



UK COMMISSION FOR  
EMPLOYMENT AND SKILLS

# **UKCES Investments Beneficiary Survey: Feasibility Study**

Briefing Paper  
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# **EIF and GIF Beneficiary Survey: Feasibility Study**

**Kelly Beaver, Chris Hale, Matthew Colahan, Professor Mark Hart  
Ipsos MORI**

**UKCES Project Manager: Angela Thompson**

**UKCES Project Director: Dr. Tim Willis**

**UK Commission for Employment and Skills**

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## Foreword

The UK Commission for Employment and Skills is a social partnership, led by Commissioners from large and small employers, trade unions and the voluntary sector. Our ambition is to transform the UK's approach to investing in the skills of people as an intrinsic part of securing jobs and growth. Our strategic objectives are to:

- Maximise the **impact** of employment and skills policies and employer behaviour to support jobs and growth and secure an internationally competitive skills base;
- Work with businesses to develop the best market solutions which leverage greater **investment in skills**;
- Provide outstanding labour market **intelligence** which helps businesses and people make the best choices for them.

The third objective, relating to intelligence, reflects an increasing outward focus to the UK Commission's research activities, as it seeks to facilitate a better informed labour market, in which decisions about careers and skills are based on sound and accessible evidence. Relatedly, impartial research evidence is used to underpin compelling messages that promote a call to action to increase employers' investment in the skills of their people.

Intelligence is also integral to the two other strategic objectives. In seeking to lever greater investment in skills, the intelligence function serves to identify opportunities where our investments can bring the greatest leverage and economic return. The UK Commission's first strategic objective, to maximise the impact of policy and employer behaviour to achieve an internationally competitive skills base, is supported by the development of an evidence base on best practice: "what works?" in a policy context.

Our research programme provides a robust evidence base for our insights and actions, drawing on good practice and the most innovative thinking. The research programme is underpinned by a number of core principles including the importance of: ensuring 'relevance' to our most pressing strategic priorities; 'salience' and effectively translating and sharing the key insights we find; international benchmarking and drawing insights from good practice abroad; high quality analysis which is leading edge, robust and action orientated; being responsive to immediate needs as well as taking a longer term perspective. We also work closely with key partners to ensure a co-ordinated approach to research.

The UK Commission is working with employers to support a wide range of innovative and sustainable solutions to transform skills provision in the UK that more effectively meets the skill demands of employers. The introduction of contestable investment through the Employer Investment Fund and the Growth and Innovation Fund, has seen a step change in the design and delivery of skills infrastructure solutions in the UK. Our programme level evaluation strategy has begun to provide valuable insights into the establishment and early operation of EIF and GIF skills initiatives through the publication of qualitative formative research. This report presents the findings of a study to examine the feasibility of further evaluating our investments through a programme level quantitative survey of beneficiaries. The findings presented here consider the most appropriate and robust methods available to report the impact and return on investment generated through initiatives made possible through EIF and GIF. The analysis and options presented in this feasibility study will inform the design of the next phase of the programme level evaluation of our employer led investment funds, offering an important opportunity to generate significant learning through the better understanding of the effectiveness of employer led investment activities.

We hope you find this report useful and informative. If you would like to provide any feedback or comments, or have any queries please e-mail [info@ukces.org.uk](mailto:info@ukces.org.uk), quoting the report title.

**Lesley Giles**

**Head of Profession**

**UK Commission for Employment  
and Skills**

**Carol Stanfield**

**Assistant Director**

**UK Commission for Employment  
and Skills**

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# Executive Summary

## Background

The UK Commission for Employment and Skills (UKCES) is responsible for the development and evaluation of two innovative, strategic skills investment funds focussed on developing innovative and sustainable training infrastructure that more effectively meets the skills demands of employers (Employer Investment Fund (EIF) and Growth and Innovation Fund (GIF)). Considerable resources have been allocated over a series of application rounds since 2011: over the first two rounds a total £78.6m in UKCES funding was allocated to 77 investments funded through EIF and 16 funded through GIF.

The funds offer flexibility in scope, coverage and objectives in order to meet business need, making evaluation, and particularly survey design, complex. A beneficiaries employer survey was intended in the original evaluation design, but due to project complexity, UKCES commissioned this feasibility study into the design and conduct of a programme level survey to support an assessment of impact of the funds.

The key focus of the study was to:

- Establish whether a programme level survey is possible, and if so, how issues of accessing contact details and duplication of project level evaluation can be addressed;
- Define the beneficiary groups and topics that would need to be covered in a programme level beneficiaries survey;
- Examine wider survey implementation issues around the timing of survey waves, optimal scale, and mode of delivery;
- Consider how far additionality and deadweight could be measured through a programme level beneficiaries survey.

## Feasibility of a programme level beneficiaries survey

A programme level beneficiaries survey is technically feasible although full coverage of investments could not be achieved. Delivery partners collect contact details of the employers and learners they have engaged directly. However, access to these contact details is complicated as data sharing consents have not always been passed on to beneficiaries, and investments are undertaking their own programmes of beneficiaries research that would be duplicated by a programme level survey.



UKCES has sufficient contractual leverage to compel delivery partners to provide details; however, a single data collection process that satisfies both the information needs of the UKCES and delivery partners may be preferable. However, there may be no adequate means of securing access to contact details for learners. Using the Individualised Learner Record may offer an alternative means of establishing a learner sample for those investments involving indirect contact with beneficiaries, but coverage will not be complete.

### **Beneficiary coverage**

There are three beneficiary or stakeholder groups that a survey might need to cover: while the primary group of interest will be employers, both learners and training providers benefit from EIF and GIF in a variety of direct and indirect ways. However, the volumes of training providers involved are small and access issues for learners are substantial. It is suggested the scope of beneficiaries survey is limited to employers.

### **Content**

The main focus of beneficiaries survey would be on establishing the key outcomes of interest: training expenditure and improvements in business performance across a range of metrics. Return on investment would be encapsulated in overall productivity growth and a survey would need to capture other specific measures to capture these types of changes (turnover, profits, wage expenditure, employees).

### **Timing issues**

A range of timing issues need to be considered: infrastructure projects involve continuous accumulation of beneficiaries and have been launched on different dates. Impacts on business outcomes and productivity may only be observed over a period of two years. Survey research taking place in the short term will need to focus on taking baseline measurements for most investments other than those funded through EIF1 and GIF1.

Non Departmental Public Bodies are subject to a Triennial Review process, with the next review of UKCES taking place in early 2014. While evidence is needed to feed into this process, expectations of what this might show in terms of impact and return on investment will need to be carefully managed. A longitudinal design will be needed to demonstrate movements in the outcomes of interest, and follow-up surveys for at least two years are recommended.

## **Mode**

As a high proportion of delivery partners hold named contact details for employers benefitting from investment (including telephone numbers and addresses), a telephone survey would represent the most cost-effective means of delivering the survey. However, it is advised that some flexibility is retained to administer surveys using on-line approaches where project delivery mechanisms prohibit the collection of relevant contact details (e.g. on-line portals).

## **Measuring additionality**

Measuring additionality directly through a beneficiaries survey would imply additional survey content to allow respondents to report the role of their interaction with EIF and GIF infrastructure in bringing about the outcomes of interest. The more questions can be tailored to the activities being delivered by delivery partners, the more they can be used to provide a meaningful assessment of impacts (although there will be difficulties where beneficiaries have benefitted from multiple investments).

Quasi-experimental methods involving a comparison group will be feasible for those investments involving direct interactions with employers. Again, the more closely any methods can be tailored to the specific activities being delivered, the higher the quality of the results. However, some level of aggregation would be needed as only a small number of investments have engaged with sufficiently large numbers of beneficiaries to make such approaches worthwhile.

Given the complexity of the external context in which investments have been delivered, it is also recommended that any quantitative survey is supplemented by a detailed programme of qualitative research in order to maximise the insight offered by an impact evaluation.

## **Research options**

The survey design options range from a single programme level survey (the simplest option) through to separate surveys designed to capture evidence at the level of delivery partner (the most complex and challenging).

There are also supplementary research options based on secondary data that might be used to provide additional evidence. Analysis of the Individualised Learner Record could be used to explore the nature of the training impacts on a broader basis (although this would only cover Government funded provision). Linking records of beneficiaries employers to administrative datasets could also provide a long term view of the impacts of EIF and GIF investments on turnover and productivity (although this would have limited value in the short term).

## Preferred option

Given the need for an understanding of impacts and the underlying drivers, an approach that enables both a self-reported assessment of impacts and potentially more risky quasi-experimental approaches (involving a comparison group) would be preferred. Ipsos MORI recommended UKCES moves forward with an option that combines both general and specific approaches to administering the survey:

- **Activity level survey:** A single survey across the population of employers benefitting directly from EIF and GIF investments to generate general insights into the effectiveness and impacts of the Funds. Respondents would be routed through the survey according to the activities they have participated in and answer a core battery of questions to capture key outcomes.
- **Detailed case studies research:** A small number of delivery partners (5 to 10) would be selected for more detailed research. The beneficiaries of these investments would be asked additional questions within the activity level survey tailored to the sector level delivery context and the underlying objectives of the investments concerned to provide a more specific understanding of the role of the programmes in addressing the market failures identified by delivery partners.

The survey would require a **longitudinal dimension** to establish economic impacts and could optionally cover one or two cohorts of beneficiaries. There are a wide range of scale options for delivery of the survey, although Ipsos MORI would recommend working towards larger sample sizes in the baseline year to ensure that large enough samples are available in year 3.

Additionally, a **comparison survey** of non-beneficiaries designed to establish a counterfactual at the level of the activities involved should be considered optional (as there are risks involved in obtaining high quality results). Supplementary secondary analysis of the ILR and administrative datalinking could be usefully incorporated to provide additional insight into the training outcomes of the programme and assess the long-term impacts of the fund.

## **Issues for UKCES**

The feasibility study has identified a range of actions for UKCES to help minimise the risks associated with implementation. Some process enhancements could also be made, and of these, embedding a basic spreadsheet tool to collate contact details alongside existing monitoring requirements would have the greatest impact on the quality of a beneficiaries survey. Aligning the audit process with these processes would also give confidence that the contact details were comprehensive and accurate. The quicker these processes can be enhanced, the larger the potential impact on the effectiveness of a survey in the short term.

# 1 Introduction

## 1.1 Background

The UK Commission for Employment and Skills in December 2012 commissioned a feasibility study exploring how far a programme level survey of beneficiaries supporting an overall evaluation of the Employer Investment Fund and the Best Market Solutions strand of the Growth and Innovation Fund is feasible.

This report provides an assessment of:

- the extent to which a beneficiaries survey will deliver the evidence needed to support an effective evaluation of the Employer Investment Fund and Growth and Innovation Fund<sup>1</sup>;
- analytical and practical issues that may be encountered in the delivery of a beneficiaries survey and options for their resolution;
- the potential role of supplementary research in a programme level evaluation of the Employer Investment Fund and Growth and Innovation Fund (Best Market Solutions).

## 1.2 Employer Investment Fund and Growth and Innovation Fund

The Employer Investment Fund (EIF) and Best Market Solutions are two UKCES led strategic investment funds focused on developing innovative and sustainable training infrastructure that more effectively meets the skill demands of employers. The two funds involve a competitive application process, with EIF open only to Sector Skills Councils, while GIF is open to a broader range of industry level organisations. Substantial resources have been allocated over a series of application rounds since 2011: over the first two rounds a total £78.6m in UKCES funding was allocated to 77 investments funded through EIF and 16 investments funded through GIF.

## 1.3 Study aims

The aims and objectives of this feasibility study are stated in the Invitation to Tender as follows:

- The primary aim of the feasibility study is to provide informed advice in determining whether it is feasible to undertake a survey (or surveys) of investment fund beneficiaries. The feasibility study is intended to help the Commission develop its programme level evaluation strategy to assess its investment portfolio.

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<sup>1</sup> This is the Best Market Solutions component of GIF only as the UKCES is not responsible for other components of GIF.

- The study should aim to provide useful advice as to whether it is feasible and practicable to design a survey that will deliver evaluative information of the impact that its investment funds have had in meeting their stated aim of encouraging employers across the UK to invest more in raising the skills of their workforce.
- The feasibility study should aim to provide considered and informed advice on the ways in which the design of a suitable survey could assist the UK Commission in measuring the impact of the outcomes of its investments and make informed estimates of the additionality, deadweight and value for money associated with the programme.
- A key aim of the feasibility study will be to consider appropriate definitions for 'beneficiaries' and 'participants', to provide an assessment of how different projects define beneficiaries and determine the best way to define beneficiaries for the purpose of a potential programme level survey.

#### **1.4 Study objectives**

The Invitation to Tender also provides six stated objectives for the feasibility study.

- Provide practical advice relating to the potential for a beneficiaries survey to complement existing project level research plans and programme level qualitative research
- Provide advice on a suitable sampling approach and control group
- Provide advice on the potential for a survey to assist the UK Commission assess the additionality of its investment funds and assess the value for money of the funds
- The feasibility study should arrive at an informed assessment of the optimal timing of survey waves
- Provide advice on measuring the sustainability of the UKCES investments
- Should the study conclude that a survey is viable, the research report should make practical recommendations on survey design to meet the UK Commission's needs.

#### **1.5 Methodology**

This report was developed using a two stage approach:

**Phase 1:** The first phase of the study was an exploratory phase focusing on exploring the potential objectives of a programme level beneficiaries survey, the issues that might be encountered, and establishing a broad set of research options for moving forward. This phase involved the following activities:

- **Programme review:** A desk review of the programme and wider literature, including a systematic assessment of the application and investment plans agreed by delivery partners with UKCES, consideration of project level evaluation plans, and evaluations of other programmes and secondary sources of evidence that could be informative in developing a potential evaluation methodology.
- **Exploratory workshop:** An initial exploratory workshop was held in January 2013 to introduce the research and the concept of a programme level beneficiaries survey to delivery partners, and involved a structured debate around some of the anticipated theoretical and practical implementation challenges.
- **Stakeholder consultation:** Consultations with a range of key internal and external stakeholders (covering UKCES, BIS, and HM Treasury) were undertaken to explore the expectations of a programme level impact evaluation of EIF and GIF and how a programme level beneficiaries survey might support this objective.
- **Consultations with delivery partners:** Consultations with delivery partners were undertaken during February 2013 using both face to face and telephone based methods to explore the potential issues involved in implementing a programme level beneficiaries survey (including how far this might duplicate existing activity). Fourteen consultations were completed, covering 49 individual EIF and GIF investments and £49m of expenditure (coverage of around 62 percent of resources allocated through the two funds during rounds 1 and 2).
- **Issues and options:** The findings of the above activities were compiled in an Issues and Options report submitted to UKCES in March 2013. This report set out a range of programme level impact evaluation challenges, and identified a set of eleven potential options for implementing a beneficiaries survey (or appropriate alternative data collection mechanism to reach answers to similar questions). A workshop with key stakeholders within UKCES also took place in March 2013 to debate the issues raised and agree a shortlist of four evaluation and research options to be taken forward for more detailed feasibility testing.

**Phase 2:** The shortlist of research options established through the exploratory phase was subjected to further detailed testing. This comprised the following additional activities:

- **Formal consultation:** A consultation paper was developed providing a description of the four approaches to data collection under consideration. This consultation paper was circulated amongst the five delivery partners as part of a second wave of consultations accounting for the largest share of EIF and GIF investment. Delivery partners were invited to provide written feedback on the options provided, which was followed up with further telephone consultations.
- **Datalinking:** Delivery partners were also requested to provide details of the training courses, training providers, and employers that formed the focus of, or benefitted from, their EIF and GIF activity. These details were used to examine the feasibility of integrating datalinking strategies as an alternative to (or supplementary to) a programme level beneficiaries survey: i.e. linking details of the relevant elements of activity to administrative datasets to provide quantitative insight into the performance of the programme without the need for survey based research.
- **Evaluation review:** A sample of ten evaluations developed by delivery partners were reviewed to provide an assessment of how far the project level evaluations might provide survey based evidence that would obviate the need for a programme level beneficiaries survey.

## 1.6 Structure of this report

The remainder of this report is structured as follows:

- **Section 2 - Context:** This section provides an outline of the overall context for a quantitative based programme evaluation of EIF and GIF, including an overview of the activity funded, expectations amongst stakeholders, and the issues that a programme evaluation might need to consider (particularly in terms of establishing impacts and return on investment).
- **Section 3 – Delivery of EIF and GIF:** This section examines how EIF and GIF have been delivered, presents a typology and framework for understanding the impacts of EIF and GIF, and assesses implications for the content of a programme level beneficiaries survey.
- **Section 4 – Beneficiaries Survey:** This section tackles a range of practical feasibility issues in the design and implementation of a potential programme level beneficiaries survey, and identifies a range of options for taking such an exercise forward.
- **Section 5 – Assessing impacts:** This section provides detailed consideration of the issues involved in designing a programme level beneficiaries survey to support an impact assessment of EIF and GIF.



- **Section 6 – Assessment of survey feasibility:** This section concludes as to the extent to which a beneficiaries survey will allow UKCES to respond to key questions about the value for money and impact of their investment portfolio. It also provides an outline of additional research activity that might form part of a programme level evaluation and an assessment of the practical decisions that will need to be made in taking it forward.

## 2 Context

This section sets out the overall context for the programme level evaluation survey of beneficiaries, including an overview of the activities that have been funded, expectations of a programme level evaluation of the two funds, and wider guidance that has been issued to support the evaluation of EIF and GIF. This section also draws out related implications for a programme level beneficiaries survey in terms of what it may need to achieve.

### 2.1 Overview of EIF and GIF

EIF and GIF are both strategic investment funds channelled through UKCES, focused primarily on the development of sustainable training infrastructure designed to increase employer investment in skills and address skill shortages on a sector basis. The funds were allocated through a competitive process with no prior expectations on the type of project that might emerge. However, the funding was limited to training infrastructure, with no participation funding available (i.e. direct funding for the training of specific employees or individuals). Funding has been allocated over a series of funding rounds (with the first round of EIF taking place in April 2011).

The main difference between the two funds is that applications to EIF have been restricted solely to Sector Skills Councils (SSCs) and the fund placed a stronger emphasis on development activity. EIF emerged through a process of moving away from a core funding model for SSCs, encouraging them to move to an investment and outcomes focused approach. GIF was restricted solely to England and was open to any industry level body, with a stronger emphasis on the sustainability of the infrastructure developed. Over the first two rounds of the scheme, £78.6m of funding was allocated to 93 investments. There was a strong expectation that investments would lever in private investment, and £67.8m was committed in matched resources by EIF and GIF investments through cash and in-kind contributions from employers.

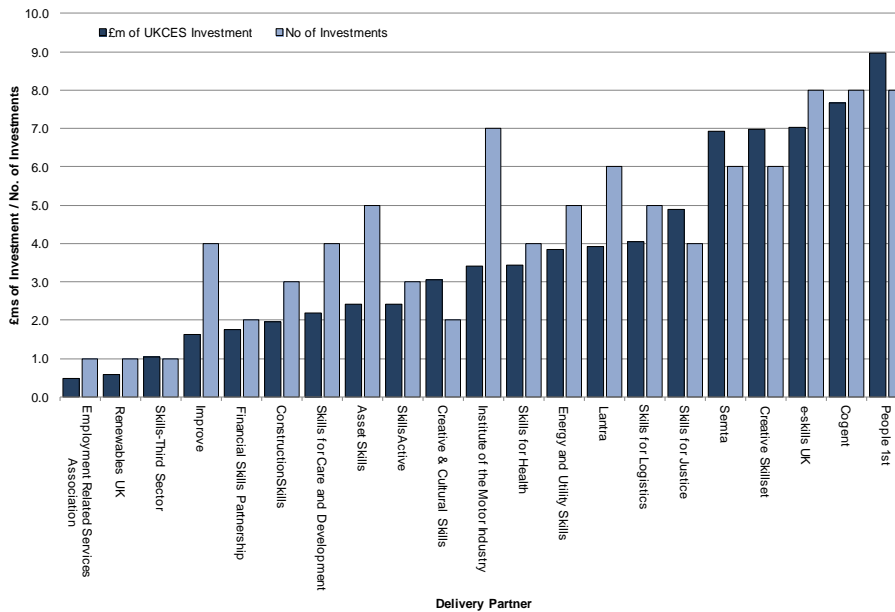
**Table 2.1 Funds allocated through EIF and GIF**

Round	EIF		GIF	
	Resources	Projects	Resources	Projects
Round 1	£5.0m	14	£8.9m	12
Round 2	£60.9m	63	£3.9m	4
<b>Total</b>	<b>£65.8m</b>	<b>77</b>	<b>£12.8m</b>	<b>16</b>

Source: UKCES Monitoring Information, 2013

Investment over the first two rounds was heavily concentrated amongst a small number of delivery partners (as illustrated in the figure below). The five SSCs receiving the greatest levels of investment (People 1<sup>st</sup>, Cogent, e-Skills UK, Creative Skillset and SEMTA) accounted for almost 50 percent of funding across the first two rounds of the programme, and 38 percent of investments made.

**Figure 2.1 Funds allocated through EIF and GIF**



Source: UKCES Monitoring Information, 2013

## 2.2 Evaluation context and expectations

In order to understand what a programme level beneficiaries survey might need to cover, it is important to have a clear understanding of the wider programme evaluation context. A programme level beneficiaries survey will need to align with a range of strategic guidance that has been developed both by UKCES and other stakeholders on how the success and impact of the programme should best be captured through monitoring and evaluation. These include:

- **UKCES Impact Framework:** UKCES has developed an overarching framework for understanding impacts across its portfolio of activities. This sets out a range of deliverables, outputs, outcomes and impacts that are anticipated from UKCES activity. Although not all measures are relevant for EIF and GIF, the framework provides a range of indicators that may need to be reflected in a programme level evaluation. These include beneficiary level outcomes in terms of ‘smarter sustainable employer investment in skills,’ ‘skills and business performance impacts in beneficiary firms,’ ‘increased work quality,’ and impacts in terms of greater productivity across the UK, adoption of high performance working practices, wider skills investment and enhanced business performance.
- **Asset strategy:** The UKCES Investment Fund Asset Strategy provides a range of additional detail on how the success of the strategic investment funds will be assessed. The strategy defines a number of outputs (which relate primarily to the characteristics of the investments made) and the outcomes and impacts involved. Key measures of the impacts of Investments include:
  - Increased adoption of high performance working practices;
  - Increased take up of apprenticeships and other forms of vocational working;
  - Sustainability of investment activity (the proportion continuing after investment end date);
  - Increases in the number of employees receiving training; and,
  - Projected and actual return of investment.

However, while providing additional detail on the metrics that should be integrated into an evaluation of EIF and GIF, some indicators were yet to be defined (including how return on investment should best be measured). Additionally, the Asset Strategy did not define an expected approach to evaluation.

- **BMS Evaluation Strategy:** Guidance on the evaluation of Best Market Solutions (GIF) was developed by UKCES and BIS in July 2011. This guidance indicated that a key focus of any evaluation activity should be on establishing how far the investments improved skills over and above what would have happened anyway, and provided a more systematic assessment of how these impacts were expected to be established. The guidance made the assumption that impacts would largely be observed at the level of the employer, and that a programme level evaluation would include a longitudinal survey of employers engaged and also non-participating employers. In the longer term, evaluation was expected to focus increasingly on examining the sustainability of the investments made as well as any long term impacts that could be observed at the level of the sector (or even nationally).

- **Wider guidance:** UKCES has encouraged delivery partners to adopt a range of practical guidance in evaluating the impacts of their activity. In particular, efforts have been made to promote guidance developed by BIS in 2011 on assessing the impacts of Interventions on Business. This guidance places a strong emphasis on taking pre and post intervention measurements of the outcomes of interest, and experimental and quasi-experimental evaluation approaches involving the assembly of a comparison group to assess the impact of intervention. The guidance also places strong emphasis on the use of cost-benefit analysis (i.e. considering the full range of resource costs and social benefits involved) to establish measures of cost-effectiveness and return on investment.

Pending this study, a detailed specification of the full range of research questions that a programme level *impact* evaluation (as distinct from some of the formative evaluation that is taking place as part of the overall programme level evaluation) would need to address had not been developed. Consultations with internal stakeholders within UKCES and external stakeholders were used to develop and refine an understanding of the expectations of a programme level evaluation.

Overall, consultations established that if feasible, the programme level evaluation should address questions of the causal relationship between the outcomes of interest and the infrastructure investments made. Key themes emerging from the consultations are set out in the table below.

**Table 2.2 Evaluation expectations and context**

Issue	Outline
<b>Decision making processes</b>	The immediate relevant decision making processes include the Comprehensive Spending Review process (Summer 2013), a Triennial Review process internal to UKCES (Spring 2014), and potentially a CSR process in 2014 to cover the remainder of the parliament. The decision areas relate to how far the objective of increasing employer ownership of training continues to be met through strategic investment funds of the nature of EIF and GIF (rather than the extent to which the objective itself will remain a priority).
<b>Value for money</b>	To inform this decision, a programme evaluation should provide a measure of the return on investment or impact that has been achieved through EIF and GIF. Ideally, these measures should be established in accordance with the principles set out in the HM Treasury Green Book (implying a preference for approaches based on cost-benefit analysis). The estimation of impacts should not be solely driven by self-reporting by beneficiaries: if attainable, a programme level evaluation should establish robust pre and post intervention measures of the metrics of interest, and an appropriate comparison group of non-users. Given the complexities involved, there was some acknowledgement amongst stakeholders that this approach, which might be termed 'gold standard', may not be feasible.
<b>Sustainability</b>	The sustainability of the infrastructure developed (i.e. the extent to which the products and services developed can be sustained without on-going investment from the public sector) is a key criteria of the success of the EIF and GIF and should ideally be considered by a programme level evaluation.

Issue	Outline
<b>Policy issues</b>	EIF and the Best Market Solutions strand of GIF are taking place as part of a broader set of initiatives. The most relevant of these is the Employer Ownership Pilot led by UKCES which has similar objectives but provides participation funding directly to employers (infrastructure funding through GIF will also form part of the overall funding package available through EOP). A programme evaluation of EIF and GIF offers an important opportunity to generate significant learning through understanding the relative effectiveness of these different activities.
<b>Wider issues</b>	Although not strictly within the scope of this study (which focuses on the feasibility of a beneficiaries survey and what it might bring to an overarching programme evaluation), there was some appetite in potentially exploring wider issues to place EIF and GIF in context. For example, this might include the role that UKCES has had in using the funds to manage the transition away from a core funding model for SSCs through to placing EIF and GIF investments in their developmental context (many Investments were an incremental development on infrastructure or research that had taken place as part of precursor programmes, for example).
<b>Duplication</b>	A wide range of evaluation activity is taking place in understanding the implementation and effectiveness of EIF and GIF. This includes formative evaluation work being undertaken at the programme level by GHK and SQW, and a wide range of evaluation work being undertaken at an Investment level. A programme level evaluation should avoid duplication of these studies, not just to avoid wasted resources, but also to minimise demands on employer, learner, and delivery partner time.

### 2.3 Implications for a beneficiaries survey

The context for the programme evaluation sets provides a wide array of implications for a quantitative programme level beneficiaries survey:

- **Return on investment:** As well as establishing the outcomes associated with EIF and GIF investment, a programme level beneficiaries survey should also provide evidence that will support an assessment of return on investment in line HM Treasury Green Book principles.
- **Robustness:** In order to provide a credible assessment of impact, the methodologies employed should be robust (for example, incorporating high quality pre and post estimates of outcomes, and ideally a comparator group).
- **Timings:** A programme level beneficiaries survey should ideally align with the key decision making processes involved, in particular the need to feed into the triennial review of UKCES in 2014.
- **Concentration of investment:** A high proportion of expenditure is concentrated amongst a small number of delivery partners. In reaching an assessment of the outcomes and impacts of the programme, sampling strategies that are skewed towards those delivery partners accounting for higher shares of investment may allow UKCES maximise coverage of expenditure while minimising the cost of a programme level survey.

- **Duplication:** A programme level survey should ideally avoid duplicating any survey work being undertaken at an investment level.

### 3 Delivery of EIF and GIF

This section examines the portfolio of investments funded through rounds 1 and 2 of EIF and GIF with a view to understanding their rationale, common features and potential outcomes and impacts. This exercise is of central importance in developing an understanding of the potential scope and content of a programme level beneficiaries survey. This section of the report aims to specifically address the following research questions:

**Table 3.1 Key Research Questions**

Issues	Questions
<b>Defining beneficiaries</b>	How do projects define beneficiaries? Are they best described as the end users of the products?
	How should beneficiaries be defined for the purposes of a programme level impact evaluation?
<b>Survey content</b>	What topics could a UK Commission funds beneficiaries survey questionnaire usefully contain?
	How can we best define and survey common outcomes and quantifiable measures for those experiencing the benefits of projects and services co-financed by UKCES investment funds?
	What common issues and business outcomes from the investments could usefully be explored via a survey of beneficiaries?
	How could a survey provide information on the effect of EIF and GIF in increasing employer investment in skills?
	How can an evaluation survey questionnaire be best framed to provide useful information on the intention to be employer led, innovative, and sustainable?

#### 3.1 Rationale for intervention

The two competitive funds invite applications for investment in skills infrastructure designed to raise employer investment in skills. Each investment has its own rationale for intervention, responding to highly sector specific issues and market failures. However, in broad terms, the investment portfolio as a whole can be thought of as responding to the following key market failures to a greater or lesser degree:

- **Poaching externalities:** Sub-optimal investment in training by employers is often thought of as driven by poaching externalities. The potential loss of staff to competitors creates a disincentive for employers to invest in their skills and training as they may not be able to internalise the full benefit of doing so. This is reflected in the design of many EIF and GIF investments that aim to reduce the costs of training to employers (for example, by simplifying the process of finding appropriate training, or reducing the risk associated with employing apprentices) and to encourage a collaborative approach to training amongst employers in the same sector or locality.



- **Information asymmetries:** Employer investment in training is potentially constrained by an information imbalance where training providers have a greater understanding of how far their provision will meet the employers' skills needs than the employer. Some EIF and GIF investments aim to address this issue through signalling mechanisms (such as accreditation or voluntary licenses to practice) to give them greater confidence that the training involved will meet their needs.
- **Co-ordination failure:** The development of training products and services that create benefits for an entire sector may be constrained if a single employer cannot claim the full benefits of doing so. A number of EIF and GIF investments aim to address these co-ordination failures through the creation of training standards and other public goods (such as information portals).
- **Network externalities:** Employer networks can offer a range of benefits to members in terms of training: such vehicles can often support more cost effective collective procurement of training, while also providing a mechanism by which the training needs of sectors as a whole can be articulated. However, the value of a network is typically proportional to its size and willingness to pay for membership of a network in its infancy may be low. As a consequence, public sector funding may be needed in the early stage of employer network development.

### 3.2 Typology of activities

The portfolio of investments spans a wide range of activities using different levers to induce changes in the behaviour of individuals, employers, and training providers. Individual investments often use a combination of different activities, and a mixture of beneficiaries groups. The activities have been categorised into a broad typology centred on the key routes by which EIF and GIF interventions are aiming to induce their intended outcomes.

This typology represents a simplification of the framework of 'policy levers' developed by UKCES to describe the range of investments funded and is set out in the table below. The table also provides an indication of the number of investments employing these activities (as investments typically involve multiple activities, it is not possible to provide a breakdown in financial terms).

**Table 3.1 Typology of Activities**

Broad type	Activity	No. of investments
Employee / individual targeted	<b>Careers advice and guidance:</b> Activity aimed at helping individuals understand the skills demands of particular occupations and encouraging new entrants to sectors. These activities range from using online careers portals through to more traditional exhibitions at careers fairs.	24
	<b>Pre-employment training:</b> Some investments have been focused on helping unemployed individuals acquire the skills they need to enter a particular occupation. EIF and GIF investments tend to involve the establishment of delivery vehicles for pre-employment training (such as the employment academies set up by People 1st or creation of a training provider in the case of Asset Skills) rather than direct provision of training.	7
Employer targeted	<b>Skills diagnostics:</b> A number of investments involve engaging employers through skills diagnostics: an assessment of skills needs within the workplace. These interventions take a range of forms – diagnostic assessments take place on a face to face basis through the Ambassadors for Growth project funded by Creative and Cultural Skills, while others have adopted on-line delivery mechanisms. This activity is usually combined with some form of brokerage to appropriate training provision (see below).	19
	<b>Employment of apprentices:</b> Some interventions (such as the Apprentice Training Agency developed by Cogent) have focused on reducing the risk of taking on apprentices. Here, the delivery vehicle developed employs the apprentice over the course of their apprenticeship, reducing financial and contractual risks to the employer.	1
Training provider focused	<b>Accreditation of training providers:</b> A small number of Investments have involved activities where training providers are the primary beneficiary. This normally takes the form of accreditation or licensing: as part of the Hospitality Guild, People 1st has designated three training providers as ‘centres of excellence,’ while others have created licenses to allow training providers to deliver specific training courses. In some cases, this process has been accompanied by the provision of training to trainers.	8
Brokerage	<b>Training brokerage:</b> A range of investments directly broker training solutions to employers, largely through online delivery mechanisms. For example, Skills for the Third Sector is aiming to develop a training portal that aggregates the training offers of providers that have registered with the site (allowing employers to find a training package that meets their needs). These interventions may not only facilitate growth in training activity but also helps employers obtain more effective training.	12
	<b>Apprenticeship brokerage:</b> A number of investments have involved the brokerage of apprenticeship places, simplifying the process by which employers find appropriate individuals to fill those places.	9
	<b>Employment brokerage:</b> Some activity funded involves the brokerage of unemployed individuals into specific vacancies. These typically take the form of on-line portals. However, a number of less formal mechanisms have been developed that might also be thought of as brokerage activities. For example, many investments involve the development of databases of individuals completing specific qualifications to help employers find appropriately skilled workers at a later stage.	9

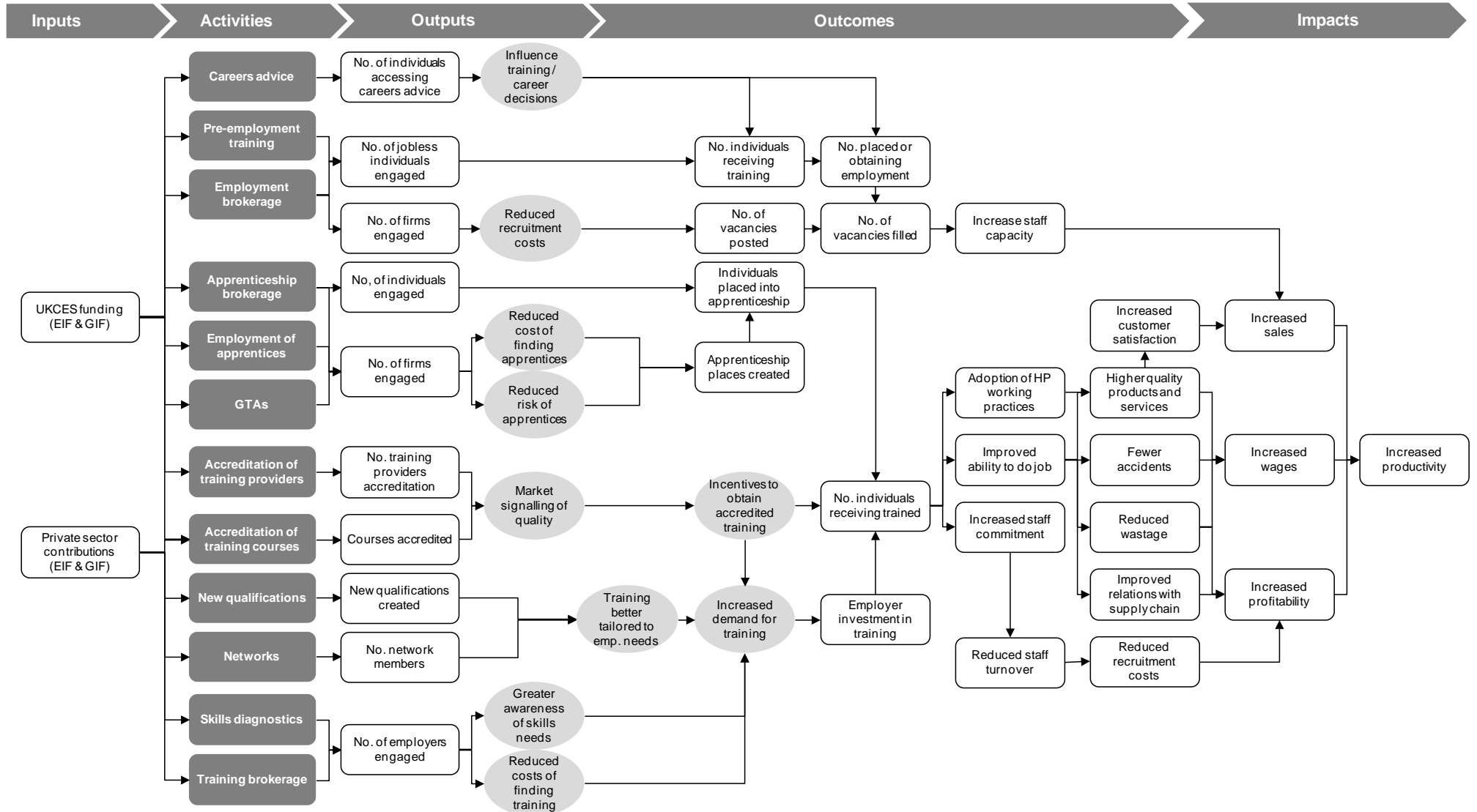
Broad type	Activity	No. of investments
	<b>Creation of new qualifications:</b> In some cases, EIF and GIF investments have developed new qualifications or training provision that provide the skills needed by the industries concerned. For example, Cogent has developed a new Higher Level Apprenticeship framework for the life sciences with the aim of stimulating an increase in the use of apprenticeships in the sector.	8
<b>Training products</b>	<b>Accreditation of training courses:</b> More commonly, EIF and GIF investments have developed quality standards that define the qualifications that provide the skills needed for particular occupations. This could be achieved through a range of mechanisms: voluntary licences to practice (defining a qualification needed to perform a particular role), or kite-marking and accrediting specific courses. These activities are designed to induce training providers to provide greater quantities (and employers to demand more) of the training receiving the accreditation.	23
<b>Group based</b>	<b>Collaborative approaches to training (GTAs):</b> Group based approaches have been used to implement collaborative approaches to training. A number of SSCs have used the funding to implement Group Training Associations, an apprenticeship system in which apprentices are employed by a group of employers, completing placements with each employer (and reducing the overall risk of taking on apprentices for individual employers).	4
	<b>Networks:</b> More commonly, EIF and GIF investment has involved the development of networks of employers and (in some cases) training providers. These provide forums by which the training needs of employers can be articulated, improving the extent to which training is tailored to their needs.	12
<b>Other</b>	<b>Research:</b> Some investments have been made in activity that is purely research to support the future development of training infrastructure.	20

### 3.3 Logic model

An overall logic model for the EIF and GIF is set out in the chart overleaf. This provides a (stylised) description of the overall anticipated chain of causality by which each of the activities described above is expected to lead on to outcomes and ultimately impacts on the UK economy.

A key message from the logic model is that while the programme has supported a diverse set of activities with a wide range of different immediate outputs and outcomes, all activities funded are intended to lead to a common goal (an increase in training activity). The achievement of these goals will lead to a wide array of business outcomes (as set out in UKCES' investment logic chain). In turn, the realisation of these business outcomes will be reflected in an improvement in overall productivity.

Figure 3.1 Logic Model - Employer Investment Fund and Growth and Innovation Fund



### 3.4 Defining the beneficiary groups

A key element of developing a beneficiaries survey for the purposes of an impact evaluation is to define the key beneficiary groups likely to benefit (and hence those groups that will require coverage through primary research). Consultations with delivery partners suggested that both employers and learners were viewed as beneficiaries of EIF and GIF investments. The extent to which the former or latter were viewed as the primary beneficiaries depended largely on how far the delivery partner developed direct relationships with the individuals or employers through the activities concerned.

However, Ipsos MORI suggests that there is a third stakeholder group which may not be viewed as a 'beneficiary,' but arguably receives a benefit from the activities involved: training providers. Any increase in training expenditure will be beneficial for training providers (allowing them to expand their revenues and in some cases, profitability).

There is also a distinction between direct beneficiaries (those interacting directly with delivery partners) and indirect beneficiaries (those that derive a benefit but without any direct interaction with the beneficiaries). The table below sets the direct (highlighted in black) and indirect (highlighted in grey) beneficiaries of EIF and GIF infrastructure projects against the typology of activities set out above.

**Table 3.2 Direct and Indirect Beneficiaries**

Activity	Employer	Learner	Training provider
Careers advice and guidance	Grey	Black	Grey
Pre-employment training	Grey	Black	Grey
Skills diagnostics	Black	Grey	Grey
Employment of apprentices	Black	Grey	Grey
Accreditation of training providers	Grey	Grey	Black
Training brokerage	Black	Grey	Black
Apprenticeship brokerage	Black	Black	Grey
Employment brokerage	Black	Black	Grey
Creation of new qualifications	Grey	Grey	Grey
Accreditation of training courses	Grey	Grey	Grey
GTAs	Black	Grey	Grey
Networks	Black	Black	Black

### 3.5 Outputs

A programme level impact evaluation will need to provide an assessment of what has been delivered by EIF and GIF investments. While this assessment should primarily be based on monitoring information, it is important to assess the quality of this information as this information will be a key item of information in designing samples and aggregating results.

The primary outputs of EIF and GIF programme will relate to volumes of deliverables (e.g. numbers of individuals and employers using infrastructure developed, or numbers of qualifications accredited). There is no realistic way in which a programme level survey of beneficiaries can establish these types of measures (as individual beneficiaries are unlikely to be able to provide a view on the overall activity delivered by investments). Outputs should rather be enumerated through the monitoring process.

UKCES has adopted an approach to monitoring in which measures of success and deliverables have been agreed on an ad-hoc basis as part of the investment planning process. While this has given considerable flexibility to delivery partners in the design of their activities, the approach poses some potential difficulties for evaluation:

- **Inconsistency of measures:** The process of agreeing Investment Plans has led to considerable inconsistency in the measures that delivery partners are using to measure the progress of similar activities. While it is possible to some extent to scaffold an overarching structure that facilitates the aggregation of similar outputs (such as the number of employers engaged), in some cases this is not feasible. A clear example is in the reporting of outputs related to networks: some projects are reporting against the number of employer networks that they have created, while others are reporting against the number of employers that form those networks.
- **Incomplete coverage:** The monitoring indicators agreed with investments do not necessarily reflect the full range of deliverables that are expected. The outputs and indicators agreed with Investments do not always cover number of beneficiaries engaged. Accreditation of training providers is one example: while delivery partners are reporting against the numbers of training providers receiving accreditation (such as centres of excellence), they are not capturing the numbers of learners or employers taking up the relevant provision. This leads to substantial underreporting of the overall volumes of outputs being delivered.

- **Double counting:** There are also issues with double counting owing to the way in which the Investments delivered by single delivery partners have been treated as discreet activities. As an example, one project has an associated target that involves 15,000 individuals. However, this overall target will be delivered through synergies with projects in other rounds of EIF funded by the programme, where similar deliverables agreed are a subset of this overall target. As a consequence, aggregating similar outputs across the programme will overstate the reach of Investments funded.

While these issues are problematic from a performance management perspective, they will also create issues that will inhibit the extent to which a programme evaluation could potentially demonstrate the full range of outputs that have been delivered on a consistent basis. This could be corrected through additional work with delivery partners (to the extent that the relevant information is available). However, this will have implications for the cost of a programme level evaluation as additional work will be required to fill these gaps in the evidence base.

Moving forward, it is recommended that UKCES moves to a more systematic approach for capturing the outputs (and outcomes of projects), including the development of a single framework against which investments report their progress in engaging with learners, employers, and training providers (for example, where investments involve the development of apprenticeship frameworks, it would be beneficial to ensure they monitor the volumes of individuals and employers using those frameworks as a matter of course). Such a framework does not necessarily have to constrain the development of innovative approaches to delivery, but would have advantages in supporting both performance management and evaluation.

### **3.6 Outcomes**

The logic model set out above provides a framework for understanding the potential outcomes that might be measured or examined through a programme level impact evaluation and potentially a programme level beneficiaries survey. These common outcomes can largely grouped under four main headings:

- **Training supply:** Many investments are aiming to induce changes in the quality of the training available from training providers, such that providers are led more by the needs of the employer. A programme level evaluation may need to establish how far GIF and EIF projects have led to any material changes in the types of training provided. These effects will be relatively clear where EIF and GIF investments have involved the development of new training products and qualifications (as it will be reflected in the numbers of training providers offering the qualifications concerned). Where activity has focused on influencing the providers to supply different types of learning, it will also be important to understand how far these objectives have been achieved. However, there may also be impacts on the ways in which existing training provision and qualifications are provided to make them more tailored to the needs of employers (such as focusing on different skills in vocational learning).
- **Training demand:** A key common objective of GIF and EIF projects is to induce greater investment in training by employers (either directly or indirectly). A programme level evaluation will need to establish some measure of the increase in training provided by firms engaged by GIF and EIF Investments. Alongside overall expenditure on training, there may be an interest in capturing other metrics such as the numbers of workers or jobseekers receiving training or the quality of training provided.
- **Business outcomes:** Increases in training investment may induce or enable wider changes in the performance of the businesses or organisations concerned. For example, workforce development activities may allow managers and business owners to introduce managerial innovations, more efficient technology, or higher quality products.
- **Productivity gains:** The primary economic effect of the EIF and GIF programmes is likely to be in terms of raising the productive capacity of workers through their acquisition of new skills. Any effects in these areas would be reflected in enhanced GVA per worker within those firms benefitting directly or indirectly from the training infrastructure developed (driven either by enhanced efficiency or quality). The benefits of greater productivity will accrue to both employees in the form of higher wages, and to employers in the form of higher profits.

The table overleaf sets out these outcomes in terms of the beneficiary groups that might provide the necessary evidence and highlights where there may be issues with measurement through a quantitative survey. There is also a key issue with respect to measuring change in these outcomes over time, and this is handled in the following section.



**Table 3.3 Outcomes and Impacts Suitable for Measurement via a Quantitative Survey**

Outcome	Employer	Learner	Training provider	Survey measurement issues
<b>Training supply</b>				
Quality and relevance of training provision				Will not be relevant to all activities
<b>Training demand</b>				
Expenditure on training (£s)				-
Number of individuals receiving training				-
Ability of staff to do their job				Qualitative in nature
<b>Business outcomes</b>				
Vacancies filled				-
Recruitment costs				-
Staff turnover				-
Fewer accidents				-
Wastage				Difficult to collect through a quantitative survey.
Customer satisfaction				Would need to be examined through a survey of customers.
Staff commitment				-
Quality of products and services				Qualitative in nature
Relationships with suppliers				Qualitative in nature
Adoption of high performance practices				-
<b>Economic impacts</b>				
Productivity				-

### 3.7 Measurement issues

As highlighted in the table above, there are a number of potential issues to consider in developing measures of these outcomes:

- Monitoring information:** The monitoring of investments provides a partial account (in some cases) of the relevant outcomes involved. However, owing to the issues highlighted, the inconsistencies and incompleteness of this information imply a need for a programme level survey of beneficiaries to collect this type of information on a consistent basis (relying on monitoring information to provide a programme level view of the outcomes achieved is not viable).

- **Quantitative outcomes:** The most straightforward outcomes to integrate into a survey are objective aspects of business operations (such as expenditure on training, numbers of accidents, or staff turnover). These types of measure should be relatively unproblematic and are common across all groups of intervention. However, some indicators may be difficult to elicit from respondents (in particular, details of volumes of C&I waste).
- **Qualitative outcomes:** The framework of outcomes also highlights a number of measures that are more qualitative in focus: such as quality of relationships with suppliers, quality of goods and services, staff commitment or ability of workers to do their jobs. However, these concepts can be given a quantitative interpretation, for example, through the use of Likert scales (a straightforward approach would be to ask employers to rate these aspects on a scale of 1 to 10).

However, the level of insight offered by these measures in terms of explaining how these qualities change over time is limited. Ipsos MORI suggests that any attempt to quantify these measures would be beneficially supplemented by qualitative research with the employers concerned.

- **Commonality across activities:** Some outcomes will only be relevant for a subset of interventions. In particular, impacts on the quality of training supply may only be relevant primarily to those designed to influence training provider behaviour (such as some forms of network, the creation and accreditation of new qualifications, and accreditation of training providers). Some tailoring of surveys for beneficiaries of these activities would be needed to ensure that questions concerned would only be asked of those for which it would be relevant.
- **Outcomes beyond the beneficiary group:** A beneficiaries survey may not be able to establish measures of customer satisfaction (as this can clearly only be asked of the customers of employers concerned). A related measure might be the number of customer complaints (although this may not fully reflect the nature of the outcome of interest).
- **Importance of training providers:** In addition, it is clear that a survey of training providers would offer relatively little insight into the breadth of outcomes associated with EIF and GIF infrastructure. While there may be important issues to explore in terms of how the infrastructure has helped influence the quality and relevance of training provision, training providers may be better integrated into a programme level impact evaluation through qualitative research.

### 3.8 Measurement of outcomes

The majority of indicators suitable for quantitative treatment identified in the table above are relatively unproblematic to integrate into a survey questionnaire. However, there are a range of outcomes that merit further consideration:

- **Employer training activity:** The Employer Skills Survey (ESS)<sup>2</sup> offers best practice in establishing employer investment in training (including details of the volumes of workers trained). This should as far as possible be replicated in the measurement of outcomes. However, the survey is designed to establish this activity in more depth than might be required in an evaluation of EIF and GIF. In particular, the questions relating to the occupational breakdown of training activity might be omitted without a substantial impact on evaluation findings.
- **High performance working practices<sup>3</sup>:** The ESS also incorporates a battery of questions measuring high performance working practices that could be replicated within a survey of beneficiaries.
- **Accidents:** Health and Safety Executive surveys and economic appraisals consider accidents in terms of how far incidents in the workplace have led to (1) fatalities, (2) major injuries, and (3) minor injuries. This framework could potentially be replicated in an evaluation of EIF and GIF.
- **Productivity gains:** Productivity gains can be relatively straightforward to establish through surveys of learners (as they will be reflected within any growth in earnings). However, establishing this outcome from surveys of firms will require the collection of the following financial measures: overall turnover, employment, wage spending, and profits. BIS has developed best practice to measure these aspects of firms performance, and could be replicated in a programme level beneficiaries survey<sup>4</sup>.

Questionnaire length may also be an issue if a programme level survey is to go beyond just measuring outcomes but also to establish a view on how far their engagement with EIF and GIF has led to those outcomes (see section on self reporting in Section 5). In the event that questionnaire length becomes a major issue for a programme level impact survey, it is suggested that outcomes relating to high performance working practices and accidents are omitted as they may be more tangential to the central objectives of the two funds. Suggestions for potential questions are contained in Annex A.

<sup>2</sup> The questionnaire for ESS is available here: <http://employersurveys.ukces.org.uk/Employer%20Survey%20Images/ESS11/Questionnaire%20-%20Employer%20Skills%20Survey%202011%20for%20Mainstage%20-%20Confidential%20v09%2000.pdf>, with relevant questions concentrated in section F (Workforce Development)

<sup>3</sup> Questions designed to establish the use of high performance working practices are contained in Section G of the ESS.

<sup>4</sup> See 'Survey Questions for Impact Evaluations which Rely on Beneficiaries Self-Assessment.' BIS, 2011 ([https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/32112/11-979-survey-questions-for-impact-evaluations-beneficiaries-self-assessment.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/32112/11-979-survey-questions-for-impact-evaluations-beneficiaries-self-assessment.pdf))

### 3.9 Wider outcomes

There is an expectation that the programme will lead to indirect economic effects through instilling greater confidence amongst employers that the skills system will supply an appropriately skilled workforce to support investment and expansion plans. To the extent that this is achieved by EIF and GIF investments, there may be wider impacts on GVA growth and employment by encouraging greater levels of foreign direct investment and expansion of existing operations (to serve export markets, for example).

These types of wider issue relating to confidence in the skills system would ideally be built into general surveys of the business population, although it may be possible to establish a partial view through surveys of EIF and GIF (employer) beneficiaries. Options include:

- **Collect views from participants:** A partial assessment could be gathered through a programme level beneficiaries survey.
- **Adjust Employer Skills Survey:** The ESS could be also be adjusted to incorporate a focus on this issue.
- **Bespoke survey:** A bespoke general survey of the business population could also be commissioned to examine this issue in greater quantitative depth.

Ipsos MORI suggests that these types of effect are both highly tangential to the nature of the two funds and highly challenging to establish the role of EIF and GIF in bringing about any meaningful impacts in this area (and any related effects in terms of FDI or plant investment). As a consequence it is likely disproportionate to either commission specific research or adjust existing surveys to address the matter.

However, light touch coverage in a programme level beneficiaries survey may offer a sufficient level of quantitative exploration, while qualitative research with beneficiary employers would yield the type of evidence needed.

### 3.10 Employer Led and Innovative

EIF and GIF investments were intended to be employer led and innovative, and a key question in the Invitation to Tender was how the survey might be framed to capture these intentions. This could potentially be covered in broad terms through using a programme level beneficiaries survey to:

- **Involvement:** Establish whether beneficiaries were involved in the development of the EIF and GIF infrastructure they utilised, and the strength of this involvement;

- **Innovation:** Establish views on how far the infrastructure developed were novel (i.e. how far beneficiaries may have been able to obtain similar services from an alternative source), and/or represented better training solutions than alternatives previously available.

However, it should be noted that these issues are primarily of relevance to those employers involved in funding and informing the development of the infrastructure involved, rather than the end users of that infrastructure that might be considered as the primary focus of a beneficiaries survey (who in many cases may not be able to provide an informed view on these issues). As such, there will be a limit to how far strong inferences can be made through using the programme level beneficiaries survey in this way.

Additionally, for an evaluation to make any meaningful comment on these issues, a detailed investigation into the role of employers in the development of EIF and GIF infrastructure and collation of a range of views on the levels of innovation involved will be required (which may extend to training providers and bodies representing the interests of particular sectors). Again, a programme of qualitative research covering the relevant stakeholders will be required to provide an effective understanding of the issues involved.

### 3.11 Implications for a beneficiaries survey

- **Defining beneficiaries:** The beneficiaries of EIF and GIF are largely best defined as the end users of the products and infrastructure developed: mainly, the employers, employees and jobseekers. This definition could arguably be extended to incorporate training providers who may benefit from increased demand for training. As such, a programme level beneficiaries survey could potentially cover all three of these groups.
- **Topic coverage:** A programme level survey of beneficiaries would ideally be designed to capture the outcomes achieved by EIF and GIF infrastructure investments alongside other policy issues (such as the extent of employer involvement in infrastructure development and wider confidence in the skills system). If the survey is also used to establish impacts (as distinct from outcomes), additional topics would need to be integrated (and these are set out in Section 5).
- **Common outcomes:** Although EIF and GIF Investments are highly diverse in their activities and outputs, they have relatively common overall goals. A common indicator framework can be established focusing on: training behaviour, related business outcomes, and economic impacts. To provide this evidence, the key focus of a beneficiaries survey will be on employers, although learners (and to lesser extent, training providers) may be able to provide further information of interest.

- **Limits to a programme level beneficiaries survey:** There are some issues that cannot be explored through a programme level beneficiaries survey. A programme level beneficiaries survey could not be used to establish the volumes of outputs delivered by EIF and GIF investments, or establish outcomes that do not relate directly to the beneficiaries group (such as customer satisfaction). Additionally, whilst a quantitative survey will provide some insight, there are some issues that will be best explored through qualitative research to then provide meaningful evaluation evidence.
- **Findings relevant to an overarching programme evaluation:** The light touch approach to monitoring adopted by UKCES has led to inconsistency and incompleteness in the way that performance management information on outputs and outcomes have been compiled. This will substantially inhibit the ability of an evaluation to provide a meaningful aggregation of outputs at the programme level, and it is recommend that in moving forward, UKCES establishes a systematic framework of monitoring indicators to aid both performance management and evaluation.

## 4 Beneficiaries Survey

This section focuses on the core practical issues involved in delivering a programme level beneficiaries survey for EIF and GIF.

**Table 4.1 Key Research Questions**

Issues	Questions
<b>Availability of contact details</b>	Do projects retain sufficient beneficiary contact details to form the basis of a survey sample? How can issues of access and data protection be addressed?
<b>Mode</b>	How could a beneficiaries survey best be administered? Phone/face-to-face/online?
<b>Sampling</b>	How could a sample frame be created, maintained, and refreshed?
<b>Timing</b>	When would be the optimum time to carry out a beneficiaries survey? Should the survey design be longitudinal and include a baseline survey and follow up waves?
<b>Wider evaluation</b>	What further advice could be given to investees to improve the quality of project level evaluation and inform programme level evaluation?

### 4.1 Availability of Contact Details

A programme level beneficiaries survey will only be possible if contact details for the beneficiaries engaged through EIF and GIF investments are available. Consultations suggested that the availability of contact details is relatively comprehensive for those investments where employers and learners were engaged directly through the infrastructure developed. However, there were a range of instances where the availability of contact details was more limited:

- **Indirect beneficiaries:** Contacts details were not available where the beneficiaries of EIF and GIF infrastructure were indirect (those focused on training products and training providers). Systematic coverage of these activities through a programme level beneficiaries survey will not be feasible (one fifth of the investments under rounds 1 and 2 of EIF and GIF were employing these types of mechanism).
- **Partial coverage:** A number of EIF and GIF infrastructure investments involved delivery mechanisms in which the level of engagement varied in intensity. In some cases, contact details were only captured where beneficiaries reached a particular stage in the delivery process. This was an issue raised in connection with a small number of investments (five) covered through consultations.
- **Online delivery mechanisms:** Online delivery mechanisms (particularly those providing information on careers) have typically made it more challenging for delivery partners to collect the contact details of those they have engaged. Again, this is an issue for a small number of investments.

Consultations with delivery partners suggested that in the majority of cases, named contacts for direct beneficiaries were available, alongside addresses, telephone numbers and email addresses (although in some cases, where investments had not been launched, delivery partners were yet to determine how these details would be held). A sample of employer contacts obtained through the study confirmed that delivery partners held this level of detail. However, the use of on-line delivery mechanisms throughout the portfolio raises the likelihood that some infrastructure projects may only hold these details in email format.

Additionally, while contact details are available, there is substantial variability in the way they are kept by delivery partners. For those using Customer Relationship Management (CRM) systems, collation of details should be relatively straightforward. Others employ more ad-hoc systems and collation of these details may involve work on the part of the delivery partner.

It is recommended that UKCES develops a simple spreadsheet tool to facilitate the aggregation of these details on an on-going basis (capturing named contacts for employers, the relevant investment they have benefitted from, the associated activity, and dates of participation). Such a tool would also need to capture the extent of any repeat participation. These could be provided alongside quarterly monitoring returns to provide a central repository of employer contact details. Basic checks could be carried out by auditors to confirm the comprehensiveness of the information provided.

**Table 4.2 Availability of contact details**

<b>Activity</b>	<b>Employer</b>	<b>Learner</b>	<b>Training provider</b>
Careers advice and guidance	-	Medium	-
Pre-employment training	-	High	High
Skills diagnostics	Medium	-	-
Employment of apprentices	High	High	-
Accreditation of training providers	None	None	High
Training brokerage	High	-	High
Apprenticeship brokerage	High	High	-
Employment brokerage	High	High	-
Creation of new qualifications	None	None	None
Accreditation of training courses	None	None	Low
GTAs	High	Unknown	-
Networks	High	High	High



## 4.2 Volumes of Contact Details

Determining the volume of contact details that might be available for a programme level beneficiaries survey has proven challenging. Consultations with delivery partners suggested that to a large extent records are comprehensive. However, many infrastructure investments covered were close to launch, and had not yet engaged with large numbers of beneficiaries. Projections of potential contact details that might be available have been made on the basis of monitoring indicators agreed with delivery partners and are set out in the table overleaf (on the basis that the investments concerned reach these targets).

Although the figures are indicative, they suggest that in principle a sizeable survey of beneficiaries could be undertaken as part of programme level impact evaluation. There are some important features to note:

- **Breakdowns by activity:** Likely contact details are sufficiently voluminous to undertake a survey to generate robust results at the level of individual activities.
- **Breakdown at the level of the investment:** Levels of beneficiary engagement at the level of the investment is variable. The majority of investments are planning to engage reasonable numbers of employers or learners (200 to 500) suggesting reasonably robust findings could be obtained at the level of the investment. However, there are a non trivial number of investments engaging as few as 10 employers for which such quantitative treatment would be inappropriate.
- **Large projects:** The volumes of contacts set out in the table overleaf are inflated by a small number of investments with large numbers of beneficiaries. For example, while contact details for some 84,000 employers joining networks might be available, this is dominated by a single investment planning to engage 80,000 employers. As a result, in many cases a representative sample at the level of the programme would be dominated by these large projects.
- **Double counting:** Individual beneficiaries may have benefitted from multiple activities provided by a single investment and may have also engaged with multiple investments. As a consequence, the figures overleaf will overstate the volumes involved.

The optimum structure, scale, and size of a programme level beneficiaries survey will depend largely on how the results will feed into a wider programme of evaluation research. These options are considered in section 6.

**Table 4.3 Possible Volumes of Contact Details for Direct Beneficiaries (2016)<sup>5</sup>**

Activities	No. of delivery partners	No. of investments with relevant beneficiary engagement targets that confirmed availability of contacts	Potential volume of contacts	Type of contacts	Median potential contacts	Range (lower to upper)
Careers advice and guidance	14	13 of 24	110,000	Individuals	4,000	0 – 60,000
Pre-employment training	6	6 of 7	12,200	Individuals	450	200 – 10,000
Skills diagnostics	14	13 of 19	30,500	Employers	150	9 – 20,000
Employment of apprentices	1	0 of 1	Unknown	Employers	Unknown	Unknown
Accreditation of training providers	7	5 of 8	40	Training Pro.	8	1 – 35
Training brokerage	8	4 of 9	44,000	Employers	1,500	9 – 40,000
		4 of 9	1,345	Training Pro.	165	15 – 1,000
Apprenticeship brokerage	9	4 of 10	6,000	Learners	750	400 - 3670
		2 of 10	3,500	Employers	1,750	1,500 – 2,000
Employment brokerage	6	4 of 9	1,650	Learners	400	200 - 750
		4 of 9	1,000	Employers	450	20 - 500
Creation of new qualifications	7		0	-	-	-
Accreditation of training courses	13		0	-	-	-
GTAs	3	1 of 4	1,500	Employers	1,500	-
Networks	9	9 of 13	84,000	Employers	135	9 – 80,000
		4 of 4	37,000	Individuals	6,000	1,500 – 15,000

### 4.3 Issues of access and data sharing

Delivery partners (as a general rule) have not passed on protocols for sharing employer and other beneficiary contact details. As a result, there was some hesitancy to commit to providing access to employers, and some providers suggested that they would need to contact the employers in order to secure permission to pass details onto a third party.

Contracts with delivery partners specify an obligation for them to facilitate access to the employers engaged for the purposes of the evaluation. As such, UKCES has contractual leverage to enforce the sharing of employer contact details. Additionally, even where data sharing protocols have not been embedded under project processes, there are sufficient legal provisions to permit the transfer of named employer contacts to UKCES<sup>6</sup>.

<sup>5</sup> Note that these figures are based on the investment plans provided to Ipsos MORI, some variations to contracts may have been agreed

<sup>6</sup> Transfer could be classified under the following provisions: 'for the exercise of any functions of the crown, a Minister of the Crown or a Government Department,' or 'for the exercise of any other functions of a public nature exercised in the public interest by any person' or 'for the purposes of legitimate interests pursued by the data controller or by the third parties to whom the data are disclosed, except where the processing is warranted in any particular case by reason of prejudice to the rights and freedoms of the data subject'.

Legal provisions do not cover the transfer of contact details for learners. At the time of writing, it is expected that without integration of data sharing clauses in interactions with learners, it will not be feasible to undertake a programme level beneficiaries survey of learners. In light of the availability of contact details, this will make coverage of careers advice and guidance, and pre-employment activities challenging. It is recommended that UKCES acts rapidly within the scope set by contracts to ensure all relevant investments embed these protocols within their project delivery processes.

#### **4.4 Alternative means of establishing samples**

The analysis above suggests that a programme level beneficiaries survey based solely on the contact details held by delivery partners would be inhibited by two key gaps: lack of contact details where the relevant employers and learners indirectly benefit from the infrastructure involved (i.e. those involving the creation of new or accreditation of training products and the accreditation of training providers). Unless Data Protection Act restrictions can be resolved, contact details for the beneficiaries of those interventions focused primarily on the engagement of individuals may also be unavailable.

There are a range of alternative strategies that might be employed to fill these gaps. Two approaches were considered through the Issues and Options workshop and dismissed:

- **General employer surveys:** If it is not possible to collect contact details from delivery partners, it may be possible to identify beneficiaries through employer surveys using general business databases (such as those maintained by Dunn & Bradstreet) and screening questions to establish whether firms have used EIF & GIF infrastructure products. There are a number of limiting factors to such an approach. Firstly, given the volume of potential products involved, the screening process would be extensive. Delivery partners have not always branded the different products involved, and establishing recognition may be challenging. Critically, the ratio of users to non-users is very low, and the costs of such an approach could be prohibitive.
- **Training providers:** In many cases, the training providers involved may have access to contact details for the relevant employers and training providers of interest. In principle, it would be possible to generate additional contact details by working with the training providers involved to gain the necessary consents to participate in research. Such an exercise would face challenges relating both to securing the buy in of the training providers concerned and the administrative complexity in implementation. The risks of failure with such an approach would be high and was not considered any further.

A final approach based on using the Individualised Learner Record (ILR) to assemble samples of learners and employers involved was considered in more detail through the feasibility study. The ILR is a network of databases that provides records of past and current learners on government-funded Further Education (FE) programmes in England. The ILR data is collected from FE and Skills providers who are funded by: Co-financed European Social Funds (ESF), The Skills Funding Agency (SFA) and/or the Education Funding Agency (EFA)<sup>7</sup>. Data is collected for each academic year. Similar databases are also available covering Wales, Scotland, and Northern Ireland.

The ILR holds contact details for the learners covered and if it is possible to identify the relevant qualifications and training providers within the ILR, supplementary sample could be obtained. Knowing the qualifications and training providers that form part of the investment project means that the learners on those courses could be isolated in the ILR, and a sample obtained if learners have given consent to be contacted. Additionally, the dataset contains an employer ID which can subsequently be matched against the Blue Sheep Employer Database to compile a list of employers. However, there are a range of caveats: in particular, not all providers populate the employer information resulting in significant sample non-coverage. Additionally, the dataset only covers government-funded provision: EIF and GIF investments involve varying levels of privately funded provision that could not be captured in this way.

Ipsos MORI obtained details of relevant training providers and qualifications from five delivery partners to test how far such an approach might feasibly fill the gaps that have been identified. The matching results are set out in tables 4.4 and 4.5 respectively, which sets out the number of providers and qualifications provided, and the number and percentage that were possible to identify in the ILR. Findings were varied, and it was more straightforward to match training providers to the ILR than to match individual training courses and qualifications. In one case 8 of the 14 training providers were based in Scotland, Northern Ireland, and Wales, and the ILR only contains training providers based in England (although there are equivalents in the devolved administrations).

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<sup>7</sup> SFA and EFA funding is via the following streams: 16-18 Learner Responsive, Adult Learner Responsive, Employer Responsive, Community Learning (previously Adult Safeguarded Learning)

Overall, the results suggest that there is some potential to supplement the employer and learner contact details held by delivery partners with samples generated through the ILR. However, because of low 'hit rates' such an approach will only provide partial coverage of the gaps identified and coverage of privately funded provision (which is not included in the ILR) will not be feasible through a programme level beneficiaries survey. Given the findings in the table below, these gaps are likely to be significant and approaches based on solely on using the ILR to assemble employer and learner samples are not recommended (although secondary analysis of the information may be informative in a number of cases).

**Table 4.4 Training Provider and ILR Data-linking**

Delivery Partner	No. of providers in sample provided	No. in the ILR	'Hit Rate'
1	14	3	21%
2	10	3	30%
3	19	7	37%
4	27	17	63%
<b>Total</b>	<b>70</b>	<b>30</b>	<b>43%</b>

**Table 4.5 Training Courses and ILR Data-linking exercise**

SSC	No. of training courses in sample provided	No. of courses in the ILR	'Hit Rate'
1	1	1	100%
2	1	1	100%
3	32	4	12.5%
<b>Total</b>	<b>34</b>	<b>6</b>	<b>18%</b>

#### 4.5 Mode of delivery

A range of options for delivering a programme level beneficiaries survey are available: including face-to-face methods, telephone, postal and on-line approaches. As suggested above, on the basis of the evidence it has been possible to collect, the indications are that all of these methods would be technically feasible.

Face to face and telephone approaches enable more robust random probability sampling approaches, and Ipsos MORI suggests that these should be favoured in comparison to on-line and postal techniques given the need for more robust results (where the issues associated with self-selecting samples are more significant). These approaches also offer the advantage of higher response rates (in general).

Ipsos MORI suggests the most cost effective approach would be to undertake the programme level beneficiaries survey via telephone techniques (the cost of face to face research would be high, owing to the national focus of the programme). Accuracy of evidence could be enhanced by posting a brief schedule of the anticipated topics and items of information required in a survey in advance of a programme level beneficiaries survey (as is currently undertaken through the Employer Skills Survey). However, a flexible model may be needed, in which use of on line survey mechanisms could be employed in cases where only email contacts are available.

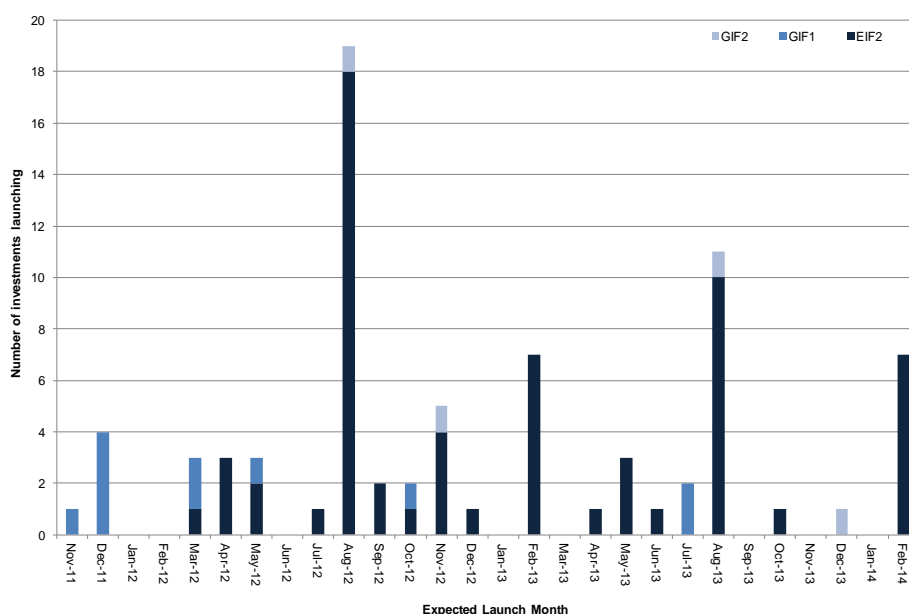
#### 4.6 Timing

There are a range of timing issues that will need to be addressed in the design of a programme level evaluation. There is a particular tension between the need for evidence in the short term to support decision making and the time horizons over which Investments might be expected to deliver returns. These include:

- **Continuous accumulation of beneficiaries:** The focus of EIF and GIF on developing infrastructure that endures means that the volumes of beneficiaries engaged will accumulate over time (and beyond the lifetime of UKCES investment). A survey of beneficiaries at any single point in time will only provide an evidence based assessment of impacts that have been achieved to date (although it would be possible to establish self-reported estimates of likely future benefits). The earlier a survey takes place, the smaller the share of lifetime returns it will be possible to demonstrate.
- **Duration over which outcomes and impacts will be realised:** There are also lags associated with the delivery activities and their associated outcomes and impacts involved. While effects on training expenditure and similar might be observed over a relatively short period, business outcomes and productivity impacts will arise over a much longer period. For example, apprenticeship frameworks may take 12 to 24 months to complete, and it may be difficult to illustrate these impacts if a survey takes place too rapidly.

Timing issues are further complicated by staggered nature of the launch dates of EIF and GIF infrastructure (note that no information is available for EIF1) as illustrated in the figure overleaf. As of May 2013, a high proportion of investments were expected to have been launched to market, although a non-trivial number were expected to launch after this date.

**Figure 4.1 Expected Launch Month: EIF2, GIF1, GIF2**



Source: UKCES Monitoring Information, 2013

The table overleaf (Table 4.6) illustrates what it might be feasible to capture through surveys at different points in time (with a presumption that survey research would need to take place in Autumn 2013 in order to provide evidence to feed into a triennial review). Ipsos MORI has made the assumption that baseline information would be available during the year in which participants engage with infrastructure, effects on training would be observable in the following year and effects on business outcomes may become visible in the year after that.

This assessment suggests that evidence on short term outcomes may well be limited at Autumn 2013 (with pre and post measurements of training only available for the first cohorts of GIF1/EIF1 investments), and expectations of any evidence on return on investment should be managed carefully. While surveys can be designed to look for these types of effect even in the short term, there is a strong risk that any effects observed will be modest at best. In order to investigate return on investment, a long term view on data collection will need to be taken (potentially extending to 2015/2016).

It should also be borne in mind that the number of contacts available for an initial survey wave in 2013 will be lower than in 2015, and this will need to be built into the planning of survey waves over time.

**Table 4.6 Evidence on outcomes and impacts that might be observable over time**

Time	GIF1/EIF1			GIF2/EIF2		
	Baseline	Training	ROI	Baseline	Training	ROI
Autumn 2013	1, 2	1		1		
Autumn 2014	1, 2, 3	1, 2	1	1, 2	1	
Autumn 2015	1, 2, 3, 4	1, 2, 3	1, 2	1, 2, 3	1, 2	1

*Note: the numbers represent each annual cohort of employers using EIF and GIF infrastructure (so 1 would represent the those employers engaging with an infrastructure project in its first year following launch, while 2 would represent those employers engaging in the second year, and so forth).*

#### 4.7 Longitudinal design

A programme level beneficiaries survey will need to capture change in the indicators outlined in section 3 (the assessment of impact will effectively require pre and post measurements). There are two strategies that could be employed:

- Retrospective questions:** Change over time could be captured by asking firms to report changes in the outcome measures over time (e.g. asking questions on training expenditure over the past year, the year previously, and potentially the year before that). There may be a risk of recall bias using such an approach, although this could be minimised by sending data collection schedules by post in advance of a survey in the manner suggested above. Establishing retrospective measures of qualitative indicators may also be subject to bias (particularly if there is any post-hoc rationalisation of past behaviour amongst respondents). Additionally, this approach would have a multiplicative effect on the number of core questions that might need to be covered. However, some use of retrospective questioning will be required to establish baselines for Rounds 1 and 2 of the scheme.
- Repeated waves:** Alternatively, the survey could be delivered as a series of waves (e.g. baseline and follow up). As many of the metrics of interest accrue or are measured on an annual basis (e.g. turnover, sales, staff turnover), Ipsos MORI suggests longitudinal tracking of outcomes would take place on an annual basis. High quality results will be contingent on the ability of the survey provider to maintain engagement with beneficiaries in longer term. In Ipsos MORI's experience, sending participating employers summaries of research findings (potentially as an easily digestible Infographic) helps to maximise response rates in longitudinal research.

While the latter approach is likely to lead to higher quality findings, longitudinal approaches also tend to be more costly. This is a key trade off that will need to be made in selecting an approach moving forwards.



## 4.8 Alternative approaches to generate evidence

A range of alternatives to surveys in generating the required evidence were considered through the feasibility study. This included a review of the evidence produced by delivery partners through investment level evaluations, and considerations of the potential role that administrative data and other secondary sources might play in establishing evidence on the outcomes of interest.

### Investment level evaluation evidence

A review of a sample of evaluations produced at an investment level (covering a mixture of EIF1 and GIF1 final evaluations, and interim evaluations of EIF2 and GIF2 investments) suggested that:

- **Formative and process evaluation:** The evaluations reviewed were mainly focused on addressing process issues. Strong attention was given to an examination of implementation issues, evidence that outputs were being delivered to quality and timescale, and providing recommendations on future delivery. However, the review focused largely on interim evaluation studies, and there were indications that a stronger focus on impact would be incorporated within final evaluations.
- **Absence of theory based structures:** Across the evaluations examined, theory based structures (outlining a clear chain of causality by which investments were anticipated to lead to their anticipated effects) to guide the evaluation process were often absent.
- **Reliance on qualitative methods:** The evaluations often provided a rich qualitative evidence base, drawn from both internal and external stakeholders in the projects (including businesses using the infrastructure solutions developed). However, there was a notable absence of large scale quantitative research with beneficiaries.
- **Evidence of outcomes and impact:** No evaluation examined provided any systematic assessment of the economic benefits of the interventions concerned. While some provided an indication of the training outcomes that had been achieved there was no attempt to establish additionality (either through quantitative methods or more indicative approaches).
- **Lessons:** Most evaluations reviewed had a focus on establishing lessons learnt and recommendations. These recommendations were tailored to the objectives of the evaluations concerned, focusing primarily on adjusting implementation and delivery plans to maximise effectiveness.

The review suggests the current evaluation evidence base will provide some insight into the issues encountered by delivery partners in developing and launching their training solutions (and would potentially have a role in explaining the results of any impact assessment activities). However, the scope to aggregate this evidence base to provide any insight into the outcomes that have been achieved and return on investment is limited.

### **Individualised Learner Record**

As described above, details of training courses or programmes involved in the delivery of EIF and GIF interventions can be partially linked to the ILR. Analysis of this evidence could provide additional information on the demand for training, and would usefully supplement any information collected through a beneficiaries survey. However, given its limits in terms of covering privately funded provision, such an approach could not be used to replace survey based data collection.

### **Administrative business data**

Past research has shown that an assessment of the impact of business support interventions can be successfully derived from a linked panel dataset based on official government surveys (see Hart and Bonner, 2011). Such approaches reduce the need for bespoke beneficiaries and non-beneficiaries surveys that are extensively used in evaluation work, and often provide more reliable evidence on the financial metrics of interest than available from primary survey research. A sample of 128 businesses was obtained from delivery partners to examine how far the construction of a longitudinal panel dataset would be feasible, given the quality of information held by delivery partners.

The microdata underlying a variety of government surveys are available through the Virtual Microdata Laboratory. Key among these is the ONS Business Structure Database (BSD) which contains annual snapshots of the Inter-Departmental Business Register (IDBR) and has been used as part of a longitudinal impact study for BIS (Hart and Drews, 2012). The IDBR includes nearly all of UK's businesses registered with the HMRC for VAT and/or PAYE purposes. The only exclusions are very small businesses: those that fall below the VAT threshold of currently £73,000 annually and/or those that are not part of PAYE (weekly salaries less than £107 [2012-13 tax year]).

The IDBR is a “live” database where data gets updated as it becomes available, from sources such as HMRC (VAT and PAYE participants information), and the Companies House, among others. The BSD in turn provides a static (snapshots of the ‘live’ IDBR taken in March of each year) but, of course, longitudinal view when these annual datasets are linked together. Compared to other data available on firms, it includes relatively few variables (employment and turnover), but for nearly all firms. If details of the employers supported through the two programmes can be linked to the BSD, this opens up the possibility of building in longitudinal panel data analysis as part of impact evaluation (to explore effects on sales, employment and productivity without the need for follow up research with the firms concerned (approximated by turnover per worker)).

The Business Structure Database can also be linked to a number of further compulsory and voluntary government surveys to explore a range of issues from productivity through to export sales (although it could not be employed to examine impacts on training demand). A range of technical issues will need to be addressed in doing so, but the table provided in the Appendix provides an overview of the datasets available within the VML that could be used for analysis of a wider range of variables.

Guided by Hart and Bonner’s work (2011) who provide a comprehensive summary of basic principles for data-linking, the preparation of the sample of employers provided for the linking exercise involved the following:

- A common identifier across the datasets to be linked is required. This could be the business’ name and postcode; however, this would add complexity at the linking stage as it would require the use of additional algorithms to match the data. Therefore, the FAME database held at Aston Business School was used to identify firms’ registration numbers (CRNs). This provides a common referencing number across the datasets involved. Of the 128 names of firms provided to ABS there were only 5 firms where a CRN could not be found (4%). There are still some issues to be addressed with some of the matches but this would seem to provide a very comprehensive coverage of the EIF/GIF beneficiaries.
- With the use of CRNs as the unique identifier, data can be matched at a firm-level within the ONS BSD database. From reviewing the sample, it is a viable assumption that most assistance would have been recorded at the firm rather than an establishment level. It should also be noted that the firms were a mixture of single entities and multi-plants which means we need to exhibit some care when verifying the match.

This suggests that datalinking may be a viable strategy for obtaining some long term information on the performance of businesses receiving support through EIF and GIF. There are a number of limitations: the approach could be particularly problematic for those investments covering small organisations (such as those delivered by Skills for Care and Development and Skills for the Third Sector). Additionally, the range of wider variables that would be available to create a comparison group is relatively limited (size, sector, age of business, and location). Please see Annex B for more details on datalinking.

#### 4.9 Implications for a beneficiaries survey

- **Availability of contact details:** Availability of contact details (as established through consultations) will be reasonably high and in sufficient volumes to form the basis of a survey sample. Coverage is not complete, particularly with regard to those activities where employers and individuals only indirectly benefit from EIF and GIF infrastructure. These gaps can partially be addressed through using the ILR to supplement samples.
- **Access:** UKCES has sufficient contractual leverage to compel delivery partners to provide access to employer beneficiaries. Employment of such approaches risk damage to relationships, however, and more collaborative (but time consuming) approaches may be favoured, particularly if the wider programme level impact evaluation will require significant co-operation from delivery partners.
- **Creation of samples:** Owing to the highly variable ways in which delivery partners manage their contacts with beneficiaries, it is suggested that UKCES develops a spreadsheet template to collect contact details. This could be submitted alongside quarterly monitoring returns as a condition of payment to support the creation of a consistent central repository of employer contact details.
- **Mode:** A telephone survey will be the most cost-effective approach for delivering a programme level beneficiaries survey. However, a flexible model should be adopted in which on-line mechanisms might also be employed where only email contact details are available.
- **Timing issues:** Expectations of the ability of a programme level survey to generate evidence on return on investment in the near future should be managed. In Autumn 2013, it may only be feasible to observe short term effects on employer investment in training for the earliest beneficiaries of EIF and GIF infrastructure. An ex-post assessment of return on investment may not be feasible until 2015/16.

- **Guidance to investees:** Investment level evaluation to date has focused largely on addressing process issues and delivery of outputs. While this may offer useful lessons, an aggregation of this evidence will not provide any insight into the impacts of the programme. Guidance has been provided to delivery partners through the BMS Evaluation Strategy, and there is substantial availability of wider guidance on the issues of importance. Signposting to this guidance may be beneficial, but there are substantial questions as to whether resources allocated to evaluation are sufficiently high to enable issues of impact to be addressed in a meaningful way at an investment level.
- **Complementary / alternative means of gathering outcome data:** There are a number of alternative sources of evidence that could be used to provide evidence for a programme level evaluation. Some effects of EIF and GIF infrastructure may be observable through analysis of the ILR (in particular, effects on demand for learning). Linking records of beneficiaries to administrative data in the Virtual Microdata Laboratory would facilitate a long term view on the performance of firms (although this would not support an assessment of the wider business outcomes involved). Despite their weaknesses, targeted use of these methodologies will enrich the wider evidence base upon which a programme level impact evaluation could take place.

## 5 Assessing Impacts

As per the Invitation to Tender the main purpose of a beneficiaries survey will be to determine the impact of the EIF and GIF investments. The extent to which a beneficiaries survey can establish how far business and other outcomes have been achieved and provide an understanding of how far those outcomes can be attributed to the infrastructure investments funded is the key focus of this section. In particular this section provides an outline of the types of issues that will need to be considered through an impact evaluation and identifies the extent to which a beneficiaries survey can address these issues and what other options might be viable.

In particular, this section seeks to address the following key research questions identified in the Invitation to Tender (framed in terms of how far a beneficiaries survey might be able to address them):

**Table 5.1 Key Research Questions**

Issues	Questions
<b>Additionality and deadweight</b>	<p>What considerations should be made to assess the potential for assessing the additionality of UKCES funds?</p> <hr/> <p>Can the additionality and deadweight of investments be measured?</p>
<b>Control group</b>	<p>Can a viable control group be created?</p>
<b>Measuring impact</b>	<p>Can steps be taken to assist with the measurement of the impact of investment funds?</p>

### 5.1 Considerations in assessing the additionality of UKCES funds

An assessment of the additionality will need to address a range of questions with respect to deadweight (how far the training outcomes would have occurred in the absence of UKCES funding), and wider positive and negative effects on other agents in the economy through displacement, substitution effects, crowding out and multiplier effects. The table below provides a discussion of these effects.

**Table 5.2 Consideration in assessing the additionality of funds**

Issue	Outline
<b>Project additionality</b>	<p>The EIF and GIF Investments are intended to lead to sustainable training infrastructure (leveraging private sector resources where possible). One consideration that may need to be taken into account is how far the Sector Skills Councils and other delivery bodies would have gone on to develop the infrastructure in the absence of UKCES investment (leading to similar training outcomes and economic impacts).</p>
<b>Additionality of training outcomes</b>	<p>Further issues need to be considered with respect to how far training outcomes would have happened in the absence of the infrastructure developed:</p> <ul style="list-style-type: none"> <li>• <b>How far a similar volume of training would have been provided anyway:</b> A key aspect that will need to be understood is how far employers would have otherwise provided a similar volume of training (either in terms of expenditure or the number of workers receiving training).</li> <li>• <b>How far a similar quality of training would have been provided anyway:</b> Where beneficiaries would have otherwise obtained training in the absence of EIF and GIF, the training they received may have been of a higher quality. For example, apprenticeship frameworks tailored to specific industries may enable apprentices to acquire a range of skills they would not have been able to acquire through alternatives. An impact evaluation would also consider issues relating to impacts on the quality of training.</li> </ul>
<b>Additionality of employment outcomes</b>	<p>Where activity has been focused on attracting or upskilling potential new entrants to specific industries, some consideration of how the infrastructure and training provided has led to (a) similar career and jobseeking decisions, and (b) a higher probability of employment and attachment to the labour market, will be needed as part of a programme evaluation.</p>
<b>Crowding out</b>	<p>The sustainability strategies of many investments are based on some form of monetisation of the products and services developed. If products and services can generate sufficient revenues to cover their costs (and potentially earn a surplus) then there is a risk that the investments receiving UKCES funding may have prevented similar products and services being developed by the private sector. This issue merits detailed consideration in some cases.</p>
<b>Substitution effects</b>	<p>Increased investment in training by employers may also be accompanied by a range of substitution effects that will potentially merit wider consideration. If training investment has merely replaced other investments that could raise productivity (such as new technology) then there may be offsetting productivity losses. If the focus is on net changes in productivity at a firm level, then these types of issues will be accommodated. However, an approach to establishing productivity gains on the basis of wage gains to learners will likely overstate economic impacts involved (as returns to capital investment and research and development would be ignored through such an approach). EIF and GIF interventions may also have other substitution effects if they divert skilled labour from one sector to another.</p>
<b>Displacement</b>	<p>The interventions may involve a range of displacement effects in the product market (where firms benefitting from public subsidies are able to increase their market share at the expense of domestic competitors). On a review of the programme, it appears that the potential for these type of effects is greatest amongst training providers (particularly where they can obtain some form of accreditation, allowing them to displace revenues from other training providers – although this may be a less significant issue if the focus is on net changes in demand for training at an employer level). However, as EIF and GIF are intervening primarily through attempting to enhance the productive capacity of the economy, displacement is likely to be a less central problem than for those interventions focused on assisting businesses to grow their revenues. Where firms are able to increase their productivity, this will potentially release human and capital resources that can be employed in a productive capacity elsewhere in the economy in the medium term.</p>

## 5.2 Cost benefit analysis and return on investment

In order to provide a measure of return on investment that is consistent with the HM Treasury Green Book, a programme level evaluation should provide a full assessment of the resource costs involved. Such an exercise would need to go beyond relating the cost of UKCES investment to the overall value of productivity and other GVA gains achieved.

On the cost side, there may be important opportunity costs for learners, employers, and training providers through their engagement in the programme. For employers, this could involve time invested in engaging with networks, supervision of apprentices, and any economic output lost as a consequence of releasing staff for training. Equally, the value of lost leisure time for unemployed individuals might also be considered. Training providers may also invest resources in engaging with networks, adjusting their training provision, or preparing for accreditation processes. If these opportunity costs are unaccounted for then estimates of return on investment will be overstated.

Depending on how measures of productivity are established, there may also be additional human resource benefits associated with greater investment in training that will need to be captured. For example, a range of studies have shown that staff retention rates are higher and working days lost to sickness are lower where employers invest in training. As a result, increased demand for training may be accompanied by reduced recruitment costs and lower levels of GVA lost to sickness (to the extent that this output is not recovered when workers return from sickness). Finally, in occupations where investments have addressed severe skills shortages (where workers are consistently able to extract wages greater than their marginal productivity from negotiations) there may be wider social benefits in the form of greater surplus for employers.

Finally, interventions funded through the programme may allow training providers to acquire market power (for example, where specific providers have been accredited to provide specific training courses<sup>8</sup>). If training providers are able to exploit this power to maximise their own profitability there may be offsetting social disbenefits through suboptimal supply of training places. This could potentially be explored through examining how far the training providers engaged through the programme are able to secure above normal profits.

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<sup>8</sup> This may also be an issue for interventions based on developing voluntary licenses to practice. A review of occupational licensing in the USA undertaken as part of an economic appraisal of Collective Measures for UKCES in 2009 suggested that the main effect of occupational licensing was to restrict the supply of goods and services, resulting in increased prices for consumers without any material increase in quality.



### 5.3 Types of approach

Before moving onto a discussion around the issues highlighted above, it is worth outlining broad options available for understanding the impacts of policy in terms (and their relevant implications). It should be stressed that these approaches are not necessarily mutually exclusive and can be combined.

The most robust approaches to evaluation are those that involve random assignment to a treatment group and a control group receiving no intervention (randomised control trials). Such evaluation approaches have gained increased prominence in government evaluation guidance recently<sup>9</sup>, particularly as a means of developing policy and identifying what works.

These approaches to evaluation need to be embedded into programme design from the outset, and will not be feasible in any evaluation of EIF and GIF. Such an approach would only be made to work if delivery partners could feasibly (and were willing to) randomly allow employers, individuals, or training providers to utilise the infrastructure developed. Clearly this is unsuitable for the bulk of interventions developed, and in many cases would be detrimental to their effectiveness (for example, the value of networks grow with their scale, and randomly denying membership would have an adverse effect on the overall impact of those networks).

The table below outlines each approach to assessing additionality in turn.

**Table 5.3 Approaches to impact assessment**

Approach	Broad outline
<b>Self-reporting</b>	Using beneficiaries surveys to report their perceptions of the impact of EIF and GIF training infrastructure on business outcomes, and apply appropriate assumptions to reach a quantification of the economic impacts involved.
<b>Quasi-experimental</b>	Tracking the training and business outcomes of a beneficiary group against a comparison group of non beneficiaries (this was the evaluation design envisaged in the BMS Evaluation Strategy) to draw causal inferences on the impacts the initiatives concerned. The quality of this type of evaluation is largely dependent on how effectively issues relating to self-selection bias can be addressed (either in analysis or research design).
<b>Randomised Control Trials</b>	Randomly assign employers interested in using EIF and GIF infrastructure to a participant and non-participant group, and track training and business outcomes of a beneficiary group. This is the strongest form of evaluation design where the ultimate goal is to establish causal relationships between policy and the outcomes involved.
<b>Theory based approaches</b>	Theory based approaches to evaluation to developing a detailed understanding of the anticipated chain of causality by which EIF and GIF infrastructure, alongside wider context factors, will bring about the outcomes of interest. These approaches make greater use of the triangulation of both quantitative and qualitative evidence than the approaches above to develop an understanding of the causal contribution of government intervention in bringing about the outcomes involved.

<sup>9</sup> See for example the 2012 Cabinet Office Paper 'Test, Learn, Adapt'

## **5.4 Project additionality and crowding out**

Questions relating to the additionality of the training infrastructure developed will clearly be of interest in any impact evaluation: similar training infrastructure may well have emerged in the absence of UKCES funding if the appropriate incentives were provided by the marketplace. In a worst case scenario, UKCES funding will merely have crowded out venture capital or other private sector finance (implying any impacts brought about by consumption of training can be considered as deadweight).

A number of investments are planning sustainability strategies based around developing revenue streams from the various parties engaged. These types of strategies can be straightforwardly integrated into training brokerage mechanisms, for example, by charging training providers fees where employers have procured relevant training provision through the mechanisms developed.

The availability of these revenue streams over time will make a positive contribution to the sustainability of investments funded by UKCES. However, if investments can secure sufficient revenue to cover the costs of delivery, a programme evaluation will need to give careful consideration to the strength of the market failures underpinning the rationale for public sector investment. Of course, this consideration will need to bear in mind the policy context, where government funding is only for a limited period of time with the aim of sustainability. In this context, government funding is the catalyst for change.

The issues of project additionality (i.e. how far investments would have gone ahead in the absence of the programme) and crowding out can only realistically be addressed by widening the scope of primary research undertaken through an evaluation to the delivery partners concerned (and potentially other organisations that could conceivably have delivered similar training products and services). There are two clear options for handling this type of issue:

- **Quasi-experimental approach:** As EIF and GIF were both competitively allocated, there is a group of unsuccessful applicants that could potentially form a comparison group. A quantitative survey of unsuccessful applicants could be used to establish how far the delivery partners concerned were able to take forward the proposed infrastructure (unchanged, at a reduced scale, reduced scope or at a later date). This approach would have the advantage of offering a quantitative measure of the impact of UKCES funding on the viability of infrastructure projects. However, the potential selection bias issues are significant and possibly intractable: those selected for funding are likely to have developed substantially higher quality propositions than those rejected and there may be no realistic way of obtaining a suitable counterfactual. Additionally, such a model would offer no insight into how far there were other organisations that may have developed similar infrastructure if the delivery partners concerned were unable to proceed without UKCES funding (i.e. crowding out).
- **Theory based approach:** Approaches drawing qualitative research amongst successful (exploring the importance of UKCES funding to the viability of infrastructure investments) and unsuccessful (exploring how far they have been able to take forward their plans) applicants would also be feasible. Such methods would lead to substantial insight into the impact of UKCES funding on the viability of investments and could be triangulated with secondary evidence on the nature of the training market within individual sectors as well as supplementary research with wider stakeholders to explore crowding out. However, an assessment of project additionality would be made on the basis of evaluator judgement, rather than using quantitative methods to reach a specific estimate.

Quasi-experimental methods hinge on the availability of sufficiently large samples to make the application of appropriate statistical techniques feasible. Figures obtained from UKCES suggest that the numbers of unsuccessful applicant are insufficiently large (less than 100 unsuccessful applicants across the two rounds) to make such an approach worthwhile. It is suggested that the latter approach is likely to offer the greatest level of insight in this cases, as the challenges and related risks in developing a credible methodology may be too significant.

## **5.5 Additionality of training, employment, and business outcomes**

The other central issue in understanding deadweight is in establishing how far the relevant training and employment outcomes would have occurred in the absence of EIF and GIF, and relatedly, how far these outcomes have led onto the business outcomes of interest (i.e. those set in Section 3).

### 5.5.1 Self-reporting

Indicative estimates of impact might be developed solely from a programme level beneficiaries survey by drawing on the perceptions of the beneficiaries involved<sup>10</sup>. Use of self-reporting would involve the integration of additional questions into a beneficiaries survey, focusing on:

- The extent to which they would have otherwise obtained similar alternative training products or services in the absence of the EIF and GIF infrastructure;
- The extent to which their use of EIF and GIF infrastructure led directly to an increase in training;
- The extent to which use of that training led on to the relevant business outcomes of interest.

There is a wide range of guidance available on the types of questions that might be integrated into a beneficiaries survey<sup>11</sup>. These questions have routinely been integrated into impact evaluations using telephone survey methods, and are used to estimate impact through the application of probabilistic assumptions to the responses given by respondents to draw inferences on the strength of the causal relationships involved.

A recent study compiled by PACEC for the Technology Strategy Board into the return on investment associated with Collaborative Research and Development Programmes illustrates how self-reporting can be used to establish measures of return on investment. Estimates of economic impact were derived by asking beneficiary firms to report the extent to which their revenues and output had grown since participating in the programme, and how far that growth was due to their participation. Such an approach could potentially be replicated in a programme level beneficiaries survey of EIF and GIF.

#### Implementation issues

In order to implement self-reporting methods, surveys need to be sufficiently tailored to the support they have received (to allow them to make connections between training and business outcomes and the EIF and GIF infrastructure involved). Questions would ideally be specific to the activities being delivered by each investment, though a more general approach structured at the level of the activity (e.g. specific questions for beneficiaries of employer networks across the programmes) might also generate adequate findings.

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<sup>10</sup> Applying probabilistic assumptions to the responses given by beneficiaries on the perceived impacts on the outcomes of interest.

<sup>11</sup> See Practical Guidance on Implementing the Impact Evaluation Framework, BIS, 2009, for example.

However, there are a range of additional issues associated with the ways in which delivery partners have delivered their investments that may create additional challenges for a programme evaluation. Many delivery partners have elected to deliver their investment activity as an integrated package of support for employers, learners and training providers. In some cases, there is no differentiation in the ways these activities are branded, and establishing recognition of the service developed will require detailed planning to reflect the activities delivered.

Additionally, some delivery partners are integrating EIF and GIF activities with other infrastructure that they have developed outside of programme funding. As an example, this would include the on-line employment brokerage portal People 1<sup>st</sup> developed outside of EIF and GIF but is a central element of the activities they are funding.

Self-reporting methods can be weak at separating the incremental effects of individual components of package of support. Respondents to surveys typically find it challenging to break the overall impact of public intervention into separate parts (and any attempt to do so will be fundamentally weak), and it will be difficult to explicitly separate the effects of different investments and wider support using such methods. However, this is not a novel evaluation issue, and this issue has been addressed by using self-reporting methods to establish the overall effects of public interventions, and attributing those impacts to the elements involved on the basis of their overall share of the costs of providing that support<sup>12</sup>.

This overall picture does suggest a programme level beneficiaries survey might best be structured at the level of the delivery partner: examining the impact of the totality of investment activities funded at a sector level, rather than attempting to examine the incremental impact of each investment or taking a top down approach as identified by the BMS Evaluation Strategy.

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<sup>12</sup> This issue is explicitly addressed in practical guidance developed by BIS in 2009 (RDA Evaluation: Practical Guidance on Implementing the Impact Evaluation Framework).

## **Weaknesses**

Self-reporting approaches are appealing as they rely solely on the views of those engaged by the intervention. However, these types of methods were subject to particular criticism in a forthcoming review of impact evaluation in government by the National Audit Office. Self-reporting approaches have particular weaknesses in that respondents may often over- or understate the impacts of government support (and these biases may vary systematically across respondents), leading to substantial uncertainty over the robustness of impact calculations. Approaches based on self-reporting also yielded the largest estimates of impact, suggesting the general effect of the approach is to overstate the impacts associated with intervention. Nevertheless, self-reporting methodologies do often allow a more detailed investigation of the underlying processes and theories of change than can be offered by more statistical approaches to evaluation, aiding an understanding of why a particular intervention was successful or unsuccessful.

### **5.5.2 Quasi-experimental approaches**

Many of the activities funded engage with a well defined treatment group of individuals, employers, or employees. In these cases, it may be possible to develop a comparison group of non-users of EIF and GIF infrastructure to implement more robust quasi-experimental forms of evaluation (such as non-members of networks, or training providers that have not received accreditation). Under such an approach, impacts would be assessed by comparing the outcomes achieved by beneficiaries relative to non-beneficiaries of the infrastructure developed.

The evaluation of the Employer Ownership Pilot currently underway has adopted a quasi-experimental approach to evaluation. The study integrates surveys of both firms and learners (with three waves of research amongst employers, and two waves of research amongst learners). There is some interest in aligning the evaluation of EIF and GIF with the evaluation of EOP, and this section also considers how far this might be feasible.

#### **Selection bias**

The most substantial difficulty that might be faced by any attempt to implement quasi-experimental methods will be addressing selection bias. Quasi-experimental approaches to evaluation will need to control for differences between the firms, employees, or training providers engaging with EIF and GIF infrastructure and those that did not. This will be of central importance where those differences influenced both beneficiaries' decisions to engage with funded activities and the likelihood that the outcomes of interest were delivered.

As an example, those training providers selected to be 'centres of excellence' have been chosen on the basis of the quality of training they offer. As a consequence, learners entering the labour market following the conclusion of their courses may be expected to outperform those leaving comparable provision regardless of the quality standard applied (which may be exacerbated further if training providers are able to select higher quality applicants as a consequence of attaining the status of centre of excellence).

These selection processes will be highly variable across the programme:

- **Drivers of self-selection:** The drivers of self-selection will likely be unique to each Investment and activity involved. The factors determining an employer's membership of a training network are likely to be substantially different to those encouraging them to use a training brokerage service. Differences in training practices are also likely to vary substantially by sector, so even examining impacts at the level of a particular activity might be challenging.
- **Engagement mechanisms:** Individual Investments also employ varying engagement mechanisms tailored to the needs of their sectoral footprint. Some engage employers primarily through the networks established, whilst others use outreach mechanisms. Again, this will inhibit the extent to which an appropriate approach can be developed that allows impacts to be established at an aggregate level.

As a consequence, approaches based on the creation of a matched control group (such as methods based on propensity score matching) may only be feasible at the level of individual Investments, packages of Investments that have been targeted at similar groups of employers, or (to the extent that selection processes are common) across different types of activity.

Approaches based on analysis of longitudinal panel datasets (such as difference in differences) may offer more potential for programme level analysis. Such approaches assume that the unobserved differences between beneficiaries are fixed over time (and can often offer substantially more robust results than approaches based on matching). The evaluation of the Employer Ownership Pilot is using a similar approach to establish the impacts of the programme, and could potentially be utilised in an evaluation of EIF and GIF at higher levels of aggregation than the investment. However, the more closely approaches can be tailored to common packages of activity and sectors targeted, the more effective the results will ultimately be.

## Scope of potential application

Quasi-experimental methods will only be feasible where there are defined groups of beneficiaries and non-beneficiaries. This would exclude any intervention where the employers and learners benefit indirectly. Additionally, there needs to be a realistic approach for establishing a comparison group. While there are several datasets of employers that could offer a comparison sample, establishing a comparison sample of individuals would be highly challenging (the only mechanism through which this might be feasible is through an omnibus survey, and it is suggested that the costs of doing so would be prohibitive).

The table overleaf summarises the scope of possible application of quasi-experimental methods through pooling survey results at the level of each activity. The table also provides an assessment of the number of individual assessments that might be suitable for investment level analysis.

**Table 5.4 Scope of possible application of quasi-experimental methods**

Activity	Suitable?	Feasible?	No. of investments
Careers advice and guidance	No	-	-
Pre-employment training	No	-	-
Skills diagnostics	Yes	Yes	5
Employment of apprentices	Yes	No	-
Accreditation of training providers	No	-	-
Training brokerage	Yes	Yes	2 or 3
Apprenticeship brokerage	Yes	Yes	2
Employment brokerage	Yes	Yes	2
Creation of new qualifications	No	-	-
Accreditation of training courses	No	-	-
GTAs	Yes	Yes	1
Networks	Yes	Yes	4

## Source of a comparison group

Business tele-numbering databases such as those maintained by Dunn & Bradstreet offer a straightforward source for assembling a comparison group of employers. These datasets offer a range of variables relating to size and sector that could be used to match a comparison sample to a treatment sample.



The Employer Skills Survey is also a sample survey of around 90,000 establishments (87,000 in 2011, and 91,000 in 2013) and could offer a source for a counterfactual survey of employers. As the survey collects information on the training behaviour of firms (and firmographic characteristics such as sector and size), this would potentially help improve the closeness of matching between treatment and comparison samples to help minimise the extent of observed differences between the two groups. The ESS also offers the advantage that key relevant contacts within the organisations concerned have already been identified (simplifying the administration of surveys), and would likely be the preferred option for a comparison sample.

However, while both of these are potentially useful sources for a comparison sample there are some limitations:

- **Sectoral targeting:** The comparison sample should be as closely matched as possible (in terms of industrial profile) to those receiving support through EIF and GIF infrastructure. Many investments (although not all) are focused on very narrow industry sectors (such as oriental cuisine in the hospitality industry). While the ESS sample is large, it is not clear that in all cases sufficient volumes of firms within these industries are covered to offer a useful counterfactual sample in all cases.
- **Training characteristics of beneficiaries:** The training behaviour of firms benefitting from EIF and GIF prior to intervention is unknown. This will make it challenging to match the training characteristics of a comparison sample to beneficiaries firms on an a-priori basis. This issue is not irresolvable, but would imply that sequencing of beneficiaries and comparison will be required to provide the relevant sampling characteristics against which a comparison survey could be designed.
- **Establishment level data:** The ESS is an establishment level survey whereas the feedback received from consultations suggests that EIF and GIF infrastructure projects engage at an enterprise level. These differences in sampling units may be problematic where particular investments have engaged with large multi-site organisations (and the extent of this issue will vary from delivery partner to delivery partner). It may be possible to filter out branch sites from the ESS in designing a comparison sampling, but supplementary contacts derived from business tele numbering databases may be needed to expand the sample frame of multi-site organisations for some investments.

### **5.5.3 Theory based approaches**

The characteristics of EIF and GIF investments (including variability of the timing of interventions, variability in support provided, and the complexity of sector specific training issues and wider availability of support) suggest that establishing a causal relationship between activities funded and the outcomes of interest may not be straightforward (see for example, the guidance outlined in the Magenta Book).

In this context, any programme level beneficiaries survey might be complemented with a detailed programme of qualitative research with the stakeholders to provide a more detailed contextual understanding of the role of EIF and GIF infrastructure in bringing about the outcomes of interest. Such a research programme would ideally involve work with delivery partners, training providers, learners and employers to develop a understanding of the underlying theory of change or expected chain of causality by which impacts on training behaviour were anticipated. The qualitative research findings could be combined with quantitative survey results (as well as other sources of secondary evidence) and mapped against this analytical framework to provide considerable insight into the effectiveness of EIF and GIF.

Case based evaluation approaches could be developed in two ways. A horizontal approach, examining instances of different types of activities in different contexts would be one option. However, owing to the ways in which delivery partners have integrated the different investments involved, a sector based approach examining the totality of activity delivered by different delivery partners may offer advantages as it may be more straightforward to secure alignment with survey based methods (particularly as in many cases, it will be difficult for respondents to isolate the impacts of different activities funded through the programme).

## **5.6 Sustainability**

A strong emphasis has been placed on the sustainability of the infrastructure developed through EIF and GIF, and the expectation is that the infrastructure will continue to be used by employers, learners and training providers in the long term. A programme level evaluation may need to consider any benefits that arise from this future use (potentially through modelling projected usage and decay of the infrastructure involved).

One of the key issues that a programme evaluation will need to consider is how far the investments made are sustainable once UKCES has withdrawn funding. Sustainability will be reflected in on-going use of the infrastructure developed by employers, learners and training providers. While this could potentially be assessed straightforwardly in the longer term by reflecting on patterns of use perhaps, two years, after funding was withdrawn, there may be a need to take a view on the sustainability of the infrastructure developed at an earlier stage (for example in Autumn 2013).

This assessment would need to be based on research with both beneficiaries and non-beneficiaries to establish a range of key measures:

- **Current market penetration:** A general survey of employers in the relevant sectors could be used to establish the extent of current market penetration of the infrastructure involved. While this could also be inferred to some extent from monitoring information, a survey based approach could provide an understanding of levels of employer engagement in the sectors where this is not currently captured by the outputs reported by delivery partners. Such a survey could also be used to establish awareness of the infrastructure developed and assess levels of deliberate non-engagement (to help place limits on the growth potential of investments).
- **On-going engagement of current users:** A supplementary survey of current users of EIF and GIF could also be used to understand how far they are likely to continue using the infrastructure in the future.
- **Intentions for future use:** A general survey of employers would also need to capture intentions for future use of EIF and GIF infrastructure to help assemble projections of likely future demand and engagement.
- **Monetisation model:** The sustainability of infrastructure will be partly contingent on how far any revenues generated will cover their maintenance or running costs (some interventions, such as accreditation mechanisms may require very little in the way of maintenance). Detailed research with delivery partners will be required to unpick the detail of their monetisation model and understand how far investments are likely to be sustainable once public sector funding is withdrawn (and the levels of engagement needed to ensure long-term sustainability).

## 5.7 Implications for a beneficiaries survey

- **Additionality considerations:** In broad terms, an assessment of additionality would require consideration of three key issues: (1) how far investments would have proceeded in the absence of UKCES funding, (2) how far those investments induced changes in training behaviour, and (3) how far those led onto key business outcomes (encapsulated by productivity growth). An assessment of return on investment would need to address all three of those issues.
- **Measurement of additionality and deadweight:** Additionality and deadweight can potentially be measured through application of self-reporting methods. The types of questions that might be included in a questionnaire are well established, although their implementation requires substantial tailoring to the interventions concerned to generate meaningful results. It would be challenging to implement a single programme level survey to assess impact using self-reporting methods, as it would be insufficiently bespoke to the different types of activity involved.
- **Complementing wider evaluation activity:** The interventions concerned have typically evolved in complex contexts where the chain of causality is often not clear, and a beneficiaries survey would ideally be used in conjunction with theory based evaluation approaches to provide a level of contextual understanding that is not offered by pure quantitative approaches.
- **Viability of a control group:** A control group at the level of the programme will not be feasible owing to the diversity of the activity being funded. Application of quasi-experimental methods may be feasible at the level of the investment and the level of the delivery partner for a narrow range of investments.

## 6 Options

This section provides an assessment of the options for delivering a programme level beneficiaries survey in terms of overall structure, content, scale, scope and timings. The options have been assessed against the following criteria:

- Scope and scale;
- Potential for delivering evidence on outcomes and impact; and,
- Risks in taking research forward with delivery partners;

In addition, a range of timing and cost issues have been considered, as well as the potential scope for complementary / additional phases of research.

### 6.1 Do nothing

The reference case against which other options should be considered is the option in which UKCES does not commit resources to a programme level evaluation. This would leave investment level evaluation plans intact, giving UKCES the option of aggregating this evidence in order to provide evidence on the effectiveness of the EIF and GIF programmes.

The review of investment level evaluations suggests that this option would not be acceptable. Investment level evaluation has not been sufficiently focused on an assessment of the business outcomes involved to enable any assessment of return on investment at a programme level. Additionally, differences in the approaches taken by delivery partners will lead to inconsistencies in measurement, limiting the extent to which any aggregation of evidence will be meaningful. As a consequence, it is likely that some form of programme level beneficiaries survey will be required to provide evidence on the outcomes achieved by EIF and GIF.

### 6.2 Overall design options

Overall, there are three clear design options for a programme level beneficiaries survey of increasing levels of complexity:

- **1: Programme level:** The simplest option would be to undertake an overall survey at the level of the programme. This survey would involve a single questionnaire, and would draw a sample of contacts from across the investments involved.

- **2: Activity level:** An alternative approach would be to structure a programme level survey at the level of the activity. Questionnaires would be tailored to the broad types of activity involved but would ignore the wider delivery context at a sector level, but would contain a battery of common outcomes measures across the programme.
- **3: Delivery partner:** A final option would be to structure a programme level evaluation survey at the level of the delivery partner. This would involve the most bespoke levels of questionnaire design, with questions tailored specifically to the activities with which beneficiaries have engaged. However, this survey would retain a core set of common measures across the programmes.

Hybrid options, combining different strategies are also available (for example, a programme level survey could be combined with surveys at the level of the delivery partner).

### **6.3 Scope and Scale**

As suggested through the previous chapters, the main focus of a programme level beneficiaries survey would need to be on employers. There are insufficient volumes of training providers involved to merit a detailed quantitative exercise. A supplementary survey of learners may be feasible, but there would be substantial issues to resolve in terms of securing access owing to data restrictions (and these options are considered below under supplementary activity).

As suggested by the table, a programme level survey would require the smallest volume of interviews (anywhere between 500 and 2,000 interviews per survey wave would deliver varying levels of robustness). Greater volumes of interviews would be needed to provide results at the level of different types of activity (increasing the scale of the survey to 3,000 to 6,000 per wave).

It is challenging to estimate the potential scale of a survey structured at the level of the delivery partner owing to the wide variability in the volumes of beneficiaries engaged. Some investments have large volumes of beneficiaries, while others have insufficient volumes to undertake any meaningful survey research.

The costs of delivering such a survey across all delivery partners are likely to be prohibitive, though substantial coverage of expenditure could be achieved by covering just 10 delivery partners (and the marginal coverage achieved by increasing the sample would be limited). Assuming an average survey size of 300 to 500 interviews per delivery partner, the total number of interviews required under this scenario per wave would be in the region of 3,000 to 5,000. However, such approaches might be better targeted at a smaller number of delivery partners where high quality results can be guaranteed.

**Table 6.1 Size and sampling implications**

Option	Size (achieved sample)	Sampling
<b>Programme level</b>	Findings of varying levels of robustness at a programme level could be obtained with an overall sample of 500 to 2,000 beneficiaries per wave (confidence intervals of +/- 4 to +/- 2 percentage points at the 95 percent level).	While a representative sample of contacts could be drawn from all investments receiving funding, some efficiencies could be obtained by taking samples from a smaller sample of 20 to 30 investments (although care would need to be taken to ensure these investments were representative of the programme as a whole).
<b>Activity level</b>	An activity level survey would need to cover the six feasible activities in sufficient depth (300 to 600 interviews per wave) to provide robust findings at an activity level. This would imply an overall scale of 1,800 to 3,600 interviews per wave.	The number of investments involving different types of activities is relatively small, and a census of investments would likely be needed to give sufficient coverage of variability across delivery partners.
<b>Delivery partner</b>	The numbers of beneficiaries being engaged at a delivery partner level is highly variable, and the optimal sample size will depend largely on the sampling strategy involved. Many single investments do not involve sufficient volumes of beneficiaries to be suitable for detailed quantitative research at this level, so scope of application of these methods will not be universal.	A census of delivery partners would be feasible but efficiencies could be made by targeting research at those delivery partners covering the highest share of UKCES spending on the programme (for example coverage of the top 10 delivery partners would cover almost 75 percent of programme expenditure).

## 6.4 Assessment of impacts

The table overleaf assesses the three options involved in terms of their potential for an assessment of impact. The most limited options are offered by a programme level approach (it may only be possible, for example, to take pre and post measurements). An activity level survey might maximise general possibilities for impact assessment, although a survey at the level of the delivery partner would deliver the highest quality findings. The size of comparison samples would likely need to mirror the scale of beneficiaries surveys to maximise the precision of impact estimates.

**Table 6.2 Impact assessment possibilities**

Option	Self-reporting	Quasi-experimental	Theory based
<b>Programme level</b>	Self-reporting of impact would not be feasible as questions could not be tailored to the activities involved: the survey would need to focus on establishing pre and post measurements.	A quasi-experimental approach using parallel longitudinal research with non-users could be feasible, but would suffer substantial weaknesses in design owing to the level of activity and sector level variation involved.	There would be limited scope to align a programme level survey with case based evaluation approaches.
<b>Activity level</b>	Questions could be introduced to attribute the impacts of activities on business outcomes in general terms. However, separating the impacts of different investments may be challenging.	Quasi-experimental approaches at an activity level would minimise the level of variance introduced. However, sector level variability may weaken the strength of results.	While survey evidence would be general at the level of the activity, there would be triangulation opportunities, particularly if horizontal case study approaches were adopted in an evaluation.
<b>Delivery partner</b>	Fully bespoke questions could be introduced into surveys without the need to make compromises on content. However, separating the impacts of different investments may still be challenging.	Applying quasi-experimental approaches at the level of the delivery partner would deliver the highest quality results, but could only be applied in limited range of cases.	Surveys designed to fully align with theory based evaluation approaches and maximise the level of detailed insight into the effectiveness of EIF and GIF.

## 6.5 Risks in taking forward research with delivery partners

There are a number of potential risks involved in taking a programme level beneficiaries survey forward. All options involve potential duplication of existing investment level evaluations. Delivery partners would be most willing to accept a programme level data collection process that provides evidence that may aid their own evaluations. Additionally, effective development and delivery of questionnaires will require varying levels of collaboration between delivery partners and a survey contractor.

The only approach that is likely to address these risks in full are surveys structured at the delivery partner level. Such an approach would provide in-depth quantitative results, and could be tailored to meet both the needs of UKCES and delivery partners. The key difficulty with approaches at higher levels of aggregation will be that they do not necessarily provide the level of robustness at an investment or delivery partner level to satisfy evaluation requirements. While this may be acceptable to some partners (particularly if they are released from evaluation obligations), others have an interest in generating evaluation evidence for their own boards and may be reticent to agree such a revised approach.



**Table 6.3 Risks with delivery partners**

Option	Duplication	Collaboration required
<b>Programme level</b>	The approach would duplicate existing data collection processes without providing robust results at an investment level. This may be difficult for those delivery partners with an interest in investment level evaluation findings to accept (and they may want to proceed with their own investment level surveys).	Inputs from delivery partners would be needed to ensure that issues associated with recognition of the infrastructure can be addressed.
<b>Activity level</b>	While the approach will potentially generate more detailed results, in most cases it will not be feasible to deliver robust results at an investment level. Again, this would not satisfy those delivery partners with an interest in obtaining investment level evaluation findings.	Moderate levels of collaboration will be required in designing questionnaires (in ensuring projects have been allocated to the relevant type, as well as in the design of questions).
<b>Delivery partner</b>	The approach could fully replace delivery partners' data collection needs, as the aim would be to cover the full breadth of activity in as much quantitative depth as possible. This would aid full or partial transfer of evaluation responsibilities from delivery partners to UKCES.	Substantial levels of collaboration will be required to work with delivery partners to design questionnaires and understand the full breadth of provision that might need to be accounted for. This could be a time consuming process.

## 6.6 Cost and timing issues

There are also a range of cost and timing issues that need to be accounted for:

- **Longitudinal research:** Given the need for evidence both in the short and longer term, and to provide evidence on return on investment, it is suggested that a longitudinal approach is adopted, with each wave aside from the baseline following up those covered in the previous wave. An assumption that 50 percent of respondents can be successfully recontacted has been adopted (and the treatment sample could be topped up in later waves, although this is not covered in costs overleaf) .
- **Planning costs:** Some allowances for planning costs have been allowed for on the basis of anticipated costs to support the design of surveys (the costs associated with analysis are not included below).
- **Waves:** As suggested previously, three waves of research will be needed to demonstrate both short term business outcomes and impacts (baseline, one year follow up and two year follow up).

Indicative costs are set out in the following tables describing a series of survey and cost options based on the number of annual cohorts of businesses that are covered through the survey (including the cost of longitudinal tracking).

A single cohort would allow UKCES to track the performance of firms benefitting from EIF and GIF infrastructure up to Autumn 2013. However, in order to explore the sustainability of investments, it will be necessary to explore usage amongst cohorts of beneficiaries using infrastructure products after UKCES funding has come to an end. Including a second cohort would both deepen the analysis of short term outcomes as well as facilitate an indicative assessment of sustainability.

There is also a possibility of covering a third cohort. While this would have value in terms of exploring longer term sustainability issues (by examining usage of infrastructure over a longer time horizon), such a survey could only capture baseline data for this cohort third cohort (unless the evaluation period was extended).

**Table 6.4 Overview of survey research (one cohort)**

		Planning	Wave 1	Wave 2	Wave 3	Total
<b>Programme level</b>	No. ints (low)	-	500	250	125	875
	Cost	7000	15000	7500	3750	<b>33250</b>
	No. ints (high)	-	2000	1000	500	3500
	Cost	7000	50000	25000	12500	<b>94500</b>
<b>Activity level</b>	No. ints (low)		1800	900	450	3150
	Cost	15000	45000	22500	11250	<b>78750</b>
	No. ints (high)		3600	1800	900	6300
<b>Delivery partner</b>	Cost	15000	90000	45000	22500	<b>157500</b>
	No. ints (per delivery partner)		300	150	75	525
	Cost (per delivery partner)	5000	9000	4500	2250	<b>15750</b>

**Table 6.5 Overview of survey research (two cohorts)**

		Planning	Wave 1	Wave 2	Wave 3	Total
<b>Programme level</b>	No. ints (low)	-	500	750	375	1625
	Cost	7000	15000	22500	11250	<b>55750</b>
	No. ints (high)	-	2000	3000	1500	6500
	Cost	7000	50000	75000	37500	<b>169500</b>
<b>Activity level</b>	No. ints (low)		1800	2700	1350	5850
	Cost	15000	45000	67500	33750	<b>146250</b>
	No. ints (high)		3600	5400	2700	11700
<b>Delivery partner</b>	Cost	15000	90000	135000	67500	<b>292500</b>
	No. ints (per delivery partner)		300	450	225	975
	Cost (per delivery partner)	5000	9000	13500	6750	<b>29250</b>

**Table 6.6 Overview of survey research (three cohorts)**

		Planning	Wave 1	Wave 2	Wave 3	Total
<b>Programme level</b>	No. ints (low)	-	500	750	875	2125
	Cost	7000	15000	22500	26250	<b>70750</b>
	No. ints (high)	-	2000	3000	3500	8500
	Cost	7000	50000	75000	87500	<b>219500</b>
<b>Activity level</b>	No. ints (low)	-	1800	2700	3150	7650
	Cost	15000	45000	67500	78750	<b>191250</b>
	No. ints (high)	-	3600	5400	6300	15300
	Cost	15000	90000	135000	157500	<b>382500</b>
<b>Delivery partner</b>	No. ints (per delivery partner)	-	300	450	525	1275
	Cost (per delivery partner)	5000	9000	13500	15750	<b>38250</b>

## 6.7 Comparison surveys

Ipsos MORI anticipates that a comparison survey would need to be of a similar scale to a beneficiaries survey (and undertaken over a similar number of waves). The comparison sample could usefully be best selected from the Employer Skills Survey so as to match the industry and size profile of businesses benefitting from EIF and GIF investments (as far as it is feasible to do so). Where activity has been highly focused on particular product markets, the comparison survey may need to integrate screening questions to ensure that the survey is targeted at the appropriate groups of firms. Additional sampling from proprietary business tele-numbering databases may also be required where coverage of particular sub-sectors by the Employer Skills Survey is thin.

The costs outlined above might also expect to be broadly obtained for comparison surveys. However, there are potential risks in terms of the robustness of quasi-experimental methods in this context and it is suggested that high levels of investment in such a survey might carry risks.

## 6.8 Complementary research options

There are a number of complementary survey research options that might enhance a core programme level beneficiaries survey outlined above. These include a survey of learners (to explore activities focused on individuals), additional analysis of the ILR, and administrative datalinking.

**Table 6.7 Complementary research options**

Option	Advantages	Disadvantages	Cost
<b>Learner survey:</b> A survey of learners benefitting from EIF and GIF interventions: single cohort of 1,000 learners (80 percent recontact rate assumed).	More comprehensive evidence on the impacts of EIF and GIF (with potential to cover activities where beneficiaries are indirect)	Substantial issues faced through DPA restrictions, and unlikely the ILR will provide sufficiently comprehensive contact details for SMEs.	£60,000 (2,500 interviews over three years)
<b>Analysis of ILR:</b> Examination of impacts on training supply and demand through identifying relevant qualifications and providers	Broader quantitative understanding of the effects of EIF and GIF.	Matching rates in the ILR variable and does not cover privately funded provision.	£15,000 to £20,000 per year
<b>Administrative datalink:</b> Linking records of beneficiary firms to administrative dataset to examine long term effects on productivity. Analysis to take place in year 3 of an evaluation.	Provides accurate information on the key financial metrics required to establish return on investment and supports extensive longitudinal tracking. The comparison group can also be linked to provide additional quasi-experimental evaluation opportunities.	Only provides evidence on performance, not other measures of interest. Limited value in early years of an evaluation. Not suitable for looking at the impacts on the smallest businesses.	£20,000 to £30,000 (including econometric analysis)

## 6.9 Preferred option

Given the need for an understanding of impacts and the underlying approaches, an approach that enables both a self-reported assessment of impacts and potentially more risky quasi-experimental approaches (involving a comparison group) would be preferred. On balance, it is recommended that that UKCES move forward with an option that combines both general and specific approaches to administering the survey:

- **Activity level survey:** A single survey across the population of employers benefitting directly from EIF and GIF investments to generate general insights into the effectiveness of the Funds and the outcomes generated as a result. This would incorporate a battery of core outcome indicator questions (as described in Section 3) alongside six routes<sup>13</sup> through the questionnaire (beneficiaries would be directed by the activities they participated in – as set out in Section 2). This would allow beneficiaries to describe and report the extent to which they believe the specific activities / EIF / GIF infrastructure have led to these outcomes (and the extent to which the outcomes would have been realised anyway). This survey would draw on a random sample of beneficiaries, stratified by activity and by investment (samples may need to be skewed to avoid results being dominated by those investments with very high volumes of beneficiaries).

<sup>13</sup> Reflecting the six of twelve activity types that it will be feasible to cover through a beneficiaries survey.

- **Detailed case study research:** The investments managed by a small number of delivery partners (5 to 10) should be selected for more detailed beneficiaries survey research to provide more in-depth insights into impacts and sustainability. Beneficiaries would be asked supplementary questions (alongside those set out in the broader activity level survey), tailored to the delivery context and the underlying objectives of investments concerned to provide a more specific understanding of the role of the investments in addressing the market failures identified by delivery partners. Additional questionnaire content would likely incorporate:
  - Greater attention to testing how far the products developed addressed the specific market failures identified by delivery partners in the design of EIF and GIF investments. This will need to be led by the development of investment level logic models (or comparable analytical frameworks) – and may include supplementary outcomes measures specific to the delivery partner involved.
  - Greater tailoring to the specific engagement and delivery processes involved in the delivery of EIF and GIF products and services, including specific attention to issues associated with the integrated nature of many products and services involved.
  - Specific lines of questioning relating to the role of wider industry specific training products and services (either delivered by delivery partners or others) in supporting the achievement of those outcomes.

Surveys would need to aim to reach sufficiently high volumes of beneficiaries such that reliable findings could be presented at the level of the delivery partner. Given this constraint, it is likely that a smaller number of case studies might be preferred targeted at those accounted for the highest share of EIF and GIF investment.

The detailed research would be designed to explicitly facilitate detailed mixed methods case studies of the packages of EIF and GIF investments delivered by key delivery partners. It is anticipated that these cases studies would comprise a programme of qualitative research with key stakeholders (the delivery partners themselves, beneficiaries, and wider organisation of relevance depending on the sector concerned). As such, the bespoke survey content should support a triangulation of qualitative and quantitative insights in developing a detailed sector level understanding of the effectiveness of EIF and GIF in the development of employer led training solutions. If this qualitative research does not form part of an evaluation of EIF and GIF, however, there may be little additional value in a more detailed programme of research.

The detailed research will include the questions set out in the broader activity level survey to allow the findings to be combined at the level of the programme as a whole.

Ipsos MORI suggests the survey of beneficiaries takes place over three waves to provide baseline evidence (in Autumn 2013), evidence of impact on training outcomes (Autumn 2014), and in the final wave, evidence of impact on business outcomes (Autumn 2015).

### **Mode and Sample Sizes**

The survey would be administered by telephone (with flexibility to use online methods where no telephone contacts are unavailable). Options for sample sizes are set out in the Table 6.8. UKCES has the option of covering one or two cohorts through the survey, although Ipsos MORI would suggest avoiding including three as it would only be feasible to capture baseline data for this final cohort. Ipsos MORI would recommend working towards larger sample sizes in the baseline year to ensure that large enough samples are available in year 3.

### **Issues for UKCES**

UKCES would need to initially engage delivery partners to renegotiate any changes or transfer in evaluation responsibilities (as well as restating obligations to share employer contact details). UKCES would develop a spreadsheet tool to aid collation of contact details and embed this in the monitoring process (potentially as a condition of payment).

### **Additional research**

- **Comparison survey:** A comparison survey of non-beneficiaries designed to establish a counterfactual at the level of the activities involved should be considered optional (given the potential risks involved in obtaining high quality results). This survey would cover non-beneficiaries of EIF and GIF infrastructure with closely matched sector and size profiles, using the Employer Skills Survey and business telenumbering datasets as a sampling frame. If this option is pursued it is suggested that just a single cohort is covered to minimise the risk of wasted resources. This survey should be of a similar scale to the general 'activity level' survey of beneficiaries. Care will need to be taken in understanding any contamination of the comparison sample (i.e. where non-beneficiaries become beneficiaries of EIF and GIF at a later date).
- **Analysis of the ILR:** Supplementary analysis of the ILR will be a relatively cost effective means of providing additional insight into the outcomes of the programme, and it is suggested that this is included alongside the overall programme of survey research.

- **Administrative datalinking:** Administrative datalinking has substantial potential to support an assessment of the long term impacts of EIF and GIF interventions (as well as provide more accurate information on financial metrics), and it is suggested that this forms an element of a future research programme. As long as contact details are collected and held centrally, it would be feasible to commission this element at a later stage as it would offer limited value in the early years of any evaluation.

#### **Elements excluded**

- **Learner survey:** A survey of learners carries substantial levels of risk and would at present not be implementable. While it would add value to any evaluation research programme, clearly delivery partners will need to integrate data sharing consents into delivery processes. It is suggested that UKCES work with delivery partners to determine whether an acceptable path forward can be found (particularly as access to learners is not specified in contracts), and revisit the issue in the future. Learner research could also be undertaken on a qualitative basis through any delivery partner level research delivered in parallel to a beneficiaries survey.

**Table 6.8 Components of preferred option**

Component	Cohorts	Scale (number of interviews)				Mode
		Autumn 2013	Autumn 2014	Autumn 2015	Total	
<b>Beneficiaries survey</b>						
<b>Activity level survey:</b> Covering investments where employers are engaged directly by delivery partners (excluding those covered through delivery partner level surveys)	<b>Cohort 1:</b> Employers benefitting from EIF and GIF prior to Autumn 2013	1800 - 3600	900 - 1800	450 - 1800	3,200 to 12,000 over three years	Telephone survey with flexibility for on-line methods – sample taken from delivery partners
	<b>Cohort 2:</b> Employers benefitting from EIF and GIF between Autumn 2013 and Autumn 2014 (optional)	-	1800 – 3600	900 - 1800		
<b>Delivery :</b> Five to ten delivery partner level survey studies targeted at the delivery part (contingent on a supplementary programme of qualitative research)	<b>Cohort 1:</b> Employers benefitting from EIF and GIF prior to Autumn 2013	1500 – 3000	750 – 1500	375 – 750	2,500 to 10,000 interviews over three years	Telephone survey with flexibility for on-line methods – sample taken from delivery partners
	<b>Cohort 2:</b> Employers benefitting from EIF and GIF between Autumn 2013 and Autumn 2014 (optional)	-	1500 – 3000	750 – 1500		
<b>Supplementary research</b>						
<b>Comparison survey:</b> Single cohort tracked over three years in parallel to the employer survey	<b>Cohort 1:</b> Non-beneficiaries of EIF and GIF prior to Autumn 2013	1800 - 3600	900 - 1800	450 - 900	3,200 to 6,300 over three years	Telephone survey with flexibility for on-line methods – sample taken from Employer Skills Survey and proprietary business telenumbering databases
<b>ILR analysis:</b> Annual examination of training impacts through secondary analysis	N/A	Yes	Yes	Yes	N/A	Details of training providers and training courses established in consultation with delivery partners through evaluation activities.
<b>Administrative datalinking:</b> Long term assessment of impact by linking records of beneficiary and non-beneficiary employers to the Business Structure Database in the ILR	N/A	-	-	Yes	N/A	Datalinking to take place at the end of the study to support a long term assessment of impact



## Annex A: Questions

This Annex sets out some questions that might be used to establish the key business outcomes of the EIF and GIF investments.

### Employer Investment in Training

A range of detailed questions relating to employer investment in training are set out in the Employers Skills Survey that could be replicated in an employer survey to measure training outcomes (based on the datasheet):

#### *Employees receiving training*

1. Over the past 12 months, how many employees participated in an education or training course, provided either externally or internally? (\_\_\_\_ employees)
2. How many days on average did each of these people spend on an education or training course over the past 12 months?
3. What is the average basic annual salary of an employee who has been on any of these courses over the past 12 months?

#### *Training centres*

4. Do you have a training centre at your location?

Yes	1
No	2

5. How much did your training centre cost to run over the past 12 months? Please split the cost into:

- a) Total basic annual salaries of any full time or part time training centre staff
- b) Other costs, including all equipment and materials used and the cost of rent paid for the space the training centre occupies.

6. How much did you spend on using off-site training centres located elsewhere within your organisation over the past 12 months?

#### *Other off the job training*

7. What was the total cost of fees to external providers of providing this type of off-the-job training over the past 12 months?

### **Vacancies filled**

1. How many vacancies have you filled through recruitment of individuals from outside your organisation over the last 12 months?

### **Recruitment costs**

CIPD Annual Surveys offer questions that can be used to estimate recruitment costs:

1. How much did you spend on recruitment advertising, agency and search fees over the last 12 months?

### **Staff turnover**

1. How many staff have left your workplace over the last 12 months (but not as direct result of redundancy or downsizing)?

### **Accidents**

The impacts of accidents will be felt in the form of injuries in the workplace, and some questions taken from the 2005 HSE workplace survey are set out below.

1. Have any workers experienced any injuries in the workplace or in the course of their work in the last 12 months?

Yes	1
No	2
Don't know	3

2. Have any injuries to workers been reported under RIDDOR 1995 in the last 12 months?

Yes	1
No	2
Don't know	

3. During the last 12 months, how many such injuries to workers have been reported?

4. During the last 12 months, how many days off work have been taken by workers due to work-related injuries?

## High Performance Working

High performance working measures should be drawn from the Employer Skills Survey:

1. Does your establishment...

	Yes	No	D/K	N/A
Give employees information about the financial position of the establishment	1	2	3	4
Create teams of people, who don't usually work together, to work on a specific project	1	2	3	4
Have teams of people that solve specific problems or discuss aspects of work performance? These are sometimes known as "problem solving groups" or "continuous improvement groups"	1	2	3	4
Have an equal opportunities policy	1	2	3	4
Have formal procedures in place for employee consultation (such as a staff association, employee forum or trade union consultation)	1	2	3	4
Currently hold any of the ISO 9000 Standards	1	2	3	4

2. Do you have processes in place to allow you to identify "high potential" or talented individuals within your establishment?

Yes – formally documented	1
Yes – informal	2
No	3
Don't know	4

3. Is there a formal procedure for dealing with discipline and dismissals (other than redundancies) for non-managerial employees?

Yes	1
No	2
Don't know	3

## Annex B: Datalinking

### Data-linking - Some basic principles:

Decide on relevant official business surveys and administrative data and check what level they have been collected/constructed at (plant vs firm); and whether they have a common referencing number.

- If there is a mix of plant and firm level survey data then you need to either aggregate up to firm level or apportion the firm level data to its plants – the purpose of the analysis should guide this. For example, if you want to look at local or regional area data then it's usually better to work at plant level as the firm level postcode could be that of the headquarters and the accompanying data may include data from various areas.

If aggregating upwards from plant to firm level, it is important to decide how to create variables that cannot be summed, e.g. if plants have various SIC/NACE codes, which one should be used, likewise with address. Typically common practice is to allocate the firm the SIC/NACE code/address of its largest plant (in terms of employment or turnover). If there is a common reference number across surveys/datasets then start to link by creating annual cross-sections. This is easier than creating longitudinal panels of individual datasets and then linking them together with other longitudinal panels particularly when reference numbers quite often change over time.

It is helpful to have names and addresses wherever possible to help with the matching process. When reference numbers do not match you need to start checking for name/address/postcode matches. This can be done using software packages; however the proposed matches still have to be checked manually to ensure it is the correct firm. If the number of non-matches by reference number is large then you can decide to only check the largest non-matches by name, address etc. Also need to watch out for slight variations in names e.g. Smith Brothers versus Smith Bros versus The Smith Bros etc.

If the surveys are a mixture of compulsory/census and voluntary then you need to decide what to do about the missing data in the voluntary surveys - i.e. whether you want to estimate or impute missing data. If doing this you need to be careful and check firstly the reason why the data is missing, for example, it could be missing due to not being included in the sample, due to non-response or the firm could be closed and you do not want to estimate data for closed firms.

When you have data matched it is helpful to tabulate certain variables that are common to both to see if any large differences arise. This can be due to the structure of firms being recorded differently on surveys. For example, the whole enterprise may be recorded as one reference number in one survey whereas the individual firms in the enterprise can be recorded as separate firms in another dataset. You need to decide how to deal with these irregular firms.

Also when you have common variables, you should identify which one you will report on. For example, if there are two separate surveys which record employment you must decide which you shall use as your employment measure.

If you are linking in any data on financial aid then you should keep in mind that only part of the business may have been aided (for example, a particular plant of a multi-plant) and so adjust your data accordingly to reflect this.

**Table B.1 VML Datasets**

<b>Dataset</b>	<b>Time Period</b>	<b>Frequency</b>	<b>Description</b>
Annual Inquiry into Foreign Direct Investment (AFDI)	1996 - 2005	Annual	Aims to collect FDI flows to foreign countries, and from abroad to the UK, for all possible firms.
Annual Population Survey (APS)	Jan04/Dec04 - Apr05/Mar06	Quarterly	Provides data that can produce reliable estimates at local authority level. Key topics covered in the survey include education, employment, health and ethnicity.
Annual Respondents Database (ARD)	1973 - 2005	Annual	Holds responses to the Annual Business Inquiry (ABI). The ABI is the most comprehensive business survey covering: turnover, costs, employment, industry, and investment. It is a census of large businesses, and a sample of smaller ones.
Business Enterprise Research and Development (BERD)	1995 - 2005	Annual	Designed to measure Research and Development (R&D) expenditure and employment in the UK. The survey also includes sources of funding and types of R&D.
Business Spending on Capital Items (BSCI)	2000 - 2004	Annual	This small survey produces estimates of the proportion of acquisitions and disposals by industry.
Business Structure Database (BSD)	1997 - 2005	Annual	Provides a version of the Inter Departmental Business Register for research use, taking full account of changes in ownership and restructuring of

			businesses.
Capital Stock	1980 - 2005	Annual	Using capital stocks and investment data at industrial sector level from the Office for National Statistics (ONS) and capital expenditure from the ARD, this panel dataset, estimates capital stocks using the Perpetual Inventory Method.
Community Innovation Survey (CIS) / UK Innovation Survey	CIS2 (1994/96) CIS3 (1998/2000) CIS4 (2002/04) CIS5 (2004/06) CIS6/UK IS (2005/07)	Four-yearly	Covers product, process and wider innovation including expenditure on different kinds of innovative activity, effects of innovation, sources of information and cooperation, barriers to innovation, protection methods for innovation, and public support for innovation.
E-commerce Survey (ECOM)	2000 - 2007	Annual	Collects information on which technologies UK businesses have, how these technologies have been used and the level of that use.
International Trade in Services (ITIS)	1996 - 2004	Annual & Quarterly	(Formally called the Overseas Trade in Services Inquiry) collects data on UK companies' international transactions in services, including the type and value of service imports/exports.
Labour Force Survey (LFS)	Dec/Feb 2004 - Mar/May 2006	Quarterly	A quarterly sample survey of households living at private addresses in Great Britain.
Monthly Inquiry into Distributive and Service Sectors (MIDSS)	Jan 2001 - Dec 2004	Monthly	Designed to meet the Government need for the production of a monthly Index of Services (IoS) and the Index of Distribution (IoD) which is a component of the IoS.
Monthly Production Inquiry (MPI)	Jan 2000 - Dec 2004	Monthly	A sample-based survey covering all of the UK. Principally designed to meet a government need for the production of a Monthly Index of Production (IoP).
New Earnings Survey (NES)	1986 - 2003	Annual	A survey into the hours and earnings of employees. Completion is compulsory.
New Earnings Survey Panel (NESP)	1975 - 2003	Annual	Sampling is done by taking records with a specific final two digits on the employees NI number.
Products of the European Community (PRODCOM)	Jan/Mar 1997 - Oct/Dec 2004	Annual (previous surveys were also quarterly)	A European Union (EU) wide survey of production mainly for the manufacturing sector.

Quarterly Capital Expenditure Survey (QCES or CAPEX)	Jan/Mar 1997 - Oct/Dec 2005	Quarterly	Collects capital expenditure for various industry groups by asset type. It is a compulsory survey with a total sample size of 32 thousand.
Workplace Employment Relations Survey (WERS)	2004	Not specified	Aims to provide a nationally representative account of the state of employment relations and working life inside British workplaces.

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UKCES  
Renaissance House  
Adwick Park  
Wath-upon-Dearne  
Rotherham  
S63 5NB  
T +44 (0)1709 774 800  
F +44 (0)1709 774 801

UKCES  
Sanctuary Buildings  
Great Smith St.  
Westminster  
London  
SW1P 3BT  
T +44 (0)20 7227 7800

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