

Institution: University of Sussex

Unit of Assessment: UoA 19 Business and Management Studies

1. Context

This statement documents impact from Science and Technology Policy Research (SPRU) and from the Department of Business and Management (B&M) which, together, sit within the School of Business, Management and Economics (BMEc) at the University of Sussex. SPRU has virtually half a century of experience in engaging with policy-makers, businesses and other users. In contrast, the Department of Business and Management was only established in 2009. Despite its short history, B&M has both enhanced the policy focus of SPRU and also developed its own powerful links with business enterprises, large and small. Given SPRU's considerably longer history and the UoA's overall approach to impact, the case studies selected are weighted towards policy audiences.

In disciplinary terms, the UoA's research spans economics and finance, innovation and operations management, international business and entrepreneurship, strategy and leadership, science and technology, energy and environment policy. The breadth of this interdisciplinary intellectual base enables SPRU and B&M to flourish and pioneer novel approaches to research and engagement with a diverse spread of partners, collaborators, users and audiences in policy (governmental and non-governmental) and business.

2. Approach to impact

Since its establishment in 1966, SPRU has been at the forefront of new ideas, interdisciplinary research and creative, high-impact engagement with decision-makers in science, technology and innovation policy. This is assisted by SPRU's extensive alumni network among senior science and technology policy-makers around the world. In its November 2011 editorial, *Research Fortnight* noted SPRU's 'well-deserved international reputation as a finishing school for the policy elite of Europe and the developing world'.

In the Department of Business and Management, virtually all staff have been recruited to the University of Sussex since 2009. However, since arriving at Sussex, the impact of leading researchers has developed through their Sussex-authored work.

The unit's approach to impact over the REF period (2008–13) has three main qualities:

Interdisciplinarity: SPRU was created as one of the world's first interdisciplinary, problem-oriented research centres in science and innovation studies, and this approach characterises the Sussex impact submission today. Interdisciplinary research is key to our impact approach as it allows the Department, firstly, to formulate research questions with the end-users and real-life problems in mind and, secondly, to demonstrate the power of research approaches and techniques in tackling challenges.

Relevance and significance: SPRU work is driven primarily by a desire to tackle real-world questions with implications for public policy and for corporate development. Inevitably this means that the issues they tackle are diverse, ranging from energy policy to innovation.

B&M research is equally diverse but also highly relevant to the business community. It includes mathematical models for risk assessment and portfolio allocation for use by banks, exchanges and asset managers, the leadership, strategy and decision biases which influence the governance policies of all firms, especially large multinationals, and public-policy support for new and small firms.

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Successful collaboration between B&M and SPRU research combines SPRU's long-standing independent work on the SME finance market-place in the UK with Storey's collaboration with Barclays, resulting both in high-quality academic outputs and in Barclays's adoption of these research findings in its commercial practice.

The relevance of SPRU/B&M research to commercial users is also reflected in individual consultancy contracts and in the funding of post-doctoral researchers – such as that provided for SPRU by EDF Energy and to B&M by the Intercontinental Exchange, Inc. (ICE), for whom Alexander has also been validating a new margining model based on her design, following on from patents obtained jointly with the New York Stock Exchange. Another example is Livingston, who advises Google, Goldman Sachs and Federal Express on diversity in leadership, and on strategies to improve teamwork and management.

Existing research agendas and hence impact are strongly influenced by regular meetings with key users in policy and business communities. In-house, these are supplemented by frequent seminars and workshops. Evidence of these is reflected in the cases as well as in the Environment Statement.

Creative pathways to impact. Considerable effort is committed to engaging non-academic audiences and users, for example by:

- Holding regular *flagship events*, designed to bring together academic, policy and business audiences (for example, the STEPS Symposium in February 2013, which was attended by several current and former government scientific advisers).
- Producing bespoke *policy briefings* for Ministers, MPs, special advisers and senior officials (for example, David Willetts MP, Minister for Universities and Science, visited SPRU in May 2013 for a private briefing on key aspects of our work).
- Targeting *publications at policy audiences*. The key findings and messages from our research are presented in a non-technical form to reach a far wider audience (for example OECD Rome, 17 July 2012, at the MENA-OECD Working Group on SME Policy).
- Membership of *policy and advisory bodies*. This enables us to inform and influence key debates (e.g. Watson has been a specialist adviser to two House of Commons select committees; Nightingale to House of Lords Science and Technology Select Committees; Stirling has served on working groups for the Royal Society and Nuffield Council on Bioethics; Mamatzakis has served as senior economist in the Council of Economic Advisors to the Hellenic Ministry of Finance and Economics, and as an Alternate Member for Greece in the Economic and Financial Committee of the EU, Brussels).
- An active presence in *mainstream and social media*. Here we take a strategic approach to communicating key research findings through our extensive media contacts, and directly via our website, blogs and our Twitter feeds. Examples include Alexander's discussion forums on Market Risk Analysis, used extensively throughout the finance industry and Mazzucato's regular appearances on BBC *Newsnight* and comment pieces in *The Guardian* on innovation, austerity and the economic crisis.

3. Strategy and plans

Our stated strategy is to strengthen the University of Sussex's reputation as a world-leading centre for research in policy, business and management, with a particular focus on science, innovation, finance and enterprise.

Within this high-level strategy, SPRU's operational plan is to sustain and enhance its position as the leading UK research centre in STI policy, to identify new and emerging areas where it can

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contribute to research at the highest level, and to recruit and retain high-quality staff.

For B&M, the priority over the next five years is two-fold. The first is to support the expansion of the research units that have already been established and to be highly responsive to calls for funding for research grants that are accompanied by industry sponsorship. For example, one focus within the rapidly growing Finance group in B&M is on quantitative energy and environmental finance, led by Alexander, with associated policy initiatives developed in collaboration with colleagues in SPRU and in Economics. The quantitative finance group at Sussex is the UK hub of the Quantitative Finance International Network (QFIN).

The second is to make additional strategic hires of new staff with long-standing high-level industry connections. A current example is the newly established Centre for Leadership, Ethics and Diversity (LEAD), led by Livingston with Luke. LEAD brings together scholars from a host of disciplines, schools, and universities who examine topics related to leadership, enabling it to serve as a resource for industry and government. Corporations and organisations obtain cutting-edge, empirically-based knowledge about how to increase leader effectiveness and performance, promote ethical practices and corporate social responsibility, and function more effectively in multicultural contexts.

Across SPRU and B&M, we intend to maintain and develop our existing focus on interdisciplinarity, policy-relevant research and creative pathways to impact. Priorities include:

- strengthening SPRU's distinctive identity as an interdisciplinary research institute;
- harnessing SPRU and B&M's existing connections and impact in the policy and business worlds. We are currently appointing an individual with explicit responsibility for communications, events and outreach; and
- building new research and impact collaborations between SPRU and B&M so that SPRU's success in external engagement translates even more effectively into reputational benefits for the wider School. Examples include Energy, where the interests of Tol in Economics and Sorrell's energy group in SPRU overlap; in technology, innovation and inclusive growth, where all three Departments of the School overlap; and in Development, where SPRU and the Institute of Development Studies jointly manage the ESRC STEPS Centre.

The UoA will also maintain and develop well-established practices to emphasise to staff the importance of impact. This includes making 12 new professorial appointments where impact is a key criterion for recruitment and ensuring that staff are aware of the importance of impact. So, for example, they are expected to address this issue in their Personal Research Plans (PRPs). These are written documents produced annually by all research-active staff and which are used as the basis for discussions of progress with the Director of Research and Knowledge Exchange.

4. Relationship to case studies

The five case studies reflect the reach and significance of the approach to impact described in Section 2.

- The Financing Innovative SMEs case shows that SPRU research on financing innovative SMEs has led to a more realistic, evidence-based view of the role of science-based spin-outs and the Venture Capital sector in enhancing economic development in the UK. It reflects SPRU's chosen approach of painstaking data collection, combined with working closely in conjunction with BIS, BVCA and Nesta.
- The Influencing 2010 Spending Review case emphasises the role the scientific community can play in influencing decisions on policy expenditure and priorities. Martin, working with the Royal Society, was able to demonstrate the value provided by Science expenditure.

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- The Hidden Innovation case demonstrates how SPRU research changed the ways that government records and supports innovative activities. It has led to new policy measures and reflects the collaborative nature of the research (Nesta, BIS).
- The Changing the Framework for Industrial Policy case illustrates the effect of Mazzucato's high-profile engagements with politicians, policy-makers and the media in seeking to influence how policy-makers think beyond a 'market-failure' framework – by not only fixing market failures but actively trying to shape and create markets.
- The Storey/Coad case of collaboration with Barclays Bank demonstrates the merits of collaboration between B&M and SPRU. It is based on Barclays–Sussex collaborative research and its impacts on Barclays Bank are reflected in policy changes towards SMEs (that have improved service to SMEs and the Bank's profitability) and result in economic benefits and the Bank's ability and readiness to meet government requirements for data.