

# **BiGGAR Economics**

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## Economic Impact of Making the Most of Masters

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A final report to  
Institute of Academic Development, University of Edinburgh

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# 1 EXECUTIVE SUMMARY

This report presents an examination of the economic impacts of Making the Most of Masters (MMM), a collaborative project between the Universities of Edinburgh, Stirling and Aberdeen. MMM aims to improve collaboration between employers and universities by providing opportunities for masters students to undertake work based projects which fulfil the assessment criteria for a masters dissertation.

This study answers questions about the economic impacts of MMM at three levels: for the graduate; for the employer; and for the HE institution. It identifies a range of qualitative economic impacts and quantifies a number of areas of impact over two academic years, AY2011/12 and AY2012/13.

In total, these quantifiable impacts of MMM between 2011 and 2013 amount to **£5 million of GVA and 152 fte jobs** to the Scottish economy.

## 1.1 Graduate Impacts

The economic impact of graduates being 'more employable' is created because they are employed sooner after graduation and are more productive once employed, with less need for training and with an ability to "hit the ground running". They may be more likely to enter high value sectors.

By being employed by their placement provider, a total of 120 jobs may have been secured by MMM students during the lifetime of the programme, providing increased earnings estimated at **£1.3 million**. Scenarios with alternative assumptions about the proportion of graduates employed have been developed, with estimates of increased earning of **£0.6 million** at the lower end of the scale and **£1.8 million** at the higher end.

## 1.2 Employers' Economic Performance

For employers, engagement with MMM provides: 12 weeks of wage free labour; reduces the costs and risks of recruitment; projects can impact on business efficiency and profitability; links with universities can lead to consultancy, CPD and knowledge transfer engagements; international students can help provide access to new international markets; and networks are created with other businesses, including international ones.

An estimate of GVA turnover impact for MMM students is **£1.9 million GVA**. MMM also provided employment cost savings of **£230,640**. Scenarios with alternative assumptions have been developed with varying proportions of businesses with turnover impacts and recruitment savings, with impacts of **£109,554 GVA** at the lower end of the scale and **£328,662 GVA** at the higher end. Reviews of studies carried out elsewhere support our assumptions and indeed suggest we may have underestimated turnover impacts for MMM.

## 1.3 Universities' Competitiveness

MMM enhances the competitiveness of its host universities through: improved student recruitment; deeper relationships between academics and businesses; creating early opportunities to translate research into business; networking across disciplines and between partner universities; and meeting universities' strategic priorities for external engagement.

The fee impacts of additional student recruitment because of MMM projects on the host universities lead to a quantitative economic impact of **£1.5m GVA and 14 fte jobs** in Scotland.

#### **1.4 Implications for Future Evaluation of MMM**

Accurate assumptions are the key to ensuring future economic impact assessments of MMM are robust. The project team should collect data from a large sample of employers, graduates and academic programme managers as a matter of course. Operationally, this could be a relatively straightforward exercise, with a standing web-based survey to which all participants are directed immediately the placement ends. The graduate and employer surveys used for this study would be a useful starting point for the project's post-evaluation surveys.

#### **1.5 Implications for the Extension and Growth of MMM**

When planning for growth, the project managers should seek to maximise benefits by ensuring that the drivers of economic impact are supported. A focus on these areas will also support the core objectives of the project.

With a focus on economic impact, there may also be scope to alter the way in which MMM sits in the institutional landscape. Currently it is steadfastly an academic curriculum development project. However, consideration should be given to whether it may fit elsewhere in the economic development and knowledge transfer agenda because of the impacts it creates from university/business interaction.

An understanding of the economic impacts and benefits of MMM may, therefore, allow the project to adopt a new place in Scotland's innovation system.

## 2 INTRODUCTION

This report presents an examination of the economic impacts of Making the Most of Masters, a collaborative project between the Universities of Edinburgh, Stirling and Aberdeen. BiGGAR Economics was commissioned to undertake this study in Spring 2014.

### 2.1 Making the Most of Masters

Making the Most of Masters (MMM) aims to improve collaboration between employers and universities by providing opportunities for masters students to undertake work based projects. It provides a very different experience to traditional work placements (such as those common in undergraduate programmes) because it must fulfil the assessment criteria for a masters dissertation. Funded by the Scottish Funding Council (SFC) as part of the Learning to Work 2 initiative (LTW2), MMM is a partnership project between the universities of Aberdeen, Edinburgh and Stirling.

The main objectives of the MMM project are to:

1. Design, test and produce tools, resources and methodologies that will enable partner Universities and the Scottish sector more generally to increase the opportunities for taught postgraduate students to undertake work-based dissertation projects.
2. Develop systems to ensure that such projects are of benefit to host organisations whilst maintaining the levels of academic quality expected of postgraduate masters-level work.
3. Help build productive sustained working relationships between Scottish universities and businesses together with other Scottish-based employers (especially SMEs).

The project has been running since mid 2011, with the first cycle of implementation running till September 2012 and evaluated at that point<sup>1</sup>. The second year of the project, to September 2013, was focussed on testing a 'production' model of the MMM 'toolkit' and scaling up activity. The project is funded to the end of July 2014.

The project follows an evaluation strategy and its staff have collected evaluation data throughout, producing a mid-term evaluation report in 2012. A SFC funded evaluation of the project has been completed recently. Therefore, our study focus has been to develop a rationale and method for understanding the economic impact of MMM and how to maximise it. It does not duplicate the work already delivered by the SFC evaluation.

### 2.2 Approach

This study set out to answer a set of questions about the economic impacts of MMM. We have considered impacts at three levels: for the graduate; for the employer; and for the HE institution.

Our research method included: desk research; a set of consultations with university staff in each institution; a survey of employer organisations; and a survey of MMM graduates.

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<sup>1</sup> Making the Most of Masters, Mid-project Report (2012)

The primary research provided a set of data which allowed us to identify qualitative economic impacts that describe benefits to employers, students and institutions as well as to develop an initial quantitative analysis of economic impact. Our economic impact analysis is based upon relatively limited data. Despite this, it provides a useful framework to build a data collection strategy for the future, so that the managers of MMM can develop and deepen their understanding of its impacts in future.

The quantitative economic impacts of MMM are expressed in terms of Gross Value Added (GVA) and jobs.

- GVA is the measure of the value that an organisation, company or industry adds to the economy through their operations. We have used the production approach to measuring this impact, where the GVA is equal to the value of production less the value of the inputs used.
- employment, measured in full time equivalent (fte) jobs supported.

Each area of impact requires the use of three types of economic assumptions:

- turnover to GVA ratio – this is used to estimate the GVA impact of the spend in an area. This is obtained from the UK Annual Business Survey 2011, published in 2013;
- turnover per employee – this is used to estimate the employment impact of the spend in area. This is obtained from the UK Annual Business Survey 2011, published in 2013; and
- GVA and employment multipliers – this is used to estimate supplier and income impact created by businesses that directly benefit from additional spend in area. For the Scottish economy, this is obtained from Scottish Input Output Tables 2009.

## 2.3 Report Structure

The remainder of this report is structured as follows:

- Chapter 3 provides background to the Making the Most of Masters programme, explaining its policy and funding background as well as its structure and delivery mechanisms;
- Chapter 4 lists programme outputs for academic years 11/12 and 12/13, which form the basis of our quantitative analysis;
- Chapter 5 introduces the sources of economic impact of MMM;
- Chapter 6 sets out qualitative economic impacts for MMM, identified by consultations and surveys;
- Chapter 7 describes the quantitative impacts which are the output of our economic modelling exercise; and
- Chapter 8 provides the conclusions of the study.

The appendices list consultees and outputs of our student survey, and contains copies of the survey questionnaires.

## **3 BACKGROUND**

### **3.1 Policy and Funding**

Learning to Work Two (LtW2) set out the Scottish Funding Council's employability strategy for 2010-14. Building on the work of Learning to Work, LtW2 reflected a changed policy environment e.g. the Scottish Government Skills Strategy and Economic Strategy, Curriculum for Excellence and Ministerial Guidance that places increased emphasis on employability and skills.

Whilst Learning to Work focussed on the use of strategic funding to support capacity building for employability, LtW2 took as a starting point the embedding of work to enhance employability within the broader processes of curriculum design and quality enhancement. Given this, LtW2 marked a shift in Council policy towards support for specific projects to create new work-related learning and work placement opportunities. The Council's strategy also included support for the national development of employer engagement and the sharing of good practice.

To meet the challenge identified in the LtW2 consultation for universities and employers in making work related learning and placements more widely available, and embedding this kind of learning experience in a wider range of courses, the Council invited project proposals in 2009. It expected to fund four to five projects, each with total funding of around £1.5M to £2.0M and lasting for three to four years.

The resultant four work placement projects are core to the implementation of the LtW2 strategy both in their own delivery of outcomes but also, importantly, in their 'proof of concept' of approaches to increase the volume of quality work placements across different sectors of the Scottish economy and across different curricula and study levels. They are:

- Education into Enterprise;
- E-Placement Scotland;
- Making Most of Masters; and
- Third Sector Internships Scotland.

An evaluation of LtW2 has recently been completed<sup>2</sup>, with mainstreaming and 'scale-ability' of approaches being key policy issues for the future.

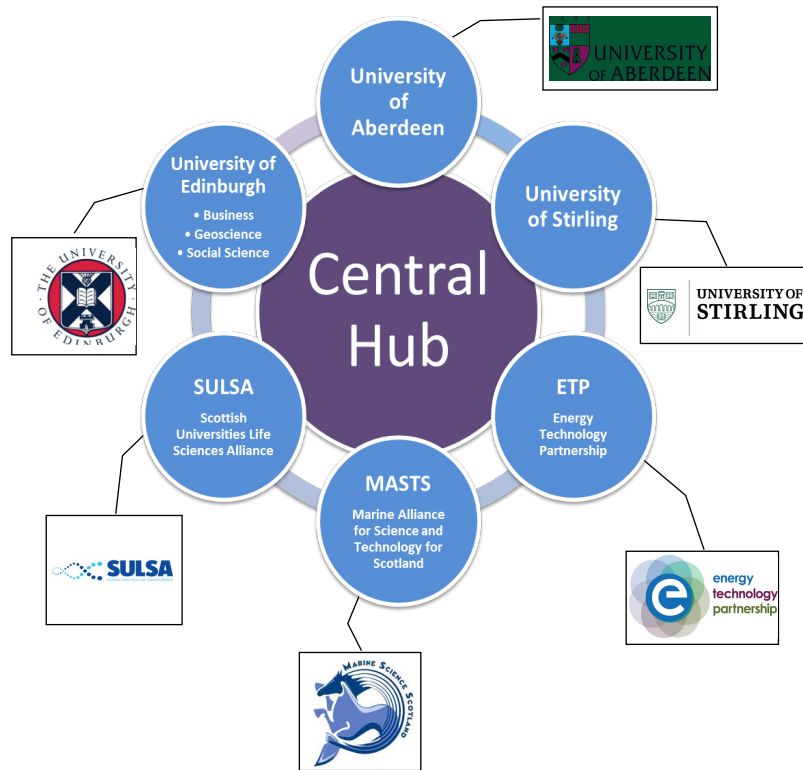
### **3.2 MMM Structure and Delivery**

MMM operates in three Scottish Universities and three research pools, shown in the figure below. The management of MMM staff in each host institution varies, although in each university MMM is closely aligned (or contained within) careers services.

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<sup>2</sup> Rocket Science UK Ltd. with Blake Stevenson Ltd., *External summative evaluation of an investment in Learning to Work 2*, Scottish Funding Council, January 2014

Figure 3-1: MMM Partners



The project aims, set out in the MMM revised project plan (November 2011) are:

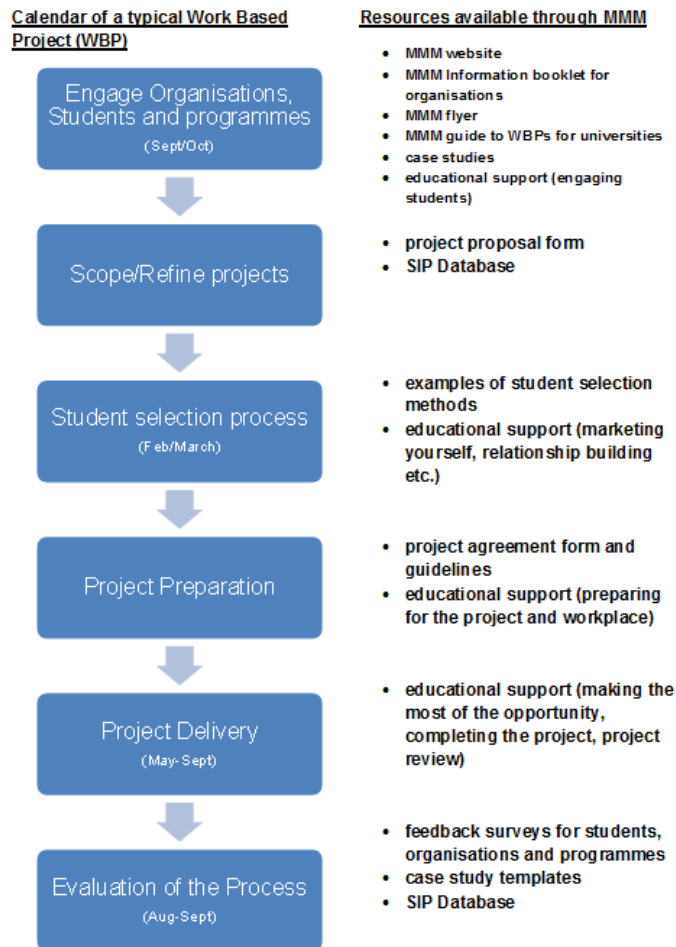
- Improve Employability of post graduate taught (PGT) Students;
- Improve relationships between external organisations (especially SME's) and Universities;
- Move intellectual capital of the University into the local economy;
- Allow development of appropriate dissertation model for vocational masters programmes;
- Aim for sustainability by developing networks;
- Dissemination of results via website, conferences, scholarly publications;
- Development of resources to support external organisations, students and programme directors involved with the project;
- Evaluate and draw from feedback ;
- Demonstrable Interest in at least two other HEI's;
- Ongoing commitment to networks from HEI's by external organisations; and
- Adoption of University regulations and processes in sourcing projects.

MMM supports institutions, students and employing organisations with a model that includes a wide range of resources. The figure below shows that calendar of



a typical MMM work based project (WBP). This shows the stages of each MMM project, from student and employer engagement to project delivery and evaluation along with the resource and support that the MMM model provides.

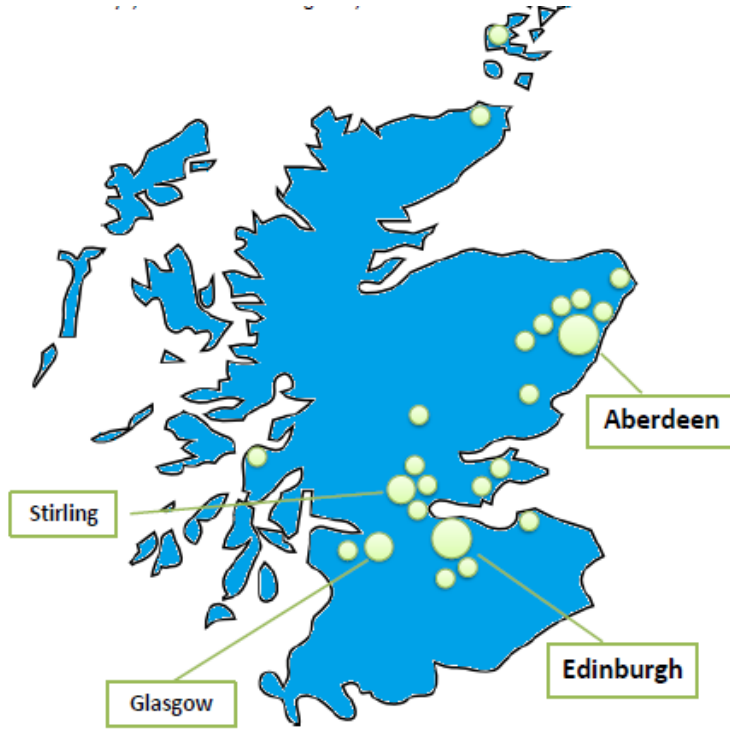
Figure 3-2: Delivery of Work Based Projects and MMM Resources



The majority of MMM work based projects are undertaken in Scotland, as shown in Figure 3.3, below. Other locations worldwide include: Athens; Bangalore; Cairo; Houston; Kenya; London; Lowestoft; Malawi; Nepal; and Uganda.

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Figure 3-3: Geographic distribution of WBPs, Scotland



## 4 MMM PROGRAMME OUTPUTS 2011-2013

Our economic impact analysis of MMM is based on the number of projects carried out over two academic years (2011 to 2013) and the industrial sectors of the host company/organisation. Businesses in different sectors have different impacts on the economy.

In academic years 2011/12 and 2012/13 there were 505 MMM placements across the Universities of Edinburgh (209), Aberdeen (246) and Stirling (50). The placements were with 216 employing organisations across a very wide range of industrial sectors, shown in Table 4.1 below.

Table 4.1 – Number of WBP by sector - including those that did not go ahead

	Aberdeen	Edinburgh	Stirling	Total
Aerospace, defence & marine	16			16
Chemical Sciences	1			1
Construction			3	3
Creative Industries		6		6
Education	5	70	5	80
Energy	193	26	8	227
Financial Services	5	41	4	50
Food and Drink		2	1	3
Forest & Timber Technologies			1	1
HR			1	1
Life Sciences	68	25	33	126
Manufacturing		2		2
Marketing	8	1	1	10
Sport / Culture		35		35
Technology	4	1	2	7
Tourism			2	2
<b>Total</b>	<b>300</b>	<b>209</b>	<b>61</b>	<b>570</b>

Source: MMM, University of Edinburgh

Each placement lasted for 12 weeks across a range of academic subject areas, shown in the table below. 425 projects went ahead.

Table 4.2 – Number of WBP by academic subject area

School/Subject Area	Total number WBPs (that went ahead)
Archaeology	2
Biological Sciences	36
Biomedical Sciences	2
Business and Management	48
Chemistry	4
Computing	17
Economics	15
Education	5
Energy	153
Engineering	18
Environmental Science	27
Film, media and journalism	5
Geosciences	19
History	5
Law	8
Marketing	9
Psychology	5
Social and Political Science	46
Sports Studies	1
<b>Total</b>	<b>425</b>

Source: MMM, University of Edinburgh

## 5 IDENTIFYING ECONOMIC IMPACTS

MMM work based projects are intended to benefit students, employers and academic institutions. The recent SFC evaluation of the four Learning to Work 2 funded projects (including MMM) identified some of these benefits<sup>3</sup>:

- Students:
  - apply for real jobs and gain insights into successful applications and interview skills;
  - gain confidence, communication and self management skills;
  - direct route to a job;
  - gain an employer reference.
- Businesses/Organisations:
  - useful tasks;
  - better sense of what students/graduates can contribute;
  - connections with institution/s and influencing course content and delivery;
  - reach students early (before the milk round).
- HE Institutions:
  - cultural shift with staff recognising the value of work placements.

We have used consultations and desk evidence to develop these benefits by identifying the aspects that might have an impact on the economy i.e. that might stimulate economic growth through increasing GVA and employment. Fitting with the SFC evaluation, we have categorised these as they affect students, businesses/organisations and HE institutions.

### 5.1 Student Employability

The economic impact of graduates being 'more employable' is created because they are employed sooner after graduation and are more productive once employed, with less need for training and with an ability to "hit the ground running". This productivity creates economic advantages for their employers, compared to taking on a graduate who does not have the same well developed skills and attributes.

Economic impacts of strong graduate employability skills and attributes as a result of undertaking an MMM project might include the following. We have sought to identify evidence for these through our primary research, where possible:

- an increased likelihood of securing a graduate job after carrying out a MMM project, so making an economic contribution at an earlier stage;

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<sup>3</sup> Rocket Science UK Ltd. with Blake Stevenson Ltd., *External summative evaluation of an investment in Learning to Work 2*, Scottish Funding Council, January 2014

- an increased likelihood of entering high value sectors (in GVA terms) after doing an MMM project, compared to others studying in the same subject area; and
- once employed, higher productivity overall and at an earlier point than if s/he had not participated in the MMM project.

## 5.2 Employers' Economic Performance

Employers can receive economic benefits from hosting a masters work based project in ways that go beyond the obvious wage free labour impact. Importantly, joint working between a company/organisation and a university can yield knowledge transfer impacts - a key Government priority. We have explored whether such impacts have been felt by MMM host employers (Chapter 5). While difficult to measure quantitatively (without specific data gathering during project delivery), the existence of knowledge transfer impacts would create a strong case for support for MMM and perhaps for involvement from others within universities with an interest in business/university interaction. Economic impacts on employers may, therefore, include:

- 12 weeks of wage free labour, whose impact can be measured quantitatively;
- reducing the costs and risks of recruitment, where an MMM student is recruited at completion of the project. This impact can also be measured quantitatively;
- outputs of projects that impact on business efficiency, innovation, competitiveness or profitability. These are direct impacts from individual projects;
- links between employers and universities that grow from MMM projects into research and consultancy contracts, CPD for employers' staff, or other KT engagements, all of which have individual economic impacts that could be measured quantitatively;
- access to new international markets through hosting international students with knowledge and skills relevant to a particular target market; and
- contacts and networks with other businesses, including international ones, who employ MMM graduates after they move on from their placement.

## 5.3 Universities' Competitiveness

Universities create economic growth in many ways. In 2013 Universities Scotland published a report of BiGGAR Economics' research which identified the sources and value of economic impact of Scotland's Universities<sup>4</sup>. The research found that as an industry universities contributed £6.7 billion GVA to the Scottish economy in 2012/13 and supported 142,000 jobs. Universities create exports, a fundamentally important aspect of economic success, generating export income of £1.3 billion in 2011/12 of which 60% was from outside of the UK. Universities are also cited as a determining factor in almost half of all foreign direct investment (FDI) projects that come into Scotland. Finally, Universities support the wider

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<sup>4</sup> GROW, EXPORT, ATTRACT, SUPPORT, Universities' contribution to Scotland's economic growth, Universities Scotland, 2013 <http://www.universities-scotland.ac.uk/uploads/Grow%20Export%20Attract%20Support%20Universities%20Scotland.pdf>

economy - they work with over 26,000 companies every year to translate the outputs of their research and development into new products and processes for business.

It is logical to assume that if MMM enhances the competitiveness of its host universities, the economic impacts of the university will be increased. Our consultations identify a range of ways in which MMM affects key measures of university competitiveness:

- improved student recruitment, with potential students looking to differentiate themselves in the employment market and seeking out courses that offer real work experience;
- deeper relationships between academics and businesses that may lead to consultancy and further joint projects and help academic researchers to keep pace of industrial applications of research;
- early opportunities to translate science research into business;
- networking for academics between disciplines as well as between partner universities; and
- meeting universities' strategic priorities for external engagement.

## 6 QUALITATIVE ECONOMIC IMPACTS

Nineteen employers responded to a survey about the impacts of MMM projects on their business/organisation. This sample is 8.8% of the population of 216 employers that MMM has engaged with. This cannot be considered a representative sample, however it does provide an initial qualitative reflection of how MMM projects create economic benefits for employers<sup>5</sup>. This will help to inform the feedback required from employers in future.

### 6.1 Sample

The survey sample includes commercial companies (SMEs and large companies), government agencies, other public sector bodies and voluntary sector organisations. It reflects a broad spectrum of industrial sectors, as follows:

- international development;
- nature conservation;
- energy/oil and gas;
- synthetic biology;
- arts and health;
- environmental research;
- heritage; and
- engineering.

There is a wide geographical spread in our survey sample, with respondents from: Glasgow; East Lothian, Aberdeen, London, Edinburgh, Stirling, Africa, the North West of England, and far North of Scotland.

### 6.2 Identifying the Benefits

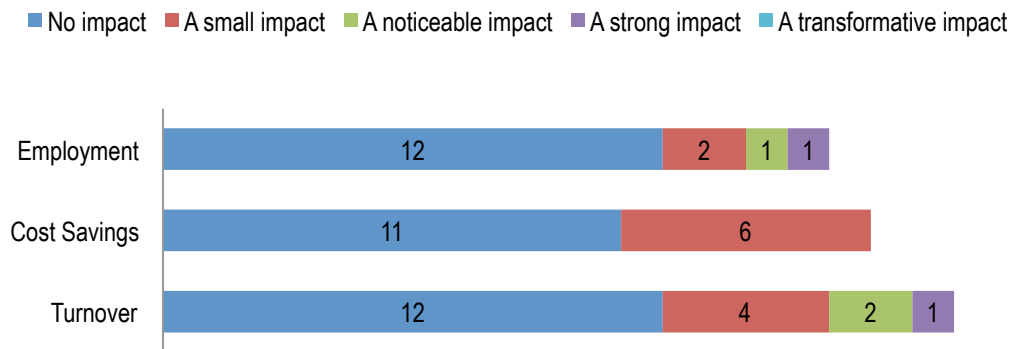
Respondents were asked to score the employment, cost savings and turnover benefits of hosting a Masters student. Scores were from 1 (no impact) to 5 (transformative impact). As the figure below shows, four organisations reported employment impact, six reported cost savings and seven reported turnover impacts.

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<sup>5</sup> A graduate survey was also undertaken for this study and its outputs are presented at Appendix 3.



Figure 6-1: Business benefits from hosting a Masters student.



*n*=19

These impacts are notoriously difficult to quantify, although some of our respondents did provide some information about the extent benefits, quoted as follows:

- Turnover:
  - <1% - brining new opportunities to explore but not commercialise
  - £6,000
- Cost savings:
  - They cost us as a business money however helps moral
  - Too soon to measure this
  - ~£10,000
  - £6,000
- Employment:
  - Helps to get us know in the University
  - Too soon to measure this
  - Cannot identify - travel & subsistence still required

### 6.3 Employment of MMM graduates

Three of fifteen respondents reported that they had employed their student after the placement was finished (20%).

We asked what the benefits were to the organisation's recruitment process, with five respondents answering the question, as follows.

Table 6.1: Benefits to organisation recruitment processes

Recruitment Benefits	Response Count
Reduced the risk of recruiting an unknown candidate	3
Saved investment in training/induction	2
Helped the company to decide whether a new recruit was necessary	1
Provided a more productive recruit	1

*n*=5

Four other employment benefits were quoted by respondents:

- “Zero cost of employment”
- “Raised company profile at graduate/post-graduate level across university”
- “Volunteering help at different events”
- “Added capacity to the organisation”

## 6.4 Knowledge Transfer and Business Benefits

83% of respondents reported that their involvement in MMM had helped to maintain or establish a relationship with the University. Other knowledge transfer benefits include enhancing existing products or policies and improving workforce skills.

Table 6.2: Has your involvement in the Masters project contributed to any of the following?

Knowledge Transfer Benefit	Response Count
Maintained/established relationship with the University	15
Enhancement of existing product/policy	5
Increased skills of workforce	4
Development of new product/policy	1
Development of new production process	1
Enhancement of existing production process	1
Enhanced market knowledge/ contacts	1
Licensing of new product	0
Licensing of new production process	0
Market entry	0
Transfer of technology	0
Additional funding	0

*n*=18

Five respondents highlighted other benefits, quoted as follows:

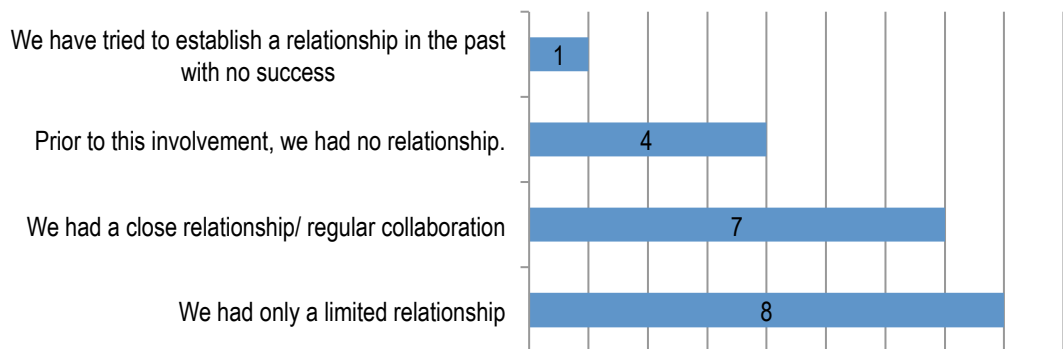
- “added to knowledge base and informed management of site”
- “improved understanding of economic theory relevant to energy market regulation”

- “carrying out of projects and research”
- “tested the ability of leveraging Master’s students to complete ad-hoc projects that is of importance to ...” [named oil and gas company]
- “alternative analysis method explored”

## 6.5 Relationships with University

Twenty respondents told us about their relationship with the University and the impact of hosting an MMM student on that relationship. The majority, 13 (65%) had no relationship or a limited relationship before MMM. Providing more detail, one respondent reported that they were interested in developing closer relationships with Aberdeen and Stirling, having already established a good relationship with Edinburgh.

Figure 6-2: Relationship with University before involvement in MMM



n=20

We asked respondents whether, as a result of participating in MMM, their perceptions of working with the University in general had changed. Eleven respondents are more positive about their relationship as a result of participating in the MMM project.

Table 6.3: Benefits to organisation recruitment processes

Answer Options	Response Count
Yes, I am much more positive about the benefits of working with the University than I was before.	4
Yes, I am a little more positive about the benefits of working with the University than I was before.	7
No, my perceptions have not changed.	7
Yes, I am a little less positive about the benefits of working with the University than I was before.	0
Yes, I am much less positive about the benefits of working with the University than I was before.	0

n=18

## 6.6 Wider Benefits

Seven respondents reported wider benefits as a result of hosting their MMM project. Asked whether there were benefits, responses are as quoted:

- “Yes, information gleaned will continue to be used for many years”
- “Benefit to the organisation in that fresh ideas are discussed”
- “Yes - significant benefit. We were able to exemplify a commercial opportunity”
- “The internship programme with the University continues to work well for [company name] and reflects well on the organisation as the interns seem to universally enjoy their placements with us”
- “Yes there are potential benefits for the wider society in hosting this project”
- “Yes - we are gaining an understanding of a new area and potential process which we may be able to apply technology”
- “Increased research capacity within the organisation as a result of skills transfer and knowledge product output”

## 6.7 Summary

In chapter 5 we set out how MMM projects might create economic benefits for graduates, businesses/organisations and universities. The employer survey supports the economic benefits identified in chapter 5. In summary:

- employers reported employment impacts, cost savings and turnover impacts as a result of hosting an MMM work based project;
- three of fifteen respondents reported that they had employed their student after the placement was finished (20%). We have used this as an assumption in our quantitative economic impact analysis, which follows in the next chapter;
- the vast majority (83%) of respondents reported that their involvement in MMM had helped to maintain or establish a relationship with the University, a key first step in delivering the knowledge transfer agenda that is crucial to Government and institutions’ strategic objectives. The majority (65%) had no previous relationship;
- other knowledge transfer benefits include enhancing existing products or policies and improving workforce skills.

## 7 QUANTITATIVE ECONOMIC IMPACTS

The quantitative impacts of the Making the Most of Masters programme are discussed below. The quantitative impact only represents a part of the overall impact of the programme, as some impacts cannot be quantified. The impacts that are quantified are:

- employment impacts to students;
- productivity impacts to employers;
- recruitment savings to employers; and
- benefits to universities.

### 7.1 Student Benefits

Student placements benefit students in a variety of different ways. They help students to gain confidence, maturity and motivation and also help to confirm their chosen career path.

These skills mean that graduates with an MMM project are likely to be even more productive when they first join the workforce.

#### 7.1.1 Employment by Placement Providers

The skills students gain while on placement are highly valued by employers and the result of this is that many placement students return to work for their placement provider after graduation. The experience gained by these students during their placement means that they are able to “hit the ground running” and start contributing to the employer’s business earlier than a less experienced graduate would be able to.

Our assumptions about economic benefits of being employed by the placement provider are shown in the table below. We have assumed an average graduate has a starting salary of £21,500 and takes six months to find a graduate job after finishing university. Our employer survey tells us that 21% of MMM placements are recruited by the placement provider<sup>6</sup>.

Table 7.1 – Student Benefit Assumptions

Average graduate starting salary	£21,500	Source: HESA - Statistical First Release 2010/11 for Scotland
Time taken to find grad job (Months)	6	Source: BiGGAR Economics Assumption
Proportion of graduates employed by placement provider	21%	Source: Survey

Table 7.2 shows how these assumptions are used to calculate economic impact. 21% of MMM placements convert to a job with the provider, which means that 21% of the students have 6 months of additional employment, not losing time seeking a graduate job. Given these assumptions, we can assume that a total of 120 jobs have been secured by MMM students during the lifetime of the project, providing increased earnings of £1.3 million, as shown in the table below.

<sup>6</sup> Source: Survey of employers and graduates for this study, May/June 2014

Table 7.2 – Student Benefit Assumptions

	Aberdeen	Edinburgh	Stirling	Total
Total Jobs from placements	63	44	13	120
Increased Earnings (£)	677,250	473,000	139,750	1,290,000

We must, of course, take account of the fact that our survey sample was very small. Therefore, it is difficult to predict with accuracy that 21% of all MMM graduates were *actually* employed by their placement provider. The table below shows the impact of a range of alternative scenarios, where 10% or 30% of graduates were successfully employed by the provider post placement to give a range. The impact is directly proportional to the percentage of graduates that are employed. Therefore if 10% of the graduates were employed the impact would be 57 jobs and an increase in earnings of £0.6 million and if 30% of the graduates were employed the impact would be 171 jobs and an increase in earnings of £1.8 million.

Table 7.3 – Student Benefit Assumptions – Employment Scenarios, whole project

	10% Graduates Employed	21% Graduates Employed	30% Graduates Employed
Total Jobs from placements	57	120	171
Increased Earnings (£)	612,750	1,290,000	1,838,250

## 7.2 Employer Benefits

Students benefit in a variety of different ways from undertaking a placement, but the experience of hosting a placement student also generates benefits for the placement provider. The benefits providers might gain from hosting a student include:

- impact of turnover from having a productive placement student in post, delivering valuable work, unpaid;
- recruitment savings - many companies use student placements as part of their recruitment process and will make recruitment cost savings if they subsequently employ the student; and
- knowledge transfer - the productivity of existing members of staff could be improved if staff learn something from the student while they are on placement.

### 7.2.1 Turnover Impact

We know how many placements there have been in each industrial sector (Table 4.1 above). GVA per employee per year for each sector is published by the ONS Annual Business Survey, which provides us with an estimate of GVA for each group of MMM students (by sector). We have made a set of assumptions to estimate the GVA produced by MMM placement students as follows, taking as a starting point the published GVA per employee:

- we have assumed that a placement student is 30% as productive as an employee;

- each placement student is in place for 12 weeks, 23% of the working year;
- our employer survey found that 39% of companies reported a “turnover impact” from hosting a MMM student (61% report no turnover impact and are discounted from our impact calculations).

Taking these assumptions into account, an estimate of GVA employment impact for MMM students is presented in the table below, which shows a direct GVA impact of £1.9 million. The strong employer impact in Aberdeen is a result of the dominance of Aberdeen’s life sciences and energy industry projects – both of these sectors deliver a high GVA per employee impact on the economy, as shown in the economic ratios by industry given in the Appendix.

Table 7.4– Outputs Benefits to Employers, by partner HEI and industry (£ GVA)

Direct GVA	Aberdeen	Edinburgh	Stirling	Total
Aerospace, defence and marine	30,075	-	-	30,075
Chemical Sciences	2,178	-	-	2,178
Construction	-	-	4,119	4,119
Creative Industries	-	4,477	-	4,477
Education	2,094	29,323	2,094	33,511
Energy	580,687	78,227	24,070	682,984
Financial Services	44,216	362,573	35,373	442,163
Food and Drink	-	2,782	1,391	4,173
Forest and Timber Technologies	-	-	1,127	1,127
HR	-	-	753	753
Life Sciences	368,309	135,408	178,738	682,455
Manufacturing	-	3,294	-	3,294
Marketing	14,133	1,767	1,767	17,667
Sport / Culture	-	26,115	-	26,115
Technology	7,802	1,951	3,901	13,654
Tourism	-	-	1,492	1,492
<b>Total GVA Impact</b>	<b>1,049,496</b>	<b>645,916</b>	<b>254,826</b>	<b>1,950,237</b>

To account for our small sample size, a range of scenarios around the 39% figure has been prepared to show the impact with 30% and 50% of companies showing a turnover impact. As with the Student Benefit scenarios the impact is directly proportional to the percentage of graduates that are employed. This shows that if 30% of the businesses had a turnover impact the additional GVA benefit to these businesses would be £1.5 million and if 50% of the businesses had a turnover impact the additional GVA benefit to these businesses would be £2.5 million.

Table 7.5– Outputs Benefits to Employers, Turnover Scenarios, whole project (£ GVA)

	30% Businesses with t/o impact	39% Businesses with t/o impact	50% Businesses with t/o impact
GVA Impact (£)	1,500,813	1,950,237	2,500,304

## 7.2.2 Recruitment Savings

Our survey analysis shows that 21% of employers go on to employ the MMM student. The Graduate Recruitment Survey asks employers the costs associated with finding a new graduate to fill roles within their companies. This found that the average cost of recruiting a graduate in 2012-13 was £1,922<sup>7</sup>. Therefore, MMM provides employment cost savings to the host employer. The value of these savings is shown in the table below, with a total employment benefit of £230,640.

Table 7.6– Employment Benefits to Employers

	Aberdeen	Edinburgh	Stirling	Total
Number of students employed	63	44	13	120
Recruitment Savings (£)	121,086	84,568	24,986	230,640

As with the other impacts based on assumptions from our employer survey, we have accounted for the small sample size and developed impact scenarios, where 10% or 30% of graduates were successfully employed by the provider post placement. This shows that if 10% of graduates had been employed the businesses would have saved £0.1 million in recruitment costs and if 30% of graduates had been employed by their placement provider the businesses would have saved £0.3 million in recruitment costs.

Table 7.7 – Employment Benefit Impact – Employment Scenarios, whole project

	10% Graduates Employed	21% Graduates Employed	30% Graduates Employed
Number of students employed	57	120	171
Recruitment Savings (£)	109,554	230,640	328,662

## 7.3 University Benefits

Benefits to Universities of MMM projects include a number of pedagogical and economic aspects. We have been able to develop a quantitative estimate of one of these.

Consultation and survey responses show that the availability of a MMM project is attractive to potential Masters Degree applicants. We have assumed that 50% of MMM candidates come to study that masters programme specifically because of the work based learning opportunity. The additional income to the University was assumed to be from the tuition fees charged to the students who chose that university due to the availability of the placement. It was assumed that the average postgraduate fees paid by the students were £7,529, which was the

<sup>7</sup> AGR, Graduate Recruitment Survey 2013



average for full time masters fees at the University of Edinburgh in 2013/14<sup>8</sup>. The total ratios of turnover/GVA and turnover/employment are taken from the HESA website.

Table 7.8– University Benefit Assumptions

Assumption	Value		Source
Proportion of students who chose Uni due to placement	50%		BiGGAR Economics Assumption
Average fees	£7,529		University of Edinburgh
	Aberdeen	Edinburgh	Stirling
Turnover per employee (£)	62,402	86,743	50,943
Turnover to GVA Ratio	71%	71%	71%

In this way it was possible to estimate the direct economic impact associated with the increase in the Universities' income. This is a total GVA impact of £1.5 million and a direct employment of 14 ftes in the Scottish economy.

Table 7.9 - Benefits to Universities Calculations

	Aberdeen	Edinburgh	Stirling	Total
Increased fee income (£m)	1.1	0.8	0.2	2.1
Increased GVA (£m)	0.8	0.6	0.2	1.5
Increased Direct Employment	8	4	2	14

## 7.4 Summary Quantitative Impact

Using assumptions from our employer survey, we estimate that in the two academic years 11/12 and 12/13, the Making the Most of Master programme contributed **£5 million GVA** to the Scottish economy and created **152 fte jobs**. The table below provides a breakdown of this.

<sup>8</sup> University of Edinburgh Post Graduate taught tuition fee rates, <http://www.ed.ac.uk/schools-departments/student-funding/tuition-fees/postgraduate/taught-fees> accessed 23/06/14

Table 7.10– Summary Quantitative Impact

	Aberdeen	Edinburgh	Stirling	Total
<b>Student Employment</b>				
GVA (£)	677,250	473,000	139,750	1,290,000
Jobs	63	44	13	120
<b>Student productivity on placement</b>				
GVA (£)	1,049,496	645,916	254,826	1,950,237
<b>Recruitment Costs Saved</b>				
GVA (£)	121,086	85,568	24,986	230,640
<b>University Competitiveness</b>				
GVA (£)	801,797	558,585	163,032	1,523,414
Jobs	18	9	5	32
<b>Total</b>				
<b>GVA (£)</b>	<b>2,649,628</b>	<b>1,762,069</b>	<b>582,594</b>	<b>4,994,291</b>
<b>Jobs</b>	<b>81</b>	<b>53</b>	<b>18</b>	<b>152</b>

The employer survey provided the assumptions about the proportion of graduates employed by the placement provider and the proportion of businesses that reported a turnover impact from the MMM project. These were used in our economic model to calculate the impacts shown in the table above. However, because of the small sample size, we have run a series of scenarios to show the impact of varying graduate employment and turnover impacts. The low and high impact scenarios include graduate employment by placement provider of 10% and 30% and turnover impacts of 30% and 50% in host businesses. These scenarios show the range of impacts that the Making the Most of Masters programme could create. The Low Impact scenario is for £3.7 million GVA and 89 jobs and the High Impact Scenario is for up to £6.2 million GVA and 203 jobs.

Table 7.11 – Total Impact Scenarios

Scenario	Low Impact	Middle Impact	High Impact
GVA (£)	3,745,900	4,994,291	6,190,630
Jobs	89	152	203

## 7.5 Commentary

Benchmarking the economic impact of a curriculum development project like MMM is not straightforward. There are a small number of studies from which comparisons may be drawn, although there are no standard approaches from which to take like for like comparisons. Rather, alternative reviews of the impact of other placement schemes provides a useful perspective on how other projects value the costs and benefits to employers, students and institutions.

### **7.5.1 The Impact of Graduate Placements on Businesses in the South West of England: a longitudinal study to run alongside the Graduates for Business Project<sup>9</sup>**

The Graduates for Business (G4B) programme was designed to enable higher education institutions (HEIs) in the South West to work with local employers to provide 'pump priming' funding to support a graduate placement scheme aimed to increase retention of graduates in the South West Region, to promote graduate recruitment among regional employers and to ensure that graduates were appropriately skilled and employed in suitable jobs that allowed them to use these skills effectively. HEIs in the South West were allocated funds to enable them to set up placement schemes or build on existing work experience programmes. An important objective of these programmes, along with other networking activities, was to increase contacts between HEIs and local employers, enabling employers to understand the benefits of employing graduates, and graduates to gain experience of graduate level work while enhancing their employability skills.

100 employers participated along with 52 graduates/undergraduates who had received placements.

Employers identified a range of benefits from the placements. 89% of employers were able to identify, if not quantify, some kind of impact on their organisation from having taken someone on placement. For our small MMM survey sample, 39% identified turnover impacts. If we replicated the South West findings, which is based on a much larger sample, the turnover impacts identified above for MMM would be considerably higher. There is a strong case, therefore, for the project to properly identify turnover impacts in each post-placement evaluation to provide robust data for future analyses.

Among the graduates and undergraduates who had been on placement, the most frequently mentioned benefit was gaining experience.

The benefits experienced by the HEIs focussed on the development of networks with local employers and the establishment of a culture of placement activity in institutions where this had not previously existed. Although there were few cases where the placement had established new links between the HEI and the employer, there was evidence that the placement played a role in cementing existing relationships and extending them into new areas of activity.

### **7.5.2 Department for Business, Innovation and Skills: Graduate Recruitment to SMEs<sup>10</sup>**

This study from 2012 focuses on graduate recruitment per se, however it identifies some measures of impact of relevance to MMM. It reflects on research undertaken by Graduates Yorkshire on the impact of an internship programme. The organisation suggested that participating businesses could attribute an additional turnover of £20,000 to the activities of the graduate. The authors advise that such figures need to be treated with a degree of caution because of the difficulties in quantifying the impact of graduates on business performance, particularly long-term impact on measures such as profitability and productivity. But they are indicative of the potential contribution of graduates to the

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<sup>9</sup>[http://www2.warwick.ac.uk/fac/soc/ier/publications/2010/atfield\\_et\\_al\\_2010\\_swrda.pdf](http://www2.warwick.ac.uk/fac/soc/ier/publications/2010/atfield_et_al_2010_swrda.pdf)

<sup>10</sup>[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/68936/bis-13-546-graduate-recruitment-to-smes.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/68936/bis-13-546-graduate-recruitment-to-smes.pdf)

performance of smaller businesses. In particular, if we were to replicate a standard turnover impact of £20,000 for the proportion of MMM employers that reported turnover impacts, our estimated turnover impact would be considerably higher.

### **7.5.3 Conclusion**

The reviews cited in the South West of England and in Yorkshire both suggest that the assumptions made in our assessment of employer impacts are within reason. Indeed, should the findings of those two studies be used to source assumptions for the economic impact analysis of MMM, the findings would show a considerably higher economic impact.

## 8 CONCLUSIONS

This study set out to answer a set of questions about the economic impacts of MMM. Impacts have been considered at three levels: for the graduate; for the employer; and for the HE institution.

A wide range of sources of economic impact have been identified. Some of these have been quantifiable, as described below. In total, these quantifiable impacts of MMM between 2011 and 2013 amount to **£5 million of GVA and 152 fte jobs** to the Scottish economy.

### 8.1 Graduate impacts

The economic impact of graduates being 'more employable' is created because they are employed sooner after graduation and are more productive once employed, with less need for training and with an ability to "hit the ground running". They may be more likely to enter high value sectors.

We can identify quantitative impacts for a small element of this graduate economic impact: benefits brought by being employed by the placement provider.

By being employed by their placement provider, a total of 120 jobs have been secured by MMM students during the lifetime of the programme, providing increased earnings of **£1.3 million**. Scenarios with alternative assumptions about the proportion of graduates employed have been developed, with estimates of increased earning of **£0.6 million** at the lower end of the scale and **£1.8 million** at the higher end.

### 8.2 Employers' Economic Performance

Employers can receive economic benefits from a range of areas. Engagement with MMM provides: 12 weeks of wage free labour; it reduces the costs and risks of recruitment; projects can impact on business efficiency and profitability; links with universities can lead to consultancy, CPD and knowledge transfer engagements; international students can help provide access to new international markets; and networks are created with other businesses, including international ones.

This is supported by survey evidence, which shows that MMM host employers reported employment impacts, cost savings and turnover impacts as a result of hosting an MMM work based project.

We have been able to provide an estimate of some of the quantitative economic impacts of these benefits of MMM.

An estimate of GVA employment impact for MMM students (12 weeks of wage free labour, with 39% of companies reporting a turnover impact in our survey) is **£1.9 million**.

Assuming that 21% of placement providers go on to employ their student (assumption from the employer survey), MMM provided employment cost savings of **£230,640**.

We have presented a set of scenarios with varying assumptions for placements offering jobs and for turnover impacts. These show that in the lower scenario MMM provided employment cost savings of **£109,554** and in the higher scenario the employment cost savings are of **£328,662**.

Comparing our assumptions and scenarios with studies from the South West of England and Yorkshire, suggests our assumptions are within reason and in fact may underestimate the level of turnover impact.

### **8.3 Universities' Competitiveness**

Universities create economic growth in many ways: they create exports, a fundamentally important aspect of economic success, attract foreign direct investment projects and support the wider economy by translating the outputs of their research and development into new products and processes for business.

MMM enhances the competitiveness of its host universities, contributing to their economic impacts through: improved student recruitment; deeper relationships between academics and businesses; creating early opportunities to translate research into business; networking across disciplines and between partner universities; and meeting universities' strategic priorities for external engagement.

The business survey shows that in the vast majority of cases, the MMM project has helped to maintain or establish a relationship with the University, a key first step in delivering the knowledge transfer agenda that is crucial to Government and institutions' strategic objectives. The survey also supports the evidence that MMM provides other knowledge transfer benefits include enhancing existing products or policies and improving workforce skills.

With the limited data available, the extent to which we can identify quantitative impacts for these benefits are also limited. We have assumed that 50% of MMM candidates come to study that masters programme specifically because of the work based learning opportunity. The fee impacts of this on the host universities lead to a quantitative economic impact of **£1.5m GVA and 14 fte jobs** in Scotland.

### **8.4 Implications for Future Evaluation of MMM**

Accurate assumptions are the key to ensuring future economic impact assessments of MMM are robust. This means that the project team should collect data from a large sample of employers, graduates and academic programme managers as a matter of course. Each placement should include a post-placement evaluation survey that captures data from the three stakeholders. Operationally, this could be a relatively straightforward exercise, with a standing web-based survey to which all participants are directed immediately the placement ends. Over time, the sample could include the majority of employers, graduates and programmes engaged.

The graduate and employer surveys used for this study would be a useful starting point for the project's post-evaluation surveys. These are included in the appendices.

Of course, the purpose of MMM is not only to create economic impact and so data collection should identify impacts related to the full range of MMM objectives.

### **8.5 Implications for the Extension and Growth of MMM**

The aims of MMM are not focussed on economic impact, although they do include an objective to ensure that projects are "of benefit to host organisations, whilst maintaining the levels of academic quality expected of postgraduate masters-level work" (See Section 2.1). This study has gone some way to

identifying and quantifying the benefits of MMM to graduates, employers and institutions. When planning for growth, the project managers should seek to maximise these benefits by ensuring that the drivers of economic impact are supported. A focus on these areas will also support the core objectives of the project. Project outputs that drive economic benefits measured in this study are:

- graduate employment impacts:
  - the proportion of graduates employed by the placement host business
  - the sector into which the graduate is employed
- business impacts:
  - turnover and cost saving impacts
  - knowledge transfer impacts (the development of new processes, procedures, products or markets)
  - recruitment impacts
  - increased instances of business/university interaction
- university impacts:
  - improved student recruitment
  - increased research contracts with businesses as a result of MMM relationships
  - other consultancy opportunities, e.g. CPD
  - better student experience

These are drivers that will be of considerable interest to employers, graduates and institutions, because they fulfil the needs and expectations of each group. In 'selling' the growing project to new participants, MMM's project managers should highlight the ways in which the project fulfils expectations by driving economic impact. With a focus on economic impact, there may also be scope to alter the way in which MMM sits in the institutional landscape. Currently it is steadfastly an academic curriculum development project. However, consideration should be given to whether it may fit elsewhere in the economic development and knowledge transfer agenda because of the impacts it creates from university/business interaction. For example

- Innovation Centres: the Scottish Funding Council launched the Innovation Centre programme in 2012 to support collaboration between universities and businesses. They support skills and training to develop researchers and knowledge exchange practitioners through masters and post-doctoral level provision. A potential role for MMM within the Innovation Centre model should be explored;
- Mini KTPs: there may be opportunities to align MMM projects with Knowledge Transfer Partnerships. So-called mini KTPs are appropriate to SMEs, with shorter projects than standard KTPs.

An understanding of the economic impacts and benefits of MMM may, therefore, allow the project to adopt a new place in Scotland's innovation system.

## 9 APPENDIX 1: STUDY CONSULTEES

Diane Gill, Student Projects Manager, University of Edinburgh Business School

Eunice J Atkins, Stirling Project Coordinator

Zac Hickman, Previous project coordinator (now careers service) Aberdeen

Frances Parry, MMM Project Coordinator Edinburgh

Caroline Pope, Postgraduate Placement Coordinator, University of Edinburgh School of Biological Sciences

Lucie Stokes, School of Social and Political Science

Alison Treacy, Employability Project Officer, University of Edinburgh



## 10 APPENDIX 2: STUDENT SURVEY OUTPUTS

Tracing past students is a challenge, because the email addresses used during their studies often become obsolete. Therefore, our student survey had seven responses. Its outputs provide some reflection on the benefits of the MMM project to students, but in no way should be considered representative, hence its position as an Appendix.

### 10.1 Sample

Four of our seven respondents were placed with a host organisation in Aberdeen, two were international (Africa and Asia) and one from East central Scotland. Five were oil and gas industry placements, one was agricultural and one was a community environmental charity.

### 10.2 Benefits

The benefits to students of undertaking a work based project in their Masters degree are reported as follows.

Table 10.1: Benefits to students

	Response Count
Helped to decide whether to work in this company	4
Helped to decide whether to work in this sector	6
Provided employment skills	4
Developed my academic skills in a real work situation	5

*n*=7

Students considered themselves to be more employable as a result of undertaking an MMM project. They were asked, on a scale of 1 to 5, how much more attractive to employers (more employable) they are because they have undertaken a Work Based Project (where 1 equals no more employable as a result of the project and 5 equals very much more employable as a result of the project). Six out of seven respondents scored 4 or 5.

Table 10.2: Students' perception of employability

Score	1 = no more employable	2	3	4	5 = very much more employable
Response (no.)	0	1	0	4	2

*n*=5

Two out of six respondents said that they were employed by their placement host, one was employed by another business/organisation, one was unemployed and one went on to further study. The starting salary of one was £20-25,000, with two on a starting salary of £25-30,000.

Asked what would have happened if they had not undertaken a Work Based Project during your masters degree, responses were as follows:

- It wouldn't have made a difference, I would be in the same position I am now, 1 respondent
- I would be unemployed, 1 respondent
- I would have found a lower paid job, 1 respondent
- I would have had fewer job options, 2 respondents

## 11 APPENDIX 3: ECONOMIC ASSUMPTIONS

Table 11.1– GVA per employee by industry

Industry	GVA/Employee
Aerospace, defence and marine	69,618
Chemical Sciences	80,675
Construction	50,847
Creative Industries	27,635
Education	15,515
Energy	111,435
Financial Services	327,528
Food and Drink	51,524
Forest and Timber Technologies	41,724
HR	27,906
Life Sciences	200,604
Manufacturing	61,002
Marketing	65,432
Sport / Culture	27,635
Technology	72,244
Tourism	27,635

Source: ONS, Annual Business Survey 2011, 2013

## 12 APPENDIX 4: EMPLOYER SURVEY

## 1. How we will use your information

The information you provide will form part of an assessment of the economic impact of the Making the Most of Masters Work Based Projects. The study will be shared with the Universities of Edinburgh, Stirling and Aberdeen and with other organisations with an interest in Higher Education projects like this. We will not transfer the information you provide to any other organisation. We may use your responses to identify projects which could provide useful lessons for the future of the project, however any personal or commercial information you may provide will be aggregated so that no individuals can be identified.

## 2. The impacts of the Masters placement on your business/organisation

We have a few short questions to help us identify what the economic impacts of Masters Work Based Projects might be. If you have hosted a number of Masters students, please choose your most recent project to answer questions about.

### 1. Details

Business/Organisation name

City/Town:

### 2. In which business sector does the business/organisation operate?

### 3. Type of business/organisation?

- Business - sole trader
- Business - micro enterprise (less than 10 employees)
- Business - SME (10-250 employees)
- Business - large (250+ employees)
- Other organisation (please describe)

### 4. We would like to know if there were any business benefits from hosting a Masters student. Was there any impact on the following? 1 = no impact and 5 = a transformative impact

1 No impact

2 A small impact

3 A noticeable impact

4 A strong impact

5 A transformative impact

Turnover

Can you quantify the impact? E.g. £ over 3 years, % difference

Cost Savings

Can you quantify the impact? E.g. £ over 3 years, % difference

Employment

Can you quantify the impact? E.g. £ over 3 years, % difference

**5. Has your involvement in the Masters project contributed to any of the following?**

- Maintained/established relationship with the University
- Development of new product/policy
- Enhancement of existing product/policy
- Development of new production process
- Enhancement of existing production process
- Licensing of new product
- Licensing of new production process
- Market entry
- Transfer of technology
- Enhanced market knowledge/ contacts
- Increased skills of workforce
- Additional funding
- Other (please specify)

**6. Did you employ your student after they had finished the placement?**

- Yes
- No

Other (please specify)

**7. Were there any benefits to your recruitment processes**

- Helped the company to decide whether a new recruit was necessary
- Reduced the risk of recruiting an unknown candidate
- Provided a more productive recruit
- Saved investment in training/induction

Other (please specify) of please explain

**8. Were there any other business benefits that we haven't listed?**

**9. How would you describe your business'/organisation's relationship with the University before you became involved with Making the Most of Masters? (please tick all that apply)**

- Prior to this involvement, we had no relationship.
- We had only a limited relationship
- We had a close relationship/ regular collaboration
- We have tried to establish a relationship in the past with no success

Please provide details

**10. As a result of participating in this project, have your perceptions of working with the University in general changed?**

- Yes, I am much more positive about the benefits of working with the University than I was before.
- Yes, I am a little more positive about the benefits of working with the University than I was before.
- No, my perceptions have not changed.
- Yes, I am a little less positive about the benefits of working with with the University than I was before.
- Yes, I am much less positive about the benefits of working with the University than I was before.

**11. Have there been or do you expect there to be any wider benefits as a result of hosting this project? (e.g. to the organisation/business, the sector or society)**



### 3. Thank you!

Thank you for completing this survey and for your assistance with our assessment of the impacts of our Making the Most of Masters project.

## 13 APPENDIX 5: GRADUATE SURVEY

# Making the Most of Masters - Student Survey

## 1. How we will use your information

The information you provide will form part of an assessment of the economic impact of the Making the Most of Masters Work Based Projects. The study will be shared with the Universities of Edinburgh, Stirling and Aberdeen and with other organisations with an interest in Higher Education projects like this. We will not transfer the information you provide to any other organisation. We may use your responses to identify projects which could provide useful lessons for the future of the project, however any personal or commercial information you may provide will be aggregated so that no individuals can be identified.

# Making the Most of Masters - Student Survey

## 2. The impacts of the Masters placement on your company/organisation

We have a few short questions to help us identify what the economic impacts of Masters Work Based Projects might be.

### 1. What business/organisation were you placed with?

Organisation/Company name

City/Town:

### 2. When did you do your Work Based Project?

- Academic Year 11/12
- Academic Year 12/13

### 3. In which business sector does the business/organisation operate?

### 4. What type of business/organisation was your placement with?

- Business - sole trader
- Business - micro enterprise (less than 10 employees)
- Business - SME (10-250 employees)
- Business - large (250+ employees)
- Don't know
- Other organisation (please describe)

### 5. What were the benefits to you of doing a Work Based Project in your Masters degree? Tick all that apply.

- Helped to decide whether to work in this company
- Helped to decide whether to work in this sector
- Provided employment skills
- Developed my academic skills in a real work situation

Other (please specify) of please explain

# Making the Most of Masters - Student Survey

**6. On a scale of 1 to 5, how much more more attractive to employers (more employable) are you because you have undertaken a Work Based Project? Where 1 = no more employable as a result of the project and 5 = very much more employable as a result of the project.**

1 = no more employable

2

3

4

5 = very much more employable



Use this space to explain or clarify if you wish

**7. What happened after you finished the project?**

- I was employed by my placement host business/organisation
- I was employed by another business/organisation
- I was unemployed
- I went on to further study

Other (please specify)

**8. If you were employed (by your project host or elsewhere), what was your starting salary?**

- Under £10,000
- £10,000 to £15,000
- £15,000 to £20,000
- £20,000 to £25,000
- £25,000 to £30,000
- £30,000 to £35,000
- more than £35,000

Other (please specify) or please explain

**9. If you are employed, are you working full time or part time?**

- Full time
- Part time

Other (please specify)

# Making the Most of Masters - Student Survey

## 10. What would have happened if you had not undertaken a Work Based Project during your masters degree?

- It wouldn't have made a difference, I would be in the same position I am now
- I would be unemployed
- I would have found a lower paid job
- I would have had fewer job options

Other (please specify)

## 11. Did your project contribute any of the following to your host business/organisation?

- Maintained/established relationship with the University
- Development of new product/policy
- Enhancement of existing product/policy
- Development of new production process
- Enhancement of existing production process
- Licensing of new product
- Licensing of new production process
- Market entry
- Transfer of technology
- Enhanced market knowledge/ contacts
- Increased skills of workforce
- Additional funding
- Other (please specify)

## 12. Do you think there were any benefits to your host business/organisation from hosting a Masters student? Do you think there were any impacts on the following?

	1 No impacts	2 A small impact	3 A noticeable impact	4 A strong impact	5 A transformative impact
Turnover	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cost Savings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Employment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Other (please specify)

## Making the Most of Masters - Student Survey

**13. Were there any other benefits to you or the business/organisations that we haven't listed?**

**14. Have there been or do you expect there to be any wider benefits as a result of your work based Masters project? (e.g. to the organisation/business, the sector or society)**

# Making the Most of Masters - Student Survey

## 3. Thank you!

Thank you for completing this survey and for your assistance with our assessment of the impacts of our Making the Most of Masters project.