



**USE**  
University of Sheffield **Enterprise**

# Developing a method to evaluate the impact of curricular and extracurricular enterprise education on the career progression and entrepreneurial activity of graduates from The University of Sheffield.

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## 1.0 PROJECT OVERVIEW

### 1.1 Overview

The continued existence and growing widespread delivery of enterprise and entrepreneurship education programmes within higher education, both in the UK and globally, intuitively suggests a level of value and impact is offered to students and graduates undertaking these programmes. However, the absolute nature of this impact and related methods of capture, are still in need of development within the enterprise education (EE) sector. Substantive methods of enquiry, and resulting analytical evidence of impact, are needed in order to substantiate and give greater weight for a well-founded relationship to be ascertained; to ensure that EE continues to provide value for students and graduates, and that EE receives appropriate institutional investment.

Therefore, with this agenda in mind, this study's primary aim was to develop an approach, which could be used to provide greater understanding and insights of the potential impacts of EE on graduate employment and entrepreneurial activity, and provide a mechanism for capturing and quantifying impact in a meaningful way. The enquiry attempted to:

a) identify an appropriate method for gathering data from graduates on their perceptions of the effectiveness of EE.

b) develop a methodology, which would provide quantifiable measures, with the intention to evidence the impact of embedded curricular and extracurricular enterprise on subsequent employment destinations of The University of Sheffield (TUoS) graduates.

The approach focused on individual experiences of specific enterprise capabilities, and identification of any links (and subsequent strength) between employment destinations and/or actions towards starting a business.

In a prior mapping process (Elliott, Riley, & Barluenga, 2012) (Elliott & Matthews, 2015) undertaken by TUoS, a framework of 15 enterprise capabilities was developed to assess the extent to which enterprise education is embedded within subject modules. A module in which all 15 enterprise capabilities were delivered, was classified as a '15EC module', see *Appendix A*. This enabled the identification of TUoS alumni who had graduated between 2010-2014, and had completed programmes with the presence of an optional 15EC module. In turn, this supported the study to then compare the employment destinations and/or entrepreneurial activity of those graduates who had received embedded EE, with those who had not taken the 15EC module option. Quantitative and qualitative data was gathered by online questionnaire.

### 1.2 Specific Research Aim

The project aimed to formulate a method that built upon the mapping of enterprise capabilities work that TUoS had previously carried out. Its purpose was to investigate if a methodology could be developed to explore the relationship between graduates who had studied embedded curricular enterprise and/or extracurricular enterprise, and whether the nature of their subsequent career choices had been impacted by EE. Career choice indicators included whether a graduate had started or run a business, or, if graduates had been employed, whether their particular employment role placed a level of importance upon enterprising capabilities. The intention was to survey graduate cohorts from a five-year period to potentially identify any trends.

### **1.3 Project Limitations**

The scope and resources of this study would offer limited breadth or in-depth investigation that would support robust findings into this subject. However, the study does attempt to develop and test out a feasible method, by building upon an existing institutional mapping project to identify modules that deliver enterprise capabilities, and then attempt to assess the impact, if any, this has had on their current job status (business or employed).

The impact measured was intended to be at the individual level, and does not cover institutional, economic or societal impact.

## 2.0 BACKGROUND

### 2.1 Enterprise education, entrepreneurship and economic impact.

Evidencing the value of enterprise education skills is a key validation endeavour for educators. Yet, tracking graduate career progression from experience of enterprise skills towards potential business creation or a 'particular employment status', is a process that is still to be refined and truly determined. The absence of a standardised 'set' of enterprise skills (if indeed there should be) and a validated method of tracking and assessing impact, means institutions are approaching the task with differing assessments resulting in non-comparable data, and reducing the value that a coherent supporting body of evidence could provide.

There is opportunity to address this need through development of additional approaches or methods that may offer insights or value. The key message underlying pursuit of this task, is the importance that enterprise and entrepreneurship offer:

*"Governments, municipalities and universities worldwide look toward entrepreneurship as a source of job creation, an engine of economic growth and revitalization, and as an answer to issues ranging from demographic constraints to business cycles." (Honig & Martin, 2014, p.127)*

Indeed, following the European Commission Report "*Entrepreneurship Education: A road to success*" (2015), (which reviewed 91 research projects to assess for impact), it was identified that entrepreneurship education performs "...a significant role in supporting the main goals of the Europe 2020 strategy; growth and jobs." The projects reviewed in this report maintain a focus upon entrepreneurship education, not specifically enterprise skills or embedded enterprise skills. However, for this particular study it is important to establish the difference between entrepreneurship and enterprise education terms. Enterprise skills are foundational proficiencies, which can be further developed to support individuals to establish entrepreneurial ventures. This distinction is noted by the QAA (2012):

*"Enterprise education aims to produce graduates with the mindset and skills to come up with original ideas in response to identified needs and shortfalls, and the ability to action them. In short, having an idea and making it happen. Entrepreneurship education equips students with the additional knowledge, attributes and capabilities required to apply these abilities in the context of setting up a new venture or business....Enterprise and entrepreneurship are transdisciplinary, with a strong connection to issues of employability..." (QAA, 2012. p.8)*

Therefore, through the framework of enterprise education, students are enabled to develop nascent enterprise skills which could then potentially translate into later purpose-led practice. As noted by Honig & Martin (2014) a career in entrepreneurship or in support of, requires that "*individuals put into practice the skills and abilities that they have mastered*". It is the creation of the opportunities to develop skills, (together with knowledge and personal attributes), that enterprise educators are currently engaged.

## 2.2 Skill development within the curriculum and mapping of embedded enterprise.

Skill development in HE has been of importance for more than 20 years. Bath et al (2004) described the growing importance of “*generic attributes or qualities*” which are now covered within enterprise education as “*enterprise skills, behaviours and attributes*” (QAA, 2012). The Bath et al. described attributes included “*...critical thinking...problem-solving, logical and independent thought, communication...creativity and imagination...*”. The noted developing significance of ‘generic skills’ brought, “*...greater focus on the relationship between education and the employment of graduates*” (Bath et al. 2004), along with the necessity to capture where such activity occurred:

*“The mapping of opportunities for development of graduate attributes in the planned curriculum thus plays an important role in relation to quality assurance and reporting processes, and embedding these opportunities in curricula may ensure alignment between the espoused curriculum and the taught curriculum.” (Bath et al. 2004)*

Mapping of enterprise education and skills therefore is necessary to understand provision at both a national, institutional and curriculum level (NGCE, 2007). By firstly developing an institutional map of curricular delivered enterprise education this can then contribute to the overall broader picture. Understanding that map of where and how embedded enterprise skills are delivered is necessary to inform areas in need of greater development to encourage student engagement. A point illustrated by Jorre de St Jorre, T and Oliver, B, (2017), “*students find graduate learning outcomes too generic to be meaningful and are most likely to engage with learning outcomes that are contextualised and assessed.*”

This curricular embedded approach to delivery of enterprise skills has been adopted by the Enterprise Education Development team at TUoS, who have drawn upon the mapping of embedded enterprise activities at TUoS (2012 – 2014), (discussed in greater detail later), in order to identify gaps in provision, areas for development and inform their strategic approach.

However, as Bath et al. ask:

*“... while this mapping of graduate attributes plays an important role in curriculum development and quality monitoring, is it enough to ‘validate’ the curriculum and the opportunities therein for graduate attribute development? Is there alignment between what is espoused, what is enacted and what students experience and learn?” (2004, p.314)*

This alignment and validation of institutionally mapped embedded enterprise curricula, against graduate self-assessed measures of EE skill development, is central to this study. In the following sections, the project approach, goals, and subsequent determining of impact measures and methods are developed with the notion of alignment in mind.

## **3.0 PROJECT APPROACH**

### **3.1 The University of Sheffield position on enterprise education.**

The University of Sheffield made a commitment in its Learning & Teaching Strategy, to “provide the opportunity to all of its students, regardless of discipline, to develop a range of enterprising skills within the curriculum”. Guidance from National Higher Education policy (Wilson 2012, QAA 2012) has steered and informed this educational agenda.

An enterprising curriculum provides opportunities for students to become creative problem-solvers, applying their knowledge to real life situations and developing skills to manage limited resources under uncertain conditions. This translates into a richer learning experience and an improvement in students’ confidence and employability skills.

University of Sheffield Enterprise (USE), a Student Services department, provides support and resources to academics across all Faculties to develop an enterprising curriculum as defined in “*Enterprise Education: Mission, Vision and Strategy, 2012-2016*”, which forms part of the University’s wider Learning and Teaching Strategy. See *Appendix B*.

### **3.2 Importance of mapping enterprise education within an institute**

Although supported by wider TUoS institutional strategies, it is not compulsory for enterprise capabilities to be integrated within programmes; hence there was need to trace and map where enterprise skills activities occurred. This was carried out between 2012 and 2014, with the aim of:

- Establishing the current level of enterprise education within the curriculum to better understand how and where resource to support embedded enterprise can be best applied.
- Identifying existing practice that could be translated into other disciplines/modules.
- Providing empirical benchmarking data with which to substantiate our ambition to be one of the most enterprising universities in the UK
- Raising awareness of and engagement with the enterprise education strategy

### **3.3 Enterprise Skills**

This study draws heavily on the framework of enterprise ‘skills’ or ‘capabilities’. The ‘QAA Enterprise and entrepreneurship education: Guidance for UK higher education providers’ (QAA 2012), informed the development of a set of 15 enterprise ‘capabilities’ (15EC) which were used for the mapping, and a refined version within the questionnaire that was issued. See *Appendix A*.

### **3.4 Alignment of goals and measurement**

The aim of an embedded enterprise module is for a student to gain a level of ability in enterprise skills. Therefore, the associated measurement was determined to be the level of

ability the student felt they had developed in those skills and the degree of importance they thought enterprising skills were in their current employment (business venture or job role classification).

To be able to assess the value and impact of EE, there is a need for an amount of time to elapse in order to leverage enterprise capabilities and allow their value and impact to be realised. This would indicate that a longitudinal study would be required over several years; however, the growing imperative to provide these evidence measures is a challenge that faces our sector now, not 5 years hence. It was therefore decided to develop a methodology that could analyse retrospective data relating to the delivery of EE that would enable measurement of impacts already achieved.

## **4.0 RESEARCH METHODOLOGY: INFORMATION GATHERING AND PROCESSING**

### **4.1 Approach to research problem and selection of methods**

#### **Research Support Officer (RSO)**

The RSO was responsible for the coordination and research facilitation of the project.

This study aimed to identify a methodology, which would produce enough data to offer valid insight into student career journeys. Therefore, three techniques were selected for this purpose. The first to draw upon a previous mapping process of identified modules containing embedded enterprise to identify appropriate participants, the second to develop an approach to gathering data on graduate career choices and progression of the selected participants, and the third to develop a mechanism by which the value and impact of EE could be measured in relation to career choices and progression.

The method and data type intended to be obtained were as follows:

METHOD A - MAPPING: Quantitative.

METHOD B - DATA GATHERING: Quantitative and Qualitative

METHOD C - MEASUREMENT: Qualitative

### **4.2 Method A – Mapping the level of curriculum embedded enterprise contained within the across the whole university to identify participants.**

As briefly described in the section 3.0, the basic mapping process and data had been previously gathered, and used to support the Enterprise Learning Development team at USE. Aiding them to identify both areas of good practice and areas where enterprise learning could be developed. In this study, the data from the mapping was re-examined to identify appropriate graduate cohorts to potentially survey who had studied an optional enterprise embedded module(s) and its potential impact.

#### **4.2.1 Criteria**

Criteria were established to compare modules, to identify and capture the levels of enterprise. These can be found in full in *Appendix A*. In brief, they were:

- Problem Inquiry and Response
- Working with constraints
- Innovation & Creativity
- Calculated risk taking
- Taking Action
- Collaborative work & Communication

Each criterion was then further defined by writing a number of statements associated with each criterion, totalling 15 statements in all.

For example, for “Problem Inquiry and Response”:

- Students are given the opportunity to investigate a problem or issue that enables them to respond and identify potential opportunities, aims and ambitions.
- Students are able to experience and appraise different approaches in which a relevant problem solution might be put into action.
- Students are given the opportunity to develop strategic thinking in response to problem solving and management.

#### *4.2.2 Process of mapping*

- Academics from all departments and faculties were invited to participate in an incentivised survey where they were asked about their modules and the enterprise skills the students have the opportunity to develop. The aim of this survey was to start gathering the academic staff's perspectives and gain relevant contacts for a further in-depth analysis.
- The mapping officer met academic staff who had engaged in any way with USE in the past and survey participants that had expressed their keen interest in learning more about the mapping exercise.
- Academics were asked to mark any modules they have a clear involvement with using the criteria, with clarity being provided by the EMA.
- Modules that were scored were then entered onto a departmental spreadsheet, thereby presenting a wide-ranging picture of the presence and/or absence of enterprising content in the curriculum for each course

#### *4.2.3 Identifying participants*

The mapping allowed the identification of graduates who studied an optional 15EC module, and the related programme as identified from the further analysis of the mapping data, as potential participants to engage with the study.

- 97 15EC modules were found during the initial mapping.
- Student data was searched to identify programmes that had been running for at least 5 consecutive years where one of the 97 modules was available for the entirety of that period. This limited the potential data pool from 97 to 18 potential modules to investigate.
- Of the students who had studied the 18 remaining modules, their associated programmes of study were obtained, and interrogated to see if the programmes had large enough student cohorts to offer large sample sizes. Those that did not, and their associated modules were removed.
- 10 optional modules with 10 associated programmes remained.

### **4.3 Method B - Research data gathering process**

It was decided to survey students who graduated between 2010 and 2014, as this would give a longer period of employment to track, and opportunity to identify any trends over this time. It also allowed a greater amount of time to consider business creation, 6 to 18 months after graduation.

#### *4.3.1 Exploration of LinkedIn for potential data source.*

LinkedIn was considered as a potential source of alumni data for the study. The approach of identifying TUoS alumni via LinkedIn, who had studied a degree programme containing an optional module, was initially explored through preliminary data scrapes for 2 optional modules. An attempt was made to identify if LinkedIn profiles contained sufficient detail to establish if:

- a) graduates who had completed a 15EC module were more likely to have launched a business than those who had not completed a 15EC module.
- b) the current job role of the graduates who had completed a 15EC module indicated a level of career progression or seniority greater than those who had not completed a 15EC module.

The following limitations were found with this approach:

- The job title on the LinkedIn profile may not reflect what they are actually doing now, as profiles may not have recently been updated.
- Job titles are not always representative of the role and duties undertaken and are not comparable across industry sectors.
- The industry sector may not have been updated from the date when they initially created their profile.
- Key search terms for industry to profile is limited if they do not change this field in their LinkedIn profile.
- Time intensive given the limited resources available to the project. The specific data for those who had studied at TUoS, and their current declared industry sectors, is unable to be found in a succinct and easy retrievable format.
- LinkedIn provided insufficient detail to determine what other curricular or non-curricular university delivered enterprise learning may have been received that would potentially impact on career progression of entrepreneurial activity.

#### *4.3.2 Using an alumni email database to survey students.*

Given the considerations above, in partnership with the TUoS Alumni Relations Office, potential participants were contacted via email garnered from the central alumni contact database. This approach would enable respondents' information as to the job role to be captured at a specific point in time and to gather additional data on university delivered enterprise learning beyond the 15EC modules. This would increase the reliability of the data sample.

Unlike the initial approach using LinkedIn where participants were inactive in the data collecting process, direct contact would require the generation of a questionnaire to gather the required information.

The structure of the DHLE survey informed the questionnaire structure, so that potentially any data could be cross-referenced with DHLE data in the future. Particularly in terms of the triangulation of the job title description, description of duties and identification of SOC classification.

The framework for the methodology is based upon the enterprise capabilities, and the identification of those present in modules within the University of Sheffield, and the graduates that took those modules.

### **4.3.3 Participant engagement/recruitment**

An appraisal of current questionnaire and participant engagement projects within TUoS was carried out, to collate appropriate contact materials to encourage engagement and response to the survey. A test group of USE staff and external staff were also asked to give opinions on the most effective form and style of communication that would encourage them to respond to the survey. The Alumni Relations team were also contacted for advice in engaging respondents. From this trial, the following forms of communication were decided upon.

- The questionnaire (see Appendix C) was issued via personalised email to the available alumni contacts, provided by the Alumni Relations team.
- A total of 1692 students were contacted using the Alumni Relations standard approach to email engagement with alumni. This allowed students to be contacted and addressed by personalised past programme, with the intention that students would read an email title and content that directly referenced their chosen graduated subject. This use of the central database was very helpful, in ensuring *all* possible identified graduates were contacted.
- The questionnaire was also issued through the University's Alumni Relations office. This allowed contact to be made via a central, trusted TUoS system, again citing specific reference to each student's department.
- Within the emails was a link to the questionnaire hosted on SurveyMonkey question, allowing participants to be directed straight to the questionnaire from the email.

## **4.4 Method C - Determining impact measures**

Referring to the impact guidance from "*Entrepreneurship Education: A road to success*" (2015), the study characterised impact by the following key questions: Note: to illustrate the translation of the overarching impact measures into the survey, the subsequent question(s) developed for the questionnaire, are shown below the main headings.

### ***Is the respondent currently running their own business?***

Q3. Please select one option below which best describes your work journey / experience since graduating.

- I have been employed
- I have been employed AND pursued further study
- I have started/run my own business
- I have started/run my own business AND pursued further study
- I have been both employed AND started/run my own business

- I have been both employed and started/run my own business AND pursued further study
- I have pursued further study only
- I have been unemployed since graduation

*If employed, what Standard Occupational Classification (SOC) does the respondent's current job role fit within?*

Noting other current, good practise approaches to capturing job role classification (Bell, 2016), this impact measure was structured so responses could be triangulated between the following questions to determine a more reliable value and correspond to the Standard Occupational Classification (SOC) system, and to potentially cross reference with other studies that draw upon this data format:

Q36. Please tell us what is/was your current/most recent job title? Please write below:

Q37. Briefly in a sentence, please tell us what your duties & responsibilities are/were within this job role? Please write below:

Q38. If you have a clear idea which overarching category your job role fits within, please select from the drop-down list below. If not select 'Don't know'.

- Managers, Directors and Senior Officials
- Professional Occupations: A degree or equivalent qualification required.
- Associate Professional and Technical Occupations: Associated high-level vocational qualification.
- Administrative and Secretarial Occupations.
- Skilled Trades Occupations.
- Caring, Leisure and Other Service Occupations.
- Sales and Customer Service Occupations.
- Process, Plant and Machine Operatives.
- Elementary Occupations: Occupations will usually require a minimum general level of education.
- Don't know

*Job role skills. For all survey respondents: to what degree of importance are the identified enterprise skills important within their current job role?*

Q11. Please rate how important the following skills are in helping you perform your current/most recent job role:

Example: **Problem solving skills**

1. Investigate a problem & identify opportunities.
2. Assess different approaches to solve a problem.
3. Use strategic thinking for problem solving and management.

Participants rated their response on a Likert scale from Very Important to Not Important.

*Module skills. Only for respondents who studied an identified optional embedded enterprise module. To what degree of importance are the identified enterprise skills important within their current job role?*

Q18. Keeping in mind the list of skills you have just rated in relation to your most recent job role: 'Problem Solving, Constraints, Creativity, Calculated Risk, Taking Action, Communication and Collaboration'.

Did you develop any of these skills as a result of studying the specific module(s) you identified above? Please select one option below.

Participants rated their response on a Likert scale from Definitely Not to Definitely.

Would you now please select the level of ability you developed in the following skills, from your time studying the specific module(s):

Example: **Problem solving skills**

1. Investigate a problem & identify opportunities.
2. Assess different approaches to solve a problem.
3. Use strategic thinking for problem solving and management.

Participants rated their response on a Likert scale from Very Poor to Very Good.

*Extracurricular skills. Only for respondents who took part in extra-curricular enterprise activities. To what degree of importance are the identified enterprise skills important within their current job role?*

During your time on your degree programme, did you take part in any of the following extracurricular activities?

Please select an option from the drop-down box. Select all that apply and please add any other similar activities that come to mind:

- Enactus: Student Society
- Entrepreneurs Society
- Careers Workshop
- Enterprise skills workshop(s)
- Entrepreneurship skills workshop(s)
- Business and/or startup support services
- I didn't take part in any of the activities mentioned above.

Q29. Please state the level of ability you were able to develop in the following skills, by taking part in the extracurricular activity you selected.

Example: **Problem solving skills**

1. Investigate a problem & identify opportunities.
2. Assess different approaches to solve a problem.
3. Use strategic thinking for problem solving and management.

Participants rated their response on a Likert scale from Very Poor to Very Good.

#### *4.4.1 Piloting the survey*

In order to inform Method C - MEASUREMENT: a pilot survey was carried out in just 2 of the 10 identified programmes which offered students the opportunity to study an optional enterprise module, thus providing the potential of a recommended comparative control group for the study. (Honig & Martin, 2014, p.142).

First survey had 438 questions with 85 pages, average pathway through the questionnaire required the respondent to answer 65 questions. 800 potential participants were contacted via the alumni relations' email communication channel.

- Survey respondents were asked to capture any impact of identified module(s) and associated capabilities, by rating the level of ability developed in those skills. This approach was intended to assess student perspectives so they were aligned with the same frame of reference used for mapping enterprise skills in modules.
- There were 44 initial responses of which only 24 fully completed responses.
- A 54% completion rate.
- Survey took participants an average of 11 minutes to complete.

A low return on students, meant not enough data was returned to draw any significant conclusions from the data, which was not expected from the pilot. The response/survey conversion was low, indicating that the structure of the survey needed to be refined in its focus and objectives.

Following advice from the Sheffield Methods Institute the questionnaire was streamlined to improve user experience in order to improve return rate. This meant reducing the number of questions, focus and ambition of the survey, and was refined as detailed in 3.1 to 3.6. The questionnaire was altered to take a predominantly quantitative survey approach, with some supporting qualitative questions.

Decision was taken to investigate the mapping for other optional modules and associated programmes, to attempt to gather enough data to inform the basic relationship of students who had taken an optional 15EC module and those who had not.

#### *4.4.2 Final survey*

- The questionnaire/research lines of inquiry were formulated in collaboration with the Primary Investigator.
- The mix of questions included were specifically designed to generate predominantly quantitative and some qualitative data. Those supplying quantitative data employed closed-ended questions and Likert-type scale.
- The initial draft of the final questionnaire was pilot tested by a group of 10 staff members. Comments and opinions as to the structure of the questionnaire were addressed. Comments on the language, question legibility and explanations were expressed by the test group. These elements were then altered to communicate more effectively. This was a very helpful part of the questionnaire building process and finalisation.

- The final questionnaire was reviewed by the RSO.
- The questionnaire was self-administered, issued electronically via a web link within an e-mail.
- Respondents were asked to complete the online questionnaire without the aid of a researcher or facilitator.
- As expected with such a study, respondents agreed to a disclaimer at the commencement of the questionnaire. Standard consent was asked of the students and explanation was given as to how the data would be used.
- The survey could be completed anonymously; the only request for personal information was for an email address to be submitted at the end of the survey, and only if the participant wished to be entered into a prize draw or to take part in a further focus group. Participants wishing to be involved in further studies needed to disclose their name and email address.
- Estimated time to complete the questionnaire: 8 to 10mins.

#### *4.4.3 Further study recruitment via questionnaire*

Through the questionnaire students were given the option at the end of the questionnaire to sign up for further study.

#### *4.4.4 Confidence levels*

<b>Programme</b>	<b>Total No. Students to complete programme</b>	<b>Contacts held by Alumni Relations</b>	<b>% of contacts, available</b>
BSc/Archaeological Science	51	37	72.5
BA Classical & Historical Archaeology	78	57	73.1
BSc/Zoology	143	106	74.1
BSc/Biology	282	207	73.4
MEng/Aerospace Engineering	104	75	72.1
BA/Journalism Studies	271	189	69.7
MEng/Mechanical Engineering	329	256	77.8
BEng/Mechanical Engineering	238	178	74.8
BA/Management	697	499	71.6
BSc/Physics	119	88	73.9
<b>TOTAL</b>	<b>2312</b>	<b>1692</b>	<b>73.2</b>

Data was removed for any potential respondent that had not taken the specified course as their first-degree programme. Following the removal of 1 invalid response from BA/Classical & Historical Archaeology, 1692 valid contacts remained.

The sample size for the questionnaire was established as follows for a target participant audience of **1692 students**:

Confidence Level: 95%  
Confidence Interval: 4  
Sample size required: 443

The Confidence Interval of 4 was deemed most appropriate for this scale and the nature of research project.

#### **4.4.5 Incentives**

- Incentives were used with the intention of improving the number and speed of returns. Participants were given the option to add a name and a contact email address in order to be entered into the prize draw and potentially receive a prize. Entry into the prize draw did not oblige the respondents to also take part in a focus group.
- A £200 Amazon voucher was selected as an appropriate prize. This type of incentive was deemed to attract a lot of people, due to the wide range of purchasing options and had proved to be an effective incentive to participating in previous USE activities and studies.
- The incentives were described as follows:  
*“We appreciate you taking the time to complete the survey, and if you provide your contact details, you will be automatically entered in a random prize draw for an opportunity to win a £200 Amazon voucher.”*
- The prize draw winning student, was randomly selected using an online selection application, and contacted to collect the prize. As the survey data was collected anonymously, the winners were not publicly noted.

#### **4.4.6 Confidentiality**

- Any individual contact information was held for communication purposes only and was not, nor will be, shared outside of the research project.
- The Research Support Officer (RSO) acted as custodian for the data generated by the project, and access to the data, the analysis and findings to analyse inform university wide strategy.
- As consistent with standard practice, the relevant University Research Ethics Application was submitted for the project to be conducted according to their guidelines. This was approved by University of Sheffield Enterprise's ethics review committee.

#### 4.4.7 Materials

- The questionnaire was designed using the online survey tool 'SurveyMonkey'. SurveyMonkey was selected as it is familiar to and trusted by participants, requiring no login or registration in order to participate. It is free to use and was relatively simple to create the surveys required for the nature of this research.
- Corporate Information enquiry system: Searchable database regarding student programme and module information. Only authorised members of TUoS can gain access to this system.
- Alumni Relations contact database. Access protected by authorised alumni staff members, with data released to TUoS staff under prior agreement of its use.
- Programme curriculum guides, Module curriculum guides.
- TUoS and USE agreed list of enterprise capabilities.
- Records of student, programme and module data stored within Excel spreadsheets.

#### 4.5 Reasoning for research method selection

The applied method was deemed to be appropriate to the aims of the research, specifically:

- Within the timeframe and resource limitations of the project, the study would capture only a limited picture if restricted to a single year. As a longitudinal study was ideal but not feasible, alumni were asked to look retrospectively at their experiences.
- Benefits of using alumni contact sample. A valuable resource within the university to access the identified population. Alumni provide good maintenance of contact records.
- In order to reach the sample size sample needed to gain a representative test and established confidence levels, it was estimated this method would be most suitable to enable the research to reach as wide as possible a target audience within the timeframe allotted.
- The questionnaire permitted different levels and types of data to be gathered in one short instance from a large number of respondents who may not have wished to further engage with the research at a more in-depth level. Providing the opportunity to obtain some qualitative data via open-ended questions, as well as quantitative, would have enabled the investigating team to gather a broader body of data.
- The questionnaire provided an easy replicable, standardised tool, hence delivering a reasonable level of reliability. Additionally, this method was thought to prove time effective, given the small scale of the project. And when dealing with such a large sample, the majority of engagement time was invested by responding participants rather than the researcher.
- The questionnaire could be completed both anonymously and in private. This was intended to increase the chances of students answering questions, not being affected by the presence of a researcher. Furthermore, it could be reasonably assumed that respondents might answer questions more truthfully in the knowledge that they could not be identified, increasing the validity of their responses.

- The flexibility of digital communications also increased the likelihood of response to the survey – many people now read and reply to emails ‘on the go’ via smartphones and tablets, enabling the time, place and environment of reply to be decided upon by the participant, offering greater potential flexibility to engage with the research.
- As the data gathering was a two-phased process, the quick, easy coding and interpretation of response, would allow for an essential interim analysis of data. Generalised trends and findings could then be used as base point to inform further research.

## **5.0 SUMMARY FINDINGS AND METHODOLOGY REFLECTIONS**

### **5.1 Method A - Mapping process**

The execution of the mapping review went smoothly. The central university Corporate Information Enquiry System, CIES, facilitated easy extraction of student, module and programme data. However, for future studies if resources were available, it would be worth employing the time of a developer to create a set of scripts to automate extraction, which would expedite this element of the process. This would also improve reliability and limit inaccuracies within data sets.

A few issues were raised in terms of programme titling and continuity. The alteration of programme codes during the 5-year period caused some issues. For example, in the instance of Aerospace Engineering, the cohort would have been disqualified, as initially there was no data was returned for 2010, and it was initially assumed the course started from 2011 onwards. However, on further investigation it was discovered that the categorisation of the programme had changed to a different department, resulting in a change in the programme code, whilst the programme itself and the availability of a 15EC module remained unchanged. Were a full-scale implementation of the research method to be implemented in future it would be necessary to undertake substantial investigative work prior to the issue of the survey to identify programme code changes in order to maximise available data and ensure sample size is sufficient.

### **5.2 Method B - Gathering research data**

The actual issue of the survey via Alumni Relations provided an ineffective method to reach the intended audience. Only 105 responses were received. Of these only 65% of respondents fully completed the survey. Resulting in a total of 66 valid responses to analyse. Significantly less than the required sample size.

The number of contacts from a centralised alumni relations office, and the extent to which those graduates are engaged actively with the alumni relations office, and respond positively to survey participation requests, was outside the control of this study. The dataset is greatly influenced by this fact. The return rate for this study was greatly reliant on this form of contact, therefore making the process flawed. Additionally, graduates may have in the interim changed email address, or use a different primary email address and may not have updated changes.

Not all graduates sign up to remain in contact with the university. The percentage of students identified as eligible to participate, significantly reduces in direct relation to the number of contacts that the alumni office holds, and then self-selection as to whether to reply or not, thereby affecting the return rate.

Ideally, groundwork would be made by developing a relationship with potential student participants, who were to take part in the study over a period of time. Those that have already been away from the university for up to 5 years, may not have remained engaged with the university alumni office even after signing up with the alumni office upon graduation. Therefore, the study is now aware of this factor and the significance it has upon the response rate. Although not ideal this has been accepted, as the primary aim was to explore an approach or methodology rather, than an ideal statistical outcome.

### **5.2.1 Limitations**

The number of graduates that could potentially be contacted for the survey were predetermined by the number identifiable programmes and modules containing a high level of enterprise as an optional module in order to provide a control group.

### **5.2.2 Self-selection bias**

The group size was limited due to the process of identifying potential respondents, but necessary in order to explore the potential of this study. The mixed nature of the programme subjects which participants may have studied, also meant some of the potential respondents may have had experience of business programmes that others did not. Therefore, in responding to the survey some students may have responded more favourably to the questionnaire than others. This also raised the question as to whether it would indeed be valid to compare responses between disciplines.

### **5.2.3 Retrospective study**

The study was carried out retrospectively, resulting in the potential that graduates may have already disengaged from TUoS, so incentive to respond to the survey will likely have been reduced.

More significantly however, graduates are less likely to easily recall the modules they studied, or the content of them to a reliable level. Honig & Martin (2014, p.142) drawing upon the work of Cook and Campbell, (1979), reinforces this point. Recommending the importance of capturing current, pre-measures from students during their time at university and post-measures after graduation. Therefore, the need to build relationships with students during their time at university is key, in order to increase the likelihood of future engagement.

## **5.3 Method C - Determining Impact**

The structure of the questionnaire was primarily intended to collect data which would allow initial analysis to identify any links that existed between the students' who had studied an optional embedded enterprise module and their business or employment decision.

The levels of completed replies returned a poor depth of data, rendering meaningful statistical analysis redundant. The returned data for the questionnaire is used as illustrative points to critique the method selected.

- Only 3.9% of the 1692 target TUoS student population completed the survey.
- Therefore, the number of students required to fully complete the survey, in order to obtain results that reflect the target student population with acceptable accuracy, has not been fulfilled.
- The conversion rate of students who attempted and then completed the survey is improved by 11% from that of the pilot study. This conveys that the changes in survey structure and refinements in method, style of contact, incentives, design of the survey and content have encouraged 65% to progress forwards and fully conclude the questionnaire. The time taken to complete the survey, 7 mins, was improved by 4 mins.

However, assessment of the returned data highlighted the limitation of responses, and that descriptive statistical analysis of the basic features of the data would be best fit. On initial breakdown of the data into further subdivisions, for subcategories of analysis, the data could not be adequately stated to any meaningful confidence level.

### *5.3.1 Quality of enterprise skills delivered by the 15EC modules.*

The mapping survey previously undertaken by USE identified the presence of enterprise skills, but not the quality, level or scope of what was delivered, nor the degree to which expected learning outcomes were expected to be achieved. Participants in the survey were asked to gauge the level of ability (quality measure) they had developed, but the study was not able to consider this within the context of its relativity to expected learning outcomes. Addition of this measure would have provided further insight to the degree of impact, but to facilitate this any future study would not only need to adopt a framework definition of enterprise capabilities, but to also develop a scale to assess the level of delivery and the anticipated level of learning outcome.

The “*Graduate Employability Skills*” report compiled for the Business, Industry and Higher Education Collaboration Council, Australia (DEFT, 2007), offers a detailed example of employability curriculum mapping. A map example from Curtin University highlights the level of competency that can be attained by a graduate of an environmental health programme, by fulfilling identified, embedded, employability components. The map details the extent to which the attribute is fulfilled within the context of the professional qualification. This goes beyond acknowledgement of the presence of the attribute but also starts to capture the quality of the attribute.

Furthermore, limited consideration could be made for EE learning experiences outside of their programmes, other than to ask the participants to consider their responses to the survey only within the context of their programme learning.

### *5.3.2 Effectiveness of the questionnaire structure in determining impact*

The questionnaire was structured based upon a predominantly quantitative framework. This was intentionally designed to enable defined measures to be taken, given the expectations of a sizeable, returned data sample. With this approach in mind, the measures put in place were reasonable and valid at the time. However, on reflection this approach does not capture more nuanced responses. For example, with regard to the identification of entrepreneurial activity the questionnaire clarified this with an objective impact indicator as having ‘started/run a business’. This is a very clear and distinct measure, however it does not allow for ‘intentions’ of starting a business or ‘actions’ that may have been previously taken towards starting a business. Indeed, graduates may have attempted to start a business, and invested time into this process, but not succeeded in the final step of forming a business, but this information was not able to be captured. Therefore, on reflection this area of measurement is lacking, and a greater range of measures to incorporate the scale of entrepreneurial activity, outside of establishing a business, could have been attempted. This would have added greater context and to potential measures of impact that enterprise education might be able to affect.

Incorporation of the measure for job role distinction using SOC classification, allowed for a more informed impact of enterprise education, beyond just business creation. A broader

picture would be captured of the employment groups in which graduates are currently working, up to several years after graduation in some cases, which is very valuable information. Given the nationally standardised categories are formed upon experience, qualifications and skill levels, this offers a robust, meaningful method of capturing employment activity. As enterprise skills can be utilised as an entrepreneur or intrapreneur, therefore it is important to capture graduate activity in employment beyond just business creation. Pinchot (1985, Abstract) describes an intrapreneur as:

*“...one who takes a hands-on responsibility for creating innovation within the organization....Intrapreneurs prefer action to extensive planning; nevertheless, they are calculated risk-takers who will assume responsibility for envisioning the necessary product, market, and management strategies.”*

This is someone making clear use of enterprise skills, and therefore the measure of EE within employment is vitally important.

The structure used for the measures of ‘importance of enterprise skills within job roles’, and ‘levels of ability developed from the module skills/extra-curricular skills’, would offer some insight and (given enough data) identification of any correlations. However, given the breadth and complexity of the subject and many variables affecting impact of EE, a broader range of measures could have been taken with regard to attitude, intentions and behaviours. This would have meant developing the study from a more theoretical framework such as Ajzen’s (1991) Theory of Planned Behaviour (TPB) for instance. And as recommended by Nabi et al. (2017), develop an approach that builds upon the work of Souitaris et al. (2007) by focusing upon “*impact indicators related to the intention-to-behaviour transition.*” (Nabi et al. 2017, p. 289). In terms of support from USE’s perspective this would require drawing upon additional expertise from behavioural psychology to inform and develop a more robust approach that incorporates TUoS’s measures of enterprise skills.

## 6.0 DISCUSSION AND RECOMMENDATIONS

### 6.1 Mapping delivered enterprise content against capabilities.

In order to be able to evaluate the impact of EE, it is important for institutes to map programme content against a set of defined and measurable enterprise capabilities, so that:

- academics are aware of what EE is being delivered in their modules and to what level or degree so that expected learning outcomes may be quantified.
- students are aware of what EE is being delivered and are able to reflect on a measurable degree of learning achieved.

It is not necessary to have a universally accepted framework of enterprise capabilities, but without one the prospect of benchmarking across institutions is reduced.

It is therefore recommended that:

- Institutions adopt a defined and measurable set of enterprise capabilities and give consideration as to the potential value of the reliability of these criteria to other institutions measures in order to undertake benchmarking.
- Institutions support academics to recognise and articulate to students EE learning outcomes specifically within programme learning objectives.

### 6.2 Developing effective communication with participants

The low return rate to the survey highlights the importance of Alumni relationships, if studies are to be conducted to track career journeys. This finding echoes the framework recommendations for HEIs from the HEA, *“Defining and developing your approach to employability: A framework for higher education institutions”* (2013), when suggesting best practices for measuring impact:

***“4. Are you actively engaging with alumni in relation to your approach to employability?”***

- *If yes, how do you measure impact and build on good practice?*
- *How do you share success/approaches to work with alumni, with your colleagues?*
- *If you are not engaged with alumni, reflect on barriers to engagement and how you could start to address these.”*

(Cole, D. and Tibby, M., 2013, p.17)

In this study, a centralised alumni database was used. It is known that some departments within TUoS maintain their own alumni database and it may be that an email request from their home department would have been more effective as it is likely that alumni retain a greater sense of nostalgic connection with their home department.

*“Alumni develop affinity for their alma mater based on experiences that began as students. This affinity is then strengthened and maintained based on experiences and engagement as an alumnus or alumna. The result is high levels of engagement, including communications, event attendance, volunteerism, and giving.”*

(Volin, J., 2016, pg.5)

It is also likely that response rates would have been even greater if the survey requests had come from the email accounts of a graduate's former personal tutor, however this would require significant resource and create survey implementation complexities likely not warranted by the quality of data possible from a retrospective study.

A recent, informal study carried out by Wood, G., (2017) at TUoS, involved contacting 90 graduates (approx) who studied Wood's 15EC enterprising module(s) during their TUoS degree. Individuals were contacted from a 3-year period through email, and via social media channels that Wood had previously established with the alumni. The attached online questionnaire which was issued received 68 responses with an 84% completion. This high return of data and completion rate for the study, highlights the importance of maintaining personal tutor and departmental relationships, particularly for subsequent requests such as engagement with retrospective research studies.

It is therefore recommended that:

- The RSO builds relationships and establish networks with identified participants whilst they are still current students; which would also reinforce the perceived value of EE to career success.
- The RSO garners agreement to participation in a future longitudinal study prior to graduation.
- Participants are asked to complete an audit of the enterprise competencies they hold at the point of graduation (see 6.3).

### *6.2.1 Utilising professional and social networks to maintain contacts with graduates.*

Within the limitations of this study there was not enough capacity to track the 2312 graduates through LinkedIn to establish a contact group. However, although the data could not be reliably used from the network as mentioned previously, due to the poor return rate through the alumni relations network, it is highly recommended for future studies that this method be employed. Steele & Cleland (2014) detail the benefits of establishing an alumni LinkedIn network, which offers benefits beyond simple contacts:

*“Alumni have proved to be an excellent source of industry feedback due to their unique ability to relate industry experience directly back to academic courses, course content, and assessment.”*

Additionally, looking at other works in this area following the poor return, LinkedIn offers much potential using “*scraping and clustering techniques for the characterization of LinkedIn profiles*” (Dai et al. 2015). Subsequent work in this area is looking into how this method can enquire “*to what extent does educational background impact in the professional success?*” An approach that could offer much value to the work of enterprise educators. The process used within the Dai et al. (2015) research, are beyond the resources of this small study. But it makes a strong case for enterprise educators to make links with other practitioners in information and computing, in order to explore additional methods of capturing alumni data.

It is therefore recommended that:

- having adopted the recommendations in 6.1, participants are encouraged to set up and agree to maintain their LinkedIn profile for the duration of the study.

### **6.3 Measuring the value of enterprise capabilities**

The measures of impact that were used in the developed survey method, were in principle able to quantify perceived value and impact of EE. However: the retrospective nature of such consideration is potentially implausible.

The study required graduates to consider the skills developed in a programme that could have been attended up to 5 years previously. Although the specific module was identified by the student in the survey, they may not have been aware at the time of the actual module delivery which elements were designed to develop the 15EC. It may also be unlikely to have sufficient memory of their module learning to enable them to distinguish between taught learning and learning from other life experiences. It is therefore considered, without evidence, but on the balance of probability, that students are likely to have been reflecting on the entirety of their student life experience rather than just the curricular programme elements.

The measure of value of enterprise capabilities to current employment will vary greatly across employment types and will change as an employee's role within an organisation develops. It is not clear from the survey responses whether a particular capability is deemed important because it's significance is indeed greater than any other capability, or if this is relative to the learner's confidence in their own ability to exhibit that competence. So, for example, effective communication may be no more important than problem solving for an engineer, but if the graduate engineer has a sense that they are not confident communicators and feel that this has in some way been a barrier to their career progression, it is likely that they might assign this capability greater importance than problem solving.

It is therefore recommended that:

- An audit is undertaken by participant to assess their perceived level of enterprise capabilities held at the point of graduation.
- Employers are engaged in future studies and asked to provide value statements for the importance of the enterprise competencies in graduate job roles in order to be able to relate these back to the graduate's perceptions
- A scale of depth for EE be developed, related to Bloom's taxonomy of learning, which can be used to measure the degree to which a capability is delivered by the HEI, learned by the student or required by the employer to create the alignment measures between the three parties.

### **6.4 Graduate and employer expectations and feedback**

Because the study asked graduates about the level of importance of skills within their job role, it provides insight into the expectations of job roles, hence graduate employers. In turn, this graduate feedback provides guidance to help shape enterprise education strategy and provisions.

This is a mammoth task, and far beyond the reaches, capabilities and realms of this project. The project has drawn many interesting points, so is as titled a development process, and the methodology of mapping, capturing, identifying embedded enterprise modules and content goes some way to adding to the progression of this work. However, more work is needed to investigate the numerous variables that exist, and that can be captured.

## 7.0 REFLECTIONS

### 7.1 The value of this study to key stakeholders

The study was not successful in generating sufficient data to produce any statistically significant findings as to the value and impact of EE, but is sufficient to critique the viability of the methodology developed.

The study has not demonstrated a viable method to quantifiably measure the effects of embedded curricular and extracurricular enterprise activities, and associated enterprise capabilities have upon entrepreneurial activity and career progression.

However, the study does offer valuable lessons for other enterprise educators in the process for collecting data, and the areas for improvement.

Value for the three following groups of stakeholders:

- University of Sheffield Enterprise (USE)
- The University of Sheffield
- Enterprise educators

#### 7.1.1 University of Sheffield Enterprise (USE)

The mapping survey completed in 2014 was revisited as part of the research process and the original data was updated for 18 programmes.

The process of developing the method highlighted the need for greater knowledge and understanding of how extracurricular programmes and activities, including those not delivered or supported by USE, contribute to the student's overall enterprise education (see 7.1.2 - badging). As a result, USE is reflecting on possible approaches to badging its own extracurricular provision.

USE is no able to consider a more informed strategic approach to engaging with current students and alumni, and their involvement in future research projects. This is a very valuable take away from the project.

#### 7.1.2 The University of Sheffield

The limited responses from the centralised alumni database suggests concomitant research is required by the university, to evaluate the effectiveness of an institutional relationship database in comparison to those held at departmental level, in terms of building effective and deep relationships with new graduates.

The university has over a number of years considered the implementation of a badging mechanism for modules to highlight non-discipline skills delivered over the course of a programme but this has yet to be developed. Badging already exists for those 97 modules included in the original mapping survey, but is not currently visible to students.

It has been argued that a visible badging system would highlight to students the professional skills they are developing over the course of their study, inform module selection for those students seeking to develop professional skills in specific areas, and potentially be an effective tool in student recruitment. This study has highlighted that a badging system would also provide an effective tool if also extended to extracurricular programmes for providing a baseline measurement.

### *7.1.3 Enterprise educators*

For enterprise educators, the search for a viable method for measurably evidencing the value and impact of EE continues. Impact case studies continue to be the most readily available mechanism at present, and are effective at showing the depth of impact but do little to evidence the scope of impact.

The HE and employment landscape continues to change. Greater emphasis is placed on the need for a liberal education to prepare our graduates for a rapidly evolving workplace. Yet the resources to provide such an education become scarcer, meaning enterprise educators are beholden to provide evidence of the impact of their work, for the purposes of quality assurance and resource acquisition. This obligation is evidenced by current research in BEIS and formerly that undertaken by DBIS.

This study highlights that gathering evidence it is not simply an issue relating to whether data is recorded and how it may be gathered, but that fundamentally there is a priori need to develop not only a coherent framework for defining enterprise capabilities, but to be able to stratify these capabilities to be able to measure depth and scope.

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## **APPENDICES**

***Appendix A: 15 Enterprise Capabilities.***

***Appendix B: University of Sheffield Enterprise. “Enterprise Education: Mission, Vision and Strategy, 2012-2016.”***

***Appendix C: Questionnaire structure***

**Appendix A: 15 Enterprise Capabilities.**

<b>Department:</b>	
<b>Module Number:</b>	
<b>Module Name:</b>	
<b>Course Name(s):</b> If the module is included in more than one course please state the other course names as well.	
<b>Module Leader:</b>	
<b>Any other information you may feel relevant:</b>	

If you are completing this process for more than one module please use a separate criteria sheet/file for each module. Please save each completed module criteria sheet as a separate word file, with the module name and code as the file name, and email as attachment(s) to [christina.elliott@sheffield.ac.uk](mailto:christina.elliott@sheffield.ac.uk).

**The criteria for appraising the level of Embedded Enterprise within existing modules are found on the following page. Please use the question at the top of the following page to help guide you in reviewing the module against the individual criteria. Each of the statements of the 6 main criteria should be marked with a Yes/Y or No/N answer in the small box at the end of each statement.**

**Following the completion of the criteria overleaf you may wish to complete the sections below:**

Any comments/queries regarding mapping of Embedded Enterprise:

.....

Request for academic support, development of enterprise within a module and/or teaching practice:

.....

Any comments in relation to Enterprise and the 'Learning & Teaching Strategy 2011 – 2016':

.....

Any comments regarding **USE**:

.....

We appreciate you taking the time to complete this process, and would like to say thank you. If you have any queries about the form or mapping please contact Chrissie Elliott, Enterprise Mapping Assistant by email: [christina.elliott@sheffield.ac.uk](mailto:christina.elliott@sheffield.ac.uk).

Kind regards,

## DOES THE MODULE ENABLE STUDENTS TO EXPERIENCE ANY OF THE FOLLOWING?

CRITERIA	YES or NO	For admin
<b>A.....Problem Inquiry and Response</b>		
Students are given the opportunity to investigate a problem or issue that enables them to respond and identify potential opportunities, aims and ambitions.		
Students are able to experience and appraise different approaches in which a relevant problem-solution might be put into action.		
Students are given the opportunity to develop strategic thinking in response to problem solving and management.		
<b>B.....Working with constraints</b>		
Students experience working with constraints.		
Students are given the opportunity to apply their academic learning to resolve realistic problems/issues and deliver a solution.		
<b>C.....Innovation &amp; Creativity</b>		
Students are given the opportunity for creative and critical thinking to generate and develop innovative ideas.		
Students are given the opportunity to adopt new creative approaches to enable imaginative and lateral thinking when facing challenges.		
<b>D.....Calculated risk taking</b>		
Students are given the opportunity to anticipate the outcome of their actions before they have acted, encouraging them to take measured risks and advance their learning.		
Students are asked to make decisions in the absence of complete information, enabling them to deal with and learn from uncertainty and encouraging them to persevere with an idea.		
<b>E.....Taking Action</b>		
Students are given the opportunity to exhibit adaptable and dynamic responses to completing tasks, by taking the initiative to act upon and respond to challenges.		
Students are encouraged to actively access alternative or additional resources, encouraging them to experiment with and adopt new approaches.		
Students are given the opportunity to gain an understanding and development of leadership skills.		
<b>F.....Collaborative work &amp; Communication.</b>		
Students are given the opportunity to work independently in a productive and effective manner, whilst also working within a team and contributing to a group goal. Through this activity students are able to understand the importance of professional behaviour.		
Students are given the opportunity to experience and use various methods of communication.		
Students are able to work with and/or connect with external bodies, groups or other stakeholders as part of their project.		

**Appendix B:** *University of Sheffield Enterprise. “Enterprise Education: Mission, Vision and Strategy, 2012-2016.”*



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# Enterprise Education Mission, Vision and Strategy

2012-2016

## **1. An Introduction to Enterprise at The University of Sheffield.**

The University of Sheffield does not just define enterprise as starting a business and making money. It can include this, but it is also defined as being proactive, taking initiative, taking risks, overcoming adversity, innovation, invention, ideas generation, creativity, seizing opportunities, finding solutions, entrepreneurship and business skills, intrapreneurship skills (being enterprising within an organisation), as well as social enterprise and innovation. This is a definition that is strengthened and supported by the recently published QAA guidelines for Enterprise and Entrepreneurship in Higher Education (QAA 2012).

The University is committed to working with staff across all departments and degree subjects to provide opportunities for every student to engage with enterprise education. This is done through two approaches, firstly through the curriculum and secondly, outside of the curriculum.

An enterprising curriculum provides opportunities for students to become creative problem-solvers, applying their knowledge to real life situations and developing skills to manage limited resources under uncertain conditions. This translates into a richer learning experience and an improvement in students' confidence and employability skills.

Our extra-curricular provision is broad and varied, encompassing support for student and graduate start-ups (both advisory and monetary), skill building workshops, a business planning competition, support for student societies, support for social innovation and enterprise, among other things. The purpose of the extra-curricular provision is to provide opportunities within a supportive environment for students who have real passion, drive and commitment to furthering their enterprise skills and learning. We are committed to developing and supporting social enterprise projects in particular, as part of the wider University Civic mission.

Our philosophy and approach has recently been validated and strengthened by both the Wilson Review and the draft QAA guidelines, which emphasise the importance of students engaging with enterprise skills within and outside of the curriculum.

Our philosophy can be summarised by the following statement:

**At The University of Sheffield, we believe that enterprise is about having ideas, doing something about them and taking advantage of opportunities to bring about change. It is about making things happen.**

## **2. Vision**

The University of Sheffield will be known as one of the most enterprising universities in the UK, renowned for its excellence in enterprise activity and social impact.

## **3. Mission Statement**

The University of Sheffield will provide opportunities for every student to engage with enterprise within the curriculum, and will provide extracurricular opportunities for those students wanting to develop further.

#### 4. Shaping Our Strategy

The Strategic Plan of The University of Sheffield (2011-2015) has six guiding principles that underpin the University's mission and inform all our strategic decisions. The Enterprise Strategy adheres to those principles, which constitute a shared framework for our enterprise activities.

- i. Achieving Excellence
- ii. Cultivating ambition
- iii. Working together
- iv. Protecting the future
- v. Making a Difference
- vi. Leading the Way

This strategy is also shaped by the University's learning and teaching philosophy and values, in particular:

Our mission as a university rooted in civic engagement.

The emphasis we place on inspiring students to engage with communities and clients outside of the university.

Our emphasis on research-led learning, exposing students to the big challenges in their disciplines, and inspiring them to pose their own questions.

Our emphasis on the development of practical and professional skills such that our graduates can transform their own lives and the lives of others.

The importance we place on supporting students to set their own goals, to achieve them, and to overcome any impediments on the way.

Our ambitions for our students to enter global labour markets and become global citizens.

**This strategy is intended for the University as a whole to be guided by, and for individual faculties and departments to respond to in their own way. Operationally, it is recognised that the University of Sheffield Enterprise (USE) will be one of the most significant vehicles for the implementation, delivery and support of this strategy.**

#### 5. Our Aspirations: our ongoing goals for 2012-16 are to:

- i. Be one of the most enterprising universities in the UK, recognised nationally and internationally for our distinctive approach to enterprise learning throughout the whole University.
- ii. Be recognised for providing an outstanding learning experience that produces exceptional graduates who are enterprising, civic but also global citizens ('The Sheffield Graduate').
- iii. Engage and stretch students in the development and application of enterprise attributes.
- iv. Create an environment in which staff can acquire enterprise skills to use in their practice.
- v. Engage dynamically with the City and the Region, providing opportunities that have a positive impact on people's lives in the community.
- vi. Develop and sustain national and international partnerships.
- vii. Ensure that the learning of enterprise attributes is sustainable.
- viii. Initiate and foster mutually beneficial relationships with enterprising alumni.
- ix. Be at the forefront of the development of innovative mechanisms and systems to support enterprise education.

## **6. Meeting our Aspirations:**

At The University of Sheffield we have identified the priorities we will need to work on in order to meet our aspirations, and these fall under five headings.

### **6.1. Student Engagement.**

- i. Ensure that all our students are exposed to and engaged with enterprise, preparing them for the global labour market by enabling them to solve real local and global problems both within and outside of the curriculum.***

The University will do this by providing challenging contextualised learning opportunities that require creative, innovative and risk-taking approaches in their solutions. We will inspire students to engage with the local community whilst developing a culturally agile approach to their social and commercial contributions. Through USE we will provide the Making Ideas Happen learning experience to students across the university. We will support special projects within the curriculum, where students and graduates have the opportunity to 'run' a company whilst gaining graduate attributes.

- ii. Ensure the highest quality of enterprise education is delivered within the curriculum, identifying and supporting potential areas for new embedded enterprise learning.***

The University will start by determining the level of enterprise education already being delivered in the curriculum through a Mapping Exercise conducted by USE. This will examine the level of opportunity for the learning of enterprise skills and competencies in the core curriculum of each course in each department of each faculty. USE will work closely with educators and departments to support the development and enhancement of their enterprise learning provision where appropriate, enabling them to disseminate and learn new practices at national and international fora. It is recognised that awareness creation will be a key part of delivering this aim, as many educators may not define their own activities as enterprising in the way that the University would under the broad definition outlined here. We will support and promote the development and trial of new methods of embedding enterprise, such as Enterprise Teaching Companies.

- iii. Support student societies to develop their enterprise attributes.***

The University will do this by providing all student societies with the opportunity to develop their enterprise skills, ensuring that these are translated into activities that make a difference to students in general and the community.

- iv. Recognise and reward outstanding entrepreneurial students.***

The University will do this by continuing to support entrepreneurial students with a flair for business or social start up. We will celebrate the most entrepreneurial students at our annual Business Planning Competitions for commercial and social business ideas. We will also recognise and reward the enterprise skills that students have already brought with them to Higher Education, and involve such students in promoting and demonstrating enterprise activities to further aid engagement of other students.

## **6.2. Staff, Departmental, Faculty and University-wide engagement.**

### ***i. Recognise enterprising staff, departments and faculties.***

The University will strive to recognise those educators who are already providing an enterprising curriculum for their students, and this will be achieved through the mapping exercise. The University will also strive to recognise those staff members that are interested in developing their awareness and skills in enterprise education.

### ***ii. Support staff, departments and faculties who want to develop enterprise education practice by fostering a community of learning within which they can share best practice and learn from peers.***

The University will support teaching staff by providing professional development for educators to understand the relevance of embedding enterprise within the teaching of their disciplines. We will equip them with the tools and support to do so through the establishment of an Enterprise Educators Academy delivered by USE, where educators can share their approach to enterprise learning, and learn from their peers. We will also develop and implement a new journal of enterprise education, where enterprise educators will be able to share their best practice in a rigorous but useful manner.

### ***iii. Reward staff, departments and faculties that have worked towards and excelled in providing enterprise education.***

USE will sponsor enterprise educator's awards at the Students' Union Academic Awards. The USE Academy will be a mechanism through which staff can be rewarded for their enterprise efforts.

## **6.3. Social impact and contribution to the University's Civic mission.**

### ***i. Continue to engage students in social enterprise activities, providing opportunities for our students' work to directly and positively impact on communities, as well as actively seeking opportunities to contribute to the civic agenda and engage the City in our enterprise activities.***

The University will do this by working directly with communities to identify appropriate opportunities for our students. We will also have representation on relevant local organisations such as the Local Enterprise Partnerships. We will also contribute to high profile activities in the City such as the MADE festival. We will continue to work with The Department for Business, Innovation and Skills and Sheffield City Council enterprise programmes. USE will continue to develop innovative social enterprise programmes including University of Sheffield Social Innovation Programme (USSIP) and Enterprise Teaching Companies.

### ***ii. Support outreach activities and to support the University in its Widening Participation activities, establishing ourselves as a tertiary provider in the education pipeline.***

The University will do this by working with local schools to develop their enterprise skills and to raise aspirations, particularly in socio-economically deprived areas of the city.

#### **6.4. Engagement with externals and alumni**

- i. Provide a mix of relevant curricular and extra-curricular self-employment learning experiences, continuing to engage the support of external partners for the delivery of activities.***

The University will do this by continuing to provide high quality extracurricular enterprise skills training. We will facilitate the intervention of business people, community representatives, alumni and others in the enterprise learning experience of our students. We will reward external partners who have made a significant or continued contribution to enterprise learning by awarding them enterprise ambassador status.

- ii. Increase engagement and communication with alumni who have engaged with enterprise before or after graduation, and recognise and reward their outstanding contribution.***

The University, through USE, will do this by continuing to support entrepreneurial alumni in the same way as we support our current students, for up to five years after graduation. We will celebrate enterprising alumni on USE's website and at our annual Business Planning Competitions. We will maintain an up to date database of contact and engagement with alumni. We will also recognise the contribution our alumni make through our enterprise ambassadors' scheme.

#### **6.5. Dissemination and recognition of our philosophy and practice.**

- i. Demonstrate the uniqueness of our enterprise provision, and enhance our national and international standing for our approach to enterprise education, contributing to local, national and international enterprise education agendas.***

The University will do this by adhering to our Enterprise Education strategy whilst being able to adapt and respond to the ever-changing environment. We will establish ourselves as a university where enterprise education ambition is nurtured. We will create high quality strategic partnerships with innovative enterprise educators, and ensure that we are a voice in relevant local, national and international organisations. We will also implement Steering (internal) and Advisory (external) boards to advise us on our strategic operations, which will include representatives of the City and local region.

#### **7. Measuring our Success.**

There is a need for ongoing monitoring and evaluation of our success in meeting our vision and priorities. The metrics we will use are varied, but include the following:

Measuring student engagement:

- i. The number of students that have the opportunity to engage with enterprise education during their degrees, through learning instances in which they develop real solutions for real problems.*
- ii. The number of students engaging with USE activities such as Skill Build workshops, Business Planning Competition, First Steps funding, business advisors, USSIP or USE 201 and 301.*
- iii. The number of societies being nominated for the Most Enterprising Societies award given by The Union of Students.*

Measuring staff, departmental, faculty and University-wide engagement:

- i. The number of interventions to support the enhancement of enterprise learning provision across the University and the embedding of enterprise instances.
- ii. Number of collaborations developed between our enterprise educators and external partners
- iii. The number of enterprise educators disseminating their practice.
- iv. The number of enterprise activities taking place externally to USE in the university and wider community.
- v. The representation of Embedded Enterprise in professional development opportunities.

Dissemination and recognition of our practice:

- i. Invitations to share our practice at national and international fora.
- ii. Replication of our models of engagement by other universities.
- iii. National recognition of our excellence through awards, conferences and case studies.

Our social impact on the local community and our contribution to the University's Civic mission:

- i. The number of community organisations working with students and staff directly on enterprise interventions.
- ii. The percentage of schools and pupils exposed to enterprise skills.

Our impact on local, national and international enterprise discussion and policy:

- i. The level of representation in relevant organisations at local, national and international levels.

Our engagement with externals and alumni:

- i. The number of alumni and externals engaging with us to support the continuing development and delivery of enterprise learning instances.
- ii. The number of alumni applications to our annual business planning competition.

## **8. Anticipated operational changes.**

Many of the above priorities involve actions and processes that are already formalised and ongoing within the operations of USE, as well as within individual departments and faculties. However, some of the priorities will require further development of existing programmes or processes, or instigation of new ones.

USE, as the key deliverer of this strategy, has produced an internal operation plan in response to this strategy, to ensure that its aims are met. This will include the implementation of an Internal Steering Committee and External Advisory Board to act as critical friends to the University of Sheffield in the execution of the enterprise education strategy. USE will also work closely with the Executive Boards of each Faculty and the Learning and Teaching Committee of each Faculty to implement this strategy.

## **Appendix C: Questionnaire structure**



## TUoS Alumni Career Journeys

### Disclaimer

This study has been approved by the University of Sheffield Enterprise Department Ethics Committee in line with University policy. All information received is anonymous, confidential, and will be used for research purposes only. Volunteers have the right to withdraw their consent at any time during the study and if they wish for their data to be erased to please contact the researcher.

Due to the nature of the study and research we hope to gather, we have identified potential research participants via specified courses and modules. Therefore, the data gathered in the first instance is not anonymous, but should participants wish to contribute their data, but have their contact details removed from the data set, then this can be requested and will be carried out. All answers are completely confidential, and an anonymised data-set will be used by the research support officer at USE to inform the study.

Data will be stored in a limited access drive only accessible by authorised members of USE.

With regard to the prize draw: if you wish to be entered in the prize draw then you need to include your contact details for USE to get in touch. Therefore, if you do not include your details we will automatically not enter you into the prize draw.

For any questions, concerns, or feedback, please feel free to contact Chrissie Elliott via email on [christina.elliott@sheffield.ac.uk](mailto:christina.elliott@sheffield.ac.uk)



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## TUoS Alumni Career Journeys

### Introductory information

#### \* Title

- Mr
- Mrs
- Miss
- Ms
- Dr

Other (please specify)

#### \* Forename(s)

#### \* Surname

Surname while at Sheffield (if different)



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## TUoS Alumni Career Journeys

### Course information for clarification

\* Just to confirm your details, which course did you graduate from? *If your course is not listed please select the 'My course is not listed here' option.*

*Please select an option from the drop down box.*

\* Please confirm your year of graduation:

*Please select an option from the drop down box.*

\* Please select **one** option below which best describes your work journey / experience since graduating.

For the purpose of this research pilot, we are interested in the choices you have made in regards to employment and business involvement. If you have chosen to do other activity, such as only travelling since graduation, please indicate in 'Other'. If however, you have been employed **and** travelled, then you would indicate you have been employed.



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## TUoS Alumni Career Journeys

### Start of the survey: Career progression 1/1

*As part of our research we are trying to understand the choices our graduates make with regard to the following: employment, starting businesses, how they feel their careers are progressing, and if any skills support we offer can then be developed further. The following 7 short sections of questions address these areas. Thank you for taking the time to complete the questionnaire, and if you would like to be entered in the draw, please add your contact details at the end. **Thank you.***

*Please begin...*

\* How would you describe the rate of your career progression?

*Please select an option from the drop down box.*

Please share any particular reasons that come to mind, as to why you think your career has progressed at this rate.

*Describe below:*

Would you describe any particular skills that you have developed at university, which you feel have supported your career progression?

*These may be skills you gained through your degree (curriculum) or through extracurricular activities whilst at TUoS. You don't need to list anymore than 3 skills. Please share below:*



# TUoS Alumni Career Journeys

## Job role skills 1/2

Please rate how important the following skills are in helping you perform your current/most recent job role:

### \* Problem solving skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Investigate a problem & identify opportunities.	<input type="radio"/>				
2. Assess <b>different approaches</b> to solve a problem.	<input type="radio"/>				
3. Use <b>strategic thinking</b> for problem solving and management.	<input type="radio"/>				

### \* Working with constraints skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Work <b>within constraints</b> .	<input type="radio"/>				
2. Apply knowledge to solve <b>realistic problems/issues</b> .	<input type="radio"/>				

### \* Innovation and Creativity skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Use <b>creative and critical thinking</b> for innovation.	<input type="radio"/>				
2. <b>Adopt new creative approaches</b> , enabling imaginative thinking.	<input type="radio"/>				





# TUoS Alumni Career Journeys

## Job role skills 2/2

Please rate how important the following skills are in helping you perform your current/most recent job role:

### \* Calculated risk-taking skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Take measured risks.	<input type="radio"/>				
2. Deal with uncertainty.	<input type="radio"/>				

### \* Taking action skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Be adaptable, take the initiative.	<input type="radio"/>				
2. Access alternative resources to experiment with new approaches.	<input type="radio"/>				
3. Understand and use leadership skills.	<input type="radio"/>				

### \* Collaboration and Communication skills

	Not Important	Slightly Important	Moderately Important	Important	Very Important
1. Work independently and for a team goal.	<input type="radio"/>				
2. Use various methods of communication.	<input type="radio"/>				
3. Connect with external groups or stakeholders.	<input type="radio"/>				





## TUoS Alumni Career Journeys

### Skill development opportunities: curricular 1/1

\* During your degree programme, did you specifically study one of the following selected modules?

*If you did, please select your relevant course and module from the drop down list below. In some cases you may have studied more than one module, please select the relevant combination as listed. If you did not study any of the following, then please select 'I didn't study any of the listed modules'.*

\* Keeping in mind the list of skills you have just rated in relation to your most recent job role:

*'Problem Solving, Constraints, Creativity, Calculated Risk, Taking Action, Communication and Collaboration'.*

Did you develop any of these skills **as a result of studying the specific module(s) you identified above?** *Please select one option below.*

Definitely Not	Probably Not	Possibly	Very Probably	Definitely	N/A didn't study selected module(s)
<input type="radio"/>					



## TUoS Alumni Career Journeys

### Module skills 1/2

Would you now please select the level of ability you developed in the following skills, from your time studying the specific module(s):

#### \* Problem Solving skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Investigate a problem & identify opportunities.	<input type="radio"/>				
2. Assess <b>different approaches</b> to solve a problem.	<input type="radio"/>				
3. Use <b>strategic thinking</b> for problem solving and management.	<input type="radio"/>				

#### \* Working with constraints skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Work <b>within constraints</b> .	<input type="radio"/>				
2. Apply knowledge to solve <b>realistic problems/issues</b> .	<input type="radio"/>				

#### \* Innovation and Creativity skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Use <b>creative and critical thinking</b> for innovation.	<input type="radio"/>				
2. <b>Adopt new creative approaches</b> , enabling imaginative thinking.	<input type="radio"/>				



## TUoS Alumni Career Journeys

### Module skills 2/2

Continued...please select the level of ability you developed in the following skills, from your time studying the specific module(s):

#### \* Calculated risk-taking skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Take measured risks.	<input type="radio"/>				
2. Deal with uncertainty.	<input type="radio"/>				

#### \* Taking Action skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Be <b>adaptable</b> , take the initiative.	<input type="radio"/>				
2. <b>Access alternative resources to experiment</b> with new approaches.	<input type="radio"/>				
3. Understand and <b>use leadership skills</b> .	<input type="radio"/>				

#### \* Collaboration and Communication skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Work <b>independently and for a team goal</b> .	<input type="radio"/>				
2. Use <b>various methods of communication</b> .	<input type="radio"/>				
3. <b>Connect with external groups</b> or stakeholders.	<input type="radio"/>				

Please share any comments you have to offer about the experience of your skill development during this module?

*Please write your thoughts in the box below:*



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## TUoS Alumni Career Journeys

### Skill development opportunities: extracurricular 1/1

\* During your time on your degree programme, did you take part in any of the following extracurricular activities?

*Please select an option from the drop down box. Select all that apply and please add any other similar activities that come to mind.*

- Enactus: Student Society
- Entrepreneurs Society
- Careers Workshop
- Enterprise skills workshop(s)
- Entrepreneurship skills workshop(s)
- Business and/or startup support services
- I didn't take part in any of the activities mentioned above.

Other (please specify)

\* Keeping in mind the list of skills you have just rated in relation to your most recent job role:

*'Problem Solving, Working with constraints, Creativity, Calculated Risk, Taking Action, Communication and Collaboration'*.

Did you develop any of these skills as a result of **taking part in the extracurricular activities you identified** above?

*Please select an option below:*

Definitely Not	Probably Not	Possibly	Very Probably	Definitely	N/A didn't take part in any activities
<input type="radio"/>					



## TUoS Alumni Career Journeys

### Extracurricular skills 1/2

\* If you took part in **more than one** extracurricular activity, please now choose **just one** to help you complete the next questions. Select the extracurricular activity/experience **you remember most clearly**:

**NOTE:** If you stated on the previous page that you took part in **just one** extracurricular activity, please reselect that same activity.

Please make the selection from the dropdown list below:

\* Please state the level of ability you were able to develop in the following skills, by taking part in the extracurricular activity you selected.

### Problem Solving skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Investigate a problem & identify opportunities.	<input type="radio"/>				
2. Assess <b>different approaches</b> to solve a problem.	<input type="radio"/>				
3. Use <b>strategic thinking</b> for problem solving and management.	<input type="radio"/>				

## \* Working with constraints skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Work <b>within constraints</b> .	<input type="radio"/>				
2. Apply knowledge to solve <b>realistic problems/issues</b> .	<input type="radio"/>				

## \* Innovation and Creativity skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Use <b>creative and critical thinking</b> for innovation.	<input type="radio"/>				
2. <b>Adopt new creative approaches</b> , enabling imaginative thinking.	<input type="radio"/>				



# TUoS Alumni Career Journeys

## Extracurricular skills 2/2

Please state the level of ability you were able to develop in the following skills, by taking part in the extracurricular activities you selected:

### \* Calculated risk-taking skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Take measured risks.	<input type="radio"/>				
2. Deal with uncertainty.	<input type="radio"/>				

### \* Taking Action skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Be adaptable, take the initiative.	<input type="radio"/>				
2. Access alternative resources to experiment with new approaches.	<input type="radio"/>				
3. Understand and use leadership skills.	<input type="radio"/>				

### \* Collaboration and Communication skills

	Very Poor	Poor	Acceptable	Good	Very Good
1. Work independently and for a team goal.	<input type="radio"/>				
2. Use various methods of communication.	<input type="radio"/>				
3. Connect with external groups or stakeholders.	<input type="radio"/>				



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## TUoS Alumni Career Journeys

### About: Your current/most recent career journey

The following few questions are to learn more about your career journey since you graduated.

\* Choose **one** option below which best describes your current or most recent career activity.

*Please refer to your **current employed job role** OR **business**. (If you are currently in between jobs, studying, taking a break etc then select your most recent job role or business.)*

- My current/most recent job role is/was in employment.
- My current/most recent job role was/is in starting and running my own business.
- Other (please specify)



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## TUoS Alumni Career Journeys

### Employed: Current/most recent job role 1/2

\* Please tell us what is/was your current/most recent job title? *Please write below:*

\* Briefly in a sentence, please tell us what your duties & responsibilities are/were within this job role? *Please write below:*

\* If you have a clear idea which overarching category your job role fits within, please select from the drop down list below. If not select 'Don't know'.

\* What type of employment are/were you in, in your current/most recent role? *Please select an option from the drop down box or state 'Other'.*

\* If you are happy to disclose, which annual salary band does your current role fit within?

*Please select an option from the drop down box.*



## TUoS Alumni Career Journeys

### Employed: Current/most recent job role 2/2

- \* Please select the option below that indicates **how long** you have been in/were in your current/most recent **role**.

*Please select an option from the drop down box.*

- \* How many people currently work for your employer, at **your place of work?**

*Please select an option below:*

**Note:** This is the total number of employees at your workplace, not just the number employed within the particular section or department. This also refers to the geographical location of the establishment where you work, where your job is mainly carried out, and may consist of a single building, part of a building or, at the largest, a self contained group of buildings. **For instance,** if your employer is a multinational (multisite) organisation, you are not expected to estimate the total number of people employed within the whole organisation, just the place where you work.

- 1 to 24
- 25 to 499
- 500 or more employees

\* Have you been employed in any job roles that have been part of a structured, graduate training program?

*Please select an option below:*

- Yes
- No
- Other (please specify)

\* Have you ever considered being an entrepreneur?

*Please select an option below:*

- |                       |                       |                       |                       |                       |
|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| Never                 | Rarely                | Occasionally          | Frequently            | Very Frequently       |
| <input type="radio"/> |



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## TUoS Alumni Career Journeys

### Business: Business information 1/1

\* How long has the business been running?

Please select an option from the drop down box.

\* How many people founded the business?

Please select an option from the drop down box.

\* Is the business a new venture or were significant changes made to an existing business?

Please select an option below:

- Started as a new business venture
- Made significant changes to an existing business

Other (please specify)

\* Is your business currently profitable?

Please select an option below:

- Yes
- No
- Rather not say

Other (please specify)

\* How many businesses have you developed other than your current venture?

*Please select an option from the drop down box.*



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### Business: Current/most recent job role 1/2

\* Please tell us what is/was your current/most recent job title in the business?

*Please describe below:*

\* Just briefly in a sentence, please tell us what your duties & responsibilities are/were within this job role in the business?

*Please describe below:*

\* If you have a clear idea which overarching category your job role fits within, please select from the drop down list below. If not select 'Don't know'.

\* What type of employment are/were you in, in your current/most recent role in the business?

*Please select an option from the drop down box:*

If you are happy to disclose, which annual salary band does your current role fit within?

*Please select an option from the drop down box.*



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## TUoS Alumni Career Journeys

### Business: Current/Most recent job role 2/2

\* Please select the option below that indicates **how long** you have been/were with your current/most recent business.

*Please select an option from the drop down box:*

\* **Number of employees?** *Please do not include the number of founders in this number.*

*Please select an option from below:*

- 0
- 1 to 24
- 25 to 499
- 500 or more employees

\* Setting aside your business experience, have you been employed in any job roles that have been part of a structured graduate training program?

*Please select an option below:*

- Yes
- No
- Other (please specify)



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### Family: Enterprise engagement 1/1

#### Final questions...

- \* Are any of your family and friends self-employed or run their own business?

Please select an option below:

- Yes
- No
- Not sure

Other (please specify)

If Yes, please select one or more relevant relationship categories from the drop down box below:

- \* Do you agree that the career choices of family or friends have influenced **your** career decisions in regard to starting and/or running a business?

Please select an option below:

Strongly Disagree

Disagree

Undecided

Agree

Strongly Agree



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## TUoS Alumni Career Journeys

### Further Study

**If you have arrived at this page you have stated that you have only been in further study or unemployed since graduation from The University of Sheffield, and you have now finished this survey. Please go to 'Next' in order to enter your email into the prize draw on the next page and complete the survey.**

Thank you for taking the time to respond to this survey, your input is valued and will contribute to improving shaping the support we offer our current and future students.



## TUoS Alumni Career Journeys

### End of Survey

**You are almost at the end of the survey.**

**THANK YOU FOR YOUR TIME!**

**To show our appreciation for completing the questionnaire, we would like to enter your name into a prize draw for the chance to win a £200 Amazon voucher.**

If you wish to enter the prize draw, please enter your full email address at the end of this page.

We will only use this email to let you know if you are a lucky winner and to invite you to the future, optional study.

If you have any comments or queries about this survey, please add your comments in the box below.

Thank you very much for taking the time to complete this questionnaire, we really appreciate your participation in this research. The responses you have provided are important and will contribute towards an enriched university experience.

**Good luck with the prize draw!**

Would you be happy for us to contact you again as part of a further in-depth research project?

- Yes  
 No

Email address:

Any feedback or comments: