

**Evaluation of the Developing
Employer Engagement Programme
and the Knowledge Transfer Grant**

Three Year Report

Scottish Funding Council

Evaluation of the Developing Employer Engagement Programme and the Knowledge Transfer Grant Three Year Report Scottish Funding Council

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Executive summary

This report covers a three year formative evaluation of the Developing Employer Engagement Programme (DEEP) and Knowledge Transfer Grant (KTG) programmes for the Scottish Funding Council.

The College perspective

Colleges fed back that the key areas for them in the development of knowledge transfer and employer engagement were:

- course development
- business engagement activities
- research & development
- facilities rented out
- consultancy work

The number of employers engaged with has increased across the three years of the evaluation, with colleges saying that DEEP and KTG funded activities have been important in bringing this about. Although the generation of income was not an original objective of the DEEP and KTG funds, they have had a positive effect on commercial income generated by colleges.

A significant majority of colleges anticipated that they would continue with most or even all of the activity that had come about as a result of the DEEP and KTG funding. This is extremely encouraging, in light of the fact that a fair proportion of this activity was thought to be additional to what would have happened without funding. Importantly for the evaluation of the DEEP and KTG funds, 74% of colleges felt DEEP and KTG were 'very important' or 'important' in bringing about this sustainable activity.

Employer perspective

Employer perception of how well Scotland's colleges are promoted has been mixed across all three years, with the largest proportions indicating indifference to the way that Scotland's colleges promote themselves. Although this should be taken in the context that most college marketing tends to be aimed at potential students, the fact that these employers are mostly college clients raises issues about college promotion generally. However, colleges were also perceived to be approachable.

Perceptions of college services were mostly positive. Employers were particularly positive regarding CPD, range of courses and use of college facilities, with a majority of employers indicating these services were good or very good. Findings show that the largest proportion of employers who worked with colleges were those that initiated the work themselves.

Using colleges to undertake CPD remained the most common activity throughout the evaluation. The only two areas that increased were in consultancy and in contract R&D. As the KTG fund was aimed at this type of activity this is a positive outcome. The vast majority of companies across all 3 years indicated that it took them less than 6 months to set up activity with colleges and this was seen as a positive by employers.

The greatest proportion of employers had well established relationships with colleges, having worked with them for more than 5 years. This proportion decreased year on year perhaps reflecting the work colleges have been conducting to engage new organisations, particularly small businesses. The majority of employers across all years indicated that they planned to work with a college again in the next 3 years.

Impact

240 companies were surveyed over the three years of the survey – 49 in year 1, 54 in year 2 and 137 in year 3 (Table 4.1). Of these, 32% had 250 or more employees in Scotland, 21% had 50-249, 23% had 10-49 and 25% had 1-9.

Net employment in the Scottish economy resulting from college: employer engagement was estimated in the three surveys as follows:

- year 1 survey – 268 net jobs or 5.5 per firm
- year 2 survey – 118 net jobs or 2.2 per firm
- year 3 survey – 106 net jobs or 0.8 per firm

Net GVA impact in the Scottish economy resulting from college: employer engagement was estimated in the three surveys as follows:

- year 1 survey – £11.0m PV over three years or £74k per firm
- year 2 survey – £9.1m PV over three years or £56k per firm
- year 3 survey – £4.1m PV over three years or £10k per firm

It is possible to aggregate the economic impact recorded across the three evaluations because there was almost no client duplication – each survey sample contained different companies. In 2008, net employment impact was estimated at 253, 120 and 103 jobs respectively for the year 1, 2 and 3 surveys. **This suggests that net employment attributable to the programmes in that year could have reached 476 net jobs.**

Net GVA impact can be aggregated across the three surveys to cover the five year period 2006-10. This suggests that over the five year period 2006-10, £23.65m (PV) of net GVA impact could be attributable to the college employer engagement programmes. **This is an average of £4.73m net GVA (PV) per year.**

These impacts are almost certainly underestimating the true impact of the programmes as estimates are not grossed up and are not extrapolated beyond three years. Despite this present significant impacts to the Scottish economy.

Conclusions

The overall conclusions that emerge from the findings are:

- the DEEP and KTG programmes have resulted in tangible benefits to the Scottish economy in the shape of jobs, increased turnover for employers and ultimately in generating GVA
- the on-going operational activity and strategic direction of colleges is demonstrating that the positive effects of the DEEP and KTG programmes are sustainable

Specific conclusions against the objectives that were set for the evaluation are:

- The programmes demonstrate significant impact to the Scottish economy
- The good practices in colleges that the programmes supported will continue
- The programmes allowed the colleges to do things sooner than expected or to do more of an activity to a higher quality
- The programmes gave colleges the space and opportunity to make real progress in tackling barriers and resolving issues
- Employers that work with colleges appreciate and value the services they get

1 Introduction

This report covers a three year formative evaluation of the Developing Employer Engagement Programme (DEEP) and Knowledge Transfer Grant (KTG) programmes for the Scottish Funding Council. A detailed report is available for each of the three years of the evaluation. The evaluation was designed to record, monitor, feedback and also to actively engage with the programmes, understand how they operate, draw learning from experience and identify development needs that would help improve their future performance.

This report is not designed to duplicate the individual reports that were delivered each year, it is to consider the changes that have occurred year on year and to present conclusions on the value of the DEEP and KTG programmes.

1.1 The DEEP/KTG programmes

In recognition of the changing expectations of Scotland's Colleges, the Scottish Funding Council (SFC) created two streams of funding to help colleges build capacity to support social and economic development by engaging with public and private sector organisations. The funds (£2m per programme per annum) were originally made available over three years from 2007/08 to 2009/10 and are:

- Developing Employer Engagement Programme (DEEP) – focusing on skills and learning needs and development for businesses and employees
- Knowledge Transfer Grant (KTG) – looking at how college knowledge and intellectual assets can be used to improve business products and processes

The overall purpose of both streams of funding is to help the college sector support social and economic development by building capacity to engage with public and private sector organisations. The employer engagement strand is focused on meeting the skills and learning needs of businesses and individuals in the workforce. The knowledge transfer strand is focused on generating effective knowledge exchange using the intellectual assets from colleges.

On the back of positive outcomes from the DEEP/KTG funding streams it was proposed that the funding should be extended into 2010/11. This materialised in the form of one budget stream of an additional £1m into the sector that was consolidated into college budgets.

1.2 Evaluation objectives

The specific objectives for the evaluation over three years were to:

- prepare a periodic overview over the three years of the evaluation of the use that colleges have made of the DEEP and KTG funds (including a suite of case studies)
- develop appropriate, unambiguous evaluation criteria and impact measures for the purposes of evaluating the programmes as a whole, and for the colleges to use for the purposes of internal self-evaluation
- provide objective formative input to the SFC and the sector on the progress and effectiveness of the programmes, including the sustainability of college activity after the period of funding which ends in summer 2010
- provide a summative assessment of the effectiveness of the programmes including the effectiveness of the approach that the SFC has adopted, the direct and indirect benefits generated, and observations on the future sustainability of the approaches developed and implemented

- provide an assessment of employers' perspectives on the range of college services and their effectiveness and, through case study and sampled analysis, an assessment of factors for successful practice and barriers to this
- support college good practice development during the period of funding by identifying, showcasing and disseminating good practice including the development of typologies of approach and a framework for college development that fits the diversity of the sector

1.3 Method of work

The method of work was flexible to ensure that changing circumstances impacting on colleges and on the economic environment was taken into account. However, in the key areas for the evaluation the same broad approach was followed regarding:

- an employer survey
- a college survey
- college interviews

Whilst these changed to fit with circumstances, every attempt was made to keep differences to a minimum to enable progress to be measured.

In year one a monitoring and evaluation framework was developed that was followed throughout each year. In addition to this in year one a set of competencies was developed. These were in line with the critical skills required to deliver employer engagement and knowledge transfer and a maturity model was created to support colleges to measure progress and assess any gaps in their approaches.

In year two, college case studies were compiled to demonstrate ways that colleges were implementing employer engagement and knowledge transfer strategies.

Developing the evaluation further in year three became challenging as the funding structure had changed and colleges were immersed in developing strategies to meet the implications of the public spending review.

2 The College perspective

In each of the three years that the evaluation covered, colleges were asked to complete a questionnaire regarding the ways that they used the DEEP/KTG funds and how it impacted on the way that they operated. This was backed up each year through a series of face to face interviews with senior staff to understand any strategic implications that this was having and whether positive change was sustainable because of the activity that was being supported.

2.1 Internal organisational arrangements

Over the three year period of the evaluation, colleges have been asked to describe the internal processes and means of incorporating employer engagement and knowledge transfer in their everyday operations. One of the most prominent areas where monies were spent was on bringing in extra staff to carry out specific duties around employer engagement – in year 1, 43% of colleges used the funds to do just that. The changing funding environment and greater emphasis on colleges to work more closely with employers and to actively engage in commercial activity has, along with the targeted funding for DEEP and KT, encouraged a change in attitude from the college sector as a whole.

The first year of the evaluation highlighted that the majority of colleges were still formalising their approach to commercial activity. By year 2, more colleges had begun to formalise their approaches to employer engagement and knowledge transfer and were either led by a specific department or carried out across most academic departments. It became apparent in year 2 that colleges were not really differentiating between DEEP and KT funds or activities and that both, being viewed as complementary, were combined (91% of colleges).

The majority of colleges have worked to formalise their KT and employer engagement activity, ensuring that each academic department has a focus on commercial opportunities and the development of industry focused courses. Some colleges have set targets for achieving levels of commercial income and contact with employers and have tasked their academic department/faculties with achieving these. The majority of colleges (55%) have separate business development teams who source companies to engage with and academic staff are responsible for development and delivery of bespoke training. Formal processes including account management arrangements are now in place across many colleges.

2.2 Activity

College activity, in terms of employer engagement and knowledge transfer, has developed over the 3 year period, focussing predominantly on:

- course development
- business engagement activities
- research & development
- facilities rented out
- consultancy work

2.2.1 Course development

In year 1, colleges were developing links with sector skills councils to understand the needs of businesses and their requirements in terms of short courses or distance learning. Some had started to offer bespoke training and e-learning opportunities. By year 2, there was still a big difference across colleges in terms of their activity.

Most were continuing to develop relationships with industry and umbrella organisations and were focusing on developing new curriculum areas to meet the needs of emerging sectors (renewable energy being a common one). At this point, 73% of colleges stated that new areas of the curriculum had been developed as a direct result of KTG and DEEP funding. By year 3, 91% of colleges were delivering bespoke courses for employers and 79% stated that they actively develop the college curriculum to respond to the emerging needs of employers.

2.2.2 Business engagement activities

Colleges have been largely proactive in engaging local businesses, with many offering business forums and business breakfasts where local employers have an opportunity to learn how their local college can help them develop their business and their staff. By year 3, almost half of the colleges were actively working with businesses to improve their performance and efficiency. Many colleges have also increased the number of placement or secondment opportunities for their staff and students to go out into industry, through local businesses and for local businesses to offer staff the opportunity to gain a placement in the college. There has been a surge in the production of employer focused marketing activity, with 82% of colleges driving this forward by year 3.

2.2.3 Research & Development

This was prominent in year 1 when colleges were looking at models for delivering CPD and business support. In year 2 there was a greater focus on using research to understand which industry sectors would be most appropriate and beneficial to focus on. Many colleges were looking for niche markets and needed to understand their local business environments well. By year 3, knowledge transfer partnerships were being established and formal relationships with Higher Education Institutes have been developed by at least 3 of the colleges.

2.2.4 Facilities rented out

Although this is not a major feature of the employer engagement activity within colleges, the renting out of conference and work space to businesses has been a significant change for some colleges. Those with new campus facilities have particularly benefited from being able to offer state of the art spaces for commercial use. By year 3 over 50% of colleges reported that renting out college facilities contributed to their KT activity.

2.2.5 Consultancy work

From year 1, consultancy has been an element of activity that has been facilitated by the DEEP and KTG funds. Colleges have benefitted from having extra capacity to bid for consultancy work and have had success in securing contracts with local authorities and HE partners. By year 3, almost 40% of colleges reported that consultancy formed a significant element of their KT activity.

All new activities emphasise that colleges have developed a greater sense of commercial awareness and that college staff are now much more adept at engaging the business community and making them aware of what colleges have to offer.

2.3 Number of employers colleges engage with

The number of employers engaged with has increased across the three years of the evaluation, with two thirds of colleges saying the number has increased 'significantly', and the remaining third (bar one college) saying that the number has increased slightly. Some colleges were willing to give indicative increases, ranging from 10 more companies, up to 300 more, or increases of between 10% and 20% in total.

College contacts believe that DEEP and KTG funded activities have been important in bringing about any increase in the numbers of employers engaged with: 7% felt that the increases in the number of employers engaged with were 'completely' as a result of funded activities, and 35% felt they were 'mostly' responsible. Another 52% recognised that DEEP and KTG were at least 'partly' responsible for increasing the number of employers the college works with.

2.4 Ways of engaging

A common thread across the three years of the college survey is colleges becoming more targeted and focused on the ways in which they engage with businesses. For example, many colleges used some of the funding to introduce CRM systems. These allow efforts to be focused on particular sectors, or companies that fit with niche activities and specialisms within colleges. Colleges can link up core and non-core activity better, maximising 'cross-selling' opportunities. In year 3 of the survey, many colleges reported a move away from mass-marketing into tele-marketing of targeted employers. This seems a natural progression after taking on additional staff and implementing the relevant systems.

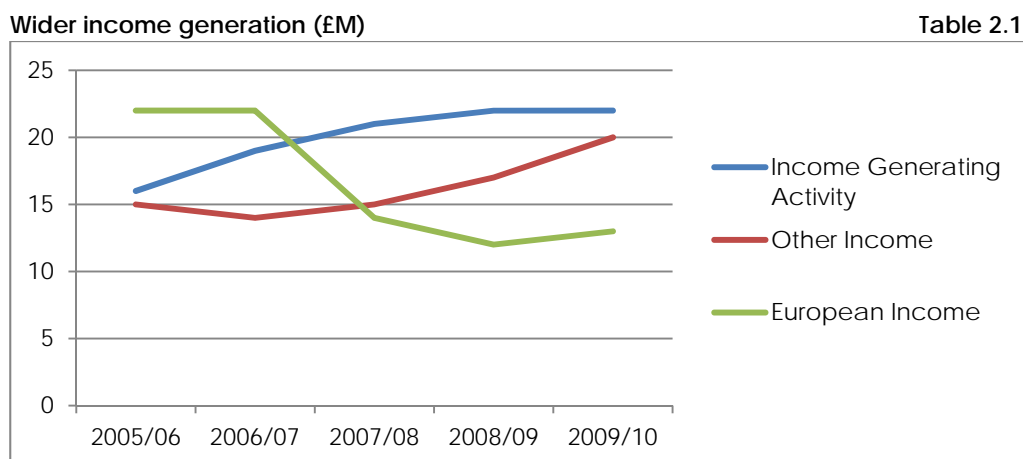
2.5 Income

Although the generation of income was not an original objective of the DEEP and KTG funds, they have had a positive effect on commercial income generated by colleges:

- **in year 1**, almost all colleges (97%) reported that DEEP and KTG funding led to increased levels of income - primarily from course provision, taking on new part time students, renting out of college facilities and consultancy work. Colleges recognised the influence that funds had had on bringing about new courses in particular and this is where the increase in income had mainly come from
- **in year 2** just over half of respondents (53%) said that the college had seen an increase in the past year in the amount of income generated through company engagement. Colleges with less positive results pointed to the deepening recession. Where there had been an increase in income, the funds were important in bringing this about: increases were 'partly' due to the DEEP and KTG funds in 65% of cases, 'mostly' in 20% of cases and 'completely' in 5% of cases
- **in year 3** a similar level of over half of colleges saw an increase in the income generated through working with employers. The increase in income is encouraging, particularly set against a backdrop of squeezed budgets, and a number of colleges suggested that sustained efforts are paying off. 43% said that the increase was 'partly' due to the funding and associated activities, 29% said 'mostly' and 5% said 'completely'

2.5.1 Wider income

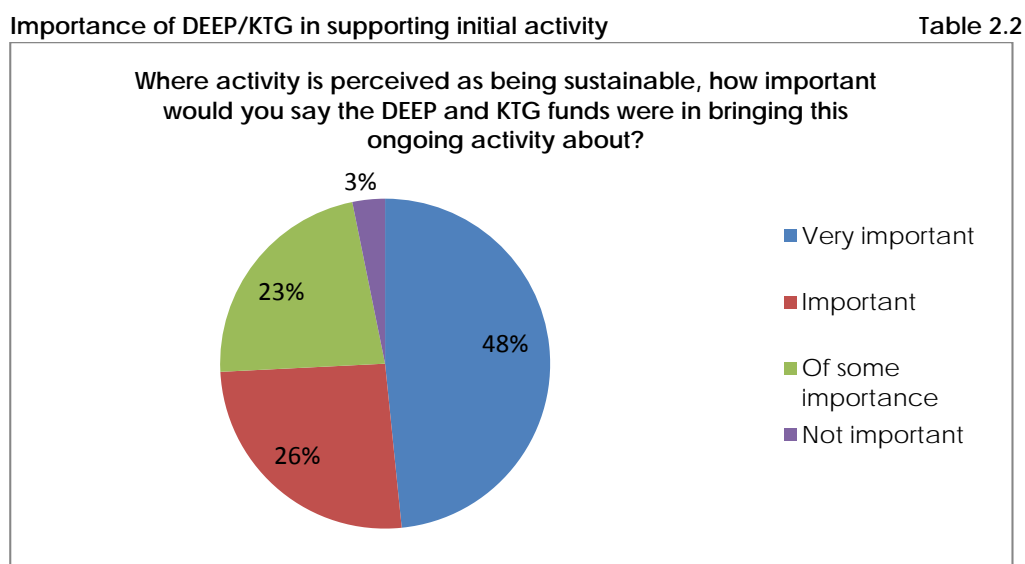
Table 2.1 shows that college income from other routes has increased, whilst income from EC funds has fallen. Whilst it is impossible to allocate precisely the contribution being made by DEEP and KTG funding, it is presumed by many colleges that the support that has come from these funds has helped to replace the income that had become less readily available from the EC.



2.6 Impact of funding and sustainability of activity

A significant majority of colleges anticipated that they would continue with most (61%) or even all (19%) of the activity that had come about as a result of the DEEP and KTG funding. This is extremely encouraging, in light of the fact that a fair proportion of this activity was thought to be additional to what would have happened without funding.

Importantly for the evaluation of the DEEP and KTG funds, 74% of colleges felt DEEP and KTG were 'very important' or 'important' in bringing about this sustainable activity.



It is recognised that although the DEEP and KTG funds were not excessive, they have enabled colleges to invest greater resources in their approach to employer related and commercial activity. Instilling attitudinal change in staff has taken time, but having the capacity to free up resources to initiate this change has been invaluable. Colleges recognise the need to work more collaboratively and the impact of the recession has heightened their awareness of the need to work with employers to generate supplementary income as public budgets tighten.

2.7 College development

An important element of the evaluation was to look at the competencies involved in working with, and delivering to an external market. One indication of this was feedback from the colleges and another was the use of a maturity model. A copy of the competency framework and the maturity models for each of the three years of the evaluation are set out in appendices 2 and 3 respectively. The competency areas are:

- information and communication
- relationships
- project management
- commercial interface
- decisions making
- leadership
- performance and results

Below are the 'rolled up values' that the maturity models produced over three years across the seven disciplines:

Table 2.3

Maturity statement	Basic	Developing	Performing	Best in class
2009	13%	39%	33%	15%
2010	6%	26%	52%	16%
2011	0%	23%	56%	21%

Taken at face value the models show year on year progress. The two left hand columns, where colleges see themselves as either basic or developing have both shown a downward trend over the three years. The two right hand columns, where colleges see themselves as either performing or best in class, have both shown an upward trend over the three years. An appraisal of the year on year differences in each discipline is set out in the three annual evaluation reports.

The maturity model should not be seen as a tool to measure 'good' or 'bad' performance. It should be used to track on-going development and identify areas for action and improvement on the route to 'best in class' performance. This is a subjective process and those completing the model will have applied different levels of soft or harsh 'marking'. Maturity models reflect college behaviour in their specific environments, rather than quantitative measures. Although we have rounded up figures from colleges, the model is at its most effective if used by individual colleges to monitor and manage their own progress.

The figures are not so dramatic as to appear 'stage managed', but they do suggest that genuine progress is being made and that this is a steady progress. The results shown in the maturity model tables are backed up by the feedback received from colleges and from employers throughout the evaluation period.

3 Employer perspective

In each of the three years, colleges were asked to provide a list of employers that could be approached to give feedback on their experience in dealing with colleges. This section sets out:

- the types of employers that gave feedback
- their perception and view of colleges
- what employers did with colleges
- what employers expected to do in the future with colleges

3.1 Types of employers

Findings from years 1 to 3 show that companies engaging with colleges come from a diversity of business sectors, with less than 7% variation in year to year findings.

Table 3.1

Sector	Year 1	Year 2	Year 3
Agriculture, forestry and fishing	3%	7%	2%
Mining and quarrying	0%	0%	0%
Manufacture	17%	19%	13%
Utilities	4%	0%	0%
Construction	5%	6%	6%
Wholesale and retail	0%	1%	4%
Hotels and restaurants	5%	3%	3%
Transport and communications	3%	2%	2%
Financial services	2%	1%	3%
Business services	5%	4%	10%
Public services	10%	11%	6%
Health & social work	11%	15%	11%
Other Services (please specify)	37%	32%	40%

Around 60% of responses came from private sector organisations.

Table 3.2

Sector	Year 1	Year 2	Year 3
Public sector/not for profit	41%	46%	32%
Private sector	59%	54%	68%

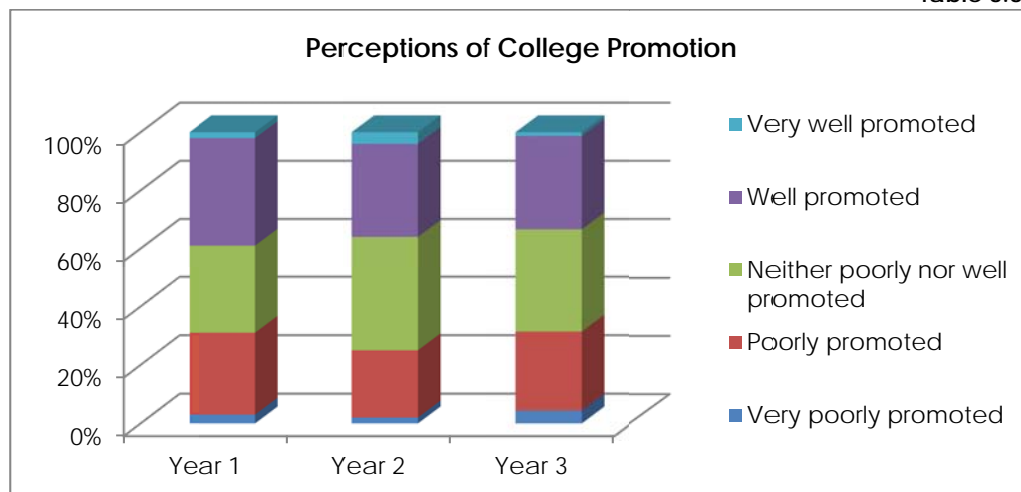
The proportion of large companies - with more than 250 employees - in the survey was 32% over the three years. This proportion dropped from 57% in year 1 to 26% in Year 3. The Year 1 figure reflects the strength of relationship colleges have with larger employers and the proportional reduction may in part be because colleges were asked to prioritise SMEs as the target audience for the evaluation.

The majority of employers engaging with colleges have been trading for more than 10 years. This proportion decreased year on year with a greater proportion of younger companies being engaged in year 2, and an even greater proportion in year 3.

3.2 Employers view of colleges

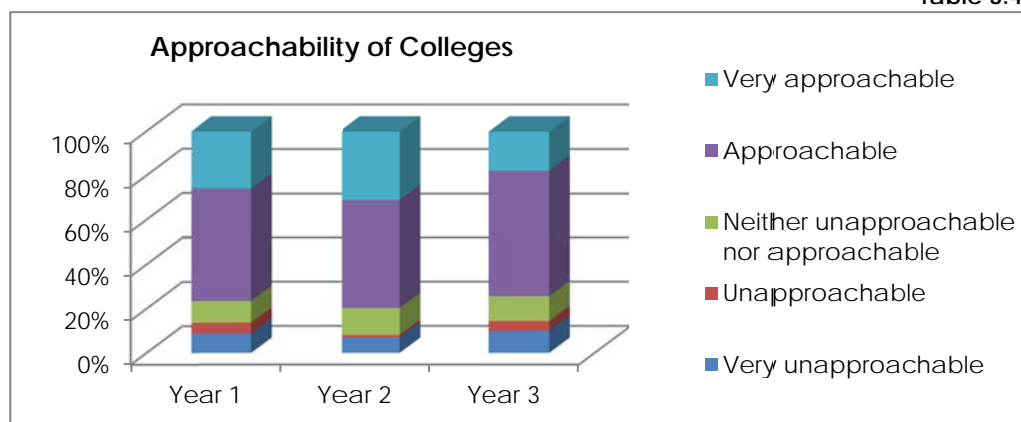
Organisations' perceptions of how well Scotland's colleges are promoted have been mixed across all three years, with the largest proportions indicating that Scotland's colleges neither promote themselves poorly nor well.

Table 3.3



Although this should be taken in the context that most college marketing tends to be aimed at potential students, the fact that these employers are mostly college clients raises issues about college promotion generally. However, colleges were also perceived to be approachable as demonstrated in table 3.4.

Table 3.4



Perceptions of college services were mostly positive. Respondents were particularly positive regarding CPD, range of courses and use of college facilities, with a majority of respondents indicating these services were good or very good. Perceptions of most services were lowest in year 3. This is thought to be because the colleges had still to build the relationship that they enjoyed with the earlier cohorts of employers. Findings show that the largest proportion of respondents who worked with colleges were those that initiated the work themselves.

3.3 Employers activity with colleges

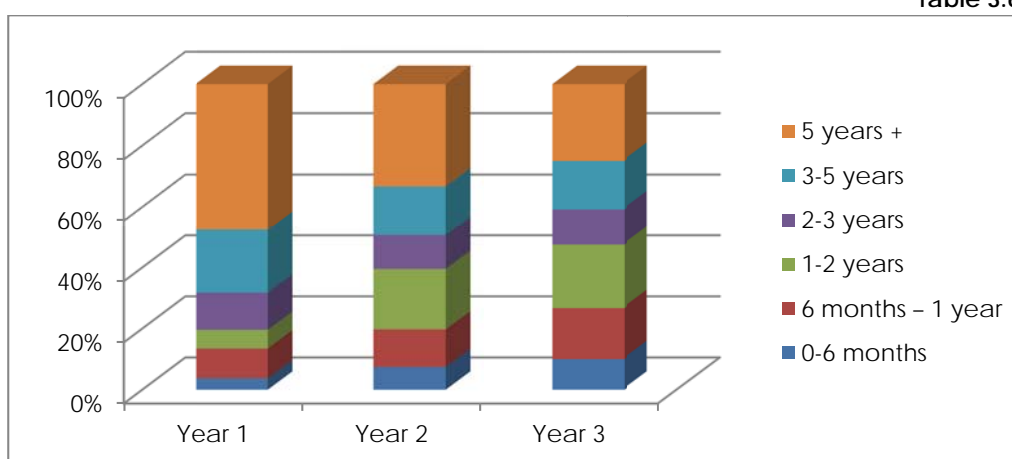
Using colleges to undertake CPD (Continuing Professional Development) remained the most common activity throughout the evaluation. The dip in numbers across all activities must be assumed to be that employers were being more specific about the type of activity they undertook with colleges as the evaluation progressed. Interestingly the only two areas that increased were in (non-training) consultancy and in contract R&D. As the KTG fund was aimed at this type of activity this is a positive outcome. The vast majority of companies across all 3 years indicated that it took them less than 6 months to set up activity with colleges and this was seen as a positive by employers.

Table 3.5

Which of the following activities have you worked with a college on?	Year 1	Year 2	Year 3
Continuing professional development	73%	65%	52%
Consultancy services (training related)	20%	19%	15%
Consultancy services (non training)	6%	9%	11%
Contract R&D	0%	0%	2%
Business development	21%	17%	19%
Student placements	39%	44%	25%
Student recruitment	17%	20%	9%
Use of college facilities	44%	31%	31%
Engaged with departments on course	44%	21%	20%
Engaged with staff on staff development	25%	19%	10%
Other (please specify)	12%	17%	10%

The greatest proportion of respondent employers had well established relationships with colleges, having worked with them for more than 5 years. This proportion decreased year on year however, with more new engagements perhaps reflecting the work colleges have been conducting to engage new organisations, particularly small businesses.

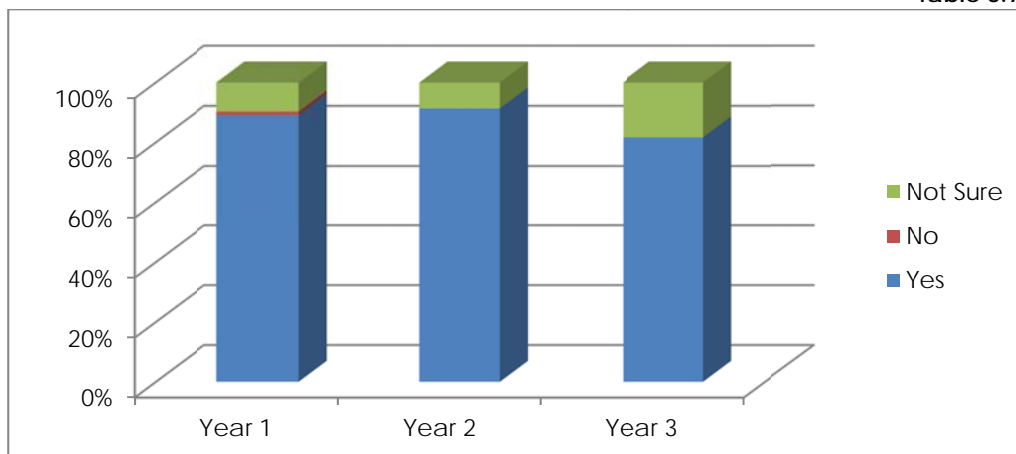
Table 3.6



3.4 Looking forward

The majority of respondents across all years indicated that they planned to work with a college again in the next 3 years. A greater proportion of respondents in year 3 were, however, unsure if they would engage with colleges in the near future.

Table 3.7



The largest proportion of those who planned to go on to do further activity with colleges mainly planned to do CPD and staff training, and also staff placements.

Table 3.8

What activity/activities can you see the company engaging with a college on?	Year 1	Year 2	Year 3
None	4%	1%	3%
CPD	31%	35%	29%
Sending staff on non CPD/skills training	51%	44%	50%
Buying in specialist consultancy services	16%	17%	16%
Buying in specialist consultancy services	8%	4%	6%
Buying in external research	2%	3%	3%
Buying in specialist business	2%	5%	6%
Take students on work placements	37%	44%	41%
Engaging with a college employer	48%	31%	27%
Other (please specify)	14%	11%	18%

4 Three Year Impact Review

4.1 Profile of company respondents by survey year

240 companies were surveyed over the three years of the survey – 49 in year 1, 54 in year 2 and 137 in year 3 (Table 4.1). Of these, 32% had 250 or more employees in Scotland, 21% had 50-249, 23% had 10-49 and 25% had 1-9.

The year 1 survey was characterised by a high proportion of firms with 250 or more employees – 57%; this dropped to 22% in year 2 and 26% in year 3. Conversely the year 3 survey had a higher proportion of the smallest firms – 32%, than the year 2 (19%) and year 1 (12%) surveys. The size profile of companies surveyed changed from year 1 to year 3, therefore, from bigger to smaller companies.

Companies surveyed by size of company, Years 1 to 3 **Table 4.1**

	Year 1		Year 2		Year 3		Total	
	Survey	%	Survey	%	Survey	%	Survey	%
1-9	6	12	10	19	44	32	60	25
10-49	6	12	11	20	37	27	54	23
50-249	9	18	21	39	20	15	50	21
250+	28	57	12	22	36	26	76	32
Total	49	100	54	100	137	100	240	100

Source: Frontline company surveys

4.2 Proportions attributing impact

24% of companies believed that their employment would have been lower if they had not engaged with their college (Table 4.2); 13% quantified this employment benefit. That a quarter of all firms believe that college engagement has had a positive effect on their employment is encouraging.

The proportions attributing and quantifying an employment impact in the year 1 survey – 43% and 22% respectively – were higher than in the year 3 survey – 15% and 9% respectively.

20% of companies believed that their turnover/ GVA¹ would have been lower if they had not engaged with their college; 13% quantified this turnover/ GVA benefit. As with the employment impact, it is encouraging that a fifth of all firms believe that college engagement has had a positive effect on their turnover/ GVA.

The proportions attributing and quantifying a turnover/ GVA impact in the year 1 survey – 33% and 12% respectively – were higher than in the year 3 survey – 15% and 9% respectively.

¹ GVA is gross value added which is a measure of wealth production in the economy. It is the value which companies add to things they purchase in order to produce goods or services which they sell. It is equal to turnover less the cost of bought in goods and services, or staff costs plus operating profit plus depreciation plus amortisation

Companies attributing and quantifying impact, Years 1 to 3

Table 4.2

	Number of Companies			% of Companies	
	Attributing Benefit	Quantifying Impact	Total	Attributing Benefit	Quantifying Impact
Year 1					
Employment	21	11	49	43	22
Turnover/ GVA	16	6	49	33	12
Year 2					
Employment	16	8	54	30	15
Turnover/ GVA	13	9	54	24	17
Year 3					
Employment	21	13	137	15	9
Turnover/ GVA	20	16	137	15	12
Total					
Employment	58	32	240	24	13
Turnover/ GVA	49	31	240	20	13

Source: Frontline company surveys

4.3 Net employment, turnover and GVA impact

Net economic impact attributable to the programme has been estimated using the methodology and assumptions described in Appendix 3. The impacts described have not been 'grossed up' – ie they relate only to the companies surveyed, and not to the wider population of companies engaging with colleges – so they will understate the true impact of the programmes².

Net employment in the Scottish economy resulting from college: employer engagement was estimated in the three surveys (Table 4.3) as follows:

- year 1 survey – 268 net jobs or 5.5 per firm
- year 2 survey – 118 net jobs or 2.2 per firm
- year 3 survey – 106 net jobs or 0.8 per firm

Net turnover impact in the Scottish economy resulting from college: employer engagement was estimated in the three surveys as follows:

- year 1 survey – £38.9m PV³ over three years or £264k per firm
- year 2 survey – £21.6m PV over three years or £133k per firm
- year 3 survey – £9.1m PV over three years or £22k per firm

Net GVA impact in the Scottish economy resulting from college: employer engagement was estimated in the three surveys as follows:

- year 1 survey – £11.0m PV over three years or £74k per firm
- year 2 survey – £9.1m PV over three years or £56k per firm
- year 3 survey – £4.1m PV over three years or £10k per firm

² Impacts have not been grossed up because it is not clear from colleges how many companies they are engaging with – it is thus preferable, for caution, not to gross up the estimates, rather than make a guess as to what the right grossing up ratio might be, and risk overstating the impact of the programme

³ PV is present value, which is derived for programme GVA and costs by discounting them back to a base year using HM Treasury's recommended 3.5% social time preference rate. This means, for example, that to not consume £100 today, we would need at least £103.50 next year to compensate. Using the PV enables costs and benefits which occur at different times in the future to be compared on a consistent basis to understand rate of return

While the impact has reduced from the year 1 to the year 3 survey, even in the year 3 survey, these results are encouraging, suggesting as they do that £10k PV of GVA and 1 net job may have been created in the Scottish economy for every company engaging with a college.

Employment, Turnover and GVA impact, Years 1 to 3 Table 4.3

	Year 1	Year 2	Year 3
Employment			
2006	270		
2007	280	117	
2008	253	120	103
2009		117	108
2010			108
Average per year	268	118	106
Average per firm	5.5	2.2	0.8
Turnover (£m PV)			
2006	12.9		
2007	12.9	7.5	
2008	13.1	7.3	3.1
2009		6.8	3.1
2010			2.9
3 Year Total	38.9	21.6	9.1
Average per year	13.0	7.2	3.0
Average per firm	0.264	0.133	0.022
GVA (£m PV)			
2006	3.7		
2007	3.6	3.2	
2008	3.7	3.1	1.4
2009		2.9	1.4
2010			1.3
3 Year Total	11.0	9.1	4.1
Average per year	3.7	3.0	1.4
Average per firm	0.074	0.056	0.010

Source: Frontline company surveys and impact models

4.4 Proportion of impact by company size

The biggest companies with 250 or more employees in Scotland have recorded proportionately more of the impact attributable to the programmes. In the year 1 survey they accounted for 94% of the net GVA impact but 57% of the companies surveyed; in year 2 it was 99% from 22% and in year 3 it was 52% from 26% (Table 4.4). Conversely the smallest companies with 1-9 employees have had proportionately much less impact – 0% of the net GVA impact in survey years 1 and 2 from 12% and 19% of the survey sample, and 11% of net GVA impact in year 3 from 32% of the survey sample.

Proportion of impact by company size, Years 1 to 3

Table 4.4

YEAR 1	Company size	% of survey	% of net employment impact	% of net GVA impact
	1-9	12	2	0
	10-49	12	11	0
	50-249	18	12	6
	250+	57	75	94
	Total	100	100	100
YEAR 2	Company size	% of survey	% of net employment impact	% of net GVA impact
	1-9	19	0	0
	10-49	20	0	0
	50-249	39	6	1
	250+	22	94	99
	Total	100	100	100
YEAR 3	Company size	% of survey	% of net employment impact	% of net GVA impact
	1-9	32	5	11
	10-49	27	9	1
	50-249	15	24	36
	250+	26	62	52
	Total	100	100	100

4.5 Reasons for impact trends

Net impact recorded in the three surveys from 2009 to 2011 has reduced, despite the survey samples having increased. This is likely to be due to a combination of factors:

- recession and sluggish recovery – which has played out across the years impacting upon the performance of Scottish-based businesses
- company size – the biggest companies attribute the most impact, and these companies formed a much higher proportion of the sample in survey year 1 compared to survey year 3
- ‘cherry-picking’ – the colleges may have provided the contact details of the companies they engage with the most for the year 1 survey, meaning that by year 3, companies with less intensive relationships with the colleges on average were surveyed, resulting in less impact attributed
- effect of high impact companies – in each of years 1 and 2, two companies had a scale of impact that accounted for a high proportion of all impact estimated across the survey; in year 3 there were no such high impact companies

4.6 Aggregation of economic impact over the three years of evaluation

It is possible to aggregate the economic impact recorded across the three evaluations because there was almost no client duplication – each survey sample contained different companies. Only two companies returned survey data for more than one year, and only one of these attributed impact in both surveys.

We have excluded the lower impact data from our aggregation to avoid double counting.

In 2008, net employment impact was estimated at 253, 120 and 103 jobs respectively for the year 1, 2 and 3 surveys. This suggests that net employment attributable to the programmes in that year could have reached 476 net jobs.

Net GVA impact can be aggregated across the three surveys to cover the five year period 2006-10. We discounted all the impacts back to 2006 using the HM Treasury discount rate of 3.5%.

This suggests that over the five year period 2006-10, £23.65m (PV) of net GVA impact could be attributable to the college employer engagement programmes (Table 5.5). This is an average of £4.73m net GVA (PV) per year⁴.

4.7 Raising net economic impact from future college: employer engagement

Programmes like this will maximise the net economic impact they have principally in two ways:

- minimising deadweight⁵ – by ensuring that funding effects new and additional college: employer collaboration over and above what the colleges and employers would have done together anyway in the absence of funding; *and* that this activity is of a nature that delivers significant bottom line benefits to companies through improved turnover or productivity
- minimising displacement⁶ – by focusing college collaboration on businesses which: are export focused; compete principally with businesses located outside rather than inside Scotland; operate in international sectors which are growing or which have high growth potential

The ‘activity deadweight’ of the programme appears to have been minimal – the funding has effected new and additional college: employer collaboration. The ‘turnover/ GVA or employment deadweight’, however, was high at 97% on average over the three years, meaning that employers stated that they would have recorded almost all of the turnover or employment anyway without the college interaction.

This is not surprising given that for most companies the college collaboration project was unlikely to be of a scale or centrality to operations such that it began contributing significantly to performance within three years. The funding was primarily aimed at helping college: employer relationships to develop and showing employers what colleges could do with them (rather than at driving economic impact per se). It is hoped that relationships developed through the programme will build in the future, becoming more important to company operations and resulting in bottom line benefits at the companies and wider net economic impact.

Displacement was estimated at slightly over 50% under the programme, reflecting the fact that most companies did compete with Scottish-based businesses to a greater or lesser extent. This level of displacement could be reduced in future programmes if colleges were encouraged to collaborate on projects and with companies where the outputs are exports and in sectors where there are not a large number of competing Scottish-based firms (ie in manufacturing and internationally traded services rather than in retail, distribution or domestic personal and business services).

⁴ It is not possible to estimate a net GVA: cost ratio for the programme because the costs of the programme are not known – colleges did not provide data on the amounts they spend engaging with employers

⁵ impact that would have happened anyway without programme support

⁶ where a company supported under the programme benefits at the expense of other Scottish-based companies – eg winning contracts as a result of the support which would have been won by other Scottish-based companies otherwise

Net GVA impact (£m), 2006-10**Table 4.5**

	2006	2007	2008	2009	2010	Total
Net GVA						
Year 1 survey	3.66	3.77	3.92			11.36
Year 2 survey		3.19	3.19	3.07		9.44
Year 3 survey			1.44	1.44	1.39	4.27
Total Net GVA	3.66	6.96	8.55	4.51	1.39	25.07
Total Net GVA (PV)	3.66	6.72	7.98	4.07	1.21	23.65

Source: Frontline company surveys and impact models

As with the other impact estimates, this aggregation is likely to underestimate the true impact of the programmes because estimates:

- are not grossed up – to the wider population of clients; they only cover those surveyed
- are not extrapolated beyond three years – clients were only asked to estimate impact over three years in the past; any future impact that may result from the programmes is not captured

5 Conclusions

The major conclusions that emerge from the findings of the three annual reports can be distilled to:

- *the DEEP and KTG programmes have resulted in tangible benefits to the Scottish economy in the shape of jobs, increased turnover for employers and ultimately in generating GVA*
- *the on-going operational activity and strategic direction of colleges is demonstrating that the positive effects of the DEEP and KTG programmes are sustainable*

The areas that were specifically set as objectives for the evaluation are set out in the rest of this section

5.1 Impact of the programmes

The area of the evaluation that has proved to be the most significant has been the impact that the programmes have had on the Scottish economy. Employers have fed back that ***thanks to working with a college, jobs have been created and safeguarded and a significant contribution has been made to their turnover and in turn to GVA in Scotland.*** These impacts were not originally set as objectives to be achieved and the impacts set out in the evaluation reports will almost certainly understate the true impact of the programmes as the results have not been ‘grossed up’ – ie they relate only to the companies surveyed, and not to the wider population of companies engaging with colleges.

At a time when a greater contribution to the economy is sought, the impacts that have been achieved as a result of the programmes and of college activity are excellent.

5.2 Sustainability of college activity

Good practices that came about in the way that colleges engage with employers and transfer knowledge to employers will continue. This is the opinion of colleges and the supporting evidence can give great confidence that this is the case.

The third year of the evaluation saw colleges focussed on finding ways of meeting a changing budget scenario but despite this, few if any colleges see this area of work as one that will disappear. This work now appears ingrained in the college psyche and for many it has become a financially sustainable area of work because they are far more able to make strong business decisions, based on robust evidence of demand. Far fewer ‘loss leaders’ are being entertained and the colleges have learned to say no at appropriate times.

One of the key reasons why colleges are confident of the sustainability of these areas of activity is that the skills and competences that are required are now recognised and used to good effect. If there is a concern within colleges it is whether they will be able to keep those skills as the external economic situation changes.

5.3 The use of the funds

The funds were almost always used as part of a wider initiative so that *the funds were described as supporting their (the colleges) ability to do things sooner than expected or to do more of an activity to a higher quality.*

The funds were used in many different ways, with the most popular being to buy in staff with the most appropriate skills (most often commercial and project management skills) or to allow backfill to enable technical staff to carry out knowledge and technology transfer projects.

In the first year of the evaluation the colleges fed back the ways that they were using the funds, and in subsequent years after the funds had been mainstreamed they fed back that they were largely still in operation. This was usually in the shape of people still being employed to carry out tasks that had become self-sustaining.

The way that information regarding the funding was originally released (colleges were informed of both programmes in the same circular) caused a level of confusion and a majority of colleges went on to put both funds together. This does not seem to have caused any problems as both areas that the funding was to cover were duly tackled. A strong positive was that the funding was originally ring-fenced and colleges felt that this helped to really focus on delivering against specific employer engagement and knowledge transfer objectives.

The term 'knowledge transfer' was open to many interpretations but the one that grew throughout the evaluation in colleges was 'where a college supported a step change in the performance of an organisation'.

5.4 Effectiveness of the programmes

Over the evaluation, colleges made significant progress – at varying speeds – *and the funding provided through DEEP and KTG gave colleges the space and opportunity to make real progress in tackling barriers and resolving issues.*

Early feedback in the evaluation was that ring-fencing the funds was supportive in ensuring that the programmes were able to attack their specific objectives without any concern over the resource having to be targeted at wider and perhaps more operationally pressing issues for the college.

The way that the funding was distributed to every college drew some criticism early on in the process and this view is starting to gain momentum again. However, for the majority of the time colleges felt that this form of distribution allowed colleges to deliver initiatives at the level that they were at. What this means is that some colleges did not have experience of knowledge transfer, for example, and the funding allowed them an entrance to this and to develop a tailored approach. For other colleges, who were already delivering on knowledge transfer, the funding meant they could expand and develop what they were already doing.

5.5 Employers perspective

Employers that work with colleges appreciate and value the services that they get.

Employers described a wide range of ways that they work with colleges and the feedback shows that once an employer is working with a college, they would go back again and would recommend the college to others.

If there is one criticism it is that employers still have varied perceptions of how well promoted Scotland's colleges are. Feedback from colleges that had undertaken surveys in their own areas suggest that those employers who had never worked with colleges had a far lower opinion of colleges than those that had. The task remains for colleges to broaden the volume of employers that they work with to improve perceptions and performance.

5.6 Good practice development

There are examples of good practice being shared amongst colleges and of colleges working together to try to develop further good practices. There was a parallel initiative to this evaluation being undertaken that was managed under the auspices of Scotland's Colleges that developed and show cased a number of these approaches.

In response to popular routes that colleges were exploring, case studies were developed as part of this evaluation to show instances of:

- generating employer engagement (in this case through developing and managing a local employer network)
- building a knowledge transfer capability from scratch to create a process and pipeline of activity
- widening participation in the college in employer engagement and knowledge transfer activity for all staff

A strong point is that the case studies that were developed were not unique, but were examples of ways of delivering that other colleges could use to generate and develop their own thinking and ideas.

Frontline

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Appendix 1 – Competency Frameworks

Competency Framework for Employer Engagement

		Very Strong	Strong	Medium	Low
1	Justify employer engagement				
1.1	Create employer engagement strategy and/or keep it 'fresh'				
1.2	Identify opportunity or weakness that employers could support college with				
1.3	Research the sector				
1.4	Agree approach				
1.5	Set objectives and targets				
1.6	Gain appropriate backing and approvals				
2	Manage relationships				
2.1	Identify employer relationships to cultivate				
2.2	Confirm win-win situations with employers				
2.3	Develop, manage and maintain external relationships				
2.4	Time the introduction of wider college engagement				
2.5	Re-evaluate relationship on a regular basis				
2.6	Create and maintain internal relationships in other departments/schools				
2.7	Assist in managing ongoing relationships between college and external clients				
2.8	Manage employer expectation				
2.9	Develop college relationship with wider sector				
3	Monitor results				
3.1	Confirm college and employer are gaining benefit				
3.2	Ensure college objectives are being met				
3.3	Use results as Management Information				
3.4	Promote success through the right medium				
3.5	Update employer engagement strategy				

Competency Framework for Knowledge Transfer

	Very Strong	Strong	Medium	Low
1 Manage information and communications				
1.1 Obtain, evaluate, organise and store information				
1.2 Exchange information both internally and externally to assist in decision making				
1.3 Organise information and communicate using appropriate media				
2 Manage relationships				
2.1 Create and maintain internal relationships in other departments/schools				
2.2 Develop, manage and maintain external relationships				
2.3 Assist in managing relationships between college and external clients				
3 Manage projects				
<i>....as a team leader or team member:</i>				
3.1 Development, planning and preparation of a range of KT projects				
3.2 Develop plans to achieve project goals				
3.3 Establish resource requirements and monitoring procedures				
3.4 Ensure projects are on time, meeting quality targets and within budget				
4 Manage the commercial interface				
4.1 Recognise and assess the opportunities for marketing college capabilities				
4.2 Develop and manage business opportunities through to successful outcomes				
4.3 Market and promote college KT capabilities to targeted individuals, organisations and the wider community				
5 Problem solve and manage the decision making process				
<i>Through the acquisition and management of data and information; evaluate, review and resolve problem areas:</i>				
5.1 Identify problems				
5.2 Use structured approaches				
5.3 Use both critical and creative thinking				
5.4 Seek solutions				
5.5 Make informed decisions				
6 Provide leadership				
6.1 Provide strategic leadership on behalf of the board and senior management				
6.2 Provide operational leadership through:				
6.3 Leading on individual KT projects within the college				
6.4 Leading on the commercial development of new KT projects/products				
6.5 Assessing next steps for clients - and opportunities for further KT solutions				

Appendix 2 – Maturity Model

Maturity statement	Basic	Developing	Performing	Best in class
Information and communication	<ul style="list-style-type: none"> • EE/KT is not understood by all in the college • Communications are unplanned • KT is marketed through web-site, prospectus & one-off leaflets • Communication is a one-way process 	<ul style="list-style-type: none"> • A marketing plan has been prepared • Database is up to date and mined regularly • Market research is targeted • EE/KT is promoted well internally 	<ul style="list-style-type: none"> • EE/KT is valued internally • Market research is driving EE/KT activity and decision making • The 'appropriate' media to communicate is selected on a case-by-case approach 	<ul style="list-style-type: none"> • Feedback from businesses constantly sought – and acted upon • Businesses see college as 'easy to buy from' • All staff promote the colleges ability to add value through EE/KT
Relationships	<ul style="list-style-type: none"> • EE/KT is a separate activity across the college • There is internal competition to deliver • Clients are directed to information points 	<ul style="list-style-type: none"> • EE/KT is an integrated college-wide activity • New clients are introduced to the wider college • businesses are client managed 	<ul style="list-style-type: none"> • Clients shape future KT delivery in a win-win environment • Clients ask for bespoke solutions • Staff value the client management process 	<ul style="list-style-type: none"> • Repeat business is the norm • College is 'supplier of choice' • Client identification to KT delivery is seamless • College is viewed as an equal partner by businesses
Project management	<ul style="list-style-type: none"> • EE/KT is a 'one-off' activity • Ownership of a project may be unclear 	<ul style="list-style-type: none"> • EE/KT activity is planned in advance • Resource is in place before commitments are made • Monitoring arrangements are in place for each project 	<ul style="list-style-type: none"> • Project plans are made and adhered to • Project goals are the focus • Project ownership and responsibility is clear 	<ul style="list-style-type: none"> • Timescales are met • Quality is assured • Projects come within budget
Commercial interface	<ul style="list-style-type: none"> • 'Loss leaders' are undertaken regularly • Demand for KT activity is unproven • College is not viewed as businesses externally 	<ul style="list-style-type: none"> • Opportunities for KT are actively sought across the college • A business case is made for each opportunity • KT is targeted where college supply meets external demand 	<ul style="list-style-type: none"> • Staff recognise the importance of being 'first point of contact' • An EE/KT business and/or operating plan is in place • Wider college capability is promoted to clients 	<ul style="list-style-type: none"> • KT aftercare is appreciated internally & externally • KT product is perceived as high quality • Sell-on process starts during KT projects
Decision making	<ul style="list-style-type: none"> • Decision making process is unclear • Ad-hoc activity is taking place • Problems can be created through good intentions 	<ul style="list-style-type: none"> • A structured, decision making process is in place and is clear • Criteria is in place and understood • Feedback to decisions is given 	<ul style="list-style-type: none"> • Solutions are sought beyond 'no' • Risks are minimised by being addressed in advance • Decisions are reversed if circumstances change 	<ul style="list-style-type: none"> • College decisions are respected externally as business driven • Staff support decisions publicly
Leadership	<ul style="list-style-type: none"> • The board is supportive of EE/KT • The management team are supportive of EE/KT • Staff are coming forward with routes to develop EE/KT 	<ul style="list-style-type: none"> • There is an acknowledged strategic drive to develop EE/KT • EE/KT has a champion(s) in the college • Staff look to the EE/KT champion for support 	<ul style="list-style-type: none"> • A portfolio of KT is held and activity is driven at the best time • EE/KT mentoring takes place with departmental staff • Third parties are referred to the college as a role model 	<ul style="list-style-type: none"> • Leadership is demonstrated at all levels in the college for EE/KT • Businesses look to the college to support economic strategy • College leadership in EE/KT is seen as a competitive advantage
Performance and results	<ul style="list-style-type: none"> • Baselines are not well understood by team or stakeholders • Objectives & targets are vague • Data requirements determined, but not yet gathered 	<ul style="list-style-type: none"> • Hard and stretch targets are set & agreed • Benchmarking is now undertaken • Key areas for improvement are identified with initial ideas developed 	<ul style="list-style-type: none"> • Ideas developed, prioritised & action plan in place • Hard targets being achieved • The reasons and benefits of setting stretch targets is understood by staff 	<ul style="list-style-type: none"> • KT team committed to measure & achieve continuous improvement • Stretch targets being achieved • EE/KT is seen as a role model in college for setting and achieving stretch targets

Appendix 3 – Economic Impact Method and Assumptions

This appendix describes the method and assumptions underpinning our economic impact assessment which assesses the *net additional* change in employment and GVA in the Scottish economy resulting from increases in employment and turnover at the 240 companies we interviewed as a result of their engagement with the colleges, over and above what might have happened anyway to their employment and turnover had they not engaged.

We estimate this from data gathered from the companies using a question-set and the approach to economic impact assessment used by Scottish Enterprise. This involves probing companies to describe turnover and employment under both the 'project' and 'reference case or counterfactual' scenarios – comparing what happened as a result of college engagement with what might have happened had there been no college engagement – over the three most recent years.

We apply 'gross to net' factors of displacement, leakage, substitution and multipliers (described below) to these two scenarios and then subtract the reference case from the project case to arrive at the net additional impact in the Scottish economy attributable to the college engagement project.

We collected turnover and employment data from each company for three years during each annual survey. We estimated GVA by applying sectoral GVA: turnover averages from 2008 Scottish Annual Business Inquiry data⁷.

We asked the companies to describe the reference case or counterfactual by asking them whether their employment and turnover would have been about the same, moderately or a lot higher or lower if they hadn't engaged with the college, and following up by asking them to give their best estimate of % higher or lower.

The accuracy of our impact assessment crucially relies upon the subjective judgment of the company interviewees on the extent to which turnover or employment benefits occurred as a result of college engagement which wouldn't have occurred otherwise. This is not easy for them to judge.

This enabled us to assess the **deadweight** associated with the project. Deadweight is the GVA or employment that might have happened anyway in the absence of the project; subtracting the deadweight impact from the project case impact gives the additionality of the project – the extra impact that occurred because of the project. Across the three company surveys, the average values for employment and turnover (and by definition GVA) deadweight were 97%.

Applying deadweight proportions on a company by company basis gave us gross turnover, GVA and employment values for the reference case. We then applied the following 'gross to net' effects to the project and reference cases.

Leakage estimates the proportion of benefits from the project that occur outside Scotland, the geographic area targeted by the project. We derived this for employment using survey feedback for each company based upon the location of their staff. This resulted in an average employment and GVA leakage across the companies across the three survey years of 10%.

We applied leakage to the turnover and GVA impact estimations on the basis that the majority of GVA accrues where the staff are located (staff costs and depreciation/ amortisation (investment) and reinvested profits or profits disbursed to owners living in Scotland).

Displacement accounts for the extent to which the benefits at the companies are at the expense of other Scottish-based businesses. We asked the companies to estimate what proportion of their competitors are located in Scotland and used this data as a proxy for turnover/ GVA/ employment displacement for each company. We adjusted this up or down on the basis of whether they told us if their markets were growing (easing displacement as there is more market for all to exploit) or declining (increasing displacement). Across the companies, average displacement levels were 46%, 51% and 69% respectively across the three surveys.

We assumed **substitution** to be zero as it is not applicable to this project. Substitution occurs when a company does something which does not add anything purely to take advantage of government money (for example laying off a worker to take on a replacement under a subsidised government employment scheme or moving into an enterprise zone or regeneration area from outside to take access a government incentive). Nothing in our discussions with companies suggested they were substituting activities in such a manner through this project.

We sourced **multiplier** values for output (in the case of turnover), GVA and employment from the Type II Scottish Input Output multiplier tables for 2007⁸ based on the most appropriate sector codes of the participating companies. Multipliers reflect the positive downstream effects created through company spending on supplies and employee spending of wages in the Scottish economy.

We applied each of these effects to the gross data for the project and reference cases to give net totals. We then subtracted the reference case from the project case to give net additional turnover, GVA and employment estimates. We then discounted the turnover and GVA estimates to 2008 prices using the UK HM Treasury discount rate of 3.5% per annum.

Grossing up. These gave us estimates for the net additional impact of the project in the Scottish economy resulting from the sample of 240 companies which we surveyed. Normally we would then 'gross up' these estimates to the level of the beneficiary population – ie if we had spoken to 10 beneficiaries and we knew that 50 companies had been assisted, we would apply a grossing up factor of up to five times to adjust the estimates to reflect the population of assisted companies.

We have not, however, grossed up our impact estimates from the 240 companies interviewed to the full 'population' of client companies engaged by colleges under the programme because the colleges cannot tell us how many companies they have engaged.

We prefer to err on the side of caution rather than make a speculative attempt at grossing up. We would expect the 'real' impact of the project to be higher than the estimates we report here, therefore. How much higher is unclear, and one could argue that the colleges may have given us the names of the companies with whom they had engaged most, suggesting impact with others with whom they have engaged might be lower or negligible.

Sensitivity Test. We conducted one sensitivity test around optimism bias, the tendency for people to be over-optimistic in their estimates of potential or actual impact. We set optimism bias at 25%⁹ for this test – ie that impact is three quarters of that stated by interviewees.

It is worth restating the principal assumptions on which the impact assessment is based:

- companies provide accurate turnover and employment data
- they attribute the turnover and employment benefits from college engagement (not DEEP and KT funding specifically) accurately, by carefully assessing what might have happened had the company not engaged with the college
- they accurately assess the proportion of their competitors in Scotland (and that this is a fair proxy for turnover/ GVA/ employment displacement, which is also adjusted for whether they state that they are operating in a growing, static or contracting market)
- they provide accurate data on the location of their staff and that these provide a fair proxy for employment and turnover/ GVA leakage
- that Scottish Government Type II sectoral multipliers provide a fair reflection of wider indirect (suppliers) and induced (spending on wages) impacts for turnover, employment and GVA
- that Scottish Annual Business Inquiry sectoral GVA: turnover ratios provide a fair reflection of GVA: turnover ratios in the companies interviewed
- that 2008 represents the base year for the evaluation and therefore year zero for discounting (discounted at 3.5% per annum as per HM Treasury discount rates)
- for caution we have not attempted to gross up estimates from the survey because we do not know how many companies the colleges have engaged with

Cost-benefit assessment. We have not conducted one of these for this report because we cannot estimate the cost of all college engagement with companies accurately. The impact we have assessed is from all college engagement with companies (rather than just the DEEP/ KT) and it is not possible to estimate how much colleges have invested in total in these activities; we cannot, therefore, conduct an assessment of comparable benefits and costs.

⁹ This is the figure which HM Treasury guidance suggests should be applied in circumstances where no further evidence is available (see [http://www.hm-treasury.gov.uk/d/7\(3\).pdf](http://www.hm-treasury.gov.uk/d/7(3).pdf))

Some worked examples

We outline three examples based on employment, turnover and GVA showing the full workings for a specific company as well as the explanations for each of the values.

Example 1: Employment Working

Intervention Option		Evidence
Gross Figure	446	Total company employment in 2008
Leakage	0%	No staff lived beyond Scotland
	446	
Displacement	0%	No competitors are based within Scotland
	446	
Substitution	0%	no evidence of substitution
	446	
Multiplier	1.37	Employment multiplier sourced from Type 2 Scottish Government Input Output Multipliers series
	611	
Intervention Option Total	611	What has been achieved in total including the effects of the intervention
Reference Case (Low)		
Gross Figure	446	
Deadweight	90%	Company stated their 2008 employment would have been 10% lower without college engagement
	401	
Leakage	0%	As above
	401	
Displacement	0%	As above
	401	
Substitution	0%	As above
	401	
Multiplier	1.37	As above
	550	
Reference Case Total	550	What would have been achieved anyway (regardless of intervention)
Net Additional Impact	61	Net additional difference as a result of business college engagement

Example 2: Turnover Working

Intervention Option		Evidence
Name		
Gross Figure	£15,000,000	Total company turnover in 2008
Leakage	10%	Assume low level of leakage
	£13,500,000	
Displacement	30%	A minority of competitors are based in Scotland (25%) plus 5 percentage points as the company operates in a de
	£9,450,000	
Substitution	0%	no evidence of substitution
	£9,450,000	
Multiplier	1.79	Output multiplier sourced from Type 2 Scottish Government Input Output Multipliers series
	£16,876,208	
Intervention Option Total	£16,876,208	What has been achieved in total including the effects of the intervention
Reference Case (Low)		
Gross Figure	£15,000,000	
Deadweight	95%	Company stated their 2008 turnover would have been 5% lower without college engagement
	£14,250,000	
Leakage	10%	As above
	£12,825,000	
Displacement	30%	As above
	£8,977,500	
Substitution	0%	As above
	£8,977,500	
Multiplier	1.79	As above
	£16,032,397	
Reference Case Total	£16,032,397	What would have been achieved anyway (regardless of intervention)
Net Additional Impact	£843,810	Net additional difference as a result of business college engagement

Example 3: GVA Working

Intervention Option		
Name		
Gross Figure	£2,640,000	Total company GVA in 2008
Leakage	10%	Assume low level of leakage
	£2,376,000	
Displacement	70%	A majority of competitors are based in Scotland (75%) plus 5 percentage points as the company operates in a de
	£712,800	
Substitution	0%	no evidence of substitution
	£712,800	
Multiplier	1.96	GVA multiplier sourced from Type 2 Scottish Government Input Output Multipliers series
	£1,399,763	
Intervention Option Total	£1,399,763	What has been achieved in total including the effects of the intervention
Reference Case (Low)		
Gross Figure	£2,640,000	
Deadweight	95%	Company stated their 2008 turnover would have been 5% lower without college engagement
	£2,508,000	
Leakage	10%	As above
	£2,257,200	
Displacement	70%	As above
	£677,160	
Substitution	0%	As above
	£677,160	
Multiplier	1.96	As above
	£1,329,774	
Reference Case Total	£1,329,774	What would have been achieved anyway (regardless of intervention)
Net Additional Impact	£69,988	Net additional difference as a result of business college engagement

These examples work the impact figures through on a systematic line by line basis, following the standard additionality equation below.

$$AI = [GI \times (1 - L) \times (1 - Dp) \times (1 - S) \times M] - [GI^* \times (1 - L^*) \times (1 - Dp^*) \times (1 - S^*) \times M^*]$$

AI = Net additional impact Dp = Displacement
 GI = Gross impact S = Substitution
 L = Leakage M = Multiplier
 * denotes reference case and hence deadweight