# HE-BCI evidence gathering survey

#### Overview

This survey is a part of HESA's review of the Higher Education – Business and Community Interactions (HE-BCI) survey. Its purpose is to gather information about current practices for the recording and use of data about knowledge exchange (KE) and related activities. This builds on a wide range of previous work available on the website, and fits into the plans we have communicated in our **September blog** <a href="https://www.hesa.ac.uk/blog/21-09-2023/he-bci-review-progress-knowledge-exchange-data">https://www.hesa.ac.uk/blog/21-09-2023/he-bci-review-progress-knowledge-exchange-data</a>.

The survey is organised into 5 large sections corresponding with the priority areas we have established for the HE-BCI review (plus an initial background section):

- · Commercialisation
- · Geographic granularity
- · Social and cultural interactions
- Equality, diversity & inclusion (EDI)
- · Staff and students as agents of knowledge exchange (KE).

The commercialisation section is further subdivided into subsections on spin-offs, start-ups, licensing and IP, disclosure and patent protection, and international comparisons. We provide background material in each section.

The information you provide will help us in both the short and longer-terms. In the short-term your answers help us understand how closely our in-development proposals for changes will fit with existing data practices. They will help us modify our design options before we consult with you, and will also help us to improve the guidance and definitions in the survey. Your insights will help us determine the options for designing HE-BCI to meet emerging policy needs in ways that better fit the operating environment. We will consult on these options in spring 2024 (planned for between February and April), once we have digested your responses. Changes and implementation timescales will be published in late spring 2024.

In the longer term your answers will provide evidence that can help all our stakeholders and ourselves to give further consideration to the information landscape across each of our priority areas. We therefore plan a summary of findings from this survey separate to the forthcoming consultation.

We have organised questions in each section into one of three possible categories:

- Questions that will help improve definitions and data quality. These will be in the following sections: Background on HE-BCI and Knowledge Exchange (Q5),
   Commercialisation (Q6-15, 39-41, 60, 75-83), Geographic Granularity (Q94), Social and cultural interactions (Q106-109).
- · Questions that will help design of new data collection. These will be in the Commercialisation section (Q16-27, 42, 61, 84).
- Questions that support wider work and potential future development of metrics in KE. These will be in the following sections: Commercialisation (Q28-37, 43-58, 62-73, 85-87, 89-92), Geographic Granularity (Q95-104), Social and cultural interactions (Q110-114), Equality, Diversity and Inclusion, and Staff and students as agents of Knowledge Exchange.

These are not hard distinctions, as some questions may help in more than one way, but we hope this helps signal the main intent in each section.

#### What is the timetable for this survey?

This survey opens on 29 November 2023 and closes on 29 January 2024. It will focus on gathering evidence from the sector about availability and use of data about KE. The responses will then be looked at, in conjunction with other information gathered in previous work on the review, and informed by the priorities and needs of our statutory customers, to produce detailed data specification proposals where appropriate for consideration in a forthcoming consultation in early 2024.

Responses from the planned consultation will be considered by the review project board (comprised of our statutory customers) and Jisc to form recommendations for changes to the metrics captured by the record, along with an implementation timetable. This information will be released as soon after the planned consultation closes as possible, currently planned for late spring 2024, prior to the planned closure of the HE-BCI review.

Responses will also be useful in the longer term for wider work where short-term changes to HE-BCI would not be appropriate at present.

# Who should respond to this review?

All stakeholders are welcome to respond to this survey. Since the questions are about current data collection and recording practices, we are particularly interested in receiving responses from KE and data professionals who are currently responsible for returning HE-BCI data, and/or contributing to Higher Education provider (HE provider) data on KE. We also welcome consolidated responses that take an official whole-organisation view on these issues.

The evidence you provide in response to this survey will help us develop proposals for changes to the HE-BCI survey. It will also support future consideration of data and metrics in priority areas where changes to HE-BCI are not yet appropriate. Our goal is to improve the data to support policy analysis and development, and to support our statutory customers with data that meets their policy and funding needs. We are also aware of keen interest from researchers and practitioners for better data and evidence in KE to improve understanding of the health of innovation systems.

#### Data processing notice

Responses to this survey will be used to support the review of the HE-BCI survey, and will be used in analysis, documentation, and communications in connection with that activity.

We may share your survey responses with statutory customers, sector bodies, or other organisations involved in this activity, which in this case also includes staff in the University Commercialisation and Innovation (UCI) policy evidence unit at the University of Cambridge. In such cases we will share your response together with the name of your organisation, however we will not disclose your name or email address to organisations we share responses with.

Please see our privacy notice for consultations <a href="http://www.hesa.ac.uk/about/website/privacy#016">http://www.hesa.ac.uk/about/website/privacy#016</a> (which applies to this evidence-gathering survey).

# Acknowledgements

We gratefully acknowledge the support of many people who made this evidence gathering survey possible – to all our reviewers, internal and external experts, you have our thanks for your wise guidance, inspired questions, and patience. We would also like to acknowledge the contributions of our former colleague Hannah Browne, in particular. Hannah undertook much of the development work, resource discovery and relationship-building that supports this work.

# Introduction

1 What is your name?
Name (Required)
2 What is your email address?
(Required)
3 What is your organisation?
(Required)
4 If you are making an official consolidated response on behalf of your HE provider, please enter your UK Provider Reference Number (UKPRN) here

### Background on HE-BCI and Knowledge Exchange

Universities can be described as "centres of knowledge <a href="https://www.universitiesuk.ac.uk/topics/research-and-innovation/knowledge-exchange">https://www.universitiesuk.ac.uk/topics/research-and-innovation/knowledge-exchange<a href="https://www.timeshighereducation.com/campus/spotlight/why-knowledge-exchange-important-universities">https://www.timeshighereducation.com/campus/spotlight/why-knowledge-exchange-important-universities</a>. KE can be defined as "a collaborative, creative endeavour that translates knowledge and research into impact in society and the economy <a href="https://info.lse.ac.uk/staff/services/knowledge-exchange-and-impact/kei-quide/introduction-to-kei">https://info.lse.ac.uk/staff/services/knowledge-exchange-and-impact/kei-quide/introduction-to-kei</a>".

KE now benefits from a formal definition in Section 93 of the Higher Education and Research Act (HERA) 2017

<a href="https://www.legislation.gov.uk/ukpga/2017/29/section/93/enacted">https://www.legislation.gov.uk/ukpga/2017/29/section/93/enacted</a> – we believe this is the first substantive legislative definition in the UK. HERA states that KE is a process or activity where knowledge is exchanged "in, or in connection with science, technology, humanities or new ideas...". The exchange "contributes, or is likely to contribute, (whether directly or indirectly) to an economic or social benefit in the United Kingdom or elsewhere". Since this definition potentially encompasses a very wide range of higher education activities, our goal is to understand more about how HE providers understand the activities in which KE occurs, who is involved and how providers define these activities. Definitional questions can be found throughout the survey, including at the end of this section.

The Organisation for Economic Co-operation and Development (OECD) <a href="https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\_9789264304604-en:jsessionid=jOubpfhWnaULz3FuArSvzpoXVFXfHSSdF9nG3LWM.ip-10-240-5-113">https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\_9789264304604-en:jsessionid=jOubpfhWnaULz3FuArSvzpoXVFXfHSSdF9nG3LWM.ip-10-240-5-113</a>".

KE activities take a variety of forms, each of which plays a role in economic, social, and cultural development, both locally and nationally, as well as overseas. There are a broad range of knowledge-based interactions that result in benefits to the economy and society, from engaging with communities and publics through research-informed events, to collaborative commercial research, the founding of spin-off companies, or the licensing of intellectual property created in HE providers; and all points in-between. A central focus is therefore on innovation. The OECD's **Oslo manual** <a href="https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\_9789264304604-en;jsessionid=jOubpfhWnaULz3FuArSvzpoXVFXfHSSdF9nG3LWM.ip-10-240-5-113">https://www.oecd-ilibrary.org/science-and-technology/oslo-manual-2018\_9789264304604-en;jsessionid=jOubpfhWnaULz3FuArSvzpoXVFXfHSSdF9nG3LWM.ip-10-240-5-113</a> states that:

"Key components of the concept of innovation include the role of knowledge as a basis for innovation, novelty and utility, and value creation or preservation as the presumed goal of innovation. The requirement for implementation differentiates innovation from other concepts such as invention, as an innovation must be implemented, i.e. put into use or made available for others to use."

Public funding for KE appears to us to typically support or incentivise innovation-focused interactions in response to demand from the economy and society, whether in response to market forces or as part of an agreement about the pursuit of specific policy-driven outcomes. However, there is a wide range of activity related to public engagement and civic citizenship that is in part collected in HE-BCI and tends not to be incentivised to the same degree. Activities such as the provision of facilities, continuous professional development courses, and events and activities that connect external communities and the university community can be characterised as KE, while others might arguably relate to the different roles HE providers play as large employers and significant institutions in the economic, social, and cultural life of their cities and regions. The HE-BCI data is therefore also material in wider policy debates about place, regional inequality, and the role of the 'civic university' in acting as a catalyst and central actor in regional development. We are interested in understanding how HE providers define KE through the lens of their activities, and whether HE-BCI is viewed as a KE collection, or if it has a wider remit. Understanding how you see HE-BCI helps us ensure its future as the principal data source used to understand, analyse and incentivise these various contributions.

5	How does your organisation define or understand knowledge exchange?

#### Commercialisation: Introduction

While KE is a very broad domain covering a wide range of economic, social and cultural interactions, for many users the current archetypal examples of KE fall into the domain of commercialisation of research through innovation. Commercialisation turns thoughts, ideas, and novel research into assets. New products, proofs of concept, and designs can all be classified as Intellectual Property (IP). Examples of successfully commercialised IP include Oxford University's work with AstraZeneca on their Covid-19 vaccine and The University of Manchester's development and licensing of Graphene.

The HE-BCI survey collects data submitted by UK HE providers about the volume of production of IP (including patents, trademarks, and designs) and records income associated with its use under licence. It also records information about spin-out companies formed to commercialise intellectual property. This can be found in **Table 4** <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups">https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups</a> of the HE-BCI data collection.

Commercialisation is an area of intense academic and policymaker interest, as innovation as an outcome from research is seen to create a number of useful outcomes, many which in the UK context might be expected to be achieved through commercial activity. "Innovation is central to the improvement of living standards, and can effect individuals, institutions, entire economic sectors, and countries in multiple ways <a href="https://www.oecd-ilibrary.org/docserver/9789264304604-en.pdf?">https://www.oecd-ilibrary.org/docserver/9789264304604-en.pdf?</a> expires=1699439842&id=id&accname=guest&checksum=0C23D10E7BF5134A8D97D52BA0D886F1> ". For example, successful innovation can create useful products and services that improve quality of life, create well-paying skilled jobs, and raise GDP through trade and exports. Innovation clusters can attract foreign direct investment (FDI), which further supports these outcomes.

#### Areas for improvement

Our preliminary work has revealed a number of areas where beneficial improvements to the commercialisation data might be made. The following sections will consider issues relating to data on spin-offs, start-ups, licence numbers, IP protection, and international comparability between the HE-BCI and similar data collected in other countries.

In their critical review of the first iteration of the Knowledge Exchange Framework, Roupakia and Ulrichsen (2021)

<a href="https://www.ifm.eng.cam.ac.uk/uploads/UCI/knowledgehub/documents/UCI\_CriticalReviewofKEF\_Report\_2021\_vPublishedFinal.pdf">https://www.ifm.eng.cam.ac.uk/uploads/UCI/knowledgehub/documents/UCI\_CriticalReviewofKEF\_Report\_2021\_vPublishedFinal.pdf</a> also highlighted issues with the comparison of KE between institutions for whom some forms of commercialisation are not common. They made recommendation for the explicit use of zero values in the data to identify whereby no income is associated to a form of KE which the institution nevertheless does engage in. This would allow the omission of institutions for whom a form of knowledge exchange is not relevant during comparative analysis, while retaining those posting true zero values within the analysis. This approach could apply across a range of commercialisation strategies, and we therefore ask questions about zero and null values in several sections.

In each of these areas the potential for improvements to HE-BCI data collection (or improved guidance) are clearest to us, and this is reflected in the relatively detailed questions we ask. We regard it as likely that improved commercialisation data will be a focus for the planned consultation in spring 2024, and most of the questions in this section have relevance for our thinking about the data collection design options we will develop to test in consultation.

### Commercialisation: spin-offs

The HE-BCI survey uses the term 'spin-offs' to refer to registered companies set up to exploit IP that has originated from within the HE provider. Since this terminology was first introduced, the alternative term 'spin-out' (or 'spin-out') has come to prominence, and for the purpose of this document, we use the terms interchangeably, based on the usage in the source we are referring to.

However, we recognise that this naming convention is just one aspect of a deeper issue — that the definitions we currently use to identify spin-offs may not capture what happens during the period of formation. We have heard that many of the definitions in HE-BCI are no longer sufficient as a basic typology of company types or behaviours. We are therefore seeking feedback to help us improve definitions of basic terms. To illustrate what we mean by an example, if a spin-off is formed with a licence to use HE provider-generated IP, but no initial funding from the HE provider, it does not fit neatly into the current HE-BCI typology — is a licence really the same thing as being HE provider-owned? Neither would a staff start-up company that later receives investment and perhaps a licence to use HE provider-owned IP.

We have been told about other examples of difficult-to-categorise companies, including:

Where the spin-off merges with another company and the university takes equity ownership in the new company.

Where the spin-off was founded, operated for a few years, ceased operations and started up again based on the same IP (possibly under a new name/registration, same founders).

Where the company changes name/registration number (for whatever reason) but it is essentially the same spinout.

Where a company perhaps moves back and forth either between existing categories, or into states that are not covered by the existing categories, this presumably makes submitting the data and later analytical work quite challenging. We are therefore interested in finding out how HE providers define their own spin-offs. We have heard that some providers have difficulty interpreting aspects of the guidance, and we are keen to understand the problems they face in more detail, so we can improve guidance and evaluate how definitions of key concepts need to adapt.

Related to typology, we are also interested in how HE providers determine when a company is newly registered – whether the date of registration at Companies House is used, or the date when trading begins. Similarly, we would like to know more about how HE providers identify the date of founding: as the date of registration, the start of trading, or the point at which IP is transferred-in. This would help improve guidance.

At the opposite end of the temporal relationship, we are interested in understanding more about how HE providers understand the end point for a spin-off. Of course, some companies will simply fail, but there are many cases (as explored above) that involve a state-change, or simply a level of sustained stability, success, or maturity that indicates that the spin-out stage has completed, and now forms part of the company's history rather than its current identity.

We would also like to understand more about how providers keep track of which IP has been transferred to which spin-offs; whether, for example, records are kept of features like the industry sector of the spin-off, or of the category of technology that the assigned IP is best represented by. This kind of information could potentially assist understanding of the likely commercialisation trajectories of these companies in the long term.

Understanding more about how HE providers categorise spin-offs (and start-ups) would help us work toward an improved ontology or typology of companies. This will help us describe more accurately the objects of interest in KE, and thereby help improve the data collection in HE-BCI, as well as adding to public knowledge about how spin-off companies are defined. One factor that would be helpful in attempts to track companies' trajectories, and to better establish empirical evidence about the developmental paths they follow and associations with correlated factors, would be to obtain details that allow us to link HE sector data to other public sources, typically using the Companies House number.

In March 2023 the Treasury announced a review of spin-outs <a href="https://www.gov.uk/government/news/university-and-investor-experts-to-head-up-review-of-uk-spin-out-landscape">https://www.gov.uk/government/news/university-and-investor-experts-to-head-up-review-of-uk-spin-out-landscape</a>, to "consult with universities, investors, and founders to identify best practice in turning university research into commercial success". This policy focus on unlocking further potential from the HE sector is welcome, and we are keen to support the development of the evidence base to facilitate this. We hope and expect that many aspects of our work and recommendations of the treasury-sponsored review and the government's response following will be aligned. At the time of production neither of these documents have been published. We may therefore seek to use the forthcoming consultation as an opportunity to gather further evidence on any matters that come to light following those anticipated publications.

Current **HE-BCI data** <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups">https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups</a> includes counts of various categories of spin-off companies, along with aggregated estimates of employment, turnover, and investment for each category. The use of counts of spin-offs in isolation is a problematic quantitative proxy measurement for their impact. These totals offer important aggregate information, but do not help us understand the quality or subsequent economic impact of the companies. However, the proxies for spin-off quality (aggregated estimates of employment, turnover and investment) may be outside the HE provider's knowledge and subject to factors beyond their control. We are interested in understanding how HE providers generate these figures at present, to get a sense of how reliable they are. We note that these measures have not featured in funding mechanisms to date. A further difficulty in designing appropriate metrics is that the process of achieving impact from commercial outputs does not follow a single standard pathway, and the 'spill-over' effects

<a href="https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2021/02/innovation-data-baseline-final-report2/documents/innovation-data-baseline-final-report2/documents/innovation-data-baseline-final-report.pdf">https://www.gov.scot/binaries/content/documents/govscot/publications/independent-report/2021/02/innovation-data-baseline-final-report2/documents/innovation-data-baseline-final-report.pdf</a> of commercialisation often cannot be measured. These effects could potentially include the health of general ecosystem in which the organisation is growing, the levels of demand in the market or the nature of the organisation itself. We would like to understand what monetary and non-monetary metrics HE providers may use to evaluate these effects.

Respondents to HESA's **first phase of evidence-gathering in 2019** <a href="https://www.hesa.ac.uk/files/HEBCI\_Consultation\_analysis.pdf">https://www.hesa.ac.uk/files/HEBCI\_Consultation\_analysis.pdf</a> suggested the use of 'percentage of spin-off ownership' as a more suitable measurement of the institution's contribution to spin-off success. They recommended 'volume of investment they attract' as a sufficient proxy measurement for their impact and value. Therefore, suitable metrics were suggested to be ones that indicate the potential growth and impact of spin-offs and start-ups. However, we have discovered that there are many exceptions to this, for example we have heard that some providers typically take a 5% - 10% non-dilutable equity stake, whereas others may take no equity in return for a more commercial licensing arrangement, and there are many other examples of approaches that vary by technology sector and other factors. We are asking questions about the start and end of the relationship, the way shares are represented in filings, and the extent to which relationships are maintained over the longer term, to get a better sense of how HE providers interact with spin-offs, to support better guidance and definitions, and in the long-term help improve metrics in this area.

When considering equity more broadly, we understand that some providers face definitional issues around determining what counts as external investment in a company, and what should be excluded from it. A central challenge here is the need to exclude public funding for KE from the HE-BCI return. Because KE is itself quite difficult to summarise in a necessary and sufficient manner, the exclusion of public funds that support it can be interpreted either broadly or quite narrowly. For example, how should the following be understood: public schemes to support Knowledge Transfer Partnerships (KTPs) <a href="https://www.ktp-uk.org/">https://www.ktp-uk.org/</a>; grants for collaborative R&D; grants for R&D; non-UK public grants e.g. from the European Union?

One option for monitoring spin-off value and impact would be to continue on the basis of measuring perceived impact and value to the market, otherwise stated as an "implied demand" <a href="https://www.ifm.eng.cam.ac.uk/uploads/UCI/knowledgehub/documents/2019\_Ulrichsen\_KEFunding24World.pdf">https://www.ifm.eng.cam.ac.uk/uploads/UCI/knowledgehub/documents/2019\_Ulrichsen\_KEFunding24World.pdf</a>. Therefore, the current use of income as a proxy for impact is arguably sufficient in identifying the "minimum bound on the monetary value of KE"

<https://www.ifm.eng.cam.ac.uk/uploads/UCI/knowledgehub/documents/2019\_Ulrichsen\_KEFunding24World.pdf> . However, the evidence you provide will help us assess what improvements could be made on this position in the longer term.

The limitations on obtaining longitudinal spin-off company data in HE-BCI also curtail our understanding of their full social and economic impacts at their point of maturity (however defined). However, the HE provider may not be the only or most appropriate data source for understanding the wider and longer-term impact of spin-offs. By using public sector data on individual spin-offs <a href="https://www.ons.gov.uk/aboutus/whatwedo/paidservices/interdepartmentalbusinessregisteridbr">https://www.ons.gov.uk/aboutus/whatwedo/paidservices/interdepartmentalbusinessregisteridbr</a>, it becomes possible to undertake rich analyses of company formation and investment <a href="https://papers.ssm.com/sol3/papers.cfm?abstract\_id=4416303">https://papers.ssm.com/sol3/papers.cfm?abstract\_id=4416303</a>, and by extension, to understand performance and impacts over the longer term. The assembly of such a dataset requires investment in gathering data that enables the identification of HE provider spin-offs, and then linking this to public sector data, to produce an enriched dataset. This opens the possibility of reducing the burden of data collection on HE providers by collecting lists of company identifiers rather than aggregate totals in categories, in addition to improving the quality of the data by using actuals rather than estimates. This approach also holds potential for enhancing the insights available to the sector by enriching the data HE providers have submitted with additional information drawn from sources such as Companies House and HMRC.

In order to be as comprehensive as possible and maximise the insights available, we are interested in understanding both whether HE providers already maintain records of company identifiers (if at all) and for how long they have done so. If it should prove possible to assemble a historic sector-wide database of spin-offs, considerable value might be created by using this data for research purposes. It would also help to limit the burden of data collection on providers, asking for more comprehensive data that is in their possession, rather than estimates of information about companies that they may not have direct access to.

When it comes to identifying companies, the most common identifier is likely to be the Companies House registration number. However, we are aware not every spin-off company will be incorporated in the UK, and we are interested to find out more about incorporation overseas. With other countries using company registration numbers with a similar format to those used in the UK, not knowing the country of incorporation raises the likelihood of mis-identifying companies.

Furthermore, there are multiple routes to incorporation – for example some companies may be identified as having a charitable purpose, and therefore register with the Charity Commission. Others may be identified as a 'social enterprise'. There is no commonly accepted definition of a social enterprise or a formal register that identifies such organisations. Social enterprises may therefore choose to incorporate through Companies House either as a **limited company or as a community interest company** <a href="https://www.gov.uk/set-up-a-social-enterprise?step-by-step-nav=37e4c035-b25c-4289-b85c-c6d36d11a763">https://www.gov.uk/set-up-a-social-enterprise?step-by-step-nav=37e4c035-b25c-4289-b85c-c6d36d11a763</a>, or as a **charity** <a href="https://www.gov.uk/setting-up-charity/structures">https://www.gov.uk/setting-up-charity/structures</a>, or alternatively using a co-operative corporate form, applying through **co-operatives UK** <a href="https://www.uk.coop/support-your-co-op">https://www.gov.uk/setting-up-charity/structures</a>, or alternatively using a co-operative corporate form, applying through **co-operatives UK** <a href="https://www.uk.coop/support-your-co-op">https://www.gov.uk/setting-up-charity/structures</a>, or alternatively using a co-operative corporate form, applying through **co-operatives UK** <a href="https://www.uk.coop/support-your-co-op">https://www.gov.uk/setting-up-charity/structures</a>, or alternatively using a co-operative corporate form, applying through **co-operatives UK** <a href="https://www.uk.coop/support-your-co-op">https://www.uk.coop/support-your-co-op</a> and subsequently appearing in the **Financial Conduct Authority's register of mutuals** <a href="https://www.uk.coop/support-your-co-op">https://www.uk.coop/support-your-co-op</a> and subsequently appearing in the **Financial Conduct Authority's register of mutuals** <a href="https://www.uk.coop/support-your-co-op">https://www.uk.coop/support-your-co-op</a> and subsequently appearing in the **Financial Conduct Authority's register of mut** 

6 What definition(s) do you use to categorise spin-off companies internally? (Please select all that apply)	
(Required) Please select all that apply	
We use the HESA HE-BCI definitions (i.e. of HE provider-owned and formal spin-offs) only  Other(s)	
Not applicable – we do not have spin-offs	
7 If you answered 'Other(s)' to the previous question, please provide more information about how you categorise spin-offs	

8 If you find HE-BCI definitions challenging to use to determine whether a company is a spin-off, please say why this is, to help us improve
9 How do you understand the concept of HE provider ownership of a spin-off? (Please select all that apply)
Please select all that apply
All cases where the HE provider has an equity stake or shares
Cases where the HE provider has assigned or licensed IP but has no equity stake or shares
Other deal terms not covered by the above
Not applicable – we do not have spin-offs
10 If you answered 'other deal terms not covered by the above' in the previous question, please specify what other type(s) of deal terms you
consider to constitute a form of ownership in a spin-off
AA DE BOLT II. A sublema a substantilla fillanda substantilla fill
11 HE-BCI Table 4 guidance contains the following phrase in the definition of spin-offs: "All investment from the [HE provider] and
external partners should be included with the exception of public
funds to support KE activities, such as the Higher Education Innovation Fund (HEIF) in England and its equivalents in the devolved
nations should be excluded."
What do you understand to be included within this concept, and what notable exclusions are there from it?
Can you separate out public funds specifically designed to support KE activities from other types of public grants spin-offs might receive?
How could it be improved?

12 How do you determine when a spin-off ceases to be a spin-off? (Please select all that apply)
Please select all that apply
A time-based cut-off point
When the HE provider sells all shares (or ends any other type of investments) in the spin-off
When the founders who were originally staff (or students) leave
When the spin-off ceases to fall into that category based on logical tests
In some other way
Not applicable – we do not have spin-offs
The applicable we do not have spin one
13 If you have selected 'in some other way', please provide more
information
14 Does your organisation maintain any form of relationship with a spin-
off following the sale of HE provider shares or equity?
Please select only one item
Yes (always)
Yes (only in some cases)
No.
O No.
Not applicable
15 If you answered 'Yes' in the previous question, please provide further
information on the nature of these relationships
For example:
If you are engaging with them through structures, mechanisms, or processes
What you see as the purpose of these arrangements
For how long you might typically maintain them

16 Are you able to distinguish between zero and null (unknown/missing) income from spin-off companies in your own data? (Please select all that apply)
Please select all that apply
Yes, from spin-offs with some HE provider ownership
Yes, from formal spin-offs, not HE provider owned
No
Not applicable
17 How do you determine the year of new registration for a company?
Please select only one item
The date of registration at Companies House (or similar)
The start of trading
The date when IP is assigned to the company
In another way (please explain)
Not applicable
18 If you have selected 'In another way', please provide more information, and in particular highlight any challenges you face in identifying a point of beginning for the spin-off
19 Do you differentiate between licensed intellectual property (IP) and assigned IP in your records of IP that has been transferred-in?  Please select only one item
Yes
○ No
Not applicable
20 Do you record the company registration numbers for provider-owned spin-offs?
(Required)
Please select only one item
○ Yes
○ No
Not applicable

with no provider ownership?
(Required)
Please select only one item
Yes
○ No
Not applicable
22 If you answered 'Yes' to the previous question, for how long do you
keep records of company numbers for spin-off companies with no
remaining provider ownership?
Please select only one item
We do not keep this information at all
Less than a year
1 year
2-5 years
5-10 years
① 10-15 years
Conger than 15 years
23 What other identifiers do you keep records of for spin-off companies?
23 What other identifiers do you keep records of for spin-off companies? (Please select all that apply)
(Please select all that apply)  Please select all that apply
(Please select all that apply)  Please select all that apply  We do not keep this information at all
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable
(Please select all that apply)  Please select all that apply  We do not keep this information at all  Overseas company registration numbers  Charity registration numbers  Mutuals registration numbers  Details of registration under accreditation schemes associated with social enterprise (either as an identifier or the simple fact of certification)  Something else  Not applicable

21 Do you record company registration numbers for HE provider spin-offs

25 What mechanism, process, or data source do you utilise to estimate staff, turnover and external investment for spin-offs, and what problems and limitations do you face when producing them?
26 Do you record the country or state within which each company has been incorporated?
(Required)  Please select only one item
<ul><li>✓ Yes</li><li>✓ No</li><li>✓ Not applicable</li></ul>
27 Do you record whether your staff or students/graduates are involved in the spin-off company? (Please select all that apply)
(Required) Please select all that apply
Yes, students/graduates  Yes, students/graduates
No Not applicable
28 Do you currently use monetary metrics to evaluate the impacts of
spin-offs?  Please select only one item
○ Yes ○ No
Not applicable
29 If you answered 'Yes' to the previous question, please provide further information and examples of these metrics

	How is your shareholding in a spin-out typically represented in the CS01 forms filed at Companies House? We are interested in the degree of standardisation, to aid potential data linking experiments
	Do you currently use non-monetary metrics to evaluate the impacts of spin-offs?
000	e select only one item Yes No Not applicable
	If you answered 'Yes' to the previous question, please provide further information and examples of these metrics
	Do you track changes to existing spin-off companies' formal relation to the provider? (Please select all that apply)
Please	No, we do not track this information
	Yes – when the spin-off has licensed in IP owned by the provider Yes – when the provider has sold all shares in the company Yes – something else Not applicable
J	
34	If you selected 'Yes – something else', please describe your examples

35	Please explain how you track the details of what IP has been transferred into which companies (we are interested both in what you track and how you track it)
	How do you record information about the part of the HE provider responsible for generating the spin-off? (Please select all that apply)
	The names (or IDs) of the staff involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way
37	Do you collect EDI data on spin-off founders? If so, please provide more information on the types of data, and characteristics you record
38	If you have any other comments on spin-off companies, please provide them below

## Commercialisation: start-up companies

HESA defines <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups">https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups</a> staff start-ups <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups">https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups</a> as companies set-up by active HE provider staff (or those recently employed within the last two years) but not based on IP from the HE provider. Student start-ups (sometimes referred to as graduate start-ups) include all new businesses started by either currently-registered students or recent graduates (within two years) regardless of where any IP resides, but only where there has been formal business/enterprise support from the HE provider. We understand there is some debate within the sector about how 'formal business/enterprise support' should be understood and what it does and does not include, and we are keen to understand more about the types of support offered and how providers decide what is or is not included.

As with spin-offs there are some potential definitional issues around start-ups. For example, a staff start-up might later negotiate to licence IP from a provider, which would make it seem similar to a formal spin-off. If the provider then chose to invest in equity in such a company, it would then resemble a HE provider-owned spin-off. These definitional tensions indicate that the typology of companies linked to HE providers may require revision.

Following the current definitions used in HE-BCI it might be assumed that financial support is not routinely made available to start-ups, but we are interested in finding out more about whether this is true. We are also unaware of any work on policies that require staff or students/graduates to disclose founding a start-up company to the HE provider.

39 What definitions do you use to categorise start-up companies? (Please select all that apply)
(Required)
Please select all that apply
We use the HE-BCI definitions
We have our own typology
40. Kunan hana nama tamala mumbana nina dataila and/an anamalan
40 If you have your own typology, please give details and/or examples
Tell us what challenges you faced in using the HE-BCl definitions.
41 What tests do you apply to determine if something counts as formal business/enterprise support for the purpose of the return of data on student/graduate start-ups?
Please give examples:
The sorts of activity that you include and exclude.
If relevant, what problems you face applying the definition.

	Staff start-ups	Student/graduate start-ups
Yes		
No		
Not applicable		
3 Do you capture data abou required for the HE-BCI d	ut student and staff start-ups outside what is ata collection?	
Yes  No  Not applicable		
J. 101 applicable		
14 If you answered 'Yes', ple types of data points are o	ase provide further information on what ollected	
past five years, please tel	ade investments in staff start-ups during the I us what you normally seek in return for h or support for equity, or a loan that could etc)	
past five years, please tel your investment (e.g. cas	I us what you normally seek in return for hor support for equity, or a loan that could	
past five years, please tel your investment (e.g. cas	I us what you normally seek in return for hor support for equity, or a loan that could	

46	If your HE provider has made investments in student/graduate start- ups during the past five years, please tell us what you normally seek in return for your investment (e.g. cash or support for equity, or a loan that could be converted into equity, etc)
	How often has your HE provider made investments in staff start-ups during the past five years?  See select only one item  Frequently  Sometimes  Rarely  Not applicable
	How often has your HE provider made investments in student/graduate start-ups during the past five years?  se select only one item  Frequently Sometimes Rarely Not applicable
	Are staff required to report founding a start-up to the HE provider?  se select all that apply  Yes, this is a formal obligation/requirement/policy  Yes, although not strictly mandatory it is usually observed  Yes, but it is either optional or compliance is not checked  No, this is not a requirement at all  Not applicable

50	Are students/graduates required to report founding a start-up to the HE provider?
Pleas	se select all that apply
	Yes, this is a formal obligation/requirement/policy
	Yes, although not strictly mandatory it is usually observed
$\overline{\sqcap}$	Yes, but it is either optional or compliance is not checked
$\overline{\sqcap}$	No, this is not a requirement at all
Ī	Not applicable
	ты арулового
51	How do you record information about the part of the HE provider responsible for generating the staff start-up? (Please select all that apply)
Pleas	se select all that apply
	The names (or IDs) of the staff involved
	By category of technology or methodology
	By likely sector(s) for commercial applicability
	Organisational units (departments, schools)
	Research groups, discipline/subject areas, or similar
	Internal budget or cost centres
	REF Units of Assessment
	In another way
52	How do you record information about the part of the HE provider responsible for generating the graduate/student start-up? (Please select all that apply)
	responsible for generating the graduate/student start-up? (Please
	responsible for generating the graduate/student start-up? (Please select all that apply)
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar
	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  re select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  responsible for generating the graduate/student start-up? (Please select all that apply)  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate start-ups?
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  re select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate start-ups?  Re select only one item
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate start-ups?  See select only one item  Very straightforward
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate start-ups?  se select only one item  Very straightforward  Somewhat straightforward
Pleas	responsible for generating the graduate/student start-up? (Please select all that apply)  se select all that apply  The names (or IDs) of the graduate/student involved  By category of technology or methodology  By likely sector(s) for commercial applicability  Organisational units (departments, schools)  Research groups, discipline/subject areas, or similar  Internal budget or cost centres  REF Units of Assessment  In another way  How straightforward is obtaining data from staff or student/graduate start-ups?  se select only one item  Very straightforward  Somewhat straightforward nor overly challenging

54	Please give us more information about why you selected the answer you did in the previous question.
55	What mechanism, process, or data source do you utilise to estimate staff, turnover and external investment for start-ups, and what problems and limitations do you face when producing them?
<b>F</b> C	De very track also area to eviction at any very consequence of a relation
	Do you track changes to existing start-up companies' formal relation to the provider? (Please select all that apply)
Pleas	e select all that apply
	No, we do not track this information at all
	Yes – when the start-up has licensed IP owned by the provider
	Yes – when the provider has taken shares in the company
$\sqsubseteq$	Yes – when the provider has sold all shares in the company
$\sqcup$	Yes – something else
	Not applicable
57	If you selected 'Yes – something else', please describe the data points you collect.
_	

58	Do you collect EDI data on start-up founders?
•	If so, please provide more information on the types of data, and characteristics you record.
59	If you have any other comments on start-up companies, please
	provide them below.
ume a	een to understand more about the ways in which providers manage licences they issue for IP. Leaving aside software licences issued directly to users (which we re generally managed through a fairly mature sales-based model of interaction), we know little about how other IP is licenced: how it is managed and tracked, metrics the provider uses to monitor activity and to develop use.
nces (	BCI survey <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups#licences">https://www.hesa.ac.uk/data-and-analysis/business-community/ip-and-startups#licences</a> we ask providers to return total numbers of active granted from licence agreements, assignments, exercised option agreements, licences to spin-outs and income-generating Material Transfer Agreements (MTAs granted are further analysed by whether they are for software or for some other form of IP. Information about numbers of licences tells us about the volume of interest in a provider's IP. Income derived from licensing IP is similarly useful as it tells us about the perceived value of the IP.
nguis erstar specti npani	es other than spin-offs and start-ups can acquire a licence to commercialise IP owned by a provider. In the current HE-BCI data we ask HE providers to he between income from IP licensed to SMEs, other commercial businesses, and non-commercial organisations. This is a basic market segmentation that helps in dwho is using the IP. Providers may do more to understand the market(s) for their IP, and one of our goals is to understand how this looks from a provider's vize. For example do HE providers routinely capture information about the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification used in the size of business they are licensing IP to (perhaps using the classification that helps the size of business they are licensing IP to (perhaps used the size of business they are licensing IP to (perhaps used the size of business they are licensing IP to (perhaps used the size of business they are licensing IP to (perhaps used the size of business they are licensing IP to (perhaps used the size of business they are licensing IP to (perhaps used the
	How do you define or classify what counts as a 'licence' for the purpose of your HE-BCI return?
$\overline{}$	

61 Are you able to distinguish between zero and null (unknown/missing) income from licences in your own data?
(Required) Please select only one item
Yes
○ No
O Not applicable
62 Do you manage intellectual property (IP) licences in an electronic database or similar system?
Please select only one item
No – information retrieval is a relatively manual exercise
Yes – one central system
Yes – multiple systems
Yes – mixture of systems and manual processes
○ Not applicable
63 How do you record information about the part of the HE Provider responsible for generating the IP? (Please select all that apply)
Please select all that apply
The names (or IDs) of the staff involved
By category of technology or methodology
By likely sector(s) for commercial applicability
Organisational units (departments, schools)
Research groups, discipline/subject areas, or similar
Internal budget or cost centres
REF Units of Assessment
In another way
Not applicable
64 Please add any detail you are able to offer about your answers to the previous question

65 Do you differentiate between licences granted to different-sized businesses? For example micro, small, medium-sized, and large?
(Companies House defines these in the accounts guidance <a href="https://www.gov.uk/government/publications/life-of-a-company-annual-requirements/life-of-a-company-part-1-accounts">https://www.gov.uk/government/publications/life-of-a-company-annual-requirements/life-of-a-company-part-1-accounts</a> on their website)
Please select only one item
Yes – using the Companies House definitions
Yes – using the HE-BCI definitions only
Yes – using another approach
Not applicable
O Not applicable
66 If you use another approach, please provide more information
67 Do you record where licences are granted to spin-offs with some HE
provider ownership, and formal spin-offs, not HE provider-owned?
Please select only one item
Yes, for spin-offs with some HE provider ownership only
Yes, for formal spin-offs, not HE provider-owned only
Yes for both spin-offs with some HE provider ownership and formal spin-offs, not HE provider-owned
No for either
Not applicable
68 Do you record where licences are granted to student/graduate and/or staff start-ups originating from the provider?
Please select only one item
Yes for student/graduate start-ups only
Yes of staff start-ups only
Yes for both student/graduate and staff start-ups
O No for either
○ Not applicable
69 In what other ways (if any) do you track the characteristics of the
organisations to which you license IP?
Please select only one item
O No other ways
In the following ways (please explain)
Not applicable

70 If you track the characteristics of the organisations to which you license IP, please explain how you do this and what data points you are tracking
What limitations have you experienced in this (e.g. confidentiality clauses)?
71 Do you currently use monetary metrics to evaluate the impacts of licences/licensing?
Please select only one item  Yes  No  Not applicable
72 If you answered 'Yes' to the previous question, please provide further information and examples of these metrics
72 Danier summer the consumer and manufacture matrices to explicate the improcess of
73 Do you currently use non-monetary metrics to evaluate the impacts of licences/licensing?  Please select only one item  No
Not applicable
74 If you have any other comments on licences and licensees, please provide them below

# Commercialisation: Disclosures, patents and other forms of intellectual property (IP) protection

Commercialisation journeys typically start with disclosure. **HESA defines disclosure** <a href="https://www.hesa.ac.uk/collection/c22032/hebci\_b\_table\_4">https://www.hesa.ac.uk/collection/c22032/hebci\_b\_table\_4</a> as "the point at which academic staff disclose their idea through a formal process with the prospect of seeking protection." We are interested in how HE providers define disclosure internally, either as a formal definition or by reflecting on their practices. For example, would they include ideas by non-academic staff in this data? What is understood by formal in this context? By understanding more about how HE providers see disclosure, we can improve guidance for the survey. Disclosure is the start of a journey towards commercial opportunity, and the development period between is often thought of as a "pipeline". However, not every disclosure will have commercial potential, and so understanding the size, quality, and characteristics of the "projects" in this "pipeline" could provide helpful insights into anticipated future opportunities and needs, and if a suitable approach could be designed, improve the value of the HE-BCI data collection in the longer term.

One potential stage in this "pipeline" is the protection of IP using formal means: typically by filing patents but also by registering designs and trademarks. In 2022 HESA undertook an experimental data collection <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/consultations-data-experiments/ipo-outcomes-recommendations">recommendations</a> to understand more about the potential usefulness of patent data. The findings indicated that while data linking is possible, further work on data quality and understanding the production process for the UK Intellectual Property Office's (IPO) administrative data would be needed before use could be made of this sort of data. One factor that is of interest is whether HE providers keep data on patent families, and how they understand the term "patent family". Another factor is whether a link between the HE provider and the application or registration can be identified from the details on the filing.

We also ran a collaborative workshop <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference">https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference</a> at PraxisAuril conference in 2022. Delegates stated that the strategic importance of IP including licences, patents and trademarks varies between providers focusing on different (combinations of) disciplines and specialisms. Furthermore some delegates told us that while protecting IP through a patent is relatively straightforward, it is not the only method, and in some cases the costs associated with maintaining a patent portfolio over the longer term were not always perceived as proportionate to their value. Some delegates also suggested to us that in arts, humanities, and social science (AHSS) disciplines where KE activities are often interaction-based and produce fewer tangible outputs HE-BCI table 4 data was less relevant to their strategic alignment.

78	Do you record the application numbers of intellectual property (IP) applications being registered or applied for in the UK (e.g. patents applied for at the IPO)?
Pleas	se select only one item
000	Yes No Not applicable
0	мот аррисаме
	Do you record the type of intellectual property you are seeking protection for (e.g. patents, copyrights, designs, trademarks, etc)?  Yes
0	No Not applicable
80	Do you record the application numbers of intellectual property (IP) applications submitted to overseas equivalents of the UK IPO (e.g. the EPO, USPTO, etc.)
Pleas	Yes No
0	Not applicable
	If you answered 'Yes' to either of the two previous questions, how are application/registration numbers recorded?  **e select only one item**
0	Applications are recorded in a single, central database
0	Applications are recorded in multiple databases, spreadsheets and similar accessible systems
0	Applications are recorded manually in locations such as email folders, local filesystems, or have to be manually compiled on request
	Do you collect data on patent families?  se select only one item
0	Yes No
Ō	Not applicable

83	What do you understand the term 'patent families' to mean?
84	Are you able to distinguish between zero and null (unknown/missing) income from patents or other protected IP in your own data?
	quired)
Pleas	e select only one item
$\lesssim$	Yes No
$\tilde{\mathcal{C}}$	Not applicable
85	Please indicate whether you can differentiate intellectual property applications by the following relationship to your institution (Please select all that apply)
Pleas	e select all that apply
	The HE provider is a named applicant
	A person associated with a spin-off from the HE provider is a named applicant
	A spin-off company is a named applicant
	A student/graduate start-up is a named applicant
	A staff start-up is a named applicant
$\sqcup$	An active or recent (within two years) member of staff from the HE provider is a named applicant
Ш	A currently registered or recent (have exited the reporting HE provider with an award within the last two years) student from the HE provider is a named applicant
	Another type of person or organisation not listed above is a named applicant
86	Do you capture information on the projects in the pipeline between disclosure and commercial opportunity?
Pleas	e select only one item
Ó	Yes
Ō	No
0	Not applicable

87 If you answered 'Yes' to the previous question, please explain what data points you capture
We are interested to understand how you:
<ul> <li>Capture the size, quality, and characteristics of projects.</li> <li>Assess their progress and maturity between disclosure and commercial opportunity.</li> </ul>
88 If you have any other comments on patents and other forms of IP protection, please provide them below.

#### International commercialisation comparability

HE-BCl data is the main source of KE data in the UK. It provides a basis from which benchmarking can be conducted at both a sector and institutional level. The **Council for Science and Technology's** <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>?

url=https%3A%2F%2Fassets.publishing.service.gov.uk%2Fgovernment%2Fuploads%2Fsystem%2Fuploads%2Fattachment\_data%2Ffile%2F1002894%2FCST\_Global\_Britain.p. aim for the UK to become a "science and technology superpower" by 2030 presents an increasing need to be able to assess UK KE performance against international peers.

It would therefore be useful for UK KE data on commercialisation to be aligned to that held by other national bodies across the globe. This includes the use of consistent terminology, guidance, and measures of value where appropriate and possible. Aligning in this way can enhance the comparability of UK data to international sources of KE data, thus presenting a more robust assessment of the UK's performance relative to other countries. To achieve this alignment, we have assessed similarities and differences between the HE-BCI survey and other major KE data collections. In the UK we take a broad view of KE and hence our HE-BCI data covers areas that are not necessarily relevant to commercialisation, but in most other datasets, commercialisation data is the focus.

There are other differences in perspective and approach between the different international KE datasets. For example, the **Japanese National Innovation Survey** <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>?

url=https%3A%2F%2Fwww.nistep.go.jp%2Fen%2F%3Fpage\_id%3D2276&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f939 supplied by industry partners and the focus is on the "state and trend of innovation activities in Japanese private enterprises" including where IP has been licenced from universities. The STIP Compass <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>?

url=https%3A%2F%2Fstip.oecd.org%2Fstip%2Fpages%2Fabout&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f9394d8a144c, a joint initiative of the European Commission (EC) and the OECD, collects both quantitative and qualitative data on national trends in science, technology, and innovation (STI) policy. It is underpinned by the EC-OECD STI Policy Survey <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>?

url=https%3A%2F%2Fone.oecd.org%2Fdocument%2FDSTI%2FSTP(2023)1%2Fen%2Fpdf&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec which is completed every two years. The collected data is used to evaluate a nation's policies aiming to support science and innovation. Unlike the HE-BCI data collection, the Japanese National Innovation Survey and The STIP Compass do not provide a granular detail of the income to HE providers associated with IP creation. Their limited coverage of IP creation, its uses and overall organisational performance limits the ability effectively to evaluate direct financial investment to HE providers for the purpose of commercialisation and innovation. For these reasons we do not believe that there is a case for learning from these surveys to adapt HE-BCI – they form part of a strategic intelligence approach that focuses on other parts of the innovation system than HE providers.

In North America there is an analogous instrument to HE-BCI. Conducted by **AUTM** <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>? url=https%3A%2F%2Fautm.net%2Fabout-autm%2Fwho-we-

are%2F&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f9394d8a144d2782a6f35f12361205%7C0%7C0%7C063836358314431 (previously the "Association of University Technology Managers") the annual Licensing Activity Survey <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>? url=https%3A%2F%2Fautm.net%2Fsurveys-and-tools%2Fsurveys%2Flicensing-

survey&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f9394d8a144d2782a6f35f12361205%7C0%7C0%7C638363583144326 is widely considered to be a robust and reliable source of KE data. Established in 2008, it provides "quantitative <a href="https://eur01.safelinks.protection.outlook.com/">https://eur01.safelinks.protection.outlook.com/</a>? url=https%3A%2F%2Fautm.net%2Fsurveys-and-tools%2Fsurveys%2Flicensing-

survey%2F&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f9394d8a144d2782a6f35f12361205%7C0%7C0%7C063836358314-data and real-world examples about licensing activities at U.S. and Canadian universities, hospitals and research institutions". It features forms of innovation including licensing, patent creation and disclosures. Fourteen metrics from the AUTM survey are similar to those in HE-BCI (and more could be derived from HESA Finance records) but the differences are instructive. For example, AUTM collects data on start-ups' location of operation, and whether they have ceased operating. It also captures data on when IP has been licenced to start-ups, in question 4.7 <a href="https://euro1.safelinks.protection.outlook.com/">https://euro1.safelinks.protection.outlook.com/</a>?

url=https%3A%2F%2Fautm.net%2FAUTM%2Fmedia%2FSurveyReportsPDF%2FFY20-US-Licensing-Survey-

FNL.pdf&data=05%7C01%7Cmelanie.ross%40jisc.ac.uk%7C1e0c5438ccea4113afc108dbec4bf10f%7C48f9394d8a144d2782a6f35f12361205%7C0%7C0%7C0%7C63836358314433 . AUTM also collects data on high-value licences and exclusive licences, as well as some practical information about KE staffing levels that could be used for efficiency benchmarking. Questions asked in other sections of this survey may help us align HE-BCI more closely with the AUTM licensing survey. In this section, we are most interested in understanding current benchmarking and appetite for improved benchmarking, internationally.

89 Does your HE provider benchmark or make comparison to international peers with regard to knowledge exchange (KE) activity?
Please select only one item
○ No
No, but we would if data were more straightforwardly available
Yes
Not applicable
No, but we would if data were more straightforwardly available  Yes

90	If you selected 'Yes', please tell us more about the approach and data you use for this
•	We are interested to understand not only how you compare commercialisation data, but also if you look more broadly to compare other forms of KE.
91	Which countries are you already (or interested in) benchmarking against or comparing with? (Please list all that apply)
Pleas	How important is it to be able to identify specific institutions or groups of institutions within a country rather than an overall national-level comparison?  See select only one item  Very important  Quite important  Neither important nor unimportant  Not important  Not applicable
93	If you have any other comments on international comparability, please provide them below

### Geographic granularity

We are aware of a small number of specific requirements for improvements to data on geographic granularity or resolution, particularly for providers in Scotland, who currently experience some duplication in data collection that we are working with the SFC to address through the HE-BCI review.

Looking towards wider work on metrics improvement over the longer term we have detected common interest in place-based issues (both relating directly to KE and also more widely in socio-economic development) by both the HE sector and policymakers across a wide range of public policy areas. We are therefore also taking this opportunity to find out more about how HE providers record matters of geographic granularity in their own work, and the uses they have for this data. We do not anticipate major changes to the HE-BCI based on answers to this section in the short term.

#### **Background**

Geography matters in policy. The salience of political terms like "levelling-up" <a href="https://www.kcl.ac.uk/news/what-does-the-language-of-levelling-up-tell-us-about-the-agenda">https://www.bc.co.uk/news/b6238260</a> that voters are concerned about. Productivity levels

<a href="https://www.ons.gov.uk/economy/economicoutputandproductivity/productivity/measures/bulletins/regionallabourproductivityincludingindustrybyregionuk/2021">https://www.ons.gov.uk/economy/economicoutputandproductivity/productivity/measures/bulletins/regionallabourproductivityincludingindustrybyregionuk/2021</a> and socioeconomic outcomes <a href="https://assets.publishing.service.gov.uk/media/5a822b92e5274a2e87dc182f/State\_of\_the\_Nation\_2017\_-\_Social\_Mobility\_in\_Great\_Britain.pdf">https://assets.publishing.service.gov.uk/media/5a822b92e5274a2e87dc182f/State\_of\_the\_Nation\_2017\_-\_Social\_Mobility\_in\_Great\_Britain.pdf</a> differ between London and the south-east in particular, and the rest of the UK, with many cities seen as falling short of their potential

<https://www.centreforcities.org/wp-content/uploads/2023/09/Innovation-hotspots-September-2023.pdf>. Place-based policymaking addresses these concerns by designing policies that are tailored to the specific needs and characteristics of a particular place or region <https://openpolicy.blog.gov.uk/2022/09/28/what-can-innovation-bring-to-place-based-policymaking/> , and involves developing a deep understanding of how policy issues are experienced in different contexts. HE providers typically have strong connections to the places where they are based which makes them a source of insight. Often through KE, HE providers make a significant impact on the local and regional economy <https://blog.bham.ac.uk/cityredi/maximising-universities-role-in-the-local-economy-evaluating-the-impact-of-student-knowledge-exchange/> , making them key regional actors. However, place-based policymaking is complex, and the production of evidence to support evaluation <https://www.oecd.org/regional/things-we-dont-want-to-know-monitoring-and-evaluating-place-based-policies.pdf> is difficult.

Beyond KE, HE providers are frequently also among the largest employers in their localities, and play an significant civic role in placemaking and regional development, Universities UK states that "Universities are crucial to levelling up, by bringing together student populations, research partners, local businesses and employers to create vibrant communities, jobs and opportunity across the UK <a href="https://www.universitiesuk.ac.uk/latest/news/uuk-response-governments-levelling-white">https://www.universitiesuk.ac.uk/latest/news/uuk-response-governments-levelling-white</a>. A national civic university network <a href="https://civicuniversitynetwork.co.uk/">https://civicuniversitynetwork.co.uk/</a> "supports universities across the UK to develop and embed their civic aspirations at an institutional level, particularly through developing and publishing Civic University Agreements." The network works "with governments and strategic partners to ensure that a university's geographic role and responsibility is used more effectively as an agent to drive positive societal change." Although HESA and HE-BCI data are listed as potential sources for evaluation, much information about HE provider local interactions and strategies, particularly as these pertain to KE, is typically derived from case studies, qualitative data, and locally-defined evaluation approaches.

We are keen therefore to understand more about how HE providers see the local, regional, or civic aspects of their work; to grasp the role that KE plays in this work; and to learn about how HE providers are addressing evidence gaps for targeting, monitoring and evaluating their locally-focussed engagement. Through your insights, we will be better placed to determine how the HE-BCI survey might be improved for the future, to better support place-based strategies and policies, at all levels.

# What geographic data is currently collected, and where are the gaps?

HESA datasets are helpful in understanding the regional roles played by HE providers (in areas such as skills availability and development, staff and graduate labour flows, and the finances and physical footprint of providers). However when considering HE-BCI, the amount of geographically or regionally-relevant data is limited. Our reading indicates that KE often features a strong focus on place, and this important dimension is largely absent from the survey. The HE-BCI data collection recognises some limited aspects of regionality, for example, regeneration and development funding (which typically has a strong geographical focus) forms the basis of **Table 3** <a href="https://www.hesa.ac.uk/data-and-analysis/business-community/regeneration">https://www.hesa.ac.uk/data-and-analysis/business-community/regeneration</a>.

We believe that the HE-BCI data does not go far enough in this direction for some users. In particular, there are already strategies and programmes for economic and social development in the devolved administrations, which may require revised or additional data collection in future. For example, the Scottish Funding Council (SFC) <a href="https://www.sfc.ac.uk/">https://www.sfc.ac.uk/</a> currently host an additional data collection alongside the HE-BCI data collection. The SFC KE metric return captures KE activity disaggregated at a geographic level, with external organisations and income identified as either 'Scottish', 'Other UK' or 'Non-UK'. This level of disaggregation captures income by the following types:

external research grants and contracts continuing professional development licensing, consultancy enterprise schemes translational awards venturing

outreach.

The SFC have expressed a future desire for the HE-BCI data collection to be the only data capture required. By introducing place-based data into the HE-BCI collection, we could help to reduce burden to HE providers in Scotland and eliminate the need to make this additional return. Incorporating into the HE-BCI survey the geographic granularity currently captured by the SFC KE metrics is therefore one of our goals for consultation.

As we start design work for new data collection we are assessing the extent to which these data items can be integrated easily within the existing table structure, or whether a supplemental table might be preferable. We are also considering the potential extensibility of our approach, should England, Northern Ireland, or Wales wish to follow a similar approach to Scotland in future, of disaggregating some items by either UK nation or International Territorial Level (ITL) level 1 <a href="https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat">https://www.ons.gov.uk/methodology/geography/ukgeographies/eurostat</a>.

In Northern Ireland, DfE-NI aims to foster the capabilities of Northern Irish industry through its '10x Economy' strategy <a href="https://www.economy-ni.gov.uk/sites/default/files/publications/economy/10x-economy-ni-decade-innovation.pdf">https://www.economy-ni-decade-innovation.pdf</a>. The vision centres on the development of an innovative, inclusive and

sustainable economy with an emphasis on support for sectors of competitive strength, drawing on local talents and existing industrial capabilities to capitalise on Northern Ireland's economic potential. Key funding initiatives such as Northern Ireland's City and Growth Deals would benefit from enhanced place-based data in monitoring and analysing the effectiveness of over £1 billion investment in leveraging foreign direct investment (FDI).

In Wales, the **Government's new innovation strategy** <a href="https://www.gov.wales/innovation-strategy-wales">has adapted to a changed funding environment by focussing on missions where, through collaboration and co-ordination, Wales can scale up support for "game-changing" research, development and innovation projects. One of the aims of the strategy is for a fairer geographical distribution of investment in innovation activities.

While additional requirements (and the potential for reducing burden) are clearest in Scotland, our analysis of the policy landscape indicates that interest in more granular geographic data is widespread. In Northern Ireland and Wales the geographical focus on development is just as relevant as in Scotland, and the absence of reporting at the (minimum) level of the devolved administration may prove a limitation on evaluation in future. In England there is currently no requirement for regional reporting to support funding streams such as the Higher Education Innovation Fund <a href="https://www.ukri.org/what-we-do/our-main-funds-and-areas-of-support/browse-our-areas-of-investment-and-support/higher-education-innovation-fund/">https://www.ukri.org/what-we-do/our-main-funds-and-areas-of-support/browse-our-areas-of-investment-and-support/higher-education-innovation-fund/</a>, but given the policy and practice interest explored above we think it is prudent to evaluate data availability across the UK at this stage.

We do not assume that HE providers necessarily hold any geographical data where they do not need it, but given the importance of the regional dimension in much of HE providers' work, and increasing importance of place in public policy, we believe it is sensible to assess what data may be available already as a result of HE providers serving their own strategic aims. Information about institutional strategy and focus on place, and associated data availability and will provide helpful insights to support wider work in future

One of the key areas for exploration is information on **KE engagement with partner organisations** <a href="https://www.hesa.ac.uk/blog/25-05-2023/who-what-when-and-how-adding-where-he-bci-data">https://www.hesa.ac.uk/blog/25-05-2023/who-what-when-and-how-adding-where-he-bci-data</a> . "Partner" is a commonly-used word in literature both about KE and about place-based economic development strategies. However, a "partner" in one context might be a "collaborator" or "customer" in another. There is a gap in our knowledge about how HE providers classify, categorise, and collect data on the business and community organisations they interact with. This gap is an important one to fill for two main reasons. The first is about data quality: HE-BCI observes aggregated totals across a broad sweep of KE activity, but the production process for this data is invisible to us. Understanding the data supporting the underlying activities helps us better support HE providers that are returning the data, do better design work when requests for change to data collection arise, and better inform end-users about what the published data represents. Second, in our 2019 survey <a href="https://www.hesa.ac.uk/files/HEBCI\_Consultation\_analysis.pdf">https://www.hesa.ac.uk/files/HEBCI\_Consultation\_analysis.pdf</a> we uncovered a clear desire for better metrics about KE in the sector, and understanding more about what HE providers currently collect and use data for in their KE business operations is a vital first step on this road. The geographic dimension is a key component in understanding the outcomes and impacts of KE.

We know from research that HE providers contribute to their regions beyond just working with local partners, for example through choices they make about how to develop their campus, how they work collectively to develop local economic development strategies and so on. We are interested to know what kinds of information HE providers collect on local resources and capabilities, partners and stakeholders, and the opportunities and challenges faced in the local area they target. From data from the former Part A of the HE-BCI survey we learned that HE providers generally preferred to define their own local area for strategic purposes (rather than fitting with established geographies). We are therefore interested in asking you about how your place affects your HE provider's strategy, and whether or how you collect information to evaluate the outcomes of efforts you make to support the local area you target.

Looking more broadly than the local area, we know that many HE providers also have national and global missions. These need not be exclusive, and may be mutually reinforcing. We would like to find out more qualitative information about how providers see the articulation between these geographical levels of their mission.

94	Data items from the SFC's KE metrics return (on external research grants and contracts, continuing professional development, licensing, consultancy, enterprise schemes, translational awards, venturing, outreach) in some cases have direct equivalents in various HE-BCI tables, and in other cases do not. What risks of definitional overlap do you foresee from including these categories within the HE-BCI return?

95	The introduction of new columns to add a geographical disaggregation for the UK country or International Territorial Level 1 (for HE providers in Scotland) creates a potential framework for additional data collection more widely – either through a future funders' mandate or on an optional basis. Thinking about the introduction of this column, please advise on whether you currently possess data that would allow you to return this information if it was desired or required? (Please select all that apply)
Plea	se select all that apply
	Yes, we have all the data we would need for this already
$\sqcap$	We have some of the data we would need for this, but not all
H	We do not have any of the data that would be required for this
H	We would consider returning this data optionally (subject to suitable coverage and availability of the data in outputs)
$\vdash$	Not applicable
Ш	Not applicable
96	How do you define the local or regional geographic area you consider
	relevant to your KE work?
0.7	NAME of birth Lovel and a second of the seco
97	What high-level approaches can you share about the ways you partner locally to deliver locally-targeted KE support?
_	partitor locally to deliver locally targeted NE support:
08	How do you perceive or articulate the links between any mission or
30	strategy of your HE provider to create local benefits, and any mission
	or strategy you have to create wider impacts (for example, nationally
	or globally)?

	Do you collect data about both partner and customer organisations you work with in relation to any aspect of the data aggregated in HE-BCI survey?
Pleas	e select only one item
$\bigcirc$	Yes
$\bigcirc$	Sometimes
$\tilde{\bigcirc}$	No
$\tilde{\bigcirc}$	Not applicable
100	If you selected 'Yes' or 'Sometimes' in the previous question, please explain which types of organisations you collect data on and what data points you collect
For e	example:
•	Collaborative research partners IP licensees CPD participants
•	Start-ups Start-ups
	Spin-offs
•	Prospective customers/partners.
101	Do you record the location of these organisations?
Pleas	e select only one item
Ō	Yes
Ō	Partially
Ō	No No
$\bigcirc$	Not applicable
102	If you selected 'Partially', please could you explain which types of partners are included and excluded from your data?

103 If you record location data, please indicate whether the following data is usually recorded (Please select all that apply)		
Please select all that apply		
The registered address of the organisation(s)		
The physical address of the relevant people working at an organisation location		
The general area that an organisation is in (for example city/region) but not necessarily a precise location		
Proximity of the organisation to the HE provider (by some measure of distance)		
Proximity of the organisation to the HE provider through a geographical classification scheme (like International Territorial		
Units)		
We don't collect location data routinely		
104 If you record location, does this include postcode data?  Please select only one item  Yes  No		
105 If you have any other comments on geographic granularity of KE data, please provide them below		

#### Social and cultural interactions

Social and cultural matters are recorded as part of Table 5 (Social, community and cultural engagement: Designated public events by HE provider)

<a href="https://www.hesa.ac.uk/data-and-analysis/providers/business-community/table-5"> of the HE-BCI data collection. Table 5 includes analysis of social, community and cultural events intended for the external community. It is designed to measure the impact of activities where financial income is an inappropriate proxy for impact. The impact is returned through the number of attendees, and academic staff time for free and chargeable events.

Previous engagement with suppliers and users of the HE-BCI data has demonstrated some scepticism about the comparability of the social and cultural interactions data recorded between institutions. Users stated that a lack of clarity in guidance may affect the reliability of data, and an inconsistent understanding of the purpose of collection could potentially distort the data's value.

This section will ask questions based on areas in which statutory customers and sector representatives have indicated potential improvements could be made to the social and cultural interactions data.

#### Possible expansion of public engagement types reported in HE-BCI

In September 2022, HESA worked in partnership with Universities UK (UUK) in hosting an interactive session which addressed the current issues of measuring the value and impact of social and cultural interactions in the HE-BCI data collection. Delegates believed the current collection guidance limits the full scope of interactions that can be reported. They stated that it is common for HE providers to host interactions in non-provider owned spaces, and the current restrictions in the guidance do not allow for the return of such interactions. The C21032 HE-BCI Table 5 guidance <a href="https://www.hesa.ac.uk/collection/c21032/hebci\_b\_table\_5">https://www.hesa.ac.uk/collection/c21032/hebci\_b\_table\_5</a> states that 'Exhibitions (galleries, museums etc.)' and 'Museum education' should only be returned where hosted in museums or galleries owned by the reporting HE provider. Delegates felt that the focus on owning museums and galleries is unhelpful and does not reflect the diversity of the sector engaging in these forms of KE. The current eligibility may result in an underreporting of interactions, meaning the HE-BCI dataset may not be providing a true reflection of the scale of collaboration between HE providers and their external communities. This may undermine the reliability of the data and its usefulness in developing our understanding of the ecosystem – something we would like to avoid if possible.

#### Online events

Delegates at the PraxisAuril 2022 Annual Conference <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference">https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference</a> stated a desire to disaggregate engagement types by those delivered in-person and online. Figures are currently collated into one metric as defined by the activity (public lecture, performance arts, etc). For the purposes of the C19032 and C20032 HE-BCI data collections (academic years 2019/20 and 2020/21), HE providers were given (exceptional, COVID-19 related) guidance on what to return in cases where an interaction was delivered online, but intended to have been in-person. It was determined that if the content and 'experience' of participants was highly like that they would have had, had they been able to attend in person, then the interaction should be considered eligible for return. Delegates stated the adaptation of in-person events to online mediums has become more commonplace since the restrictions of the COVID-19 pandemic. Delegates requested the ability to differentiate events by their mode of delivery as a permanent feature of the record. In the event of hybrid (both in-person and online) events they felt judgement could be made on which categorisation was most appropriate based on attendee experience.

#### Engagements with public and not-for-profit organisations

Previous engagement <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference">has indicated that partnerships with regional stakeholders such as local authorities (LAs) and schools demonstrate significant and highly valuable examples of KE. These partnerships are not currently captured in the HE-BCI data collection. HESA is therefore looking to explore whether the inclusion of partnerships with not-for-profit and third-sector organisations in HE-BCI might be feasible or desirable in the future, as a feature of data on social, community and cultural engagement (Table 5). This may include partnerships with groups such as:

Arts and cultural organisations

Community groups

Schools and educational groups

Health and wellbeing practitioner groups

Councils and Local Authorities (LAs)

Local Enterprise Partnerships (LEPs) (English providers only).

# Using time as a proxy measure for impact and value

The Civic University Network's (CUN) analysis <a href="https://civicuniversitynetwork.co.uk/wp-content/uploads/2022/04/Capturing-and-Enhancing-the-Impact-of-the-Civic-University.pdf">https://civicuniversity.pdf</a> of civic engagement identifies three central forms of interactions between HE providers and their local communities: institutional partnerships, economic impacts through social engagement, and community participation. These interactions are foundational to CUN's Civic Framework <a href="https://civicuniversitynetwork.co.uk/wp-content/uploads/2022/04/Civic-Activity-Framework.pdf">https://civicuniversitynetwork.co.uk/wp-content/uploads/2022/04/Civic-Activity-Framework.pdf</a>, which is an indicative tool designed to support institutions in their self-assessment of their civic impact. The framework proposes that staff time allocated to civic engagement may demonstrate the value of a HE provider's commitment to social impact.

In the **HE-BCI dataset** <a href="https://www.hesa.ac.uk/collection/c21032/hebci\_b\_table\_5">https://www.hesa.ac.uk/collection/c21032/hebci\_b\_table\_5>https://www.hesa.

Participants at HESA's workshop with Universities UK (UUK) made recommendations for the ways in which staff contributions could be better understood and reported to HESA. In the case of events, it was highlighted that the preparation often requires greater commitment and resource than the interaction itself. Attendees therefore suggested that time contributed by staff should include all forms of engagement with the partnership, including time not spent in direct contact with the external partner or attendees. Attendees believed this may provide a greater understanding of the HE providers commitment to their local communities, and a better understanding of their efforts.

Given the possibility that HE-BCI may only be capturing a portion of the institutional commitment to events intended for the external community, we are interested in understanding what data HE providers might already collect regarding the allocation of staff time.

106 Do you hold social and cultural engagements in non-provider owned spaces?
(Required) Please select only one item
Yes
○ No
107 If you selected 'Yes', please provide more information
What kind of spaces these are.  The transfer of spaces the kind of spaces are the kind of spaces.
The types of engagement held in these spaces.
109. Do you congretely record interactions hosted on different platforms?
108 Do you separately record interactions hosted on different platforms?  (Please select all that apply)
(Required)
Please select all that apply
In-person
Hybrid
Online
Broadcast media (TV and Radio)
Podcasts
Social media
Something else
None of these
109 If you selected 'Something else', please provide more information
, and a second a second and a second a second and a second a second and a second and a second a second a second a second a second and a second a second a second a second a second and a se

110 Do you record KE partnership work with not-for-profit and third-sector organisations?
Please select only one item
Yes
○ No
Not applicable
O not applicable
111 If you answered 'Yes', please provide more information on the types of
interactions, and the data you record  We are particularly interceted in hearing about potential everlage with existing data items, e.g., an arts & cultural set for profit organisation commissions some
We are particularly interested in hearing about potential overlaps with existing data items, e.g. an arts & cultural not-for-profit organisation commissions some consultancy from an HE provider
112 Do you collect data on the time spent on preparing for social, community and cultural events (i.e. beyond that reportable in the HE-BCI survey)?
Please select only one item
Yes – for academic staff only
Yes – for staff on a wider range of contracts
○ No
113 Do you use any methods or frameworks to quantify the impact of staff contributions either on social and cultural forms of KE or on the wider world?
Please select only one item
Yes
114 If you selected 'Yes', please explain your approach, and the types of data recorded
please provide more information

please provide them below
Equality, diversity & inclusion  This section will ask questions which will seek to enhance our understanding of the EDI data collected by HE providers, for future consideration. HESA collects a wide range of protected characteristics in the context of staff and students. However, we do not collect this information for the HE-BCI dataset, as we do not currently collect information about the individuals who participate in KE.
We received feedback in the <b>HE-BCI phase 1 consultation</b> <a href="https://www.hesa.ac.uk/files/HEBCI_Consultation_analysis.pdf">https://www.hesa.ac.uk/files/HEBCI_Consultation_analysis.pdf</a> which requested the inclusion of more don equality and personal characteristics. There was also the suggestion to include data relating to the equality and diversity of KE professionals. Having improved data EDI in innovation can promote diversity and inclusion, which can in turn produce more impactful innovation. In their second formative <b>evaluation</b> <a href="https://www.officeforstudents.org.uk/publications/evaluation-of-student-engagement-in-knowledge-exchange-programme/">https://www.officeforstudents.org.uk/publications/evaluation-of-student-engagement-in-knowledge-exchange-programme/</a> of Office for Students-funded projects with the student engagement in KE programme, the researchers from SQW noted that "most projects have considered and defined the profile of under-represented groups of students they intend to target, and have engaged with in practice." However, they also noted that "there are recurring issues that pose a barrier to obtaining robust, consistent and accurate data on student profiles." We are keen to widen the evidence base by discovering if these characteristics are recorded by HE providers in the context of KE.
116 If you collect EDI data, which of the following individuals involved in KE do you collect EDI data for? (Please select all that apply)
Please select all that apply
We do not collect this data
Academic staff
Students
Professional services staff
External participants
117 If you collect data on EDI, what type of data do you collect? (Please select all that apply)
Please select all that apply
We do not collect this data
Individualised data that can be, or is associated with various KE activities
Anonymous individual data related to specific activities
Summary aggregated data related to specific activities  Other
118 If you selected 'Other', please provide more information

119	If you collect EDI data, which of the following characteristics do	you
	collect? (Please select all that apply)	

	Academic Staff	Students	Professional Service Staff	External participants
No data collected				
Age				
Disability status				
Ethnicity				
Nationality				
Religion/Belief				
Sex				
Gender Identity				
Transgender				
Sexual Orientation				
Socio-economic status				
20 If you have any other commer please provide them below	nts on EDI in relation t	o KE activity,		

### Staff and students as agents of knowledge exchange (KE)

This section will be asking questions on the availability of data on individual contributions to KE, and the challenges of collecting this individualised data. These questions aim to aid our understanding, and inform long-term thinking of the priority area.

HESA has Staff <a href="https://www.hesa.ac.uk/collection/c22025/index">https://www.hesa.ac.uk/collection/c22025/index</a>, Student <a href="https://www.hesa.ac.uk/20056/dataDictionary/">https://www.hesa.ac.uk/collection/c21072/index</a>, records in which a rich variety of attributes of the individuals are collected. These records do not include data about individual involvement in KE, although this might be regarded as a potential aspect of their employment function, or a feature of their course. The consequence of this is that the sector lacks large-scale data on the detail of who is (and isn't) engaging in KE. There are some variables of tangential interest, but these do not constitute a mechanism for understanding the relationship between KE activities and individuals.

Feedback from HESA's HE-BCI workshop at the International Enterprise Educators conference 2022 <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/ieec-2022">https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/ieec-2022</a> highlighted the HE-BCI data needs to account for staff (both academic, and professional services and technical staff), and students (both registered, and graduates), as they are key contributors and actors in KE.

There is also domain interest in better understanding how the activities of agents transform inputs into outputs and outcomes, across the KE domain. For example, SQW's evaluation <a href="https://www.ukri.org/wp-content/uploads/2021/10/RE-01102021-HEIFEvaluation-KEfunding-NovelEvaluationMethodologiesPhase2FinalReport.pdf">https://www.ukri.org/wp-content/uploads/2021/10/RE-01102021-HEIFEvaluation-KEfunding-NovelEvaluationMethodologiesPhase2FinalReport.pdf</a> of potential novel approaches for evaluating the HE infrastructure fund (HEIF) in future catalogues a wide range of activities and developed logic models and associated theories of change, to guide future evaluation.

#### Inclusion of academic, professional services and technical staff contributions in HE-BCI

During HESA's workshop at the PraxisAuril 2022 Annual Conference <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference">https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/praxisauril-2022-conference</a>, delegates suggested that staff with both academic and professional services contracts should be included across the HE-BCI record where relevant, to measure the full value of KE. They stated that support staff and those with non-research contracts have sizeable contributions to KE interactions throughout the whole process (e.g. preparation, delivery). This was also echoed by participants of HESA's workshop at the International Enterprise Educators conference in September 2022 <a href="https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/ieec-2022">https://www.hesa.ac.uk/innovation/records/reviews/he-bci-major-review/user-engagement/ieec-2022</a>. The inclusion of non-academic staff contributions in the HE-BCI dataset may also help to improve our understanding of important roles within the wider KE ecosystem such as technicians - a workforce which is seen as "essential to research and innovation" and have "been undervalued for too long</a> <a href="https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/896799/UK\_Research\_and\_Development\_Roadmap.pdf">https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\_data/file/896799/UK\_Research\_and\_Development\_Roadmap.pdf</a>".

121 Do you record individual academic staff members' contributions to KE?

Please select only one item

Yes
No

122 If you selected 'Yes', please provide more information on the types of contributions you record, and how these contributions are recorded

123 Do you record individual professional services and technical staff members' contributions to KE?

Please select only one item
Yes
No

124 If you selected 'Yes', please provide more information on the types of contributions you record, and how these contributions are recorded
<ul> <li>125 Does your organisation have any barriers or challenges when collecting individualised data on staff KE contributions?</li> <li>Please select only one item</li> <li>Yes</li> <li>No</li> <li>Not applicable</li> </ul>
126 If you selected 'Yes', please provide more information

#### Inclusion of student contributions in HE-BCI

The **National Centre for Universities and Business** <a href="https://www.ncub.co.uk/insight/universities-explore-impact-of-student-involvement-in-knowledge-exchange/">https://www.ncub.co.uk/insight/universities-explore-impact-of-student-involvement-in-knowledge-exchange/</a>
highlight that students have a significant role in a variety of KE activities. Despite this, there is only a **small amount** <a href="https://doi.org/10.35542/osf.io//hgpj5">https://doi.org/10.35542/osf.io//hgpj5</a> of literature which explores students' roles in KE activities. Some examples of student's involvement in KE activities include: consultancies, social and cultural interactions, and establishment of start-ups and spin-offs.

Another way in which student life is linked to KE is through work-based learning or opportunities to link registered study with a HE provider with paid employment in a business. Apprenticeships are probably the most recognisable form of this kind of link to the general public. Apprenticeships are seen by many as an important KE activity that is **key to filling** 

<a href="https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/Apprenticeships.%20A%20Genius%20Decision.%20A%20Guide%20for%20Employers\_0.pdf">https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/Apprenticeships.%20A%20Genius%20Decision.%20A%20Guide%20for%20Employers\_0.pdf</a>
<a href="https://current.and-future-skills-gaps">https://current.and-future-skills-gaps</a> in the UK

<a href="https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/Apprenticeships.%20A%20Genius%20Decision.%20A%20Guide%20for%20Employers\_0.pdf">https://businesswales.gov.wales/skillsgateway/sites/skillsgateway/files/documents/Apprenticeships.%20A%20Genius%20Decision.%20A%20Guide%20for%20Employers\_0.pdf</a>

. While we have basic data on participation in a higher or degree apprenticeship within the Student Record (Code 004 in the Student Initiatives variable)

-white we have basic dual on participation in a higher or degree apprenticeship within the Student Record (Code out in the Student Initiatives Variable)
-/https://codingmanual.hesa.ac.uk/22056/StudentInitiative/field/STUINITID/> , we do not have data in the HE-BCI record or elsewhere about the partnership activity that underpins the generation of new apprenticeships. Many apprenticeships at levels 4 and 5 are served in connection with Further Education Colleges that do not in general submit data to HESA. We are working on a project <a href="https://www.hesa.ac.uk/innovation/college-he">https://www.hesa.ac.uk/innovation/college-he</a> to ingest and standardise data from administrative sources across the UK <a href="https://www.hesa.ac.uk/innovation/college-he">https://www.hesa.ac.uk/innovation/college-he</a> to facilitate access to a single trusted data source for all of the UK's HE students and their providers. This will include filling the present gap in our outputs covering data on apprenticeships, but at the time of writing our assessment of the potential for publishing UK wide data on apprentices from these sources is nascent. It would be useful for us to understand what data HE providers are collecting on the employers of apprenticeships, to understand the potential options for filling gaps that might arise following our evaluation.

Turning from apprentices, there are other forms of employer-linked student activity. For example Innovate UK's **Knowledge Transfer Partnership** <a href="https://www.ktp-uk.org/">https://www.ktp-uk.org/</a> associates are also a well-established approach to supporting strategic innovation in businesses by recruiting and registering masters and PhD students to work with companies on projects – but we do not identify these separately in our data. HESA collects data on student **placements** <a href="https://codingmanual.hesa.ac.uk/22056/entity/OffVenueActivity">https://codingmanual.hesa.ac.uk/22056/entity/OffVenueActivity</a> and in addition, the Graduate Outcomes survey captures details about graduates that are running their own businesses, and this information can also be linked back to a rich set of variables about the graduate's previous studies in the Student record.

In the HESA student data we previously obtained data on the major source of tuition fees <a href="https://www.hesa.ac.uk/collection/c21051/a/mstufee">https://www.hesa.ac.uk/collection/c21051/a/mstufee</a> for all students (including where this is the student's employer) but from 2022/3 we only know about employers paying fees for part-time students in Wales <a href="https://codingmanual.hesa.ac.uk/22056/StudentCourseSession/field/EMPFEES/">https://codingmanual.hesa.ac.uk/22056/StudentCourseSession/field/EMPFEES/</a>, in order to assess if changes in the part-time funding regime affect the level of employer contributions, impacting on the supply and demand for part-time provision. This is another area where data may be more sparse than ideal for the purposes of understanding the role of students in KE. We know that HE providers have collected this data until recently (and may well continue to do so for their own purposes) but we would like to understand more about what information is held, with KE as the lens rather than fees information. The case for the benefit of enhanced national information still needs to be made, but evidence of data practices helps analysts and policymakers understand the level of investment HE providers are making in having good information on these aspects of student-linked KE,

127 Do you record individual registered students' contributions to KE?		
Please select only one item		
Yes		
O No		
128 If you selected 'Yes' to the previous question, please provide more information on the types of contributions you record, and how these contributions are recorded		

129 Do you record the employer associated with each individual apprentice in your systems? (Please select all that apply)
Please select all that apply
Yes, in our student record system (or similar)
Yes, in a system other than the main student records system (e.g. the finance system)
Yes, in a variety of systems
Yes, in electronic systems with relatively manual access (email folders, etc.)
No we do not record this information
Not applicable
130 Do you record the employer associated with individual (non-apprentice) students in your systems? (Please select all that apply)  Please select all that apply
Yes, but only where the employer is paying at least a portion of the fees (or standing as guarantor)
Yes, but only for some students (for another reason than fee liability) we record
Yes, in our student record system (or similar)
Yes, in a system other than the main student records system
Yes, in a variety of systems
Yes, in electronic systems with relatively manual access (email folders, etc.)
Yes, we record a Companies House Number (or similar)
Yes, we record the legal name and address of the organisation
No we do not record this information
Not applicable
131 Do you record individual graduates' contributions to KE?
Please select only one item
○ Yes
○ No
132 If you selected 'Yes', please provide more information on the types of contributions you record, and how these contributions are recorded

133 Does your organisation experience any barriers or challenges when collecting individualised data on student KE contributions?	
Please select only one item	
Yes	
○ No	
Not applicable	
Not applicable	
134 If you selected 'Yes', please provide more information	
135 If you have any other comments on staff and students as agents of	
KE, please provide them below	
looing foodbook	
losing feedback	
400 Decree have any other agreements on the data called a UE DOIO	
136 Do you have any other comments on the data collected in HE-BCI?	
137 Do you have any other comments about this survey?	