

Unit-level environment template (REF5b)

Institution: Swansea University
Unit of assessment: 17 - Business and Management Studies
<p><i>Section 1. Unit context and structure, research and impact strategy</i></p> <p>Unit context and structure</p> <p>Submission to this UoA is almost entirely constituted of School of Management (SoM) staff - one colleague is included from the College of Human and Health Sciences (CoHHS). Our vision is to make a difference to society and the economy, locally, nationally and globally, through excellence in research and research-led teaching. SoM comprises over 120 academics, 90 professional services staff, and 68 PhD students, all working and studying at the £450m Bay Campus which opened in 2015. The academic community includes 53.05 full time equivalent (FTE) Category A staff (a headcount of 56), all of whom are submitted to REF2021. Despite the challenges that two changes in leadership have presented during the current REF period, the vitality and sustainability of our research environment has remained intact. We have witnessed considerable successes this REF period in the areas of research funding (375% growth in total research income when compared to the total reported in REF2014, and 700% growth within the current period; i.e. from 2014 to 2020), PhD completions, interdisciplinary collaboration (particularly with healthcare), and in influencing Welsh Government (WG) policy in areas such as air pollution, digital rollout, economic development, and labour market policy. Furthermore, impact from research activities has extended internationally in areas such as Indian government policy, entrepreneurship training in Malaysia, and healthcare management across Europe.</p> <p>SoM comprises three departments, eight research centres, two think tanks, and four major embedded projects (see figure 1):</p>

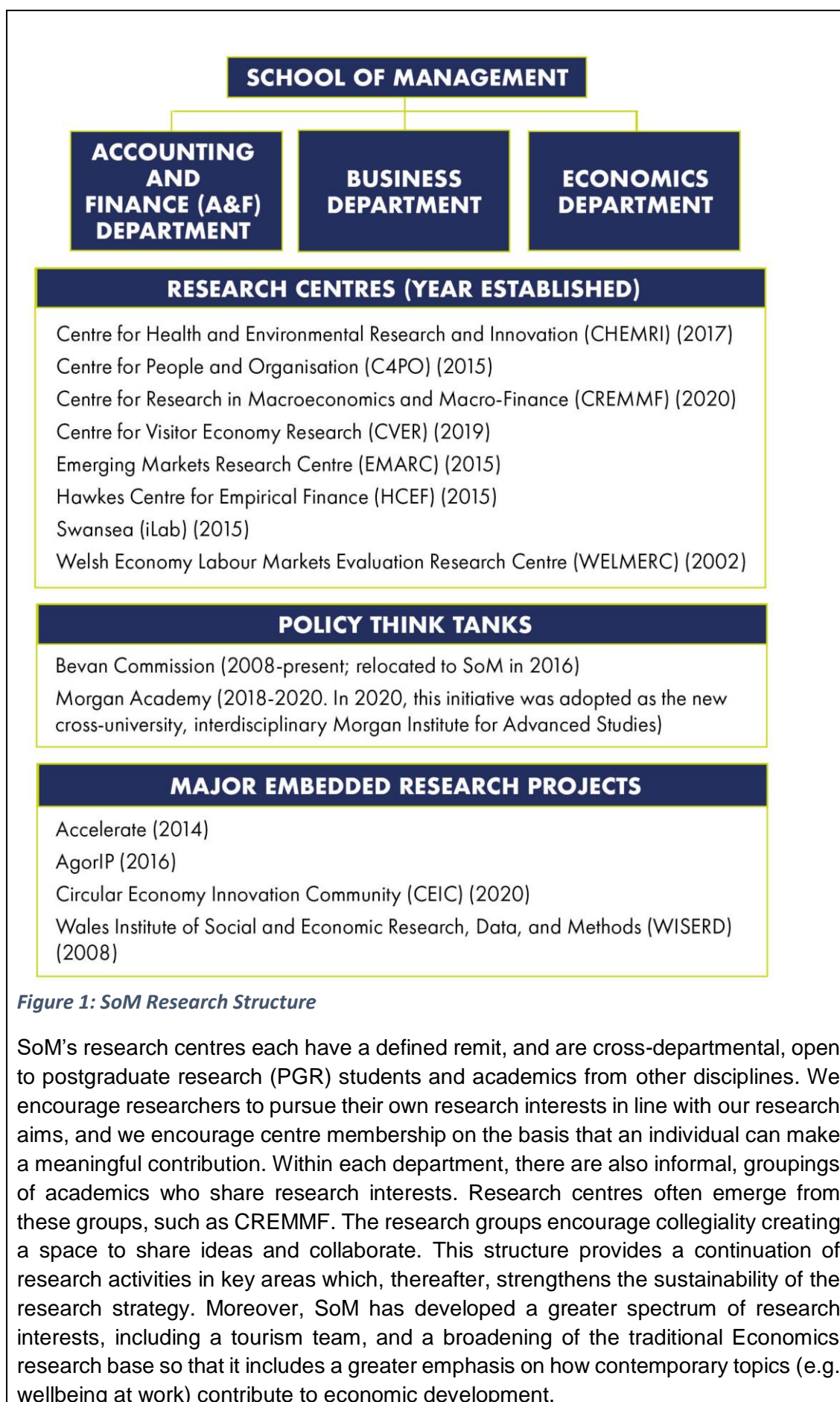


Figure 1: SoM Research Structure

SoM's research centres each have a defined remit, and are cross-departmental, open to postgraduate research (PGR) students and academics from other disciplines. We encourage researchers to pursue their own research interests in line with our research aims, and we encourage centre membership on the basis that an individual can make a meaningful contribution. Within each department, there are also informal, groupings of academics who share research interests. Research centres often emerge from these groups, such as CREMMF. The research groups encourage collegiality creating a space to share ideas and collaborate. This structure provides a continuation of research activities in key areas which, thereafter, strengthens the sustainability of the research strategy. Moreover, SoM has developed a greater spectrum of research interests, including a tourism team, and a broadening of the traditional Economics research base so that it includes a greater emphasis on how contemporary topics (e.g. wellbeing at work) contribute to economic development.

Progress since REF2014

In 2014, SoM stated its vision to be a research-led, internationally focussed centre of excellence capable of supporting and sustaining research of the highest calibre. These aspirations underlined our broad goals, as evidenced in table 1.

Goals 2014-2020	Evidence of achievement
To promote staff research activities in a strong, collegiate research environment	The number of academics with responsibility for research within the unit has remained constant during the current REF period. We have achieved notable publication success with many academics publishing in world leading journals. SoM provides a package of support measures for researchers including a generous research support allowance, protected time for research, highly skilled support teams, and world-class facilities at the Bay Campus. Furthermore, staff on other pathways (e.g. Enhanced Teaching) are given hours in their Workload Allocation Model (WAM) to undertake research. The aim being to encourage a research-driven culture within SoM that is inclusive of all academics.
To develop staff, and particularly early career researchers (ECRs), to enable them to excel	SoM introduced an ECR academic mentoring scheme to offer each ECR a point-of-contact in the senior academic team. The mentor's role is to support and encourage ECRs, giving them the confidence to maximise their research potential. The mentoring scheme runs alongside other ECR support, including targeted training sessions mapped to the Vitae framework, an annual probationary review for new academics, and a bi-annual professional development review. Over the REF period, five Category A staff were promoted to Senior Lecturer. Furthermore, several PGR students have progressed their academic careers within SoM, including one who completed his PhD in 2013 and progressed to Professor in 2019. Out of the nine ECRs submitted to REF2021, seven serve on PhD supervisory teams. In 2019, we established the SoM Research Conference, a one-day staff event to foster research culture.
To obtain research funds from a range of private-, public- and third-sector sponsors to enhance the research infrastructure and deepen engagement with business and policy makers	During this REF period, SoM has achieved a significant increase in research income, from £1.6m in REF2014 to over £7m. We have attracted funding from entities such as WG, public sector bodies, and the private sector. Engaging with these bodies has enabled us to create structures, including advisory boards, that have enabled external networking opportunities resulting in activities that are critically relevant to public and private sector objectives.

	Funded projects have included £13m+ for AgorIP (funded until 2023), which investigates the commercialisation of ideas/products by providing support for intellectual property development, and the Bevan Commission (£2.7m+) which looks to forge links between research and the healthcare sector across Wales. This contributed to an impact case study on the Welsh Blood Service which details significant efficiency improvements across Wales.
To maintain a strong and growing postgraduate research student community	During this REF period, we have increased investment in recruitment of PGR students globally. Thus, SoM PhD student numbers have grown from 25 in 2013/14 to 68 in 2019/20. Since 2014, SoM has supervised 86 PhD students to completion, implemented an annual Postgraduate Research Conference, and provided resources for students to attend national and international conferences. Many PhD students have achieved publication success, (e.g. <i>Work, Employment and Society (WE&S)</i> , <i>International Small Business Journal (ISBJ)</i> , and <i>Journal of Business Research (JoBR)</i>), with some attaining academic employment in SoM or elsewhere, (e.g. Bristol, Cardiff, Manchester, and at international universities in China, Saudi Arabia, and Turkey). Others have proceeded to work in public sector organisations such as the Office for National Statistics (ONS) and the technology industry.

Table 1: Progress since REF2014

Since 2014, SoM has raised the profile of our research through liaison with SoM marketing and media relations teams. Evidence of our commitment to this aim is highlighted through success stories such as the widely publicised research results on Russian attempts to influence election results in the US and UK through use of bots. This research appeared in the *New York Times* and brought requests from the UK Cabinet Office for further information. Research on the fitness industry by C4PO was covered by media throughout Europe and the US and featured on BBC Radio 4. CHEMRI's research on roadside pollution in Wales and implications for health management/policy was covered widely, including by bbc.co.uk. Internationally, EMaRC's work with the Indian Government resulted in coverage in national newspapers, potentially reaching millions of citizens. In 2014, SoM proposed investment in a research centre to study African, Chinese, and Indian markets. This resulted in the formation of EMaRC in 2015 to undertake research on developing and emerging economies.

Future Strategic Aims

In line with SoM's vision (see page 1), our future research strategy seeks to benefit society and the economy by producing world-leading research across broad management disciplines. We will be responsive and flexible in a changing world with

a research environment that supports dynamic, creative, and innovative ways of working. Key future goals include:

- Address areas of global concern aligning with strategic areas of importance both globally and nationally, including economic, social, and health inequalities, climate change and sustainability, and rapid advances in the digital technologies.
- Build on interdisciplinary research strengths with healthcare, engineering, and computer science, and establish new areas of interdisciplinary excellence with humanities and law.
- Further embed and promote research impact as an integral part of management research, and build on SoM relationships with policy and decision makers in the UK and overseas.
- Support our researchers at all levels to excel by continuing to provide research support resources and seeking feedback from staff and PGRs to identify gaps in this provision.
- Diversify our research income generation streams to ensure we can sustain our future research ambitions.

In 2020, the University initiated a process of faculty reorganisation which will result in a new set of strategic priorities (REF5a, section 1). Hereafter, SoM will be part of a larger faculty comprising the College of Arts and Humanities, and the Hillary Rodham-Clinton School of Law. This provides an opportunity to build and enhance our research groups and, as indicated previously, develop closer interdisciplinary collaboration.

Research impact

SoM has sought to establish an impact-driven research culture which is embedded through aims to:

- Grow local and global engagement/collaborations.
- Identify/encourage research staff to serve in strategically important funding bodies.
- Improve quality of management, leadership, and entrepreneurial skills to help drive productivity within the Welsh economy.
- Protect and exploit a pipeline of commercialisation opportunities from our IP portfolio.
- Participate in knowledge transfer/collaboration agenda.

We encourage researchers to consider how their work will provide benefit and change beyond academia, with an emphasis on industry collaboration and influence on governmental policy. They have support from a UoA-specific impact team comprised of one academic and two professional services personnel, plus a central research support team who ensure impact is a primary consideration of all new project proposals. Furthermore, we offer training on identifying, evidencing, and communicating impact, and have the support of an Impact and Engagement Officer who plays a key role in facilitating relationships with external organisations. SoM is also embedding a culture of evidencing impact from project initiation so that all benefits are captured; experience has taught us that collecting this data retrospectively is not an effective way of telling a complete impact story. This is achieved through awareness-raising activities including individual meetings with researchers at the

outset of new projects, research support presentations at departmental away days, development of evidence logs, and general communications activities.

During the current REF period, impact activities have been a key requirement for all SoM's research centres. As shown in table 2, four of our five submitted case studies to REF 2021 have emerged from research carried out within them:

Case study title	Produced by
Influencing UK and Welsh Government policies in the areas of employment and public sector pay	Welsh Economy Labour Markets Evaluation Research Centre (WELMERC)
Influencing policy and reducing barriers to citizen adoption of critical government digital services within Indian communities	Emerging Markets Research Centre (EMaRC)
Swansea Bay City Region Innovation Ecosystem: Creating the conditions for ideas to thrive in South West Wales	Swansea iLab
Challenging exploitative employment practices in the fitness industry: supporting company policy change and improved terms and conditions for personal trainers	Centre for People and Organisation (P&O)
Improving the Process Efficiency of the Welsh Blood Service and International Blood Processing: Reducing Waste and Improving Blood 'Flow'	Prof Nick Rich/Bevan Commission

Table 2: REF2021 impact case studies

SoM continues to upskill all researchers so that everyone can contribute to the impact agenda. In 2018, support staff working on impact began a programme of one-to-one meetings to identify potential work for development into impact activities. These meetings were aimed at ECRs, but other individuals were also included. We will nurture and support these embryonic projects to ensure they achieve optimum impact in coming years. SoM is also positioning impact as an activity that extends beyond REF exercises; we perceive it as a crucial element of the modern researcher's work that ensures the vitality and sustainability of research in the broadest sense.

Interdisciplinary research

The global challenges identified in our research aims (page 5) cannot be meaningfully addressed by management studies alone; however, the cross-cutting nature of management-related subjects lends itself to interdisciplinary research. Our Bay Campus location has enabled SoM researchers to develop extensive research collaborations with Engineering and the Computational Foundry, with projects such as 'Re-designing the coast: The Morphodynamics of Large Bodies of Sediment in Macrotidal Environment (MORPHINE)' and the 'Cherish DE' project which is delivering innovative digital economy work. Furthermore, our other interdisciplinary research strength is within health, as demonstrated by the City Deal (pages 24/ 25), the Pfizer

partnership (see page 24), and the SoM location of the Bevan Commission (see page 24). These projects and initiatives have resulted in recruitment of SoM staff with a medical background, including two Professorial appointments. In 2019, SoM hosted a workshop on Artificial Intelligence (AI) attended by colleagues from disciplines including physics, computer science, and mathematics which resulted in research publication and influence on policy. SoM also provides a base alongside other Welsh Universities) for WISERD, a national ESRC-funded interdisciplinary social research institute, designated by the WG as a national research centre.

Open Research

Within SoM, academics are expected to make all research outputs available through the institutional repository, Cronfa. We hold workshops for academics to ensure they understand routes to compliance, and they can use our Research Information System which feeds data to the repository. Investment in research support means SoM is also phasing in a full deposit service through our research support office. This is already increasing compliance (98.5% of UoA17 outputs submission is compliant) while also reducing the administrative burden on researchers. The research support office is also part of a University working group which is developing an Open Scholarship strategy and culture across both campuses. Within SoM, the A&F department uses pre-print Working Paper websites such as IDEAS to acquire feedback on their draft papers from the academic community. ECRs have reported finding this useful and note that their papers are accepted more readily. Since 2017, A&F papers on this site have received 6,900+ page views and 2,300 downloads.

Research integrity

Our Research Committee oversees research integrity, ensuring all academics are aware of policy requirements, ethical obligations and changes to practice. SoM operates its own Ethics Committee which follows guidance provided by the University and reports to the SoM Research Committee. All research projects must seek ethical approval from the Ethics Committee before data collection begins. SoM's procedure addresses six key principles of ethical research identified by the ESRC covering work undertaken by students and staff. There is a two-stage process: first, an ethics evaluation form for all research projects. Second, a full ethical approval form to be completed if directed by the Chair of the Ethics Committee. Furthermore, all SoM academics and PGR students involved in research are required to complete a Research Integrity training course. As of 2020, UoA17 has a 91% completion record among its research staff.

Section 2. People

Table 3 provides a breakdown of SoM staff and PhDs by department at the REF census date of 31 July 2020.

Staff and PhD students		
Department	Cat A staff FTE	PhD students
Business	25	42
Economics	15	12
A&F	12	14
TOTAL	52 (+1 from CoHHS)	68

Table 3: Breakdown of departments at census date

SoM has invested in creating a positive staff culture and in 2018 appointed a permanent full-time Staff Engagement Officer (SEO). The SEO has worked to improve the induction process for both academic and professional services staff so that new starters are effectively prepared for their role. The SEO also promotes wellbeing and has improved signposting to support services across the institution by ensuring line managers have up-to-date information on available resources.

Staffing strategy and staff development (including recruitment)

SoM is organised and managed to ensure all academics have the collegial environment, organisational support, resources and time to undertake quality research. Furthermore, the recruitment, retention and development of high-quality staff is central to the sustainability and vitality of our research environment. We recruit staff to the research pathway on the basis that applicants can evidence that they meet the University criteria for that post and have the capability to produce internationally excellent research.

Since 2014, there has been a significant increase in staff submitted to REF, from 27.9 FTE in 2014 to 53.05 FTE in 2020. SoM currently employs two Research Assistants and three postdoctoral researchers, although not eligible as Category A staff. This REF period has witnessed staff excel with publication in world-leading management-related journals (see page 27).

During the current assessment period, 11 Category A staff returned to REF2021 achieved promotion to Senior Lecturer, Associate Professor, or Professor. We strive to achieve a balance of staff at different levels of their career to ensure a pipeline of talent that will sustain our future research ambitions. We offer mentoring and guidance to staff at all levels and this has witnessed several ECRs progress from PhD to academic roles within SoM. The career demographic of SoM researchers at the census date is shown in figure 2 (note this is total staff numbers, not FTE):

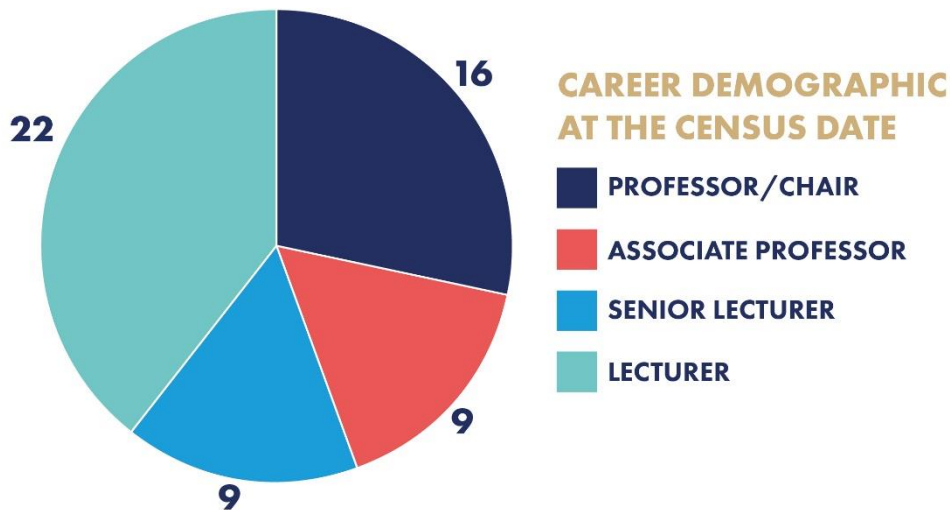


Figure 2: Career demographic at census date

The number of female staff has increased slightly from 2014 (16% to 17.4%) with six currently at Associate Professor and Professor level. The proportion of staff by ethnicity is broadly representative of 2014, with 38% of SoM’s Category A staff currently identifying as BAME; this compares to 25% across the University overall.

SoM employs two international professors on a fractional basis from the University of Texas San Antonio and Normandy Business School who specialise in the fields of management information systems (MIS) and finance respectively. These renowned scholars have developed close relationships with SoM, sharing their academic knowledge and experience with staff and students. They have hosted seminars, bringing in guest speakers, and act as supervisors for PhD students and mentors of ECR colleagues. The professor aligned to Accounting and Finance has enhanced senior expertise in this discipline within SoM. The MIS professor is a leading expert in this field, whose work regularly features in leading journal *MIS Quarterly*. Furthermore, SoM has nine Emeritus Professors, including Professor Alan Hawkes whom one of our research centres is named after. Professor Hawkes, and other Emeritus, continue to publish regularly and actively engage with SoM.

The University provides training for researchers and covers topics ranging from managing projects to research contracts, and from digital tools for researchers to developing IP. For further information, please see the institutional statement (REF5a: section 3.1). All researchers also take part in the University’s Professional Development Review and Performance Enabling process to ensure that support and training requirements are identified to deliver optimal staff performance and development.

Early Career Researchers

Furthermore, SoM adopts an active approach to ECR development. Meetings take place between ECRs and the Directors of Research (DoRs)/Heads of Department (HoDs) to discuss individual research strategy, publication, research grant application plans, and research career development. This provides an enabling environment to develop research and publication plans. ECR workloads are also reduced by 25% with limited (mainly shadowing) administrative duties for two years to encourage

productivity and publication. In 2019, we consulted with ECRs to ascertain the effectiveness of current initiatives and identify additional support requirements. This led to the creation of a new, ECR-specific mentor role within SoM to further enhance available support. For staff not previously involved in PhD supervision, there is also the opportunity to shadow experienced colleagues in the PhD viva voce, and to act as informal internal assessors on supervisory teams to gain experience. Out of the nine ECRs submitted to REF2021, seven are currently on a doctoral supervisory team. We have also seen progression of staff from the Enhanced Teaching pathway to Enhanced Research, with a notable example of a female academic who produced sufficient research output to switch pathways and achieve promotion from Lecturer to Senior Lecturer.

Several other mechanisms are in place to support SoM researchers: a WAM ensures that 50% of staff time is protected for research activity (temporarily reduced to 40% due to COVID-19), and recruitment of new staff has reduced average teaching loads. Substantial financial resources are provided to support research activities; each individual with significant responsibility for research can access an allowance of £3k per year (pro-rata for part time staff) to support conference attendance, data collection activities, research training, and other research-related costs. Research centres receive funds annually to assist in achieving their specified goals and to help deliver impact. Further funding is available through AgorIP for pump-priming research start-ups, plus we provide funds to support SoM and group-level research seminars (see Section 4), and offer facilities for visiting academics.

In line with the University policy on sabbatical leave (REF5a, section 3.1.1), and on agreement of a satisfactory research activities plan, all academics are entitled to apply for a period of leave, during which they are free from teaching and administrative duties in order to further their research. In the current REF period, one individual was granted leave to pursue the development of his impact case study with the Welsh Blood Service, and another was granted a period of research leave to pursue research interests on the housing market. This led to the publication of a paper that *Urban Studies* chose for a special edition that highlighted the most important work it had published on spatial housing economics over the past 50 years.

Research Students

We offer an established PhD programme that has seen significant growth in numbers over the assessment period. In 2013/2014, 30 students were enrolled and by 2019/2020 this increased to 68. In the current period, we introduced an MSc by Research to provide a non-traditional route into PhD programmes that prepares students for doctoral studies. From 2021, we are introducing a professional doctorate (DBA) to our executive education portfolio. In our Business Plan (and, consequently, research strategy) we have ambitious aims to increase doctoral numbers as part of our mission to expand and build capacity.

Evidence of postgraduate success is detailed in figure 3 (also see dataset REF4a) showing an increase in completions in this REF cycle compared to previous assessment exercises:

No. OF PHD COMPLETIONS

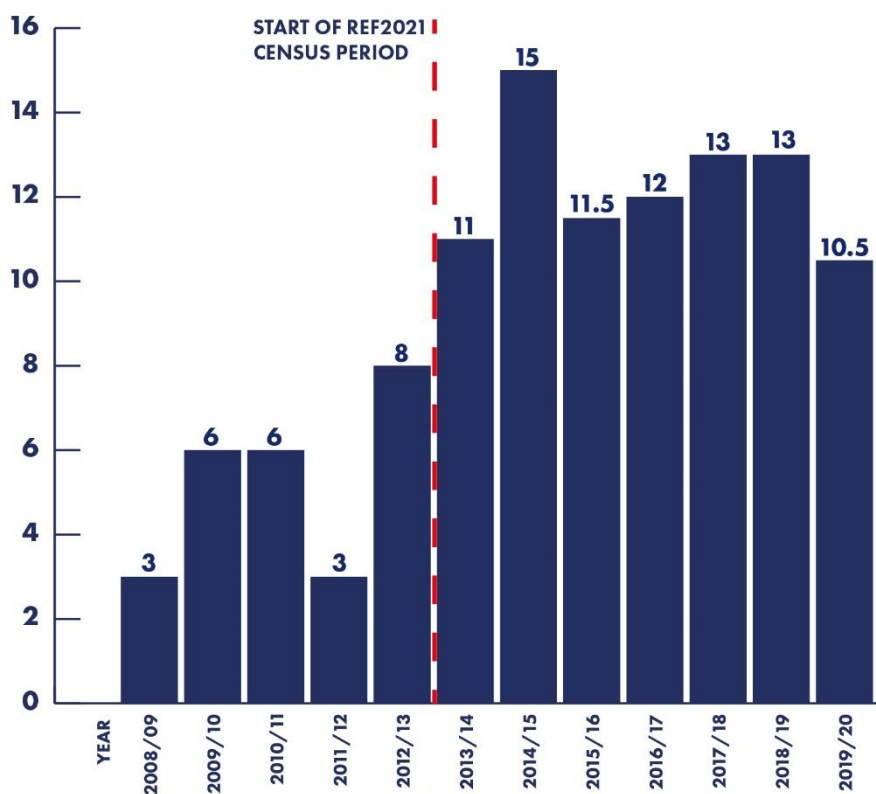


Figure 3: PhD completions

SoM attracts doctoral candidates globally from countries including China, India, and Saudi Arabia, in addition to the UK and Europe. It provides a stimulating and supportive environment for doctoral students across its disciplines, with active encouragement to transcend those discipline-based boundaries. SoM has a PGR Director and the doctoral programme receives oversight from the Research Committee. Student Administrative support is provided on a day-to-day basis through a dedicated Postgraduate Research Administrator.

The aim of the doctoral programme is to recruit high-quality candidates based on well-articulated research proposals. We only make an offer of a place when there is a good match between the proposed topic and two supervisors' research interests/expertise. Research supervisory teams are given protected time in the WAM to ensure they have adequate time to discuss and develop the thesis.

We undertake the support and supervision of doctoral students within a robust framework to ensure effective induction and engagement with both the University and SoM. Each student is supervised by staff who have the requisite training and experience. Staff new to supervision must complete a specific training programme to ensure they have the skills to carry out this role effectively. Supervisory meetings are constructed in the spirit of guidance and encouragement, but also play a vital role in ensuring the student maintains progress. We use e-Vision to formally monitor the progress of research students, a dedicated meeting record system where supervisors

and students log monthly reports. Attendance is checked monthly by the supervisory team, and every three months either a supervision or progression report is produced. The six-monthly progression reports are evaluated by both SoM's Postgraduate Progress Committee and the University Progression Board. SoM has agreed detailed progression criteria that are contained in student handbooks. SoM shares PhD candidates with supervisors in other faculties, encouraging an interdisciplinary approach to study. SoM also offers a PhD research collaboration with Hochschule der Medien Stuttgart, which uses joint supervisors drawn from both institutions. Where necessary, SoM has also used informal, third supervisors from outside the institution either to provide continuity when a supervisor leaves, or to add specialist expertise. In 2017, a Professor in SoM was included as one of the five finalists for the Times Higher Education 'Outstanding Research Supervisor of the Year Award' and won the 2019 Brunel University London 'Alumni of the Year Award', owing to his supervisory track record.

There is a comprehensive University training programme for PGRs including courses such as literature reviews, research tools, presenting at conferences, and specific sessions on different methodologies. PhD students are also able to attend postgraduate taught modules, with the Research Methods course proving popular. PhDs have access to a Postgraduate Allowance of £1,500 for the duration of their course which can be spent on specific training requirements and other research development activities. Students are invited to participate in the bi-monthly PGR Committee and/or become a PGR representative. These initiatives are designed to empower students so that they can have their voice heard in any decision-making that may affect them. In particular, the committee provides an opportunity to share best practice, contribute to the strategic direction of PGR, and raise any concerns. Students are encouraged to participate in SoM's various research seminar programmes, and present working papers on their research at an annual Postgraduate Conference. The conference also provides an opportunity to attend talks from external and internal speakers focusing on research topics such as publication and methods.

In addition, SoM is part of the ESRC-funded Wales Doctoral Training Partnership (DTP) and has two pathways in Business and Economics. This has attracted high quality applications and provides students with additional training and secondment support through the DTP. Secondments include placements at Yale University, the ONS, and WG. Joint funding has been received from the WG and large multinational companies, including British Telecom, to partially fund students. SoM has secured PhD funding for students through the external Knowledge Economy Skills Scholarships (KESS) initiative which provides opportunities for postgraduate study in collaboration with a business partner. It is supported by European Social Funds (ESF) through the WG and involves all universities in Wales, led by Bangor University. KESS projects are tailored to a research area which is of interest to the business partner, combining research and development with real-world application. Since 2018, SoM has secured seven scholarships, giving students the opportunity to work collaboratively with companies such as Cambria Tours, the Llangollen Music Festival, and homelessness charity, The Wallich. In 2018, the University began its own postgraduate scholarship scheme (SUREs) and SoM has secured funding for two projects thus far.

PhD students are provided with paid opportunities to be involved in teaching as part of their career development to enable progression to an academic career. They are provided with training and additional support via PhD supervisors. In 2018 and 2019, workshops were held with PhD students who teach to discuss support and a senior (principal fellow HEA) academic was appointed as a mentor. PhD students who teach receive regular communications regarding training and development opportunities for teaching and scholarship.

During the current REF period, many SoM PhD students have published papers and presented at conferences. Several have won 'best paper' awards, including at the 10th Innovation, Entrepreneurship, Knowledge Academy Conference, the I3E 2018, and the 4th International Conference on Organisation and Management 2019. Others have completed their studies and then continued their academic careers with great success. Significant achievements in the period include one of our alumni who is Professor in Digital Marketing at University of Bradford, another is Vice Dean of the College of Business Administration at Umm AlQura University, Saudi Arabia, and another is Associate Professor at the School of Economics and Management at Harbin University, China. Two of these three examples exemplify the achievements of our female students. Within the UK, graduates have also progressed to academia with universities including Bristol, Bradford, and Reading. Many also choose to continue their careers with SoM which means we generate a pipeline of talent for more senior roles which, in turn, helps to ensure the sustainability of our research environment.

Main panel C supplementary information: please note that no disaggregated figures are provided as we have not awarded any research-based professional doctorates.

Equality and Diversity (E&D)

SoM strives to be an inclusive and diverse place to work/study and is continually seeking to embed the principles of equality, diversity, and inclusion across all facets of the SoM. This is evidenced in our staff recruitment policy where we always seek balance in the make-up of both interview and shortlisting panels. If we are unable to create a diverse panel from expertise within SoM, we will seek to bring in appropriate and qualified individuals from other faculties. We are mindful of ensuring committees within SoM are diverse; in 2020, the research committee constituted 14 males and 10 females, and included ECR representation from each department. SoM's Ethics committee, although smaller, is evenly split in terms of its gender balance.

SoM recognises the need for, and benefit of, flexible working patterns. Requests for part-time working are duly considered and granted wherever possible, and we support remote working when required. The majority of our PGR/PhD courses are also offered on a part time basis. Most meetings and events are held within core hours (10am-4pm) and following feedback from staff with caring responsibilities, our research seminar series now finishes no later than 4pm so that everyone can attend. By providing staff with flexible hours, we are enabling them to continue to make contributions to the research output of SoM, while also ensuring a healthy work/life balance. For staff who need longer periods of sick leave, we can offer a phased return to work and, if required, revised duties for a period.

We seek to support our staff by providing permanent contracts. This not only offers our researchers security but helps us retain talent. In 2019/2020, just 1% of our Category A staff were employed on fixed-term contracts.

In 2014, we highlighted the institution's Athena SWAN award and outlined our commitment at SoM level. In 2019, SoM was awarded its own Athena SWAN bronze award as a result of our continued efforts to create a diverse and inclusive working environment by focusing on four key areas: Career Progression, Communications, Data, and Organisation and Culture. Athena SWAN within SoM is led by a self-assessment team, the importance of which is recognised in the WAM through a time allowance. This ensures academics who wish to get involved have the capacity to make meaningful contributions. The self-assessment process for Athena SWAN has raised awareness of historic issues of gender imbalance and provided impetus to address these, particularly at senior levels. The current gender balance of Category A staff within SoM is 67% male and 33% female.

To ensure the final selection of outputs in our REF submission is fair and equitable, our procedures are underpinned by the University's Code of Practice. The main principals of this code are transparency, consistency, and accountability. This has been achieved in SoM by a) ensuring outputs have been pre-assessed in a consistent manner by qualified, experienced individuals from appropriate fields, b) consulting with research staff on the final submission by circulating the draft submission and providing the opportunity for amendments as part of detailed optimisation process. In line with the University's Code of Practice and our unit Statement of Intent, the team making the decisions on the final selection of outputs all received mandatory unconscious bias training as well as targeted REF specific training on the fair and transparent selection of outputs for inclusion in the submission. The submission comprises the one best-quality output from each Category A submitted staff member with the balance made up of the best-quality outputs from the available pool of eligible outputs that includes outputs of former eligible colleagues.

Supporting staff and PGRs through COVID-19

The University responded quickly to the COVID-19 pandemic in March 2020. Critical COVID research was prioritised and a detailed process was implemented to facilitate this research without comprising the safety and wellbeing of staff. Wherever possible, staff were required to work from home so we ensured our research staff had equipment and software. This enabled many to continue their work from offsite locations and meant PhD supervision, vivas, research seminars, and other meetings continued. We extended the supply of equipment to research support staff, ensuring they could continue to provide support around essential activities such as grant applications, ethical approval, and administration. For some researchers, including PhDs, access to the SoM building was necessary for research purposes (e.g. certain datasets or software are only available on campus); in these instances, we followed University procedures to provide special access via a permit system. We also promote the University's wellbeing activities and run our own weekly online social via Zoom. Online social activities are also organised for PGRs and are done so at times to include those currently living in different time zones owing to the pandemic. We also adopted a

flexible approach towards doctoral applicants, allowing a number to defer for 12 months because of COVID restrictions.

Section 3. Income, infrastructure and facilities

SoM Research income (REF4b)

In SoM, research income generation is key to delivering the objectives outlined in Section 1 and is crucial to maintaining a vibrant research environment. Achieving research income is recognised in all research staff's key performance indicators (KPI) with an expectation to regularly bid for external income and achieve funding. A healthy and diverse income stream contributes to growing the number of ECRs and postdoctoral researchers, and can reflect SoM's growing influence in both the public sector (policy) and on industry. We have achieved 375% growth in total research income when compared to the total reported in REF2014, and 700% growth in research income within the current period; i.e. from 2014 to 2020. In 2018/19 and in 2019/20, we achieved over £2m of research income each year (see figure 4 and dataset REF4b):

RESEARCH INCOME

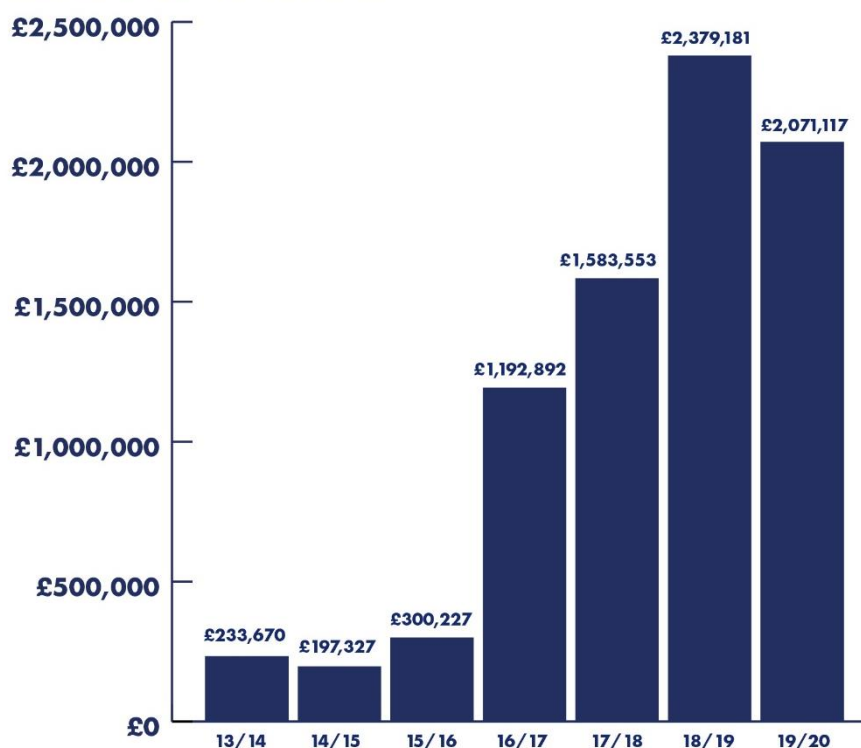


Figure 4: Research income

SoM's strategy for grant award generation has been informed by the research priorities of the ESRC, WG, UK Government, and the European Research Council. Recent grants include AgorIP (£13m) funded until 2023 by EDRF and WG and matched by Swansea University, the Bevan Commission (£2.7m) funded by the WG, WISERD (over £1m) funded by the ESRC, and Pfizer (£600k). Further grants have been awarded from funders such as the Leverhulme Trust, the Pasold Research Fund, and

the Trades Union Congress. SoM can evidence a notable increase in grant successes during this REF period (see figure 5), achieving 152 in total with notable returns in 2017/18 (57 awarded), 2018/19 (36) and 2019/2020 (31). This represents an increase of over 400% across the current REF period.

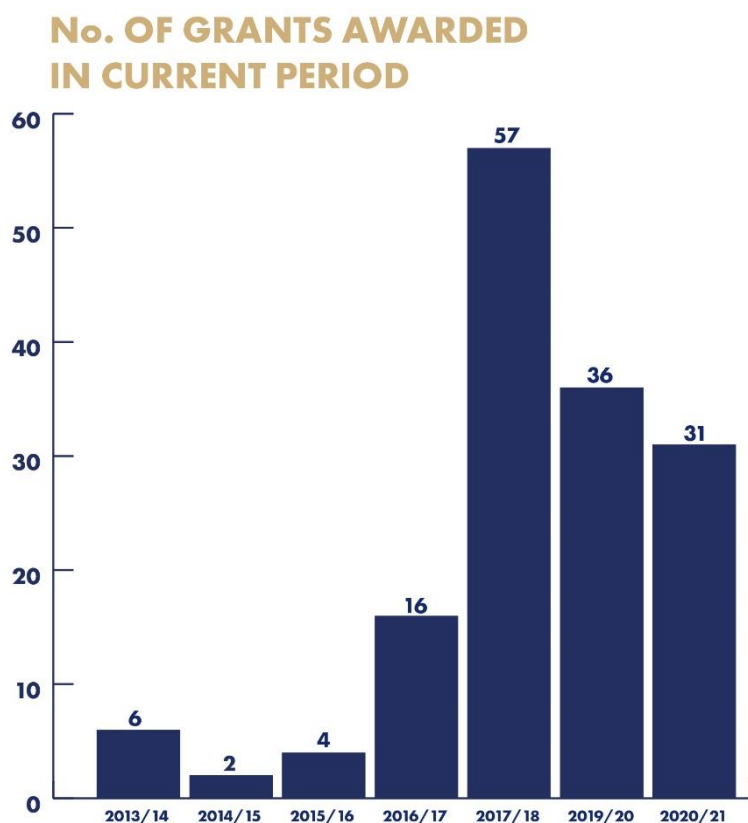


Figure 5: Grants awarded

SoM has achieved significant success in attaining funding from EU and UK government bodies, with highs of £1.4m and over £800,000 in 2018/19 and 2019/20 respectively. Like other UK HEIs, we are aware of the potential impact Brexit is likely to have on future funding streams and are actively planning to mitigate this by considering alternatives. We encourage and support researchers to apply for larger Research Council funds, but as competition for these is increasing, we are seeking to diversify income through greater use of corporate partnerships and developing IP from research. Income from industry has grown from just over £1,000 in 2017 to over £200k in 2020, and IP income generation for the University has increased from around £50,000 p/a to £500,000 p/a since AgorIP was established in 2016. This is expected to be a significant growth area for SoM, as demonstrated by the investment in the Agor project which is described in section four. Private sector funding has included investment from Pfizer to establish a Chair in Enhanced Innovation and Engagement within SoM. In addition, British Telecom has fully funded a PhD scholarship to examine the issue of information technology availability in geographically challenging locations in Wales.

SoM can evidence additional income generation through consultancy including completed projects with British Council, the Malaysian government, Colombian and

Nigerian Universities, public sector and private sector organisations, and learned societies. This work has typically involved supporting organisations through training, undertaking evaluations and providing expert advice. During the 2019/20 academic year, consultancy activities attracted income of in excess of £200K.

Strategies for generating funding and supporting staff (including impact)

SoM works with the central research office team to generate projections for both applications and awards. These are reported bi-monthly to SoM's research committee so that any potential shortfall against targets is identified early. Where this is the case, additional support is sought from HoDs to encourage researchers at every level to regularly submit for funding opportunities. As previously noted, this drive for increased bid submission is supported by the annual staff performance development review system which includes specific funding-related objectives in (KPIs), and through the provision of a professional services team. This team includes a dedicated research support office comprising three members of staff; Research Support Officer (RSO), REF Officer, and a PGR Administrator. Support with grant management and applications is available through the Bay Hub research compliance office, which is also home to a Research Development Officer whose remit is developing bids with researchers, and an Impact and Engagement Officer who plays a vital role in assisting our researchers to identify and connect with external audiences and beneficiaries, such as local businesses, policy makers, and community organisations. On a monthly basis, the RSO collects information on submitted and successful bids and reports this in a monthly e-newsletter. We also benefit from a School-level marketing function that promotes our research successes which, in turn, helps demonstrate our research capability and helps attract funding.

Operational and scholarly infrastructure

Research governance: Formal governance procedures are overseen by SoM's Research Committee which reports to SoM's Executive Committee. Following meetings, minutes are available to all SoM staff on a research support site on Teams. This ensures a culture of transparency and information sharing regarding research activity. Both postgraduate research and ethical issues are reported to this committee. The PGR Director and Chair of the Research Ethics and Governance Committee are also standing members of the Research Committee, as are the HoDs, Directors of Research Centres, the Research and Innovation Hub Manager for the Bay, Director of Learning and Teaching and the REF UoA Leads for Outputs, Impact and Environment. In addition, there are ECR members of the committee present to represent the views of this group. The RSO supports the ongoing operation of the committee. The role of the DoRs is to foster progress, review, and promote research activity and infrastructure in SoM, and to develop and implement strategies, policies, practices and governance to facilitate the delivery of SoM's research objectives. The PGR Director role is to manage postgraduate research provision and experience within SoM. The role of the Chair of the Research Ethics and Governance Committee is to oversee the ethical review process for all research activities. All individuals must complete an ethical approval application process detailing their research project and related activities which are submitted to the Ethics and Governance Committee for consideration and approval.

Research development: SoM staff have access to support from the Bay Hub research support team which assists researchers throughout the research project lifecycle and provides expertise in collaborating with external stakeholders. The Hub offers development workshops to support staff in identifying costings, the approval process for new projects, using the internal award management system, initiating the process of grant applications, and the process of obtaining funding. Regular communications are provided regarding funding opportunities. Specific sessions are held for staff on applying to funding bodies such as the British Academy or Leverhulme. This has resulted in successful grants such as funding from the British Academy to study scuba diving tourism in Turkey with collaborative partner Akdeniz University, and funding from Leverhulme to study social alienation and economic reform in India.

Scholarly support: SoM benefits from a team of four subject-specific librarians whose role is to source and collate scholarly materials at the request of staff and students. This includes ordering books either as a permanent addition to the library collection, or via a cross-institutional book loan scheme. They source journal articles if researchers are unable to access them online, and promote the use of subject-specific databases, including Scopus, to assist researchers broaden their literature searches. Training and one-to-one meetings are available to staff at all levels who want to learn more about these resources.

Equality and diversity considerations

SoM strives to achieve gender balance across its governance structure (see Section 2). Membership of the research and ethics committees is reviewed as necessary, and an emphasis placed on underrepresented groups when calls for new members are sent out. Our other operational and scholarly infrastructure has equality and diversity embedded within it by ensuring that people can access the support they need, regardless of circumstances. For example, most training sessions run by the library and the Bay Hub can also be delivered as individual meetings to ensure that nobody misses out on crucial skills and information. Furthermore, most resources are now available online which means they can be accessed from anywhere at any time. This has proven essential during the COVID-19 pandemic, allowing our researchers to continue their projects remotely with limited disruption. Staff who are less confident using online tools are supported by a School-level IT function to help with technical problems, and also the library teams for specific training needs.

Physical infrastructure

The SoM building houses the departments, think tank, and research projects noted previously in Section 1. The SoM building itself (see figure 6) was developed as part of the £450m Bay Campus investment. It provides world-class facilities with an impressive communal atrium, teaching rooms, meeting rooms, and IT equipment. SoM offers quality conferencing and event capacity which has attracted several high-profile research events, notably, an event on 'EU Funding Post-Brexit' with speakers from the WG, and several workshops hosted by EMaRC, which gained global media attention. SoM also uses these facilities to host the annual PGR Conference and other events such as the UK Regional Studies conference. They are also used for SoM's visiting scholars' seminar series that invites world-renowned scholars to deliver lectures discussing their latest research. Notable examples include sessions from Viswanath

Venkatesh from the University of Arkansas, Leah Boustan (Princeton University), Ran Abramitzky (Stanford University), and Vicky Pryce, the Chief Economic Advisor at the Centre for Economics and Business Research.



NEW SCHOOL OF MANAGEMENT BUILDING AT SWANSEA UNIVERSITY'S BAY CAMPUS

Figure 6: SoM Building

Within the new building, we have a large dedicated PGR suite, providing postgraduates with IT and kitchen facilities. On the ground floor, there is also a state-of-the-art media suite which is available for staff and students. In 2018, the EMaRC organised a live online conference which included presentations from the suite itself and other live-streamed contributions from locations as far-reaching as India.

SoM encourages internal collaboration by creating supportive conditions for researchers to meet and exchange ideas. Activities include open research seminars, 'sandpit' events, and providing shared social spaces. The new campus is planned to become a global exemplar of how a research-intensive university can work effectively with industry, helping to drive economic regeneration and value-added employment opportunities.

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

SoM encourages an environment of collaboration to produce high quality academic outputs that address societal challenges. As demonstrated by the sections below, we produce quality research that is highly cited by others, and translate that into direct impact and contribution to society.

Metric highlights

The following research performance metrics have been captured on SciVal using Scopus data between 2014-2020. It is inclusive of all 56 current Category A staff included in our UoA17 submission:

- Field Weighted Citation Impact is 2.87 – anything above '1' is above average in relation to academic discipline.
- Outputs in Top 10 Citation Percentiles: 215 (28.9%) publications in the top 10% most cited publications worldwide.
- Publication in Top Journal Percentiles: 225 (34.7%) publications in the top 10% journal by CiteScore.

Examples of our top-citing papers include: 'Factors influencing adoption of mobile banking by Jordanian bank customers: Extending UTAUT2 with trust' (2017), *International Journal of Information Management (IJIM)* with 244 Scopus cites, 'Social commerce constructs and consumer's intention to buy' (2015) in *IJIM* with 242 cites, and 'Re-examining the Unified Theory of Acceptance and Use of Technology (UTAUT): Towards a Revised Theoretical Model' (2019), *Information Systems Frontiers*, with 223 cites. One of our researchers has been included within the 2020 Highly Cited Researchers list from Clarivate. This list includes researchers who produced multiple papers ranking in the top 1% by citations for their chosen field and year of publication.

Figure 7 on collaboration has been generated from the same SciVal dataset:

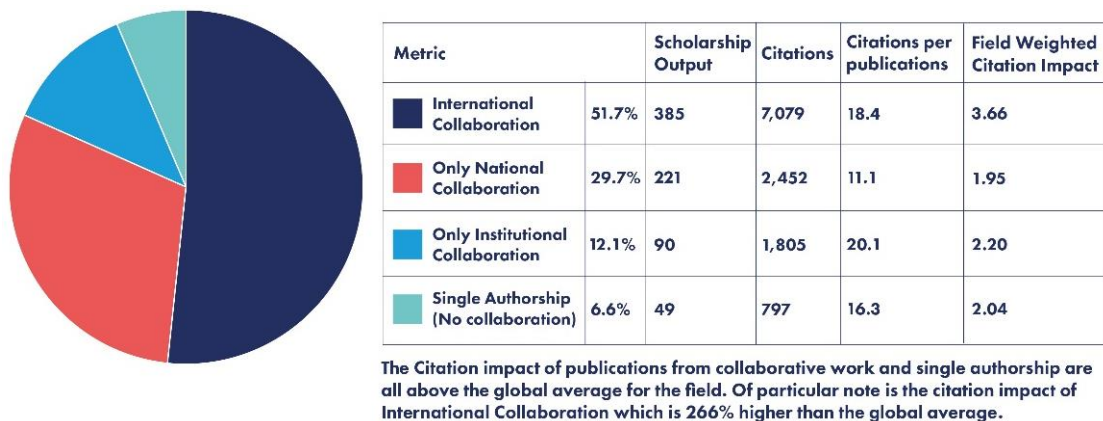


Figure 7: SciVal collaboration data

Furthermore, the Scival data tells us where in the world our academic collaborators can be found. The blue highlights on figure 8 below show our international reach:

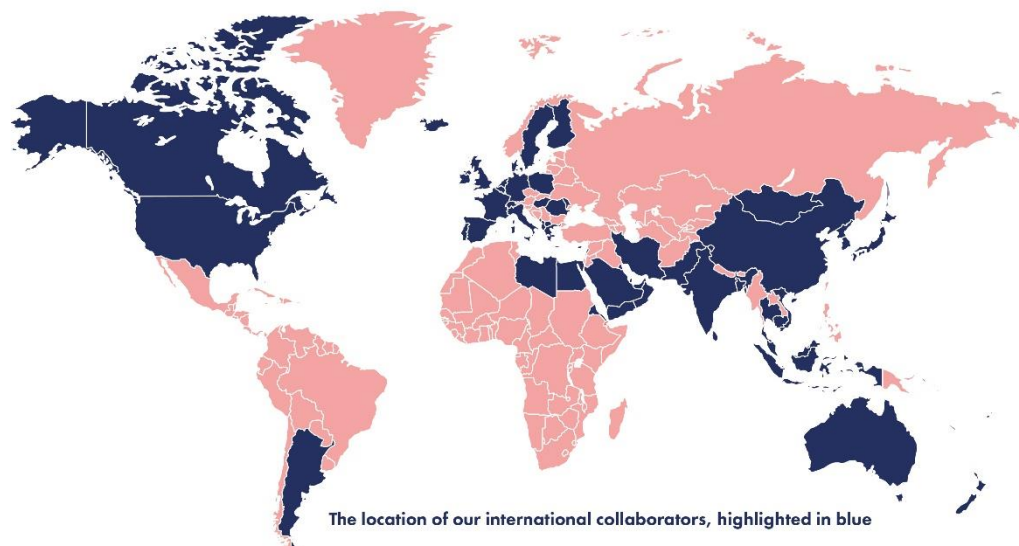


Figure 8: International collaborators

General arrangements to support collaboration

Working with others is a philosophy underpinning how SoM delivers its research strategy. SoM researchers can apply for allowances to support research visits, and the research centres receive funding to enable collaboration. As previously noted, visiting scholars are fully resourced, and research centres are encouraged to invite leading scholars to events/seminars to initiate collaborative projects.

Our research centres play a key role emphasising the cross-cutting nature of management-related research with other disciplines. Our interdisciplinary strength is in relation to health, with the SoM forging strong relationships with WG, health boards, and academics from UoA1 (Medicine), UoA3 (Allied Health Professions, Dentistry, Nursing and Pharmacy), UoA4 (Psychology), and UoA20 (Social Policy). This work has been led by iLab, CHEMRI, WISERD, and Bevan Commission. Table 4 shows collaborative highlights from the research centres:

Centre name	Highlights from period
CHEMRI	In support of our interdisciplinary strength in this area, the director of CHEMRI is an eminent genetic toxicologist. Bringing expertise into the School has helped to translate this health and environmental research into improved management strategies by informing policy change. Thanks to the work of this team, the centre's director has become an advisor to WG's clean air working groups, and an academic advisor to, and member of, the WG cross party group, A Clean Air Act for Wales.
C4PO	C4PO research into the evolution of the low fare airline model has informed the Civil Aviation Sector Social Dialogue Committee (2014), the European Parliament (2014) and Dutch Government (2015). This research project forms the basis for a new project focussed on the impact of remote air traffic control towers on work in civil aviation. Ongoing research into migrant integration in South Wales – the Hiraeth project – has received international attention with several invitations to present at seminars in the UK and Denmark.
CVER	Research from the centre has facilitated the ongoing development and implementation of the Michigan Tourism Strategic Plan on behalf of the Michigan Economic Development Corporation and the Michigan Travel Commission, a plan that continues to guide the direction of the state's \$22+ billion tourism industry. This resulted in presentation of the 'Outstanding Achievement in Michigan Tourism Award' to the CVER Director by the then-Governor Rick Snyder in recognition of contributions to the tourism industry in the state.
EMaRC	Researchers have collaborated with academics in several emerging markets and developing countries including Bangladesh, China and Fiji, to produce

	<p>research outputs on topics such as e-Government, supply chain, and sustainable tourism. Other collaborative activities have included organisation of international conferences in India, Ghana and Kuwait (IFIP Conferences), joint PhD supervision in India and Mauritius, conducting author and paper development workshops in Malaysia and at various institutions in India.</p>
Hawkes Centre for Empirical Finance	<p>In 2019, a researcher from the Hawkes Centre worked with the College of Engineering to secure EPSRC research funding of over £500,000 (£75,000 came to SoM). Engineering approached our researcher after she developed several statistical/mathematical models to help the raw reeling silk industry in China reduce financial costs. The new collaborative project is looking at developing similar models to assist with the design of sea defences.</p>
Swansea i-Lab (Innovation Lab)	<p>Research collaboration both within SoM and with external partners including Cardiff University led to the development of an Open Access Open Innovation approach to support the growth of the Knowledge Economy in Wales. This work was used by the WG and health system stakeholders, leading to the creation of ARCH (A Regional Collaboration for Health) and AgorIP/Accelerate (pan-Wales technology transfer initiatives). This brought together a wide range of policy, public sector, and academic stakeholders to address the health challenges faced by Wales. Thereafter, this contributed to the signing of Swansea Bay City Region Deal (see page 25), worth £1.3bn in public sector investment for the region.</p>
WELMERC/WISERD	<p>Research from the centre influenced the UK debate on regional public sector pay and influenced the way the ONS measures the public/private sector wage differential. WISERD is designated as a national research centre by the WG and is funded by the ESRC. It brings together researchers from universities across Wales to effect change by influencing the development of policy and practice across a range of sectors. WISERD was also successful with Swansea Medical School in bringing the £5.5m Administrative Data Research Centre (ADRC) to Swansea, another major ESRC investment with an emphasis on health and wellbeing.</p>
CREMMF	<p>Established in 2020, CREMMF has established collaborative links, including a project with the University of Dhaka, funded by the World Bank, to study monetary policy and banking sector reform in Bangladesh, and another with Fudan University (Shanghai) and Cardiff University, funded by the UK ESRC and National Natural</p>

	Science Foundation China, to examine shadow banking and the Chinese economy.
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Table 4: Collaborative highlights from research centres

SoM researchers are collaborating internally and externally outside the remit of research centres. For example, researchers from economics are working with the College of Science to develop topological data analysis tools within the business discipline which has already resulted in publication. The work drew attention in relation to Brexit voting data with commentary appearing on the UK 'Changing Europe' website and Wales Online.

Working with key research users, beneficiaries, and other audiences

AgorIP: A key finding of the SoM research underpinning the City Deal was the need to commercialise academic research for use in industry. This led to the creation of AgorIP, a government-funded initiative supporting researchers to bring their ideas to market. AgorIP does this by undertaking market research to assess the commercial viability of an idea, creating contracts between researchers and users of research/associated outputs, identifying what IP protections are required, and assigning a commercial lead to assist researchers pitch their idea to industry. In 2018, AgorIP was recognised by Spinouts UK as an exemplar organisation. To date, AgorIP has achieved £2m of private investment, £1m in research grants, and filed 119 patents. The then Welsh Finance secretary Mark Drakeford stated, “*this project will support the transformation of research with the potential for commercialisation in universities and health boards...helping drive forward new concepts and research to grow our knowledge economy, putting Wales on a global platform*”. There is also a symbiotic function between the research commercialisation function of AgorIP and SoM’s research strategy. Bringing research innovations to market is a largely unknown landscape so the academic team involved with the initiative are actively using AgorIP as a data source and ‘laboratory’ to investigate how universities can exploit IP opportunities. This has resulted in several research outputs, including publication in *Journal of Strategic Marketing*.

Bevan Commission: In 2016, Welsh health think tank the Bevan Commission, relocated to SoM from Cardiff University. Bevan works to interpret, analyse, and advise on health-related matters in Wales, and provides expert advice, informed by evidence and consensus of the authoritative opinion, to Vaughan Gething, Minister for Health and Social Services in WG. The Commission is chaired by the previous Medical Director and Chief Scientist at the UK Department for Work and Pensions. It has developed links with ARCH partners, including researchers within SoM. Research for the Welsh Blood Service has helped the WG achieve its targets regarding the accessibility to safe and available blood stocks. This led to SoM creating an online training module for the European Blood Alliance which is currently being rolled out across its members in the EU.

Fujitsu: Swansea University has a unique partnership with Fujitsu, including SoM and Medicine, building upon collaborations in fields ranging from High Performance Computing to Assisted Living Technologies. Aligned with the City Deal, Fujitsu has established a development office with 15 staff working from the Bay Campus that

deliver projects with ABMU Health Board, the University, and wider industry across the region and further afield. Fujitsu has also opened its new technology-focused Education Innovation Hub in SoM. The hub equips schools, colleges, and universities with high performance solutions to support digital skills development; it aims to enhance teaching and to unleash students' potential by putting technology at the heart of education. Furthermore, Fujitsu has sponsored a PhD with SoM in Open Innovation.

Pfizer: As part of the City Deal (see below), Swansea is seeking to become a UK hub for Life Sciences and Digital Innovation with the goal of creating interconnected ecosystems joining academic, business, health, and data spheres to cross-pollinate and sustain each other to improve patient outcomes and scale health innovation globally. Pfizer (globally and in the UK) has provided funding (£600k+) to establish a Chair in Enhanced Innovation, Engagement and Outcomes, based within SoM, with the aim of improving patient outcomes and in particular to develop the understanding and application of Value-Based healthcare (VBHC) for the life-science industries that can be scaled across global markets. This has already seen the production of journal outputs assessing the value of VBHC.

Wider contributions to the economy and society

Swansea Bay City Region City Deal: In March 2017, the then Prime Minister Theresa May visited SoM and signed the Swansea Bay City Deal, worth £1.3bn to the region. SoM researchers produced several research papers and reports that informed the development of the different strands of the Deal. Through ARCH (A Regional Collaboration for Health), the deal combined several stakeholders in the region, including the local authority areas of Swansea, Carmarthenshire, Pembrokeshire and Neath Port Talbot, joined by Abertawe Bro Morgannwg and Hywel Dda University Health Boards, Swansea University and UWTSD, and private sector partners. The investment brought is stimulating economic and technological growth across south and west Wales; in July 2019, initial funding of £18m was released by the UK and WG for the Yr Egin and Swansea City and Waterfront Digital Districts projects. In addition to the City Deal, the Morgan Academy, with WISERD, held two conferences in 2019 with 100+ participants at each including Members of Parliament and WG, senior civil servants, leaders of City Councils, academics and members of the public. These conferences were themed around the different types and impacts of City Region Deals internationally and within Wales.

Within SoM, researchers are collaborating with the Engineering faculty on water purification projects and the AgorIP project is aligned with IP capture from Engineering research. A SoM researcher is working with the Engineering research centre ESRI to assess the environmental and economic impact of new technologies that have been designed with the purpose of recovering, recycling, or converting by-products emissions from steelworks. Researchers are collaborating with the Medical School on areas such as environmental management and through projects such as HTC (Accelerate) and BUCANIER (Building Clusters and Networks in Innovation and Education Research). Accelerate is a pan-Wales university partnership of Cardiff, Swansea, UWTSD and Life Sciences Hub Wales, providing facilities, personnel, and resources to support commercialisation of life sciences and health innovation. BUCANIER supports small businesses and social enterprises across west Wales and

southwest Ireland to collaborate and with universities to enhance innovation capacity. Another SoM researcher is collaborating with the Centre for Innovative Ageing at Swansea University which seeks to provide solutions for an ageing society. Some areas have been led by SoM including methods for managing dementia care, as well as Warner technologies which transmit patient status and allow remote monitoring of patient health. A SoM researcher is the Chair of the Health Foundation: Virginia Mason Partnership, which is a £5m programme evaluating the importation of American health care practices to the UK. This collaboration seeks to understand whether lean practices, developed in Japan by Toyota and practised by the Virginia Mason medical organisation, are transferrable into the NHS.

Engaging with diverse communities and publics

Internationalisation is a key philosophy that underpins SoM's research strategy and encourages our researchers to 'think globally' and engage with a diverse range of partners. SoM can evidence scholarship with international colleagues from Africa, the Americas, Asia, Europe and Oceania/Australia that has resulted in journal articles, edited books, and guest edited special issues. SoM's reach extends beyond academia with links to international organisations such as the International Monetary Fund and the Indian and Malaysian Governments. Our outward-facing, global approach means exciting work is emerging such as the provision of research-based insights on China's transition to a market-based energy economy. SoM is also partnered by the University of Santiago de Compostela on several European Union projects. New strategic partnerships are being developed in India, Malaysia, USA, and Vietnam. Policy advice has been provided to the Malaysian Government in the area of development of entrepreneurial skills, and to the Indian Government on improving the take-up of e-Government services. Research on productivity has also been discussed at the United Nations, and research on skills feeds into policies developed in this area by the European Commission.

SoM has developed relationships with local and national businesses, including MoL Group, an international oil/gas company, who invited a SoM researcher to present their findings on longer working lives to its HR professionals in 2018. CHEMRI has worked with local organisations that engage and educate children on the issues of air pollution by developing 'education packs' using technology developed in the group by a KESS-funded PhD student. CHEMRI also worked with WAWR, a not-for-profit organisation that focuses on how technologies can be used to enhance societal wellbeing and help children improve their understanding of issues like air pollution at a community level; this led to an event at Ysgol y Bedol in 2019 where education packs showed real-time data of air pollution. In collaboration with the Morgan Academy, CHEMRI also participated in the Youth Summit on Climate Change in 2019 hosted by Wales Observatory on Human Rights of Children and Young People. The technology education packs were used in the 'Lleisiau Bach/Little Voices' approach which empowers children as researchers and advocates. This approach aims to embed human rights in children's everyday places and to enable age-inclusive co-production of change. SoM encourages its researchers to engage with both local and national audiences through public engagement events, such as Pint of Science and the Swansea Science Festival, and by using social media and blog spaces. Our researchers and research centres are active on Twitter and Facebook with one

researcher having over 2.8K followers. SoM researchers publish regularly with online accessible research magazine *The Conversation* and UK newspapers to discuss the implications of their research. An example being an article on India becoming a cashless society featuring in the Independent in 2016.

Sustainability of discipline, interdisciplinarity, responsiveness to priorities/initiatives

Our strategic research direction is linked to Welsh and UK government priorities, thereby ensuring a 'market' for SoM research outputs. We invest in support staff and training to help researchers take their findings beyond academia which helps build partnerships with beneficiaries so that we can be responsive to genuine needs. In 2018, a SoM ECR was invited by the *Journal of Rural Studies* to be part of a panel of academics that met to discuss Brexit in relation to rural Wales. This resulted in them contributing to a report on this subject which was launched at the House of Lords in December 2018.

COVID-19 research: SoM researchers have developed a significant body of published work examining the impact of COVID in several different contemporary contexts. First, a study in *IEEE Transactions on Engineering Management* exploring the adoption of COVID-19 Digital Contact Tracing Apps. Secondly, two *CEPR* working papers entitled 'COVID-19: Narrative economics, public policy and mental health' and 'Cultural and economic discrimination by the Great Leveller: The COVID-19 pandemic in the UK'. A further study was undertaken exploring impact of COVID in terms of information management research and practice in the *IJIM*. Additional studies explored the adoption of COVID on online teaching. Finally, a study in *Internet Research* examined the linkage between social distancing, cognitive dissonance, and social networking intensity as a result of COVID.

In 2020, SoM hosted a webinar entitled 'Impact of COVID-19 pandemic on information management research and practice: Transforming education, work and life' with the Symbiosis Institute of Business Management Pune, India.' The webinar featured 24 professors from 10 countries representing 20 universities globally. The event addressed over 500 participants from 29 countries. This event was reported in media sources globally. Our researchers are undertaking further research on the impact of COVID on female entrepreneurs with caring responsibilities. It is noteworthy that protocols developed within the airline industry to combat COVID drew upon a previous study from SoM researchers (Harvey and Turnbull (2009)) which examined the responses of airlines to the financial crisis.

Contributions to research base

In the current REF period, SoM has produced over 1,000 published research outputs, including 895 peer-reviewed journal articles, 20 authored books, 13 edited books, and 83 book chapters. During this REF period, SoM has published in world-leading management-related journals across the full range of business management fields including, *British Journal of Industrial Relations (BJIR)*, *British Journal of Management*, *Journal of Business Ethics (JBE)*, *MIS Quarterly*, *Organisation Studies*, *American Economic Review*, *Tourism Management*, and the *Journal of Corporate Finance*.

Several studies included in the REF submission focus around specific business areas including health care, e-government and the impact of social media on various forms of business behaviour. Healthcare studies have been published in elite journals such as *MIS Quarterly*, *BJIR*, and *International Journal of Operations and Production Management*. In terms of e-government, studies evidence the adoption of such technologies in many different contexts. A further area of focus is the impact of social media on various forms of business behaviour which is evidenced with publications in *Review of Quantitative Finance and Accounting*, *Computers in Human Behavior*, *JoBR*, *European Journal of Marketing (EJM)*, *Industrial Marketing Management*, and *JBE*.

In terms of books, staff have produced a wide range of texts including single authored books, methodology books, textbooks, and edited books. Highlights include textbooks such as *International Standards for Design and Manufacturing: Quality Management and International Best Practice*, authored books include *Health at Work*, methodology books such as *Collecting Qualitative Data Using Digital Methods*, and edited books including *Handbook of Research on Integrating Social Media into Strategic Marketing* and *Entrepreneurship and the Sustainable Development Goals*. Notably, the edited book *Social Media: The Good, the Bad, and the Ugly* has been downloaded 442k times to date.



Figure 9: Examples of books from Cat A staff

We have organised several significant conferences and workshops including the IFIP 6.11's 15th IFIP e-Business, e-Services, and e-Society (I3E) Conference in 2016. SoM also hosted a two-day workshop to celebrate Emeritus Professor Alan Hawkes 80th birthday. Professor Hawkes developed the Hawkes process that has been adopted within the business world. Speakers at this event included academics from Oxford University and ETH Zurich, and senior management from Credit Suisse. In 2017, SoM hosted the 2nd International Place Branding Association Conference. EMaRC has hosted several events during this period including a workshop on AI with a keynote from Lee Waters AM. The AI event attracted attendees such as the Government of Tamil Nadu, India, the Welsh Government, Innovate UK, Airbus, Cisco, Fujitsu, and several academic institutions including the University of Edinburgh, Indian Institute of Technology, Delhi, and Copenhagen Business School. It has also led to some exciting research developments for SoM in this growth area.

SoM researchers regularly present their research at both national (e.g. Academy of Marketing, BAM, ISBE, UKAIS) and international conferences such as Academy of Management, EGOS, Americas Conference on Information Systems and Pacific Asia Conference on Information Systems.

Wider contributions to/recognition by the research base

Three SoM researchers are Editor-In-Chief for leading business journals; *IJIM*, *Journal of Destination Marketing and Management*, and *International Journal of Entrepreneurial Behaviour and Research*. Several others hold editorial positions such as Associate Editor at *Government Information Quarterly (GIQ)*, *EJM*, *International Journal of Operations and Production Management*, and the *JoBR*.



Figure 10: Journals with Cat A staff as Editor-in-Chief

SoM researchers act as editorial board members on several well-regarded journals including *Applied Economics*, *Human Relations*, *JoBR*, *WE&S* and the *Journal of Travel Research*. Our researchers acted as referees for a variety of leading journals, including *Journal of the American Statistical Association*, *Nature*, *Journal of Economic History*, *Econometrics*, *JBE*, *Risk Analysis* and the *Annals of Tourism Research*. SoM reviewers have won several reviewing rewards for excellence, including annual best reviewer awards.

Two SoM researchers are book series editors; one for the Emerald Book Series *Contemporary Issues in Entrepreneurship Research* (nine books published in REF period) and the Springer series *Advances in Theory and Practice of Emerging Markets* (five published). The Springer series was created following an EMaRC workshop in 2017 on Emerging Markets from a Multidisciplinary Perspective. SoM researchers have guest edited many special issues in high quality journals including *International Marketing Review* (35/2) (2018), *GIQ* (36/2) (2019), *EJM* (53/6) (2019), and *Information Technology and People* (32/5) (2019).

Our researchers have been recognised with several prizes and awards. Highlights include the selection of five SoM papers by *Urban Studies* for its most significant papers on housing economics over 50 years. Just 31 papers featured on the list and the five SoM papers were authored/co-authored by SoM academics. In 2020, an article entitled 'Aesthetic labouring and the female entrepreneur: Entrepreneurship that

wouldn't chip your nails' was voted by the *ISBJ* as the best overall paper published in 2019.

Our researchers are regularly invited to give keynote speeches/addresses for both national and international events. These have included invitations from the UK Government, EU parliament, the Enterprise Education Forum in Beijing, Brazilian Education Ministry, British Academy of Management, Chinese Economic Association, and the Academy of International Business. They are regularly invited by institutions both nationally and internationally to present at research seminars, including Groningen University, United Nations University in Portugal, and the University of Verona. A SoM researcher has been elected as Chair of the prestigious IFIP (International Federation for Information Processing) Working Group 8.6, an international group concerned with the diffusion, adoption and implementation of information and communication technologies, comprised of academics and practitioners.

Our academics are regularly invited to act as external assessors on international PhD viva voce examinations. In this REF period, these have included the University of New South Wales, Auckland University of Technology, University of Malay, and the University of Valencia, among others. In a UK context, SoM academics have acted as external examiners for leading universities including Liverpool University, Brunel University, and the University of Aberdeen. Our leadership in research subject networks is demonstrated by a board trustee member of the Institute of Small Business and Entrepreneurship, a board member of Kogan Page, advisory board membership with the Faculty of Economics, Business and Tourism, University of Split in Croatia, and the Centre for Applied Research in Data Science, Indian Institute of Management, Trichy, India. SoM researchers have also acted as grant evaluators for BA/Leverhulme Small Research Grants, Horizon 2020 and ESRC grants.