programme. Careful management of research degree student numbers has ensured sustainable expansion, hence protecting the quality of PGR supervision.

Doctoral progression is facilitated by project approval and annual progression monitoring for quality assurance. By identifying potential problems at an early stage, students are offered timely and relevant support to successfully progress. Improvements made to the School's doctoral training programme is a key element of this support package. LSBE provides a three-module block-delivery Doctoral Research Training Programme, combining research methods and skills elements, leading to a PG Certificate in Research Methods. The programme is consistent with the four competence domains within the national Researcher Development Framework. If required, additional research skills are facilitated through participation in internal modules combined with external doctoral workshops. The on-line Research Masters Programme from Epigeum is utilised where appropriate; enabling progressive learning from research student to senior research academic via a combination

**Unit-level environment template (REF5b)**

of face-to-face, e-learn and web-based training (complying with UKRI, Research England and QAA training requirements). In addition to formal training, DBA student mentors support facilitation of early-stage research design prior to completion of taught elements of the programme, and before the thesis supervision team is established.

Our programme improvements, combined with careful management of student numbers, has positively affected timely and successful thesis submissions. Over the REF cycle, there has been a 294% increase in number of research degree awards (from 12.75 to 50.25). This represents a 239% increase in successful completions *per annum* when compared to REF2014 – i.e. an average of 7.18 per annum compared to 2.12 for REF2014. In part, this reflects the introduction of the professional doctorate (DBA) programme during this REF cycle, although the bulk of successful completions to date are still PhDs, where there has been a 273% increase since REF2014. See Table Two for details. Awards per FTE member of staff submitted to REF increased from 1.14 during REF2014 to 2.34 during the current REF cycle.

*Table Two - Disaggregated Total of Doctoral Awards per annum*

	Total REF 2014	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Total REF2021
PhD	13	7	3.25	3.25	9.25	7	9.75	8	47.5
DBA	0	0	0	0	0	1.5	0	1.25	2.75
Total	13	7	3.25	3.25	9.25	8.5	9.75	9	50.25

There are currently 65 MPhil/PhD and 34 DBA students being supervised in LSBE. For the purposes of comparison, at the time of submission for REF2014, there were 48 MPhil/PhD students enrolled. This represents a 35.4% increase in MPhil/PhD student cohort and a doubling of doctorate numbers, when including the DBA.

Of the current doctoral population, 18 are registered as part-time and 47 full-time, with 19 female and 46 male students. A sizeable proportion (69%) are international students. Students undertake a three-year (FT) or six-year (PT) programme of study for the PhD degree and between four and seven years (including two taught) of study for the DBA degree (PT).

In terms of research student governance, overall quality is assured by UCLan's Research Degrees Board. LSBE has four Research Degrees Tutors (two within UoA17) who work closely with the University Research Student Registry to admit, induct, support and review progress of research students. The tutors act as independent advisors should students have unresolved problems concerning their supervisory team. In addition, at various crucial stages of their studies, students receive advice from an independent 'progress reviewer' who evaluates their development. There are regular two-day training sessions for supervisors on process and procedures and for establishing and managing the supervisory relationship.

Research degree students have use of a dedicated room, complete with workspaces, networked PCs and secure storage facilities for research materials. Doctoral students have access to the Library Information Service, including its e-resources (data, journals, books, web-based resources, etc), inter-library loans system and so forth.

## Equality and diversity

The University is committed to advancing equality in employment and career development for all staff. In LSBE, 48.4% of academic staff are women and 10% BAME. The 2018 Advance HE report states that, for non-SET subject areas as a whole, 8.1% of academics were BAME (14% B&M) and 45.7% of academic staff being female (42.7% B&M). Thus, LSBE has a slightly more favourable gender balance than across other business schools in the sector, and UK HEI overall. BAME representation is, however, slightly below the sectoral business school average. This has been noted by the Business School senior leadership team, and measures to address this imbalance, involving measures taken to attract a wider range of candidates for recruitment and post-appointment mentoring, have been adopted.

In contrast to underrepresentation of women and BAME members in senior management teams across the sector, within the LSBE Senior Management Team, three out of eight members are female (37.5%) and three are BAME (37.5%). Similarly, three of seven professors submitted in UoA17 for the current REF are BAME (42.9%) and two female (28.6%) – this statistical breakdown includes one female BAME professor. This compares with 6.9% of BAME and 30.6% female, non-SET professors in UK HEI, whilst for the sector as a whole, senior management role were unequally skewed, with BAME representation about half the UK White rate.<sup>1</sup>

For those included in REF2021, the gender balance in B&M has improved in this REF cycle, compared to the last, with female share of 29.4% compared to 23.5% for REF2014. The BAME proportion of the submission has declined over this same period, however, from 35.3% (REF2014) to 23.5% (REF2021), although in terms of papers submitted, the BAME share is proportionately higher (37.2%).

The School is, therefore, making significant progress towards having a workforce that mirrors social, ethnic, disability and gender make-up of its local community and wider society. This is particularly evident in senior positions within the School. This process is aided by the School's equality and diversity committee, which oversees its efforts to promote inclusion within its staff profile. The work of this committee helps to underpin the progress which has been made with regard to protected characteristics. A testament of the work of this committee is appointment of Professor **Bottomley** in 2018, one of the 25 black females out of around 25,000 professors in UK higher education sector.<sup>2</sup> The participation of Professor Bottomley on the University's Equality, Diversity and Inclusion (EDI) strategic group, and as a Governor at Lancashire Teaching Hospitals NHS Foundation Trust, helps to ensure that the lived experiences of BAME colleagues are incorporated in their recruitment and promotion policy. LSBE has committed to fund doctoral scholarships to focus on BAME issues commencing in the next REF period.

LSBE are currently preparing a School level application for Athena Swan (Bronze), with a target submission date of April 2021. The Athena Swan Self-Assessment Team (SAT) ran for an 18-month period and provided the opportunity to be part of the SAT to all staff within the School. The SAT is co-chaired by the Executive Dean and the School Director of Enterprise and Innovation.

Part-time staff and staff whose career has been interrupted have access to the full range of training, developmental, and funding opportunities afforded to full-time staff.

<sup>1</sup> <https://www.advance-he.ac.uk/knowledge-hub/equality-higher-education-statistical-report-2018>, pp. 132, 202, 220, 222.

<sup>2</sup> <https://www.advance-he.ac.uk/knowledge-hub/equality-higher-education-statistical-report-2018>, pg. 260.

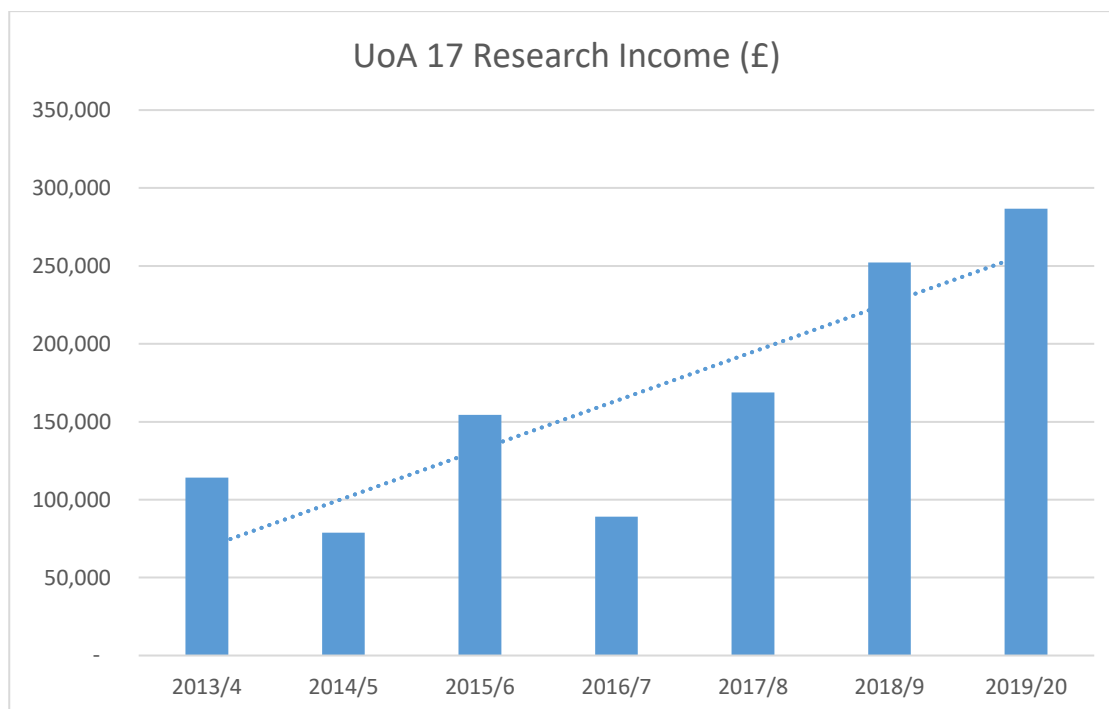


### 3. Income, infrastructure and facilities

#### Income

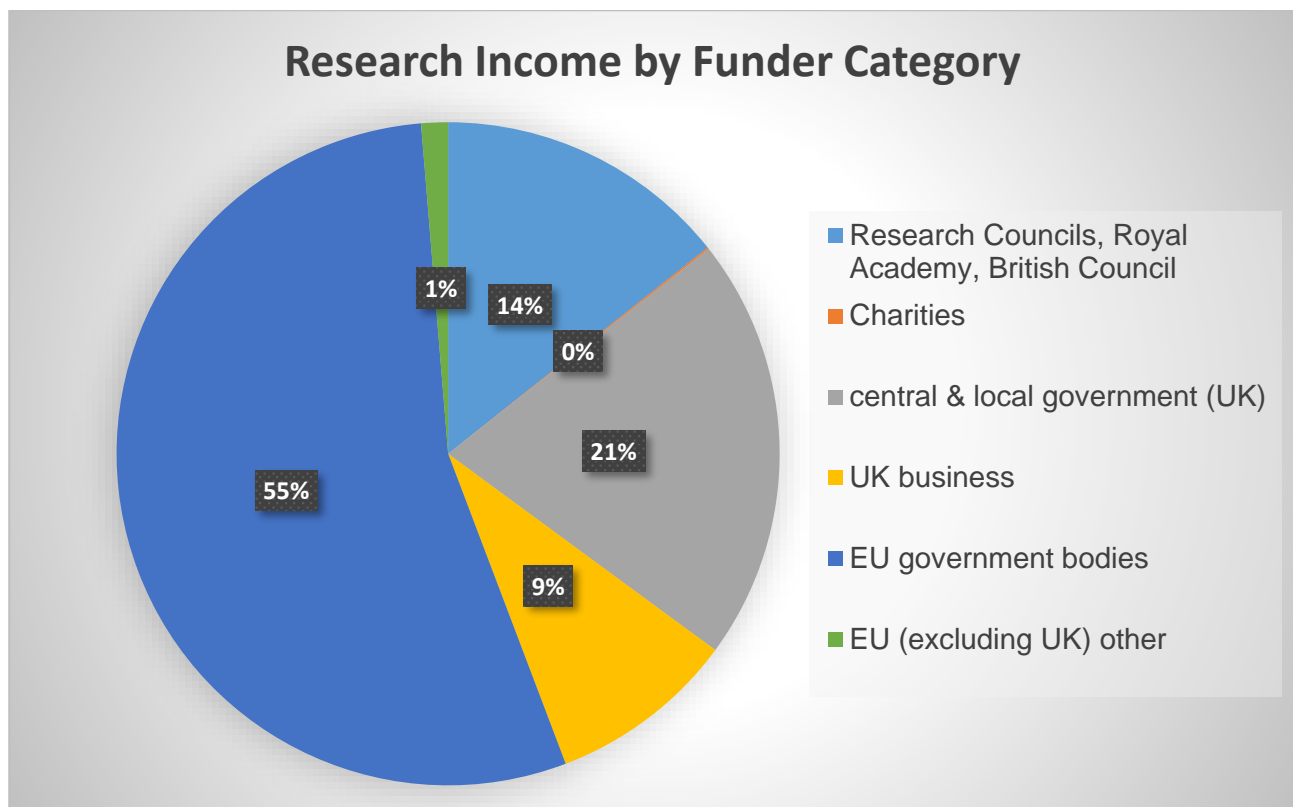
The School secured a total of £1,144,429 external research income during the REF2021 period. This represents a significant 66% increase over £689,000 received in REF2014, or 18.6% per annum – i.e. £163,490 p.a. compared to £137,800 p.a. in REF2014. The rise in external income generation is testament to the growing strength of the UoA17 research group and reflects medium-term sustainability. It represents a healthy average of £67,319 per FTE member of the UoA submitted in the current REF, an 11.9% increase over REF2014. Funding has also been on an upward trajectory (Figure Four).

Figure Four: External Research Funding between 2013/14 and 2019/20



The composition of external research funding comprises approximately 56% from EU funding streams (**Smith**, Hitchen, Ujma), 21% from central/local government, 14% from Research Councils and the British Council, 9% from industry and the balance from charitable foundations (see Figure Five).

Figure Five: The Distribution of UoA17 External Research Funding by Funder Category



- Research Council funded projects included an interdisciplinary project investigating [Work-Life 'Balance'](#) (Leeds: EPSRC, £108,638); the latter involving an eighteen-university consortium led by UCLan and including UCL, Warwick, Bristol, Nottingham, Lancaster, Surrey, Birmingham, Loughborough, Birkbeck and the Open University. Two UKRC research projects straddled the REF census period. For example, a £200,000 KN4B business network project (**Whyman**: ESRC contribution £100,000, with £44,359 during REF2021), and similarly resolving workplace conflict (Saundry: ESRC, £4,021 during REF2021). UKRC funding facilitated two KTPs; one developing an omni-channel retail strategy (ESRC, AHRC, the Technology Board, Stokers Ltd, £131,310) and the other with JFN Integrated Solutions Ltd (ESRC, Innovate UK, £63,218). Innovate UK [rated the former "outstanding"](#). UKRC additionally awarded the institution a Safepod (**Whyman**: ESRC, £30,000), to access secure data.
- Funding received from different tiers of government facilitated research to identify determinants of productivity in the local economy (**Smith, Whyman**: Lancashire County Council and Lancashire Enterprise Partnership, £50,000) and impact of the Preston Model on creative industries within the local economy (**Whyman, Wright**: PEC-NESTA, £47,466); the latter project extending into the new REF cycle.
- Charitable funding facilitated projects related to public value management (**Wylie**: Samuel Lindow Foundation, £600,000), Sustainable Entrepreneurship (**Kuznetsov**: British Academy, £4,138), and investigation of the hybridisation of retail and social care delivery (Gordon: Age UK, £16,667).
- Industry funding included Greater Manchester Fire Service (Ashman, £34,894) and Red Havas/Studio Retail Ltd (**Whyman**, £15,000).



- £11.6 million of EU funding was awarded to the University during REF2021, and most projects had significant UoA17 participation, including 'Upskilling Lancashire', 'Innovation Clinic', 'Investment Readiness' and the 'Lancashire Creative Forum'. CSME (Smith, Hitchen), for example, received £4,354,796 ESIF/ERDF funding for the Lancashire Forum project – the research component equating to £1,241,848 (£620,924 within this REF cycle). The EELH was awarded ERDF funding (£185,713) to facilitate skills development and leadership in the local creative and digital sectors (Morgan). European funding (£17,314) further facilitated research collaboration with colleagues in Poland (Ujma). Many of these projects are ongoing, with funding spread across REF cycles.

Research sustainability depends upon identification and amelioration of potential risk factors. For example, the COVID-19 pandemic will have a short-term negative impact, as fieldwork becomes more problematic and projects requiring extending or redesign, whilst impact of Brexit in the medium-term remains uncertain. To reduce risk and ensure sustainability of research income generation over the medium-term, UoA17 has sought to encourage greater diversification of funding sources to offset risk during the next REF cycle. Innovate UK might prove one potential source of external income generation, given the sizeable increase in their core programmes budget for 2021/22 and our previous track record in securing research funding from this source. Another example may relate to drawing upon existing relationships in conflict management Human Resource Management research, where a multiplicity of smaller projects was funded during this REF cycle by ACAS (3), trade unions (2) and public sector bodies (2).

External funding capture underpins longer-term research sustainability and culture. Bidding activity is encouraged from all research-active members of staff, irrespective of the nature of their contract (FT/PT). To promote research excellence the School has introduced a supportive but rigorous system of peer-reviewing manuscripts and research grant bids before submission. Institutional support includes calculation of costs for bids, drawing up contracts, data management and the maintenance of open access through the institutional repository (CLoK).

### Research Infrastructure

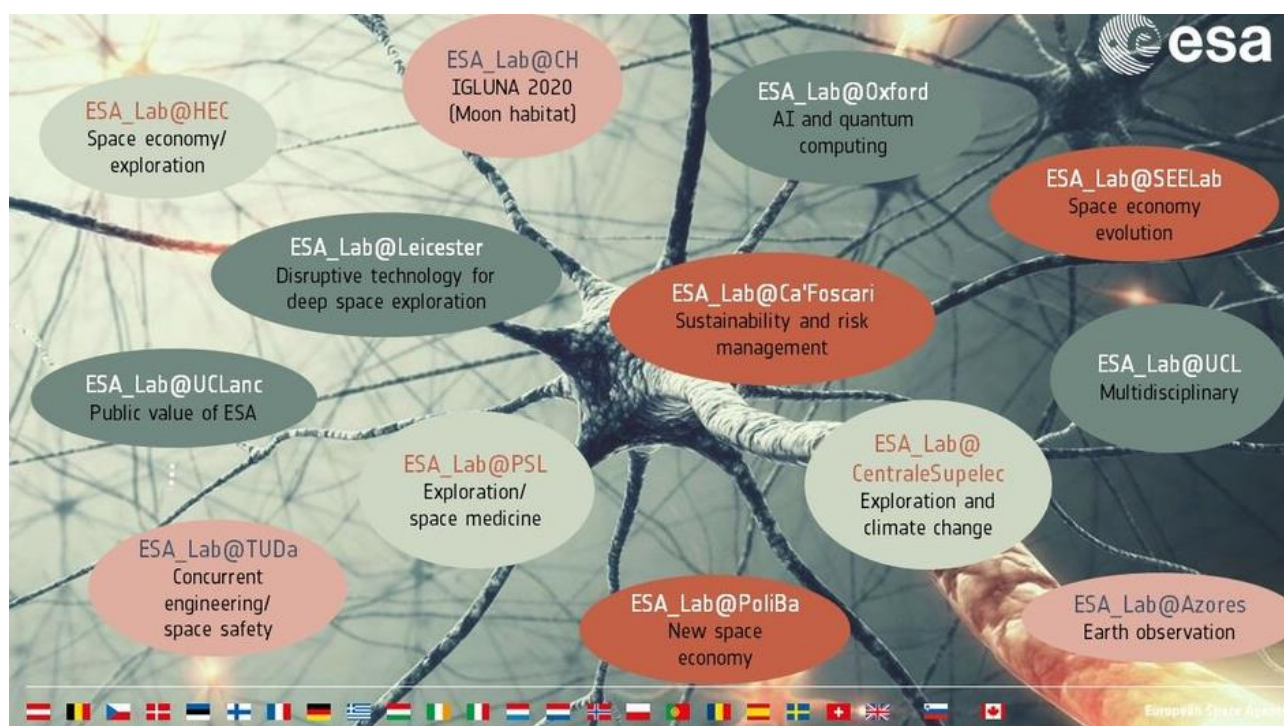
UCLan's provision of research facilities combines central and School funding. Central investment, financed through a top-slicing of School PGR, PGT and research income, focuses primarily upon physical spaces for research and major equipment. School funding focuses mainly upon facilitating the use of such research dedicated space and provision of smaller scale investments to facilitate research.

At the School level, the Finance, Accounting and Banking cluster has a variety of data resources including FITCH Connect and Datastream. Research analysis is supported through a range of econometric software packages such as EVIEWS, STATA, R and NVivo. In addition, URCBME provides a forum for training and development of research methods for both staff and PhD students. LSBE, in partnership with the ESRC, installed a 'SafePod' as part of a [SafePod Network \(SPN\)](#), located within the Library and Information Services, to provide secure access to sensitive social and economic datasets to UCLan and 'guest' researchers from the region. The UCLan Safepod was only the fifth to be installed in the UK, after the universities of Exeter, Oxford, Bristol, Nottingham and the National Archives. The SPN will continue to develop during the next REF census period and should extend the scope of quantitative research projects within the UoA and form the basis for further

interdisciplinary research with colleagues from the UCLan Centre for Data Innovation (Faculty of Science and Technology).

Our research infrastructure has been designed to maximise collaborations with businesses. The £5m extension to the Westlakes (Cumbria) campus, jointly funded by UCLan and the Samuel Lindow Foundation (Charitable Trust), introduced business incubation facilities which have facilitated the expansion of this activity during this REF cycle. The new facilities also host the APSU research team and the ESA\_Lab (established in 2018). The latter is a partnership between the European Space Agency and the University, designed to establish a research hub to foster cross fertilisation of ideas and promote “disruptive innovation”. As of March 2020, ESA\_Lab@UCLan was one of only thirteen examples of collaboration of its type across Europe, and one of only four in the UK, alongside Oxford, UCL and Leicester universities (see Figure Six).

Figure Six: ESA\_Lab Network, March 2020



Source: [https://www.esa.int/Enabling\\_Support/Preparing\\_for\\_the\\_Future/Space\\_for\\_Earth/The\\_ESA\\_Lab\\_Initiative](https://www.esa.int/Enabling_Support/Preparing_for_the_Future/Space_for_Earth/The_ESA_Lab_Initiative)

A second notable example of business-related infrastructure relates to the business incubation and innovation studio, where researchers from CSME and the EELH engage with local businesses and create research impact through knowledge exchange (**Smith**, Morgan). The networking undertaken by CSME, alongside EELH's leadership education and commercial activity, facilitates connections between external business leaders and UoA17 LSBE researchers to tackle regional challenges. Similarly, members of the iROWE group within URCBME (**Wright**, Marsh, **Wibberley** and **Donbesuur**, Ball, Zahoor, Menara and Kuti) have developed research streams out of the ERDF funded Lancashire Creative Forum and the LSF Upskilling Lancashire projects.

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

University strategy is to use its position as a civic hub or anchor institution to strengthen relationships with key stakeholders, provide research evidence for policy makers, facilitate business growth and work with a range of stakeholders within the local community on a variety of projects and initiatives. Research impact and public engagement, carried out by members of UoA17, are natural consequences of this approach.

### **Shaping Policy and Public Sector Practice**

Key local partners include policymakers, such as Preston City Council, Lancashire County Council and the Lancashire Enterprise Partnership. Our funded partnerships with these organisations have enhanced the research-informed evidence base in the areas of SME support, skills, business leadership development, and determinants of productivity (**Smith, Whyman, Wright, Waite**). This has informed the regional response to the national industrial strategy agenda. Perhaps the clearest example of research-informed policy development relates to the novel approach to economic development in Lancashire (post-2012) by Preston City Council (**Manley, Whyman, Wright**). This 'Preston Model' is an integrated development strategy, utilising coordinated procurement by anchor institutions to strengthen local supply chains, alongside steering local capital and encouraging the development of cooperatives and other community wealth building initiatives, to reduce leakages from the local economy, thereby increasing GVA. The initiative was informed by UoA17 research and ongoing research is concerned with evaluating its effectiveness. Meanwhile a research monograph is due for publication in 2021 (Manley and **Whyman**, Routledge). In advance of the completion of this work, it can be noted that, during the time this 'Preston Model' has been in operation, Preston was ranked the most improved city in the Demos-PwC Good Growth for Cities Index in 2018 and rated first in the North West in 2019. This work forms an Impact Case Study - *The Preston Model: Driving wealth generation, community investment and national policy*.

### **Enhancing Productivity through SME Collaborations**

Engagement with the local business community has been facilitated by the Centre for SME Development (CSME) and Executive Education and Leadership Hub (EELH). The former has a membership of approximately 1100 SMEs, whilst in excess of 5000 local businesspeople, business leaders and local policymakers have participated in one or more of its 25 business networking and knowledge exchange breakfasts and/or 81 creative leader's events. The combination of masterclasses and action-learning aims to enhance productivity and contribute to industrial strategy priorities. In addition, CSME has supported approximately 4,800 enterprising students/graduates delivering over 800 enterprise and venture start-up events. CSME provides a key pathway to disseminate research findings and create research impact. In parallel, EELH provides a gateway for engagement with larger businesses in the region, through its £7.2 million (ERDF/ESF funded) leadership development programme (involving 750 Lancashire business leaders). The Hub's Leadership Dialogue conference (annual since 2018) facilitates KE between business, regional policy makers and academics around key regional challenges. Business engagement and facilitation of local policymaking form the basis of a REF Impact Case Study - *Building networks to collaborate with small and medium-sized enterprises, students and regional government, creating mutual benefit and impact*.

### Creating Public Value from Business

Trans-national business engagement has been forged through application of public value management research developed by the Applied Policy Science Unit (APSU), based at UCLan Westlakes (Cumbria). Close partnerships have been formed with the European Space Agency (ESA), National Nuclear Laboratory (NNL) and Nuclear Decommissioning Authority (NDA). This resulted in establishment of the Cumbria Nuclear Conference, highlighting opportunities for investors, whilst ESA adoption of public value management resulted in UoA17 researchers participating in ESA strategic formulation meetings held in multiple European capitals. The ESA established an ESA Lab on Westlakes Campus in September 2018, to strengthen collaboration around public value management research. Research findings resulted in business policy changes for both the NNL and NDA, and have featured in a 2019 Westminster symposium and book published by Rowman and Littlefield in 2020 (**Wylie**).

### Improving Working Conditions

The Organisation, Work and Employment (iROWE) cluster within URCBME has generated a body of work focused around issues of workplace conflict resolution, gender and wellbeing at work. It formed the basis for collaboration with academic partners (Plymouth, Sheffield and Sheffield Hallam universities), and practitioner organisations including the TUC, ACAS and CIPD. This, in turn, resulted in formation of a network of 250 associate members (HRM practitioners and policymakers) who regularly attend seminars and training workshops, facilitating knowledge exchange of research findings. The group's work has directly informed ACAS policy (Ashman, **Wright, Wibberley**). More recent research into support mechanisms that can be extended at work to survivors of domestic violence have resulted in a symposium on *Gender, Wellbeing and Enterprise*, held in partnership with the Institute for Small Business and Entrepreneurship (ISBE), attracting 90 delegates from trade unions, HRM professionals, law, policing, policy makers and academia (**Wibberley**, Jones). Prominent guest speakers included Dame Vera Baird (Police and Crime Commissioner for Northumbria), Caroline Rayner (Employment Partner, from Baines Wilson), Frank Mullane (CEO, Advocacy After Fatal Domestic Abuse), Professor Nicole Westmarland (Director, Durham University Centre for Research into Violence and Abuse) and Michelle Piertney (Senior Adviser and Collective Conciliator at ACAS). Following this event, the TUC commissioned two reports from the research team on the issue, with results adopted as part of resource materials utilised by the Trades Union Congress (TUC), ACAS, Equality and Human Rights Commission, Police and Crime Commissioners and Employers' Initiative on Domestic Abuse.

### Contributions to the Disciplines through International Collaboration

The UoA has hosted a number of academic conferences during the REF period, including the 5<sup>th</sup> Engage HEI Conference (2016), which included delegates for 24 UK universities and presentations were later included in a special edition of the *International Small Business Journal* (2018, 36:4). The 28th Annual Tax Research Network Conference (September 2019) was the most recent example, where over 50 research papers were delivered from 19 countries. Visiting academics have been hosted from international institutions such as University of Colorado Denver, University of Limerick, Texas A&M University and the University of Warmia and Mazury Olsztyn. This creates a culture of knowledge sharing and identifies opportunities for future collaborative research. For example, collaboration with the University of Berkeley resulted in Gammon co-editing a two-volume special issue for the *Annals of Leisure Research*. **Pyke's** collaboration with Texas A&M University and University of Warmia and Mazury Olsztyn resulted in academic exchange and plenary presentations. Collaboration with Østfold University College in Norway has led to visiting speaker opportunities in



## Unit-level environment template (REF5b)

Norway in March 2019 (**Martin**) and the completion of a joint paper on lean working in Norwegian municipalities (currently under review). **Abdou's** collaboration with Imam Abdulrahman Bin Faisal University (Saudi Arabia) resulted in funding for a research project (DSR57,500/£11,900) to predict Saudi listed companies' dividend payments using non-parametric machine learning algorithms. This led to further academic exchange, workshops and research training sessions. More emergent (developmental state) overseas partnerships include SEGI in Malaysia.

One area of well-established international collaboration is between LSBE and institutions in Sub-Saharan Africa through the work of **Bottomley**, who is a member of the African Governance Development Institute in Cameroon and has published more than 60 journal articles with its staff including the lead economist Professor Simplice Asongu. The School has hosted a conference (July 2019) of more than 50 academics from UK universities who are members of the Africa Diaspora Academic Network (ADAN-UK). In addition, Bottomley is collaborating with software-as-a-solution (SaaS) service enterprises in Kenya and the Animal Health and Production Department at Mount Kenya University, to investigate the relationship between use of sensor technology in management of cattle and welfare of smallholder owner dairy farmers in Kenya.

The most obvious international collaboration, however, arises from the UoA's deepening relationship with UCLan-Cyprus. Preston-based researchers have participated in the promotions process for colleagues based in Cyprus, and currently jointly supervise six doctoral students with colleagues from UCLan-Cyprus (another two have already graduated), with further expansion of doctoral programmes in Cyprus campus planned. This should lead to joint publications and joint research bids in the next REF; the latter may become of more significance depending upon resolution of the Brexit process. Relationships are supported through a visiting programme, where key researchers from both campuses have opportunity to visit and deepen research collaboration.

## Maximising Contributions to the Research Base

LSBE actively encourages and supports staff to take an active role in developing and sustaining research activities within their disciplines. For example, **Smith** is a member of the LEP's Business Support Management Board and co-chair for the Engage HEI conference, and Board member of the Institute for Small Business and Entrepreneurship (ISBE). **Wright** is a Fellow of the Royal Society of the Arts, Kelsall is the Chair of the ACCA regional panel for Lancashire and Cumbria and **Martin** is an academic member of the CIPD. **Whyman** has acted as referee for Leverhulme fellowships and NERC large grant schemes, is an Associate of the Oxford Centre for Mutual and Employee-Owned Business, (Kellogg College, University of Oxford) and serves as a member of the Conference of Heads of University Departments of Economics (CHUDE). **Yusuf** is a member of the EPSRC Peer Review College and a reviewer for the Swiss National Science Foundation (SNSF), the Netherlands Organisation for Scientific Research (NWO, the Dutch Research Council) and His Majesty's Research Trust Fund of Oman.

UoA17 members serve on editorial boards for learned journals, including: *Cogent Banking & Finance Section* (**Abdou**, editor); *International Journal of Organizational Analysis* (Associate Editor, 2010-17) and *Essays in Economic and Business History* (**Larson**, Associate Editor); *Journal of Money, Banking and Finance*, *International Journal of Islamic and Middle Eastern Finance and Management*, *Journal of Economics and Administration Science*, and *Journal of Financial Risk Management* (**Abdou**); *International Journal of Logistics Systems and Management*, *Benchmarking: An International Journal* (**Yusuf**); *European Management Journal* (**Whyman**); *The International Journal of Astrophysics and Space Science* (**Wylie**); *Journal of East-West Trade* (**Kuznetsov**); *Action*

**Unit-level environment template (REF5b)**

*Learning: Research and Practice and Higher Education Skills and Work-Based Learning and International Small Business Journal (Smith); and the Journal of African Business (Bottomley).*