Project Mandate

PROJECT NAME: HE-BCI review
PROJECT SPONSOR: Rob Phillpotts

PROJECT BACKGROUND

The Higher Education-Business and Community Interactions dataset (HE-BCI)[1] is the principal output from a two-part data collection exercise administered annually by the Higher Education Statistics Agency (HESA). It comprises information on the strategic direction for HE providers' "third stream" activity, and quantitative data on the provision of research, consultancy and equipment hire services; patents, licensing, intellectual property, and spin-out companies, public outreach events and other engagement activity. Data is collected from HE providers by means of a survey focussing on institutional strategy ("Part A") and a tabular collection of numerical data ("Part B"). HE-BCI has been collected for the past 18 years (since 1999/2000) and for the past decade, by HESA. HE-BCI is a rich data source, whose users regard it as "an essential source of information on university knowledge exchange"[2]. The collection has been improved modestly and incrementally, with a more substantial update being made in 2013/14, and separation of business and community interactions data from the HESA Finance record in 2016. The length of time since HE-BCI was updated, argues for a review now.

Knowledge exchange and public engagement activities undertaken by HE providers have grown and developed considerably since HE-BCI was first collected. Science parks, business incubators, senior leadership and professional management support are now common features, and there is national leadership for a concordat to underpin the principles of Knowledge Exchange[3]. At national level several organisations provide advice[4], advance and advocate for improved interactions between HE and businesses and communities.[5] During a period when academic culture has "adapted" to sustain increasingly "entrepreneurial universities"[6], the HE-BCI data definitions have remained largely stable. There is a case for asking users whether the data still meets their needs: to gather their insights on how national data might adapt to reflect changes in the ways in which HE providers manage their business and community interactions; and in ways that resonate with their intentions for future civic engagement.

One of the drivers of increased interest in HE-BCI is the UK Government's Industrial Strategy, which identifies four 'grand challenges'[7] 'where Britain can lead the global technological revolution'[8]. The UK's Industrial Strategy also addresses weaknesses in R&D investment, technical education, and productivity. The strategy sets a target of national spend on R&D to

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[1] (Higher Education Statistics Agency, 2018)
[2] (HEFCE, 2017, p. 2)
[3] (Universities UK & Guild HE, 2019)
[4] (for example, Intellectual Property Office, 2014)
[5] For instance, PraxisAuril (https://www.praxisauril.org.uk/), NCUB (http://www.ncub.co.uk/), NCCPE (https://www.publicengagement.ac.uk/)
[6] (Barnett, 2011, pp. 33–44; Clark, 1998, pp. 102, 137–144)
[7] (HM Government, 2017, pp. 30–41)
[8] (HM Government, 2017, p. 7)

reach 2.4% by 2027[9], and places an increased emphasis on commercialization. It marks a move toward government demonstrating determination to secure outcomes and make markets, especially where high-value knowledge-intensive industries are concerned. An increased concentration on place recognises the need to spread the benefits of innovation to all communities[10], and address regional imbalances to raise earnings and productivity nationally. Regional and devolved governments are recognised as having interests in delivering productivity growth through city deals, devolution deals, and growth deals[11] as vehicles for the "ambition and ingenuity of local business and civic leaders"[12] to benefit from both funding and devolved powers, in pursuit of local economic impacts. Within England the development of Local Industrial Strategies[13] will enhance economic growth alongside other UK national strategies such as the Economic Action Plans of the Welsh Government[14], and the Scottish Government[15], and the draft Industrial Strategy for Northern Ireland.

HE providers are "hugely important to the economic, social, cultural and environmental wellbeing of the places in which they are located"[16], often one of the largest employers in their locality, and play important roles as "anchor institutions"[17]. Despite an academic culture "of permanent rivalry for the truth of the social world"[18], many have recently found their interests at odds with local electoral preferences, most recently in the 2016 "Brexit" referendum[19]. Analysis points towards place-based societal inequalities being correlated with an undermining of the authority of expertise[20]. This makes the case for better understanding of both places and the benefits HE providers bring to them. We currently lack a data source that compiles the business and community impact HE providers have either geographically or in particular industry sectors, either at an aggregate, or at a granular activity level. If the data were available, measures of university contributions to their localities and to culture and society more broadly, could form part of the national data infrastructure for HE. This could support better public understanding of HE providers' interconnectedness with their places[21]. Likewise, improved measures of the types, volume, significance, longevity and outcomes of interactions may be of value to users. For instance, improved data may also have applicability in future REF exercises, where impact from research now accounts for 25% of outcomes[22].

Promotion of equality and diversity in the Industrial Strategy will not only develop an economy that works for a broader range of people but appears to be correlated with a higher level of business success, across a number of dimensions[23]. In Scotland, "positive promotion of

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[9] (HM Government, 2017, p. 66)
[10] (HM Government, 2017, pp. 214–239)
[11] (HM Government, n.d.)
[12] (HM Government, 2018, p. 5)
[13] (HM Government, 2017, p. 16)
[14] (Welsh Government, 2017a)
[15] (Scottish Government, n.d.-a)
[16] (UPP Foundation, 2019b, p. 4)
[17] (Allan, 2015)
[18] (Bourdieu, 1991, p. xiii)
[19] (Clarke & Newman, 2017; UPP Foundation, 2019b, p. 23)
[20] (For example: Darvas, 2016; Dorling, Stuart, & Stubbs, 2016; M. Goodwin, 2016; Collaborate CIC, 2016; M. J. Goodwin & Heath, 2016; UPP Foundation, 2019b, p. 23)
[21] (UPP Foundation, 2019b, p. 37)
[22] (REF2021, 2018, p. 12)
[23] (Hunt, Layton, & Prince, 2015)

equality and diversity in staff and all who are affected by the use of the [University Innovation Fund (UIF)]"[24] is one of seven key outcomes sought by the Scottish government[25] and a stated shared policy interest for the Office for Students and Research England[26]. Within Wales the Well-being of Future Generations Act[27], which advocates equality, resilience and prosperity, is core to the use of government funding including that distributed by HEFCW. In Northern Ireland, the applicable legislation is Section 75 of the Northern Ireland Act (1998) under which equality of opportunity and good relations are central to policy making, policy implementation, policy review and service delivery. At present this is an area where national data does not allow progress to be monitored.

Universities are deeply embedded in "innovation systems"[28], and therefore implicated in securing economic and social development outcomes envisaged by the Industrial Strategy. Funding and measurement regimes are being developed across the UK to support this[29]. For instance, Research England is developing the Knowledge Exchange Framework (KEF) with inputs from funders in all devolved administrations, and this review can support the development of the data sources and definitions used in its metrics. The KEF will address efficient use of public funds and support continuous improvement in knowledge exchange[30] as well as supporting skills. In Scotland, returning to HE-BCI is a condition of grant for the UIF. In Wales, HEFCW has announced its intention to reinstate support for innovation and engagement in 2020 through the Research Wales Innovation Fund (RWIF). HE-BCI data is central to the RWIF metrics and performance review processes which are currently under consultation[31]. In Northern Ireland, HE-BCI remains the primary data source for informing annual core KE allocations under the Block Grant. With HE-BCI data demonstrating that knowledge exchange activities have reached a reasonably static and mature level of embeddedness in HE providers[32], it is timely to consider what value improved "data and intelligence gathering"[33] could add to the broad range of civic engagement between HE, business and communities. There may also be opportunities to reduce burden on HE providers. For instance, consideration should be given to the value of linking data collected by the Government's Intellectual Property Office[34], the UK Innovation survey[35] or linking to studies such as the Cambridge Business Competitiveness and Education survey[36].

Changing approaches to graduate employability and skills blur the boundaries between universities' knowledge exchange activity and traditional education and research missions[37]:

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[24] (Scottish Funding Council, n.d.-b)
[25] (Scottish Funding Council, n.d.-a; Scottish Government, n.d.-b)
[26] (Office for Students & UK Research and Innovation, 2018, p. 13)
[27] (Welsh Government, 2015)
[28] (Mazzucato, 2018; Ulrichsen, 2015; Uyarra, Flanagan, Magro, Wilson, & Sotarauta, 2017)
[29] (Scottish Funding Council, n.d.-b; Scottish Government, n.d.-b; Welsh Government, 2017b; Research England, n.d.-a; HM Government, 2017 - contains 97 separate instances of the words 'university' or 'universities'; UPP Foundation, 2019b, p. 36)
[30] (Research England, n.d.-b)
[31] (HEFCW, 2018, pp. 4, 7, 2019a, pp. 1, 3–5, 8, 2019b)
[32] (HEFCE, 2017, pp. 16–17)
[33] (UPP Foundation, 2019a)
[34] https://www.gov.uk/government/organisations/intellectual-property-office
[35] (Department for Business, Energy & Industrial Strategy, 2018; Scottish Government, 2018)
[36] (Salter et al., 2017)
[37] (Marzocchi, Kitagawa, & Sánchez-Barrioluengo, 2019)

enterprise and entrepreneurship is now considered an academic subject[38], with its own learned societies and professional associations[39]. The UK's national data infrastructure for HE should recognise this increasing interconnectedness by considering the contribution that other data collections (for instance the HESA Staff, Student, and Finance records, as well as government and survey data) can make to our understanding of interactions between higher education, business and the community.

PROJECT PURPOSE

The scale of the apparent task emerging from the drivers above is indicative of a requirement for a broad review centred on data about Higher Education interactions with Business and the Community more generally, rather than just narrowly on the current HE-BCI survey. The diversity of activity "presents considerable challenges as to what you measure and compare. A characteristic of university-community engagement is the proliferation of different schemes and programmes and the diversity of impacts and benefits realised. Some university activities can be readily codified, measured and hence compared, but the diversity of activities covered by engagement with the community presents great difficulties of comparison as well as fundamental problems of measurement."[40]

We therefore propose the review project seeks to answer the following questions:

1. What data in HE-BCI is no longer sufficiently valuable, and should be discontinued?
2. What are the main uses of the current data about Higher Education interactions with Business and the Community, that should be preserved?
3. What adaptations or new concepts might be necessary to ensure user needs for data about Higher Education interactions with Business and the Community can be met in the future?
4. What data about Higher Education interactions with Business and the Community is currently compiled (in HE providers and elsewhere) which could be made available, either to reduce duplication or enhance value for users?
5. What alternative data standards already exist in this domain, and are they suitable for use?
6. In what ways should HESA be improving its outputs to better meet user needs?

OBJECTIVES

- To undertake an investigation that meets the goal of specifying, principally, statutory users' needs but also the non-statutory use cases for data on interactions between the HE sector, and the businesses and communities they work with, identifying output objectives, concepts of interest, and availability of data; reporting in late summer 2019.
- To run consultations and working groups aimed at understanding and confirming user needs.
- To produce a business case for the Design and Build of new or improved data collection/ingestion instruments along with associated processing, analysis and dissemination plans by the end of the 2019/20 academic year.

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[38] HECoS No. 101221
[39] For example: https://isbe.org.uk/ ; http://ioee.uk/ ; http://www.enterprise.ac.uk/
[40] (Charles, Benneworth, Conway, & Humphrey, 2010, pp. 1–2)
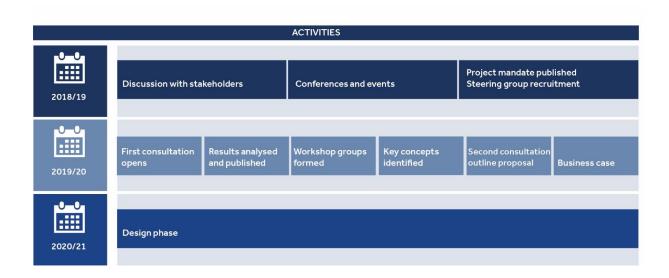
BUDGET (ESTIMATED)

For the pre-business case phase of specifying needs, costs relate to travel and subsistence, smaller-scale meetings and catering, staff time (existing staff only) and will operate on a marginal costs basis (i.e. subsumed within existing operational budgets and resources)

SCOPE OF THE PROJECT

The outline timetable of activity proposed is as follows, with the review process (from the launch in Feb 2019) taking place throughout the 2019/20 academic year.
There are five output deliverables expected from the project (each of which requires background work to be undertaken):

1) Publication of analysis of initial consultation (to investigate user needs).
2) Publication of analysis of second consultation (to confirm our plans meet user expectations).
3) Business case developed and agreed (to specify the next stage of work and gain agreement for it).
4) Publish outputs from task-and-finish groups (to outline and explain the development of our technical proposals).

Of these, number three, the business case, is the final output from the review, and establishes the requirements for the design phase, and sets the overall future programme of work towards achieving the goals set out in the business case.

ACTIVITIES						
2018/19	Discussion with stakeholders		Conferences and events		Project mandate published / Steering group recruitment	
2019/20	First consultation opens	Results analysed and published	Workshop groups formed	Key concepts identified	Second consultation outline proposal	Business case
2020/21	Design phase					

In the table below, we show the outputs, milestones, and constraints, in each of the areas tackled as part of the specification of needs.

DELIVERABLES	MILESTONES	DEPENDENCIES

Identify needs: 1) Publication of analysis of initial consultation	Publish initial assessment of needs in a project mandate to support user reaction and reflection (August 2019) Establish steering group covering key users and suppliers (August/September 2019) Publish initial consultation (September 2019)	Staff time and resource across the Statutory and Data and Innovation Groups May need to promulgate first consultation without steering group oversight if timetable does not work. Essential to have steering group in place by the time the first consultation results are in.
Consult and confirm needs: 2) Publication of analysis of second consultation	Establish task-and finish groups to investigate areas decided on by the steering group and following the first consultation. (October 2019-March 2020)	Staff time and resource across the Statutory and Data and Innovation Groups Availability of external expertise during this period
Establish output objectives: 2) Publication of analysis of second consultation 3) Business case developed and agreed	Internal options analysis and conceptual design of outputs (April 2020) Establish coverage/constituency of the data. (April 2020)	Availability of analytical resource in the Data and Innovation Group Access to external data sources Agreement on constituency from SCs. If not available, could be pushed-out to design phase.
Identify concepts: 2) Publication of analysis of second consultation 4) Publish outputs from task-and-finish groups	Establish task-and finish groups to investigate areas decided on by the steering group and following the first consultation. (October 2019-March 2020)	Staff time and resource across the Statutory and Data and Innovation Groups
Check data availability: 2) Publication of analysis of second consultation 3) Business case developed and agreed	Understand scope and limitations of current data gathering processes by HE providers (June 2020) Understand availability of third-party data (April 2020)	Availability of analytical resource in the Data and Innovation Group Access to external data sources
Business case: 3) Business case developed and agreed	All specification of needs work undertaken (June 2020) Conceptual model (June 2020)	Staff time and resource across the Statutory and Data and Innovation Groups

		PMO support
		Access to internal and external expertise to fact-check and advise

OUT OF SCOPE FOR THIS PROJECT

- A detailed design (variables, coding manual, derived fields) for the post-HE-BCI data
- Outputs detailed design
- System detailed design
- Collection/ingestion workflow design
- Data Sharing Agreements

ANY OTHER INFORMATION

Published work, and discussions with stakeholders, have revealed substantial public demand for improvements to HE-BCI data. We have received requests for involvement in a review from each Devolved Administration, UKRI and OfS. We have presented at the PraxisAuril and NCUB annual conferences (in June 2019 and February 2019, respectively, as well as at previous events prior to the launch of the review. At each event we have detected enthusiasm for addressing the data needs of important but relatively underserved research commercialization, knowledge exchange and public engagement activities of higher education.

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