

Institution: Cardiff University

Unit of Assessment: 19 – Business and Management Studies

a. Context

Cardiff Business School is a large research-intensive department with five sections, Accounting & Finance, Economics, Human Resource Management, Logistics & Operations Management and Marketing & Strategy, that provide the main intellectual home and primary organising unit for research. Research groups then bring researchers together to focus on specific areas, operating mainly within Sections but also linking across them and across other schools in the University. Sections and groups produce the full spectrum of academic and practitioner-oriented outputs, and engage with a wide variety of research users, in the private, public and third sectors, across all stages in the knowledge translation value chain. The *range* of impact and *diversity* of beneficiaries are distinctive features leading to manifest changes in practice, policy and/or performance, as well as to important developments in public debates and to user engagement with research, at local, national and international levels.

The School's strategy is to translate excellent research into impact, on the basis of the development of sustainable relationships with stakeholders, coupled with a flexible and responsive approach to meet emergent opportunities. The School has particular research strengths in the public sector and strong relationships with local, regional and UK government through the Centre for Local and Regional Government Research (CLRGR). The relevance of the work of this Centre to policymakers has recently been demonstrated through both the selection of Cardiff University and the Centre's Director, Steve Martin, to lead a new Public Policy Institute for Wales and Steve Martin's appointment as an ESRC Knowledge Navigator for Local Government. Policy contributions are thus prominent in the School's 'impact portfolio', including the economic policy impact of the Julian Hodge Institute for Applied Macroeconomics (JHIAM). The School's contribution also goes beyond the UK, with a particularly significant example of the School's international relationships and impact being the formal agreement with the International Labour Organization (ILO) to promote 'decent work' via sector-based activities; this is the first such multi-sector cooperative agreement the ILO has signed with any university in the world.

Through involvement in interdisciplinary research, the School has extended the reach of its impact. One prominent example is the work on sustainability conducted initially by a multi-school ESRC Centre and now continued in PLACE, a University Research Institute. Another is the joint appointment with the School of Journalism, Media and Cultural Studies of Prof Ian Hargreaves as Chair in Digital Economy; he recently carried out a review of intellectual property that has been adopted as the basis for new national government policy. Further interdisciplinary impact will be promoted by the University which is committed to developing a new social science research park (SSPARK) that will co-locate research centres and third party users. SSPARK will be a major capital investment in bringing together researchers from across the disciplines along with policy makers and practitioners in order to promote the design, conduct and evaluation of high quality cross-disciplinary research with impact. The Business School has a central role in this initiative.

b. Approach to impact

The School, in conjunction with the University, takes an integrative and proactive approach to promoting impact as a central feature of research-led innovation and engagement.

School support

The School has invested heavily in impact and engagement support over the REF period. The Engagement Team has expanded from two to five full-time staff who are particularly involved in website development, the use of social media and other dissemination activities, sometimes in joint working with the University's Communications and International Relations Division. In addition, the appointment of the School's first Research Impact Officer, based in the Research Office, has assisted in connecting academic research with various potential beneficiaries. The role has involved two key components: a) creating knowledge about how impact can be effectively achieved throughout the multiple and complex stages of research, and b) building sustainable processes to embed impact-related activity within the School.

The School has various funding initiatives that support staff in their research and impact activities. As well as all research active staff having a £3K Individual Research Budget which may be used to support impact generating activities, the School makes available: a) Seedcorn Funding

(up to £2,500) which is often used to support new research collaborations with external users. For example, Dr Vicki Wass and Prof Peter Turnbull engaged the Police Federation of England and Wales, leading to an ESRC Knowledge Exchange Opportunity (KEO) to fund related activities designed to explore and disseminate meaningfully proactive steps towards rectifying excessive working hours among police inspectors. b) Policy and Practice Workshop funding (up to £1,500) to support engagement activities involving non-academic stakeholders. A recent Workshop, led by Prof Helen Walker on Sustainability in Supply Chains, attracted around 70 delegates. One key outcome was an invited paper to the 2012 Annual Statistical Report on United Nations Procurement Thematic Supplement: Balancing Social, Environmental and Economic Considerations in Procurement, to be distributed to thousands of UN procurers and their suppliers.

The Research and Engagement Teams support individuals and groups to promote their research, including dissemination of research findings to external stakeholders through in-house publications *Synergy* (with a distribution of 10,000 and also available online) and *Where Research Leads* (print run of 2,000). In 2013, the introduction of more targeted research publications for reporting on specific projects (*Cardiff Business School Research Briefings*) and modifications to the research pages of the School's website have provided the opportunity for research staff to more effectively disseminate user-focused, lay summaries of their published research outputs. Also, some research teams publish regular research briefings. For example in Economics, the Quarterly Economic Bulletin, with a circulation of around 350, is produced in cooperation with the Julian Hodge Bank, and the Welsh Economic Review is received by around 1,500 Welsh businesses, Assembly Members, Members of Parliament and other institutions. In addition, the School's research is routinely featured in television, radio, print and web-based media outlets, including regional media, BBC, ABC, CNN, CNBC, *The Economist*, *Financial Times*, *The Times*, and various Japanese newspapers.

Regular training and development activities are organised at School level. For example, the Cardiff Research Workshop Series (CReWS) routinely features impact-related sessions, for example, preparing impact plans for research grant applications. Our PhD students also have access to additional training on engaged research and impact, for example, through the ESRC Wales Doctoral Training Centre. This approach has already seen dividends, for example, Fiona Davies' doctoral research (2002-2007) on sponsorship in sport by alcohol companies was recognised by the European Sponsorship Association, commented upon by Alcohol Concern and the Advertising Association, and drawn upon extensively by the Portman Group in its lobbying of the UK Government. The research was subsequently cited in House of Commons debates and contributed to decisions on the legislation of alcohol sponsorship.

Staff engagement with key users

The School's breadth and depth of research activity means that we are well placed to collaborate with a range of stakeholders from the public, private and third sectors. Examples are: a) Dr James Downe of CLRGR, via an ESRC KEO project, explored local public service provision with a range of international partners including support from the Forum of Federations in Canada. b) The School has also undertaken a number of Knowledge Transfer Partnerships, a model that works particularly well in transferring knowledge between academia and business in areas of research conducted by the Lean Enterprise Research Centre (LERC), researching lean practices across multiple sectors, and the Centre for Advanced Manufacturing Systems at Cardiff (CAMSAC) promoting the adoption of advanced manufacturing technologies. Also central to CAMSAC's portfolio of activities is the University's element of the Advanced Sustainable Manufacturing Technologies programme, a £27m, five-year project part funded by the European Regional Development Fund, which aims to boost Wales' economy through supporting manufacturers in the Convergence Area via collaborative R&D projects. c) Prof. Peter Turnbull led the School's strategic partnership with the International Labour Organization (ILO) and has since coordinated two PhD student internships at the organisation.

The School encourages staff to participate in external bodies and professional associations. For instance, Profs Kent Matthews and Patrick Minford are (founder) members of the Shadow Monetary Policy Committee. As Policy Officer and (Vice) Chair of the Chartered Institute of Logistics and Transport (Wales), Dr Andrew Potter is routinely responding to policy consultations and invited to give evidence to House of Commons and Welsh Government select committees; Profs Steve Martin, Calvin Jones and Patrick Minford have similarly given evidence to Welsh and

UK Government. Carla Edgley provides UK wide academic representation on the Council of the Institute of Chartered Accountants in England and Wales. There are over 20 academic fellows and members of the Chartered Institute of Personnel & Development in the HRM section making it amongst the largest academic groupings in the UK. The School has links with numerous other professional associations and organizations, including the Chartered Institute of Marketing, the Chartered Institute of Public Relations and the Trades Union Congress. Such membership, especially of the associations' committees and boards, leads to the development of new policies and practices. Researchers also have the opportunity to host visits from practitioners via the School's Public Lecture Series; recent speakers include Adam Lawrence - CE Royal Mint, Trevor Williams - Chief Economist, Lloyds Banking Group, and Baroness Hogg – Chair of The Financial Reporting Council.

The School also promotes relationships with practitioners and policy makers through Advisory Boards that bring the School into close contact with research users, which is particularly helpful in identifying pathways from fundamental research to impact. The School's International Advisory Board (IAB) includes: Chief Executives of Wesley Clover, Principality Building Society and the Welsh Rugby Union; Directors from multinational corporations, such as BT plc; and, the Chair of the Wales Employment and Skills Board. The IAB has been influential in developing the School's impact and engagement agenda, for example, supporting the establishment of a new research briefings series (see above). The advisory board structure is mirrored at section level, allowing for more direct impact from specific research agendas and for further engagement with internationally leading companies including Deloitte Consulting, Nokia, Royal Mint, Innocent Ltd. and Rolls Royce.

University support

The School is actively engaged with the University to promote research excellence and research-led engagement and teaching. The University makes provision for staff to conduct consulting projects that contribute to knowledge creation, research development and impact. For example, Prof Stephen Disney carried out consultancy with the computer printer manufacturer Lexmark, spending six weeks at their offices. This work examined the bullwhip effect within their forecasting system, leading to significant cost reductions for Lexmark. In another example, Prof Peter Turnbull spent four months with the ILO, developing approaches to port worker training and building recommendations into guidance materials to promote social dialogue.

The School participates in the Cardiff University Innovation Network, which has a membership of nearly 2,000 practitioners from the private, public and third sectors. It holds monthly events with average attendances of over 100. The Network hosts the University's Annual Innovation & Impact Awards Dinner which highlights and rewards exemplars of research collaboration and impact. For example, the Centre for Automotive Industry Research (CAIR) and Clifford Thames Ltd have been commended for a novel Environmental Rating System for Vehicles.

c. Strategy and plans

Cardiff Business School's overall objective is to build on its strong foundation of research excellence to improve the quality of its other core activities, including engagement, an essential pre-cursor to impact. The School explicitly recognises that engagement is a 'two-way' street: while stakeholders benefit from engagement with the School, the School's research and teaching also benefit strongly from working with external partners. To ensure this engagement translates into research impact, the School aims to:

- 1. Engage with external stakeholders throughout the project lifecycle:** Wherever possible stakeholders are involved from project design to research application, in order to develop productive and durable collaborative relationships. For example, the EPSRC Green Logistics project was co-designed and effected by a consortium of five universities and 11 external partners, the latter including policy makers, such as Transport for London, and practitioners, such as the SME, Road Tech Computer Systems.
- 2. Be flexible and responsive:** The School recognises the need to respond to opportunities for impact that may not be anticipated. An example is the case where accounting historians took the unexpected opportunity to work with a BBC producer in the development and production of cultural impact in the form of a Radio 4 series, 'A brief history of double entry book-keeping'.
- 3. Embed impact through training, staff development and administrative support from PGR onward:** As described in Section b, regular training and development activities are organised both at School level and at University level.

4. Generate impact through Fellowship schemes: The School has attracted ESRC funding for three mid-career development Fellows. These posts are designed to bring in expertise from outside of Business and Management as an academic discipline, harnessing external links and generating research that will have significant value to partner organisations. Furthermore, the Cardiff Business Partnership, in association with Cardiff County Council, has supported funding for a fourth Fellow.

The School is committed to increasing the impact of future research by building on the mechanisms outlined in Section b. Researchers will be encouraged to increase their levels of engagement with key users through: a) provision of opportunities to take part in knowledge exchange activities, with the School's existing network of stakeholders and internal funding opportunities utilised to provide early career researchers in particular with the opportunity to achieve influence through their research, b) introduction of an 'impact mentor' scheme, enabling senior researchers who have had major impact to share their expertise with less experienced members of staff, and c) enhanced alignment of impact strategy between the School and Sections achieved by co-opting members of their respective Advisory Boards.

Researchers will receive increased support through: a) development of closer links between the Engagement Team and the Research Office to better enable the creation of strategic research partnerships, with academic and non-academic stakeholders nationally and internationally, b) the Research Impact Officer working with researchers to support more active promotion of the School's research, and develop mechanisms for more routine 'capture' of research impact, c) support from the Research Office in accessing funding opportunities for impact related activities which we expect to increase as research funders continue to recognise the importance of the translation of research into innovative applications, and d) greater participation in schemes which have already proved beneficial in helping to establish strategic links with external organisations. One example is the Strategic Insight Programme, a programme funded by HEFCW to facilitate interaction between researchers and outside organisations, through which Dr Laura Purvis undertook a placement with Innocent Ltd.

d. Relationship to case studies

The case studies selected for return exemplify the variety, reach and significance of the impact of research conducted at Cardiff Business School. The volume of impactful research has driven our investment in academic staff, and the engagement and impact staff who support our academic colleagues. Each of the research staff involved in the impact case studies has had access to their own £3k per year Individual Research Budget. The Engagement team has helped with the dissemination of research through press releases, and through showcasing research and impact in in-house publications: for example, Case Study 1 and Case Study 2 have featured in *Where Research Leads* and *Synergy* respectively. Our investment in a dedicated Research Impact Officer has facilitated: user feedback on the impact made by the research (all case studies); outputs being made available to additional users (Case Study 2); the identification and recording of previously unrecognised impact (all case studies).

The investment in seedcorn funding has formed part of the School's support of activity by individuals and/or research groups in Case Studies 1 (JHIAM's optimal monetary policy with conditional volatility models), 4 (Prof. Peter Turnbull's work on the European port services directive and maritime reform) and 7 (LERC's benchmarking studies on furniture supply chains). A number of the academics have been supported in developing external funding bids leading to a Knowledge Exchange Opportunity (Case Study 5) and Knowledge Transfer Partnerships (Case Study 6). The University's consultancy policy for academic staff has also allowed for direct exploitation of research, providing immediate and tailored support to users, as in Case Studies 2 and 4.

Two of the case studies exemplify our investment in the School's PhD students and their integration into impactful streams of research early in their careers. In Case Study 7, Clovis Zapata, whose PhD was on industry environmental performance and regulation, performed the key task of case study analysis, and Vo Phuong Mai Le's PhD, "Modelling nominal rigidities in general dynamic equilibrium framework", contributed to the modelling work described in Case Study 1.

The School's IAB and Section advisory board members have helped inform the development of our impact case studies as well as our engaged-research more generally. Some of their organisations have also been directly involved in impact activity such as Lloyds TSB (Case Study 6).