

Impact template (REF3a)

Institution: Lancaster University
Unit of Assessment: 19, Business and Management Studies
A. Context

Lancaster University Management School (LUMS) is a research intensive school (75% of research was rated world-leading or internationally excellent in the RAE 2008). It is one of only 48 schools globally to hold the prestigious triple accreditation from AACSB, EQUIS and AMBA, placing it in the top 1% worldwide. Research activities are often diverse and multidisciplinary, conducted by large research groups as well as individual academics. Impact is often planned and facilitated but sometimes arises serendipitously – either way the School has sought to enable and respond to these different impact pathways by continuously refining its strategies and mechanisms. The benefits of this approach have had significant and wide ranging impact in terms of end-users, organisations, sectors and countries.

The impact agenda: Engagement and impact have always been at the centre of the management school's *strategy and culture* as exemplified, for example, by the work of the Systems Department (in the 70s), the creation of the Management Development Division (in the 80s), the Institute of Entrepreneurship and Enterprise Development (IEED, in the 90s) and, more recently, the Centre for Performance-led HR (CPHR) and The Gulf One Lancaster Centre for Economic Research (GOLCER) (2000s). This strategy is driven by a *symbiotic approach* which weaves together the interests of researchers and practitioners in order to achieve maximum outcomes for all participants throughout the engagement. An over-arching theme is the *enhancement of organisational performance and sustainability*. The long and established tradition of *critical research*, beyond the mainstream managerial agenda, means that LUMS research is not only economically impactful but also has wider *social and cultural impact* (as demonstrated in four of the impact cases submitted).

The School's research clusters reflect the key areas of focus for engagement and impact activities. Each group has developed its own manner of engaging with external users. Examples of links between our research clusters and external users include, but are not limited to, the following:

1. The *Operational Research and Operations Management* group has always had a strong tradition of engagement. This is facilitated by the development of practice relevant research through the [EPSRC STORi DTC](#), in collaboration with industry partners such as BT, Shell and Unilever. The [Lancaster Forecasting Centre](#) was established to co-create forecasting algorithms and methodologies to address the needs of organisations. This also involves the integration of industry needs into PhD research projects (over 30 to date). Practice relevant research, through state-of-the art simulation and modelling, has addressed significant end-user problems including vehicle routing (Eglese), workload control in make-to-order environments (Hendry, Stevenson), sport-event scheduling (Wright) and airport traffic control (Zografos).
2. The *People, Work and Organisation* group has 'pioneered a new way to interact with business' (FT, 2011) through the [CPHR](#) which has a research-led engagement with firms, such as BAE, IBM, McDonalds, Nestlé, RBS and Vodafone, around strategic HR issues. Other significant impactful research includes: work-life balance (for the charity Working Families - Gatrell) and organizational health and well-being (supported by Chief Medical Officers, Occupational Health professionals and HR Directors - Cartwright). Collaborative research with [The Work Foundation](#) (TWF) has had significant policy impact on HR issues (Bevan), including mental health and stigma, schizophrenia and employment, reducing absenteeism.
3. The *Accounting, Finance, Governance and Banking* group has produced research that informs institutional policy (such as central banks) and coordinated the INTACCT network which facilitated significant industry-academia research cooperation on financial reporting information. They have also developed extensive relationships with professional associations, through the [International Centre for Research in Accounting](#), such as the Accounting Standards Board and the Institute of Chartered Accountants of Scotland (Beattie).
4. The *Entrepreneurship and Innovation* group has had an engagement agenda at its centre from the start. Business engagement is achieved through organisational development programmes which create opportunities for knowledge transfer and research. Examples include the *Leading Enterprise and Development* (LEAD), *Top Team* and *GOLD* programmes, which include managerial exchanges, master classes and learning through reflective practice. IEED's

Impact template (REF3a)

Entrepreneur in Residence (EIR) programme is also indicative, with 21 owner-managers from the Northwest providing guidance on the School's undergraduate programmes and helping foster business ideas.

5. The *Economics* group has, for example, developed models to *support government policy* in *Education* (the efficiency of UK HEIs for the Department of Business, Innovation and Skills (BIS - Walker, Johnes), in *Sport* (advice to the National Audit Office on the Olympic Games - Simmons), and *Gambling* (Peel), resulting in changes in lottery policy. A recent alumni endowment established GOLCER, with a particular emphasis on Islamic banking (Izzeldin).
6. The *Networks, Knowledge and Strategy* group has developed innovative models and approaches of 'market making' that has been adopted by Microsoft, for example, to develop a global market for IT solutions for Public Safety (Araujo). The *Lancaster Centre for Strategic Management* has engaged with a significant amount of organisations around the innovative approach of 'strategy as practice', developed by Lancaster academics in collaboration with colleagues elsewhere.
7. The *Technology, Systems and Organisation* group has, through the *Centre for the Study of Technology & Organisation*, provided social studies of new and emerging technologies to inform policy and practice. For example, their research on the limitations of plagiarism detection systems (PDS) changed Higher Education Institutions' policies (Introna, Hayes). Their work on the risks and limitations of facial recognition systems (Introna, Vurdubakis) was cited by the European Parliament, the US Senate and the US Federal Trade Commission and informed the implementation of the technology at Manchester airport.

External recognition of LUMS' impact and engagement: The quality and strength of the school's engagement and impact has been recognised through a variety of awards. In 2012 LUMS won the inaugural *Times Higher Education (THE) 'Business School of the Year'* award for its impact and engagement agenda. The School was commended by the judges for its 'demonstrable, consistent and considerable impact locally, regionally, nationally and internationally'. In 2013 IEED was a runner up in the inaugural ESRC *Celebrating Impact Award* for 'Outstanding Impact in Business'. The CPHR was also nominated as one of five *Outstanding Employer Engagement Initiatives* in the 2009 THE Awards and was the focus of the 'Featured School' (Lancaster) in AACSB's 'Spotlight'.

B. Approach to impact

The cornerstone of LUMS' approach is that *significant impact flows from high quality multi and interdisciplinary research. But that such research must be tailored to the needs and concerns of the stakeholders (or co-created with them) rather than developing solutions looking for matching problems.* We also recognise that all impact cannot necessarily be planned and that our research sometimes has unforeseen impact. In LUMS engagement and impact (like research) is not driven from the top down. Most colleagues see the benefits and want to engage with the world of practice (also critically). Our approach is to develop and enhance mechanisms and incentives to facilitate this. We have, for example, made engagement part of our promotion criteria. As such our research-led impact strategy is achieved, or enacted, through a number of discernible mechanisms, which have emerged over many years and are often interconnected.

Developing regional, national and international **networks and partnerships** with (and for) key stakeholders and end-users

Our experience has shown that longer term engagements create sustainable networks of impact. The LEAD programme has resulted in a network of more than 3,000 SMEs who draw on our research and experience to reflect on their own organisational knowledge and to enhance their performance. Likewise, the CPHR, through its subscriber organisations created a network of HR practitioners who draw on the latest research in order to enhance their HR practices. The [Lancaster China Management Centre](#) has created an extensive network of industrial and academic partnerships, between the UK and China. The work of the centre has recently being acknowledged through the UKTI China Education Links Award as well as an award by HEFCE of *Catalyst* funding for a project aimed at enhancing the ability of UK SMEs to work in China.

Impact template (REF3a)

Delivery of research-led **organisational development programmes** for corporate and public sector organisations

Organisational development is a key mechanism to integrate research into specific organisational contexts and practices. For example, this can happen through *organisational learning and development programmes* such as the IMPact programme at Lufthansa (associated with the international IMPM programme that has been running for 18 years). This programme was 'highly commended' in the EFMD Excellence in Practice awards in 2011. It can also happen through the use of research-led methodologies and approaches such as the widely adopted *Soft Systems Methodology* (SSM), developed by Checkland, which has informed practice in both public and private sectors worldwide.

Development of **collaborative co-creation projects** with key stakeholders and end-users

Co-creative research and organisational engagements are very effective for creating practice relevant impact. For example, the *Lancaster Forecasting Centre* has worked with 40 companies to develop improved forecasting algorithms and methodologies. The [STORi DTC](#) has had successful co-creation with industrial partners, leading to its renewal as an EPSRC funded DTC in 2013 (one of only three nationally). Co-creation in the outdoor clothing industry, through the annual 'Innovation for Extremes' design prize, conference, and business mentoring, has led to the creation of at least two start-up companies and a number of new patents.

Informing the **policy development** of important decision-making institutions and entities

Shaping policy can be a very effective, though more indirect, form of impact. The acquisition of *TWF* think-tank has created a very significant mechanism for influencing policy on innovation ([BIG Innovation Centre](#)) and workforce effectiveness ([Centre for Workforce Effectiveness](#)). Research on alcohol sales and consumption has informed government policy leading to the formation of 55 Community Alcohol Partnerships nationwide. The work of the Economics group is regularly cited in government policy, for example the Department for Education and Skills strategic paper '[Putting the world into world-class education](#)', which draws on the work of Johnes.

Dissemination of **relevant high-quality research** to appropriate stakeholders and end-users

High quality, practice relevant research will tend to be taken up by practice if disseminated effectively. Many examples can be mentioned such as the work on 'strategy as practice' (widely adopted by organisations). Statistical models, developed at LUMS are widely used to control manufacturing environments, schedule sport events, route vehicles, plan transport systems, devise strategies, and so forth. Research on ICT innovation has supported the development of web-based communication systems between health care providers and chronic care diabetes patients which has enabled them to self-manage their care, with clinically significant health benefits.

Institutional arrangements and resources - the approach and mechanisms above are enabled by a set of institutional arrangements and resources. The following are indicative:

(a) Researching engagement and impact mechanisms and processes are crucial in order to innovate, as emphasised in the recent ESRC commissioned report [Evaluating the Business Impact of Social Science](#). The report referenced the EIR initiative as particularly innovative. We have used RCUK funding to further develop business engagement for example ESRC research grants since 2007 (£620k) have focused on the development of successful business engagements by universities. This has informed the evolution of knowledge exchange programmes such as IDEAS and LEAD.

(b) Governance of engagement and impact has to be, and will continue to be, at executive level. This is achieved through membership of the Dean's Steering Group by the *Associate Dean (AD) for Engagement, Enterprise and Impact*. The AD chairs the Faculty Committee for Engagement, Enterprise and Impact at which all groups are represented, and also liaises with all relevant University committees to ensure ongoing coherence to University strategy and that institutional support frameworks are accessed effectively. The *LUMS Advisory Board*, which is made up of 15 industry leaders (including Brian Tempest, former CEO, Managing Director and President, Ranbaxy Laboratories; Michael J Dormer, former Worldwide Chairman, J&J Medical Devices; Kath Durrant, Director of Human Resources at Rolls Royce; Gian Fulgoni, Executive Chairman & Co-Founder at comScore Inc; Andy Rubin, Chief Executive Officer of Pentland Brands plc), provide an important external practitioner governance and perspective to the School on emerging issues.

Impact template (REF3a)

(c) University level institutional support: Impact needs to be facilitated through embedded institutional processes to be sustainable. At University Council level this is achieved through the *Knowledge Exchange Committee* and the *Business Enterprise Board* (chaired by the Pro-VC for Research). Here, sector and university-wide initiatives are discussed, with representation from all the faculties and from the *Research and Enterprise Services Division* (RES). RES provides institutional support for submitting and monitoring research and engagement bids, which has helped secure funding from, for example, the European Regional Development Fund (ERDF) and Higher Education Innovation Funds (HEIF) of £1.3 million to support engagement.

(d) Support mechanisms and incentives have been designed to reflect the importance of engagement and impact as an embedded part of our research culture. Significant engagement activities are planned as part of workload. Research impact is also part of our promotion criteria, at all levels, and forms an integral part of our early-career development plan. Researchers, and especially early-career researchers (ECRs), are encouraged to apply for University 'pathway to impact' and 'public engagement' funding programmes (£110k is available annually). ECRs will also be included in the University-wide 'public engagement' programme 'RCUK-SUP: Inspiring the Next Generation of UK Researchers' (£140k).

C. Strategy and plans

Our commitment to research-led impact is articulated in the School's Strategic Plan (2010-2015):

Our priority is to maximize the impact of our work by ensuring that it influences the actions, behaviours and thinking of our academic peers, corporate colleagues and society more broadly.

The implementation of impact strategy will continue to focus on various inter-related areas, mechanisms and activities outlined above. While recognising the challenges faced by scholars, we are determined to find new ways of creating more effective pathways for research impact. The following initiatives are seen as central to our impact strategy beyond 2013:

Enhancing supporting for impact: The School intends to appoint an Impact Officer in the Research Support Office to support dissemination and impact activities. Further incentives, such as impact awards are being planned. Impact is a central theme at the LUMS annual research conference with expert workshops on engagement and funding (most recently a SingleImage Ltd workshop attended by more than 70 colleagues).

Long-term and evidence-based vision for impact: Central to the School's strategy on engagement is the view that research impact is a long-term process of developing, shaping and influencing the organisational practices of key stakeholders and end-users. For example the creation of *TWF* - their proximity and links with relevant policy-makers is central. It is anticipated that this relationship will grow as joint research projects are identified and developed which could have direct impact on policy formulation in government. A variety of mechanisms have been put in place to facilitate a close collaboration between colleagues at *TWF* and the various research clusters within the School such as joint appointments (Andersen, West). Other examples include the development of research-led executive education through the re-envisioned *Lancaster Leadership Centre* (Kempster) and the development of a *Transport Logistics Research Centre* connected to various European institutions (Zografos).

Maintaining sustainable impact through sustainable resources: An important part of our future strategy is to secure resources to maintain and enhance support processes. For example, to continue to embed research impact activities in the research environment, and to maintain a culture of research engagement and impact. We have successfully drawn on a number of funding streams including ESRC funding for four Business and Management Development Fellowships, Knowledge Transfer Partnerships (£210k), ERDF (£10.3k), HEIF (£1.7m), alumni philanthropy (GOLCER and a Chair in Marketing £401.7k) and private sector funding (CPHR, £1.3m; LEAD income from SMEs, £272.9k). The total investment in engagement and impact in LUMS over the REF census period is £16.9m. It is, however, important that we continue to secure external funding from such sources to develop new streams to ensure sustainability and diversity of research.

Developing major collaborative engagement networks: To ensure long term impact it is essential that the School develops and maintains major collaborative engagement networks. Examples in progress include: (1) the *Fusion* partnership - a £5.1m EDRF funded programme

Impact template (REF3a)

designed to create tailored support for around 500 creative and digital SMEs across London, delivered in a multi-partner collaborative network; (2) the *Big Innovation Centre* is a TWF project, involving a consortium of multinationals including Barclays, GlaxoSmithKline, the Guardian Media Group and Unilever; (3) a Cabinet Office initiative, to be led by LUMS, to distribute £32m from the *Regional Growth Fund* to promote economic development in 20 English cities. A dedicated project manager will ensure that research and impact will be embedded into the various projects and develop a network to draw on the (approx.) 20% of funding in the EU Horizon2020 budget dedicated to small-and-medium sized enterprises (SMEs).

D. Relationship to case studies

LUMS will submit thirteen impact case studies that reflect the diversity of impacts and approaches outlined in Section B. Examples from the cases are provided below as indicative of our approach and support mechanisms.

(1) **Impact that is research led:** High quality impact flows from high quality research. This is evidenced in the number of projects that our researchers have been commissioned to conduct including the Foresight, Education Exports and Alcohol impact cases. Evidence based policy-making is at the heart of the Foresight case study - 85 state-of-the-art international science reviews resulted in publications and presentations. These impacted government, third sector, businesses and academia and were integrated into White Papers and changed flexible working policy through the Children and Families Bill. Thus, illustrating that high quality research, actively disseminated, can have significant impact and lead to further funding. The recognition of IEED as a specialist institute for work with SMEs resulted, for example, in the significant RGF award.

(2) **Impactful research that responds to actual needs:** The SSM case study shows how the methodology emerged as a solution to complex 'messy' problems facing practitioners. Through action research successive versions of SSM were used and improved over time. SSM is now used worldwide, not just in teaching but in practice. Its reach can be seen by the fact that there are more than 120,000 references to it in Google (of which the majority are non-academic organisations). The *Forecasting Centre* case shows how work with a range of companies from SMEs to multinationals, public to private sector and suppliers to retailers created customised forecasting models and approaches. [TEXT REMOVED FOR PUBLICATION]. Co-creation of quality research is fundamental to this impact.

(3) **Impact that emerges from unexpected places:** The plagiarism case details the study of the educational practices of international students, funded through a Fund for the Development of Teaching and Learning project (FDLT), revealed what seemed to be high levels of plagiarism, as detected by PDS such as Turnitin. Using an approach to study technology, established at Lancaster, we were able to demonstrate that the PDS made inappropriate assumptions about international student's writing practices. This work led to plagiarism policy impact at more than 10 HEIs and further impact on how students were taught to write at no less than 32 national and international HEIs. What started as teaching and learning project produced research that ended up having major impact on practice. Combing research from a variety of projects (in a multidisciplinary manner) can have unexpected impact, if the research and engagement culture allows for it.

(4) **Developing networks for impact:** The IDEAS and LEAD cases developed out of early work conducted with SMEs in the Northwest. These intensive programmes focused on a combination of imparting research-led solutions and drawing out institutional expertise to improve management and leadership skills. Over 3,000 SMEs have participated in these two programmes, resulting in further initiatives such as the GOLD programme and the expansion of LEAD to four UK franchises. These programmes continue to evolve and have resulted in the creation of similar international programmes. Because of these existing networks further funding was secured to work with SMEs in the UK (such as the RGF). Another good example is the work conducted by the CPHR with their 20 primary sponsor organisations (including government departments, energy providers, car manufacturers and telecommunications firms). This has had significant and immediate impact, not only to those in the immediate network but also beyond. To that end, the CPHR are working with the leading body for HR, the *Chartered Institute of Personnel and Development*, to disseminate findings from initiatives with Shell and McDonalds.