Developing the NACUE Student Enterprise Framework
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1. Introduction

This document sets out a review of policy and evaluation studies related to the student enterprise offer provided by universities. The review has been undertaken by the University of Lincoln as part of a broader project to develop a Student Enterprise Framework for the National Association of College and University Entrepreneurs (NACUE). For the purpose of this project, the enterprise offer has been defined as:

'The whole programme of enterprise activities, events and support which is available to students both within and outside their degree course'

The student enterprise offer can be identified as one aspect of a broader range of enterprise activities undertaken by universities, which also include applied research, spin-outs, science parks, entrepreneurial support for staff, and upskilling of company employees. These activities fall outside the scope of this review, which focuses primarily on the enterprise offer to students, and the extent to which students are able to inform these activities and participate in their evaluation.

The draft Student Enterprise Framework is presented on page 7 of this document. If you have any comments on the literature review or draft Student Enterprise Framework, please feel free to contact us by email at lprice@lincoln.ac.uk or drae@lincoln.ac.uk.

2. Policy Background

The **Wilson Review,** published in 2012, presents a comprehensive review of university-business collaboration in the UK. The Review shows that considerable progress has been made since the Lambert Review was published in 2003. It identifies that student enterprise activities are essential to ensure the smooth transition of graduates between university and business environments. The Review includes a number of recommendations which, it emphasises, should be brought about primarily through a cultural changes rather than an increase in regulation and/or funding. These include: promoting sandwich degrees and placements; engaging sector skills councils in curriculum development; expanding the Knowledge Transfer Programme, expanding the university enterprise offer to include PhD students, and involving Local Enterprise Partnerships in promoting placements and employment services to local firms.

In addition to these, the Review also sets out a number of recommendations which encourage universities, policy and funding organisations to reflect on aspects of current enterprise and business engagement activities. These include: providing a formal skills diagnostic for first year students; providing opportunities for students to develop employability skills; ensuring students have the opportunity to develop enterprise skills through formal practice and optional study; integration of enterprise education in professional development for academic staff; evaluation of business and alumni mentors by the Higher Education Academy; the ethical practice of unpaid graduate internships; and how careers and employability support can be evaluated as part of the NSS.

A recent initiative to support universities in their delivery of enterprise education is the **Entrepreneurial Institution** programme. This is being led by Doug Richard in partnership with the NCEE, Vitae and NACUE, with funding from BIS. The programme is being delivered

via a series of workshops and events aimed at university managers, educators, and students. These events will cover the latest thinking on enterprise teaching, and how to integrate enterprise into all subject areas, as well as helping students to improve their employability skills and develop new business ideas.

At a European level, the **Oslo Agenda for Entrepreneurship Education in Europe** sets out a range of proposals to increase entrepreneurial mindsets in society. The Agenda was developed following a conference in Norway in 2006 which sought to exchange experience and good practice in this area. The proposals apply to different geographical and institutional levels: including EU level, member states, universities, intermediaries and businesses. The proposals are grouped under the following headings: framework for policy development; support to educational establishments; support to educators; entrepreneurship activities in schools and Higher Education; building links and opening education to the outside world; and communication activities.

The World Economic Forum's 2009 study, **Educating the Next Wave of Entrepreneurs,** identifies the relationship of entrepreneurship education in higher education with high growth enterprise. The report identifies the need for cross-disciplinary entrepreneurship initiatives, so that all students can be reached, as well as sustainability of funding. Here it is suggested that universities do not rely on publicly funded initiatives but also seek private sponsorship and partnerships. It is suggested that entrepreneurial teaching should be incorporated into measures that assess the quality of institutions, departments and staff and that these should include outcomes and impact.

3. Guidance for Enterprise Educators

The Quality Assurance Agency (QAA) has recently published **Enterprise and Entrepreneurship: Guidance for UK Higher Education providers.** The guidance focuses on curricular rather than extra curricula enterprise activities, and is intended to be a point of reference rather than prescriptive. The guidance is structured around a 'Developing Entrepreneurial Effectiveness' model which shows how the enterprise offer may allow students to progress from enterprise awareness, developing an entrepreneurial mindset, developing entrepreneurial capability, to entrepreneurial effectiveness. There is a focus on learning outcomes, and on the skills/competencies that participating students may be expected to develop, and a set of broad principles and reflections for enterprise educators.

The National Council for Graduate Entrepreneurship (NCGE) produced the **Developing Entrepreneurial Graduates** report in 2008, in conjunction with NESTA and the Council for Industry and Higher Education. This includes a Higher Education Framework for Developing Entrepreneurial Graduates, which is intended to help universities create an enterprising environment across their campuses. The framework is based around three priorities: (i) creating an enabling institutional environment; (ii) the engagement of key stakeholders within and outside the institutions; and (iii) the development of entrepreneurial pedagogic approaches in teaching.

Allan Gibb, on behalf of the NCGE, developed an **Entrepreneurial Learning Outcomes Framework** in 2005. This focuses on the extent to which students participating in enterprise programmes are able to develop specific skills, understanding, and values. The framework is structured around eight key themes which include: entrepreneurial behaviour; empathy with the entrepreneurial life-world, entrepreneurial values; motivation to entrepreneurial career; understanding processes of business entry and tasks; and managing relationships with stakeholders.

The NGCE has also published three **Strategic Models** which summarise the different ways that enterprise activities can be organised and delivered within higher education institutions. These are, firstly, the Fully Integrated and Embedded Model, in which there is university-wide application of entrepreneurship teaching, entrepreneurship as an office of the Vice

Chancellor, and all activities are academic led but in partnership with stakeholders. This is flagged as the optimum model. Model 2, the Intermediate: University-led Model, includes a specialist enterprise centre which is university owned by adjacent to it and offers staff training, enterprise programme development, and engagement with entrepreneurs to link to them to departments. Model 3, the External Support Model, includes a stakeholder owned specialist centre with university participation which offers training programmes and support services to the university.

Scotland's Colleges has produced a draft **Enterprise Education Framework** for consultation. This is based on the NCGE learner-centred approach and Learning and Teaching Scotland's guidance on enterprise teaching. It is focused on three areas: (i) the enterprising mindset, which can inform both (ii) employability capacity; and (iii) entrepreneurial capacity. Specific learning outcomes under each of these headings have been related to the levels devised by the Scottish Credit and Qualification Framework (SCQF). Like the QAA guidance, the framework is not prescriptive but is intended as a source of ideas for educators, and a basis for reflection.

4. Measuring the HE Enterprise Offer: Approaches in the UK

There are a number of existing surveys and initiatives that measure the enterprise activities of universities in the UK.

The **NCEE Survey** has been undertaken since 2006. The latest survey in 2010 received responses from 116 out of a total of 126 Higher Education Institutions. The aim of the survey is understand the level of student engagement in enterprise, in-curricula provision, support for enterprise activities, funding and infrastructure, and institutional policy for enterprise and entrepreneurship.

As the survey has been undertaken over a period of time, it has enabled change in enterprise activity and engagement to be measured. The 2010 report shows that the rate of student engagement in enterprise (SER) increased from 7% in 2006 to 16% in 2010. The results have been presented at an aggregate level (NGCE & ISBE, 2010; Rae et al, 2010) to show trends across the sector. However, there is evidence (e.g. from the NACUE consultation workshop in Sheffield) that the results are used by HEIs to analyse and benchmark their own performance, and that of their individual faculties.

Researchers at Leeds University have developed a draft approach for **Mapping the Entrepreneurial University** (Underwood, Jones & Costas, 2012). This was presented at the IEEC Conference in Plymouth in 2012. This is a self-evaluation scoring matrix. Institutions are asked to rate, on a scale of 1-5, their strength of implementation across a number of key themes. These include: (i) mentorship; (ii) networking; (iii) competitions; (iv) training; (v) engagement; (vi) facilitation; and (vii) societies. Respondents are provided with guidance to accurately rate the level of implementation of each element. The framework will enable benchmarking with other institutions, using a spider chart approach.

The **Entrepreneurial University of the Year,** which is sponsored by NCEE, is an annual award which is given to the university that it is identified as having most successfully integrated entrepreneurial activity across its institution and environment. Universities are invited to nominate themselves for the award and, as part of the judging process, receive site visits from representatives of NCEE. The universities are judged on four key criteria: (i) institutional environment; (ii) innovative and entrepreneurial staff; (iii) student engagement; and (iii) entrepreneurial impact. The winner for 2011/12 was the University of Hertfordshire.

The **National Enterprise Educators Awards** recognise teams and individuals involved in the direct delivery of enterprise education and extra curricula enterprise activities. Recipients of the awards include educators, support staff, and students. The awards are judged on the aims of the intervention, good practice, innovation, impact, and future development.

Pearson Education is currently undertaking a survey of entrepreneurship education. The final report for this has not yet been published.

The **State of Student Enterprise** report produced by NACUE presents the results of a telephone survey of student enterprise societies in the UK. The report covers areas such as level of staff support and engagement with societies, society governance structures, affiliation to students unions, funding, and programmes of enterprise activity. The 2011 report showed that the number of enterprise societies had increased from 58 in 2010 to 73 in 2011.

The **Higher Education Business and Community Interaction Survey,** undertaken by HEFCE, gathers data on the interaction of universities with other organisations for the purpose of consultancy, research, training and licensing. It also gathers data on the number of university spin-outs and graduate start-ups. The 2010-11 survey shows, during the previous year, the number of graduate start-ups increased by 21% and employment by graduate start-ups increased by 23%.

The **National Student Satisfaction (NSS) Survey** does not ask about university enterprise activities specifically. However, two questions could be used to infer the enterprise skills developed by students as a result of their undergraduate studies. These include, "as a result of my course I believe I have improved career prospects", and "as a result of my course, I feel confident in tackling unfamiliar problems".

The **Destinations of Leavers from Higher Education (DLHE) Survey,** which is undertaken by HESA, asks graduates about their employment status and occupation. This includes a question about whether graduates' occupations are paid full time, paid part-time, self-employed/freelance, and voluntary/unpaid. The self-employed/freelance option could provide one proxy measure for graduate entrepreneurship.

The **Key Information Sets (KIS)** provided by HEFCE does not currently provide any information on the university enterprise offer to prospective students. The current KIS dataset draws on several existing sources, including the NSS and DELHE, to provide key information on areas such as student satisfaction, learning styles and assessments, costs and fees, graduate destinations and salaries.

5. Measuring the HE Enterprise Offer: Approaches in Europe and Elsewhere

The draft guidelines for review of **Enterprise and Entrepreneurship Education (EEE) in Ireland**, developed by the Irish Higher Education Training Awards Council, include a template which measures outcomes for students engaged in entrepreneurial learning. Like the model developed by Gibb (2005) above, the template concentrates on the skills and values that students are likely to leave programmes with, rather than detail on what the programme delivers and how. It sets out eight outcome areas, which comprise: entrepreneurial behaviour; empathy with the entrepreneurial lifeworld; entrepreneurial values; motivation to an entrepreneurial career; understanding the process of business entry; entrepreneurship capabilities; business know-how; and managing relationships.

The Danish Foundation for Entrepreneurship has undertaken a study of the **Impact of Entrepreneurship Education in Denmark.** This has involved use of a detailed survey of over 500 graduates, which includes those that have attended entrepreneurship programmes compared with those on ordinary programmes. Although focused on the enterprise curricula the questionnaire includes some questions relevant to this review. These include likert-scale questions which ask students to rate their level of confidence in undertaking certain tasks and questions about their own and their families' attitudes to self-employment.

The **Survey of Entrepreneurship in Higher Education in Europe** undertaken by NIRAS in 2008 is a survey of higher education institutions across 31 countries in Europe. The survey includes a specific survey to find out which institutions teach entrepreneurship, as well as an in-depth survey which explores the curricula and extra curricula activities provided. The survey covers six key dimensions: strategy; institutional infrastructure; teaching and learning; outreach; development; and resources. Each of these comprises a number of composite indicators. England ranks third after France and Germany in the average position of its three most highly rated universities for entrepreneurship education.

The University Business Forum, supported by the European Commission, has produced a pilot tool entitled **Entrepreneurial Universities – a Guiding Framework.** The tool, developed by Technopolis, is available online and enables European higher education institutions to rate their performance against a number of statements. It will eventually enable participating institutions to compare their performance against others. The tool is divided into two sections: Institutional Context; and Entrepreneurial Challenges and Outcomes. Under Institutional Context, the tool measures indicators related to strategy and governance, resources and infrastructure, and recruitment, human resource development and incentives. Under Entrepreneurial Challenges and Outcomes, the tool includes indicators related to entrepreneurial teaching and support, graduate start-up support, university-business/external linkages for knowledge exchange, and the entrepreneurial university as a dynamic, proactive organisation.

6. Mapping Existing Approaches

Table 1 sets out the existing policy, guidance and approaches for delivery/assessment of the student enterprise offer. These are mapped by key aspects of the enterprise offer, from an integrated strategy for enterprise, to curriculum delivery and outcomes, extra curricular activities, and evaluation of the enterprise offer and whether this engages students. Looking at Table 1, a number of observations can be made:

i.   There is a plethora of existing approaches for measuring the enterprise offer across universities in the UK. None of these single approaches cover all aspects of the enterprise offer but their results could be combined to provide a fairly comprehensive picture. For example, the NCEE Survey and the Survey of Entrepreneurship in Europe, when combined, tick most of the boxes in Table 1.

ii.   While several of the approaches offer a benchmarking tool to universities, enabling them to compare performance and identify good practice within and across the sector, there are few tools that provide this information to students.

iii.   Most of the guidance and tools include elements about both delivery and outcomes. However, the QAA guidance, NGCE Entrepreneurial Learning Outcomes Framework, Scotland's Colleges Enterprise Education Framework, and EEE in Ireland, are all more focused on outcomes (e.g. what skills/competencies a student might expect to achieve) than on what is delivered and how. By contrast, many of the benchmarking tools/surveys appear to be more focused at universities/educators and on delivery.

iv.   Few existing approaches offer guidance on, or measure, how the enterprise offer is or could be evaluated. The Survey of Entrepreneurship in Europe identifies that 37% of universities in the sample do not monitor the long term effects of entrepreneurship courses on students, and many don't take into account the views of the end users (the employers and investors).

v.   Similarly, few existing approaches provide guidance on, or measure, students' involvement in evaluating and designing the enterprise offer.

Table 1 - Existing Policy, Guidance and Benchmarking Tools

	Policy	Guidance	Benchmarking Tool for Universities/HE Sector	Benchmarking Tool for Students	Integrated Enterprise Strategy	Promotion of Enterprise	Sustainability of Funding	Enterprise Curriculum - Delivery	Entrepreneurial Staff - support/training for	Enterprise Curriculum Outcomes	Extra Curricular Enterprise Activities	Internships/ Placements	Business Interaction	Engagement of Alumni	Support for Start-Ups/ Incubation	Start-Up & Self-Employment Rates	Enterprise Culture	Support for Student Societies	Enterprise Offer Evaluation	Student Voice in Enterprise Evaluation
	Policy, Guidance or Benchmarking Tool				**Aspect of the Student Enterprise Offer**															
Wilson Review	✓					✓		✓			✓	✓	✓							
QAA Guidance		✓			✓	✓		✓		✓	✓	✓	✓	✓	✓		✓	✓		
NGCE Entrepreneurial Learning Outcomes Framework		✓					✓	✓	✓	✓							✓		✓	
NGCE Strategic Models		✓			✓			✓	✓				✓		✓					
NGCE Implementation Framework for HE		✓			✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		
Scotland's Colleges Enterprise Education Framework		✓						✓		✓										
Oslo Agenda	✓	✓	✓			✓	✓	✓	✓		✓		✓	✓	✓			✓	✓	
EEE in Ireland		✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		
NCEE Survey			✓		✓	✓	✓	✓			✓	✓	✓		✓	✓		✓		
Mapping Entrepreneurial University (Leeds)			✓		✓	✓	✓	✓			✓	✓	✓	✓	✓			✓		
Entrepreneurial University of the Year			✓		✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓		
Survey of Entrepreneurship in EU in Europe			✓		✓		✓	✓	✓		✓		✓	✓	✓	✓			✓	✓
EU Entrepreneurial Universities Framework			✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	
National Enterprise Educators Awards			✓			✓		✓			✓		✓		✓		✓	✓		
HE Business Community Interaction Survey		✓											✓		✓	✓				
Destination of Leavers of HE Survey		✓														✓				
National Student Satisfaction Survey			✓	✓						✓										
NACUE State of Student Enterprise				✓		✓	✓						✓		✓		✓	✓		

7. The Draft Student Enterprise Framework

Following consideration of the literature and existing evaluation tools, the draft Student Enterprise Framework has been developed. This is set out below. Respondents are asked whether their institution has in place a range of aspects of the enterprise offer. They are asked to indicate 'yes', 'no', or 'don't know' and then to rate the aspect on a scale of 1 to 5, where 1 is in the early stages of development and 5 is advanced. Following a period of consultation, which is being led by NACUE, the Framework will be developed into a user-friendly online survey tool, using specialist software.

Draft NACUE Student Enterprise Framework

NACUE have partnered with HEFCE and the University of Lincoln to conduct a consultation to design a Student Enterprise Framework. The purpose of the Framework is to provide a means for students and staff to identify what their University offers in relation to enterprise activities, and to assess how the 'student voice' contributes to the enterprise offer. This information is intended purely for staff and students at an institution to use in looking at ways to enhance enterprise provision.

The following draft categories have been developed, following consultation with educators and students, and a review of existing approaches. In the second stage of the consultation, you are asked to use the framework to assess your own organisation. In doing this, you may form a view about how valid it is for your institution. Please make any comments or suggestions on the Framework in the box at the end.

Scoring: mark in the 'yes', 'no', or 'don't know' ' boxes according to your understanding of whether your University offers this aspect. If 'yes', then score as follows: 1 early, 2 quite limited, 3 well developed, 4, widely available, 5 mature and fully available.

		Yes	No	Don't Know	Stage of Development (1=early, 5=advanced)
Enterprise Strategy and Promotion	There is a university-wide enterprise strategy				
	The university has an institution-wide organisation for enterprise support				
	Enterprise activities are supported by dedicated funding				
	Courses with enterprise modules are clearly identified in the prospectus				
	Enterprise is integrated into the University's teaching and learning strategy				
	The university's staff development programme includes enterprise				
Total: 6					
In-Curricular Provision	The university offers:				
	an undergraduate degree in enterprise/entrepreneurship				
	a postgraduate degree in enterprise/entrepreneurship				
	credit-bearing enterprise modules for Business & Management students				
	credit-bearing enterprise modules for students in all faculties				
	Credit-bearing enterprise modules are available to:				
	undergraduate students				
	postgraduate taught students				
	postgraduate research students				
	full-time students				
	part-time students				
	home/EU students				
	international students				
Total : 11					
Extra-Curricular Provision	The university offers:				
	Enterprise workshops and events				
	A business plan/ideas competition				
	Enterprise games workshops				
	Entrepreneurship summer schools				
	Workshops on social enterprise				
Total: 5					

		Yes	No	Don't Know	Stage of Development (1=early, 5=advanced)
Business Interaction	The university offers internships/placements to all students				
	Students are able to participate in projects/consultancy with businesses				
	Businesses are invited to give guest lectures to students				
	The university has entrepreneurs in residence or enterprise champions				
	Alumni are engaged in enterprise activities				
Total: 5					
Facilitation	The university provides incubator facilities				
	The university provides start-up funds for student enterprises				
	The university offers a dedicated enterprise centre				
Total: 3					
Student Engagement	The university has a Student Enterprise Society				
	The Enterprise Society/Students Union runs an enterprise events programme				
Total: 2					
Assessment/ Evaluation	In-curricular enterprise activities are evaluated				
	Extra-curricular enterprise activities are evaluated				
	Businesses contribute to the evaluation of enterprise activities				
	Students are engaged in the design of the enterprise offer				
	Students contribute to the evaluation of enterprise activities				
	Staff contribute to the evaluation of enterprise activities				
	The longer term effects of enterprise activities are evaluated				
Total: 7					
Total all categories: 39					

Any comment or suggestions:

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