

**Institution: Birmingham City University**

**Unit of Assessment: Main Panel C: UoA 19 Business and Management Studies**

**a. Context**

Industrial collaboration and tangible impact generation are fundamental tenets of The Centre for Business, Innovation and Enterprise (CBIE). The Centre's strategic aim is to produce quality research that respond to and fulfils stakeholder needs with the objectives of: i) promoting the adoption of applied research products/findings amongst business stakeholders; ii) improving systems, processes and procedures that augment business performance; and iii) generating political, social and economic value.

Impact on (i) business stakeholders. The Centre's research achieves impact via its professional practice outreach. Exemplars include Britain's Most Admired Companies (BMAC) which is the only internationally recognised metric in this specific context and has been reported annually in *Management Today* since 1994. The impact of this metric among peers is underscored by involvement in BMAC events including presentations at Birmingham City Business School (BCBS) from Sir Terry Leahy (former CEO, Tesco) and Amanda Sourry (EVP, Unilever). The Centre's linked themes of entrepreneurship and finance has culminated in the application of Entrepreneurship Education (EE) and the development of enterprising graduates who are equipped to exploit new venture creation and sustainability of small businesses. Research outcomes have impacted directly as well as indirectly upon entrepreneurship policy and practice in the UK – including a longitudinal study in Entrepreneurship Education (EE) in Institutes of Higher Education (HEIs) in continental Europe and other industrially developed and developing countries.

Impact on (ii) business systems. The Centre's externally funded research into plant and equipment health and safety management in business has achieved significant impact on numerous stakeholders. The accompanying impact case study evidences in much more detail how this research has: changed industry best practice standards [in partnership with the government body the Health and Safety Executive (HSE)]; and tangibly improved industry systems, procedures and protocols used for managing health and safety in the workplace.

Impact on (iii) society at large. CBIE's academics are often consulted by government in the UK and beyond; prominent industries; educational institutions; defence agencies; and international research institutes. Specific examples include: The Chartered Institute of Management Accounting; Gala Coral Group; The UK HSE; The UK Home Office; and The US Department of Defense. An exemplar is the societal impact on all workers that now benefit from reduced accident rates and incidents of ill health, as a result of CBIE's research into business health and safety management.

**b. Approach to impact**

Impact is high on CBIE's research agenda via mechanisms through which research is designed, implemented and applied in practice. At a macro level, the pure-to-applied research ratio has been progressively re-orientated in the direction of end-users (2010-2013) and is now oriented less towards pure research, and more towards business needs. This practice focussed re-alignment means that CBIE's research products are used by many beneficiaries. For example, a collaborative research grant (Edwards and Holt) to develop safe systems of work for utility trailers attracted support from innovating companies (such as JCB, OPERC, Balfour Beatty, Flannery Plant Hire and Mentor Training) who subsequently used the findings produced (published in leading academic journals and best practice industry guidance) to improve safety policies, procedures and practice within their organisations.

Unifying academic and industrial research and its outputs, underpins CBIE's research quality and rigour whilst maximising impact; in part through stronger industrial collaborative links occurring via CBIE's promotional events and activities that target industry, practice and society. For example, CBIE's annual Plant and Equipment Management Innovation Conference (PEMIC) series regularly attracts over 300 industrialists and has encouraged wider participation, networking and collaboration between CBIE's research community and international business stakeholders. Such evidence of industrial outreach and tangible research adoption by industry have been extensively

**Impact template (REF3a)**

welcomed, attended and supported by renowned business leaders such as Lord Digby Jones and Sir Anthony Bamford. Other industry facing events held include the annual corporate social responsibility seminar series (2011-2012) that is regularly attended by practitioners from companies such as Gala Coral Group and KPMG. Our periodic corporate reputation seminar series have been attended by Sir Terry Leahy, former CEO of Tesco and Amanda Sourry, Executive Vice President of Unilever UK and Ireland. These events also facilitate a wider range of businesses to adopt industry standards developed; cross-fertilise innovation; and share best practice - thus snowballing the impact of initial research undertaken amongst secondary adopters (secondary impact beneficiaries). Such exemplars of meaningful interaction and collaboration with industry and commerce demonstrate how industry involvement – and as a result industrial, societal and political impact – has increasingly become a feature of our research culture.

At a micro level, CBIE research focusses on tangible 'products' that afford value to a business organisation, public body or group(s) within society (for example, research into ethnic minority finance led by Hussain and Sandhu). Strict review of research proposals at project inception and before submission, via the Faculty Research Committee, Faculty Research Degrees Committee and Faculty Research Ethics Committee, help ensure this ethos and provides constructive leadership to all research staff. Additional support is also provided at an Institutional level by the University Research Strategy and Policy Committee (URPSC) – whose over-arching remit is to provide institutional clarity, guidance and support for members of the University's research community and this includes executive direction on impact strategy. It also facilitates the transference of shared (impact) best practice and collaboration between Faculties.

An increasing focus has been to proactively engage and align CBIE's postgraduate research and professional practice research work to meet business needs through collaboration with businesses such as JCB (UK) and Mercon (Netherlands). From an operational perspective, the significant cultural change amongst staff that has occurred since RAE-2008 continues and wider industrial engagement and participation is a most welcome and beneficial feature of this in achieving the School's industry enriched 'impact' agenda. As a result, CBIE's impact has been championed on regional (e.g. BBC Midlands Today), national (e.g. the Guardian) and international levels (e.g. German and Canadian media). Research led by Edwards and Holt produced an innovative hand-arm vibration health management toolkit that was subscribed to by 85 percent of the UK plant and equipment hire sector. This research was also adopted by the United States Department of Defense [sic] (USDD) to design a hand-arm vibration 'pocket guidance' tool for defence employees. In recognition of this research, these CBIE staff were jointly awarded the US Department of Defense Ergonomics medal.

**c. Strategy and plans**

CBIE's relatively recent 'industrial expansion' strategy for impact generation is already beginning to yield results in new areas of research that differentiate the Centre from other institutions. CBIE's impact strategy was created using a positional analysis of past and current progress compared against optimal future performance (which aligns itself to stakeholder needs and requirements supported by high quality research). Thus far, the strategy to continue to nurture research staff with capacity to achieve this goal has:

- Raised impact quality, reach and significance thresholds by pairing established industrial focused researchers with early career researchers and newly appointed staff. For example, established research into entrepreneurial/micro finance has enabled an early career researcher to become research active and entered into REF-2014.
- Encouraged staff to present their research at both professional practice and peer reviewed academic conference events both nationally and internationally, to promote industrial participation, and encourage stronger collaborative networks (e.g. CBIE's PEMIC and Britain's Most Admired series), BAM and ISBE. Such events have raised public awareness and positively altered the public's understanding, attitude and behaviour particularly in the scientific areas of: managing machinery health and safety among business; corporate reputation to bolster business performance; and the societal/business interface to ensure communities of practice are developed and nurtured.
- Promoted research impact at the postgraduate student level (via a new research society) to

## Impact template (REF3a)

ensure that the next generation of active researchers culturally resonate with CBIE's future impact aspirations.

- Created an internal research seminar series (which regularly attracts external speakers from industry) to allow senior research staff and industrial colleagues to impart guidance on developing the impact value proposition of new research.
- Utilised inherent opportunities of Knowledge Transfer Partnerships (KTPs) to enable active researchers to work closer with industry and develop research products that deliver palpable changes and/or benefits to an organisation (with grants secured from organisations such as Servosteel, Essar and Accord Housing Association).
- Launched a DBA programme to better tie industry needs into research provision.

Cumulatively, the aforementioned have created an academic community of practice geared towards delivering high quality-impact driven research. The Centre's future outward facing plan synthesises with the University's 2013-2017 Research Strategy. At an operational level, this means that the Centre will in the short term:

- **Expand** professional practice 'outreach' events as a means of working closer with industry and attuning future research to niche business and specific societal needs.
- **Increase** the number of professional practice staff that hold a PhD and demonstrate an impact focussed research track record.
- **Forge** stronger links with both national and international Higher Education Institutions to engender wider participation and novel avenues for impact. For example, recent work with Kwame Nkrumah University of Science and Technology, Ghana has developed innovative finance mechanisms to fund infrastructure investment; whilst research with colleagues at Curtin University, Australia has produced innovative work within the field of operations management.
- **Exploit** opportunities via the University's International Office to attract international post-graduate students that enable CBIE to further enhance international impact outreach.
- **Collaborate** with and attract greater funding from professional practitioners and the third sector in recognition of the inextricable value of an academic perspective when seeking to resolve real life problems.

### d. Relationship to case studies

Strategic interventions implemented since RAE2008 (including industrial outreach, industry /academic partnerships, emphasis on impact among staff support) have yielded tangible evidence of research that transcends the boundaries of academic beneficiaries. The case study on health and safety management of plant and machinery in business (Edwards and Holt) provides evidence of how the multi-collaborative, multi-disciplinary and international nature of our impact driven research makes a significant difference to a host of beneficiaries at the business, environmental, societal and political levels. Methodological and technological advances demonstrated in the case study confirm the generation, exploitation and most importantly, adoption of new industry standards, changes in company policies procedures and practice, impact upon UK government policy (as evidenced by work with the Health and Safety Executive) and US government policy. The case study on developing enterprising individuals (Matlay and Hussain) demonstrates how a tightknit cluster of enterprise, entrepreneurship and finance (core) CBIE academics have developed a multi-disciplinary and extensive international network of collaboration to help promote, educate and ultimately produce future generations of enterprising entrepreneurs in this country and abroad. This established CBIE theme has also positively impacted upon UK and European policy.

Combined, the case studies demonstrate how knowledge, products and services created from our research have positively contributed to myriad beneficiaries; while simultaneously, stimulating our rich and fertile research environment in which impact capacity and capability is now firmly entrenched.