



Research Policy Analysis
Ymchwil Polisi Dadansoddi

ERDF BUSINESS SURVEY

(C-255/2008/09)

Final Report

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CONTENTS

	Page
1.0 Introduction	2
1.1 Aim of the Research	2
1.2 Method	4
1.3 The Achieved Sample of ERDF Supported Businesses	4
1.4 The Structure of the Report	6
2.0 Businesses Assisted by ERDF and the Nature of the Support	8
2.1 The Characteristics of Supported Businesses	8
2.2 Support Received from ERDF	9
2.3 Awareness of, and Access to Other Forms of Support	17
3.0 Perceptions of the Effects of ERDF Support	23
3.1 ERDF and Business Survival	23
3.2 Product and Process Innovation	26
3.3 ERDF and Employment	31
3.4 Effects on Turnover, Profitability and Productivity	37
4.0 The Business Survey Findings and Additionality	39
4.1 Introduction	39
4.2 Job Creation: Deadweight, Displacement and Multiplier Effects	39
4.3 Jobs Safeguarded	48
4.4 Other Impacts	50
5.0 Piloting Linking and Matching of Assisted Business Data	52
5.1 Introduction	52
5.2 Financial Analysis Made Easy (FAME)	53
5.3 The Inter-departmental Business Register (IDBR)	58
6.0 Conclusions and Recommendations	68
Appendix: Linking and Matching with FAME	76

1.0 INTRODUCTION

1.1 Aim of the Research

Old Bell 3 Ltd. working in association with Cardiff University and IFF Research Ltd. was appointed in July 2011 by the Welsh European Funding Office (WEFO) to undertake the ERDF Business Survey.

The aim of the study is to:

‘assess the effectiveness of the Enterprise, Business Finance¹, and R&D and Innovation areas of the Programmes. The survey will provide useful information on the outcomes achieved to date by the businesses assisted and financially supported by ERDF projects. In addition, recommendations for the Structural Funds Programmes in Wales post-2013, will be made on the basis of the findings of the survey’.

The objectives of the study are set out in Box 1 below:

Box 1: Objectives of the Study

1. To assess:
- businesses’ level of satisfaction with the quality of the assistance and financial support received (such as: ease of application and conditions of funding, and how this compares with other sources of financial support ; and whether the intervention was received at an appropriate point in businesses’ development);
 - businesses’ awareness of ERDF;
 - the quality of jobs created as a result of ERDF support;
 - whether, and to what extent, ERDF assisted businesses have made more effective use of ICT, such as in the delivery and/or operation of their business;
 - whether, and to what extent, ERDF assisted businesses have increased investment in R&D;

¹ In practice, however, there were insufficient business records to allow for Priority 2, Theme 2 of the Convergence Programme, Business Finance to be included in the study.

- whether, and to what extent, ERDF assisted businesses have developed new products, processes and services (and whether this development was in collaboration with HE or FE institutions or other businesses); and
- whether, and to what extent, ERDF assisted businesses have commercialised new products, processes and services.

2. In addition to the above, [to] utilise Programme monitoring data and data from the control group to assess impact to date in terms of:

- the number of jobs created as a result of ERDF support;
- any productivity gains of ERDF assisted businesses;
- any increase in turnover of ERDF assisted businesses; and
- any increase in the exports of ERDF assisted businesses.

3. [To assess] the merits of different types of interventions (for example, but not limited to grants/repayable loans versus business advice) in achieving the outcomes above².

An Inception Meeting was held on 14 July in Cardiff. This clarified that the work should in fact consist of two major elements operating in parallel:

- a business survey (with a target of completing interviews with 900 businesses drawn from the current records of businesses assisted under the relevant Priorities and Themes of the Convergence and Competitiveness Programmes)³;
- a pilot exercise using data linking to 'flag' all of the assisted businesses on the WEFO database which can be found in two databases, the Business Structure Database (BSD) and the Financial Analysis Made Easy database (FAME - Bureau van Dijk) and to examine the feasibility of using these sources of data to examine the relative characteristics

² It needs to be recognised that the exclusion of Business Finance interventions from the available data made this last objective problematic.

³ These are Convergence Operational Programme: Priority 1, Theme 1 Research and Development, Innovation and Technology; Priority 1 Theme 2: ICT Infrastructure and Information Society for All; and Priority 2, Theme 1 Entrepreneurship and Regional Competitiveness and Employment Operational Programme: Priority 1: Knowledge and Innovation for Growth; and Priority 2: Business Competitiveness and Growth

and performance of businesses in receipt of support from ERDF and to use data on these characteristics to create a suitable control group against which the performance of assisted businesses could be compared.

1.2 Method

The Work Programme has involved:

- developing, piloting (with 20 businesses), and administering a survey from the 2,534 records provided by WEFO and analysing the results;
- using business identifiers to attempt to link into FAME and IDBR and reporting on the findings of the linking exercise.

1.3 The Achieved Sample of ERDF Supported Businesses

In all, a sample of some 1,927 businesses was loaded for the telephone fieldwork. The data provided included relatively little information about the businesses: for example, only half of records had any information about the size of the business and only 4% had information about the sector in which the business operated.

In total, some 778 businesses were interviewed before the sample was exhausted. Table 1.1 shows the nature of the outcomes for the 1,927 businesses. As will be seen, some 360 businesses (19%) refused to take part, while in 245 cases (13%), the respondent either did not recall having received the assistance or reported that there was no-one working in the business who could answer our questions. There is no single objective estimate of response rates, estimates of which will vary depending upon chosen population base but the response rate was:

- 40%, expressed as a percentage of all usable records supplied to the research team;
- 47%, if those who had no recall of participating in the project and those businesses which had closed are excluded;
- 52%, if those numbers which were unobtainable are also excluded.

Table 1.1: Outcomes from fieldwork sample

Sample loaded	1,927
Wrong number (different business)	15
Unobtainable	144
Company closed	30
Called: not answered, no reply, person not in	355
Completed interviews	778
Refusals	360
No recall of provision / participation (or no-one able to discuss)	245

The business records were drawn from a total of 12 projects which had submitted data on assisted businesses to WEFO. Table 1.2 shows the number of responses from each project included in the completed sample, as well as the Programme and Priority from which each is funded:

Table 1.2 Sample by project

Project	Programme/ Priority	No. achieved
eBusiness and ICT Support	Convergence P1	154
Knowledge Transfer and Collaborative Industrial Research	Convergence P1	70
Knowledge Exploitation Capacity Development	Convergence P1	50
Communities Two Point Zero	Convergence P1	20
SEACAMS	Convergence P1	7
Advanced Sustainable Manufacturing Technologies	Convergence P1	2
LCRI (Low Carbon Research Institute)	Convergence P1	0
Customer Engagement (Convergence)	Convergence P2	142
Enterprise Networks	Convergence P2	80
E-Business and ICT Support	Competitiveness P1	59
Customer Engagement (Competitiveness)	Competitiveness P2	183
North East Wales Strategic Business Parks	Competitiveness P2	11
Total Sample (n)		778

This was broadly representative of all records contained in the sample provided by WEFO.

Just under one third (33%) of the businesses supported were from the East Wales Competitiveness area. This means that East Wales businesses are over-represented in the sample compared with all assisted businesses to date as only 15% of assisted businesses across the two Programmes come from the Competitiveness area.

The businesses were fairly evenly split between those being supported through the two Research and Development Priorities (47%) and the two Business Competitiveness Priorities (54%): current monitoring data show that 71% of assisted businesses have derived support from the Business Competitiveness Priorities.

325 (or 42%) of all businesses who were interviewed (and 78% of businesses assisted through the Business Competitiveness Priorities) had received support from one of the two Customer Engagement projects. Experiences of these projects will therefore have strongly influenced the overall results of the survey. In this context, it is worth noting that these projects were conceived as principally assisting businesses with five employees or less, since signposting arrangements were in place to other support for larger businesses.

Similarly, the two related e-Business and ICT support projects accounted for some 27% of businesses responding to the survey and a majority (59%) of all those businesses which had been assisted under the R&D Priorities.

1.4 Structure of the Report

In the remainder of this report we present:

- The findings of the survey in terms of:
 - the size and nature of the workplaces, the nature of the support provided by ERDF, respondents' satisfaction with the support; the likelihood that they would have sourced it elsewhere and their awareness and use of other forms of support (including ESF) (Chapter 2);
 - respondents' perceptions of the effects of the ERDF support; the extent to which the support had been associated with job

- creation; and businesses' views on the effects of the support on turnover, profitability and productivity (Chapter 3);
- our analysis of the survey evidence in terms of the impact of ERDF (Chapter 4);
- The results of the pilot data linking and data matching exercise (Chapter 5);
- Our Conclusions and Recommendations (Chapter 6).

2.0 BUSINESSES ASSISTED BY ERDF AND THE NATURE OF THE SUPPORT

In this chapter we consider the characteristics of businesses which received support under ERDF and the nature of the support provided. Section 2.1 outlines the demographic characteristics of supported businesses. Section 2.2 explores the nature of support provided by ERDF. Section 2.3 considers the other types of support provided to these businesses.

2.1 The Characteristics of Supported Businesses

Table 2.1 sets out the key characteristics of the respondents' workplaces⁴. This immediately highlights the fact that the overwhelming majority of assisted businesses were in the for-profit sector, were Welsh owned and were small in terms of employment size. Seventy per cent of respondents' workplaces employed fewer than 10 workers, whilst 92% employed fewer than 50 at that site. This is broadly comparable with the overall population of businesses in Wales⁵.

Only a relatively small proportion of assisted workplaces were part of a larger business: more than three quarters were businesses with only one employment site, and of the minority which had several workplaces, most were headquartered in Wales. However, businesses were quite varied in terms of their 'maturity', with more than a third having been established in 1999 or earlier and a third being new businesses, which is perhaps surprising given the economic climate. This would suggest that ERDF support is being targeted appropriately, in that it is strongly focused on SMEs, and is nurturing the indigenous business base within Wales.

⁴ Please note: in all tables in this Chapter, figures refer to percentage of respondents rounded to one decimal unless otherwise stated. In some cases, figures do not sum to 100.0% due to rounding.

⁵ Published data on UK Business Activity available from the Office for National Statistics for 2011 based upon the Inter Departmental Business Register (IDBR) reveal that 82% of Welsh business units employ fewer than 10 workers while 97% employ fewer than 50 workers.

Table 2.1: Demographic characteristics of ERDF respondents

Workplace Demographics		
Sector		
Mainly seeking to make a profit		86.8
A charity, voluntary or co-operative organisation		11.6
Public sector organisation		1.5
Other		0.1
Workplace Context		
The only workplace in the organisation		76.7
Or is this the head office of an organisation		16.5
Or is this a branch of an organisation		5.9
Don't know		0.9
Country of Ownership		
Wales		95.6
Rest of UK		2.1
Outside of UK		1.2
Missing		1.2
Number of Employees	Organisation	Workplace
1	19.4	20.2
2-4	31.4	32.5
5-9	17.6	17.7
10-24	13.6	14.8
25-49	6.4	6.9
50-99	3.1	3.0
100-199	2.8	2.1
200-250	0.9	0.6
251-499	0.5	0.5
500 or more	3.1	0.8
Don't know / refused	1.2	0.9
Year workplace established		
2007-2011		32.7
2000-2006		30.9
1999 or earlier		36.3
Don't know		0.3

Source: Telephone Survey (778 Respondents)

2.2 Support Received from ERDF

Table 2.2 sets out the findings on the type of support received from ERDF.

Respondents were asked both to identify any of the following types of advice or support which they received through the ERDF project and what they thought was the main type of advice or support.

Table 2.2: Nature of support received

Advice or support with	All	Main
ICT and the internet	46.7	27.1
Marketing, sales	38.2	14.1
Starting a business	33.9	13.0
R&D	24.4	8.9
Finance or investment	25.3	7.3
HR and personnel issues	20.4	6.7
None of the Above	3.6	6.3
Don't know / can't remember	0.9	4.8
Developing partnerships	23.7	4.5
Referral to other agencies	27.9	2.3
Environmental management	15.2	1.7
Business premises	10.4	1.3
Other	0.5	1.3
Environmental technology transfer	4.8	0.5
Advice or support with accreditation	1.2	0.3

Source: Telephone Survey (778 respondents)

Support with ICT and the internet emerges as a strong theme here, most commonly cited both as a form of advice and support and as the most important form, with more than a quarter of respondents selecting this as the key form of advice and support. While this in part reflects the strong representation within the sample of businesses assisted by the eBusiness and ICT projects, clearly many businesses supported by other projects also identified some advice on this subject as being a part of the package of assistance received.

Marketing and sales and advice on starting a business were the other most commonly cited forms of advice and support in response to both questions, with in each case more than a third of respondents saying it had formed one element of the advice and support received.

Generally, there was a similarity in the 'rankings' of different forms of advice and support between the first and second questions, though Research and Development emerged more strongly as a main source of support: this suggests that assistance here was more targeted, although it is nevertheless

striking (given the small size of many of the businesses) that a quarter of businesses felt that they had been given some advice or support on this theme. By contrast, only a small minority of those who identified environmental management and environmental technology transfer as areas in which they had received some advice or support thought that this was the main form of advice or support: this perhaps suggests the extent to which projects were addressing these issues as part of their coverage of the cross-cutting themes (see below).

Further analysis of the main form of advice or support by age of the business (Table 2.3) suggests that in many cases patterns were broadly similar across all three age 'categories', though support on ICT was weighted towards more mature businesses, with 38% of all assisted businesses established in 1999 or earlier identifying this as the main source of advice and support.

Table 2.3: Nature of main form of advice or support received by year business/workplace established

Main Type of Support Received	Year Established			
	2007-2011	2000-2006	1999 or earlier	Total
Starting a business	24.0	7.9	7.5	13.0
Business premises	2.0	0.4	1.4	1.3
Marketing, sales	13.4	15.8	13.5	14.1
Finance or investment	7.9	8.8	5.7	7.3
R&D	9.5	9.6	7.5	8.9
Developing partnerships	3.9	5.0	4.6	4.5
ICT and the internet	13.4	28.3	38.3	27.1
Environmental management	1.6	2.5	1.1	1.7
Environmental technology transfer	0.8	0.4	0.4	0.5
HR and personnel issues	9.1	6.7	4.6	6.7
Referral to other agencies	3.2	0.8	2.8	2.3
Advice or support with accreditation	0.4	0.0	0.4	0.3
Other	1.2	0.8	1.8	1.3
None of the Above	5.9	5.8	7.1	6.3
Don't know / can't remember	3.9	7.1	3.6	4.8
Total (n)	254	240	282	778

Source: Telephone survey (778 Respondents)

Advice and support on starting a business was heavily weighted towards start-up businesses, though 8% of businesses established in 1999 or earlier also identified this as the main source of advice and support, perhaps suggesting the interest of assisted businesses in diversifying their products or services.

Three quarters of respondents were aware that the advice or support that they had received was funded by the ERDF and the EU, suggesting that projects are doing a good job of communicating this to assisted businesses.

Respondents were asked more specifically about several specific forms of support, notably

- Financial support;
- Support with developing partnerships or other collaborative arrangements;
- Advice or support on environmental management and equality and diversity strategies (the cross-cutting themes).

Turning first to financial support, a higher proportion of all respondents identified that they had received 'any financial support, direct or in-kind' through the ERDF project in response to this specific question than had identified financial support as one of the forms of advice and support they had received in response to the earlier, more wide ranging question. In all, 31% said that they had received some such support, with this being the case for a higher proportion (35%) of longer-established businesses.

Overwhelmingly, respondents said that this financial support came in the form of a grant, with 87% selecting this option: despite the fact that respondents could select more than one form of financial support that had been received, only 3% said that they had received a loan, while 5% identified the provision of IT equipment, 4% support with the cost of premises and 3% support with meeting the costs of a consultant.

Of the 24% of respondents who identified that they had received support with developing partnerships or collaborative arrangements as one form of advice

or support from the ERDF project, exactly half (92 respondents or 12% of all businesses) said that they had gone on to establish such partnerships. Of these, all but three said that the collaborative partnerships had proved to be important to the business, with 54% saying that they were very important and 42% that they were important.

The vast majority of these partnerships (87%) involved other partners within Wales, but a significant number also involved partners elsewhere in the UK (22%) or outside the UK (14%)⁶.

Turning to the cross-cutting themes, as Table 2.4 shows, over 15% of respondents identified that they had received advice or support with environmental management and/or equality issues, which suggests that projects are making such support available. Generally, respondents felt that this support was useful, but around 15% felt it was either not very or not at all useful (though this represents very small numbers – 18 and 19 respondents respectively).

Table 2.4: Other forms of support provided by ERDF

	Environmental Management	Equalities
Received support (n=778)	15.2	17.7
How useful was advice or support		
Very useful	39.8	34.1
Quite	40.7	50.0
Not very	8.5	7.6
Not at all	6.8	6.8
Don't know	4.2	1.5
<i>Total (n)</i>	<i>118</i>	<i>132</i>

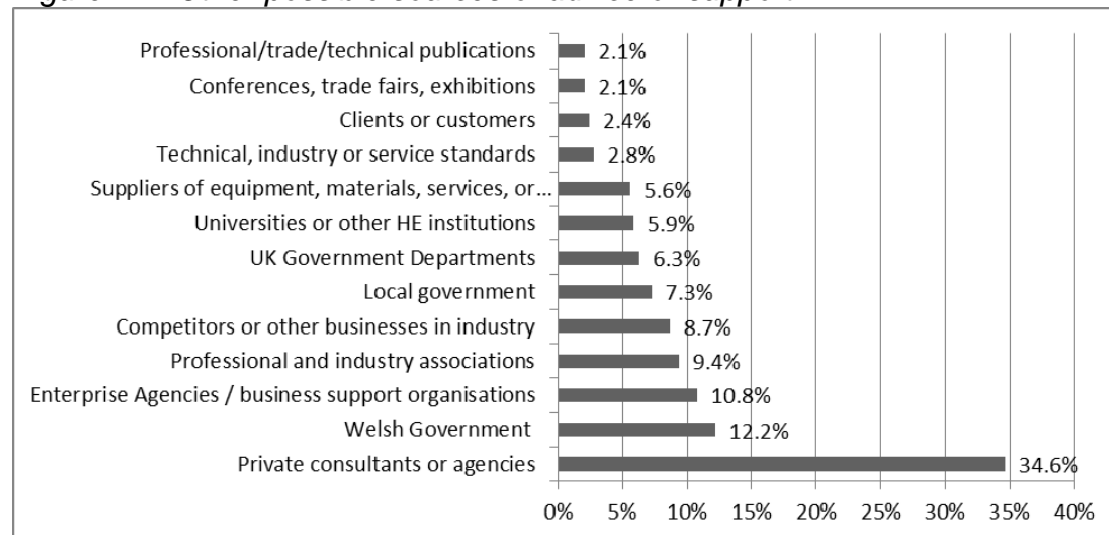
Source: Telephone Survey⁷

⁶ Respondents could identify more than one option.

⁷ 778 respondents were asked whether they had received support on environmental management and/or equalities (as part of the generic questions on types of support received): 118 identified having received support on environmental management and responded to the follow up questions, with 132 identifying equalities and answering the follow up questions.

All respondents were asked whether, prior to ERDF, they had considered finding the sort of support they had received from ERDF from other sources; 37% reported they had considered doing so. Asked (unprompted) to identify where such advice or support might have come from, the most common response (Figure 2.1), was 'private consultants or agencies' (with 35% of those who had considered support from elsewhere - or 12% of all respondents - identifying this as a source of support), followed by the Welsh Government (12% of those who had considered support from elsewhere), enterprise agencies or other business support organisations (11%) and professional and industry associations (9%).

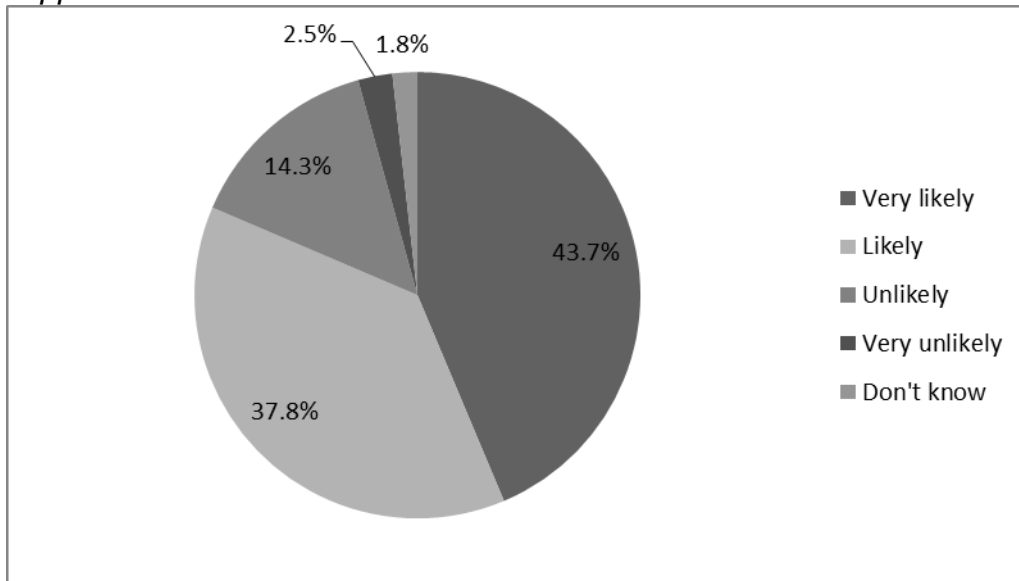
Figure 2.1: Other possible sources of advice or support



Source: Telephone Survey (286 Respondents)

Respondents who had considered advice or support from other sources, were asked whether in the absence of the support from the ERDF project, they would have sought advice or support elsewhere. As Figure 2.2 shows, more than four-fifths said they were very likely (44%) or likely (38%) to have sought advice elsewhere.

Figure 2.2: Likelihood of using other possible sources of advice or support



Source: Telephone Survey (286 Respondents)

Taken together these results suggest there is likely to be some displacement of private sector paid-for services – although it is important to recall that many of the services provided through ERDF projects are delivered by the private sector without charge or at a subsidised rate⁸.

This impression is confirmed by Table 2.5 which shows the reasons identified for preferring the ERDF funded support among those respondents who indicated that they would have been likely or very likely to have sought advice or support from other sources in the absence of ERDF.

Table 2.5: Reasons for accessing ERDF in place of other support

	Percent of Workplaces
Free or cheaper than other forms of support	30.4
Better quality	6.4
More suited to our needs	15.2
They approached us first	9.6
The time/location was more convenient	9.6
We were advised to use this source	25.6
Had heard about ERDF project and sounded relevant / interesting	16.0

Source: Telephone Survey (233 Respondents)

⁸ WEF0 Procurement data records that contracts to the value of £54.5 million have been awarded to the private sector to deliver ERDF projects, compared to £34.6 million for the public sector and £25.5 million for the third sector

Among this group the most common reason cited by respondents was that ERDF was 'free or cheaper' than other forms of support (31%). Only 7% specifically identified the ERDF as being of higher quality, though 15.2% said that the support was more suited to their needs.

Respondents were also asked about their satisfaction with the support received, with questions targeted on the three 'dimensions' of the relevance of the support, the speed with which it was provided and the overall quality of the support. The results are shown in Table 2.6.

Table 2.6: Satisfaction with advice and support from ERDF

	Satisfaction with advice and support		
	Relevance	Speed	Overall quality
Levels of Satisfaction			
Very satisfied	39.6	37.7	38.4
Satisfied	38.7	42.3	39.9
Neither satisfied nor dissatisfied	11.7	9.4	10.8
Dissatisfied	5.8	6.6	6.2
Very dissatisfied	3.7	3.0	3.9
Don't know	0.5	1.2	0.9
Percentage 'very satisfied'			
Convergence Priority 1	47.5	36.6	43.6
Convergence Priority 2	37.4	43.7	39.6
Competitiveness	32.0	33.6	31.2
All	39.6	37.7	38.4

Source: Telephone Survey (778 Respondents)

Table 2.6 also (lower panel) segments results by the type of intervention⁹, showing the proportion of respondents who reported that they were 'very satisfied' with the support that they received¹⁰.

⁹ We are unable to provide separate analysis for the two Priorities within the Competitiveness Programme as only one project from Priority 1 of the Competitiveness Programme was covered by the survey.

¹⁰ Our focus upon those who report being 'very satisfied' reflects that such responses are likely to provide a more discriminating measure of satisfaction between different groups of

It can be seen that across all three measures, reported levels of satisfaction are generally lower among respondents who were supported by projects under the Competitiveness Programme. Businesses which had been supported under the Research and Development Priority of the Convergence Programme were more likely to report that they were very satisfied with the relevance and quality of the support provided (though not the speed with which it was provided) than other assisted businesses.

2.3 Awareness of, and Access to other Forms of Support

All respondents were asked whether they had received other forms of advice or support over the previous five years¹¹. Those that had were asked to identify which sorts of support they had received, which was the most important type of support and (unprompted) who had provided the most important type of support. Key findings are shown in Table 2.7 (over).

In all, just under half (45%) of all businesses said they had received some other support. Recent start-ups were least likely to say this (39%) whilst those who have been established prior to 1999 were most likely to report having been in receipt of other forms of support (49%).

respondents compared with, for example, considering those who report that they were either 'very satisfied' or 'satisfied' who together account for almost 80% of respondents.

¹¹ Partly to inform judgements about deadweight (including double-counting with other publicly funded support).

Table 2.7: Businesses in receipt of other forms of support

Type of Support Received	Other Support Received	
	All	Main
Starting a business	43.0	20.6
Business premises	15.5	2.3
Marketing, sales	43.0	13.2
Finance or investment	38.7	12.9
R&D	24.6	8.6
Developing partnerships	27.8	3.4
ICT and the internet	36.4	10.3
Environmental management	16.0	2.9
Environmental technology transfer	5.7	0.3
HR and personnel issues	37.5	12.3
Referral to other agencies	28.4	1.4
Advice or support with accreditation	0.9	0.3
Legal matters	1.4	0
Other	0.3	3.4
None of the Above	0.6	3.4
Don't know / can't remember	1.7	4.6
Who Provided Support		
Suppliers of equipment, materials, services, or software		2.6
Clients or customers		0.0
Competitors or other businesses in your industry		2.3
Private consultants or agencies		23.5
Universities or other higher education institutions		7.4
Conferences, trade fairs, exhibitions		0.9
Professional/trade/technical publications		1.4
Professional and industry associations		7.2
Technical, industry or service standards		1.7
UK Government Departments(e.g. UKTI, HMRC)		4.6
Welsh Government		32.1
Local government		11.7
Enterprise Agencies or other business support organisations		20.9
Professional advice (accountants, banks)		3.2
Charities		3.2
Other		0.6
Don't know		6.0
Total (n)		349

Source: Telephone Survey (778 Respondents)

The most common category of advice or support was advice on starting a business, though again marketing and sales and ICT and the use of the

internet also featured strongly. This suggests that the strong showing of this theme in the provision of the ERDF support may not just be a feature of the sampling.

Advice and support on finance features more prominently here than in the responses on the support received from the ERDF project, as does, quite markedly, support on HR and personnel issues. While the former finding might reflect the move away from providing grants as a feature of Welsh Government policy, the latter perhaps suggests an area that is currently relatively under-served by ERDF interventions.

Although not one of the most commonly cited areas of support, the relatively strong showing on environmental management suggests that there is an appetite amongst business for support on such issues, underlining the importance of this as a cross-cutting theme.

In terms of sources of support, the data again suggest the key role of the Welsh Government, private consultants and enterprise agencies, though local government also featured relatively strongly, with 12% of respondents identifying local authorities as a source of previous support.

Additional analysis was undertaken to investigate how the nature of support provided varied between different types of organisation providing assistance. From enterprise agencies and other business support organisations, the main type of advice received related to starting a business (36%). The most common type of advice or support provided by the Welsh Government was that related to support for finance and investment (21%). Unsurprisingly, this sort of support was much less likely to be provided by private consultants (10%), who instead were much more prominent in the area of providing support for ICT and the internet (22%).

As part of the survey, we also investigated the use of, and awareness of European Social Fund (ESF) support for training the workforce. In all, some 28% of respondents said that their business had already benefited from ESF

support in the last three years: this rose to almost a third (33%) in the case of businesses established in 1999 or earlier.

As Table 2.8 shows, the satisfaction of those 214 businesses with this support was broadly similar to that for ERDF (Table 2.6 above), though with somewhat lower levels reporting that they were neither satisfied nor dissatisfied, or dissatisfied, particularly in terms of overall quality.

Table 2.8: Satisfaction with ESF

	Relevance	Benefits Derived	Overall Quality
Very satisfied	48.1	40.7	44.4
Satisfied	41.6	49.1	49.1
Neither satisfied nor dissatisfied	6.1	6.1	2.8
Dissatisfied	2.3	1.9	1.9
Very dissatisfied	0.5	0.5	0.5
Don't know	1.4	1.9	1.4

Source: Telephone Survey (214 Respondents)

Respondents who had received ESF support in the last three years were asked about the nature of the support that they had received. As shown in Table 2.10 (below), the three most common areas of support provided through ESF among respondents to the survey were basic skills training (44%), management development training (43%) and analysis of training needs (43%)¹².

Respondents who had not received ESF support in the last three years were asked whether they were aware that ESF could provide support for businesses to train their workforce. Just under half (44%) were aware of this.

Table 2.9 shows how awareness of ESF varies according to the characteristics of workplaces responding to the survey. Awareness of ESF is observed to be relatively low among organisations in the private sector (42%) compared to those in the public (55%) or third sector (50%). Awareness of ESF was also relatively low in small workplaces, in particular those with less

¹² Respondents could select more than one type of intervention.

than five employees where less than 40% of workplaces were aware of support available from ESF. Understandably, those workplaces that were established most recently (since 2007) also exhibited relatively low levels of awareness of ESF (40%).

Table 2.9: Awareness of ESF among non-ESF recipients

Sector		
Mainly seeking to make a profit	42.4	
A charity, voluntary or co-operative organisation	50.0	
Public sector organisation	54.5	
Workplace Context		
The only workplace in the organisation	42.3	
Or is this the head office of an organisation	50.9	
Or is this a branch of an organisation	45.7	
Location of Head Office		
Wales	43.3	
Rest of UK	40.0	
Outside of UK	50.0	
Number of Employees		
	Organisation	Workplace
1	38.9	39.6
2-4	39.8	38.9
5-9	51.5	52.7
10-24	43.5	46.4
25+	49.4	48.6
Year Established		
1999 or earlier	47.3	
2000-2006	44.5	
2007-2011	39.5	
Total		
	43.5	

Source: Telephone Survey (564 respondents)

These businesses did, however, believe that they could benefit from support in a wide range of areas where ESF is relevant as shown in Table 2.10, which records responses to a question asking these businesses which had not benefited from ESF to identify the sorts of advice or support they could benefit from. The strong interest in support for employing unemployed individuals is

particularly noticeable given the current economic conditions, while the most commonly identified needs relate to advanced level skills, ICT training and management development.

Table 2.10: Types of advice and support from ESF

	a) Have benefited from	b) Could benefit from
Analysis of your training needs	42.5	37.4
Basic skills training for your workforce	43.5	30.0
Craft or technical skills training for your workforce	34.6	41.0
Advanced level skills for your workforce	38.3	52.5
ICT training for your workforce	29.0	49.1
Management development training for your workforce	43.0	47.9
Apprenticeships	12.1	33.9
Support to employ unemployed individuals	22.9	42.6

Source: Telephone Survey (a = 214 Respondents b = 564)

3.0 PERCEPTIONS OF THE EFFECTS OF ERDF SUPPORT

In this Chapter we explore how respondents perceived ERDF affected different aspects of their business. Section 3.1 considers the most obvious effect of ERDF - whether respondents perceived that their business would have continued to operate in the absence of ERDF and the mechanisms through which ERDF supported this. We also here consider the location of their markets and competitors. Section 3.2 considers innovation at ERDF assisted workplaces, including the introduction of new products and services, production techniques and working practices, with particular attention being paid to the possible role of ERDF in supporting these developments. Moving towards more 'bottom line' measures of business performance, Section 3.3 considers changes in employment and Section 3.4 examines changes in other measures of performance, including turnover, profitability and productivity.

3.1 ERDF and Business Survival

First of all, respondents were asked about the likelihood that the business (or site, where relevant) would have continued to operate had the ERDF support not been available. As will be seen from Table 3.1, only a very small proportion of respondents thought that the support had been fundamental to securing the continued existence of their business, with 82% saying that the business would have been certain or very likely to continue to operate even without the support¹³. Newer businesses were somewhat less confident about this but even of those established since 2007 or later, only 4% thought the business would have been unlikely to have operated in these circumstances.

¹³ Please note: in all tables in this Chapter, figures refer to percentage of respondents rounded to one decimal unless otherwise stated. In some cases, figures do not sum to 100% due to rounding.

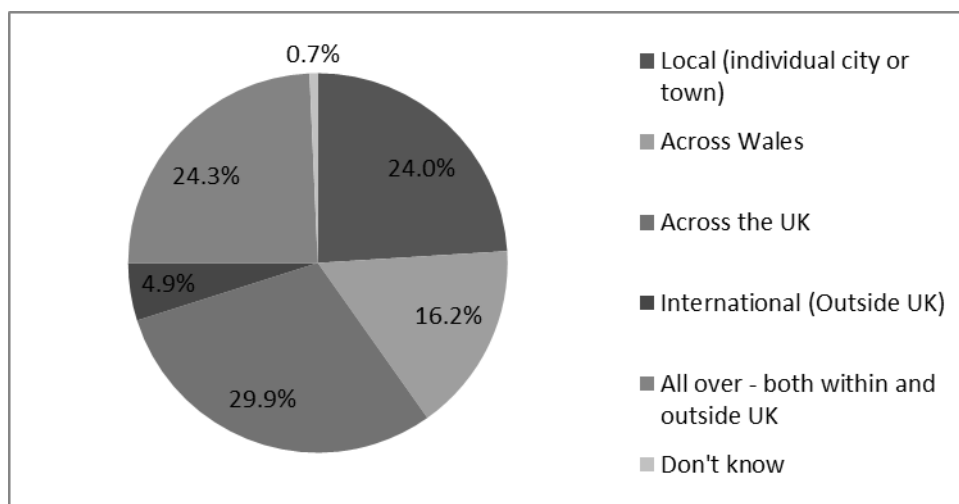
Table 3.1: Likelihood of remaining in operation in absence of ERDF support

	2007-2011	2000-2006	1999 or earlier	Total
Definitely	58.3	63.8	70.2	64.1
Very likely	18.5	20.0	15.3	17.9
Quite likely	19.3	11.3	8.9	13.1
Unlikely	2.4	1.3	2.8	2.2
Very unlikely	0.4	1.3	1.1	0.9
Definitely not	0.8	1.3	0.7	0.9
Don't know	0.4	1.3	1.1	0.9
Total	100.0	100.0	100.0	100.0
<i>Total (n)</i>	<i>254</i>	<i>240</i>	<i>282</i>	<i>778</i>

Source: Telephone Survey (778 Respondents)

In order to gauge the potential for displacement, respondents were also asked to identify the location of their principal market and their main competitors. This analysis is restricted to those respondents who reported that their organisation was operating in the private sector. Figure 3.1 reveals that over 40% of respondents identified their principal market as being either local (24%) or within Wales (16%), with a further 24% saying that it was ‘all over – both within and outside the UK’. Only 5% reported that their main market was overseas with 30% saying it was across the UK.

Figure 3.1: Location of principal market



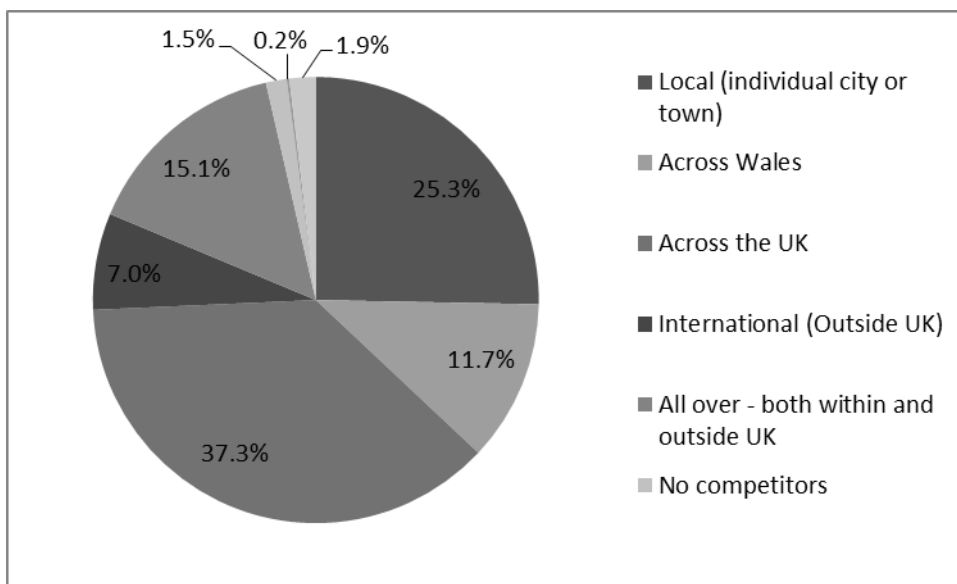
Source: Telephone Survey (675 Respondents)

While these results are not particularly surprising given the small size of the businesses and the fact that many are also relatively young, they do suggest

potential for displacement within the Welsh economy, though as we shall see in Chapter 4, those businesses reporting jobs created as a result of ERDF support were generally less likely to identify that their markets were principally local or in Wales than survey respondents as a whole.

In terms of competitors (Figure 3.2), the picture is broadly similar, albeit that a higher proportion of respondents (37%) identified competitors as principally coming from across the UK.

Figure 3.2: Location of competitors



Source: Telephone Survey (675 Respondents)

In total 38% of respondents said that they believed that ERDF support had helped them win new business (with 59% reporting that it had not and 4% saying they did not know). Where ERDF had helped employers win new business, this was more often by these employers generating new demand locally than their taking business off competitors (Table 3.2): only a very small minority thought that this new business had come exclusively from taking business from local competitor though nearly half believed that this was partly the case¹⁴.

¹⁴ This is perhaps somewhat surprising in the light of the predominantly local markets reported by businesses, but the focus of the question here was different being about whether sales had come from displacing competitors' products or services or from generating new demand.

Table 3.2: Source of new business won with ERDF support

	Percentage of businesses winning new business
Taking business from local competitors	3.9
By generating new demand locally	28.4
Both	46.1
Neither ¹⁵	20.1
Don't know	1.6
Sample	254

Source: Telephone Survey (254 respondents)

3.2 Product and Process Innovation

Respondents were also asked about the effects of ERDF support in terms of process and product innovation. In particular, they were asked specific questions as to whether the business had introduced modifications to products or services, new plant and equipment or new ICT in the last five years, and if so, whether ERDF had played a role in this.

As Table 3.3 shows, more than two thirds of respondents said that they had introduced modifications to products or services, while, in each case, just under two-fifths reported having introduced new plant and equipment and new ICT. In the case of those businesses which had introduced these changes, between a third and a half of respondents in each case said that ERDF had played a role in this.

Table 3.3: ERDF and Product/Process Innovation

	New or Modifications to products/services	New plant and equipment	Introduced ICT
<i>Per cent of all respondents</i>			
Introduced innovation	68.6	38.6	39.7
<i>Per cent of all respondents that introduced respective innovation</i>			
Did ERDF support contribute?	42.3	34.3	36.6

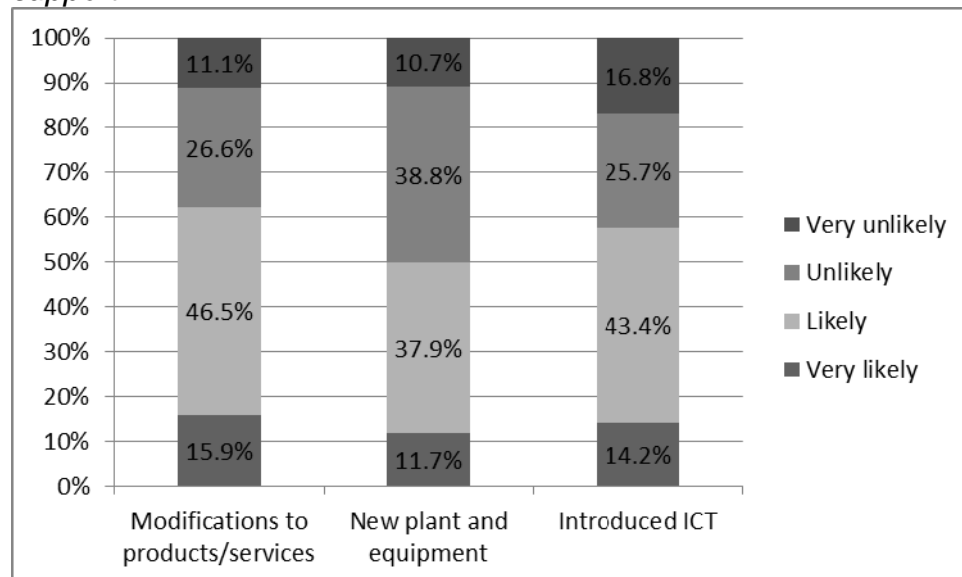
Source: Telephone Survey (778 Respondents)

¹⁵ The time available for the questionnaire did not allow us to probe where respondents who answered 'neither' believed new business had come from but this is likely to have been from increased sales outside the local area.

Thus, of all supported businesses, ERDF was said to have played a role in enabling or bringing about new, or modifications to, products and services in 29% (226), in the introduction of new plant and equipment in 13% (103) and in introducing new ICT in 15% (113) of businesses.

Those respondents who identified that ERDF played a role in these developments were subsequently asked to consider how likely it would have been that they would have taken place even in the absence of ERDF support¹⁶. This more detailed investigation found that in each case around half said it was very likely or likely that the changes would have happened even without ERDF support. (Figure 3.3).

Figure 3.3: Likelihood that changes would have happened without ERDF support



Source: Telephone Survey (n=226, 103, 113 respectively. Base figures refer to all those who reported that ERDF had played a role in introducing the respective type of innovation)

In all, of the 778 respondents:

¹⁶ In each case the initial questions were deliberately constructed to capture all those respondents who felt that the ERDF support had in some way related to, or been of assistance in bringing about, these positive changes (Did the support... affect the development or introduction of these products or services?; Did the support... relate to the introduction of this plant or equipment? Did the support ...have any effect on the introduction of this ICT?). These questions were however insufficient to test the specific attribution of the changes to the ERDF intervention: in order to test the counterfactual follow up questions were therefore included asking of the likelihood that changes would have been made in the absence of ERDF support. It would have been possible to go straight to these likelihood questions, but this would have risked underestimating the positive effect of ERDF interventions on these developments.

- 85 respondents said that they had introduced modifications to products and services which were unlikely to have taken place without ERDF support;
- 51 said that they had introduced new plant or equipment which they were unlikely to have done without ERDF;
- 48 said that they had introduced new ICT which they were unlikely to have done without ERDF.

In the case of new plant and equipment and new ICT, all those saying ERDF support had played some role (even those who reported that the changes would have occurred without ERDF) were asked about the nature of the role played by ERDF. Table 3.4 shows that the (unprompted) responses here were quite different between the two types of change: in the case of plant and equipment, the advice and support was most commonly related to raising finance (referred to by more than half of respondents), whereas in the case of ICT this was less important, with the main role of ERDF projects being to raise awareness of what was available.

Table 3.4: The Contribution of ERDF to Workplace Innovation

	a) Plant and Equipment	b) ICT
Made us aware of what was available	30.1	48.7
Helped convince us of the business case for the investment	14.6	19.5
Helped us raise funds for it	52.4	19.5
Helped us implement the new technology without assistance	14.6	18.6
Better informed to overcome resistance of colleagues and workers towards implementation of new technologies	1.9	9.7
Other	5.8	6.2
Don't Know	6.8	7.1

Source: Telephone Survey (a) 103 Respondents b) 113 Respondents)

Respondents in workplaces with more than two people on the payroll were also asked about changes to working practices over the last five years (in particular, the flexibility of employees to move from one task to another, the amount of employee influence over the way they do their job and the amount

of training provided to non-managerial staff, excluding induction training) and whether ERDF had played any role in this.

As can be seen in Table 3.5, many respondents identified no changes in these aspects of working practices, but nearly half said that there had been positive changes in each of them.

Table 3.5: Changes in Working Practices

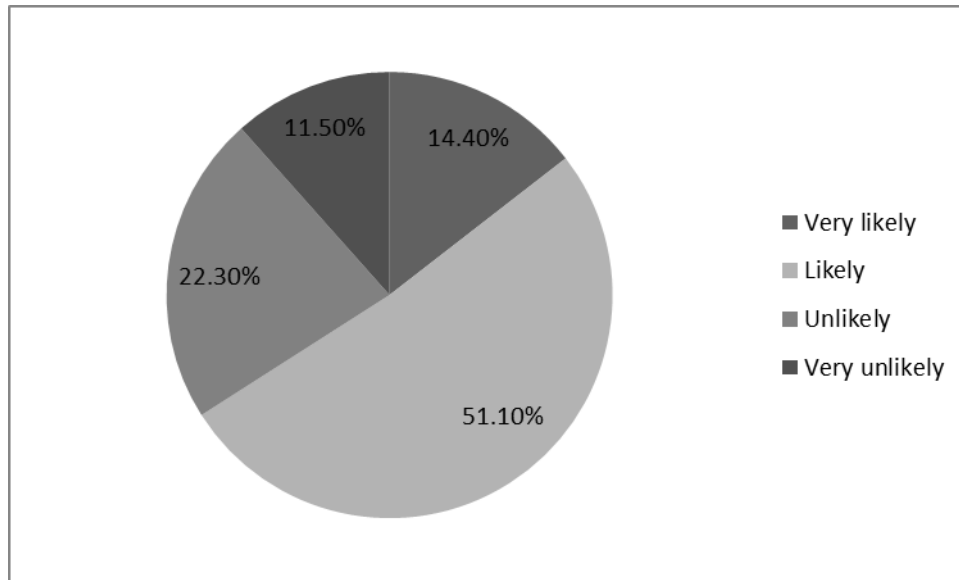
	Task Flexibility	Job Discretion	Non-Managerial Training
Increased a lot	21.7	19.8	20.9
Increased a little	23.8	30.0	23.6
Stayed the same	44.8	41.2	44.2
Decreased a little	1.1	0.6	1.9
Decreased a lot	0.6	0.5	0.6
Don't know	1.4	1.0	1.1
Not relevant	6.5	7.0	7.7

Source: Telephone Survey (627 Respondents)

Those who identified changes were asked whether ERDF had any effect on these developments: 29% of respondents (139) said that they did. When probed more specifically as to whether these changes would have taken place in the absence of ERDF support, a third thought this either unlikely (22%) or very unlikely (12%) (Figure 3.4).

This suggests that the impact of ERDF on such changes is perceived to be modest, although fairly significant changes in terms of work organisation in these businesses are underway.

Figure 3.4: Likelihood of changes to working practices occurring without ERDF support



Source: Telephone Survey (139 Respondents)

The survey suggests that there is some correlation between change in working practices and innovation in terms of products and processes, as shown by Table 3.6. Here we consider how changes in the discretion with which workers get to perform their jobs is associated with different measures of innovation at the workplace. Whereas clear majorities of those businesses who had not made modifications to products and services, introduced new plant and equipment or introduced new ICT equally had not made any positive changes to their working practices (as proxied by changes in task discretion), the pattern was reversed in the case of businesses who had made at least one of these changes. This is, perhaps, relevant to discussions around the concepts of ‘total innovation’ and ‘high performance working’¹⁷ It is also possible that ERDF may have an additional indirect effect upon working practices via the ‘knock on’ effect of ERDF observed in terms of supporting innovation at the workplace.

¹⁷ The National Endowment for Science, Technology and the Arts (NESTA) explains ‘total innovation’ as ‘seeking to integrate innovation in new technologies, products and processes with innovation in business models, organisational forms and market positioning’ (Total Innovation: Research Report, 2008), The UK Commission on Employment and Skills defines high performance working as ‘a general approach to managing organisations that aims to stimulate more effective employee involvement and commitment in order to achieve high levels of performance’ High Performance Working: A Policy Review. Evidence Report 18. May 2010. UKCES)

Table 3.6: Working Practices and Innovation

Change in Discretion	Modifications to Products and Services		
	Yes	No	Total ¹⁸
Increased a lot	27.3	12.3	19.8
Increased a little	33.7	26.5	30.0
Same or decreased	39.1	61.3	50.2
	New Plant and Equipment		
	Yes	No	Total
Increased a lot	24.2	16.4	19.8
Increased a little	32.1	28.6	30.0
Same or decreased	43.8	55.0	50.2
	Introduced ICT		
	Yes	No	Total
Increased a lot	23.5	16.9	19.8
Increased a little	34.6	26.8	30.0
Same or decreased	41.9	56.3	50.2

Source: Telephone Survey (778 Respondents)

3.3 ERDF and Employment

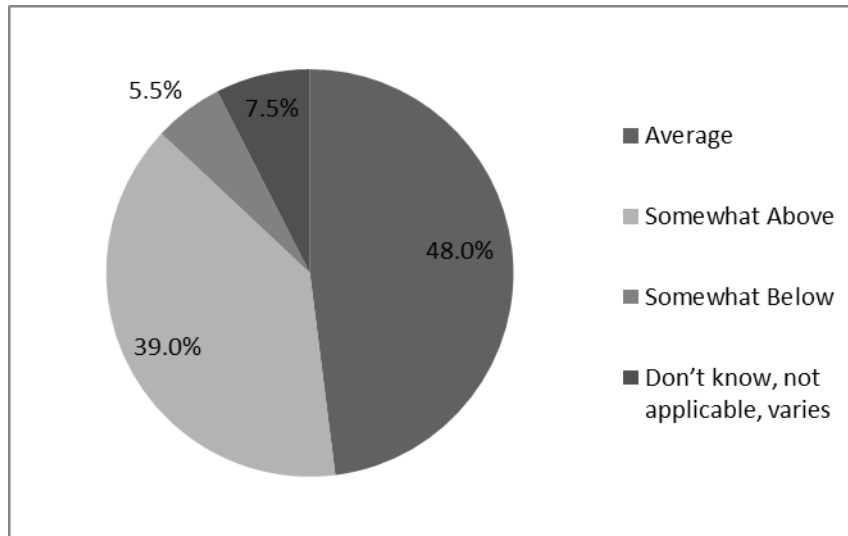
We turn now to the effects of ERDF on job creation. In order to provide a context in which to understand the sort of jobs which are likely to have been created with the support of ERDF, we first asked a series of questions around the nature of employment offered by respondents' businesses.

As a proxy for the quality of jobs, we asked respondents from businesses which employed at least two employees whether they regarded their business as providing a source of work that paid in line with the local average for all jobs in the area, or paid somewhat above the average or somewhat below it. Almost half (48%) thought that earnings were around average, with a further 39% saying that they were above average, with only 6% saying they were below average (a further 8% were unable to answer) (Figure 3.5). When asked to estimate the average annual salary of non-managerial staff before deductions, the mean of all responses was £18,801¹⁹.

¹⁸ This refers to the percentage of all respondents who responded in this way to the question on whether there had been any changes in job discretion.

¹⁹ This compares with annual median earnings for all Full Time jobs in Wales (i.e. including managerial jobs) of £23,920 or £21,892 if overtime is excluded. The mean annual earnings for

Figure 3.5: Earnings compared to locality



Source: Telephone Survey (618 Respondents)

Respondents suggested that, should vacancies arise, in some cases they would be seeking quite well qualified recruits, although many jobs provided by these employers did not require qualifications, as shown by Table 3.7.

Table 3.7: Qualifications required of new applicants²⁰

Qualifications required of applicants	
Level 5+	23.8
Level 3-4	16.9
Entry Level - Level 2	22.8
None	36.6

Source: Telephone Survey (618 Respondents)

Respondents²¹ were also asked about the source of new recruits – in order to gauge the extent to which recruitment supported by ERDF might result in ‘poaching’ from local competitors rather than offering genuinely new opportunities. The results from this question are shown in Table 3.8, which

all in elementary occupations in Wales in 2011 was c£17,830, with all other SOC groups having higher mean earnings.

²⁰This very much reflects the pattern of jobs available across Wales: according to the UKCES, 41.6% of jobs in Wales in 2006 required a Level 3 qualification or above, whereas 31.8% did not require any qualification (Skills for Jobs: The National Strategic Skills Audit for Wales, 2011, UKCES). However, the population profile is significantly more skilled: according to Stats Wales, in 2010 55% of Working Age Adults were qualified at Level 3 or above, whereas only 12.1% had no qualifications.

²¹ Questions about recruitment were only asked of businesses employing two or more employees.

shows that the most common response (from nearly a third of the respondents) was that new employees were indeed recruited from other similar businesses in Wales.

Table 3.8: Approach to filling vacancies

	Percent Workplaces
Internal applicants are our only source, there is no external recruitment	5.5
New recruits mostly come direct from school or college	12.8
New recruits mostly are unemployed/not working	15.9
New recruits mostly come from other similar businesses within Wales	32.7
New recruits mostly come from other businesses elsewhere in the UK	9.6
Varies too much to say – may use any of above	2.6
Other	8.5
Don't know / none of the above	12.4

Source: Telephone Survey (623 Respondents)

Workplaces with two or more employees on the payroll were also asked about the overall change in employment over the last five years (or in the case of more recently established businesses, since the date the business was established).

Among this group, 35% of workplaces experienced no change in the number of employees at the workplace, but 48% reported an increase in employment over the last five years whilst 17% reported a reduction. The average absolute increase in the number of employees across all relevant businesses (618 in total) was 2.1. The average percentage increase in employment was estimated to be 83.4% in terms of employee numbers (reflecting the small size of many of the businesses).

These are quite striking findings given the economic climate and suggest that small businesses may have weathered the recession reasonably well though allowance must be made for the fact that, given the relatively high rate of

business failure amongst new businesses²², some of the ERDF supported businesses will have gone out of business since the support was given.

Among the 160 respondents where the business only currently employed the respondent, the survey also asked whether they had employed anyone during the last five years, and 20% (32) reported that they had previously employed someone. Reductions in employment among those businesses²³ which employed only the owner-manager at the time of the survey but which had previously provided employment also for other staff will therefore have introduced an upward bias in the figures outlined above.

Taking these into account, it is estimated that 44% of respondents reported that their business had experienced no change in the number of employees, 18% had experienced a reduction in employment and 38% had seen an increase in employment over the last five years.

Turning to the specific attribution of job creation to ERDF support, in all, 17% of respondents reported that jobs had been created in their business as a result of the support received from ERDF. Table 3.9 (over) demonstrates how this rate varies across different types of workplaces.

It can be seen that respondents based at workplaces that were established prior to 1999 were most likely to report that ERDF has supported the creation of new jobs. Interestingly, these workplaces were least likely to report an increase in employment over the previous five years, suggesting a stronger tendency on the part of these businesses to attribute any job creation to the ERDF support. There is relatively little difference between businesses supported by different Priorities.

²² Stats Wales reports that some 38.1% of businesses established in 2007 had ceased trading by 2010.

²³ Whether or not incorporated. It is important to remember that 'sole traders' who are self-employed can also employ other staff.

Table 3.9: ERDF and Job Creation

	Recorded Increase in Employment	Jobs Created with Support of ERDF	Jobs Created with Support of ERDF that would not have been created anyway
Nature of Activity			
Mainly seeking to make a profit	37.7	16.9	9.6
A charity, voluntary or co-operative organisation	41.7	13.3	11.1
Public sector organisation	44.4	16.7	16.7
Year established			
2007-2011	35.5	13.0	5.1
2000-2006	45.0	16.3	9.6
1999 or earlier	34.9	19.9	14.5
Priority Area			
Convergence Priority 1	40.0	16.2	10.6
Convergence Priority 2	36.6	18.9	9.9
Competitiveness Priority 1/2	38.5	15.0	9.1
Total	38.2	16.5	9.9

Source: Telephone Survey (778 Respondents)

The survey tested further the strength of this attribution²⁴. When asked specifically how likely it was that the jobs created would have been created even in the absence of the ERDF support, 10% of respondents reported that they had created jobs that would have been unlikely to have been created in the absence of ERDF.

Workplaces established prior to 1999 and public sector workplaces were also relatively likely to report that ERDF contributed to the creation of jobs that would have been unlikely to have happened otherwise.

²⁴ While the initial question here was more focused on attribution than was the case with the questions related to product and process innovation (see Footnote 16), it was agreed at the Inception Stage that the research needed to test additionality by specifically probing the counter-factual, in other words what would have happened in the absence of the ERDF intervention. This is in line with the advice of the EU MEANS framework that researchers should strive to identify the counter-factual.

This suggests that ERDF plays a role in supporting new employment opportunities, but that the majority of ERDF-assisted businesses which have created jobs do not believe ERDF was a decisive factor in enabling the job creation.

In similar terms, respondents at workplaces with two or more employees on the payroll were asked whether ERDF had resulted in jobs being saved. Twenty two percent of such workplaces (139 workplaces or 18% of all respondents) suggested that ERDF had resulted in jobs being saved.

However, further questioning suggested that after taking in to account respondents who indicated that the jobs would have been likely to have been saved anyway, only 10% of workplaces with two or more employees (64 workplaces or 8% of all respondents) indicated that jobs were saved and that these jobs would have been unlikely to have been saved had ERDF support not been forthcoming. These issues are considered in further detail in Chapter 4.

Respondents who identified some role of ERDF support in creating or safeguarding jobs were also asked how the ERDF support had helped to do this. The results are shown in Table 3.10 below. Whether in terms of jobs being created or saved, the most important mechanism through which ERDF supported job creation or job saving was through enabling the firm to maintain or expand its markets.

Table 3.10: Mechanisms for job creation and the types of jobs created/saved

	a) Created	b) Saved
How were jobs created or saved		
Enabled the firm to maintain or expand its markets or win more customers	44.6	37.5
Enabled the firm to move premises	1.4	1.6
Enabled the firm to invest in new plant/technology	20.3	18.8
Enabled the firm to develop new products	9.5	9.4
Enabled the firm to develop new more efficient working practices	21.6	25.0
Other	20.3	12.5
<i>Total (n)</i>	<i>128</i>	<i>139</i>

Source: Telephone Survey (a) 128 Respondents, b) 139 Respondents)

Finally, respondents were asked whether jobs which had been created or saved were paid at the average rate for the workforce or above or below that rate. Analysis revealed that around two-thirds of respondents reported that the jobs were paid in line with the average for the business.

3.4 Effects on Turnover, Profitability and Productivity

Finally, we consider other information related to outcomes collected by the survey. Four outcome measures were considered. Those workplaces in the private sector were asked about their turnover, profitability and (for those operating in international markets) their exports. All respondents, including those from the public and not for profit sectors were asked about productivity (Table 3.11).

Table 3.11: Change in Turnover, Profitability and Productivity Since Start of ERDF Support

% reporting change of:	Turnover	Profitability	Productivity	Exports
100%+	4.5	2.5	3.1	4.4
76-100%	3.6	1.1	1.3	1.9
51-75%	0.6	1.0	1.3	0.0
26-50%	6.1	4.1	5.4	3.8
10-25%	18.2	14.2	19.1	15.7
<10%	8.5	10.6	11.4	8.2
no change	48.8	59.6	54.4	62.3
-<10%	1.7	1.4	0.6	0.0
-10-25%	3.9	2.4	1.7	2.5
-26-50%	2.4	1.7	0.8	1.3
-51-75%	1.1	1.1	0.8	0.0
-76-100%	0.6	0.3	0.1	0.0
Had any positive effect?	40.9	36.7	39.7	24.4
Percentage reporting outcome would have been worse without ERDF				
Very likely	11.7	9.6	10.0	6.1
Likely	20.3	19.5	19.4	11.7
Unlikely	34.7	40.5	37.3	35.5
Very Unlikely	26.9	24.7	26.7	30.5
Don't know	6.5	5.7	6.6	16.2
<i>Total responses (n)</i>	<i>639</i>	<i>634</i>	<i>717</i>	<i>197</i>

For each of these measures, respondents were firstly asked about changes during the period since they received support from ERDF. In general, approximately half of respondents reported no change in three of the measures, while, of those operating in international markets, 63% reported that their exports had not changed since the support received from ERDF.

Across each measure, where changes had occurred these were reported by respondents as having been positive, with less than 10% of respondents reporting a deterioration in these outcome measures – again, a striking finding, given the general state of the economy in the last few years. Across each outcome measure, 25-30% of respondents reported an improvement in performance.

All respondents were then asked whether ERDF had had any positive effect on these outcome measures. Excluding exports which is only applicable to a minority of workplaces, approximately 35-40% of respondents reported that ERDF had a positive effect on these measures²⁵. Finally, respondents were asked how likely it was that these performance measures would have been worse in the absence of ERDF. In each case, approximately 30% of respondents report that the performance of their workplace would have been worse in the absence of ERDF.

²⁵ Note that the routing of this question was not restricted to those who actually reported an increase in these outcome measures.

4.0 THE BUSINESS SURVEY FINDINGS AND ADDITIONALITY

4.1 Introduction

In this Chapter, we use more detailed analysis of the survey findings to estimate the additionality associated with the ERDF funding to assist businesses. In doing so, we use the survey data to answer the following questions:

- What are the reported jobs and performance outcomes?
- Would job and performance outcomes have been achieved in the absence of the ERDF support (in other words, how much deadweight is there)?
- Where positive outcomes have been achieved, was it at the expense of local businesses (i.e. is there any evidence of expected displacement)?
- Where there were genuinely additional outcomes in terms of employment offered by assisted companies, can we draw any inference on the multiplier effects of these increases in employment?
- What, if anything, does the survey data tell us about the extent to which net impacts in terms of job creation are more strongly associated with some types of interventions than others?

The focus of much of the Chapter is upon job creation, as this is the key performance indicator for the Convergence and Competitiveness Operational Programmes as a whole. However, in the final section (Section 4.4), we also consider the additionality of other changes in performance highlighted in Table 3.11 above (in sales, profitability, productivity and exports) attributed to ERDF assistance by assisted businesses.

4.2 Job Creation: Deadweight, Displacement and Multiplier Effects

As already noted in Section 3.3, of the 778 survey respondents, 649 (83.4%) reported that no jobs had been created in their business as a result of the assistance, with 128 saying that at least one job had been created. Of these 128, one job was reported as being created in 58 cases and between two and four jobs each in a further 48 businesses (Table 4.1)²⁶. There were a total of

²⁶ In tables in this Chapter, figures refer to actual numbers of workplaces except where stated.

22 cases where five or more jobs were created, including a manufacturing business which reported 70 new jobs.

Table 4.1: Likelihood of jobs being created without ERDF support

Banded	No jobs created	Definitely	Very Likely	Quite Likely	Not Very Likely	Not at all likely	Definitely not	Don't Know	Total
<i>Number of businesses</i>									
0	649	0	0	0	0	0	0	0	649
1	0	6	6	13	19	7	6	1	58
2-4	0	3	2	15	21	1	3	3	48
5-9	0	1	1	2	3	3	1	0	11
10-24	0	0	0	1	2	3	0	0	6
25-49	0	1	0	0	0	0	0	0	1
50-249	0	0	0	0	1	0	0	0	1
Don't know	0	0	0	0	2	1	0	0	3
Total	649	11	9	31	48	15	10	4	777²⁷

Source: Telephone Survey (778 Respondents)

The survey revealed that an estimated 363 new jobs were created by assisted businesses as a result of ERDF support. Respondents were asked a further question as to the likelihood that jobs created with the assistance of ERDF would have been created even in the absence of this support. Of the 128 respondents who reported employment change, 73 (57%) believed that the employment change would not have occurred without the assistance. Those businesses which reported smaller numbers of jobs were disproportionately likely to say that jobs would have been created in any case. This equated to an estimated 245 jobs which would not have been created in the absence of ERDF out of the 363 jobs created by assisted businesses as a result of ERDF support in total. Of these, 19 jobs were in businesses where respondents replied that the jobs would definitely not have been created without the ERDF assistance.

²⁷ One case excluded as noted in Footnote 16

We conclude that for those businesses identifying job creation as a result of ERDF, there is relatively little deadweight at the business level.

Whilst a large proportion of the jobs created were unlikely to have been created without the ERDF it is still necessary to investigate if job creation in one business has displaced opportunities elsewhere in the Programme areas: for the purpose of this analysis we are interested in whether displacement has occurred within Wales.

Some conclusions on the scale of displacement can be gained from an analysis of where respondents who reported new jobs created with the assistance of ERDF believed their main competition to be and then how far new business in these businesses was believed to have been generated at the expense of local competitors²⁸.

As will be seen from Table 4.2, businesses reporting new jobs created with ERDF assistance were less likely than those with no reported new jobs to identify that their competitors were mainly local or Welsh based²⁹. Moreover, 42% (13 of 31) of those businesses who reported job creation and whose competitors were local or Welsh based said that the jobs would not have been created in the absence of ERDF – in contrast to the pattern of other businesses and organisations in the non-traded sector.

The survey findings suggest there is no major displacement in terms of job creation. For example, of the 73 respondents who said that job creation would have been unlikely to occur without the ERDF assistance, just 13 believed that most of their competitors were local or across other parts of Wales: further analysis reveals that in eight of these 13, the respondents reported that just one job had been created, with the remaining five reporting between two and four additional jobs in each case.

²⁸ It is possible that businesses reporting no employment change may also have displaced employment in other enterprises thanks to the competitive advantage of having ERDF support, but this is dealt with later on when we look at safeguarded jobs and other performance measures etc.

²⁹ For the purposes of this analysis, those answering 'all over' are treated as businesses mostly with national or international competitors.

Table 4.2 Location of competitors of businesses creating jobs

Local or Welsh Based Competitors					
<i>Number of businesses</i>					
ERDF	No jobs	Likely	Unlikely	Don't know	Total
0	219	0	0	0	219
1	0	9	8	0	17
2-4	0	5	5	1	11
5-9	0	3	0	0	3
Total	219	17	13	1	250
Row %	87.6%	6.8%	5.2%	0.4%	87.6%
National or International Competitors					
0	342	0	0	0	342
1	0	16	21	1	38
2-4	0	13	17	2	32
5-9	0	1	4	0	5
10-24	0	1	3	0	4
25-49	0	1	0	0	1
50-249	0	0	1	0	1
Don't know	0	0	2	0	2
Total	342	32	48	3	425
Row %	80.5%	7.5%	11.3%	0.7%	100.0%
Not for Profit and Public Sector					
0	88	0	0	0	88
1	0	0	3	0	3
2-4	0	2	3	0	5
5-9	0	0	3	0	3
10-24	0	0	2	0	2
25-49	0	0	1	0	1
50-249	0	0	0	0	0
Don't know	0	0	0	0	0
Total	88	2	12	0	102
Row %	86.4%	1.9%	11.6%	0.0%	100.0%

Source: Telephone Survey (778 Respondents)

By contrast, 48 out of the 73 respondents reporting strong evidence of job additionality believed that most of their main competitors were located nationally or internationally, with the remaining 12 respondents being from organisations in the non-market sector.

Using these results to estimate displacement suggests that a 10% displacement factor might be reasonable i.e. 33 of the 363 gross job increase

reported earlier might be associated with employment opportunities where the competitors were primarily Welsh based.

The evidence for adopting a relatively low displacement factor was also corroborated from other parts of the survey, for example, where respondents were asked whether increased sales had resulted from taking business from local competitors or by generating new local demand or both (See Table 3.2 above). It is important to qualify this analysis by noting here that around 20% of respondents reported that additional business was generated neither by taking business from competitors nor by generating new local demand.

Nevertheless, by cross-referencing answers to this question to those concerned with jobs created with the assistance of ERDF, we can establish that of the 39 organisations reporting both that new jobs had been created which would have been unlikely to have occurred without the ERDF assistance, and which reported increased sales as a result of the support, just two believed that new business gained was the result of taking business from local competitors, with 13 believing new business came from the creation of new demand, and with the remaining 24 respondents believing that there was an element of both taking business from competitors and generating new demand locally (Table 4.3).

On balance the survey finds no strong evidence of displacement in terms of employment effects. In 73 cases of strong job additionality connected to ERDF, the large majority of businesses were either competing against national or international firms or were in the non-market sector and, where such businesses also identified ways in which they had generated new business, in only a small minority of cases was this identified with having taken business off competitors.

However, these findings need to be understood in conjunction with the findings reported in Section 4.4 below on the location of competitors to those businesses reporting increased sales as a result of ERDF support. This would suggest that a higher displacement factor might be appropriate. We have

therefore adopted a 25% displacement factor as a conservative and central assumption.

Table 4.3 Displacement connected with job creation

	No new jobs	Likely	Unlikely	Total
<i>Number of businesses</i>				
Take Business Off Competitors	6	2	2	10
Generate New Demand Locally	53	6	13	72
Do Both	75	18	24	117
Total	134	26	39	199

Source: Telephone Survey (199 Respondents³⁰)

Analysis by intervention suggests that businesses receiving assistance with premises were particularly likely to identify jobs as having been created with the support of ERDF which otherwise would not have been created. Of course, businesses may be more likely to identify the provision of business space as a prerequisite for jobs growth than business advice. Previous ERDF evaluations have also suggested that this is true of business finance, and the results of the ERDF Business Survey again show this to be the case, with businesses in receipt of financial support being far more likely to identify job creation attributed to ERDF (Table 4.4).

³⁰ 254 respondents who said that new business had been won as a result of the ERDF support, excluding those who responded that this was due neither to taking market share off competitors nor increasing local demand and those who did not know.

Table 4.4 Number of businesses reporting job creation linked to financial assistance

	Reporting any job creation as a result of ERDF			Reporting job creation that would not have taken place without ERDF		
	No	Yes	Total	No	Yes	Total
Receiving Financial Assistance?						
<i>Number of Jobs Created</i>						
0	498	151	649	523	177	700
1	20	38	58	7	26	33
2-4	18	30	48	9	19	28
5-9	2	9	11	0	7	7
10-24	0	6	6	0	5	5
25-49	1	0	1	0	0	0
50-249	0	1	1	0	1	1
Don't know	0	3	3	0	3	3
Percentage of workplaces creating jobs	7.6	36.8	16.5	3.0	25.9	10.0
Total	539	238	777	539	238	777

Source: Telephone Survey (778 Respondents)

In terms of the relationship between business size and the net creation of jobs, Table 4.5 considers the distribution of the 240 jobs which were unlikely to have been created without ERDF³¹ by the size (by employment of workplaces).

Job creation was more strongly associated with companies with between 10 and 50 employees - with these businesses accounting for 40% of the new jobs created (net of deadweight) though forming only 21% of the sample – and larger businesses, though sample sizes are too small to draw definite conclusions.

³¹ In the case of five of the new jobs, the respondents did not answer this question.

4.5 Job creation by size of workplace

Size of workplace (employee numbers)	Total jobs created	Number of respondents
1	0	158 ³²
2-4	19	246
5-9	41	132
10-24	46	114
25-49	51	52
50-99	0	23
100-199	2	16
200-250	10	4
251-499	1	4
500 or more	70	4
Don't know	0	6
Total	240	759

Source: Telephone Survey (778 respondents)

Finally, we consider the sectors in which jobs were reported to have been created. This analysis was important for establishing the estimated multiplier effects associated with created employment i.e. new activity supporting new jobs has impacts on other parts of the economy as industries expand output and purchase goods and services from other Welsh industries, and as new wage incomes are spent in the regional economy.

Table 4.6 (over) analyses by industry cases where respondents identified that businesses had created jobs which were unlikely to have been created in the absence of ERDF support (i.e. answered that job creation was not very likely, not at all likely, or definitely would not have happened).

The vast majority of the 240 jobs where it was possible to match net job creation to broad industry groups were created in manufacturing and construction.

³² This figure is derived indirectly: the questions about new jobs created were only asked of respondents who said that their workplace employed two or more employees. However, in the survey we did ask all businesses whether they would still be in operation without ERDF and very few answered in the negative.

Table 4.6: Job Creation in ERDF assisted business by sector

Industry Sector (SIC 2007)	Respondents by sector	Total of jobs unlikely to have been created without ERDF support Jobs
Manufacturing	113	97
Construction	55	47
Education	78	20
Science and technical	160	15
ICT	49	14
Health and social work	72	13
Other sectors	238	34
Total	765	240

Source: Telephone Survey (778 respondents)

The industrial distribution of employment permits some analysis of the expected multiplier effects³³ connected to the additional job creation. Using industry employment multipliers from the latest iteration of the Input-Output tables for Wales (2007) it is estimated that the 240 jobs in Table 4.6 would have supported a further 159 FTE employment opportunities in the Welsh economy i.e. on average every job created as a result of ERDF assistance supports a further 0.66 FTE jobs in other parts of the region.

In summary, in terms of job creation the business survey suggests that:

- 363 new jobs were created which were seen by respondents as in part the result of ERDF support, and that an estimated 245 could be counted as genuinely additional (counting all those respondents who reported it was unlikely that the jobs would have been created without ERDF support);
- displacement is unlikely to have been significant, with a reasonable assumption being a 25% displacement factor based on evidence from Table 4.2 in combination with findings on sales outcomes reported in section 4.4 below
- the average multiplier effect given the industry distribution of the jobs created is an estimated 1.66.

³³ These are cases where the activity underlying the employment supports employment in Welsh value chains and in Welsh households.

On this basis the findings of the survey suggest that – once the 363 jobs total is corrected for deadweight, displacement and multiplier effects – an estimated range of 275 - 335 net jobs might be reasonably attributed to the ERDF support provided to the respondent businesses (net as a percentage of gross in a range of around 75%-92%).

It is important to note that this calculation ignores any effects from double counting assistance from different ERDF projects³⁴ and indeed from other government led interventions.

4.3 Jobs Safeguarded

Jobs created are only one component of ERDF assistance: safeguarding employment in difficult economic times is also important. Table 4.7 reveals that of the 778 respondents, a total of 639 (82.1%) believed that no jobs were safeguarded as a result of assistance. In a further 49 cases, one job was believed to have been safeguarded, with 54 respondents reporting that between two and four jobs were safeguarded. There were a total of 36 cases where more than five jobs were reported as having been safeguarded as a result of ERDF support. In total respondents identified 608 safeguarded jobs.

Table 4.7 Likelihood of companies safeguarding jobs without ERDF support

Number of jobs safeguarded	No s/g jobs	Likely	Unlikely	Don't know	Total responses
<i>Number of businesses</i>					
0	639	0	0	0	639
1	0	30	17	2	49
2-4	0	20	29	5	54
5-9	0	10	8	0	18
10-24	0	3	5	0	8
25-49	0	0	4	0	4
50-249	0	2	0	0	2
Don't know	0	2	1	1	4
Total	639	67	64	8	778

Source: Telephone Survey (778 respondents)

³⁴ This was seen to be a significant factor in the Structural Fund Programmes in Wales in the 2000 – 2006 Programming period. It may be anticipated to be less in the current period, owing to the smaller number of projects, but it is noteworthy that in the original sample some 48 cases were identified where the same business occurred within the WEFO data as being assisted by two or more projects (though the number of projects submitting data was relatively small).

As with jobs created, respondents who identified some jobs safeguarded as a result of ERDF support were asked how likely it was that these jobs would have been safeguarded even in the absence of this support.

Of the 139 respondents who reported any employment safeguarded as a result of the ERDF assistance, a total of 64 (46%) believed that the employment would not have been safeguarded without the assistance: of these, 59 were able to provide an estimate of the number of jobs safeguarded and an additional five respondents believed that employment had been safeguarded but could not quantify the number of posts safeguarded..

The 59 respondents who could place a number on jobs safeguarded represented some 307 jobs: of these, 30 jobs in total were safeguarded by businesses where respondents said that they would definitely not have been safeguarded in the absence of ERDF support.

Over 40% of the 307 jobs safeguarded were in manufacturing, with health and social work accounting for a further 15% and construction for 10% of these jobs.

Using the framework of the Welsh input-output tables it is estimated that these 307 jobs safeguarded can be connected to the safeguarding of a further 208 employment opportunities in the Welsh economy. This means every job safeguarded can be connected to an estimated 0.69 jobs safeguarded in other parts of Wales. Note that this is a slightly higher multiplier effect than that seen in the case of jobs created because of the greater number of manufacturing jobs covered in the sample of safeguarded opportunities.

In summary here in terms of job safeguarded, respondents identified 608 jobs being safeguarded and that 307 could be linked to the ERDF assistance received (including all those who said that jobs were unlikely to have been safeguarded in the absence of ERDF support). We again assume a displacement factor of 25% here following from earlier. The average multiplier effect given the industry distribution of the jobs created is an estimated 1.69.

On this basis the findings of the survey suggest that – once the 608 gross safeguarded jobs total is corrected for deadweight, displacement and multiplier effects – an estimated range of 350 - 428 net safeguarded jobs might be attributed to the ERDF support.

4.4 Other Impacts

Finally, we consider the effects of ERDF on other aspects of business performance, as shown in Table 3.11 above (reproduced as Table 4.8 for ease of reference).

Table 4.8: Summary table of other outcomes and role of ERDF support

% reporting change of:	Turnover	Profitability	Productivity	Exports
100%+	4.5	2.5	3.1	4.4
76-100%	3.6	1.1	1.3	1.9
51-75%	0.6	1.0	1.3	0.0
26-50%	6.1	4.1	5.4	3.8
10-25%	18.2	14.2	19.1	15.7
<10%	8.5	10.6	11.4	8.2
no change	48.8	59.6	54.4	62.3
-<10%	1.7	1.4	0.6	0.0
-10-25%	3.9	2.4	1.7	2.5
-26-50%	2.4	1.7	0.8	1.3
-51-75%	1.1	1.1	0.8	0.0
-76-100%	0.6	0.3	0.1	0.0
% reporting outcome would have been worse without ERDF				
Very likely	11.7	9.6	10.0	6.1
Likely	20.3	19.5	19.4	11.7
Unlikely	34.7	40.5	37.3	35.5
Very Unlikely	26.9	24.7	26.7	30.5
Don't know	6.5	5.7	6.6	16.2
<i>Total responses (n)</i>	<i>639</i>	<i>634</i>	<i>717</i>	<i>197</i>

Some 42% of respondents reported that turnover had increased since receiving ERDF, while in respect of profitability, productivity and exports these figures were 33%, 42% and 34% respectively.

Clearly the evaluation needs to take account of instances where business performance may have stayed the same or decreased but would have been worse without the ERDF intervention i.e. where ERDF assistance strengthened the relative position of participants. The bottom section of Table 4.8 reveals that in the case of turnover 32% of responding organisations believed that their overall situation with regard to turnover would have been worse without the ERDF assistance.

Again, the equivalent figures for profitability, productivity and exports were 29%, 29% and 19% respectively.

The related issue is how far maintained or improved performance occurred as a result of displacement of opportunities elsewhere in the local economy surrounding workplaces or in other parts of Wales. The survey results suggested that of those respondents who said that sales outcomes were likely or very likely to have been worse without ERDF support, 38% specifically stated that their main competitors were located in the local area or across Wales. Furthermore, of the respondents who reported that sales performance was likely or very likely to have been worse without the ERDF support, just 1.4% reported increased business and believed that they had taken this business from local competitors; a further 17% believed that new business had been created as a result of generating new demand and taking business from other local firms.

As with employment, it is possible that this may understate the underlying displacement effects on sales and other performance measures where sales were maintained at a higher level than they would have been in the absence of ERDF support. For these reasons the extent to which respondents believed that their main competition was local or otherwise would provide a better indication of the likely scale of displacement.

5.0 PILOTING LINKING AND MATCHING OF ASSISTED BUSINESS DATA

5.1 Introduction

We now turn from the analysis of the data generated by the survey of the assisted businesses to the second of the objectives of the study – examining how far the performance of assisted businesses in Wales can be compared with businesses in Wales (or elsewhere) which have not received assistance by linking records of ERDF businesses in national data sets to similar non-assisted businesses and then comparing performance of the two groups of businesses over time. This approach was recommended by DTZ in their methodological study on Programme Evaluation for WEFO: by creating a ‘virtual control group’, which would enable the counterfactual to be explored³⁵.

Furthermore, it might be argued that there is some value in tracking the performance of assisted firms even in the absence of attempts to gain a counterfactual scenario. Typically the types of monitoring information on assisted firms retained by organisations is necessarily limited; by linking assisted firms to other data sources, it should be possible to examine the progress of an assisted cohort of firms over time, and gain better contextual information on the population of firms that have been assisted.

In this Chapter, we first (Section 5.2) examine how far the Financial Analysis Made Easy (FAME) database of Company Accounts can be used to:

- ‘Find’ records of ERDF assisted firms held by WEFO;
- Examine the performance of the cohort of assisted businesses;
- Develop a control/peer group of firms through which inference on the impact of funds on business performance can be gained.

³⁵ The potential for undertaking this type of analysis was examined in DTZ (2010) A Feasibility Study of Methodological Approaches to Undertake Impact Evaluation of Structural Fund Programmes in Wales 2007-2013; Final report to WEFO, September 2010. see Chapter 3 of this report.

Section 5.3 considers the potential of matching these businesses to the ONS Inter-Departmental Business Register to examine whether business data sets collected by ONS can be used to provide further insight in to the relative characteristics and performance of ERDF assisted businesses.

5.2 Financial Analysis Made Easy (FAME)

5.2.1 The FAME database

FAME is one of a series of related databases that provides information on companies in the UK and Ireland. Much of the underlying information held by FAME comes from Companies House records. It therefore excludes sole traders and unincorporated businesses and provides only limited information on smaller businesses which have exemptions in terms of reporting requirements under Company Law. The information on FAME is regularly updated, with records going back as far as ten years.

The details of businesses on FAME include: contact information including phone, e-mail and web addresses plus main and other trading addresses, activity details, profit and loss account and balance sheet items, cash flow details and main accounting ratios, credit ratings, details of firms banks, auditors, previous auditors etc; information on holding firm structures, subsidiaries (including foreign holdings and subsidiaries); details of directors and accounts types.

FAME software provides a flexible search option, making it possible, for example, to search by geography (down to postcodes), industry type, financial variables, and employment size. The search options on the FAME software are extensive and allow for complex searches for businesses meeting a range of different criteria.

Moreover, companies on FAME have a standard comparison peer group attached to them. This is defined by their industry type and size. The FAME package also permits a peer analysis where the researcher can compare an

individual firm with other individual companies and/or an average of a set of companies.

5.2.2 Process of Matching with FAME

In all it was possible to match 694 businesses (under a third of the ERDF records available) using the company name³⁶.

Of the total of 694 records identified:

- 490 (71%) were classified as being 'total exemption small', in other words, businesses which file abbreviated accounts (not audited and typically with no sales and profits information);
- 42 (6%) were classified as 'total exemption full', companies exempt from filing full accounts but which choose to do voluntarily;
- 9% had no information available on accounts types;
- 5% were classified as 'small company' or 'medium company', which file audited, but still abbreviated accounts;
- 4% had full accounts.

The remaining 5% were either group accounts or dormant firms.

It follows that few of the matched records had information available on FAME relating to key business performance measures, particularly relating to sales and profitability. Appendix 1 contains more details of what companies are required to report under the various exemptions. Of the total of 694 records matched (see Appendix 1 for further details), a total of 37 had either group or full accounts with fairly complete financial information. However, over 90% of records (631 records) fell into the categories of having total exemption small or full, were small or medium companies, or had accounts types not available. Reference to the FAME database for the whole of Wales³⁷ shows that where accounts types were classified in these categories, on average

³⁶ A constraint on undertaking the data linking exercise was that WEFO data do not include company registration numbers which are a unique identifier which could be used in matching records.

³⁷ 69,694 records in total: See Appendix 1

only 8.6% of businesses provided information on turnover, 9.1% on profit and 2.0% on employment.

The conclusion would be that out of the total 694 matched records, no more than 100 could be used for a more detailed performance analysis and/or could be usefully matched with a peer group of firms for further analysis. Such a cohort would be highly unrepresentative of all assisted ERDF businesses.

5.2.3 Results of Initial Matching

While it is not possible at present to use FAME to undertake any analysis which meaningfully compares the range of ERDF supported businesses with businesses which have not received ERDF support, a preliminary analysis of a small number of assisted businesses for which data over at least two years after the date of intervention was undertaken, using the peer analysis functionality available through the FAME software.

A total of 16 businesses were identified which had been assisted in 2009 or earlier and where there was some turnover and/or employment data for the latest financial year on FAME. In nine of these 16 matches, reported FAME employment was over 50 people in their latest financial year (highest 3,617), and with turnover varying between £6,000 and £34.8m. Clearly a problem here is that some matches reflected group or large company accounts where isolating the effects of ERDF interventions would be particularly difficult.

A peer analysis using the FAME software was only possible in 11 of these 16 cases. This largely reflected that some of the firms had data for 2010 but not 2009, or where FAME did not identify a peer group. Table 5.1 provides the data that could be extracted, with the company names coded. The first three columns give turnover, profit before tax and employment growth between the 2009 and 2010 financial years. The last three columns give the same figures

for the peer group, using in each case the median figure for all eleven companies (i.e. the reference company and the ten matches).³⁸

Table 5.1: Sample data from FAME

	ERDF assisted firms			Peer group firms		
	Turnover growth	Profit before tax growth	Employment growth	Turnover growth	Profit before tax growth	Employment growth
ASL	-3.09	327.63	4.79	16.28	25.22	5.88
SSGL	2.55	-39.33	2.25	6.15	-4.68	7.52
DLTD	69.19	34.64	12.50	1.91	34.64	-6.42
DTL	0.37	Na	6.54	7.70	6.60	5.12
FML	18.60	15.46	26.09	6.59	-25.66	16.95
CTEL	-19.12	-96.95	15.04	1.46	-9.09	-6.10
MGST	6.57	22.19	9.52	-16.90	-7.49	-4.00
SB	-7.59	Na	Na	-0.38	-8.34	-5.26
RAV	-4.36	Na	Na	0.29	67.14	14.17
PFT	-23.71	-84.88	Na	-3.09	-12.22	Na
ES	-72.73	-91.88	Na	-72.73	-65.38	Na
Average	-3.03	10.86	10.96	-4.79	0.07	3.10

Note also that not all of the 11 firms from the ERDF found in FAME have data on all three of the identified variables.

Clearly this is unrepresentative in the extreme but reveals what might be achieved in the future using the FAME package, in particular in terms of survivor analysis and descriptive tasks.

5.2.4 Moving forward with FAME

The analysis suggests it would not be possible to use FAME meaningfully to gain inference on counterfactual scenarios. While limited analysis is possible on those records with full accounts and SMEs who do report more fully, this would inevitably still skew analysis away from the vast majority of those enterprises that are assisted by ERDF.

³⁸ An average figure is also available but can be heavily skewed by individual entries making it safer to report median figures.

At the same time, we do believe that FAME could still represent a useful tool for analysis in connection with WEFO-funded interventions using ERDF.

First, while many of the firms assisted under ERDF will only produce abbreviated accounts, these may still provide useful information. For example:

- Abbreviated accounts can be used to examine the long term survival trends of firms assisted by ERDF, and long term trends in the growth of their asset base which could proxy overall growth;
- Abbreviated accounts often provide information linked to credit scores which are one indicator of business health;
- Abbreviated accounts may provide a series of other performance measures such as trends in total assets minus all liabilities, and increases in reserves;
- Accounts can also provide other administrative details which could complement those recorded by project sponsors including: industry sector of assisted firms; contact details as known to Companies House; incorporation date; legal status; and list of directors (the latter perhaps important when examining cross cutting themes), and ownership.

Such an exercise would be of limited value at present, given the short time which will have elapsed since the ERDF support was provided and the need to examine trends over at least two - three years after assistance. For an ex post evaluation of ERDF assistance, however, the type of descriptive analysis that would be permitted using FAME would undoubtedly add to the evaluation process, with the search tools and peer analysis tools meaning that analysis could be undertaken relatively easily on a comparator set of businesses.

Finally, if the number of larger firms assisted by ERDF in Wales increases there is also the opportunity to use FAME for more formal matched pairs analysis.

5.3 The Inter-Departmental Business Register (IDBR)³⁹

5.3.1 The IDBR

In addition to FAME, the feasibility of locating firms within the Office for National Statistics Business Register (the IDBR) was also investigated.

The IDBR is a comprehensive database of UK businesses, drawn from administrative data sources. The main purpose of the IDBR is to provide ONS and other government departments with a sampling frame for surveys of business activity, such as the Annual Business Inquiry. The register covers all areas of economic activity and is derived from various administrative sources. These include:

- information supplied by business ownership from Dunn and Bradstreet;
- registration data from Companies House; and
- ONS surveys that have the specific aim of maintaining the register.

However, the main source of information for the IDBR is HMRC data gathered from businesses which are registered for VAT or Pay as You Earn (PAYE). Inclusion on the IDBR therefore depends upon a business either having a turnover that places them above the VAT threshold or having employees who are taxed via the Pay as You Earn system. Businesses that do not meet these criteria will typically not be included on the IDBR, although there are exceptions⁴⁰. It should be noted that not all enterprises on the IDBR are active – defined as an enterprise for which live data is available for at least one local unit. The records of inactive enterprises may be kept on the IDBR for several years until notification is received that the business is no longer trading.

³⁹ This section contains statistical data from ONS which is Crown Copyright. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

⁴⁰ For example, those businesses that chose to register for VAT to enhance their credibility or those businesses whose turnover temporarily dips beneath the VAT threshold.

5.3.2 IDBR Matching

The ONS provides a matching service whereby the names and addresses of businesses can be allocated enterprise reference numbers. These unique reference numbers are used across a variety of ONS business surveys which enables information held on these businesses to be linked – both across ONS surveys and to other external sources of information held about them. The allocation of enterprise reference numbers is based on a text matching process. The quality of the names and addresses held is therefore of crucial importance in determining the success with which matches are made.

The quality of the name and address data supplied by WEFO had some inconsistencies in formatting and in the contents of address fields compared to that required by ONS for the purpose of matching. Prior to providing ONS with the names and addresses of ERDF businesses, the contents of the administrative data were reviewed to ensure that their format was consistent with that required by ONS text matching processes. This included using internet searches to obtain postcodes where this information was either missing or incomplete within the administrative data (the ONS matching process places a large 'weight' on postcodes for the generation of a matching score) and removing abbreviations and correcting spelling mistakes.

Following the review of the administrative data a file containing the names and addresses of 1,747 businesses was supplied to ONS for the purpose of IDBR matching.

Depending on the quality of the data, the IDBR team typically achieve a matching rate of 60%. In the case of the ERDF survey, 984 matches against the IDBR were achieved; a match rate of 56%. A further 71 records were multiple matches: in these cases, the names and addresses could be linked to multiple IDBR reference numbers, with the matching process unable to identify the most likely match. These were excluded from subsequent analysis

5.3.3 *Linking to the Business Structure Database*

The IDBR is not widely accessible to the research community due to the highly sensitive information held by HMRC on businesses. The IDBR is also a 'live' register, being updated at different intervals with information from the various administrative sources described above.

However, a research version of the IDBR referred to as the Business Structure Database (BSD) has been developed for the purposes of research. Where analysis involves linking data from external sources, the BSD can be accessed via the Virtual Micro data Laboratory at the offices of ONS. The BSD is an annual 'snap shot' taken of the IDBR at the end of the financial year in March. At the time of writing, the most recently available BSD data relates to March 2010. The annual data sets comprise of pairs of files; one relating to data collected at the enterprise level and the other providing information on local units within that enterprise.

Although comprehensive in its coverage, the BSD is relatively limited in terms of its content. Key variables relate to business structure (number of local units within an enterprise), employment, turnover, country of ownership and year established. Turnover data are only provided at the enterprise level, as ONS does not collect financial information at workplace level due to difficulties associated with this.

Based upon the allocated enterprise reference number, recipients of ERDF support were located within the 2010 BSD. The matching exercise was therefore restricted to enterprises within the BSD that were 'live' in March 2010. It should therefore be acknowledged at the outset that some businesses which were included in the WEFO data, including some who responded to the ERDF survey will not be included in the 2010 BSD, because they were only established after March 2010.

Moreover, due to its size and complexity, there is a lag between the establishment of businesses and their appearance on the IDBR. For example,

a business that was established in 2009 may not first appear on the IDBR until 2011.

The analysis excluded workplaces operating in the public sector and was restricted to single site enterprises, i.e. those enterprises where the activity of the business was restricted to a single location. This is to ensure that the workplace that received support via ERDF is synonymous with the enterprise. This restriction avoids attributing enterprise level information for multi-site enterprises to single workplaces within that organisation. Approximately a quarter of workplaces responding to the survey were part of larger organisations. In total, 340 single site enterprises that had been in receipt of ERDF support were matched to the 2010 BSD.

The time-lag in the availability of BSD data (and the appearance of ERDF supported businesses within the data) considerably restricts what it is possible to achieve with this data source at this time.

Of the 2,288 workplaces that were included in the potential population for the survey, 69% (1,566) had valid information on the timing of the intervention. Of these, 29% (450) received their intervention in 2009, 69% (1,080) received their intervention in 2010 and 2% (30) received their intervention in 2011. At the time of writing, *only limited information about ERDF supported businesses following their intervention is available from the BSD*. Of the 340 single site enterprises that have been matched to the 2010 BSD (the 2009/10 financial year), a majority of these businesses would have received their intervention after the time of their most recent data in the BSD.

To evaluate the effectiveness of ERDF interventions using the BSD, the performance of these businesses needs to be monitored over a number of years following their receipt of ERDF. Key in this respect would be the ability to track the survival rates of ERDF supported businesses. Therefore, it is only possible to provide a partial baseline analysis for single site enterprises that have been assisted through ERDF prior to their ERDF interventions. As noted above, the information contained within the BSD is relatively limited, restricted

to key demographic variables and turnover. It must be stressed however that this only represents a partial baseline analysis, providing an insight of the position of a sub-group of businesses assisted by the ERDF relative to other businesses in the economy as observed in 2009/10. The sample of businesses that will ultimately be included within any statistical analysis of BSD data can only be determined at the time when that analysis is conducted and the availability of 'before intervention' and 'after intervention' data can be assessed.

The relative demographic characteristics of these matched businesses are shown in Table 5.2. It can be seen that the ERDF supported workplaces found in the BSD tend to be larger than the wider population of single site enterprises in Wales: approximately half of the 340 matched enterprises have workplaces with 10 or more employees, compared to just one in five among the wider population of Welsh single site enterprises.

Table 5.2: Demographic Characteristics (single site enterprises)

	Business Structure Database			All ERDF Survey Respondents
	ERDF Recipient			
	No	Yes	All	
Workplace size				
1 employee	18.0%	5.0%	17.8%	23.4%
2-4 employees	40.0%	21.8%	39.8%	36.1%
5-9 employee	20.8%	22.1%	20.8%	18.2%
10-24 employee	15.0%	28.8%	15.2%	14.2%
25-49 employee	3.9%	12.9%	4.0%	5.0%
50+ employee	2.3%	9.4%	2.4%	3.2%
Year established				
1999 or earlier	69.4%	59.7%	69.3%	31.4%
2000-2006	25.8%	32.1%	25.8%	32.4%
2007-2010 (2011)	4.8%	8.2%	4.9%	36.1%
Sector				
Profit seeking	93.8%	90.6%	93.7%	90.2%
Third sector	6.2%	9.4%	6.3%	9.8%
Total	100.0%	100.0%	100.0%	100.0%
	29,290	340	29,630	621

In terms of date established, it can be seen that ERDF supported enterprises are in general 'younger' than the wider population of single site enterprises, with 40% having been established since 2000. This could cause difficulties with future analysis of the BSD in terms of establishing the baseline position of businesses, insofar that the first available BSD data for an ERDF supported establishment may often relate to the year that the business was established. The first year of BSD data available for new businesses could itself embody the effects of the ERDF intervention.

The proportion of ERDF supported workplaces who are profit seeking is broadly comparable with the whole population of BSD businesses.

Links to the BSD also provide us with the opportunity to compare the characteristics of workplaces that responded to the survey with workplaces in the wider population.

In terms of establishment size, it can be seen that the characteristics of workplaces responding to the survey are broadly comparable to the population of Welsh single site establishments – but that those ERDF assisted businesses linked to the 2009/10 BSD are not at all representative of the survey population, being on average significantly larger.

In terms of broad sector, their characteristics are broadly similar.

The biggest difference however emerges in terms of the birth of these enterprises. It can be seen that 36% of single site enterprises responding to the survey had been established since 2007. Closer examination reveals that 12% of enterprises responding to the survey were established in 2010 or 2011 and will therefore be unlikely to appear in the BSD. A further 18% indicated that they were established during 2009. Due to the time lags involved in the construction of the IDBR, the coverage of this group will also be incomplete. This is confirmed by the fact that only 8% of ERDF enterprises that were linked to the BSD were recorded as being established between 2007 and 2010. If the ERDF survey is representative of the wider population of ERDF

respondents, this would suggest between 25-30% are not able to be located in the 2010 BSD as a result of them being 'new' enterprises.

With these caveats in mind, Table 5.3 considers the relative performance of ERDF supported businesses, as measured by their turnover. It is acknowledged that this measure does not provide an accurate measure of productivity (which would require detailed information on factor inputs) or profitability (which would require information related to costs).

Table 5.3: Workplace Performance (single site enterprises)

	ERDF Recipient		Total
	No	Yes	
Turnover			
£0-100k	31.5%	14.1%	31.3%
£100-250k	27.2%	16.5%	27.1%
£250-500k	16.2%	17.6%	16.2%
£500-750k	7.5%	8.5%	7.5%
£750-1000k	4.3%	8.2%	4.4%
£1000-1500k	4.6%	10.0%	4.7%
£1500-2000k	2.2%	5.0%	2.2%
£2000-3000k	2.3%	5.0%	2.3%
£3000-5000k	1.7%	5.9%	1.8%
£5000k+	2.5%	9.1%	2.6%
Total	100.0%	100.0%	100.0%
Mean	811.1	1945.1	824.1
Turnover per employee			
£0-25k	19.4%	15.0%	19.3%
£25-50k	30.0%	24.7%	29.9%
£50-75k	20.1%	19.4%	20.1%
£75-100k	10.0%	13.8%	10.1%
£100-150k	9.4%	15.0%	9.4%
£150+k	11.2%	12.1%	11.2%
Total	100.0%	100.0%	100.0%
Mean	101.8	84.3	101.6
Sample	29290	340	29630

From this it can be seen that:

- ERDF supported businesses have higher levels of turnover compared with the wider population of single site businesses in Wales. Given their larger size (as measured by employment), this finding is not surprising.
- However, ERDF supported businesses actually exhibit lower mean levels of turnover per employee compared with the wider population of single site businesses

At the same time, there is some indication that ERDF businesses are less likely to have low levels of turnover per employee prior to their receipt of support than non-assisted companies: this would appear to indicate that a small minority of non-assisted businesses have very high levels of turnover per employee.

Overall, then, it would appear that ERDF businesses compare reasonably favourably in terms of turnover per employee (as a crude measure of productivity) with non-assisted businesses, but that ERDF is not used to a proportionate extent by the small minority of businesses with very high turnover per employee.

5.3.4 Concluding Remarks

This section has examined issues surround the feasibility of using sources of business data held by ONS to examine the relative performance of enterprises supported by ERDF.

A number of points emerge.

Firstly, the quality of administrative data held was poor for many businesses. In many cases, addresses (and particularly postcodes) were incomplete or inaccurate. The formatting of the address fields within the supplied database was also problematic, with single cells sometimes containing information that would have constituted several lines of an address. Despite cleaning the data, approximately 30% of supplied records could not be put forward to ONS for matching. Furthermore, almost a third of the administrative records failed to record information regarding when ERDF support was received and would

therefore not be able to be incorporated within a statistical evaluation of how ERDF has affected the performance of these businesses. Greater guidance needs to be given to ensure that the necessary details of ERDF recipients are collected in a way such that future data linking exercises can be undertaken more effectively.

In terms of actually locating ERDF supported businesses within the Business Structure Database, successful links were made with 340 businesses. This low number of links reflects (a) the restriction of the analysis to single site enterprises, (b) the lower coverage of recently established businesses in the BSD (which is important in the context of ERDF recipients) and (c) the time lag it takes ONS to create new versions of the BSD.

It should be noted however that recently established businesses will eventually appear in the BSD as updated versions of the data sets become available – addressing issues b) and c) described above. When these businesses eventually appear, their year of birth will reflect the actual start-up of the business and not the year that the enterprise first appears on the BSD.

A more resource intensive manual matching service is also available from ONS that allocates local unit reference numbers to workplaces. Matching on local unit reference numbers would negate the need to restrict an analysis of the BSD to single site enterprises.

However, the inability of the IDBR to capture information on the self-employed or businesses with low levels of turnover cannot be addressed.

This exploratory exercise has represented the first attempt to locate ERDF supported businesses within administrative databases maintained by ONS. In terms of practical arrangements, this feasibility study has established the mechanisms that are required to undertake such exercises and the preparation that is required to ‘clean’ the data to enhance the likelihood that ERDF supported businesses will be located within ONS databases.

The study has also provided evidence of how such research activities in this area should be structured in the future. The key message that emerges from this exploratory study is that investments in such forms of evaluation techniques are long term. The feasibility of using such methodologies is dependent upon the collection and maintenance of high quality administrative records throughout the period covered by the ERDF Programme.

Furthermore, examining the impacts upon business survival require ERDF supported workplaces to be followed up over several years. However, given the physical proximity of the ONS to WEFO and the associated expertise in the business data that exists within Wales, the opportunity is available for WEFO to be at the forefront of developments in this area of research.

6.0 CONCLUSIONS AND RECOMMENDATIONS

The ERDF Business Survey is the first study to specifically provide evidence during the lifetime of the 2007-2012 Structural Funds Programmes about businesses which are being assisted by ERDF and in particular to gauge the effects of that assistance. The findings do, of course, need to be put in the context of the relatively small number of projects for which contact data was available which limits the capacity to compare and contrast between different types of intervention, while two large-scale interventions (funded by projects under both Convergence and Competitiveness Programmes) accounted for the majority of the records available. However, the high response rate achieved during the fieldwork provides assurance that the survey findings are representative of all the assisted businesses which were included in the survey sample.

The survey data suggest that, in line with the majority of Welsh businesses, the overwhelming majority of assisted businesses are micro-enterprises and are Welsh owned, with a good mix of new starts and more established businesses. The support provided by ERDF is quite varied, but with a strong focus on assistance with ICT (partly, but not entirely a function of the sample), marketing and sales, advice related to starting a business, and business finance (despite the fact no specific business finance projects were included).

While only a relatively modest proportion of respondents said that they had assistance with Research and Development, half of all those who had had help with forming collaborative relationships had gone on to consolidate these (92 businesses or 12% of the sample), with the vast majority of these reporting that these relationships were important to their business strategy.

Unsurprisingly, perhaps, financial support for these businesses remained very heavily focused on grants, while around 15% of all businesses had received support related to the cross-cutting themes of equal opportunities and environmental sustainability.

Three quarters of all businesses recognised that they had had support from ERDF, and levels of satisfaction were generally good, with those who had received support under Priority 1 of the Convergence Programme generally being more positive about the relevance and quality of the support.

Around 28% of ERDF assisted businesses had also used ESF support, but 40% had neither used nor were aware that such assistance was available, even though they identified a range of potential ESF interventions (including help with taking on unemployed people) which might be of interest to them.

The survey suggested the potential for some displacement of business advice services in the private sector, with the minority of respondents who said they would have considered accessing other support in the absence of ERDF most likely to identify private sector consultants as the source of this support, with ERDF being preferred because it was free or at lower cost.

Overall, 45% of respondents said that their businesses had benefited from other forms of advice and support over the last five years, with the Welsh Government, private sector consultants and enterprise agencies being the most frequently cited sources. While the types of advice sought suggest that ERDF projects are generally focused on the areas of business performance of concern to these businesses, advice on HR and Personnel issues also featured strongly.

The survey also suggested many assisted businesses were focused on markets in Wales, had competitors located principally in Wales and were likely to recruit new employees from other businesses within Wales, suggesting the potential at least for some displacement of growth in non-assisted businesses. However, this appears to be less true of job-creating businesses. Moreover, the 38% of respondents who said that ERDF had helped them win new business did not generally associate this with having taken market share from local competitors.

The survey suggested that very few respondents regarded the ERDF

assistance as critical to the continued existence of their business. More generally, whilst respondents were surprisingly likely, given the recent economic conditions, to identify positive changes in their business (including employment growth, the introduction of new products, processes, equipment and ICT, changes to working practices and increases in turnover, profitability and productivity) the extent to which they attributed these changes to the assistance of ERDF was more limited, particularly when asked to assess the likelihood of whether such changes would have happened in the absence of ERDF.

Overall, however, respondents reported some surprisingly positive developments over recent years, given the economic climate, for example:

- 48% of all businesses with at least two employees reported some increase in employment over the last five years, and only 17% reported a reduction in employment;
- more than two thirds saying they had introduced new or modified products or processes in the last five years;
- 42% of businesses reported increased turnover over the period since the ERDF assistance.

This raises an interesting question as to whether respondents tend to under-value the effect of the ERDF support.

Although job creation is only one of the key foci of the ERDF Programmes it is a critical measure of success for many of the projects within the sample. Only a small minority of businesses (around 17%) specifically attributed any new job creation to the ERDF assistance, with these businesses reporting a total of 363 jobs created as a result of ERDF. However, around 40% of these said that the jobs would have been likely to have been created even in the absence of ERDF. Once taking this self-reported deadweight into account, some 245 jobs could be attributed to the ERDF support. Factoring in displacement (which appears generally to be reasonably low, partly because those businesses reporting ERDF-created jobs tended to be less dependent on relatively local markets) and the multiplier effects, we estimate on the basis

of the survey evidence that the number of net new jobs resulted from ERDF support was in a range of 275-335 (though this ignores any effects of double counting).

The survey data also suggest that a broadly equivalent number of jobs are being safeguarded as a result of ERDF support, with our best estimate being a total of around 350-428 net safeguarded jobs (once deadweight, displacement and multiplier effects are taken into account) across the 778 assisted companies.

While the Business Survey data provides useful information about ERDF assistance which allows some inference to be drawn on the impact of the interventions to date, the second element of the study has been more frustrating. The aim was to examine the feasibility of using national data sets to compare the performance of ERDF assisted businesses with a 'virtual control group' of non-assisted businesses over time and thus gain inference on the impact of ERDF assistance in a way which does not depend on the subjective assessment of businesses, a key caveat which needs to be considered in relation to the results above.

However, the attempt to link WEFO's administrative data to the FAME database showed that it was not feasible at present to construct a matched sample which would provide meaningful information on the impact of ERDF. Only a third of the ERDF businesses were found in FAME using automated processes, while checking a manual sample suggested that at least a third were wholly absent from the database (probably reflecting the relatively high proportion of unincorporated businesses being supported). More importantly, it became clear that only a very small minority of assisted businesses (certainly fewer than 100 of the 2,281 records provided by WEFO, with these overwhelmingly being larger businesses, and thus unrepresentative of the population as a whole) could be linked to data relating to profit and loss accounts and turnover, which would be needed to construct a matched sample and track development over time: this is predominantly an issue of business size and the limited reporting requirements for small businesses, but

also reflects some problems with data quality in the administrative data. Some of these issues are intrinsic to the nature of the available data, and FAME is unlikely to prove capable of enabling the tracking of a representative sample of ERDF assisted businesses over time. But our initial efforts at comparing performance over two years of the very small number of assisted businesses with their peers show that in the longer term, FAME can be used to investigate comparative performance of larger businesses in receipt of ERDF support, while it also offers the opportunity to undertake survivor analysis of a much wider range of businesses.

Similarly, the attempt to match ERDF supported businesses to the BSD has yielded only limited results, in terms of the capacity to make comparisons between 340 ERDF assisted enterprises and the broader population of Welsh businesses at this time. From comparisons with the survey data, it would appear that the 340 businesses are not representative of the broader population of ERDF supported businesses, as they include a far higher proportion of relatively large business and exclude new starts which account for a relatively large proportion of ERDF supported businesses in general. Information on these new starts will however become available within the BSD as time passes, increasing the opportunities to make comparisons between ERDF recipients and the IDBR. Moreover, the study has provided evidence of how research activities in this area should be structured over the longer term and how WEFO and the research community in Wales can be at the forefront of utilising such data linking techniques in the future evaluation of ERDF.

In terms of recommendations, we first make a small number of recommendations in terms of policy and targeting of interventions (while emphasising that these should be regarded as tentative given the relative limitations of the data) before turning to recommendations with regard to further research and analysis. In making our recommendations on policy we are conscious that the Minister for Business, Enterprise, Technology and Science has recently commissioned a report on Micro-enterprise support from a Task and Finish Group and that the findings of this inquiry (in particular with regard to the future implementation of the Economic Renewal Programme)

will be relevant to the consideration of some of these proposals.

Policy and Targeting of Interventions

Recommendation 1: WEFO should continue to place emphasis on the role of ERDF in stimulating collaborative partnerships between businesses and other partners.

Recommendation 2: Given the evidence on the potential for some displacement of paid-for business advice services and subject to the consideration of the recommendations of the Micro-enterprise Task and Finish Group⁴¹, WEFO should consider what more can be done to ensure that ERDF support adds value to, and does not displace, paid-for business advice services available from the private sector.

Recommendation 3: WEFO and the Welsh Government more generally should investigate whether there is any evidence of market failure in terms of the provision of support to Welsh SMEs on HR and personnel issues, and if so, whether there is any need to encourage potential sponsors to bring forward projects to address any market failures.

Recommendation 4: In view of the considerable proportion of ERDF assisted businesses who are not aware of ESF, WEFO should work with the Department for Education and Skills to consider whether there is potential to use the 'way in' to Welsh SMEs that ERDF projects provide to raise awareness of public support for workforce development.

Recommendation 5: In view of the potential displacement effects of the assistance to businesses operating largely within local markets, and the evidence that job creation is not strongly associated with the smallest businesses, WEFO should work with project sponsors to see how far ERDF assistance - except where specifically targeting new business starts – can be

⁴¹ Welsh Government, January 2012: This notes that 'The Group also identified that in many instances public sector deliverers effectively duplicate and displace some business advisory services offered by the private sector where there is a wealth of knowledge and expertise available among Wales based professionals. Therefore it is important that future provision helps facilitate local professional services within the private sector.'

focused more clearly on those businesses employing five or more employees. However, in taking this forward, WEFO will need to be sensitive to the economic climate and the findings of the Micro-Enterprise Task and Finish Group.

Further research and analysis

Recommendation 6: WEFO should investigate further (possibly through qualitative research) the reasons why a significant proportion of businesses identifying positive change in employment or in business performance after ERDF support do not believe ERDF assistance was an essential factor in achieving these results.

Recommendation 7: Given the relatively small number of projects for which data were available for the current survey, consideration should be given to repeating the survey once a greater volume of data is available from more projects.

Recommendation 8: To aid future research, WEFO should try to ensure that data held on assisted business contains more in the way of detail e.g. on sector and size by employee numbers, that businesses trading names and addresses are accurate and that company registration numbers (and where relevant VAT registration numbers) are held. Employing a relatively limited resource to check data when submitted by projects and use a suitable database, such as FAME to ensure the accuracy of the data and populate additional fields in the database left incomplete by projects, would ensure that much better analysis could be done of the entire population of assisted businesses, and enable future surveys to be weighted to ensure the population was properly represented.

Recommendation 9: WEFO should consider undertaking or commissioning an *ex post* analysis, using FAME and/or the IDBR, of the survival of ERDF assisted businesses by comparison with similar businesses who did not receive ERDF assistance. It is expected that such analysis will first become feasible towards Spring 2013, when more recent versions of the IDBR

become available. Attention can then be paid to changes over time in businesses in relation to the timing of ERDF interventions.

APPENDIX: LINKING AND MATCHING WITH FAME

A1.1 FAME and Analysis of Business Performance

FAME has been widely used for projects involving accounts analysis, credit analysis, research into mergers and acquisitions (in other words, event studies). In Wales the database has been used for comparative analyses on the performance of the foreign and domestic sector in regional manufacturing (Munday and Peel, various).

While the population of firms on FAME is extensive, the amounts of financial and other information on individual businesses varies considerably, and this has a limiting effect on matching and for counterfactual analysis.

Companies' legislation permits small and medium-sized enterprises and partnerships (limited liability partnerships) to provide Companies House only with abbreviated accounts. In practice to qualify to submit abbreviated accounts, a small company currently has to meet two out of the following:

- Sales of less than £6.5 million;
- A balance sheet total of less than £3.26 million;
- No more than 50 employees.

A medium sized company must meet two of the following:

- Sales of less than or equal to £25.9 million;
- A balance sheet total of less than or equal to £12.9 million;
- No more than 250 employees.

Businesses qualifying under the above conditions can file abbreviated accounts. Whereas a large company files a full balance sheet, profit and loss account, turnover information and signed auditor report, a small company with exemption is only required to provide an abbreviated balance sheet, with no requirement to provide information on profit and loss and turnover.

This potentially creates a problem for the current study. The types of information through which we assess business performance normally reside in the profit and loss account, but some limited performance information can be derived from an abbreviated balance sheet.

In addition, larger companies report their average annual employment within their accounts. This enables the estimation of basic labour productivity measures, which again is not possible where companies file only abbreviated accounts.

Clearly some small and medium enterprises with exemptions still choose to report full accounts but they are in a minority: such businesses tend to only produce their full accounts for their members.

In this respect, it is worth examining the 'demography' of accounts types held on FAME in respect of Welsh businesses. A search of the FAME database in November 2011 identified 69,694 'active' company records which had either a registered office address in Wales or a primary trading address in Wales. In terms of the accounts types associated with these records:

- 66% were classified as being 'total exemption full/small'. This comprises:
 - in the former case, which accounts for 9% of records, companies which are exempt from filing full accounts but who do so voluntarily (these may not be audited, but may have sales and profits information);
 - in the latter case, accounting for 57% of all records, companies who file abbreviated accounts (not audited, and typically with no sales or profits information);
- 28% were classified as 'not available' (with a strong expectation that many of these are smaller businesses with filing exemptions and partnerships etc. A search revealed, for example, that turnover data was available for less than 1% of the businesses in this category);

- 2.9% were classified as having full accounts (potentially the most useful for the type of data matching needed in the current ERDF research);
- 3.3% were classified as dormant or group accounts or 'small company'/ 'medium company': this means that audited abbreviated accounts are available but these may not contain data on profit and loss, sales and turnover: of the 1,484 records classified as small company, a search revealed that just 12 had turnover data available, although most of the 207 records classified as medium company did have such data available.

In other words, 9,000 Welsh company records in total are likely to have useful data, notably on turnover.

A further search revealed that there were just 2,821 records which contained all three types of information needed for a full analysis (employment, sales and profit information) for the latest available year.

This analysis immediately suggests a major difficulty in using FAME going forward: ERDF assisted businesses are likely to include a relatively large number of small and micro enterprises where financial information on FAME records will be limited.

A1.2 FAME and the ERDF Data

Pilot analyses undertaken in August 2011 tested how far large amounts of data could be downloaded from FAME and how far company names, addresses and postcodes could be matched automatically between the ERDF database and downloaded FAME data.

Further tests were undertaken using manual matching: an initial random sample of firms from the ERDF database was drawn and manually typed names into FAME to see whether the more labour intensive process provided gains over the automated approach.

In terms of the manual matching, we took 41 randomly selected businesses from the ERDF database and searched using the FAME programme based on the reported name on the ERDF list. Of the 41 it was possible to match 29 with a company on FAME. For 12 (30% of the sample) no records could be located on FAME which could be for a number of reasons:

- Significant inaccuracies in the administrative data in terms of company names or addresses;
- The businesses were unincorporated, for example, sole traders.

Of the 29 where there was a match, two did not have Welsh postcodes. Of the 29 records where data were available, in 27 cases the businesses were small firms with exemption.

Thus, in practice this pilot analysis revealed that there were only two 'entries' out of 41 that might be used for a type of detailed matching analysis i.e. that had full accounts information available on FAME. Grossing these findings up to the sample of around 2,200 ERDF records made available by WEFO potentially meant that significantly less than 200 records might finally be usable.

Moreover, such a sample would not be representative because it would feature a higher proportion of larger businesses, or parts of groups, which are obliged to file more complete accounts, rather than small firms with exemptions which are more typical of the ERDF 'population'.

Practically, it is also likely that with larger businesses, identifying the difference made by the different ERDF interventions would be more difficult, since larger businesses may be more likely to have benefited from a wider range of regionally led interventions.

The second analysis - undertaken in September 2011 – attempted to use automated matching tools within Excel and worked with a large sample of businesses from the FAME database. The steps were as follows:

- FAME was searched for all active records in Wales (including records where there was a registered office address, primary trading address, or just a trading address if no primary address). This provided 71,607 records (note this was higher than the 69,694 highlighted earlier because this element of the search also included FAME records where there was a trading address and no primary address);
- FAME was also searched for records relating to 'Active (receivership)' and 'Active dormant' to identify firms that might have recently experienced difficulties in spite of receiving ERDF assistance: this provided for a further 13,214 records, giving a total of 84,821 company records;
- Information from these records was downloaded to Excel. This included Company Name; Registered Office address; Post code; Phone number; Legal form; Incorporation date; industry code SIC 2003; Consolidation code; Accounts type; and four years of data (2007-2010) relating to sales, profit before tax, return on capital employed, employment, remuneration, and credit rating score;
- Using an automated procedure we matched records on FAME and the ERDF database. Here there was a need to check the format of company names on the ERDF database in order to improve the possibility of matching with FAME.

In all, it was possible to match 694 businesses (under a third of the ERDF records available) using the company name.

As a smaller proportion of the ERDF records were found in FAME using an automated process compared to a manual process suggests that inaccuracies in the way in which company details are recorded by project sponsors may limit the potential for matching administrative data with publicly available data bases: a more detailed analysis showed that of the businesses matched by company name, in 380 cases there was an exact match on postcode and in 474 cases an exact match on postcode sector.