

<p>Institution: University of Southampton</p> <p>Unit of Assessment: 19 Business and Management</p> <p>a. Context</p> <p>UoA 19 at the University of Southampton has recently been restructured around five international Centres of Excellence (CoEs), each responsible for delivering high value research, enterprise and education. They are: Digital, Interactive and Data Driven Marketing; Innovation and Enterprise; International Banking, Finance and Accounting; Relational Leadership and Change; Decision Analytics and Risk Research. This last CoE joins two research centres with a well established reputation: The Centres for Operational Research, Management Science and Information Systems (CORMSIS) and Risk Research (CRR).</p> <p>Non-academic users of the unit’s research include both public and private sector organisations, and their impacts can be divided into four main categories: (i) Changes in management policy and practice e.g. leadership, knowledge management, organisational learning (Transcend consultancy, DSTL, Department of Health, Tesco); (ii) Product or service developments e.g. financial tools, software tools (Logical Transport; Star Financial Systems, Lloyds Banking group) (iii) More effective decisions through improved understanding of data e.g. investment decisions, marketing analytics (Barclaycard, Virgin Media, RNLI, London Capital Group, Ferrari F1, Santander); (iv) Efficiencies in the use of resources e.g. healthcare planning, transportation planning (Boeing, National Express, Ford, NHS).</p> <p>b. Approach to impact</p> <p>The unit takes a pro-active approach to engaging with non-academic users through developing strong links with a wide range of organisations and offering a range of collaboration opportunities. Our long standing commitment to this activity is evidenced by the investment in five staff members with a remit to liaise with external organisations. These are: a full-time Business Development Fellow (Exec Ed), two part-time Industrial Liaison Officers (project acquisition), a Research Assistant (project delivery) and a Student Placement Officer. These posts have been instrumental in securing over 300 industrial sponsored research projects, short courses and links with external bodies. This active approach to engagement has led to important impacts resulting from large collaborative projects (via mechanisms such as Knowledge Transfer Partnership (KTP)), consultancy, MSc student projects, engaging with discipline-specific professional bodies, bespoke taught courses/programmes, and externally focused seminars.</p> <p>Collaborative projects</p> <p><i>KTP/KTS/CASE:</i> A large part of our research impact arises from working alongside the users and beneficiaries of the research. Our engagement with KTP is a particularly good example of this kind of collaboration. In these projects we have ensured that our research partners benefit from our academics’ expertise via the collaborative research process itself as well as the final outcomes and deliverables. Examples of KTPs include: scheduling and routing algorithms with Logical Transport (a software house) that resulted in new products now used by many organisations such as National Express; life cycle costing of boats for RNLI that “has significantly contributed to the £8M reinvestment made possible through the on-going continuous improvement program.” (Andrew Tate, Head of Coastal Maintenance); and analysing the behavioural factors that influence trading performance for Star Financial Systems, who have attributed a 25% increase in sales turnover and 30% increase in profit to the project. We have on-going KTPs with Star Financial Systems and London Capital Group and a KTS with World Bet Exchange, who have also funded a CASE studentship.</p> <p><i>Contract research:</i> We actively seek out collaborative research projects where external organisations provide funding, data and domain specific knowledge. For example, Wisconsin Children’s Hospital funded research that ultimately determined the number of paediatric intensive care beds. Hampshire County Council collaborated on a project examining health and social care for an aging population. The results were presented to the House of Lords by Prof Brailsford on 30 April 2013. Many of the collaborative projects are supported at institutional level by the University’s Research and Innovation Services (RIS), a specialist department with over 40 staff providing dedicated support and expertise to facilitate interaction with our business partners. UoA19 staff have drawn on the expertise and support of RIS, in their applications for KTP, impact acceleration</p>
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(KTS), case studentships, HEIF enterprise fund, FP7 and in collaborating with the University Strategic Research Groups (USRG) in Maritime (leading to KPT with RNLI), Complexity (leading to aging population project), Aerospace (leading to collaborations with NATS).

Student projects: Another important route to collaboration and impact is through short projects under the “In-depth investigations” scheme. These are three month projects sponsored by external organisations and undertaken by MSc students. A variety of sponsors provide approximately 60 external projects per annum. During the REF period 304 students undertook projects working with 144 different external organisations generating over £600k in revenue. Example sponsors are Ford (15 projects), Boeing (9), Barclaycard (5), DSTL (11), NATS (8) and many local councils and health care organisations. Approximately 66% of organisations return to sponsor new projects. These projects have achieved significant impacts. For example, a recent project with Unipart Automotive informed decisions that led to a 50% reduction in buyout spend. Boeing’s James O’Loughlin (then Director UK Chinook TLCS Program) commented, “It is estimated that by utilising the results of this project, several million GBP will be saved as a result of improved forecasting”. A project with Portsmouth Hospital examining emergency admissions led to the Trust securing £160k from the Strategic Health Authority to implement the findings from the project. The unit aims to extend this project model to other MSc programmes.

Consultancy/CPD

The unit encourages academic staff to interact with non-academic users via consultancy/CPD through the provision of University facilities and the support of legal services. The Faculty has an enterprise policy that permits staff thirty days for these activities and to retain up to 60% of the income earned. Consequently, staff have undertaken a wide range of consultancy projects, for example, financial institutions (RBS, Lloyds TSB), management consultancy firms (Atkins, Transcend) and public sector organisations (Home Office, NHS, FSA). CPD activities range from short courses to annual programmes, e.g. regular courses in data analysis and statistics for HMRC (10 courses earning £98k since 2012) and a two week training course for 21 senior government officials from Vietnam on public management (earning £51k).

Professional organisations/practitioner conferences

Staff are encouraged to take an active role in professional associations and to contribute to government and NGO policy (HMRC, FSA). Staff are supported in organising conferences and seminars aimed at practitioners by a dedicated Faculty events administrator and iSolutions (IT support services). Example events include: conferences in credit scoring (2009, 2011 and 2013 attracting a total of 1050 practitioners), a conference in responsible leadership (52 practitioners) and practitioner focused evening seminars (55 during REF period). Follow-on collaborations include a range of financial organisations including Barclaycard and Lloyds Banking groups.

c. Strategy and plans

The strategy for impact is aligned with the strategic vision of the unit, namely, to be an international, research-led community that combines rigour with relevance, aimed at solving real-world problems that meet the challenges of the global economy and society. The realisation of this strategy lies in the expertise and knowledge of staff informed by their research, often in collaboration with user organisations, and validated by socio-economic impact. Thus far, impact has naturally arisen from the process of conducting research alongside or within a user setting. The unit’s strategy has brought about a more deliberate approach to creating impact and is engendering knowledge transfer in the research culture. There is continuous effort to strengthen existing, and develop new, relationships with external organisations. Drivers include the new structure of the unit around CoEs that encompass research, enterprise and education, an investment in resources to support the development of links with external organisations and to facilitate exploitation of impact, and providing incentives to staff to undertake activities that lead to impact.

Knowledge transfer research culture: The unit promotes the view that undertaking research and creating socio-economic impact are not separate activities but strongly linked. Many users directly fund, or support in kind, the research undertaken by the unit. All research active staff are given at least 40% time allowance to undertake research activities. Many examples of impact have been realised as a result of the research time allowance, not least the adoption of Prof Thomas’ credit scoring models by users, supported with time allowance and travel money from the School. All research active staff are permitted thirty days to take part in consultancy activities that either

Impact template (REF3a)

further their research or applies their research in a user setting. Examples include Dr Meyer who undertook work with DSTL developing a knowledge management strategy for the organisation, which they are now implementing. Prof Werner works with financial institutions using his research models to advise economic policy-makers at the highest level. All research active staff can apply for a one semester sabbatical, approximately every four years, where they can work with external academic or non-academic partners. Prof Johnson and Prof Sung have worked closely with financial organisations during research leave, resulting in the subsequent award of 4 KTP projects.

Resources and incentives: The new structure built around the CoEs facilitates a more fluid exchange in responsibilities and encourages a richer crossover of research into enterprise and teaching activities. Socio-economic impact is among the key objectives. Two specific initiatives are in place to support achieving impact. The first follows the model of the Faculty annual “Adventures in Research” fund (pump priming). A new annual Faculty fund on “Realising Impact” is now available where staff can bid for up to £20k. Money will be available to fund engagement activities, additional research to move a project to a situation where it can be exploited, and evidence gathering and dissemination to capture impact. The second scheme supports impact achievement by recognising the time invested in generating impact. Using the unit’s workload planning model, a fully developed and evidenced impact case study will be supported by the additional research time allowance. In addition, the unit include socio-economic impact in the annual research report and the annual personal performance development review (PPDR). The University also includes impact explicitly in promotion criteria.

The individual effort of staff and the opportunities which arise from their reputation in their field are important for creating impact. However, the unit is extending its investment in corporately supporting achievement of impact through a significant additional investment in staff to facilitate engagement with external organisations. In addition to the staff listed in section b, the unit is building on this model with further research facilitators, an Enterprise Manager, a further Industrial Liaison Officer and a Director of Executive Education (recently appointed). These represent a significant investment (£210k p.a. direct costs) and demonstrate the commitment of the unit to exploiting its intellectual wealth through engaging with users and beneficiaries of research.

d. Relationship to case studies

The unit’s impact case studies are taken from two research groups that originally formed the Management School: Management Science and Finance. The case studies illustrate the continued depth and calibre of research in these areas. They include impact nationally and internationally and cover delivery of better products and services, decision analysis tools in health and finance, and transfer of knowledge arising from evidence based research.

Two of the case studies arose from collaborative projects. The case study “*Delivering better and cheaper school bus services*” arose from collaboration with a software house via a KTP. It is a clear example of how impact is achieved by working alongside user organisations. Impacts include improved information management and planning for local authorities, shorter journey times for children and 58% increase in turnover for the software house. The case titled “*How many dentists does Sri Lanka need?*” was co-researched the with Sri Lanka Ministry of Health, who went on to implement the findings, which include the creation of 400 new dental posts in under-resourced rural areas, granting access to dental care to an additional 1.5 million people. The case studies “*Improving the way consumer credit risk is assessed*” and “*Understanding where money comes from and applying credit creation analysis to portfolio management*” are examples of socio-economic impact arising from the research and consultancy support from the unit leading to new knowledge and methods for understanding; in the former case, the likelihood of default, and in the latter case, the impact of credit creation. In the case of credit scoring, the practitioner conferences in credit scoring facilitated the dissemination of the new credit scoring methodology, leading to its use in financial institutions. For example, Coventry Building Society applied the approach to a portfolio of 115,000 mortgages with a total value of £12bn. The credit creation approach has been applied in three investment funds and one pension fund and led to lower transaction volume and costs, and simplified fund management procedures (benefiting fund managers and investors). The work has also influenced economic policy-makers at the highest level, for example the Financial Services Authority, the Independent Banking Commission, the International Monetary Fund and the Bank of England.