Scottish Enterprise Commercialisation Programme Review

Working Paper 3: Economic Impact To Date (2004-2007)

Scottish Enterprise

1 Economic Impact

This working paper summaries the key economic impacts arising from the Scottish Enterprise Commercialisation Programme to date (2004-2007), with a particular focus on turnover, GVA and employment arising from the100 surveyed companies only.

1.1 Approach to Assessing Economic Impact

The economic impact calculations are based on best practice guidance in Economic Impact Assessment developed by Scottish Enterprise[1]. It uses the approach as well as the standard question set[2] for assessing economic impact. This includes:

- collecting key impact variables
- adjusting the impact variables for additionality
- conducting a cost benefit analysis of the results

1.1.1 Collecting key impact variables

The key impact variables collected to understand the impact of Scottish Enterprise intervention covers turnover, employment and GVA.

Turnover was collected from the companies on an annual basis over the last four years as was employment. GVA was developed by subtracting the cost of bought in goods and services (excluding employee costs) on an annual basis over the last four years from the annual turnover level (or annual estimated cost of bought in goods and services where the company was pre turnover).

1.1.2 Gross to net adjustments (Additionality)

In order to understand the full impact of the commercialisation programme there is a need to assess the additionality of the intervention. In effect what has happened that would not have happened anyway.

The additional benefit of an intervention is the difference between the reference case (what has happened anyway) and the intervention case (the position when the intervention has been implemented).

In order to fully understand this there is a need to move all results from gross to net. This adjusts for

- deadweight – what would have happened anyway
- leakage – the extent to which the benefits are retained within Scotland
- displacement – the extent to which the benefits are coming at the expense of other Scottish based businesses
- substitution – the extent to which one activity is simply substituted for another
- multipliers – the positive downstream effects created through spending on supplies and the wider wages generated from these downstream effects

This process is illustrated in the diagram 1.1 below.

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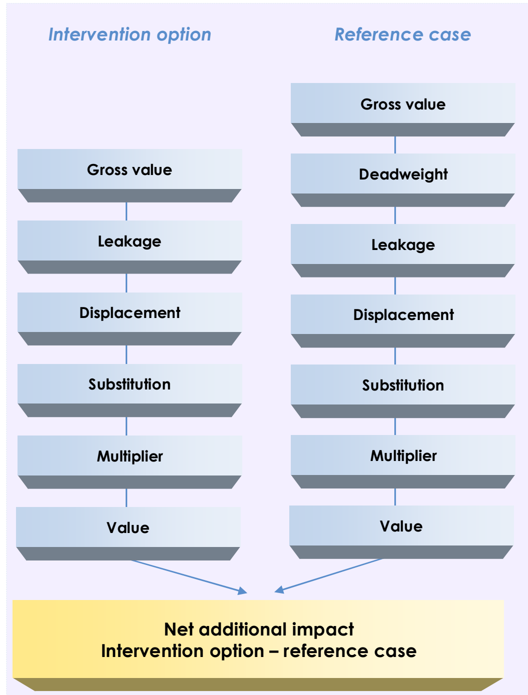
[1] Scottish Enterprise (2008) *Additionality and Economic Impact Assessment Guidance Note, A Summary Guide to Assessing the Additional Benefit, or Additionality of and Economic Development Project or Programme*, Appraisal and Evaluation Team

[2] Scottish Enterprise (2008) *Additionality & Economic Impact Assessment Guidance Note: Appendix 2: Standard Questions and Standard Reporting Outputs*, Appraisal and Evaluation

Adjusting for Additionality **Diagram 1.1**



The adjustments made to each of these factors are based on information supplied by the individual companies and therefore vary on a company by company basis. However, to provide some context to these variables we have provided the average values for each for reference.

Deadweight was calculated by asking the company how different their turnover and employment would have been without the Scottish Enterprise support. The average deadweight values amount to:

- 75% for turnover and GVA in 2007 (this means that 25% of the specific years turnover would not have been generated without the support)
- 77% for employment in 2007 (this means that 23% of the specific years employment would not have been generated without the support)

Displacement was applied consistently to employment, turnover and GVA based on the location of the companies direct competitors (and adjusted based on the growth of the market they operate in). For the Commercialisation Programme the average displacement amounted to 4% in 2007. This means that most companies are suggesting that they have virtually no competitors in Scotland and that they are operating in markets that have been either improving moderately or strongly over the last three years.

Leakage was estimated at 0% for turnover and GVA. At present Scottish Enterprise practice is to assume that if turnover and GVA are generated within Scotland then they are retained within Scotland. This assumption has therefore been used in the impact assessment.

Substitution was assessed by asking the companies about the extent to which they have replaced one activity with another (or employees for another) to benefit from public sector assistance. No company suggested they did either of these things leading to average substitution values of 0% for turnover, GVA and employment.

Multiplier values were sourced from the Scottish Input Output multiplier tables based on the full 4 digit Standard Industrial Classification code of the company. These were matched with Type 2 input output multipliers for Output (in the case of turnover), GVA and employment.

The GVA adjustments can be summarised in the Table below.

Evaluation Period GVA Additionality Adjustments **Table 1.1**

	2004 (Year 0)	**2005 (Year 1)**	**2006 (Year 2)**	**2007 (Year 3)**
	Gross value	**Gross value**	**Gross value**	**Gross value**
Deadweight	96%	96%	90%	75%
Displacement	4%	4%	4%	4%
Substitution	0%	0%	0%	0%
Leakage	0%	0%	0%	0%
Multipliers	1.68	1.68	1.68	1.68
	Net Impact	**Net Impact**	**Net Impact**	**Net Impact**
Discount 3.5%	1.000	0.9662	0.9335	0.9019
	Net Impact NPV	**Net Impact NPV**	**Net Impact NPV**	**Net Impact NPV**

1.1.3 Cost Benefit Analysis

Once the results were adjusted for additionality the net results were imported into the Scottish Enterprise cost benefit calculator.

Costs were collected on the sampled companies using data supplied by Scottish Enterprise. The data covers the amount of grant awarded to companies or was proxied based on project costs each year and the number of companies receiving support.

The results were discounted as per UK HM Treasury Best practice guidance at a rate of 3.5% per annum. This is based on the view that society prefers to generate benefits sooner rather than later. For the Commercialisation programme the base year was 2004, representing year zero for the evaluation. It needs to be recognised that some of the projects within the Commericalisation programme pre date this period, but for consistency of evaluation any costs and benefits associated with activities have been excluded. All impact figures have been converted to 2007 prices.

1.2 Turnover Impacts

It is appropriate to consider the generation of company benefits. This is measured as the net increase in turnover accruing as a direct result of the programme and represents a key measure of company growth.

The net turnover impact accruing over the period 2004-2007, amounts to **£37.2 million** (£34.6 million NPV). This is a benefit to cost ratio of 1: 2.68, or £2.68 return for every £1 invested in the Commercialisation programme by Scottish Enterprise. Full details are included in Table 1.2 below

Turnover Impacts of the Commercialisation Programme **Table 1.2**

Year	Costs	Net Present Value (Discounted Costs)	Turnover Impact	Net Present Value (Discounted Turnover)
2004	£2,648,427	£2,648,427	£3,117,952	£3,117,952
2005	£1,121,830	£1,083,894	£7,134,211	£6,892,958
2006	£3,639,752	£3,397,748	£9,311,114	£8,692,025
2007	£6,450,376	£5,817,869	£17,670,075	£15,937,395
Total	**£13,860,385**	**£12,947,938**	**£37,233,353**	**£34,640,330**
Benefit to Cost Ratio				**2.68**

1.3 Employment impacts

While turnover captures one element of business growth, it is also appropriate to consider the generation of employment effects within the businesses. This is also measured as the net increase or maintenance of employment as a direct result of the programme and represents another key measure of company growth.

The employment impacts need to be considered on an annual basis, as they cover both safeguarded and created jobs and cannot therefore simply be aggregated. Over the period 2004-2007 the total number of jobs either safeguarded or created by the Commercialisation Programme amounts to:

- 59 net jobs in 2004
- 90 net jobs in 2005
- 139 net jobs in 2006
- 368 net jobs in 2007

This is a substantial and growing level of employment and suggests that the Commercialisation programme has helped to create and safeguard a number of jobs across the Scottish economy. Full details are outlined in Table 1.3 below.

Employment Impacts of the Commercialisation Programme **Table 1.3**

Year	Jobs
2004	59
2005	90
2006	139
2007	368

1.4 GVA Impacts

An estimate of 'impact' is the ultimate effect of the project on the economy, or in this case, its contribution towards economic growth. This is measured as the net increase in gross value added (GVA) accruing as a direct result of the programme.

The net GVA impact accruing over the period 2004-2007, amounts to **£10.4 million** (£9.7 million NPV). This is a benefit to cost ratio of 1: 0.75 or a return of 75 pence for every £1 invested in the programme. This suggests that while there is a return this is lower than the level of investment in the programme to date.

GVA Impacts of the Commercialisation Programme — Table 1.4

Year	Costs	Net Present Value (Discounted Costs)	GVA Impact	Net Present Value (Discounted GVA)
2004	£2,648,427	£2,648,427	£1,106,042	£1,106,042
2005	£1,121,830	£1,083,894	£1,622,324	£1,567,463
2006	£3,639,752	£3,397,748	£2,782,669	£2,597,652
2007	£6,450,376	£5,817,869	£4,873,124	£4,395,279
Total	**£13,860,385**	**£12,947,938**	**£10,384,159**	**£9,666,435**
Benefit to Cost Ratio				**0.75**

1.5 Conclusions

The net additional benefit generated by the commercialisation programme over the period 2004-2007 amounts to:

- Net turnover impact of £37.2 million (£34.6 million NPV)
- 368 net jobs in 2008
- Net GVA impact of £10.4 million (£9.7 million NPV)