

<b>Institution: Bangor University (10007857)</b>
<b>Unit of Assessment: Business and Management Studies</b>
<p><b>1. Unit context and structure, research and impact strategy</b></p> <p><b>1.1. Unit context and structure</b></p> <p>Bangor Business School (BBS hereafter) was established in 2006, evolving from the School for Business and Regional Development which was created in 1999. This development reflected the widening research profile of the staff and the University's mandate to establish a broader-based business school. BBS has developed an excellent international research profile as evidenced by prior REF results (ranked 26<sup>th</sup> research intensity-weighted GPA for REF2014). BBS' strategy is to continue to build on this success, being at the forefront for research and training in the areas of accounting, banking, and finance in the UK. BBS is a top 50 institution in the world for Banking research (RePEc, 2020).</p> <p>BBS sits within the College of Arts, Humanities, and Business, which is committed to the sustainability of research and impact across the disciplines as specified in a College-wide Research and Impact Strategy document. The aim is to enable individual excellence and collaborative innovation with a continued focus on key strengths and emerging areas of expertise within the College of Arts, Humanities, and Business. The College provides a central support system including a dedicated research support officer, and supports research, impact, and postgraduate researchers with three College Directors for these areas who lead a College Research and Impact committee that meets regularly and includes representatives from each School. BBS has structures that mirror those of the College and a research and impact working group that includes the postgraduate research student lead, whose discussions and actions feed into the School Executive and the College research and impact committee.</p> <p>BBS research interests are organised around three <b>interdisciplinary themes</b> (each described more fully below), in which all members of the unit are positioned as follows, with theme leaders marked in bold:</p> <p><b>Methodological Advances &amp; Innovations:</b> Alsakka, <b>Ashton</b>, O ap Gwilym, Hanna, Hassan, Karami, Mantovan, Shiu, Vasilakis, J Williams, Nikolopoulos.</p> <p><b>Communications</b> – with associated Research Clusters <u>Corporate Communications</u> and <u>Consumer Communications</u>: O ap Gwilym, Hanna, <b>Hassan</b>, Hemmings, Hodgkinson, Jaafar, <b>Merkl-Davies</b>, Parry, Rogers, Shiu, G Williams, J Williams.</p> <p><b>Regulations &amp; Governance</b> – with associated Research Clusters <u>Credit &amp; Uncertainty</u> and <u>Financial Services: Competition, Conduct &amp; Consumer Protection</u>: Altunbaş, Alsakka, Ashton, Carbo-Valverde, <b>O ap Gwilym</b>, R ap Gwilym, Hassan, Hemmings, Hodgkinson, Jaafar, Mantovan, Orujov, Reghezza, Rogers, Shiu, Vasilakis, G Williams, <b>J Williams</b>.</p> <p>The first of these themes is empirical and the other two substantive. Each substantive theme has two specialist <b>clusters</b> that showcase discipline-specific research areas within the themes. Together, our research themes and clusters represent long-standing areas of interest and excellence in BBS, with each cluster maintaining a focused strategy that is reviewed and updated annually. Our themes are represented broadly and allow for evolution across time in topics of interest to staff and of importance to society. Further, they allow flexibility in responding to changes regarding industry practices and policy developments. Our themes and clusters are used, at the most basic level, as a means to exchange best practice and discuss research ideas for staff and PhD students. They also have strategic importance by providing research infrastructure to enable the mentoring of more junior colleagues, and importantly, in ensuring (a) a supportive research environment for colleagues and PhD students through association with a cluster, and (b) effectively setting and monitoring of research and impact targets.</p>

The empirical theme **Methodological advances and innovations** reflects a focus on developing methodological tools and advancing analytical models. Many of the analytical advancements have been incorporated into company processes. Forecasting research ([Nikolopoulos](#)) has impacted company processes at Uber, Bosch, Siemens, Amazon, and Roberts of Port Dinorwic. This theme encompasses social science and economic research, utilising quantitative methods in the following topics: **Performance management and optimization** includes advancing empirical methods of forecasting, and extending efficiency model operationalisations, such as development of the Theta method and comparing this method to other forecasting methods ([Nikolopoulos](#)); and studying the consequences of unobserved heterogeneity when employing different econometric methods ([Vasilakis](#)). **Innovative modelling** focuses on new methods and linking previously unrelated topics into new models; for instance, [Ashton](#) developed a new tractable method for estimating hedonic costs. **Psychometrics and scale development** includes developing new scales, developing short-forms of existing scales, and cross-cultural evaluations of established scales ([Hanna](#), [Hassan](#), [Shiu](#)).

The first of the substantive themes, **Communications**, is an interdisciplinary topic that draws primarily on literature bases in accounting, marketing, psychology, and media studies. It incorporates financial communications as well as consumers' responses to marketing and public policy communications. Research on financial and corporate social responsibility communications has focused on understanding how companies communicate accounting information to external audiences to influence their perceptions and inform the decisions of shareholders and stakeholders ([Hemmings](#), [Hodgkinson](#), [Jaafar](#), [Merkl-Davies](#), [G Williams](#)), and on how financial news influences the stock and derivatives markets ([J Williams](#), [O ap Gwilym](#)). Other work focuses on consumers and how governments can effectively communicate health risks (such as from smoking) to consumers using persuasion and information processing approaches ([Hassan](#), [Parry](#), [Shiu](#)). Research interests are represented through two research clusters as detailed below:

#### **Consumers and Communications Cluster**

The researchers in the Consumers and Communications cluster led by [Hassan](#) are broadly focused on understanding consumers in diverse contexts and cultures, investigating the impact of business and governmental strategies mainly in the communications area. The research examines how consumer perceptions and judgments are formed and influence the decision-making process across consumption contexts, principally related to health and sustainability. The research focus spans for-profit and non-profit contexts as well as having a special interest in examinations across national cultures. The cluster's research has impacted policy debates around the introduction of health warnings on alcohol products in Ireland.

#### **Corporate Communication Cluster**

Members of the Corporate Communication cluster led by [Merkl-Davies](#) explore the different means (i.e. social media and financial statements) and aspects of corporate communication. Recent research by members of this cluster demonstrates the importance and persuasive impact of clear and effective communication in remuneration disclosures. They further evidenced that impression management within narrative disclosures, and earnings management in financial reporting, are often employed as a means of influencing key stakeholders' perceptions.

The second substantive theme, **Regulations and Governance**, covers a wide spectrum of disciplines providing coherence for many researchers in this unit. The vast majority of the research in this broad area is concerned with the *evaluation of regulations or policies* that are imposed by regulators or governing bodies and governments (e.g., short-selling, securities laws, credit ratings, price quotation mechanisms, inflation-targeting regimes, and taxation). Researchers in this group are actively working with governments, regulators, policy makers, and watchdogs, including the: European Central Bank ([Altunbaş](#), [Carbo-Valverde](#), [Reghezza](#)); Directorate General for Competition (European Commission, [Carbo-Valverde](#)); Bank for International Settlements ([Altunbaş](#)); Welsh Government ([R ap Gwilym](#), [Rogers](#)); UK

Competition and Markets Authority ([Ashton](#)) and the UK Financial Conduct Authority ([Ashton](#)). Some research also pertains to the formation of regulations such as the potential introduction of health warning labels on alcohol products and is feeding into policy documents by bodies such as the International Alliance for Responsible Drinking and the World Health Organisation ([Hassan, Shiu](#)). Within this theme, relevant interdisciplinary research examines *political and social issues that link to regulations and governance*. Examples of interdisciplinary research extend across diverse contexts: such as political and familial patronage and linkage to firm structure and risk-taking ([J Williams](#)); how innovation policies provoke social change ([Vasilakis](#)); birthplace diversity effects and economic growth ([Vasilakis](#)); and the effects of volunteering on the gender wage gap and productivity ([Mantovan](#)). [Mantovan's](#) research formed part of the systematic review undertaken by the Scottish Government and helped to inform the development of the 2019 'Volunteering for All: national framework' for Scotland. The two research clusters in this Regulations and Governance theme are:

#### **Credit and Uncertainty Cluster**

This research cluster, led by [O ap Gwilym](#), focuses on economic modelling of credit and uncertainty. The group builds on long-standing excellent research in the School of more than 10 years. The cluster incorporates staff with research interests in areas such as default probability, structural estimation, uncertainties and beliefs, and dynamical methods in macroeconomics.

#### **Financial Services: Competition, Conduct & Consumer Protection Cluster**

This research cluster led by [J Williams](#) builds upon Bangor's established and respected reputation as a world leader in Banking and Finance research to tackle several key issues in financial regulation, competition, and corporate governance in banking. Research work has also examined pricing in financial markets and assessed firm conduct issues with a focus on consumer protection.

### **1.2 Research strategy**

**BBS' REF2014 objectives** were to **focus on financial studies research and deepen our research profile in Business and Management areas**. In consequence, our research profile in the financial studies area remains strong, with similar proportions of staff in the financial studies (around 75%) of total staff submitted to REF2014 and REF2021 classified as working in this area. Although the number of staff submitted in the business and management area has slightly decreased (7 Cat A for REF2014 and 6 Cat A for REF2021), the proportion of outputs in this area has increased (25% of the outputs for REF2021 in contrast to 20% of the outputs for REF2014), reflecting our success in this area.

Building on our successful REF2014 approach through **internal and external collaboration**, we have again sought a balanced approach to research collaboration during the current REF period. In terms of external collaboration, 44% of our co-authored papers submitted for REF2021 include at least one international (non-UK) co-author. There is also a strong culture of internal collaboration which is encouraged and arises through the internal collegiate ethos of BBS, as well as the mentoring arrangements within research clusters.

**BBS's current research and impact strategy** has been in place since 2015. The School's Directors of Research and Impact are tasked with developing and maintaining a focus on the implementation of the strategy. **BBS' strategic goals** are to build and maintain a strong research environment, maintain a world-renowned research profile and generate significant impact outside academia. We do so by focusing research efforts around the principles of collaboration and the establishment of core research strengths, thereby building on and capitalising on our prior successful approach. Research themes and clusters underpin the collaboration process and allow research focus and strength to be harnessed, communicated, and built upon. This approach has borne fruit during this REF period with a number of strong research partnerships (e.g., [Alsakka](#) and [O ap Gwilym](#); [Hassan](#) and [Shiu](#); [Ashton](#) and [Jaafar](#), [Nikolopoulos](#) and [Mitchelmore](#)). Some of these research partnerships plus mentoring

arrangements (see Section 2.2) have enabled staff (Karami, Mitchelmore and Parry) who were not previously research active in the management and marketing area to become research active during this REF period.

**School-level initiatives** support the strategic direction of the themes and clusters. For example, through (a) conference/workshop grants allowing researchers to host a conference; (b) data collection grants which allow staff money to collect data for publications; (c) writing groups, and (d) research events which are held each semester. Staff also contribute ideas to enhance the research culture through our Research and Impact Committee which meets regularly throughout the academic year. As part of the BBS research and impact strategy, beyond a focus on outputs, staff are encouraged and expected to focus on their development in at least one aspect across the areas of impact, esteem and leadership, and/or funding. Within each research cluster, staff have developed specific plans for activities in these areas and collaborate to achieve cluster level goals. Key activities and targets have been given for each of these areas. Esteem and leadership goals (e.g., PhD supervision, contributions to learned societies, journal editorial roles, organisation of international conferences/workshops) are the focus of most staff within clusters, with Financial Services: Competition, Conduct & Consumer Protection focusing on impact due to established links with regulators and policy-makers. Given the high percentage of senior staff in BBS, increasing PhD numbers as part of the Esteem and leadership goals was a key target during the early period of the REF-cycle. A large number of **BBS funded scholarships** were provided as part of a drive to increase PhD numbers and create an active PhD support network. There was therefore a large increase (almost 70%) in PhD completions for this REF period in comparison to REF2014 figures. **Grant income increased** in comparison to REF2014 figures by an average of 15% per capita per annum.

Focusing on **senior staff**, during this REF period the strategy was amended to actively encourage submissions and potential successes, particularly by senior staff, at the world-leading (4\*) level. This came about from overall staff's desire to increase the research reputation of BBS. Thus, senior staff were tasked to target at least one acceptance at 4\* level as part of their research plan across each 5-year period. From internal scoring of the articles submitted to REF2021, 66.6% of the (Cat A) professoriate have met this target (at 58% if using the ABS list).

**BBS objectives for the future** are to build on our past and current successes, and further extend them by following a **similar strategy** over the next 5 years. In particular, we aim to strengthen our research themes, and further increase our interdisciplinary research focus and impact as well as grant capture. Since February 2020, a 'grant buddies' scheme has been initiated to encourage and support researchers' efforts in targeting research council funding grants and fellowships. Our targets are to **increase grant capture overall by 25%** with a specific focus on UKRI funding, and to **increase the number of world-leading outputs by 33%** to increase our national and international research reputation. We will maintain our focus on contributing to the academic community through roles in learned societies and editorships as well as maintain high standards of PhD student satisfaction and completions.

We will reaffirm our aim to deepen our research profile in the Business and Management areas by **increasing the number of research active staff in management and marketing**, whilst maintaining a strong focus in financial studies. An additional research theme is already under development to reflect a growing interest in **sustainability**. Our focus on sustainability emerges from research discussions with staff across the University and within BBS. Many staff are responding to the call for research which addresses the challenges highlighted in the 17 UN Sustainable Development Goals (UN SDG). Our goal is to **establish a Research Centre for Sustainability**, with interdisciplinary links to research strengths across the University, but with BBS assuming a central driving force to deliver world leading interdisciplinary research and impact across the globe. Our ambition is justified as we have particular strength regarding the UN SDG 12 of Responsible Consumption and Production (7th in the World for this goal according to the Times Higher Impact rankings 2020), with also strength on UN SDG 5 Gender Equality (ranked 59<sup>th</sup> in the world).



### 1.3 Engagement and Impact strategy

**Engagement is consistently embedded as part of research activity** and all staff are encouraged and expected to develop links with end users as part of the research process. Examples of these include involvement in an academic panel of the Competition and Markets Authority and work with the European Central Bank but there are many examples across BBS (see more details in section 4.1 on working with end users and section 3.1 on income). Our research and impact strategy **generated six strong contending Impact Cases for REF2021** including work with the Welsh Government and the Bank for International Settlements. Five of the contending impact cases were from researchers working in the regulations and governance theme with one contending impact case from the methodological advances & innovations theme. Other examples of engagement and impact relate to work on devolved tax for Wales and on work related to European financial institutions. For instance, several BBS staff ([Hodgkinson, R. ap Gwilym, G. Williams](#)) were successful in a competitive procurement exercise, and provided academic expert input in the form of an independent scrutiny and assurance examination of the devolved tax forecast for Wales to the Welsh Government in both fiscal years 2018/19 and 2019/20. On the European front, the impact of [Altunbaş](#)' research on the formulation of public policy in the banking sector has been ongoing since 2014 and was facilitated by [Altunbaş](#)' interaction with policymakers at the Bank of International Settlement (BIS) and the European Central Bank (ECB) from the outset. Over the current REF period, [Altunbaş](#) was formally engaged as a collaborative researcher at these two regulatory institutions i.e. the ECB (2014-Present) and the BIS (2017-Present).

BBS' research and impact strategy has emphasised the importance of utilising funding from **Bangor's ESRC Impact Acceleration Account**. Five staff have secured support (totalling more than GBP45,000) for the development of current or future impact as well as engagement with end users. These grants cover various topics including national and regional economic planning, cultivating and supporting innovation and development in non-profit and local enterprises.

BBS researchers are strongly encouraged and supported to engage in the widest possible **dissemination of research findings** including developing impact stories. To support this process, BBS has established a monthly Research and Impact Blog, with a focus on disseminating current research ideas in a concise way. Other means of dissemination to a broad audience have also been undertaken; for instance, BBS researchers publish regularly in professional trade magazines/publications such as the *Chartered Banker* ([Ashton, O ap Gwilym, R ap Gwilym, Reghezza, J Willaims](#)) and *Journal of Trading Standards* ([Hassan](#)) as well as *The Conversation* ([Carbo-Valverde, R ap Gwilym, Mantovan](#)), and in other media outlets ([Ashton, Parry, G Williams](#)) including BBC News, Radio Cymru, and S4C. Additional examples of press coverage include reports of BBS research findings in Bloomberg, The Financial Times, the Sunday Times, and the New Statesmen, amongst others.

**Moving towards the next REF**, BBS will seek to actively foster and develop broader team focused engagement to champion and capture impact that has arisen from the work of researchers across the academic career spectrum. Our research and impact strategy has been enhanced to include a stronger focus on engagement and impact. Each research theme has developed and begun implementing an engagement plan which aims to ensure that impact-generating activities are by default embedded in the research work across all staff within BBS.

### 1.4. Open access, data management, and ethics

As outlined in REF5A, research in these areas is supported at University level with mechanisms to ensure research integrity through the University Ethics committee, as well as Codes of Practice and Policies covering Research Ethics, Academic Integrity in Research and Research Data Management. Each School has a dedicated Research Ethics Officer who is the main point of contact for queries and referral of proposals to the College Ethics Committee. Publication is

undertaken in line with the University Open Access Policy. Staff have been active in complying with Open Access requirements and BBS has achieved over 90% compliance for all publications that are subject to the policy, further no non-compliant outputs are included in the REF2021 submission. Staff are reminded of the need to comply with Open Access rules at staff meetings, with notices at strategic locations around BBS providing a visual reminder of the need to, with step-by-step guide on how to, ensure compliance.

## 2. People

### 2.1 Staffing Strategy

**Recruitment** of staff was deliberately targeted towards the relatively early part of the REF2021 period. Hemmings and Orujov were recruited as PhD students and successfully completed their PhD during this REF period. This recruitment policy was a strategic decision so as to achieve a balance of seniority across staff levels. The success of a number of previous senior appointments during the REF2014 period had led to an imbalance with a high number (13) of professorial staff at the start of the REF2021 period. Resultantly, appointments at professorial level during this REF period have arisen solely from internal promotions.

Recruitment of new staff during the REF2021 period was also targeted towards building strength and capacity across both our two core themes (Communications, and Regulations & Governance). Further, **promotions** were also granted during the REF2021 period highlighting the successful development of staff (Reader to Professor: Ashton, Hassan, Merkl-Davies; Senior Lecturer to Professor: Alsakka, Jaafar; Lecturer to Senior Lecturer: R ap Gwilym, Mantovan, Mitchelmore, Parry, Vasilakis).

In terms of **staff turnover**, four professors have retired, moved to positions out with academia, or to managerial-focused academic positions, with an additional two professors having moved to professorships at other prestigious institutions (Birmingham, Durham). Five lecturers left to positions at highly ranked institutions (Birmingham, Bath, Liverpool) including three to promoted positions.

**Internal promotions** were the main mechanism for rewarding staff. The fact that 10 staff members were promoted during the current REF period reflects the beneficial impact and success of our research and impact strategy and support mechanisms. As staff are able to select 'wider contribution' as the main criterion for promotion, those who are making a significant contribution regarding engagement and impact can find recognition for their achievements through this route in the internal promotions system. An additional incentive was provided in the early part of the REF period with a double research allowance for one year given to staff who had gained manuscript acceptances that are internally graded as internationally excellent.

BBS has developed a clear approach to **succession planning**. The development of our themes and clusters supports a distributive leadership model, which mitigates the risk of over-dependence on a small number of senior staff. Further, the Director of Research and the Director of Impact and Engagement work closely together to actively promote and support the research and impact agenda within BBS. This model provides BBS with two senior staff, who have clearly defined roles, but work together as a team. The University also has an **extensive research leadership training programme**, which staff can benefit from. This programme feeds into our approach to succession planning and staff are identified through the annual academic performance development review (PDR) process for this training. Attendees are given workload allocation time to support their participation in this training.

## 2.2 Staff Development Strategy

All BBS research staff receive an allocated research time equivalent to 40% of workload. Early career staff are afforded opportunities for developing their research careers by further reductions in workload through lower administrative and teaching responsibilities. All new staff attend the University's 'Researcher Induction' training which is held twice a year.

**Mentoring** is a core element within our research and impact strategy. Research clusters implement their mentoring arrangements across three levels. Firstly, at the highest level there are partnerships which involve close collaborations on research and impact activities such as co-authoring, grant capture, and engagement activities. Secondly, mentoring takes place through discussions between senior colleagues and more junior staff, including writing groups where challenges involved in current publication endeavours are discussed. Finally, the third level entitled 'learning from each other' is an encouragement for all staff to be open, to make time to discuss research and impact activities with colleagues in informal settings, and to share knowledge, skills, best practices, and insights. Examples of such interactions are frequent seen in our 'brown-bag' seminars held in each semester, as well as through staff paper pitches that solicit critical yet supportive peer feedback on project ideas at the early stage of development. Clusters also meet formally at least once per semester to share experiences, challenges and insights. During COVID-19 restrictions seminars have continued virtually, as have research and impact staff meetings and informal gatherings (such as virtual coffee time catch-ups).

**Examples of successful mentoring** during this REF2021 period include: Alsakka (mentored by O ap Gwilym); Parry (mentored by Hassan and Shiu); Mitchelmore (mentored by Nikolopoulos) who were all promoted. In addition to training on a wide range of research and impact related issues provided by the University, BBS staff can gain **access to specialised training** at any career stage. Training is provided at BBS by outside organisations on topics relevant to numerous staff (e.g., Thomson Reuters on Understanding the Merger & Acquisitions; Consultants from Standard & Poor, on Global Trends in the Financial sector). Staff can also obtain funding to attend specific methods training that underpins their research (e.g., Hemmings attended a Workshop on Textual Analysis Methods in Accounting and Finance; Jaafar attended an Advanced Data Analysis Using Stata training).

The University also has a **University-wide mentoring scheme** that staff can benefit from in addition to School/College support. The BBS strategy on staff development builds on our long-standing approach (since RAE2001) discussed in REF2014 "of encouraging staff development through collaborative research and co-authorship, especially for early career researchers." During this current REF period we have also sought to develop the research careers of staff who were not entered into REF2014, but were in employment at BBS. As further evidence of our **commitment to the development of ECRs**, altogether 5 people completed their PhDs during the current REF period with their first academic post at BBS. These ECRs did not have publications prior to their appointment but have benefited from BBS' staff development programme and successfully meet the requirement for inclusion in REF2021, at BBS or other UK universities.

**Impact-related training** includes seminars within BBS to share knowledge and experience of how research can lead to successful impact. These are now part and parcel of our research seminar series and range from discussing research approaches that might have a greater chance of engendering impact, to specific examples from researchers who had a REF2014 Impact Case or were working on an impact case for REF2021. Examples of these include invited external speakers with senior staff who have extensive engagement and impact experience from Cornell University, the University of Bristol and the University of Liverpool. Further, staff are supported to attend practitioner conferences (recent examples from 2018/19 include Caribbean Association of Banks Annual Conference, Federation of Small Businesses Strategy Board, and visits to the Bank for International Settlements and the European Central Bank). The research and impact blog started in 2019 has been fully supported by BBS staff in disseminating research ideas and findings to the widest possible audience. Furthermore, training events were regularly

delivered for ECRs with a focus on impact, including discussing basics such as what impact is in REF terms and how to develop, sustain and to write an impact case. Regular University **training events** are held on accessing research funding information and outlining the support available to researchers for preparing funding applications. More widely, PhD students and staff have benefited from in-house and specialist consultant-lead training on knowledge transfer, how to engage with end users, working with policy-makers, patent protection and a vast number of research and impact related topics for staff across career stages.

The College has a **study leave policy** that is open to all staff who have been in continuous employment, normally for a minimum period of three years. Several staff in the School who have had higher administrative duties have benefited from a one-year study leave during the current REF period ([Merkl-Davies](#), [Jaafar](#), [Hodgkinson](#), and two members of staff who retired). Study leave can be used to further a wide range of research-related goals including engagement and impact.

### 2.3 Research Students

BBS has been part of the **ESRC Wales Doctoral Training Centre for Economics** since 2011. As well as remaining in the Economics pathway, BBS is now also a member of the ESRC pathway for **Management and Business** (since 2017) of the Wales Doctoral Training Partnership. The quality of research training and supervision of BBS postgraduate research students has been underpinned by the establishment of an MSc and PGCert in Research Methodology as part of our ESRC pathway in Management and Business (1+3 or 3). General training for all PhD students is also provided by the University Doctoral School and College-level PhD workshops. The College **Postgraduate Travel Grant scheme** supports travel costs for conference participation and primary research activities, including field trips. For example, ten PhD students benefited from attending a fully-funded cross-institution doctoral conference in 2019 ran by the ESRC pathway institutions at Cardiff University. BBS does not offer research-based professional doctorates.

In total **17 fully funded BBS studentships** have been awarded in this REF period. These studentships are given to highly capable individuals with research interests that closely align with BBS themes and clusters. Staff outline research projects to be pursued within the advertised PhD programmes, and PhD candidates are recruited via a rigorous selection process. PhD students are embedded within our themes and clusters and benefit from activities and support from staff generally as well as their supervisors, including co-authorship and mentoring on teaching-related duties. Many students adopt a paper style for their theses, and this feeds directly into publication success: 39 journal articles have resulted from PhD thesis work undertaken during this REF period. Of these publications, two articles were published in 4\* journals, and 30 were published in 3\* journals (based on the ABS 2018 AJG list). This is exceptional and shows the success of our PhD programme, and the themes and clusters strategy, in fostering a successful next generation of academics. Furthermore, students are encouraged to apply for **secondment** opportunities. [Reghezza](#), for instance, was successful in gaining a 4-month secondment at the European Central Bank during 2018.

Within BBS, our **PGCert in Research Methodology** was introduced in 2018 and builds on our already established BBS doctoral training programme (that ran each week across both semesters) and our BBS weekly research colloquium. The **PGCert in Research Methodology is open to all BBS PhD students**, not only those funded by the ESRC or those on a BBS studentship. The PGCert provides core training on research approaches and methods (incorporating quantitative and qualitative approaches), as well as a specialist module on advanced financial analysis methods. Students also acquire skills in academic writing and communication through the PGCert assessments and presentations, and through the research colloquium that runs in BBS for all PhD students. To date five students have successfully completed the PGCert, all of them during the first year of their PhD study. More generally, postgraduate research students have excellent facilities, including an open plan doctoral student



office and networked access to a wide array of financial and business data sources. Each student is supported by a **BBS personal tutor** as well as having full access to University's Student Support Services covering money matters, counselling, health and well-being, and disability. All research students have two supervisors and it is ensured that at least one of these has previous experience of supervising to completion. Research students also attend the postgraduate staff-student liaison committee to voice any relevant concerns. Such support has enabled consistently high scores for research degree satisfaction in PRES (2015, 2017, 2018, 2019, 2020) with an average of over 86% satisfaction.

Students complete an **annual progress review** each year that is chaired by a member of staff not involved in the supervisory team. The chair receives confidential reports from the student and the lead supervisor, and will act on any issues or conflicts that arise. The annual review meeting discusses the students' progress, addresses training needs, and discusses skills and career development. Such support mechanisms and the training provided has meant that over 50% of students within BBS completed their PhD within four years (or part-time equivalent). Furthermore, BBS doctoral students are successful in the academic and commercial job market with over 80% employed within 6 months of completion. Recent PhD graduates have been employed at various universities in the UK including Swansea University, University of Strathclyde, University of Liverpool, University of East Anglia, and University of Birmingham. Students also take part in a qualitative cross-disciplinary research group (made up of staff and PhD students) that meets usually on a monthly basis to discuss issues around research philosophy, data collection, and analysis in relation to qualitative methods.

#### 2.4 Commitment to Equality and Diversity

The School has an **Equal Opportunities officer** who ensures that the School's recruitment policy or any of its activities do not discriminate against any protected characteristic covered by the Equality Act 2010. The School also has an **Equality Champion** whose role is to facilitate communication between staff and the University's Equality and Diversity Task Group.

The School is committed to the principles of the Athena Swan charter, which addresses gender equality in higher education, and BBS currently has an **Athena Swan Bronze award**. The Chair of the Athena Swan Self-Assessment Team is responsible for disseminating any information which is pertinent to staff and research students' career support such as the University's Women in Universities Mentoring Scheme. BBS working towards an Athena Swan Silver award in 2024. PhD completions were equality split between genders for this REF period.

In terms of the **representation** of women in leadership positions, the current Head of School and two other members of the School's Executive Team (Director of Research and Director of Teaching & Learning) are women, giving a female majority (3 out of 5) leadership roles in the School. Moreover, of the 10 promotions during the current REF period, 6 are women. The visibility of senior women and their willingness to discuss equality and diversity ensures an open conversation on this across the School. Additionally, one member of the BBS Executive Team is from the **BAME** community. Overall, BBS has an international staff base with only 50% of staff entered being classified as British from birth.

Most research-active staff work full-time, with those working part-time at a late stage in their career (3 Professors). The School is committed to equality and diversity in the recruitment and support of staff and research students in the following ways:

The University is committed to the principles of the researcher concordat and have set in place the Researcher Development & Concordat group since 2015 to ensure implementation of its principles. In line with this, the University offers a wide range of supportive activities including an Early Career Research network, training programme and Early Career Researcher travel grants, research support awards and research leadership training. Many of our early career staff have benefited from these opportunities with our more senior staff actively contributing their time and

effort. This has contributed to Bangor's success in the European Commission "HR Excellence in Research" award.

The University also has a range of **supportive policies** for all staff including maternity/paternity/adoption leave, parental leave, time off for dependants/emergency, compassionate leave policy and flexible working policy. On returning from a period of leave, staff have the right to request a change to working hours/pattern, staff with children can take advantage of the childcare voucher benefit scheme and the University has its own nursery with which university employees can access more affordable childcare through salary exchange agreement. At School level, it is recognised that staff may need some flexibility with regard to childcare, and the system of flexible working accommodates these needs. Support for staff returning from a period of ill health is tailored to the individual via a return to work discussion whereby support and any adjustments to facilitate an individual's return to work is explored. Other support available to ensure the well-being of staff include a confidential staff counselling service, a stress policy, a dignity at work policy and lunchtime mindfulness sessions.

Other equality and diversity policies at University level include the **Welsh Language Policy** which details how the Welsh language is central to the University's strategy and operation, and covers the University's bilingual policy. Moreover, **equal pay audits** are undertaken regularly in collaboration with the University's recognised trades unions. Further, the University has made formal Equality and Diversity training (offered monthly) compulsory to all staff.

### 3. Income, infrastructure and facilities

#### 3.1 Income

Our total research income during the current REF period was around GBP900,000. We achieved a 15% increase in the average per capita per annum income for the current period in comparison to the previous REF2014 period. More specifically, the income breakdown included funding from the RCUK of (GBP26,000), while our total research income from UK and Welsh Government have been (GBP219,000). Our competitive EU funding has been (GBP512,000).

One example of a **large-scale funded project** (initial 2017/18 funding GBP4,487,000, extended with additional GBP3,970,000 for 2017/2021) is the South Asia Self Harm research capability building Initiative (GCRF-SASHI), with Nikolopoulos as a co-investigator. SASHI formed in late 2015 as a collaboration led by the Centre for Mental Health and Society at Bangor University. It is a partnership between academics working in Mysore (India) and Karachi (Pakistan) and UK academics in Bangor, Manchester and Oxford Universities. The purpose of the project is to find effective responses to deliberate self-harm and suicide in South Asia by building research infrastructure and expertise in India and Pakistan. Nikolopoulos' expertise in predictive and forecasting analytics has resulted in the development of regression models for the early identification of groups and individuals of higher risk for self-harm.

Given our agenda that research should make a difference to policy and practice, other important projects received **over GBP79,000 funding support from the Welsh Government**. For instance, Rogers and R ap Gwilym, provided independent scrutiny and assurance about the Welsh Government's forecasts for devolved taxes – land transaction tax, landfill disposals tax, income tax, and non-domestic rates. The research work (Rogers) focused on developing new ways of forecasting to develop and refine the methodology used to produce the Welsh Government's tax revenue forecasts which fed into budgets for 2017/18 and 2018/19. This method has now been adopted by government officials for use in forecasting future revenues. The work to scrutinise the forecast of devolved tax revenues has now been taken over by the Office of Budget Responsibility, OBR, (as required by UK legislation) building on these insights first generated by Bangor University. Researchers (including R ap Gwilym) have also worked with the Welsh Government to provide a technical assessment of the potential for implementing a local Land Value Tax to replace Council Tax and Non-domestic Rates.

Furthermore, collaboration with companies to co-create insights through **Knowledge Transfer Partnerships generated over GBP214,000** of funding during this REF period. For instance, Hemmings worked with Stockomendation Ltd, a fintech company providing specialised capital market services to investors. The company has developed and manages an investment data sharing platform that provides information on stock recommendations, companies, and financial analysts. The project aimed to develop advanced quantitative financial models and an analytic framework to allow Stockomendation to accelerate the development of a global sophisticated platform and improve customer experience, through the transfer of specific knowledge relating to the modelling of investors' sentiment and the evaluation of recommendation and price information. The company benefitted from the ongoing development of detailed analyses and metrics (e.g. performance rankings) that add value to the service Stockomendation provides to their subscribers. In return, BBS had access to a unique recommendations dataset to underpin academic research.

Researchers (Nikolopoulos, Mitchelmore, Parry) have also **collaborated with industry** through the Knowledge Economy Skills Scholarships (**KESS**) scheme, attracting GBP80,000 in **EU funding**. Five PhD students were funded through the KESS scheme during this REF period. Nikolopoulos worked with **Siemens** on three separately funded projects attracting a total of GBP70,000 to scope an operational management improvement process and improve operations efficiencies in the Healthcare Diagnostics Industry. This knowledge transfer contributed to a reduced inventory saving of GBP4,000,000 per year for Siemens for which the work of Nikolopoulos was integral. Karami, Mitchelmore, Parry also worked on projects with Welsh industries associated with GBP193,000 research funding from the European Social Fund.

### 3.2 Infrastructure and Facilities

Given the focus on **financial data**, the School currently spends over **GBP100,000** annually on databases for financial research by staff and research students. These databases include Boardex, Refinitiv (previously Thomson/Reuters) and S&P Global providing essential data for research in Corporate Governance, Banking, Finance, and Accounting. Within S&P Global researchers have access to Credit ratings data, which has underpinned a large number of publications and student projects in the credit ratings area. In addition, S&P Global provides BBS researchers with access to S&P Capital IQ Platform that combines deep and broad global financial intelligence with an array of tools for analysis, as well as Compustat. BBS also subscribes to Refinitiv Eikon which includes access to Datastream, a comprehensive database of archival financial information, as well as I/B/E/S, which provides information on estimates issued by financial analysts. Staff also have access to information on around 21,000,000 public and private companies across Europe via the Bureau van Dijk Amadeus database. In addition to the use of datasets derived from proprietary information in agreement with the data providers, BBS researchers have also developed unique datasets in the fields of pricing (Moneyfacts) and areas of regulation.

Staff have **access to all leading journals** in their field. BBS also has a generous annual budget for research-related books. Staff can request access to high specification computers in order to run more complex analysis methods. They further have access to highly advanced computing facilities through **Supercomputing Wales**, if high specification computers are still not optimal. Supercomputing Wales is a collaboration across four Welsh universities who have received GBP9,000,000 ERDF grant from the Welsh Government. Staff have not only access to the Hawk Supercomputer but training and technical advice on the use of these facilities. Researchers such as Nikolopoulos have made use of these facilities.

### 3.3 Organisational infrastructure supporting research and impact

Our themes and clusters are important to the research infrastructure of BBS. Staff have worked together on grant applications, and support for funding is provided by a dedicated **College Research Support Officer** (CRSO) who advises staff on funding applications and preparation of financial budgets for research grants. Staff are regularly notified of the latest funding calls through the CRSO and can also access funding information through Research Professional. Furthermore, opportunities to engage with end users are also distributed to staff including relevant communications arising from our membership of the Universities Policy Engagement Network.

Regarding research grants, a College Finance team supports the budget allocation and spending. The CRSO provides a bridge between staff and the dedicated support available from the University's **Research, Impact and Innovation Office** (RIIO). RIIO has a team of specialist staff working on pre-award, post-award as well as legal and intellectual property issues and international funding grant bids, enabling more specific assistance for staff beyond that provided by the CRSO. The BBS Director of Research personally advises on grant applications, and further support is available from the College Directors of Research and Impact and Engagement. BBS Directors of Research as well as Impact and Engagement also meet with staff individually to discuss support needs that arise out of their annual PDR.

Within BBS, **seed corn funding** is available to staff for research projects. Applicants can apply for money at any time throughout the academic year and there is no set limit to the amount of funding, although the costs must be feasible within the overall research budget available. The School Executive allocates money on a case by case basis based on the merit of the application. The application process involves outlining the research, the funding required, and the anticipated outcomes. Such funding applications have enabled outputs that are included in this REF submission such as those by Hassan, and Shiu.

In terms of **equality and diversity** there were no issues raised by staff regarding access to support or infrastructure across all BBS staff surveys undertaken during the current REF period.

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

### 4.1 Collaboration

BBS fully supports joint research initiatives with academic colleagues in many other institutions via generous **conference funding support** as well as **sabbatical and shorter study leave arrangements** for extended periods of international research collaborations. For example, Jaafar's sabbatical period at the National University of Malaysia led to a successful joint publication in *Financial Markets, Institutions, and Instruments*.

BBS also has a vibrant **visiting programme** welcoming international scholars to spend significant periods of time developing and undertaking collaborative research projects and co-authoring top rated journal publications, such as Alsakka and O ap Gwilym jointly with staff from the Universidad Rey Juan Carlos de Madrid (*Journal of International Money and Finance*, 2018), and Ashton (*Energy Policy*, 2015) publication with staff from the University of Otago. Overall, BBS has hosted 14 academic researchers (over 70% of visitors) and PhD students from around the globe including 5 from China and 5 from European countries. The strength of international focus is also reflected by BBS researchers' extensive collaborative networks. The distribution of **international collaborations** includes 36 connections in Europe, 10 in Asia, 9 in North America, 6 in Middle East, 4 in Australasia and 2 in South America. On average, each staff member collaborates with researchers from 3 other countries.

BBS is **working with end users** and has strong links with regulators, policy-makers, and governments. For instance, Ashton (since 2016) has been an Academic Panel Member of the



Competition and Markets Authority as well as a Reviewer and Advisor on policy documents for the Financial Conduct Authority. R ap Gwilym has acted as an expert advisor to the Institute of Welsh Affairs and also took part in an expert roundtable on the Welsh tax base & implications for public policy (Public Policy Centre for Wales). Rogers was an expert witness to the Welsh Assembly Finance Committee on tax revenue forecasts. Reghezza has been appointed as a consultant in the Systemic Risk and Financial Institution Division at the European Central Bank (ECB). Reghezza has been involved in two projects on bank consolidation and the effect of bank capital requirements on bank lending and the interaction with monetary policy. His work led to a report being published in the ECB's Financial Stability Review, as well as publications in the ECB Working Paper Series. Furthermore, Carbo-Valverde is currently acting as a consultant for the World Bank on a merchant payments acceptance project.

Researchers have access to funding from BBS to collaborate with end users including to attend meetings or present research findings. For example, Rogers work with the Federation of Small Businesses and Ashton's work with the Chartered Bankers Institute. As well as through presentations and reports to government including work with the Welsh Finance Minister and the Minister for Housing and Local Government. Researchers have also presented keynote addresses or invited talks to practitioners, including Altunbas' talk at the ECB on stress testing, and Hassan as a panellist on "Taking control of our lives" at the Trading Standards Institute conference. Moreover, staff have provided written evidence to the UK House of Commons Treasury Committee (R ap Gwilym, Rogers) and the European Securities and Markets Authority (Alsakka, O ap Gwilym). Such examples highlight the relevance of BBS research beyond academia. These collaborations benefit the research environment by stimulating academic debate and providing a platform for future publications.

#### 4.2. Contributions to the academic community

Table 1 outlines the editorial contributions to leading international journals during the REF2021 period including editor roles for 3 journals, associate editorial roles for 10 journals, editorial board positions for 8 journals as well as guest editing 4 special issues of highly regarded international journals.

**Table 1 Contributions to editing leading international journals during the REF2021 period**

Role	BBS Academics	Journals
Editor-in-Chief or Co-Editor-in-Chief	Ashton, Jaafar, Carbo-Valverde	<i>Journal of Financial Regulation and Compliance; Journal of Financial Management, Markets and Institutions; Journal of Financial Reporting and Accounting</i>
Associate Editor	Jaafar, Hodgkinson, Merkl-Davies, Nikolopoulos; Mantovan; Hemmings, O ap Gwilym	<i>Journal of Islamic Accounting and Business Research; British Accounting Review; Accounting and Business Research; IMA Journal of Management Mathematics; Supply Chain Forum: An International Journal; European Economic Review; Journal of Risk Finance; European Journal of Finance; International Review of Financial Analysis; Journal of Banking and Finance</i>
Editorial Board member	Nikolopoulos, Jaafar, Ashton, Hanna, Hassan, Carbo-Valverde, Merkl-Davies, Shiu	<i>Journal of Business Analytics; Journal of Accounting in Emerging Economies; The Service Industries Journal; Journal of Place Management and Development; Journal of Business Research; International Journal of Consumer Studies; Journal of Financial Stability; Journal of Financial Regulation and Compliance; Review of Business;</i>

		<i>Accounting, Auditing &amp; Accountability Journal; International Journal of Public Health</i>
Guest editorship of a journal	Mantovan, Hassan, Shiu.	Gender Differences in the Labor Market in <i>European Economic Review</i> (2018); New Advances in Attitude and Behavioural Decision-making Models in <i>Journal of Marketing Management</i> (2014); Communicating Messages About Drinking in <i>Alcohol and Alcoholism</i> (2018); Cross-cultural and cross-national consumer research: Psychology, Behavior, and Beyond in <i>International Marketing Review</i> (2015).

Regarding **leadership of learned societies**, Carbo-Valverde has acted as President (2017), Vice President (2015 and 2016) and board member (2018, 2019) of the International Banking, Economics and Finance Association. Carbo-Valverde is also board member of the European Association of University Teachers of Banking and Finance (2013-2020). J Williams is the current Chair of the Management Board of the European Association of University Teachers in Banking and Finance. Hodgkinson was Chair (2016-2018) of the Conference of Professors of Accounting and Finance. Hassan was co-chair of the “Consumer Research” Special Interest Group of the Academy of Marketing (2013-2015). Ashton is Chair of the Special Interest Group “Financial Markets and Institutions” of the British Accounting and Finance Association (2018 to date).

In terms of **conference organisation**, Hassan (2014-2015) acted as track chair for the Academy of Marketing “Consumer Behaviour” track as well as (2018) for the European Marketing Academy Conference “Social Responsibility and Ethics” track. Carbo-Valverde (2015 and 2019) acted as track chair for the Western Economic Association International Conference “International Banking, Economics and Finance Association” track, the Allied Social Sciences Association meetings “International Banking, Economics and Finance Association” track in 2017, and the Western Economic Association International (WEAL) Conference in 2019. Jaafar was (2019) “Business Ethics and Internal Control” track co-chair for The Asia-Pacific Management Accounting Association conference.

Ashton has organised a number of national and international conferences and symposia including the (2017) British Accounting and Finance Association Northern Area Group Conference, the (2018) 11th International Accounting and Finance Doctoral Symposium and (2017) ‘The Great Financial Crisis’. Researchers (Hanna, Hassan, Parry, Shiu) in the consumers and communications research cluster organised three international workshops (2016/17) including one funded by the British Academy.

Staff have contributed in invited or plenary speaker roles to in an excess of 20 conferences. For example, Merkl-Davies contributed as an invited speaker at the 9th Colloquium on Qualitative Research Methods in Business and Accounting as well as at the Institute of Chartered Accountants in England and Wales Conference in 2017. Carbo-Valverde has contributed keynote presentations at various conferences including the International Risk Management Conference in 2017, and the JFMMI 2019 conference. Ashton delivered a keynote address at the 2017 World Conference of Banking Institutes Bi-Annual Conference, Lagos, and in the 2018 Caribbean Association of Banks Annual Conference.

BBS scholars have also won **awards** or been given high accolades. O ap Gwilym has been acknowledged as one of the top 30 most prolific authors in Mathematical Finance journals between 1999 and 2016, according to Samitas and Kampouris (2018, *International Review of Financial Analysis*). Hanna was awarded as an outstanding reviewer for *Journal of Place Management and Development* (2017). Alsakka received outstanding reviewer status (2017) for

her contributions to the *Journal of Banking and Finance*. Merkl-Davies (2017) was the joint winner of the *Accounting, Auditing & Accountability Journal* award for outstanding reviewer. Merkl-Davies' work published in the *Accounting, Auditing and Accountability Journal* was selected by the journal's editorial team as a Highly Commended paper in 2015.

BBS is also the sole UK arm of the three year international OPTBANK Project (2018, 2019, 2020) funded by the EU Erasmus+ programme, with partner institutions in France, Italy, Greece, and six universities in Indonesia as well as associated partners from governmental bodies and civil society (Central Bank of Indonesia, Indonesian Deposit Insurance Corporation, Indonesian Finance Association). J Williams is a member of OPTBANK's Steering Committee and the Project Scientific Committee. The main objective of the OPTBANK Project is to integrate and enhance **research capacities** and **PhD programmes in the field of banking and finance**. The project's outputs will strengthen the links between universities and the banking and financial sector. This will include a broader dissemination to society as a whole by targeting community services on financial inclusion and financial literacy, and thereby contribute to a higher standard of living for a large portion of the population. As part of this programme, BBS has held seminars on the 'Exchange of Best Practices – Links between Universities and Industry' (2019), as well as contributed to meetings on the design and development of PhD training.