

A Follow-Up Evaluation of the Business Growth Through Skills Development and Knowledge Transfer Project

A report prepared for *emda*

Ekosgen Consulting (UK) Ltd.

January 2010

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A Follow-Up Evaluation of the
Business Growth through Skills Development and
Knowledge Transfer project

A Report to the East Midlands Development Agency

January 2010

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A handwritten signature in black ink that reads 'K. Dalglish' with a period at the end.

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1 Introduction

1.1 In September 2009, *emda* commissioned *ekosgen* to undertake a follow-up evaluation of the *Business Growth through Skills Development and Knowledge Transfer* programme (also known as the NTI programme for short). This study builds on an earlier evaluation that was completed in November 2008. It examines the extent to which recommendations made in the 2008 evaluation have been acted upon, and it also reports on the outcomes generated by the programme within the last financial year.

1.2 The NTI programme straddles three policy agendas of national importance: encouraging business competitiveness through innovation, improving workforce skills and stimulating business and academic relationships. The section below provides a brief outline of its development. The rest of the chapter provides more detail on the aims and objectives of the evaluation, the research methods that were used and the structure of the remaining report.

An Outline of the 2009-2010 Business Growth Programme

1.3 The *Business Growth* programme originated from a national initiative in 2001/2 when the Government announced plans to fund *New Technology Institutes* across all nine regions administered by the Higher Education Funding Council for England (HEFCE) with the aim of boosting the regional supply of high-tech skills, and the transfer of technical knowledge to local businesses.

1.4 The national Programme ended in 2005, although *emda* agreed to continue to fund the initiative up to March 2006. Towards the end of the contract period of the national initiative, *emda* and its partners decided that as it was operating successfully, helping to address the region's key policy objectives, it would be beneficial for the initiative to operate as a regional project. Accordingly, the Agency made available funding for a further three years and issued a contract to NTI, which commenced in April 2006, to deliver the programme. At this point, the programme entered its second phase and became known as *Business Growth through Skills Development and Knowledge Transfer* (Business Growth programme hereafter). As a result of a successful evaluation in 2008, the programme was extended for a further year, although several changes were introduced. This evaluation focuses primarily on the programme's third phase, covering 1 April 2009 to 31st March 2010.

1.5 The third phase of the Business Growth Programme continues to target Small and medium-sized enterprises (SMEs) and Higher and Further Education Institutions (HEIs from herein) operating in one of the four specified sectors, which have remained the same with the exception of one alteration. The Creative Industries network has been replaced with the Healthcare network. The other three networks are Construction, Food and Drink, and High Performance Engineering (HPE).

1.6 The Business Growth programme in its current phases comprises two work-streams and associated sub-activities. These are set out in figure 1.1. It has been allocated £1m to deliver these work-streams over the 2009/10 financial year.

1.7 As before, the programme is managed by the East Midlands New Technology Initiative Limited, with operational delivery undertaken by four specialist networks that cover each sector. It should be acknowledged that whereas three of the networks have been operating at least since 2006, the Healthcare network became operational in March 2009.

Figure 1.1 The work-streams of the Business growth through Technology Transfer programme

Work Programme	Activities
Management and Delivery of the Technology Grant	<ul style="list-style-type: none"> Provision of match funded grants to SMEs for the purchase of capital equipment to enable companies to innovate
	<ul style="list-style-type: none"> Provision of advice to SMEs on new technologies for businesses in the four sectors
	<ul style="list-style-type: none"> Referrals of SMEs to appropriate and commercially relevant existing higher level skills courses
Facilitation of SME and Institutional Relationships	<ul style="list-style-type: none"> Driving increased collaboration between SMEs and the regional knowledge base for sector specific activity
	<ul style="list-style-type: none"> Encouragement of peer learning between groups of SMEs and academic staff

The Aims of the Evaluation

1.8 The evaluation has three core aims. The first is to review the effectiveness of the two work-streams, examining the way in which businesses have benefited from the programme, assessing its overall impact, along with identifying lessons that can be applied to other interventions.

1.9 The second aim is to examine the extent to which recommendations from the 2008 study have been implemented. Given that the NTI programme will cease to exist in April 2010, the third aim of the evaluation is to explore whether there are opportunities for joint working between the NTI networks and the Innovation-Networks (see chapter 7).

The Research Methods

1.10 All evaluations commissioned by RDAs are expected to comply with the Impact Evaluation Framework (IEF), which was produced by the Department of Trade and Industry in 2006.¹ The research methods adopted for this evaluation are consistent with the IEF. This includes the following:

- **Two on-line surveys.** The first targeted companies benefiting from the Technology Grant under its third and final phase. In essence, the aims of the survey were to explore companies' motivations for accessing support, the outcomes associated with employees receiving training, and identifying the commercial outcomes that have or are expected to occur as a result of purchasing new equipment / technology.

The second on-line survey has been directed at companies benefiting from the Technology Grant under phase 2 and the aim was to follow-up on the outcomes they experienced and explore the extent to which the recession may have impacted on these.

- **Stakeholder consultations** have been undertaken with the central NTI hub and Board members, network leads, representatives of *emda* and the Innovation-Networks.
- **Monitoring information** has been analysed to ascertain how the programme has performed in relation to its contractual targets and outputs.

1.11 In summary, the evaluation has comprised the triangulation of several research methods, producing valid and reliable research findings.

¹ DTI (2006) *Evaluating the Impact of England's Regional Development Agencies: Developing a Methodology and Evaluation Framework*. DTI Occasional Paper No 2.

The Report Structure

1.12 The remainder of the report is structured as follows:

- **Chapter 2** summarises the key findings from the previous evaluation and the recommendations that were proposed;
- **Chapter 3** sets out the programme's profiled and actual spend in its third phase and also reports on its performance in relating to meeting its contractual targets.
- **Chapters 4 and 5** report on the findings from the two surveys. Specifically, chapter 5 reports on the motivations for and outcomes experienced by the latest cohort of beneficiaries whereas chapter 6 presents an updated picture of the previous cohort.
- **Chapter 6** applies the survey findings to the programme and presents an assessment of the net impact of the Technology Grant, taking into account the five major adjustment factors.
- **Chapter 7** explores the nature of two forms of collaborative working: that between HEIs and SMEs, and that between the NTI networks and the Innovation-Networks.
- **Chapter 8** presents the conclusions arising from the evaluation and recommendations for the future.

2 Key Findings from the 2008 Evaluation

2.1 The NTI programme in its current phase comprises two work-streams (see figure 1.1). The scale of activity is smaller compared to the second phase where the programme included two other work-streams, which were:

- (a) The allocation of an Institutional Grant to enable Institutions to invest in high tech equipment and to support the development of Foundation degrees;
- (b) Influencing curriculum development across the region to ensure that the supply of skills training and qualifications met the needs of SMEs.

2.2 This chapter summarises the key findings from the 2008 evaluation and the recommendations that were made. The second phase of the programme covered the period March 2006–March 2009, and the evaluation was carried out six months before the end of the contract. Therefore, the programme had not yet achieved all its spend or met all its targets (although some had already been exceeded).

The Aims of the Evaluation and the Research Methods

2.3 The purpose of the 2008 evaluation was similar to the present in that it sought to identify the way in which businesses had benefited from the programme and to assess its overall impact. A secondary aim was to assess the extent to which management and delivery processes had been effective and to identify good practice for other interventions.

2.4 The study adopted a combination of methods to ascertain the views and experiences of stakeholders involved in managing and delivering the programme, and the companies that benefited from the Technology Grant. The evaluation undertook two on-line surveys, one targeted at companies and the other targeted at the institutional members of the four networks. It also undertook qualitative interviews with a sample of each network's core and associate members, as well as with eight businesses.

Financial Spend and Contractual Performance

2.5 The second phase of the programme was financially bigger compared to the current phase. In total, it received £2.96m, with funding being made available by both the Single Pot and ERDF. The vast majority of this (nearly 90%) was reserved for capital expenditure, which funded the Technology Grant and Institutional Grant work streams. The former comprised a much bigger share; it was allocated £1.74m, whilst approximately £860,000 was reserved for the Institutional Grant. Around £350,000 was allocated for revenue spend.

2.6 At the time of the evaluation, the programme had spent £1.5m of the Technology Grant budget and had supported 199 companies. Around £55,000 had been spent from the Institutional Grant, enabling 46 grants to be made across 20 institutions.

2.7 With regards to contractual performance, the programme had met virtually all its profiled outputs ahead of time. It had made significant progress with regards to the number of businesses using support services for skills and workforce development, and also the number requiring support with innovation. It also contributed to the creation of 65 jobs, 118% higher than the target (which was 55).

Governance and Network Benefits

The Delivery Model

2.8 The *Business Growth* Programme has always been managed and delivered through a 'hub and spoke' model. An Executive Team, led by the Director of NTI Ltd, comprises the Central Hub and it is supported by a Board of Directors. Between them, they are responsible for strategic management and ensuring that the Programme's objectives are met. The four networks undertake operational, day-to-day delivery of the programme's work-streams. The previous evaluation found this model to have been effective.

Network Membership and Benefits

2.9 Primary research revealed that members valued the networks, which was reflected in sustained membership, and increased involvement in network activities as each developed. In part, this was because members experienced a range of benefits from the networks. This included access to the Institutional Grant as well as the opportunity to form relationships with other institutions and undertake spin-off projects. It was reported that one of the most significant benefits of the networks was that they reduced competition and rivalry between HEIs.

The Technology Grant: Motivations, Outcomes and Net Impact

Motivations and Outcomes

2.10 Key findings from primary research undertaken with businesses receiving the Technology Grant were as follows:

- The grant enabled businesses to undertake product and process innovation, and improvements in productivity. As a result, businesses experienced a range of commercial outcomes, including improved service to existing customers; the acquisition of new customers and increased sales; and improved employee performance.
- The financial value of increased sales and profits was relatively modest, but persistence levels were high with most respondents expecting to experience increases in sales and profits for five years or more.
- There was a high level of time additionality associated with the Technology Grant. Here it is important to acknowledge that as businesses would have postponed the purchase of the equipment without the grant, the outcomes they experienced would have materialised later.

Workforce Development

2.11 The majority of businesses fulfilled their contractual obligations and released staff to participate in relevant training courses. Employees either acquired skills relating to the new equipment that had been purchased or they took the opportunity to address specific skills gaps within the business (e.g. marketing, accounting).

2.12 Much of the training activity was undertaken at Level 3, in line with the aims of the programme of supporting high level skills. In some cases, training at Level 2 was permitted on the proviso that employees would then progress to Level 3, which they did. Further, the previous evaluation showed that the programme played a role in changing employers' views

and approach to workforce development. Most businesses participating in the study noted they improved their training and learning practices and were more likely to engage in further training.²

Net Impact

2.13 Table 2.1 summarises the net impact of the Technology Grant. It is evident that it made a significant contribution to sales, profits and jobs that would not have occurred otherwise.

	Gross Outputs	Net Impact
Sales	£8.5m	£5,412,740.00
Profit	£2.3m	£1,324,849.00
Jobs	172	109

2.14 Businesses expected to experience sales and profits outcomes for up to five years. On this basis, it was calculated that the technology Grant work-stream would have contributed to approximately £11m in sales and £2.7m in profits, indicating that its economic impacts are substantial and representing a reasonable rate on investment.

The Institutional Grant

2.15 Over the course of its duration, the second phase of the programme expected to make available £900,000 to enable institutional members to purchase or upgrade high-technology equipment. At the time of the evaluation, members had already experienced benefits from this. These included:

- Providing students with access to the latest technologies;
- Encouraging collaborative activity between institutions either on a one-off basis (e.g. training members from other institutions) or enabling spin-off projects to take place;
- Developing new courses, particularly Foundation Degrees;
- Product development and spin-off projects between an institution and an SME;
- Enabling SMEs to use and pilot equipment before deciding to purchase it themselves.

2.16 The Institutional Grant achieved a high level of pure additionality, followed by scale additionality. At least half of the institutional members (participating in the study) would not have been able to purchase the equipment without the support of the Grant, whilst a smaller proportion would have purchased less advanced technology.

SME and Institutional Relationships

2.17 A key component of the Business Growth Programme is to encourage greater formal and informal relationships between SMEs and institutions with the overall aim of boosting research and technology development, and improving levels of commercialisation.

2.18 It was expected that the Institutional Grant would comprise one of the key ways in which SME and institutional relationships would develop. Although the networks used

² Under the third contract, employers are expected to access training at Level 4 on behalf of their employees. If they cannot do so immediately, then employees are permitted to access Level 3 first and progress to Level 4 within twelve months.

multiple methods to raise awareness amongst SMEs of the available equipment, levels of take-up had been relatively modest.

2.19 Alongside the above, networks were encouraged to stimulate a range of different types of SME–institutional relationships. However, the previous evaluation found it difficult to report upon this as the networks did not formally monitor them.

Curriculum Development and High Level Skills Provision

2.20 The final work-stream of the Business Growth Programme centred on identifying gaps in higher-level skills provision and influencing institutions to address these through course and curriculum development. However, in practice, this did comprise a major area of activity because there was a perception that current provision sufficiently met sectoral need and demand.

Conclusions

2.21 The main conclusions from the 2008 evaluation were as follows:

- **The Technology Grant** comprised one the programme’s major successes, securing a range of commercial benefits for businesses.
- The equipment purchased through the **Institutional Grant** tended to be of a commercial nature, supporting business and sectoral needs. The grant generated several indirect benefits, particularly in encouraging collaborative working between institutions.
- Progress in encouraging **HEI and SME relationships** fostering innovative activity and commercialisation was fairly limited.
- The networks played a modest role in **Curriculum Development**; overall, however, this did not comprise a major area of activity for them.

Recommendations

2.22 This study proposed a series of recommendations regarding the future development of the Business Growth programme. These included the following:

1. **Increase attention to segmentation and targeting to maximise programme impact** – The Technology Grant should be targeted at high-growth, high-value added SMEs. They are likely to have a greater impact on increasing regional GVA than enterprises with average growth trajectories.
2. **Promote Greater Access to Institutional Equipment** – Increase the number of SMEs that access institutional equipment, especially amongst those that have not applied for a Technology Grant.
3. **Greater Encouragement of SME–Institutional Relationships** – *emda* should consider setting approximate benchmarks about the different types of SME and Institutional relationships that networks should be seeking to facilitate. If set, appropriate mechanisms for monitoring their progress should be introduced.

2.23 Chapter 7 discusses the extent to which the above recommendations have been implemented.

3 Contractual Performance

3.1 This chapter presents a financial profile of the NTI programme, reporting upon the way in which its funding has been allocated across its work-streams. It also reports upon contractual performance and the extent to which outputs are being achieved against profiled targets.

Total Funding

3.2 Under the previous contract, East Midlands NTI was allocated £2.95m to deliver the programme over the period April 2006 to April 2009. This contract was extended for a further year and NTI was allocated just over £1m to continue delivering two work-streams. Table 3.1 sets out the funding allocation associated with the previous contract and that associated with the present one.

Table 3.1 Total Funding				
	2006-2009		2009-2010	
	Profiled £	Actual £	Profiled £	To Date* £
Capital	2,600,000	2,600,268	1,000,000	311,562
Revenue	360,000	360,000	80,000	61,789
Total	£2,960,000	£2,960,268	£1,080,000	£373,351

*Covers the period April to September 2009

3.3 The funding allocation is disaggregated between 'capital' and 'revenue' expenditure. The former relates to NTI's core work-stream, which is administration of the Technology Grant. In previous years, the capital budget included the Institutional Grant, but this work stream is no longer being delivered under the present contract.

3.4 Table 3.1 shows that just over £300,000 has been claimed by SMEs, accounting for approximately 30% of the total budget. Given that the contract has been operational for six months, this appears to be behind schedule. If the total allocation was pro-rated, then companies should have claimed around £500,000. The apparent underspend reflects the lack of demand in the earlier part of the year across all the networks. However, the situation has changed and all networks have experienced a higher number of applications. On this basis, it appears that the work-stream will achieve its allocation by April 2010.

3.5 *emda* has always made a contribution towards the management and administration costs of delivering the programme. Under the present contract, this amounts to £80,000. As this does not fully cover the operational costs, revenue funding is supplemented with income generated through network membership fees.

Technology Grant Expenditure

3.6 This section presents a profile of the way in which the Technology Grant has been allocated between the four networks.

The Total Number and Value of Grants by Sector

3.7 As shown in Table 3.2, up to September 2009, 44 Technology Grants had been awarded, comprising a combined value of just over £200,000. Under the current rules, grants have been capped at £5,000, although in exceptional circumstances, SMEs have received higher amounts.

Table 3.2 Total Value of Grants 2009/10

Sector	No. of Grants	Value (£)	% of Total Value	Average Grant Size
High Performance Engineering	12	£59,528	29%	£4,961
Construction	13	£54,592	27%	£4,199
Food and Drink	10	£47,142	23%	£4,714
Other	6	£26,689	13%	£4,448
Healthcare	3	£14,495	7%	£4,832
Total	44	£202,446	100%	£4,601

*Covers the period April to September 2009

3.8 The Construction network has awarded the most grants to date, although the HPE network has approved grants at a slightly higher value. The number of grants awarded by the Healthcare network has been comparatively low to date, although it is expected that the network will increase these to about 12 to 15 in total.

4 Outcomes Experienced by 2009/10 Beneficiaries

4.1 This chapter presents findings from the first of two surveys. This survey was directed at companies accessing the NTI Technology Grant in the financial year 2009/10. The chapter begins by presenting a brief profile of companies responding to the survey before summarising the benefits and outcomes that they experienced as a result of the Technology Grant.

A Profile of Respondents

4.2 The survey was administered to 41 companies across the East Midlands region that benefited from the Technology Grant under the current funding cycle. In total, 26 companies responded to the survey, equivalent to a response rate of 63%, which compares favourably to similar surveys of this kind. The response gives confidence in the results at a 90% level (+/- 10% margin of error).

4.3 The majority of companies responding to the survey are located in Derbyshire and Nottinghamshire. Around 40% (10 responses) have been operating for longer than ten years, whilst 31% (8 responses) were established in the last three years. None of the respondents employ more than 100 staff and only 12% employ more than 50. Nearly three-quarters of respondents are micro-businesses with less than ten staff. The findings suggest that NTI is predominantly helping micro businesses.

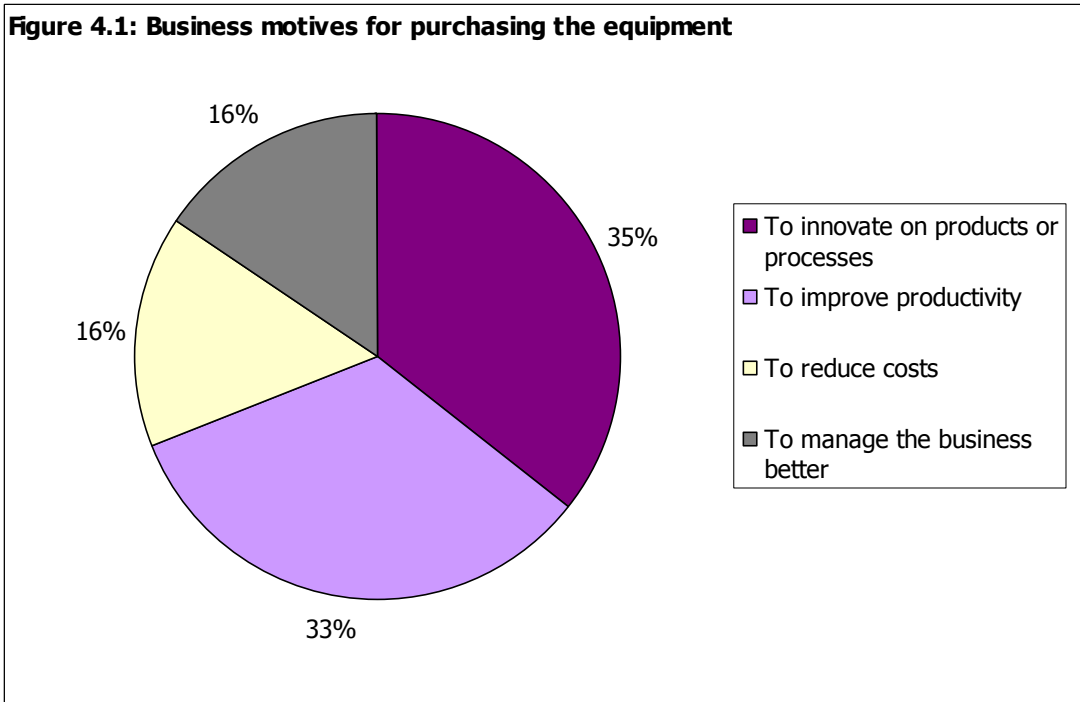
4.4 Responses were received from all four networks with the highest proportion operating in the Food and Drink sector (27%) followed by the Engineering and Construction sectors.

Awareness, Motivations and Meeting Expectations

4.5 Just over half of the respondents (52%) first heard of the Technology Grant through Business Link. Sectoral networks and recommendations from other businesses were other ways in which they found out about the Grant.

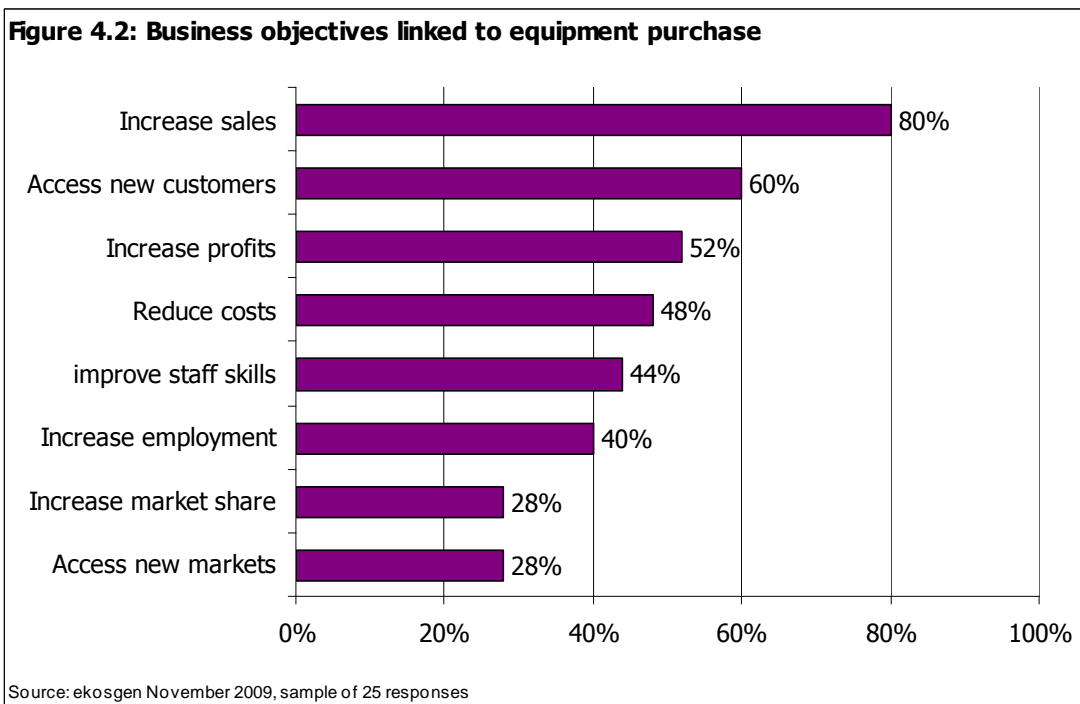
4.6 As shown in Figure 4.1, respondents listed several motivations for applying for the grant, of which product or process innovation was the most frequently cited, followed by the desire to improve business productivity. Reducing costs and managing the business better were other prominent motives.

Figure 4.1: Business motives for purchasing the equipment



4.7 Business respondents identified the various objectives they were hoping to achieve as a result of accessing the grant. As can be seen in Figure 4.2, the majority (80%) were hoping to increase sales whilst 60% were hoping to access new customers.

Figure 4.2: Business objectives linked to equipment purchase



4.8 Virtually all (86%) respondents affirmed that they were given advice from a network advisor as part of the grant application process about the type of technology or new equipment they were hoping to purchase. In discussing these matters, over 90% of respondents were satisfied that their advisor understood their business and their sector. Similarly, 86% were satisfied that their needs had been diagnosed correctly and 70% were satisfied that they had identified equipment/technology best suited to their needs. Overall,

88% of respondents were either satisfied or highly satisfied with the advice they had been given about their equipment/technology purchasing.

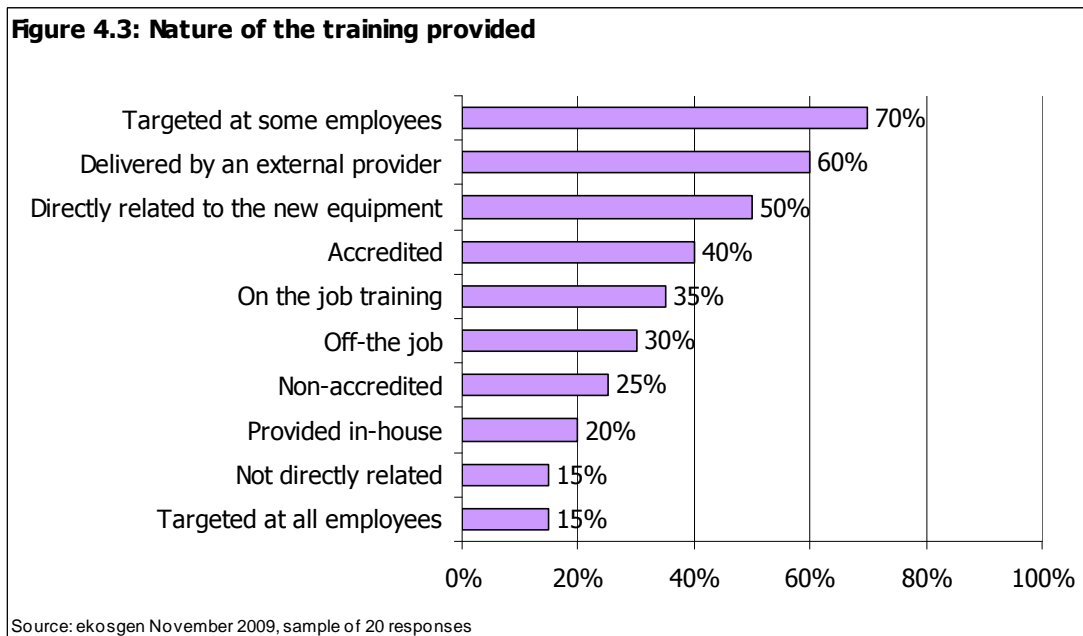
4.9 Again, virtually all the respondents (96%) affirmed that their application advisor undertook a training needs analysis to ascertain the type and level of training that their workforce could benefit from. In undertaking this analysis, 96% of respondents were satisfied that their advisor diagnosed the business needs either quite well or very well. As a proportion of all relevant respondents, 82% were satisfied that their advisor had arranged skills training that effectively addressed the needs of the business, and 82% were similarly satisfied that this took into account the business' capacity and resources.

4.10 Respondents reported that communication between them and NTI was generally good. However, feedback from one respondent indicated that changes in grant eligibility rules could have been communicated more clearly: *“when we applied, the grant was up to £10,000 but later the limit was reduced to £5,000... that had a negative impact on our overall plan.”* Whilst this is just one instance, it still acts as a reminder of useful best practice.

Workforce Training

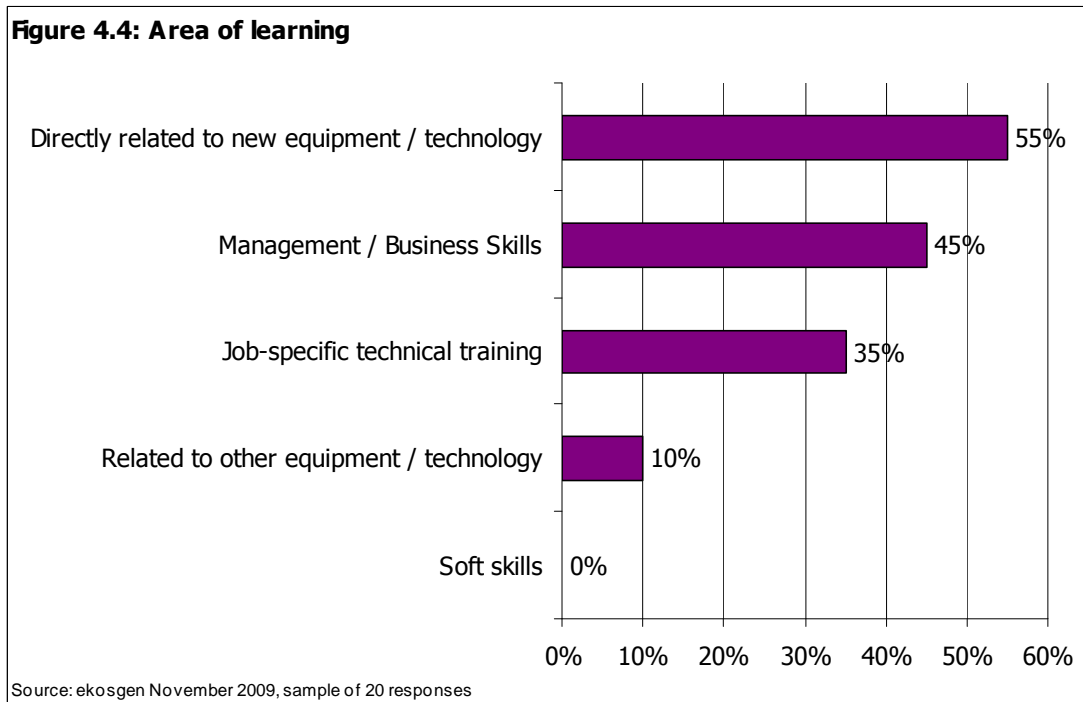
4.11 As a result of the training needs analysis, and a condition of the grant, all respondent businesses undertook training. The majority (70%) targeted training at a proportion of their employees rather than all of their employees, and 50% reported that training was directly related to the new equipment.

4.12 Figure 4.3 highlights that approximately 60% delivered the training through an external provider such as a university or college. In relation to this, one respondent noted that it would be helpful if the training needs analyst was better integrated with training providers to help ensure that the correct range of courses is made available.



4.13 In most cases, training was related to the introduction of the new equipment or technology although there have also been high levels of staff development in management and business skills. This is illustrated in Figure 4.4 below.

4.14 In line with the ethos of the programme, learners have accessed high-level skills training. Over half (54%) of the respondents reported that employees had accessed training at NVQ level 4 or above (1st year of degree or above) whilst 46% reported that NVQ level 3 (A-levels) had been accessed.



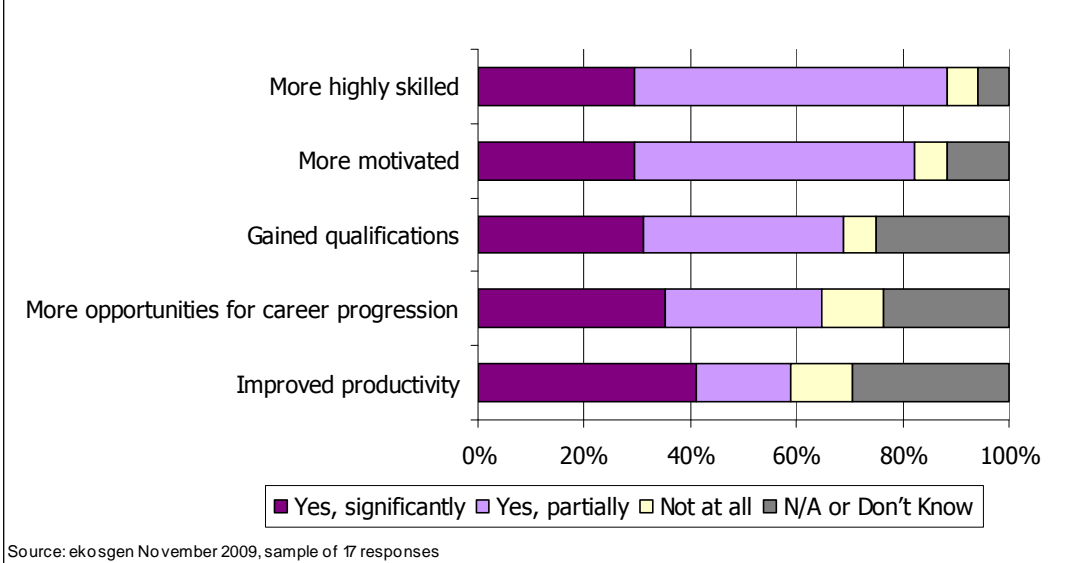
4.15 From the survey responses, it seems that employees in 10 businesses have completed their training. In total, 20 employees have attained their qualifications with 10 achieving these at NVQ level 3 and a further 10 at NVQ level 4 or above.

4.16 Nearly 80% of businesses believe their internal training practices have improved as a result of the support and training accessed through the Technology Grant (see Table 4.1 below). Specifically, over half (53%) of respondents have developed, or are developing, a company training plan for employees, whilst over 40% are increasing or creating a company training budget.

Table 4.1 Business outcomes that have occurred as a result of the training	
	Agree or strongly agree
Company training and learning practices have improved	79%
Now more likely to train employees	68%
Developed/developing a training plan for employees	53%
Increasing/creating a company training budget	41%

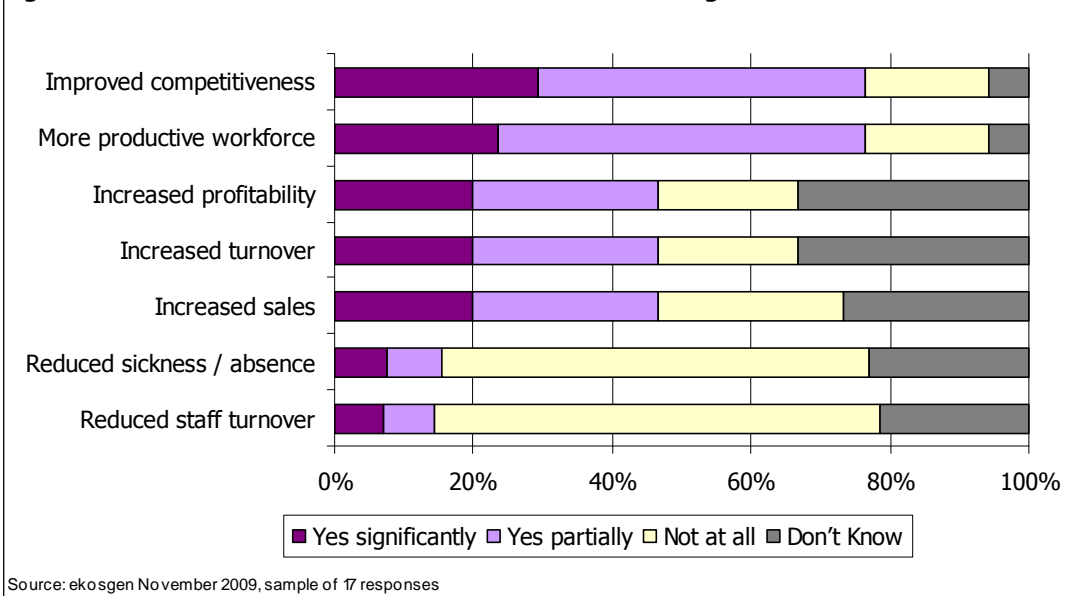
4.17 There is a consensus amongst respondents that employees have benefited from the training, particularly in terms of increasing skills and enhancing motivation (see Figure 4.5 below). There is also a consensus that the training has improved business competitiveness and staff productivity. In contrast, 60-65% of respondents think that the training has had no effect on reducing staff sickness/absence levels or reducing staff turnover.

Figure 4.5: How employees have benefited from the training



4.18 As shown in Figure 4.6, training accessed through NTI has helped to improve competitiveness and workforce productivity. However, it has had an insignificant impact on sales or profit growth.

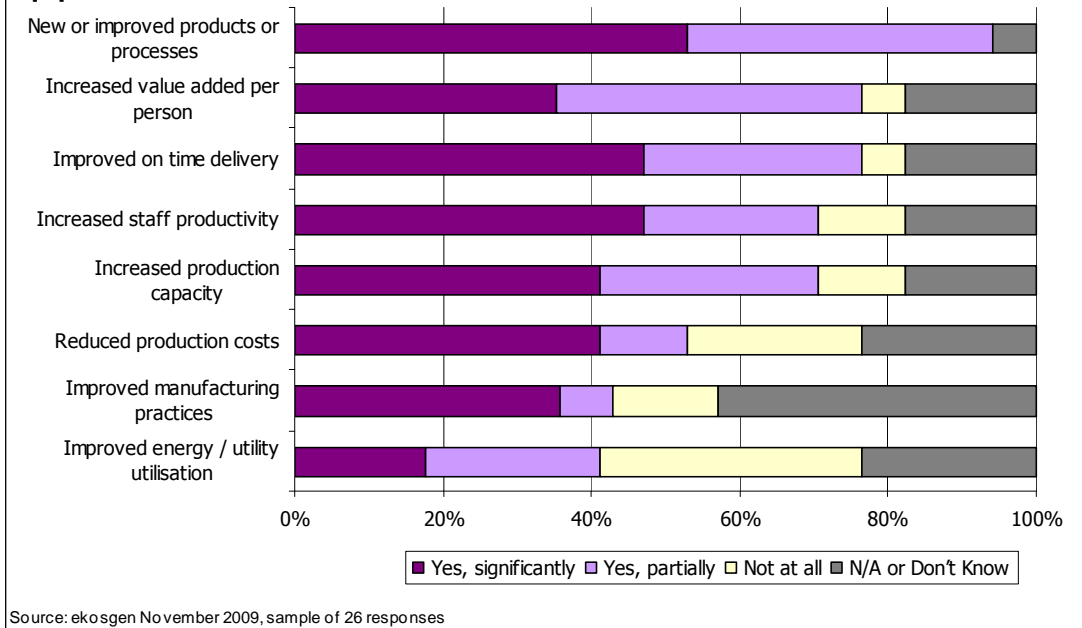
Figure 4.6: How the business has benefited from the training



New Technology or Equipment

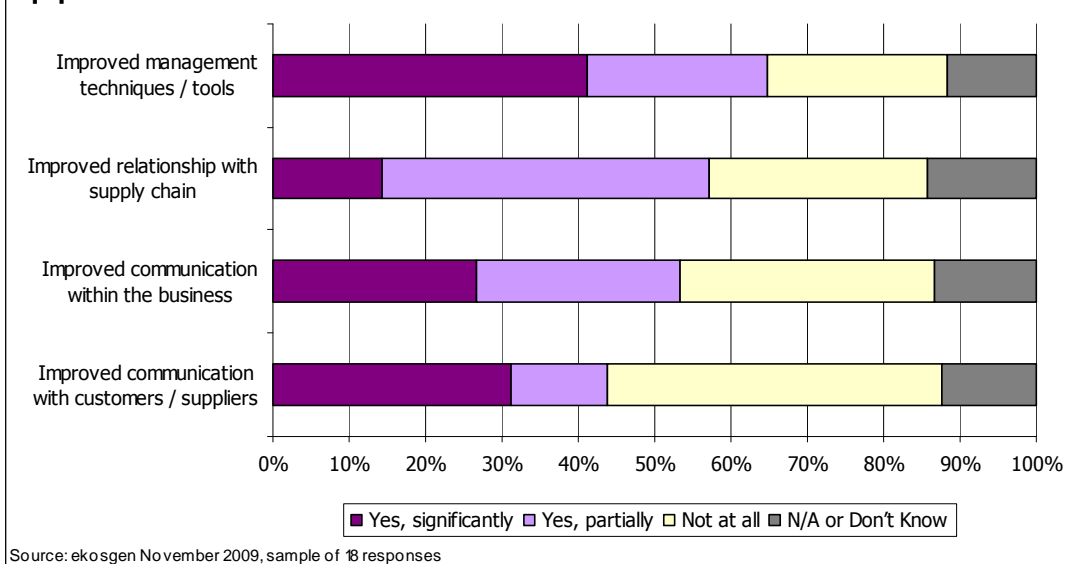
4.19 Around two-thirds of respondents either used the grant to purchase new machinery (63%) or purchase new technology (67%). In terms of outcomes, the vast majority of respondents reported that the purchase(s) enabled them to introduce new products or processes (94%); as well as increase the value added per employee (76%); and improve on-time delivery (76%). These findings are shown in Figure 4.7 below.

Figure 4.7: Production and process outcomes as a result of new equipment



4.20 Alongside production related outcomes, new equipment has also generated organisational and management benefits (see Figure 4.8). Over half of the respondents reported improved management, relationships with suppliers; and/or enhanced communication within the company.

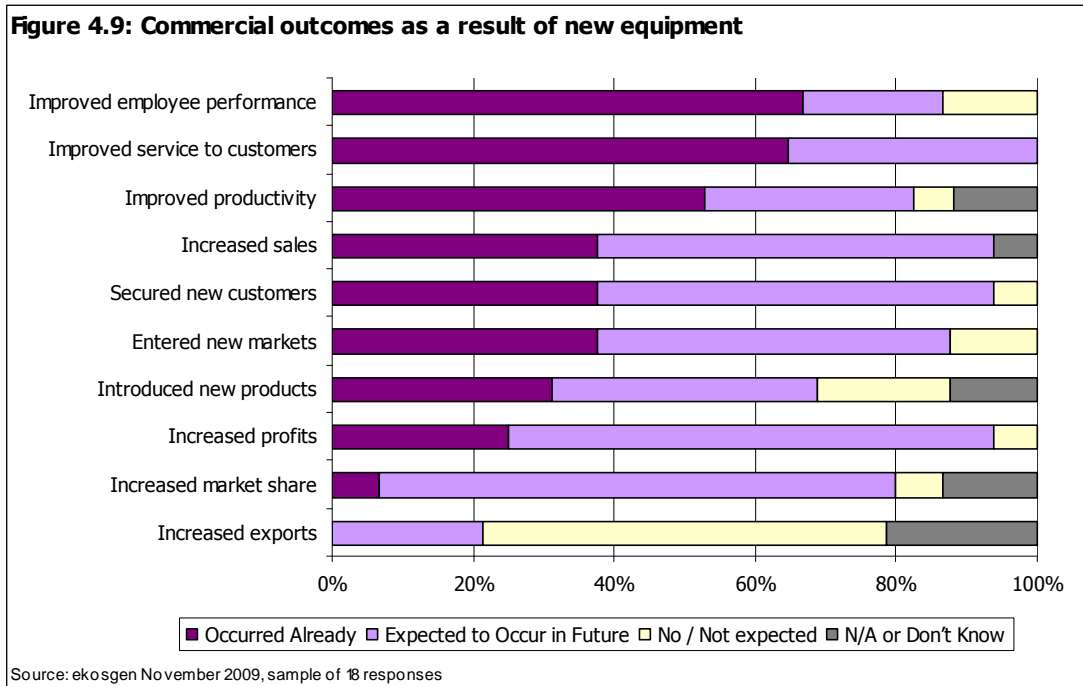
Figure 4.8: Organisational and managerial outcomes as a result of new equipment



4.21 Respondents have also experienced a range of commercial outcomes as a result of the new equipment or technology (Figure 4.9). For example, over half of them believe that the purchase has improved employee performance, improved service to customers and increased productivity.

4.22 Importantly, over 35% of businesses report that their new equipment has helped to increase sales whilst over 25% report it has contributed to an increase in company profits.

Further, a similar proportion of businesses expect these outcomes to occur in the future, particularly with regards to increased sales and increased profits.

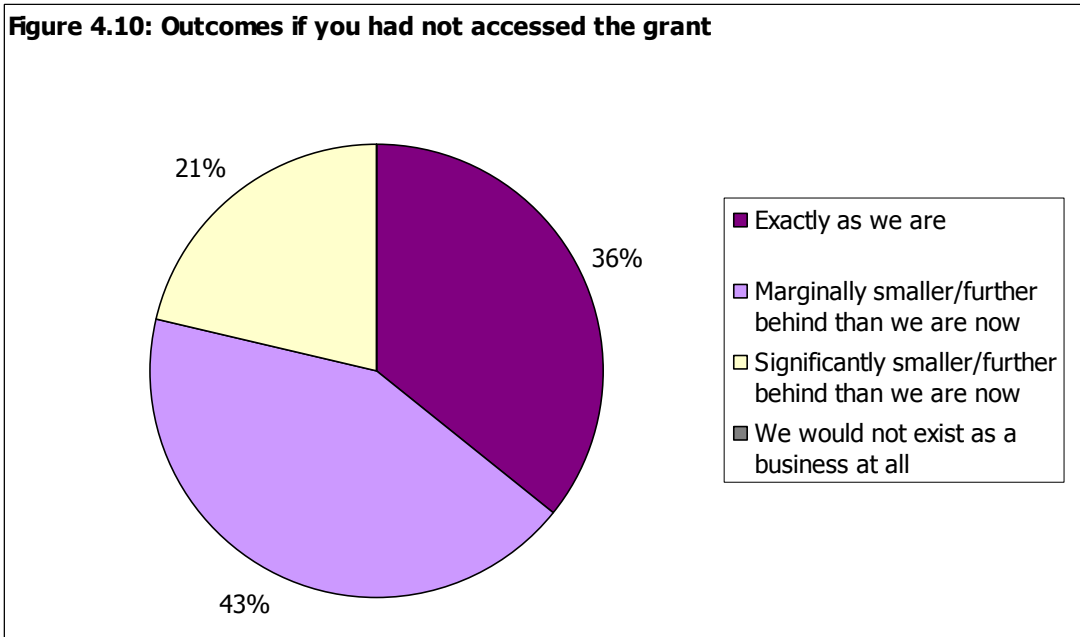


4.23 Overall, taking the quantitative and qualitative responses together, it is evident that the Technology Grant has enabled businesses to purchase equipment that is integral to their business growth plans: “[the new equipment] *has really made a difference to our business and we are very grateful for it.*” Most businesses were similarly positive about the benefits of training although two questioned the need for training to accompany the grant purchase: “*it’s not really what we need as a small business and it felt like lots of red tape.*”

Additionality

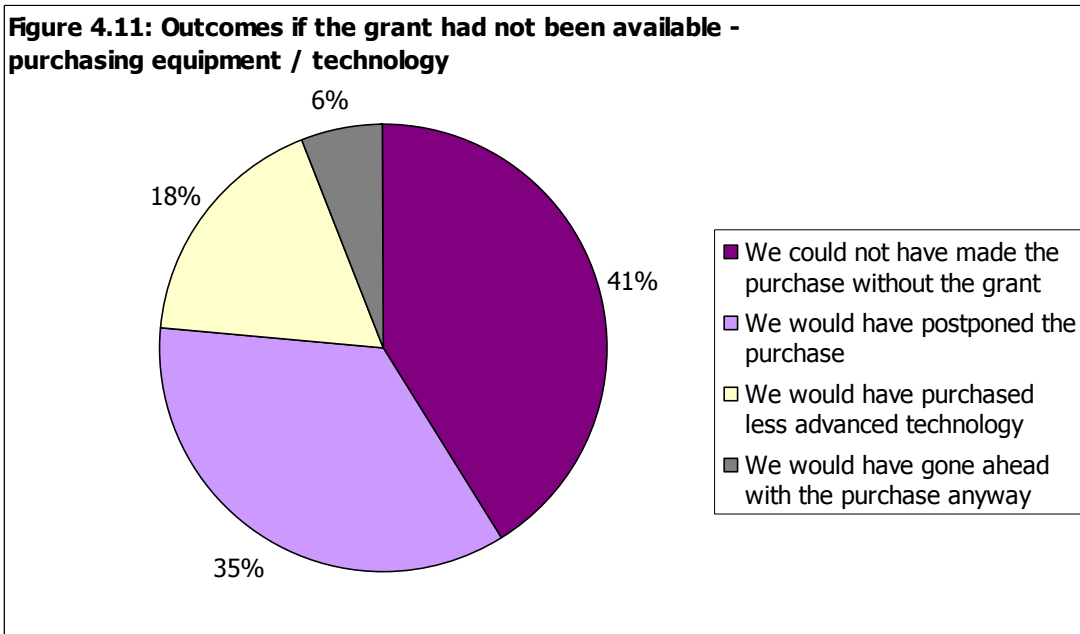
4.24 It seems that there is a high level of outcome additionality associated with the grant. Around two-thirds reported that their business would be somewhat smaller or further behind than it now, although a third report that the grant has not made any difference (see Figure 4.10 overleaf).

Figure 4.10: Outcomes if you had not accessed the grant

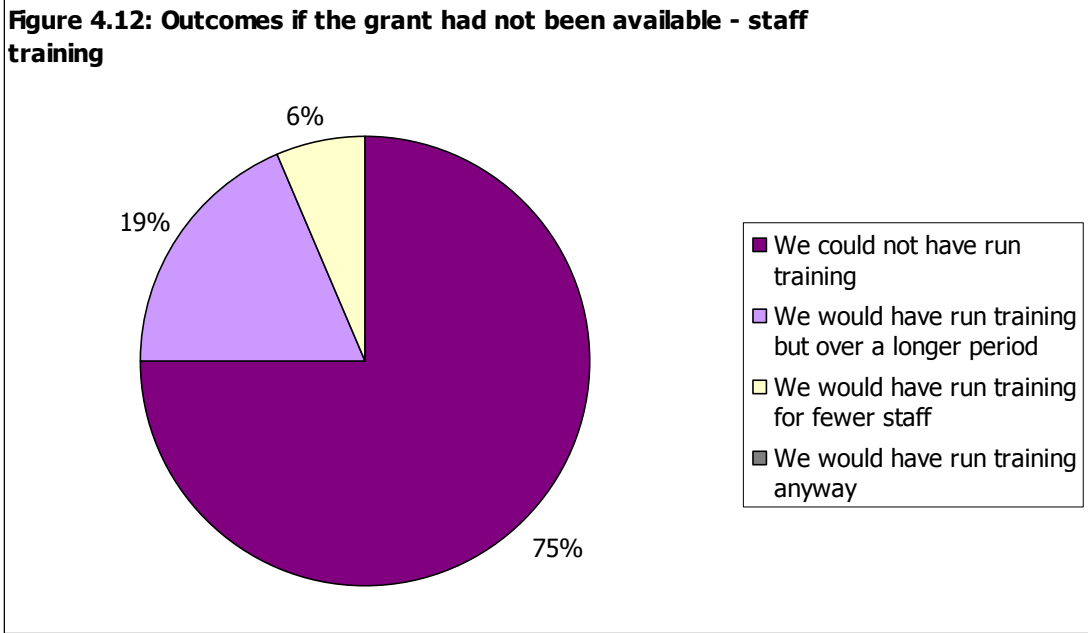


4.25 With regard to input additionality, that is, the **purchase of new technology or equipment**, 41% of respondents' record that they could not have purchased this if the Grant had not been available – equivalent to pure additionality. In contrast, only 6% believe that they would have made exactly the same purchase at exactly the same time (pure deadweight) whilst 35% would have postponed the purchase (partial/time deadweight) and 18% would have purchased less advanced/costly equipment (partial/scale deadweight). This is presented in Figure 4.11.

Figure 4.11: Outcomes if the grant had not been available - purchasing equipment / technology



4.26 Regarding the **take-up of training**, an even higher proportion of respondents (75%) report that they would not have engaged in this if the Grant had not been available (pure additionality). Indeed, there is no deadweight associated with this aspect of the support.



Summary

4.27 Businesses expressed several strong motivations for accessing the NTI grant, of which the most frequently cited was to engage in product or process innovation. Such aspirations were met with virtually all respondents reporting that the equipment or technology purchased through the Technology Grant had allowed them to introduce new product or process innovation. Further a high proportion of respondents also experienced productivity gains, not only because of the equipment that had been purchased, but also as a result of the training delivered to employees. Finally, a third of respondents reported an increase in sales and a quarter reported a growth in profit.

5 An Update of Phase 2 Technology Grant Beneficiaries

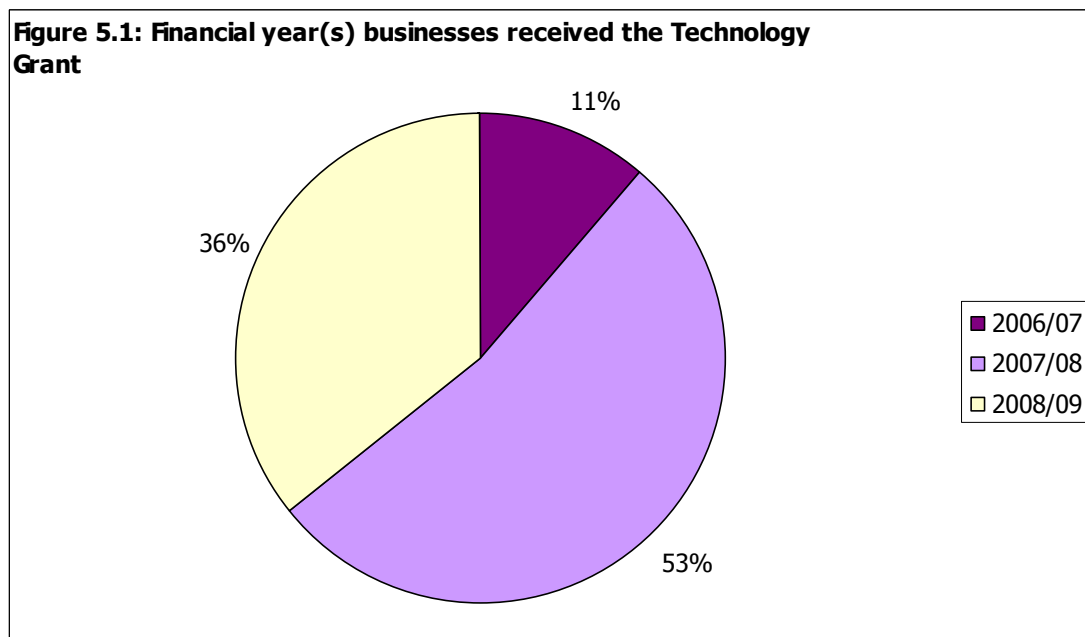
5.1 This chapter presents findings from the second of the two surveys directed at businesses. This survey was directed at businesses that accessed the Technology Grant during the second phase of the programme, that is, over the financial years 2006/07–08/09. The aim of the survey was two-fold. First to obtain an up-dated picture of the outcomes that they experienced and, second, to identify the extent to which they have been affected by the recession and whether the Technology Grant had made them more resilient.

A Profile of Respondents

5.2 The survey was sent to the 160 businesses that accessed the Technology Grant between 2006/07 and 2008/09. In total, 55 companies responded to the survey, equivalent to a response rate of 34. This gives confidence in the results at a 90% level (+/- 10% margin of error).

5.3 Responses were received from all four networks and the sector split is fairly equal with 28% of respondent businesses operating in HPE; 26% construction; 26% creative industries; and 20% food and drink. Most respondents are based in either Derbyshire or Nottinghamshire.

5.4 As shown in Figure 5.1 below, over half of the 06/07-08/09 businesses surveyed for this report received grant in 2007/08.

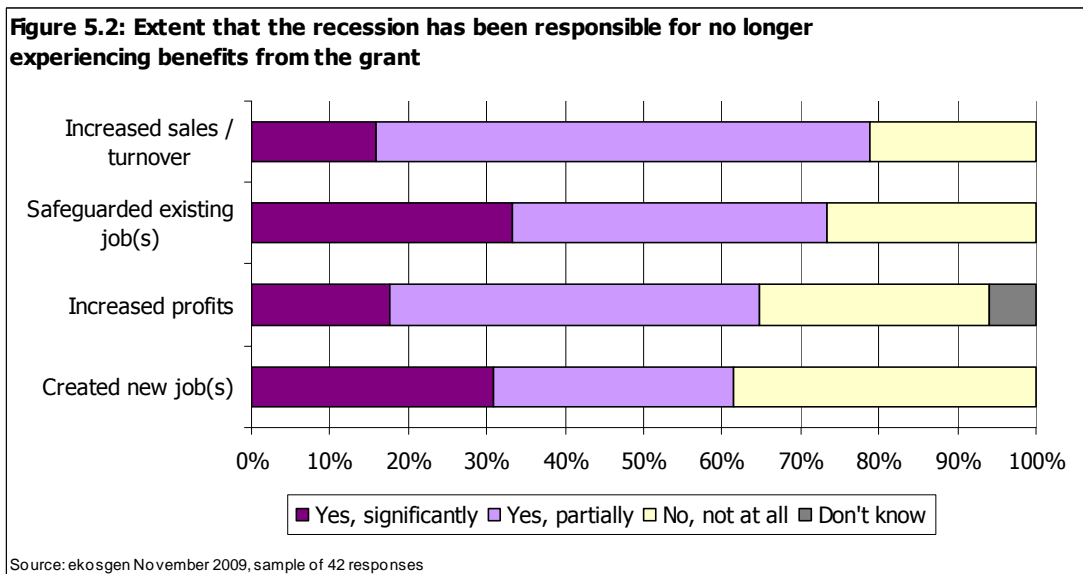


Technology Grant Outcomes to Date

5.5 Results from the survey show that the historic persistence rate for increased sales is approximately 1.5 years; i.e. that each business receiving a grant during the second phase experienced commercial benefits for an average 1.5 years as of November 2009. Encouragingly, approximately half of the respondents (18–20 of the sample) report that they are still benefiting from the new equipment in terms of increased sales and profits.

5.6 A third of the respondents reported that they are not experiencing any commercial outcomes as a result of the Technology Grant and there appear to be three reasons for this. Perhaps unsurprisingly, the recession is the primary reason why businesses are no longer experiencing outcomes, although a couple of respondents reported that it had made them more resilient: “... we have had to work a lot harder and be more cost effective during the past 12-18 months of trading. The Technology Grant has assisted us in becoming more efficient and therefore cost effective.”

5.7 The second reason is that the impact of the equipment has declined, particularly within the HPE sector where the pace of new technology is very fast. Finally, a small group of companies report that have not yet experienced commercial benefits because of a one to two year lag between implementation and outcome. One respondent noted, [the Technology Grant] was a great support during difficult times, the benefits of which will not appear for another couple of years or so.”



5.8 When surveyed for the 2008 evaluation report, 62% of survey respondents reported that they had increased sales as a result of the new equipment. Surveyed again for this report, the proportion has increased to 67%. For reference, 38% of the 09/10 cohort has increased sales to date and this proportion is expected to increase to 60% or so over the coming year(s).

Impact of the Recession

5.9 Over the past 12 months, 62% of businesses have experienced difficulties linked to the recession (affecting their sales, profits and/or employment) with the greatest impact being made on business sales (68% affected). Of those affected, 72% report that without the new equipment, the difficulties would have been greater. For example, equipment or technology purchased with the support of the grant has led to efficiency improvements, which in turn, has enhanced business competitiveness in an increasingly global market place. Also, it has allowed companies to broaden their customer base into areas less affected by the recession. “While levels of sales have stayed the same, even increased slightly, pressure on price due to the recession has had an impact on profitability. The technology has helped us to manage and control this more effectively.”

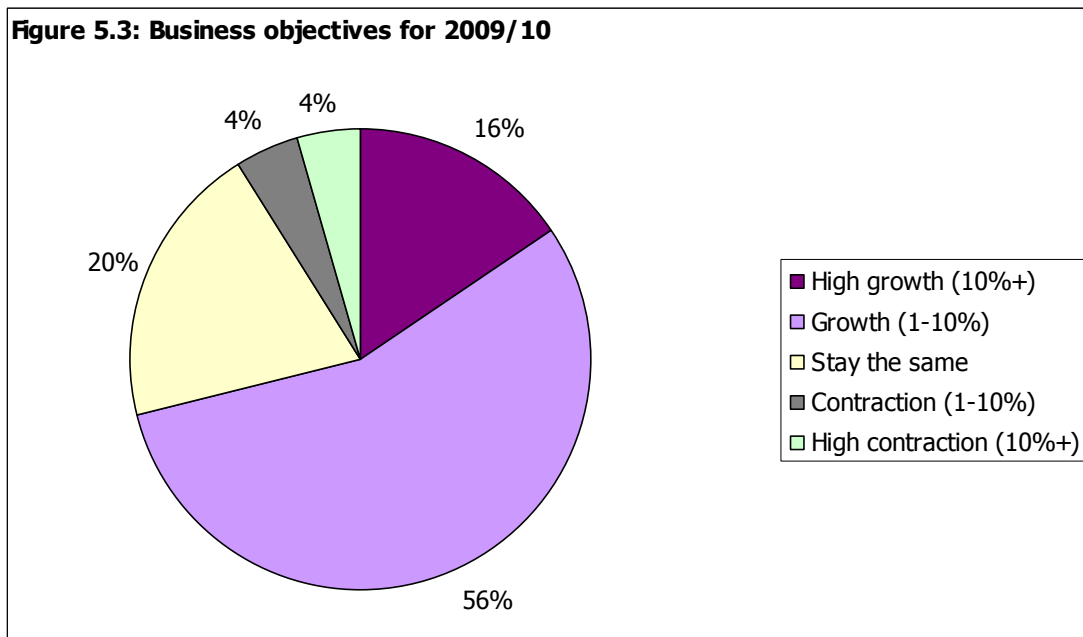
5.10 Overall, there is evidence that equipment purchased through the Technology Grant has helped some businesses to remain resilient during the recession, as well as helping them achieve their growth aspirations during buoyant economic times.

The Role of Training

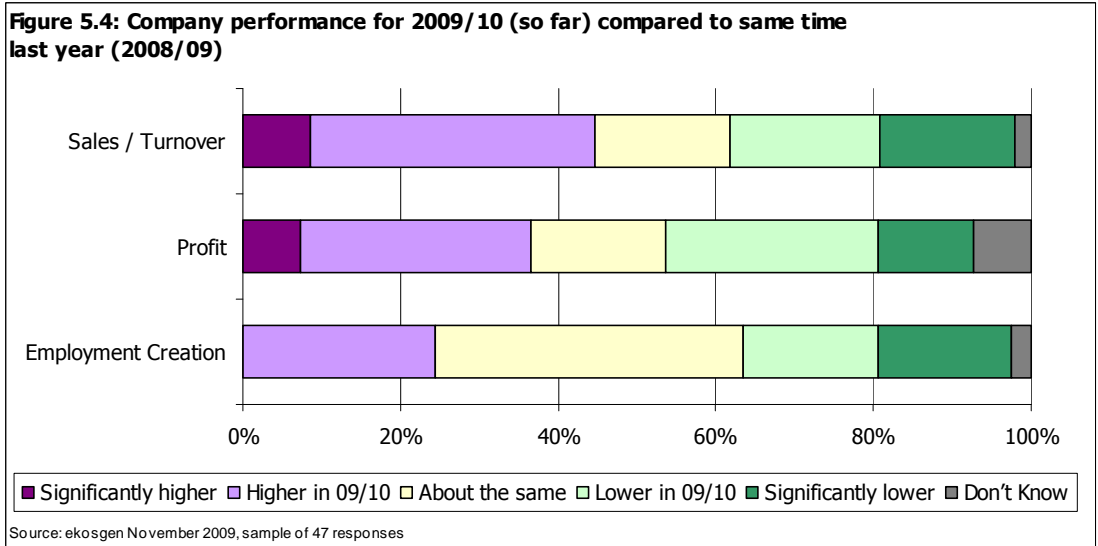
5.11 Workforce development is an important component of the Technology Grant and this element of the support has also proven to be beneficial during the recession. The majority of respondents (85%) reported that up-skilling the workforce had enabled them to weather the recession better. This is because businesses were able to improve their products or services, and reduce costs. One respondent noted, “[the grant has allowed us to] *remain and be more competitive by using in-house operatives for the skills we would have had to sub-let*”. Another respondent noted “[the training] *changed the way in which staff look at the way they work (e.g. continuous improvement)*.”

Future Growth Plans

5.12 Encouragingly, nearly three quarters of survey respondents are planning for business growth over the 09/10 financial year, and 16% of are expecting high growth. When asked how these growth projections compare to their targets for the previous, the response is fairly evenly split between those who note that targets are lower, the same or higher than 2008/09 (see Figure 5.3). Overall, 74% think that their growth targets for 2009/10 are the same or higher than they were for 2008/09.



5.13 This finding is also reflected in actual performance whereby 36% note that their performance to date in 2009/10 is lower than at the same point in 2008/09, although the same proportion report that it is better (see Figure 5.4 below). Put simply, 60% of respondents think that business performance as of November 2009 is the same or better than at the same point in 2008.



Summary

5.14 The historic persistence rate for increased sales is approximately 1.5 years. Encouragingly, approximately half of the respondents record that they are still benefiting from the new equipment in terms of increased sales and profits. Of those that are not experiencing continued benefits, between 60% and 80% think this is due to the recession.

5.15 Over the past 12 months, 62% of businesses have experienced difficulties linked to the recession particularly with regards to sales (68% affected). Of those affected, the majority report that without the new equipment, the difficulties would have been greater or significantly greater. Further, for many, up-skilling the workforce has also made them more resilient. Despite the difficult trading conditions over the last year or so in particular, the majority of respondents are planning for business growth over the 09/10 financial year.

6 The Net Impact of the Technology Grant

6.1 This chapter uses findings from the two surveys to calculate the net impact of the Technology Grant. To recall, the first survey was targeted at businesses accessing the grant in the third phase of the programme (March 2009–April 2010), whilst the second was directed at those accessing the grant during the second phase (March 2006–April 2010).

6.2 Net impact is calculated by identifying the gross outcomes experienced by the two cohorts to date along with those expected to occur in future. A series of adjustments are applied to calculate the outcomes that have occurred over and above what would have happened without the support.

6.3 The chapter aggregates the results of the two surveys and calculates the programme's net impact over its two phases, that is, between April 2006 and November 2009. Appendix 1 provides a breakdown of net impact by each phase, that is, the impact of the third phase (2009/10 to date) and that of the second (2006/07–2008/09).

Gross Outcomes

Total Gross Annual Outcomes

6.4 A high proportion of survey respondents reported that, as a direct result of the Technology Grant, they had experienced an increase in sales. This ranged from less than £10,000 per annum to over £500,000 per annum (of which there were two instances) – see Table 6.1

6.5 The proportion of survey respondents that recorded an increase have been applied to the overall number of businesses receiving a grant between 2006/07 and 2009/10. This equates to 240 businesses overall. On this basis, it can be seen, for example, that 60 businesses (25% of the total) achieved average sales increases of £5,000 per annum. Using this approach, it is estimated that the Technology Grant has contributed to an average of £10m in additional gross sales and £2.5m in additional gross profits per annum.

Persistence and Gross Outcomes

6.6 Businesses have accessed the Technology Grant at different points in time and, accordingly, some will have experienced outcomes for several years. Therefore, it is important to calculate the persistence rate for outcomes, which is achieved by asking respondents the number of years they have, or expect, to experience outcomes as a result of the support received. For those beneficiaries receiving a Technology Grant between 2006/07 and 2009/10, the persistence rate is 1.7 years. On this basis, the calculations show that the programme has contributed to an additional £17.4m in gross sales and £4.3m in gross profits over the period 2006/07–November 2009.

6.7 The survey also asked businesses whether, as a result of the Technology Grant, they expected sales and profits to continue to increase in future. On this basis, the future persistence rate is estimated to be 3.3 years for sales and 3.5 years for profits.

Total Gross Outcomes – Achieved and Actual

6.8 When anticipated impacts are combined with those that have occurred already, it appears that the Technology Grant is expected to contribute to £50.6m in additional gross sales and £12.9m in additional gross profits (to date and in future). The breakdown for these outcomes is presented in Table 6.1 below.

Table 6.1 Gross Sales and Profits						
Average Increase in Sales / Profits	Sales			Profits		
	% of Respondents	No of Programme Beneficiaries*	Aggregate Sales	% of Respondents	No of Programme Beneficiaries*	Aggregate Profits
£5,000	25%	60	£1,512,829	50%	120	£3,127,866
£17,500	25%	60	£5,294,901	19%	46	£4,170,488
£37,500	17%	40	£7,564,145	2%	6	£1,117,095
£75,000	9%	23	£8,509,663	5%	11	£4,468,380
£300,000	4%	10	£15,128,289	0%	0	£0
£500,000	2%	5	£12,606,908	0%	0	£0
Not expected	18%	43	£0	24%	57	£0
Total	100%	240	£50,616,735	100%	240	£12,883,828

* Calculated as % of survey respondents experiencing sales at the given ranges. E.g. 25% of survey respondents achieving sales increase of £5,000, applied to total beneficiaries (i.e. 25% of 240).

6.9 Using the same extrapolation process, Table 6.2 illustrates that 178 gross jobs have been created by the Technology Grants to date. This is not subject to historic persistence effects because businesses were asked about jobs created to date not per annum. Accordingly, this study assumes that jobs were created at about the same time as grant was implemented; it does not account for future jobs created as a result of the grant.

Table 6.2 Gross Employment				
No of New Employees	No of Respondents*	% of Respondents	No of Beneficiaries	Aggregate Employment
None	59	58%	140	0
1	23	23%	55	55
2	11	11%	26	52
3	4	4%	10	29
4	2	2%	5	19
5	2	2%	5	24
Total	101	100%	240	178

* Excludes those that did not answer the question.

6.10 It is estimated that the Technology Grants have enabled increases to date of £17m in gross sales, £4m in gross profits and the creation of 178 new gross jobs to date. If future anticipated impacts are also included, the Technology Grants can be seen as contributing towards increases of £51m in gross sales and £13m in gross profits. Table 6.3 below summarises the gross outcomes that have been generated by the Technology Grant to date and anticipated to occur in the future.

6.11 Using the latest turnover to Gross Value Added (GVA) ratio for the East Midlands economy (1:0.33), it can be estimated that the Technology Grants have contributed GVA (gross) of £5.7m to date or £16.5m in total (including future effects).³

Table 6.3 Gross Impacts Summary			
	Outcomes Achieved to Date	Anticipated Outcomes	Total
Increased Sales	£17.4m	£33.2m	£50.6m
Increased Profits	£4.3m	£8.6m	£12.9m
GVA	£5.7m	£10.8m	£16.5m
Jobs Created	178	-	178

³ GVA has been calculated by applying increased sales against ABI regional turnover:GVA ratio (2007) = 1:0.33

Deadweight

6.12 Deadweight is the adjustment that takes into account the benefits that businesses would have achieved regardless of the support they received. Table 6.4 summarises the level of deadweight associated with sales and profits to date.

Table 6.4 Measures of Deadweight		
Proportion of businesses responding that...	Sales	Profits
All of the sales / profits would have occurred anyway – pure deadweight	2.5%	6.5%
Some of the sales / profits would have occurred but not as quickly – time deadweight	52%	48%
Some of the sales / profits would have occurred but by a smaller margin – scale deadweight	27%	32%
None of the sales / profits would have occurred without the grant – zero deadweight	19%	13%

6.13 The calculation for deadweight is based on the following⁴:

- Gross Attributable Benefits
- minus pure deadweight;
- minus 50% deadweight for those stating some of the benefits would have occurred not as quickly; and
- minus 50% deadweight for those stating some of the benefits would have occurred by a smaller amount.

6.14 Table 6.5 below applies the calculation with regards to achieved and anticipated gross sales and profits.

Table 6.5 Sales and Profit Deadweight					
Types of deadweight	Adjustment	Sales		Profits	
		Survey Response	Deadweight £'000s	Survey Response	Deadweight £'000s
Pure deadweight	100%	2.5%	£1,249,796	6.5%	£836,612
Time deadweight	50%	52%	£13,122,857	48%	£3,095,465
Scale deadweight	50%	27%	£6,873,878	32%	£2,091,531
Zero deadweight	0%	19%	£0	13%	£0
Total Deadweight			£21,246,531		£6,023,608
			42%		47%
Gross outcomes minus deadweight			£51m minus £21m		£13m minus £6m

6.15 The table shows that deadweight is higher for profits than for sales, which is a common experience. The calculations highlight that the programme has secured £29.4m in sales and £6.9m in profits that would not have occurred otherwise.

Leakage

6.16 Leakage refers to any benefits experienced by beneficiaries that are outside a programme's target group. In this case, it would apply to any benefits experienced by companies not operating in one of the four priority sectors and/or which are not located in the East Midlands. As the monitoring data shows, virtually all the businesses that received a

⁴ Note, these are based on the evaluators' experience, rather than specific formulas or benchmarks.

Technology Grant met its eligibility criteria. Accordingly, leakage is likely to be relatively low and, on this basis, this adjustment factor is estimated as 1.5%.

Displacement

6.17 Displacement refers to the extent to which business benefits (of accessing the grant) have occurred at the expense of other businesses that have not received support, both in the East Midlands and the rest of the UK. Survey responses lead to a displacement estimate of 9.5% although small businesses tend to under-estimate this due to gaps in competitor market intelligence. The table below shows how this adjustment has been calculated.

Displacement	Level of Displacement	% of Survey respondents	Displacement Adjustment
All of the increase at expense of EM companies	100%	2%	2%
Significant % of increase at expense of EM companies	80%	2%	1%
Moderate % of increase at expense of EM companies	50%	5%	3%
Marginal % of increase at expense of EM companies	25%	21%	5%
None of the increase at expense of EM companies	0%	23%	0%
Some of the increase at expense of UK companies	0%	23%	0%
None of the increase at expense of UK companies	0%	23%	0%
Total		100%	9.5%

Substitution

6.18 Substitution occurs when a business switches from one planned investment or activity in order to implement another. Around 10% of survey respondents (who answered the question) reported that by accessing the Technology Grant, this had prevented them from making an investment elsewhere in their business. This is slightly higher than other comparable programmes. However, it does not suggest that other investment would have achieved higher or lower outcomes as those achieved through the Technology Grant.

Multipliers

6.19 Multipliers relate to the spin-off benefits generated by a programme and they generally take two forms. First, income multipliers relate to extra spend in the economy that has occurred through new employment. Second, supplier multipliers refer to the additional spend associated with increased orders made to suppliers. Multipliers are not simple to generate through primary research and it is common practice to use established benchmarks. This study has made use of benchmarks produced by English Partnerships and finds that a multiplier of 1.3 is most appropriate.⁵

Other effects

6.20 **Unintended effects:** It is likely that the Technology Grant will have generated some unintended consequences but, as these are likely to be low, no economic value has been attributed to them. Unintended effects tend to be more common with large scale land and property investments rather than business support programmes.

⁵ English Partnerships (2004) *The Additionality Guide* – Table 4.8: Multiplier Effects (page 24). Whilst this can be considered as a conservative estimate, it reflects that impacts on local supply chains or those arising from additional salary income will have been fairly standard

6.21 The **crowding out / crowding in** phenomena refers to the effects of public expenditure causing other variables in the economy to adjust. This is rare and tends to occur where the level of public expenditure is significantly higher in relation to the total investment of a given intervention. No economic value has been attributed to this adjustment factor.

6.22 **Wider effects on sustainable development** are not easy to quantify, although the Technology Grant may have had an impact on embedding sustainable development principles within the region. Anecdotal evidence from the Construction and HPE Networks suggests that firms have used grants to develop sustainable development products. However, no economic value has been attributed to this adjustment factor.

Net Impact

6.23 The process of applying adjustment factors to gross outcomes shows that the Technology Grant has been responsible for £10.4m of net increased sales, £2.3m increased profits and the creation of 106 jobs. If future impacts are also included, the programme is expected to be responsible for **increased sales of £30.2m, increased profits of £7.0m and 106 jobs created (to date and future anticipated).**

6.24 The previous report identified net increased sales per annum of £5.4m compared to £6.0m for this report.

6.25 Table 6.7 below applies the composite adjustment factors to calculate the gross GVA that has been generated by the grant. It illustrates gross to net based on: annual figures; GVA achieved to date (Net Present Value); and GVA anticipated to occur in the future. The total column presents the overall gross to net GVA of the programme, both to date and expected in the future.

Table 6.7: Gross to Net Impact Adjustments: GVA				
	Per annum	To date (NPV)	In future	Total
Gross Impact	3,279,961	5,698,933	10,841,136	16,540,068
Zero Deadweight (0% x 0%)	0	0	0	0
Partial Deadweight (52% x 50%) - time	850,360	1,477,501	2,810,665	4,288,166
Partial Deadweight (28% x 50%) - scale	445,427	773,929	1,472,253	2,246,182
Pure Deadweight (2% x 100%)	80,987	140,714	267,682	408,397
Total Deadweight @ 42%	1,376,774	2,392,145	4,550,600	6,942,745
Sub Total	1,903,187	3,306,788	6,290,535	9,597,324
Leakage @ 1.5%	28,548	49,602	94,358	143,960
Displacement @ 9.5%	180,123	312,964	595,354	908,318
Substitution @ 10%	190,319	330,679	629,054	959,732
Adjustments Total	398,990	693,245	1,318,766	2,012,010
Sub Total	1,504,198	2,613,544	4,971,770	7,585,313
Multipliers @ 1.3	451,259	784,063	1,491,531	2,275,594
Total Net Impact	1,955,457	3,397,607	6,463,300	9,860,907

6.26 As shown, **the Technology Grant has generated net GVA of £3.4m to date and, if future effects are included, it is expected to generate £9.9m net GVA in total.**

6.27 Over the 2006/07 to 2009/10 period, *emda* invested just over £2.5m in the Technology Grant. Based on current net GVA of £3.4m, this represents a return on investment of 1:1.4. If future effects are included, **net GVA of £9.9m represents a return on investment of 1:4**. This represents a reasonable return on investment, although analysis of comparable business support programmes indicates that they have secured a return on investment of 1:6 to 1:10.⁶ However, the higher returns on investment have been based on evaluations undertaken before 2009/10. This study is one of the first RDA evaluations to be conducted during the recession, and therefore may reflect the lower returns on investment that are achievable in the current climate.

6.28 **Cost per net job created equates to approximately £23,155** which is significantly lower than similar business support programmes and indicates that it represents excellent value for money for *emda*. In the PWC/BERR report, average cost per net job was found to be £35,000 to £40,000.

Summary

6.29 As shown in Table 6.8, between 2006/07 and 2009/10, the Technology Grant has generated net sales of £10.4m, £2.3m profits and the creation of 106 jobs. If future outcomes are included, the initiative is expected to be responsible for increased sales of £30.2m and profits of £7.0m. This is equivalent to net GVA of £3.4m to date or £9.9m net GVA in future.

Table 6.8: Net Impacts Summary			
	Outcomes Achieved to Date	Anticipated Outcomes	Total
Increased Sales	£10.4m	£19.8m	£30.2m
Increased Profits	£2.3m	£4.7m	£7.0m
GVA	£3.4m	£6.5m	£9.9m
Jobs Created	106	-	106

6.30 In total *emda* has invested just over £2.5m in Technology Grant work-stream and, based on current net GVA of £3.4m, this represents a return on investment of 1:1.4. If future effects are included, net GVA of £9.9m represents a return on investment of 1:4, which is well placed compared to similar programmes. Cost per net job created equates to approximately £23,155 which is significantly lower than similar business support programmes.

⁶ PWC/BERR (2009) Impact of RDA Spending - Volume 1 (p33)

7 Collaborative Working

7.1 This chapter examines two forms of collaborative working. The first part examines relationships between HEIs and SMEs, focusing on the extent to which recommendations from the 2008 evaluation have been implemented. The second part examines relationships between the NTI networks and Innovation Networks. An outline of the role and remit of Innovation Networks is also given.

Relationships between HEIs and SMEs

7.2 Over the last decade or so, there has been a major political imperative to encourage the higher and further education sector to work more closely with employers and business in order to support economic and social development through innovation, enterprise and skills. Against this broader context and the operation of the NTI programme, the previous evaluation made two recommendations to enhance collaborative working between the two sectors, which were:

- To encourage greater SME access to the institutional equipment purchased by network members;
- HEIs should consider developing a range of relationships with industry, such as knowledge transfer partnerships.

7.3 A third recommendation proposed that the Technology Grant should be targeted at high-growth, high-value added SMEs. Progress in implementing each recommendation is discussed in turn beginning with the extent to which networks have been able to target the grant at high-growth SMEs.

Targeting the Technology Grant

7.4 The previous evaluation concluded that demand for the Technology Grant was high and those companies that had received it had benefited in a variety of ways. Partly to manage the level of demand and partly to increase the impact of the NTI programme, the 2008 evaluation recommended the Technology Grant should be targeted at high-growth SMEs because they are likely to have a greater impact on increasing regional GVA than enterprises with average growth trajectories. This recommendation was made before the onset of the credit crunch and the ensuing recession.

7.5 Interviews with the networks reveal that none of them have sought to target particular types of SMEs; instead they have and continue to respond to demand. Indeed, because the level of awareness of the Grant amongst companies is sufficiently high, three of the networks have not been undertaking as much promotional activity as they did in the early years of the NTI programme.⁷ This means that the opportunity to adopt a targeted approach has been low. Further, given that the current programme is only operational for one year, it may not have been cost-effective to develop a new strategy and accompanying promotional material specifically designed to segment the SME market in each sector.

7.6 The recession has been a further underlying reason why the networks have not actively targeted high-growth SMEs. The influence of the recession can be seen in two ways. First, two of the networks (Construction and Food and Drink) experienced a decline in demand for the Grant for a few months, although they have recently seen this to increase.

⁷ The exception to this is the Healthcare network. As it was established in March 2009, the level of awareness of the NTI programme amongst SMEs within the sector is comparatively low.

Accordingly, trying to be selective at a time of low-demand was considered to be an inappropriate action. Second, the networks have been keen to support all types of SMEs within their sector that are seeking to realise their growth aspirations during difficult trading conditions. The networks have not wanted to decline support to businesses that are able to present a viable rationale as to why they should benefit from a Technology Grant.

7.7 In a couple of the networks, the recession has also changed the nature of applications being submitted:

- The **HPE sector** is characterised by a high proportion of micro enterprises and they have fared badly under the recession because they tend to operate at the end of the supply chain. Unlike previous years, over the past 12 months or so, applications have been submitted from micro enterprises seeking support to diversify or launch their own products.
- As the **Construction sector** has probably experienced the most decline, unsurprisingly, the network experienced a decline in applications as companies have been cautious of investing and buying equipment. This has meant that applications have been submitted from companies that operate across sector boundaries and, unlike previous years, it has been not immediately evident that they are eligible for support. This has led to a greater level of debate and discussion within the appraisal committee regarding in the merit of each application to ensure that eligibility rules are met.
- In the **Food and Drink sector**, a common theme relating to many of the applications is that the businesses are either seeking to diversify their products and/or get added value from them.

7.8 The Healthcare network is somewhat different to the others in that it became operational in March 2009. Accordingly, its main concern has been to raise awareness of the support available amongst SMEs rather than adopt a targeted approach.

7.9 To conclude, the recommendation to target high-growth SMEs has been overtaken by the current economic climate. The networks have responded pragmatically in order to support companies to achieve their growth aspirations and/or weather the recession. In short, the absence of adopting a targeting approach should not be viewed as a failure. Instead, it is a flexible response to changing economic conditions.

Increasing Access to Institutional Equipment

7.10 The previous evaluation recommended that networks should try to increase the number of SMEs that access institutional equipment. It is difficult to assess how much progress has been made in implementing this recommendation because none of the institutional members take a record of SMEs using equipment. The general view across three of the networks (leaving aside Healthcare) is that some institutional members are better at engaging with business than others and part of their engagement will include making equipment accessible.

7.11 One of the reasons why it is difficult to implement this recommendation and to track progress is that none of the networks or central NTI has any authority over individual institutions to encourage greater take-up. There are also issues specific to each network which has further made the implementation of this recommendation difficult. These are:

- Technology in the **HPE sector** is very fast moving and many SMEs have superior technology to that purchased by the institutions. Accordingly, there is little impetus on

the part of SMEs to access institutional equipment. Further, some members charge business for accessing equipment, which can potentially deter them from using it.

- In the **Construction sector**, it was noted that institutional members do not view equipment purchased through NTI as any different from that purchased ordinarily. Therefore, members do not log who uses the equipment and it is difficult to assess whether usage has increased.
- In the **Food and Drink sector**, a couple of the institutional members are using the equipment to provide consultancy support to companies. SMEs do not necessarily want to use the equipment on-site but value its application and the way in which it can support their commercial needs.
- HEIs operating in the **Healthcare sector** did not benefit from the institutional grant and therefore this recommendation does not apply to them.

7.12 To conclude, it appears that there is variation within each network as to the extent to which equipment purchased through the institutional grant has been made available to business. In three of the networks, some members have been proactive and viewed it as part of their broader engagement strategy with business, whilst others have been reticent to engage with industry per se and therefore not encouraged the use of equipment. Overall, as none of the institutions record who has used the equipment it is difficult to say whether usage has increased or stayed the same since the previous evaluation.

7.13 The lesson to emerge here for future interventions is the need for *emda* to specify its key aspirations for an intervention into specific outputs and outcomes and then ensure that progress in achieving these are monitored.

Broader Types of SME Engagement

7.14 The previous evaluation recommended that aside from their engagement with SMEs through workforce development, network members should seek to foster other types of relationships with SMEs. There is evidence across the networks that the institutions are working with companies, particularly around innovation and research. For example, in the HPE network, Cougar Red Ltd. worked with University of Northampton and other partners to develop a Bio-ethanol fuelled racing motorbike. The fuel has the potential to be used in motorsport, as well as find applications in other sectors such marine, automotive and aerospace.

7.15 At a broader level, however, it is difficult to assess the scale of collaboration that has taken place between HEIs and SMEs for several reasons. First, each institution has its own strategy for business engagement and so the influence of the network is limited. From the interviews it is evident that some members are keen to engage with business whilst others are less so. Second, even when they are keen, business engagement is reported to be undermined by insufficient manpower and resources. Given their teaching and research commitments, academic staff can find it difficult to find the time to work with business. Finally, under the current NTI programme, institutional members are not under contract to foster specific types of relationships with business, which means they did not have to report progress to the networks.

7.16 It should also be acknowledged that, for their part, SMEs can be reluctant to engage with HEIs because they do not see any merit in doing so.

7.17 To conclude, HEI and SME engagement is taking place, although it is doing so at an institutional level rather than through the framework of the network. This makes it difficult to gauge the nature of scale of collaborative activity and whether this has increased over time.

Working with I-Nets

The Development of I-Nets: Remit and Role

7.18 The East Midlands is experiencing an 'innovation deficit' and to help address this issue, the East Midlands Innovation Council was established. In 2006, it published the Regional Innovation Strategy (RIS) and Action Plan, which provides a comprehensive framework for investment and support to build a regional innovation-led economy. The RIS comprises four strategic themes and corresponding actions. These actions are being coordinated by four Innovation Networks (I-Nets), which are focused on one of the RES priority sectors. The four I-Nets are:

- Healthcare and Bioscience;
- Food and Drink;
- Transport and
- Sustainable Construction.

7.19 The I-Nets are managed by a consortium of innovation stakeholders comprising businesses, universities, the public sector and individuals. The activities of each I-Net are delivered by an executive team, comprising a Director and several Business Advisers.

7.20 The core activities of each I-Net are as follows:

- Management and administration of two funds:
 - (a) The Higher Education Institute Collaboration Fund, which encourages collaboration between regional universities; and
 - (b) The Innovation Support Fund, which supports businesses to secure expertise to facilitate any aspect of innovation.
- Delivery of a programme of sector specific events to offer insight in to key topics of interest to innovation stakeholders. The events aim to bring innovation stakeholders together to share knowledge. It is hoped that raising the quantity and quality of knowledge exchanges between businesses, universities and public sector representatives will result in more collaborative ventures and stimulate commercialisation of ideas.

7.21 The overall aim of I-Nets is to increase innovative activity through enabling higher quality of interactions between innovation stakeholders. It is envisaged that such interactions will enhance business competitiveness and increase productivity gains.

7.22 The four I-Nets became operational at different times. They cover similar sectors as the NTI networks and there is an aspiration amongst some stakeholders that the two should work together – see figure 7.1. The sub section below details the extent to which this is occurring.

Figure 7.1: I-Nets, operational date and corresponding NTI Network		
I-Net	Operational Date	Network
Healthcare and Bioscience	April 2008	Healthcare
Food and Drink	June 2008	Food and Drink
Transport	April 2009	HPE
Sustainable Construction	May 2009	Construction

The Nature of Current Collaboration between Networks and I-Nets

7.23 There is variation as to the extent to which NTI networks have collaborated with I-Nets, which is partly due to the timing of the latter becoming operational. For example, there is extensive collaboration between the Food and Drink network and the I-Net because the latter has been operational for 18 months or so. By contrast, the level of joint working between the two construction forums is reported to be in its infancy with the I-Net having only recently become established.

7.24 Another factor that underpins the extent to which collaboration has taken place is the level of dependency of one forum on another. The Healthcare and HPE sectors provide contrasting examples of this. Taking the former first, the Healthcare network only became operational in March 2009 whereas the I-Net was one of the first to have been formed. The NTI network has worked closely with the I-Net with regards to organising joint events and, importantly, it has relied on the I-Net for Technology Grant referrals.

7.25 There is evidence of cross-referral between the HPE network and the Transport I-Net, although the latter appears to have sought greater advice and support from the network compared to the other way round. The Transport I-Net has not been established for very long and business advisers have asked advice about how to engage with companies within that sub sector.

7.26 Overall, to date, there have been three areas where collaboration has taken place between networks and I-Nets:

- **Cross-referrals:** Networks refer those companies to the I-Nets that are seeking strategic advice about innovation and may be eligible for the Innovation Support Grant. For their part, the I-Nets refer companies who may benefit from the Technology Grant;
- **Joint events and promotion:** The Food and Drink and the Healthcare networks have both delivered joint events with their corresponding I-Net. It is also reported that the networks promote the work of I-Nets to their stakeholders.
- **Membership of strategic panels:** The Food and Drink and the HPE networks are members of the I-Net consortiums, potentially playing a role in strategic decision making, making use of their accumulated experience and insights of both the sector and the companies they have engaged with.

7.27 To conclude, neither the networks nor the I-Nets have viewed each other as competitors. They have sought to work collaboratively where there have been opportunities, although this has depended on the development of the I-Net.

Opportunities for Future working

7.28 The I-Nets are considered to be the core mechanism through which the activities of the RIS will be delivered. It is expected that they will be operational for the next few years.

7.29 The networks were formed to deliver the NTI programme. They have proven to be successful not only in delivering core work streams but also in encouraging working relationships between institutional members. It is widely acknowledged that before the programme, many institutions that now work together previously viewed each other as competitors.

7.30 As the NTI contract will come to an end in March 2010, all the networks are uncertain about their future. Under this contract, each network has already experienced a decline in membership as the institutional grant was not available. The general perception is that sooner or later each network will cease to exist because (a) there is no concrete activity for them to deliver; (b) there is nobody to assume responsibility for secretariat functions; (c) in future, without a clear reward or incentive, it may be difficult for some members to justify the time devoted to attend meetings.

7.31 Given that the networks are uncertain about their future, opportunities for working with I-Nets, at this stage, seem somewhat limited for the Healthcare and HPE sectors. There may be greater opportunity within the Construction sector as the network is under contract to deliver the LSC funded project, *Innovation in Sustainable Communities*. Therefore, it is likely that it will continue to remain operational until 2011. There may also be an opportunity within the Food and Drink sector as core members of the network are also members of the I-Net. Neither network, however, was able to cite specific areas where they may work collaboratively.

Summary

7.32 This chapter made several conclusions regarding collaborative working, which were:

- For various reasons, including the influence of the recession, all of the networks have responded to demand from SMEs with regards to the Technology Grant, rather than targeting high-growth enterprises.
- To conclude, it appears that there is variation within each network as to the extent to which equipment purchased through the institutional grant has been made available to business. As none of the institutions record who has used the equipment it is difficult to say whether usage has increased or stayed the same since the previous evaluation. This is an area where with hindsight perhaps more stringent contractual obligations and monitoring may have promoted more SME usage.
- HEI and SME engagement is taking place, although it is doing so at an institutional level rather than through the framework of the network.
- There is variation as to the extent to which NTI networks have collaborated with I-Nets, which is partly related the timing of the latter becoming operational. Collaboration has generally taken the form of cross –referrals and organising joint events.
- Given that the networks are uncertain about their future, opportunities for working with I-Nets, at this stage, seem somewhat limited for two of the sectors (Healthcare and HPE), although there appears to be greater potential within Construction and Food and Drink.

8 Conclusions and Recommendations

8.1 This chapter presents a series of conclusions emerging from the follow-up evaluation, focusing on the extent to which recommendations from the previous evaluation have been acted on and the net impact of the Technology Grant. It also includes recommendations about the sustainability of networks and making best use of the tacit knowledge built up by three of them.

Implementation of Previous Recommendations

Targeting High Growth SMEs

8.2 The previous evaluation recommended that the Technology Grant should be directed primarily at high growth SMEs since they are likely to make a greater contribution to regional GVA. In practice, this recommendation became inappropriate with the onset of the recession and, accordingly, none of the networks sought to implement a targeted approach. Instead, they acted pragmatically, responding to demand and providing support to those companies wishing to invest in new technology and equipment. They were correct to do so and to encourage companies to think about the long term, as the natural reaction of many in an economic crisis is to focus on the short term and to curtail expenditure on activities supporting their competitiveness in the medium to long term.

Encouraging Take-Up of Institutional Equipment

8.3 The previous evaluation documented the benefits associated with the Institutional Grant whereby funding from the Single Pot and ERDF enabled institutional members to purchase equipment they may not have otherwise been able to. In line with the ethos of the programme and national and regional policy objectives relating to innovation and HEI–SME collaboration, the previous report recommended that equipment purchased through the NTI programme should be made available to industry.

8.4 This evaluation has found it difficult to assess the extent to which this recommendation has been implemented, primarily because there has been no system of recording or monitoring usage of equipment. Neither has there been a baseline against which to compare any increase. Anecdotal evidence suggests that, within each network, institutions are likely to vary in making available their equipment available to business.

8.5 Within the context of the logic chain, making equipment available to a wider audience can be regarded as a wider impact of the grant. On this basis, it is unfortunate that the full impacts of the programme have not been evidenced. The lesson going forward is to set out the outcomes and impacts of an intervention (before and during the implementation period) to ensure that the appropriate indicators and research tools are designed to capture them. This is becoming even more important given public sector budgetary constraints.

HEI and SME Collaboration

8.6 The previous evaluation recommended that there was scope to increase the level of HEI and SME interaction. Again, it has been difficult to assess this because the nature and scale of such engagement is not formally recorded. However, there are two key points to make. First, anecdotal evidence suggests that collaboration between the two sectors is taking place, although not through the framework or structure of the network. Individual institutional members are pursuing links and engagement through their own strategic plans. Second, some institutions are reported to be experienced and more effective at collaborating

with SMEs whilst others are less so. Again, a system of recording this impact would have been useful.

The Impact of the Technology Grant

8.7 Between 2006/07 and 2009/10, the Technology Grant work-stream contributed to £17.4m in additional gross sales and £4.3m in additional gross profits, based on an average persistence rate of 1.7 years. It also led to the creation of 178 gross jobs.

8.8 If anticipated future impacts are included, the work-stream is expected to contribute to £50.6m in additional gross sales and £12.9m in additional gross profits. This is equivalent to GVA (gross) of £3.4m to date or £6.5m in total (including future effects).

8.9 The study applied a series of adjustment factors to calculate the net impact of the Technology Grant work-stream. Table 8.1 presents the combined results of the two phases of the grant, with appendix 1 providing a breakdown of gross and net impacts generated under each of the two phases subject to an evaluation, that is, between 2006/07–2008/09, and 2008/09 to 2009/2010.

8.10 It can be seen that across the two phases, the Technology Grant has generated net sales of £10.4m, £2.3m profits and created 106 jobs. If future outcomes are included, the initiative is expected to generate increased sales of £30.2m and profits of £7.0m. This is equivalent to net GVA of £3.4m to date or £9.9m net GVA in future.

	Outcomes Achieved to Date	Anticipated Outcomes	Total
Increased Sales	£10.4m	£19.8m	£30.2m
Increased Profits	£2.3m	£4.7m	£7.0m
GVA	£3.4m	£6.5m	£9.9m
Jobs Created	106	-	106

8.11 In total *emda* has invested just over £2.5m in Technology Grant work-stream and, based on current net GVA of £3.4m, this represents a return on investment of 1:1.4. If future effects are included, net GVA of £9.9m represents a return on investment of 1:4, which is good compared to similar programmes. Cost per net job created equates to approximately £23,155 which is significantly lower than similar business support programmes and represents a good investment for the Agency.

Recommendations

8.12 Each network is currently engaged in discussions as to whether it wishes to continue and how it may do so. There appears to be little doubt that they would remain operational if they were involved in some form of project delivery. At this point in time, there appears to be scope for the Food and Drink and the Construction networks to continue as both are delivering projects other than the NTI contract. This provides a reason for network members to come together. However, in the HPE and Healthcare networks, there is an expectation that they may cease to exist shortly after March 2010 (even though members have benefited) because the NTI contract will have ended and other contracts have not been found.

8.13 With the exception of the Healthcare I-Net, which has been operational for 18 months and is staffed by advisers who have been working in the sector for a long time, it would appear that the others would benefit from the tacit knowledge gained by the networks over the last few years. The I-Nets are in a similar position as to that of the networks when they were first established. Each had to engage in promotional activity to raise awareness of themselves, their offer and develop relationships with SMEs. The I-Nets might find it useful to

tap into the contacts made by the networks and learn any good practice lessons about engagement.

8.14 It is recommended that each network produces a short Forward Strategy, which sets out options relating to any activities that could be expanded and / or a cessation plan. It would be useful if this could detail plans for knowledge transfer regarding SME engagement.